EDUCATIA 21 JOURNAL

No. 21/2021

DOI: 10.24193/ed21

ISSN online: 2247-8671; ISSN-L: 1841-0456

http://educatia21.reviste.ubbcluj.ro

Educatia 21 Journal
doi: 10.24193/ed21
Open Access

EDUCATIA 21 JOURNAL

Issue, No. 21/2021

Indexed in:

Central and Eastern European Online Library

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https://doi.org/10.24193/ed21.2021.21

https://doi.org/10.24193/ed21.2021.21

Issue, No. 21/2021

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10.24193/ed21.2021.21.01

A reflexive exploration of transposing comparative paradigms into scholarly and practical approaches in teacher education

Florin D. Salajan

Educatia 21 Journal 21 (2021)

Educatia 21 Journal, (21) 2021, Art. 01
doi: 10.24193/ed21.2021.21.01
Research article

A reflexive exploration of transposing comparative paradigms into scholarly and practical approaches in teacher education

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Abstract

This article examines the place of comparative and international education (CIE) scholarship and practice in teacher education (T.Ed.). In this regard, CIE scholarship is instrumental in revealing the functioning, organization, importance and interconnectedness of teaching, as a profession, and teacher education, as the conduit to that profession, across national and cultural settings. As teacher education programs and teacher educators continue their work in imparting robust and sound pedagogical knowledge, they also need to acknowledge the enriching nature of a comparative perspective in the scholarship and practice on teacher education. Thus, including comparative methods in examining teacher education both within and across a program's national borders offers teachers-to-be a window into an array of teaching practices in a global setting. Developing an awareness, interest and inclination toward a comparative perspective-taking in teacher education is paramount in forming the new generations of teachers and researchers on teacher education. At the same time, teacher education programs benefit from research collaborations across national and cultural settings, allowing them the possibility to co-learn what approaches may work in meaningfully adjusting their curricular organization to prepare teachers for an interconnected world in which their students truly become global citizens.

Keywords:
comparative and international education; teacher education; scholarship; curriculum; practice.

Zusammenfasung

Dieser Artikel untersucht den Stellenwert von Stipendien und Praxis der vergleichenden und internationalen Bildung (VIB) in der Lehrerausbildung (L.Ab.). In dieser Hinsicht trägt das VIB-Stipendium maßgeblich dazu bei, die Funktionsweise, Organisation, Bedeutung und Vernetzung des Lehrberufs und der Lehrerausbildung als Weg zu diesem Beruf über nationale und kulturelle Kontexte hinweg aufzuzeigen. Während Lehrerbildungsprogramme und Lehrerausbilder ihre Arbeit zur Vermittlung solider und widerstandsfähiger pädagogischer Kenntnisse fortsetzen, müssen sie auch den bereichernden Charakter einer vergleichenden Perspektive in der Wissenschaft und Praxis der Lehrerbildung anerkennen. Daher bietet die Einbeziehung vergleichender Methoden bei der Untersuchung der Lehrerbildung sowohl innerhalb als auch über die nationalen Grenzen eines Programms hinweg angehenden Lehrern einen Einblick in eine Reihe von Unterrichtspraktiken in einem globalen Umfeld. Die Entwicklung eines Bewusstseins, Interesses und einer Neigung zu einer vergleichenden Perspektivenübernahme in der Lehrerbildung ist von größter Bedeutung für die Bildung der neuen Generationen von Lehrern und Forschern in der Lehrerbildung. Gleichzeitig profitieren Lehrerbildungsprogramme von Forschungskooperationen über nationale und kulturelle Kontexte hinweg, was ihnen die Möglichkeit gibt, gemeinsam zu lernen, welche Ansätze bei der sinnvollen Anpassung ihrer Lehrplanorganisation funktionieren können, um Lehrer auf eine vernetzte Welt vorzubereiten, in der ihre Schüler wirklich globale Bürger werden.

Schlüsselworte:
vergleichende und internationale Bildung; Lehrer Ausbildung; Stipendium; Curriculum; Praxis.

1. A brief overview of comparative education paradigms

Although not immediately evident, Comparative and International Education (CIE) and Teacher Education (T.Ed.) have nonetheless long been associated fields and they have intersected throughout their historical development as fields of scholarly inquiry and practice. From early on, comparativists were not only concerned with an overall analysis of educational systems between countries, but were also interested to a large extent in the very teaching practices occurring in those systems. For instance, early 19th century scholar Marc Antoine Jullien de Paris, considered as one of the founders of the field of comparative education (Epstein, 2017) advocated for the establishment of a Normal Institute of Education for Europe to provide training for teachers in the most advanced teaching techniques available at the time on the continent (Hayhoe, Manion, & Mundy, 2017). He thought that the publication of regular reports

containing comparative data on teaching across countries in Europe would inform not only the managers of educational apparatuses, but more importantly the teachers themselves to learn about practices in other countries and to avoid being easily manipulated by those who controlled the educational systems in which they practiced their profession.

This focus on teaching and teachers in the comparative study of educational systems remained at the core of the field's scholarly pursuits, but contextual factors or phenomena outside the schools also became aspects worthy of closer inspection. Nonetheless, in his oft-quoted address at the Guildford Educational Conference in October 1900, Michael Sadler contemplated the benefits teachers may derive from opportunities to learn about teaching practices and educational systems in other countries by experiencing them first hand:

> It would be an excellent thing if considerable numbers of our experienced teachers, both in secondary and in elementary schools, could be sent abroad and to America, in order to see and to judge, and then to tell us when they returned home whether some of the things which they had seen abroad were not an improvement on what is ordinarily done at home. (as cited in Bereday, 1964b, p. 311)

An extensive account of the historical development of CIE is neither necessary nor practical in this space, yet it should be noted that even from the mention of these two notable early scholars in the field, a dichotomous epistemology of research paradigms ensued. Two research traditions seemed to contour and inform the field, namely *positivism* and *relativism* (also referred to as *contextualism*). Without going into much detail here, scholars in the former tradition, sought to apply the scientific method in the comparative study of educational systems, through the formulation of hypotheses regarding discrete and observable variables that lead to generalizable conclusions about the characteristics of educational systems. In turn, scholars in the latter tradition considered that any observation and analysis of educational phenomena needed to be observed as embedded in their particular social, cultural and historical contexts in order to make holistic sense of the functioning of educational systems. Thus, epistemologically, the two traditions could not be further apart and seemed to be eternally irreconcilable as scholars adhering to either tradition disputed the merits of the other in the comparative study of education (Epstein, 2008). In general terms, subsequently, scholars in the positivist realm embraced theoretical lenses informed by structural-functionalist approaches such as human capital or modernization theories, along with Marxist orientations exemplified by dependency theory. Conversely, relativists adopted post-modernist or post-structuralist paradigms expressed through critical theories, liberation theory, ecological theories, post-colonialism or feminism (Kubow & Fossum, 2007). More recently, this repertoire has expanded to globalization theories or post-foundational approaches to comparative education and, certainly, the terrain is more ecclectic today, with scholars employing mixed methodologies and theoretical frameworks. This bodes well for fostering not only comparative, but also interdisciplinary perspectives in the scholarship and practice of teacher education.

In this context, here I set out to provide a succinct examination of two intertwined issues connecting the worlds of CIE and T.Ed.:

- First, I address the *place of CIE scholarship* in illuminating the functioning, organization, importance and interconnectedness of teaching, as a profession, and teacher education, as the conduit to that profession, across national and cultural settings. In doing so, I will refer explicitly to the extant literature on comparative research in teacher education and provide a concrete illustration of this type of research by showcasing a recent collaborative study I conducted with colleagues in Romania.
- Second, I turn to the *place of CIE instructional practice* in promoting comparative perspectives in teacher education programs. Here, I focus particularly on the United States, where there has been a gradual erosion of comparative perspective-taking in T.Ed., to the extent that, with a handful of exceptions, comparative education courses or even considerations in professional courses have been eliminated from T.Ed. programs. Once again, I will offer an example of an attempt to reinvigorate the comparative perspective-taking in T.Ed. by highlighting the course and curriculum designs in which I engaged to this end.

In this regard, I combine a review of the current literature in comparative research on teacher education with a reflexive approach to embedding comparative scholarship and practice in teacher education. Thus, the rest of this article is organized as follows: the next section reviews the research literature on CIE in teacher education, with a subsection containing an illustrative example of such research; a section reviewing the state of affairs in the presence of

comparative instructional practice in teacher education with a subsection providing a curricular design example, and; finally, a brief concluding section summarizing the narrative.

2. Comparative scholarship in teacher education

To a certain extent, comparative studies in teacher education have been informed by the epistemological approaches noted earlier. Interest in comparative research in T.Ed. has expanded over the past two to three decades, as the move towards accountability, particularly in North America and parts of Europe has led to intense curiosity on part of researchers, educators and policy-makers related to comparisons of teaching effectiveness, teaching quality, assessment of learning outcomes, professionalization of teaching and teacher education, etc. This interest is evidenced in part by the increasing comparative research literature particularly in international perspective, primarily in scholarly journals, but also in dedicated volumes on explorations of teacher education in cross-national, cross-cultural or international contexts. For example, at the time of this article's writing, a basic search for the term *teacher education* in the top-three comparative education journals (i.e., *Comparative Education Review, Comparative Education and Compare*) yielded a combined result of more than 7,000 articles spanning over three decades. Moreover, comparative studies in specialized journals on teacher education also contain a substantial and growing number of articles. Particular focus has been placed on comparative studies in T.Ed. in the *Journal of Teacher Education, the European Journal of Teacher Education* or the *Asia-Pacific Journal of Teacher Education*, to name just a few of the most prominent publcations.

Notwithstanding this growing trend, comparative studies in teacher education have been criticized for their rather limited scope, tendency for undertheoretization, attempts to generalize findings from small-scale studies or the cursory attention given to historico-socio-cultural contexts in which teacher education and the teaching practice operate (Afdal, 2019; Tatto & Menter, 2019). By the same token, the methodological approaches in teacher education research, including in comparative perspective, have been scrutinized and found to tend predominantly toward small-scale, qualitative, rather than large-scale, quantitative approaches (Mayer & Oancea, 2021). This general orientation towards small-scale studies may be explained through the uniqueness and contextual nature of teacher education programs and the difficulty in extrapolating findings to larger system levels even within one country, particularly in federal-type, decentralized education systems such as the United States, Canada, Australia, Germany, Switzerland or Belgium to name just a few. It may also be explained by what has been termed as the "practical turn" in teacher education (Crossley & Watson, 2009), which has led to a narrowing focus on the acquisition of discrete skills in teacher education programs. This is particularly the case in North America and the United Kingdom, where the movement toward the professionalization of teacher education and the development of standardized accountability and performance assessment criteria have led to an emphasis on a limited pedagogical content knowledge repertoire at the expense of minimizing or excluding more holistic conceptualizations of teaching expertise. This inevitably marginalizes subjects in the teacher education curriculum deemed as impractical, such as the history of education, sociology of education and, most relevant in this discussion, comparative education.

Consequently, research studies presumably follow this pattern, as structural and organizational aspects of teacher education programs, thus limited by the pragmatic orientations in curriculum design, inform the extent, nature and elements of comparison. Furthermore, a limiting component in comparative teacher education studies rests with the unit of analysis. Over time, comparative education literature has devoted much attention to considerations and definitions of units of analysis in CIE research (Bereday, 1964a; Phillips & Schweisfurth, 2014). More recently, in their edited volume on approaches and methods in comparative education research, Bray, Adamson and Mason (2016) identified a number of categories of "units of comparison," including places, systems, times, cultures, values, policies, curricula, race, gender and class, etc. This speaks to the varied landscape of CIE research, as well as to the range and levels at which the researcher can focus her or his attention. In comparative teacher education research, the specific and contextual nature of teacher education programs routinely constrains the researchers to narrower units of comparison, given the difficulty in defining easily transferrable elements of comparison across programs or systems. What is defined as teacher effectiveness or teacher quality may present different features and connotations across national or even intra-national contexts, therefore posing difficulty in

making holistic interpretations at broader systemic levels.

2.1. An example of cross-country T.Ed. comparison

Having sketched out some of the fundamental premises and vexing issues of comparative research in teacher education, next I turn to discussing the approach my colleagues in the Department of Educational Sciences at Universitatea Babeș-Bolyai (UBB) in Romania and I took in our collaborative project on comparing teacher education across national contexts in Romania and the United States. To illustrate this, I will briefly review the main aspects of the research study we undertook, comparing the teacher education programs at our respective institutions, namely NDSU and UBB (Salajan, Duffield, Glava & Glava, 2017). First, conceptually we embedded our study in a framework for creating effective teacher education programs developed by Darling-Hammond et al. (2000). Some of the elements of this framework consisted of, among others, the formulation of a coherent program vision, a conscious bridging of theory and practice, thoughtfully designed field experiences, use of active pedagogy or meeting the needs of diverse learners. Second, the data collection instrument which sought responses from teacher candidates on their experiences in our programs was closely aligned with the components of this framework. Third, we deliberately contextualized the application of this instrument in extensive descriptions of both the histories, educational organization and curricular structures of the two programs and the larger societal settings in which they exist.

Following these steps, while we attempted to identify the strengths and weaknesses of each program, we also carefully sought to avoid to contrast them against each other given the unique settings in which they function. Therefore, contextual interpretations of the findings were paramount, particularly as neither program was actually representative of the entire teacher education system in which it operated. In the final analysis, we were able to draw inferences on the commonalities and differences of teacher education acorss these two contexts, which is what a comparative approach would have yielded, but were also cognizant that these contrasting characteristics can only explain to a limited extent the intricate nature and developmental paths of the two programs. In turn, we acknowledge that the study may be subjected to some of the same criticism I alluded to earlier. For instance, the study was anchored in what may be considered a conceptually sound, but rather practice-oriented than a purely theoretical framework and, therefore, not conducive to generating new theoretizations of teacher education functions in comparative perspective. It was also based on small-scale samples, only partly representative of the socio-cultural contexts informing and surrounding them. However, these limitations do not diminish the methodical and rigorous approach we took in engaging in this comparison, particularly considering the marked differences in the structures, organization, institutional cultures, resource availability and overall societal environments for which the two programs were designed.

This endeavor provided a unique opportunity to juxtapose teacher education programs from two socio-cultural settings that had not existed in the published international research literature up to that point. All these are valuable lessons learned, both in terms of comparative aspects of our programs and in further refining our research approach for our future collaborative projects. In fact, it proved to be a stepping stone to further collaboration in comparative projects, as we brought in partners from Israel for a tri-country research study examining the avenues by which first-year teachers in Romania, Israel and the United States experience their transition from the preparation they received in their respective programs to entering the profession. It is immediately evident that adding a third national setting to the research project increases the complexity of the comparison, but it is also bound to provide further nuance that only enriches the findings and mutual learning occurring from the comparative approach.

3. Comparative approaches in T.Ed. curricula

The curriculum in preservice teacher education is understandably geared towards ensuring that future teachers are equipped with the requisite subject content knowledge, pedagogical content knowledge and teaching dispositions, so they may successfully perform and accomplish their teaching expectations. Any curriculum designed for these purposes will necessarily weigh the content it includes against the academic and professional standards stipulated by accreditation or certification organizations, whether governmental or non-governmental, the approval of which is expected and paramount for their functioning.

In the United States, the curricular choices and planning teacher education programs make in this regard are informed by such accreditation bodies as the Council for the Accreditation of Educator Preparation (CAEP), formerly known as the National Council for Accreditation of Teacher Education (NCATE). In this process, preservice teacher education programs are built around a required core of professional education courses, aligned with accreditation standards. Over time, this core has contracted to focus primarily on subjects related to, among others, foundations of teaching, educational psychology, classroom management, instructional planning and methods, assessment and teaching diverse learners. A typical T.Ed. program in the United States leaves very little room for electives outside this professional education core and courses narrowly related to teaching the teacher candidates' chosen content area. The tendency towards a curriculum contraction may be attributed to the turn towards practice-based teacher education in the context of reform cycles promoted by policymakers over time. This brought teacher education under scrutiny as a contested educational policy-making terrain, the result of which was a move to induce a competence-based approach in teacher education in the 1970s (Grossman, 2018). In recent years, efforts to underscore teacher accountability, quality or effectiveness resulted in a gradual infusion of teacher education programs with these concepts as part of the process of professionalization in teacher education (Janssen, Westbroek & Doyle, 2014; Zeichner, 2012).

In this context, as noted earlier, although it was a core component of teacher education in the 1960s and 70s, the practical turn resulted in the marginalization and eventual exclusion of comparative and international education as a required subject matter from university-based preservice teacher education curricula in North America, Ireland, the United Kingdom and other parts of Europe (Crossley & Watson, 2009; O'Sullivan, 2008). The multiple benefits of a comparative perspective taking for preservice teacher education candidates' nuanced understandings about the world of teaching they experience in their own setting in the context of learning about other systems of education or teaching practices has been well-documented (Kubow & Fossum, 2007; Darling-Hammond & Lieberman, 2012). Notwithstanding continued calls for a reconsideration of this approach, particularly as preservice teachers are increasingly expected to develop global or intercultural competences as they enter the profession (Aydarova & Marquardt, 2016), with few exceptions, comparative and international education remains relegated to an elective in most preservice T.Ed. programs. The utilitarian conception that has taken hold of T.Ed. programs (Kubow & Blosser, 2016) remains an obstacle in infusing their curricula with comparative and international perspectives on teaching, and therefore the inclusion of CIE as a required subject.

Perhaps, the current inertial thinking may reverse its course as more scholars and practitioners advocate for a reevaluation of the exclusion of CIE in teacher education, precisely because in an interconnected world of teaching, an understanding of the global phenomena, policies and practices that undergird teaching and education is fundamental for prospective teachers in inculcating in their students an awareness of their situatedness in the global community. To put it in the utilitarian and pragmatic framework currently governing teacher education, comparative perspective-taking, particularly in international context, should represent core teaching skills for effective student learning and literacy about the co-dependencies of human action and changes it induces across the globe, as this has direct and indirect impact on the sustainability of all human societies. It is an essential understanding that young learners need to be imparted by teachers trained in comparative meaning-making of educational systems, teaching practices and learning approaches around the world. For all intents and purposes, if follows that T.Ed. is the natural intellectual and practice-based home for CIE as these programs prepare future teachers to function in a world marked by increasing interdependencies across a multifaceted societal, cultural, economic, political and educational global landscape.

3.1 An illustration of a comparative approach in T.Ed. courses

As an evocation of and in adherence to the principles just mentioned, in my own instructional practice in the T.Ed. program at NDSU, I have strived to enrich the teacher candidates' understanding of the world by infusing the courses I teach with brief segments of comparative and international perspectives on education or teaching in other parts of the world. Nonetheless, in the already compact and packed T.Ed. curriculum, there is very little room to dedicate anything but superficial space and time to conceptions of teaching or explorations of educational

systems around the world. Reserving one class session over the course of a semester to such education outside U.S., does not do justice to the vastly intricate and complex educational structures, phenomena and their inter-relationships in the international arena. My sense was that this had to change and I decided to do something about it.

As is the case with many other T.Ed. programs in the U.S., the T.Ed. program at NDSU is based on a core set of professional education courses that stray very little from the current cannon embracing the "practical turn." Therefore, the curriculum, primarily geared to prepare future high-school teachers, contains courses in the areas enumerated above, namely, foundations of education, educational psychology, instructional planning, to name just a few. Consistent with the literature reviewed here, comparative and international education is not part of the core requirements of the program. Furthermore, at the time I joined the faculty in the department, the program also had no elective course in this area. Certainly, given my academic training as a comparativist, I regarded this absence of CIE in teacher education as a deficiency which had to be remedied. Not long after I started teaching in the department, I had the exciting opportunity to work with a colleague in the doctoral program to co-design and co-teach an introductory doctoral-level course in CIE. We set out to develop the framewok, materials and mode of delivery for this course and had the chance to co-teach it at least three times before my colleague left the program for another professional opportunity.

Nonetheless, this experience further encouraged me to seek ways to provide a similar learning experience to my students in the T.Ed. program. Consequently, six years into my tenure in the program, I designed a course entitled *Teacher Education in International Comparative Perspective* to be offered as an elective to undergraduate and graduate teacher candidates in our prorgam. Having gone through the longer-than-expected approval process, I finally offered and taught the course for the first time during the Fall 2017 semester to three students, two at the graduate and one at the undergraduate level. Although this sounds like a rather limited and disappointing enrollment, given the relative absence of an institutional culture for internationalization and global engagement, I consider it a small step towards changing that perspective both in our program, department and, possibly, across the university.

Pedagogically and structurally, the course consists of weekly readings focused, in the first stage, on developing an understanding of comparative education and comparative perspective-taking. In subsequent sessions throughout the semester, the course is structured in two-week modules addressing teacher education systems on each continent. In each module, during the first week students conduct a Strengths, Weaknesses, Opportunities and Threats or SWOT analysis of at least three countries' teacher education system or environment which are then discussed in a roundtable format during class (the instructor also prepares a three-country analysis). The following week, a faculty member on campus, either from an international background or with experience in educational systems abroad, an international student or a scholar connecting via distance from a locale in the region under discussion that week is invited into the classroom. This invited guest (or guests, occasionally) presents and engages in a conversation with class members on aspects of teaching/teacher education in the country in which s/he has expertise, with the possibility of extending the discussion at regional level. Certainly, the SWOT analyses the class members conduct the week prior to the conversation with the invited guest serve as background literature and information to enrich the discussion by noting patterns, contrasting various teaching/teacher education settings, and delving deeper into the structural and contextual nature of those settings or systems. At the conclusion of this series of modules, students leave more informed and aware of the complexities, inequalities, challenges, but also possibilities in other teacher education or educational systems, a perspective they would have not acquired without opting for this course.

Certainly, one elective course in CIE offered in the program, which draws a low number of students given the already compressed curriculum, cannot radically change the culture of comparative perspective and engagement with education globally overnight. Although I had the pleasure to teach the course again during the Fall 2019 semester, again with an enrollment of two graduate students and one undergraduate student, I hold out hope that, with subsequent offerings, the course will gain more traction. That is to say that, making it available to students in the program as often as possible may signal to students in the program that this is a valuable component they should explore, until such time that

the practical turn may wane and CIE becomes mainstreamed again into T.Ed. curricula.

4. Concluding reflections

I have attempted here to offer an overview of the place of CIE both as a research and teaching component in T.Ed. It is evident from this rather brief reflexive exploration that CIE is an indelible, critical and integral component of teacher education in both regards and I consider this holds true across national contexts. It is as much valid in the United States as it is in Romania or any other country's educational system. Whether it entails promoting continued scholarly engagements in comparative projects in teacher education across national settings or redoubling efforts in advocating for the inclusion of comparative prespectives in the T.Ed. curricula, it is clear that comparativist researchers and educators have a central role to play in engendering change in this regard.

In sharing my humble experiences in engaging in both the scholarship and instructional practice of CIE in teacher education, I attempted to illustrate just some modalities in which we, as scholars, can promote the inclusion of comparative perspective-taking and its advantages to developing in our teachers-to-be a comprehensive, pragmatic, yet sophisticated and thoroughly informed understanding of education at home and abroad. It is in our, their and their future students' interests that CIE and T.Ed. become and remain closely intertwined.

Acknowledgments

This article is based in part on the keynote address I delivered at the 9th International Conference *Education, Reflection, Development*, held online by the Department of Educational Sciences at Universitatea Babeș-Bolyai, Cluj-Napoca, Romania on June 25, 2021. I would like to extend my gratitude to my colleagues, Prof. univ. dr. Ion Albulescu, Conf. univ. dr. Adina Glava and Conf. univ. dr. Catalin Glava for their generous invitation to give this presentation.

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10.24193/ed21.2021.21.02

The influence of a course in inclusive education on changing pre-service teachers' readiness to work with students with SEN

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Educatia 21 Journal 21 (2021)

Educatia 21 Journal, (21) 2021, Art. 02
doi: 10.24193/ed21.2021.21.02
Research article

The influence of a course in inclusive education on changing pre-service teachers' readiness to work with students with SEN

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Abstract

Understanding teachers' perspective towards inclusive education is seen as a decisive factor in making schools more inclusive. Given the increasing need to prepare pre-service teachers to face inclusion in the classroom as soon as they enter the teaching career, we consider appropriate to assess to which extend can a training course have an impact on the level of pre-service teachers to teach in inclusive classrooms. In this respect, final year students from Education Science degree that finalized a study course on the topic of inclusive education were invited to participate into this research by filling in a questionnaire based on the teacher efficacy for inclusive practices (TEIP) scale. Results show that even after taking a relatively short training course, it can bring about some statistically significant changes in pre-service teachers' knowledge, attitudes and confidence level towards inclusion. Pre-service teachers that have participated to this study are generally in favor of going through training courses to acquire a special set of skills to thereby be able to work in an inclusive learning environment.

Keywords:
Inclusive education; initial teacher training; attitudes and believes; university.

Zusammenfasung

Das Verständnis der Perspektive von Lehrkräften in Bezug auf inklusive Bildung wird als entscheidender Faktor angesehen, um Schulen inklusiver zu machen. Angesichts der zunehmenden Notwendigkeit, Lehramtsstudierende auf die Integration in den Unterricht vorzubereiten, sobald sie in die Lehrtätigkeit eintreten, halten wir es für angemessen zu beurteilen, inwieweit eine Ausbildung einen Einfluss auf das Niveau der Lehramtsstudierenden haben kann in inklusiven Klassenzimmern. In diesem Zusammenhang wurden Studierende des Abschlusssemesters des Studiengangs Erziehungswissenschaften, die einen Studiengang zum Thema inklusive Bildung abgeschlossen hatten, eingeladen, an dieser Forschung teilzunehmen, indem sie einen Fragebogen auf der Grundlage der Skala der Lehrereffizienz für inklusive Praktiken (TEIP) ausfüllen. Die Ergebnisse zeigen, dass selbst nach einer relativ kurzen Ausbildung einige statistisch signifikante Veränderungen des Wissens, der Einstellung und des Vertrauensniveaus der Lehrkräfte in Bezug auf Inklusion bewirkt werden können. Lehramtsstudierende, die an dieser Studie teilgenommen haben, befürworten im Allgemeinen die Teilnahme an Schulungen, um spezielle Fähigkeiten zu erwerben, um so in einer inklusiven Lernumgebung arbeiten zu können.

Schlüsselworte:
Inklusive Bildung; Lehrererstausbildung; Einstellungen und Überzeugungen; Universität.

1. Introduction

Understanding teachers' perspective towards inclusive education is seen as a decisive factor in making schools more inclusive. Studies show that preservice teachers have conflicting opinions regarding educating students with special education needs (SEN), mainly that it is seen as an extra duty (Van Reusen, et al. 2001). Within the Romanian context, a study showed that teachers say they have little or no clear information on the concept of inclusion, which could have a negative consequence on the process of developing an inclusive school education system (Marin, 2016). Therefore, a system of initial and continuing training must be implemented that meets the current requirements of pre-service teachers, providing compulsory courses in the field of inclusive education to all the pre-service teachers regardless of their specialization. That is why it is vital to start early, and by this we refer to prepare pre-service teachers during their initial teacher training programme to face inclusion in the classroom. This assumption is based on different research that point out that teachers' broad epistemological beliefs may affect their assumptions about ability and disability (Jordan et al, 2009) and that teachers' attitudes often vary according to the type or severity of the disability (Levins, et al. 2005).

2. Theoretical foundation

2.1. Inclusive Education in Romania

Education is recognized as one of the fundamental human rights and has been included in the United Nations Convention on the Rights of Persons with Disabilities. The movements of organizations and people with disabilities in the late '60s triggered a change in society's attitude (including at the legislative level) towards people with special educational needs (SEN). Inclusive education has established itself not only as modern educational alternatives, but has become, in the last 20 years, a reality of the Romanian educational system. This process of inclusion is primarily found in the acceptance of diversity. Encouraging the conditions of acceptance means an intervention from the beginning in reducing possible barriers. According to the Education Law (Romanian Education Law1/2011), the inclusion of the children with special educational needs can be done in different ways, such as:

- Within distinct educational institutions, entirely dedicated to education and training of children with special educational needs (separated special education);
- Groups and classes for children with special educational needs organized within mainstream education institutions (partially integrated special education);
- Within groups and classes organized in mainstream education institutions (full integrated special education).

At the same time, a number of measures were taken in order to support the inclusion process. According to Eurydice platform, in the report Special Education Needs Provision within Mainstream Education (2019) some amongst the measures are the following:

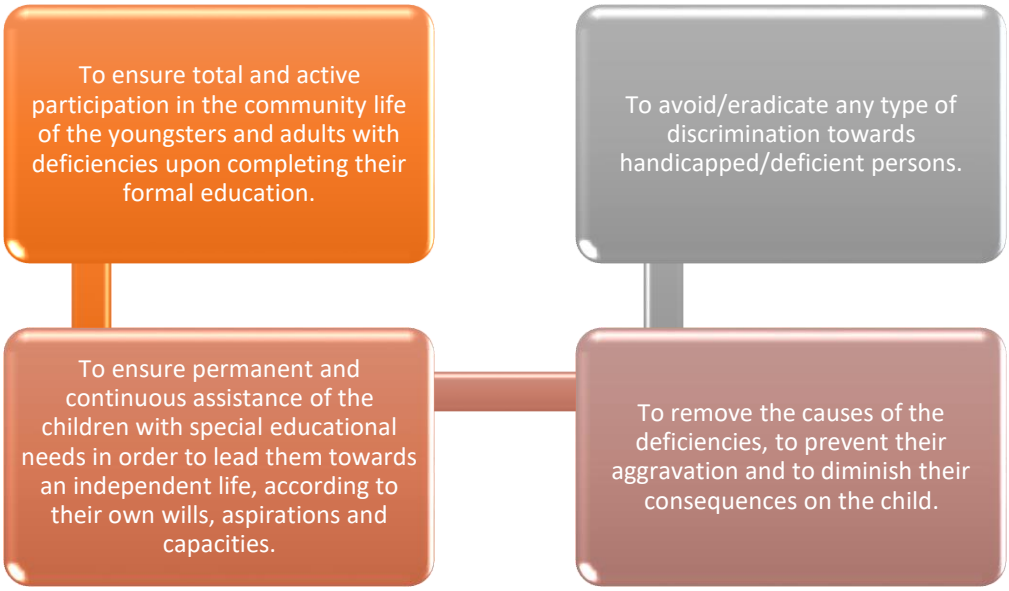
Figure 1. Implemented measures in order to support the inclusion process in Romania

There are different support services for children with special education needs integrated into mainstream schools. Amongst the support services/measurements, the OECD report focuses on a wide description of the support or itinerant teachers (OECD, 2006). The support or itinerant teachers are recruited from among: pedagogues, psychologists and psycho-pedagogues, speech therapy teachers from the speech therapy interschool centers, special psycho-pedagogue teachers from special schools and teachers from mainstream schools trained through special courses. A teacher from the mainstream system may become a support or itinerant teacher in a variety of ways: by graduating from special courses, completing some form of evaluation and selection or by completing a limited period probation. The support or itinerant teacher has responsibilities such as identifying the need for support in the classroom, done at the request of the teacher that sees the need during activities carried on by the school support team and organizing preliminary “exploration” meetings with the target group of children outside of the classroom in order to identify non-intellectual factors that contribute to school failure.

Taking into consideration the presence of multiple school specialist that work together to foster an inclusive education system, the Romanian general

objectives of partially or fully inclusive education are as follows:

Figure 2. General objectives of inclusive education



2.2. How do Teacher Training Programmes respond to the need to train pre-service teachers to face inclusion in the classroom?

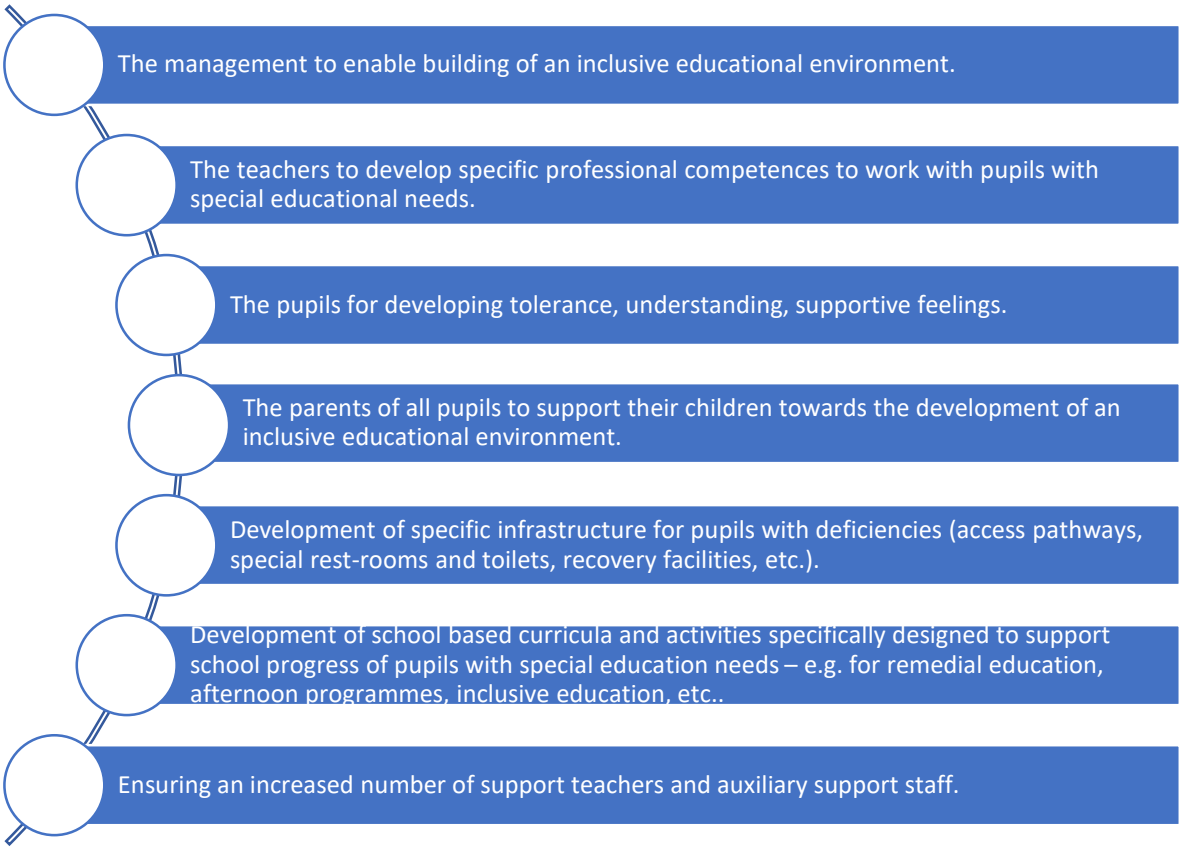
In Romania, pre-service (initial) teacher training focuses on training for a chosen specialty but is less developed in terms of preparing from a didactical/pedagogical approach, including insufficient aspects such as modern teaching methods, cooperative teaching, class management and conflict resolution. Therefore, after graduation, Romanian teachers are good specialists in their field, but not very good learning facilitators. There is a need for a longer period of training practice before entering the teaching profession.

For secondary school teachers, pre-service teacher training is organized in universities, under the concurrent teaching training programme and is organized in a module that includes subjects, such as: psychology, pedagogy, child psychology and the methodology of the teaching and learning process for their specialty. The initial training of teachers who will work in special education consists of a particular training in this field, a study programme entitled *Special education*.

Marin (2020) presents a proposal so that all pre-service teachers will benefit from training in the field of inclusive education. Thus, it is considered necessary to insert in the disciplines of fundamental psycho-pedagogical training the study discipline *Inclusive education*. In addition to the four disciplines of fundamental psycho-pedagogical training (Psychology of education; Pedagogy I; Pedagogy II; Student class management) it is recommended to insert the study discipline *Inclusive education*. That is how pre-service teachers, regardless of the field of study, can benefit, in the initial training phase, of courses that familiarize them with specific inclusive educational terminology, and can allow access to models of analysis and operational action in inclusive educational context. Pre-service teachers can develop a positive attitude towards the issue and practice of educational inclusion and can benefit from successful practice models of educational inclusion.

Also, the Ministry of National Education in Romania considerers that the inclusion support measures need to be further developed and that they should address the following issues: training of educational specialist in order to better prepare mainstream schools to integrate pupils with special educational needs. According to the Eurydice country report (2019), preparation should be provided from a multi- level perspective:

Figure 3. Pre-service teachers` training from a multi- level perspective



3. Research methodology

Given the increasing need to prepare pre-service teachers to face inclusion in the classroom as soon as they enter the teaching career, we consider appropriate to assess to which extent a training course on the topic of inclusive education, entitled "Special education needs. Evaluation and intervention" can have an impact on the level of readiness of pre-service teachers to teach in inclusive classrooms. In this respect, the use of "the teacher efficacy for inclusive practices TEIP scale" was used to measure perceived student teacher efficacy to teach in inclusive classrooms (as previously sustained also by Loreman, Sharma & Forlin, 2013).

The sample was comprised of third-year students enrolled in the Educational Sciences BA programme and who finalized a 10-week study course (that is compulsory in their training) on the topic of inclusive education, entitled "Special education needs. Evaluation and intervention" (n=64). The data was collected at the end of the course during 3 different generations. The pre-service teachers were invited to participate into this research by filling in the TEIP questionnaire. The teacher efficacy for inclusive practices (TEIP) scale is designed to measure perceived teacher efficacy to teach in inclusive classrooms (Sharma, Loreman & Forlin, 2013). The scale consists of 18 items scored on a six-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = disagree somewhat, 4 = agree somewhat, 5 = agree and 6 = strongly agree). To analyze the gathered data, we used SPSS 19 and measured the frequencies of the responses given.

4. Results

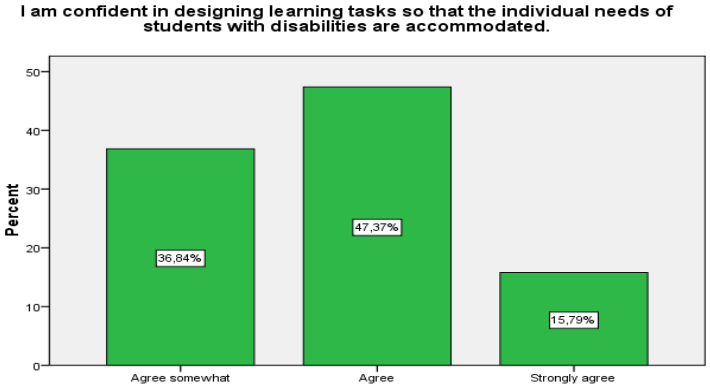
Results show that pre-service teachers who have participated in this study are willing to go through training courses to acquire new knowledge related to teaching and learning design to adapt to diversity in the classroom, and a special set of skills to be able to work in an inclusive learning environment. We focused the results on the dimensions presented below, that are related to teachers' readiness to implement an inclusive school environment.

4.1. Pre - service teachers' ability to design and implement a personalized learning process

In terms of instructional design process, pre-service teachers need to know how to modify and improve the basic curriculum to give students full access to it. As pointed below, around 37% of pre-

service teachers agree that are feeling somehow prepared to adapt the learning content, whereas approximately 50% of them say that are ready to face the challenges of adapting the curriculum and learning opportunities so that the SEN children could benefit of a meaningful learning experience. Only a small percentage of pre-service teachers consider themselves fully prepare to face inclusion in the classroom, and this result can be corelated with the fact that they do not have a full teaching experience so far, just the one year practicum that is taking part during their second year of study.

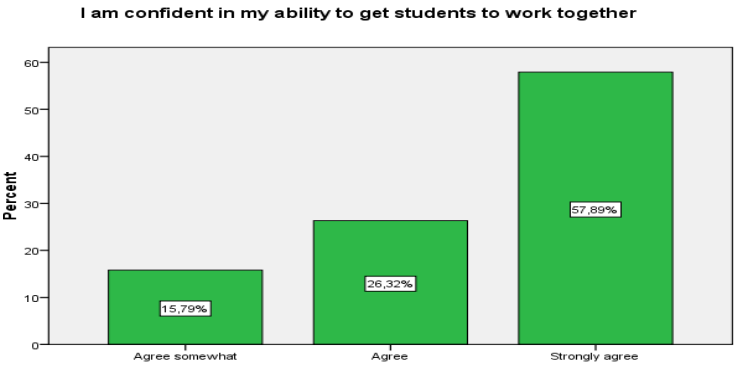
Figure 4. Pre-service teachers' ability to design meaningful and personalized learning tasks



4.2. Pre - service teachers' ability to enhance collaboration and managing conflict situation in the classroom

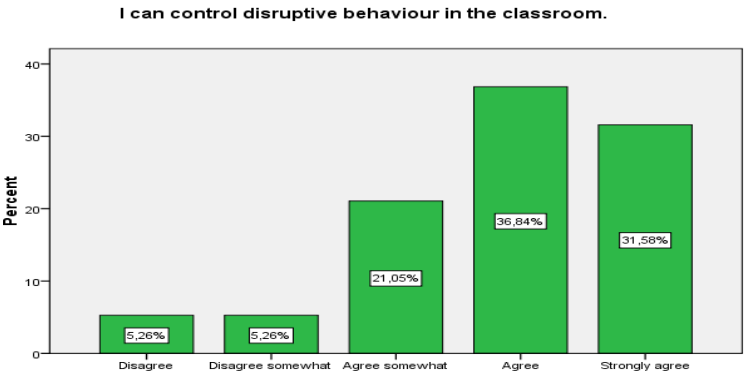
Working in groups has clear advantages for students, but for teachers this task may come with challenges, such as monitoring students' task behavior, managing group time, providing relevant materials, assigning individual roles, and establishing beliefs and teamwork behavior. That is why during the training course pre-service teachers were invited to experience some activities where they had to prepare and implement some collaborative learning experiences, with a great emphasize on the dynamics and enhancing each student potential withing the working group. That is why it is important to see the level of confidence preservice teachers have when it comes to designing and implementing group activities with their pupils. As pictured below, a great majority of them (57%) strongly agree with the fact that they feel confident in getting their pupil/students to work in groups.

Figure 5. Pre-service teachers` ability to promote pupils` collaboration



What pre-service teachers must always keep in mind is the fact that pupils can bring multiple perspectives to the classroom – diverse environments, learning styles, experiences and aspirations. This is why they must learn during in service teacher training practice about collaboration – that we must never assume a unique approach when working collaboratively. Moreover, when pupils work together in class, pre-service teachers must learn that it is their role and responsibility to have a direct and immediate sense of how their pupils are learning and what experiences and ideas they may bring to their work. At the same time, it is important to constantly look at the possibility of facing face challenges while structuring collaborative activities, such as monitoring students' behavior, managing group working time, providing relevant materials, assigning individual roles, and establishing beliefs and teamwork behaviors. And for this reason, it is necessary for pre-service teachers to know how to prevent disruptive behaviors, and as showed below the respondent feel somehow (21%) confident in their ability to deal with unwanted behavior. At the same time, more than half of the preservice teachers agree with that fact that they feel confident in preventing and controlling, if needed, disruptive behavior in the classroom.

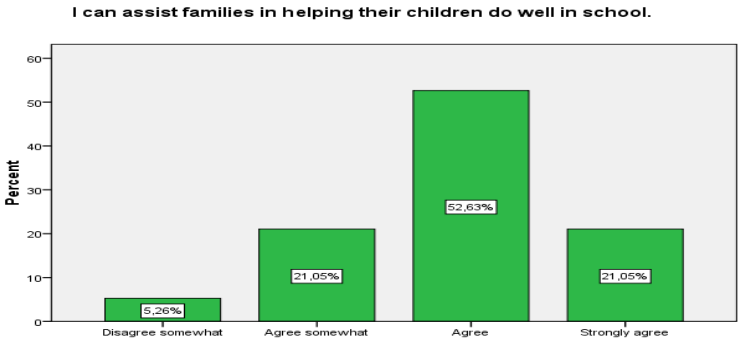
Figure 6. Pre-service teachers' ability to control disruptive behaviour in the classroom



4.3. Pre - service teachers' ability to assist families so that their children do and feel well in schools

Pre-service teachers need to understand the role of parents and work with them as partners to build trusting partnerships. It is crucial that both sides know what is expected of each other for more effective collaboration. It is worth mentioning that effective teacher-parent partnerships require a lot of patience, planning and implementation structure. Also, the collaboration as a creative partnership can be used by education practitioners and parents to achieve inclusion in a mainstream. That is why it is important to equip pre-service teachers with the necessary skill to create a strong collaboration with parents in schools. This said, the respondents participating in this study feel that they are ready in a moderate and high degree (almost 70% of respondents) to assist families in helping children do well in schools. 5,2% of respondents do not feel prepared to assist families, whereas 21% say that they are feel somehow ready to establish a fruitful collaboration with parents, in order to support further cognitive and non-cognitive development of children.

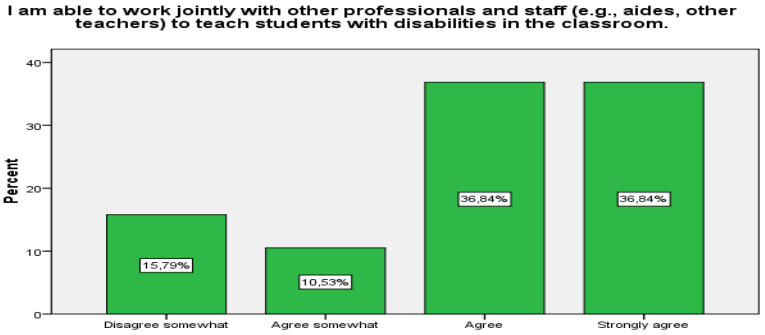
Figure 7. Pre-service teachers' ability to assist families in helping their children in school



4.4. Pre - service teachers' professional development – collaboration with peers

As we all know, pupils learn best when materials and instructions are not isolated and therefore, counselors can have a great impact by working with teachers to provide instruction that addresses content standards and school counseling standards. The teacher should share class time with the counselor so that classroom lessons can be offered on the development of academic, career and personal / social skills, and the teacher should allow out-of-class students to meet with the counselor individually or in small groups. when the counselor identifies several individual needs.

Figure 8. Pre-service teachers' ability to work jointly with other education professionals and staff

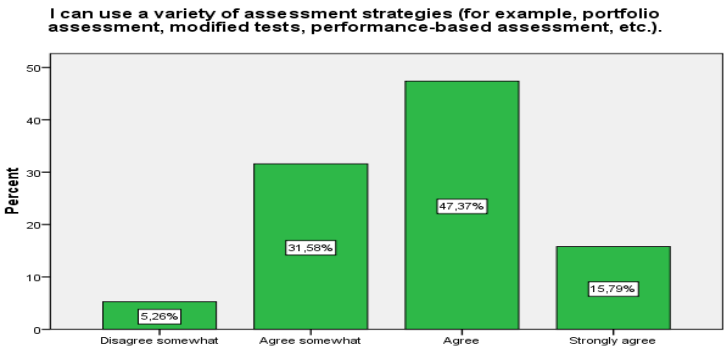


These are the principals that demonstrate the importance of training pre-service teachers to know the importance of peer collaboration from strategies of communication, to dealing with potential conflict and more than that to keep in mind the advantages that peer-collaboration bring to children` development. Taking into consideration the fact that the respondents are somehow acquainted with other colleges that are training as SEN specialists, the rusts mostly indicate (approximately 76%) that they are in favor of establishing a collaboration with other professionals and see this task as being able to fulfill it. Still, 15,79% of respondents somehow disagree with the fact that they are prepared to work jointly with other professionals, and 10,53% agree up to a certain point that they consider themselves ready to establish strong collaboration partnerships.

4.5. Pre-service teachers' assessment skills

Assessment represents a heavy demand on pre-service teacher content and pedagogical knowledge of teachers. Classroom assessment involves a wide range of activities and the nature of the assessment is depended on the class levels and content areas necessary to teach. This topic is one of the most debated across teacher training study programme due to the level of its complexity. That is why is important to prepare pre-service teachers to feel ready to make use of a variety of assessment strategies, such as portfolios, using standardized test and knowing how to interpret the results or implementing an on-going performance – based assessment. As seen in the graph below, approximately 50% of respondents say that they are ready to implement an evaluation system that address the pupils` needs, where as 31% of them think that there is still some work to be done in order to feel ready to give their pupils the chance to have a solid build evaluation process.

Figure 9 Pre-service teachers' ability to use a varied assessment strategy



5. Discussion and conclusion

The main purpose of this paper was to assess the relevance of an inclusive education teaching course focusing on the pre-service teachers' readiness to work with students with SEN after taking a 10 week course. First, we consider necessary to maintain the existing initial teacher training systems in Bologna, which is implemented at national level, but more importance should be given to the introduction of a course of study that prepares all pre-service teachers for inclusive education. The idea according to which pre-service teachers have to go through a series of training courses in order to prepare them to face inclusion in the classroom is also related to the need of acquiring a special set of skills so that they will be able to work in an inclusive learning environment (Marin, 2017).

The results presented above show that even after taking a relatively short training course, it can bring about some statistically significant changes in pre-service teachers' knowledge, attitudes and confidence level towards inclusion. Data points out that pre-service teachers in general tended to be less reluctant to include students with SEN, but they became more concerned about provision of support and resources which, if unavailable, might hinder their perceived performance, and that of the school and other students. These results are consistent with the past research (Avramidis et al., 2000); Campbell, Glimore & Cuskelly, 2003; Forlin & Chambers, 2011; Sharma & Chow, 2008).

Moreover, the present research findings show that by raising pre-service teachers' awareness alone is insufficient and that is why participating in training in the field of inclusive education is compulsory. Pre-service teachers that have participated to this study are generally in favor of going through training courses to acquire a special set of skills to thereby be able to work in an inclusive learning environment which correlates to the findings of the OECD report that shows that teacher's opinion towards their own professional development is commonly related to the need to acquire new knowledge related to didactics and on how to adapt to diversity in the classroom (OECD, 2005). But this is not enough, still a great majority of the respondents stating that somehow, they do not feel very comfortable with the responsibility that comes together with the development of an inclusive classroom environment. This result is similar to the findings of another study related to pre-service primary and secondary teachers that shows that a third of them consider themselves still having uncertainty regarding terminology use or they fell the lack of support for an inclusive classroom setting even after taking a course in inclusive education (McCray & McHatton, 2011). Also, developing pre- and in-service training programs can play a significant role in preparing future education professionals in order to enhance their knowledge and skills in teaching all students and facilitate the development of positive attitudes and beliefs (Borg et al., 2011)

All in all, this study indicates that a particular topic of inclusive education cannot just be enough to instill the beliefs needed for inclusive teaching. Moreover, the process of inclusion of children with SEN does not needs to provide adequate support to the students in the class and it also needs to provide assistance for the teachers that are teaching in that class. This support is needs to start early, from the teacher training programme, continue across the first years of practice of a newly qualified teachers, and why not, to all the teachers and school specialists who need assistance in adopting inclusive practices and implementing them.

Limitation

An important aspect regarding this research is related to the fact that we must look carefully at the significance of the results obtained in this research as they show a very limited reality, that of students in the third year of bachelor degree in Educational Sciences from the University of Bucharest. What this data indicates us is that in order to develop real inclusive education values, other aspects must also be taken into consideration, such as the fact that because the students' teachers were not already teachers with full responsibility, they may not have the freedom to put all the things they wanted to into practice.

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10.24193/ed21.2021.21.03

The effect of mobile learning on students' attitudes using mobile devices

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Educatia 21 Journal 21 (2021)

Educatia 21 Journal, (21) 2021, Art. 03
doi: 10.24193/ed21.2021.21.03
Research article

The effect of mobile learning on students' attitudes using mobile devices

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Abstract

Mobile learning (m-learning) has the potential to vastly change and improve education as we know it. Its main advantage is in extending the educational contexts to any place and any time. This leads to possibilities of more active and experiential learning. Furthermore, it greatly improves the potential for communication and access to information. All of these improvements, if utilized properly, can lead to more meaningful learning and more internal motivation for learning. However, these changes are not easy to implement and require the overcoming of several obstacles. This study aimed to investigate the attitudes towards m-learning and its relationships with ubiquitous learning, experiential and active learning, meaningful learning, cooperative learning, internal motivation for learning, and demographic variables. In order to measure these constructs, questionnaires were completed by 200 participants. The results suggest that the youngest generations (15-17 years old) and those who used their mobile phones the most have the highest attitudes towards m-learning. There were no differences amongst genders or people with various levels of education. Furthermore, the effects of mobile and ubiquitous learning on meaningful learning were mediated by collaborative and experiential and active learning. Lastly, the effects of mobile and ubiquitous learning on internal motivation for learning were direct. The findings indicate the importance of utilization of mobile learning and its positive consequences on both academic and personal aspects of the students' lives.

Keywords:
Mobile learning; ubiquitous learning; meaningful learning; digital learning; Self-Determination Theory.

Zusammenfasung

Mobiles Lernen (M-Learning) hat das Potenzial, die Bildung, wie wir sie kennen, stark zu verändern und zu verbessern. Sein Hauptvorteil besteht darin, den Bildungskontext auf jeden Ort und zu jeder Zeit auszudehnen. Dies führt zu Möglichkeiten des aktiven und erfahrungsorientierten Lernens. Darüber hinaus verbessert es die Möglichkeiten der Kommunikation und des Zugangs zu Informationen erheblich. Alle diese Verbesserungen können bei richtiger Anwendung zu einem sinnvolleren Lernen und zu mehr innerer Lernmotivation führen. Diese Änderungen sind jedoch nicht einfach umzusetzen und erfordern die Überwindung mehrerer Hindernisse. Diese Studie zielte darauf ab, die Einstellungen zum M-Learning und seine Beziehungen zu ubiquitärem Lernen, erfahrungsbasiertem und aktivem Lernen, sinnvollem Lernen, kooperativem Lernen, interner Lernmotivation und demografischen Variablen zu untersuchen. Um diese Konstrukte zu messen, wurden Fragebögen von 200 Teilnehmern ausgefüllt. Die Ergebnisse deuten darauf hin, dass die jüngsten Generationen (15-17 Jahre) und diejenigen, die ihre Mobiltelefone am häufigsten benutzen, die höchste Einstellung zum M-Learning haben. Es gab keine Unterschiede zwischen den Geschlechtern oder Personen mit verschiedenen Bildungsabschlüssen. Darüber hinaus wurden die Auswirkungen des mobilen und ubiquitären Lernens auf das sinnvolle Lernen durch kollaboratives und erfahrungsbasiertes und aktives Lernen vermittelt. Schließlich waren die Auswirkungen des mobilen und ubiquitären Lernens auf die interne Lernmotivation direkt. Die Ergebnisse zeigen die Bedeutung der Nutzung des mobilen Lernens und seine positiven Auswirkungen sowohl auf die akademischen als auch auf die persönlichen Aspekte des Lebens der Studierenden.

Schlüsselworte:
Mobiles Lernen; allgegenwärtiges Lernen; Sinnvolles Lernen; digitales Lernen; Selbstbestimmungstheorie.

1. Introduction

As a result of the emergence of mobile learning (m-learning), both educators and students can learn in ways that were previously impossible. Since mobile devices are portable and multifunctional, the learner does not need to be connected to traditional, formal learning. Consequently, learning becomes possible in different times and places. The implication of m-learning is the modification of both teachers' and students' duties and the curriculum itself, in order to utilize the potential that it has. Research points towards a positive correlation between the level of effective usage of mobile devices and the perception of their impact. It is becoming more and clearer that education is changing in the 21st century, and that the professionals working in this domain will need to rethink their methods (Ciampa, 2014; Huang et al., 2010).

Digital learning is the latest advancement within pedagogical infrastructure in the 21st century. It includes teaching through utilizing technology and communication in an online learning environment, as well as use of appropriate educational methods (Luna Scott, 2015; Meishar-Tal & Forkosh-Baruch, 2016). This type of learning is based on the use of traditional teaching materials on one hand, and the use of available online resources on the other. Its goal is building knowledge based on research, sharing, and expansion and deepening. Digital learning involves a range of pedagogical means implemented through technology and communication with the aim to promote learning (Corbeil & Corbeil, 2013; Ligi & Raja, 2017). The theoretical infrastructure of digital learning is based on two central pedagogical principles: knowledge building (constructivism) and cooperative learning, both of which emphasize meaningful learning. Mobile technology has thoroughly infiltrated all aspects of our lives, but it has not yet been properly utilized as an educational platform (Deaton et al., 2018). Optimal functioning of education in the 21st century requires improving teaching and learning processes in order to promote the pupils' meaningful learning, and m-learning may be a potent tool for this (Ciampa, 2014; Kärki et al., 2018).

2. Theoretical background

Mobile learning cannot be easily defined. Previously existing conceptual frameworks and definitions have been left behind due to technology developing at a very quick pace. There are many different terms and definitions related to novel technologies and their functions (Guri-Rosenblit, 2013). Numerous keywords related to m-learning may sometimes be confusing and include terms such as hypermedia assisted learning, ubiquitous computing, mobile instruction technologies, handheld learning and e-learning represent a group of terms that has more or less similar meaning (Giemza et al., 2012; Rossing et al., 2012). However, for the purposes of this study, mobile learning is defined as a type of learning which is implemented through content and social interaction, across numerous contexts and personal devices (Crompton, 2017), such as cell phones, personal digital assistants, laptops or iPods (Stevens & Kitchenham, 2011).

Since mobile devices are convenient and portable, students may use them for leisure and social networking, but also for schoolwork. The variety of opportunities provided by mobile technology supports learning and performance in and out of the classroom, for instance, in laboratories and other learning environments (Martin & Ertzberger, 2016). In other words, it allows students to access information and communicate at any time and any place (Traxler & Kukulska-Hulme, 2015). The technological mobility, thus, leads to learners' mobility. And as a consequence, the process of learning becomes completely mobile as well. Students may be taught how to use novel technologies for educational purposes by either educators or their peers (Adedoja et al., 2013).

There is a discussion amongst authors in the literature about how useful m-learning is in accessing higher education (Corbeil & Valdes-Corbeil, 2007; Krull & Duart, 2017). The following concerns and open questions about m-learning have been identified:

1. The possibility to purchase technological devices that students from low-income families have in comparison to students from high–income families (within the same age group).

2. How much should m-learning be used in schools?

3. Universities must improve their wireless infrastructure and adjust it to the connectivity requirements as the mobile technologies develop. Educators should not use apps that require a lot of internet bandwidth in their classrooms if they cannot ensure strong Wi-Fi signals (Nortcliffe & Middleton, 2013).

4. M-learning demands a steady pedagogical support from institutions for both students and faculty members.

National Survey of Students' Engagement (NSSE) found that mobile education technologies increased students' engagement in collaborative learning. The survey indicated that there are three main advantages of learning via mobile technology: (i) the quick access to information, (ii) the ability to synchronize devices, and (iii) the improvement of collaboration. M-learning motivates students to learn and implement course material in interaction with other students, thus, sustaining a social constructivist view of teaching (Bryant, 2013; Johnson, 2012).

According to Sharples (2013), this new form of learning is a collaborative process of discovery through dialogue, which should be held in an authentic environment. The process of discovery, the

interpretations given during the process, and even the way knowledge and technology work together all change frequently. This approach challenges traditional learning because it undermines the centrality of the basic elements of education – the classroom, the curriculum and the concept of "imparting knowledge", which are the three key factors in teaching, particularly in academic teaching. One of the main challenges in this domain is to retain the focus on both content and technology (Asiimwe et al., 2017). The multitude of technologies provides students with various opportunities to benefit from both real-world sources and digital devices by integrating them into their learning environment. Knowledge cannot stand apart of its context, therefore situated learning requires knowledge to be presented in authentic texts in order to be meaningful. This integration leads to a ubiquitous approach to learning, which means that the students can see the knowledge holistically, rather than only fragmented. This is also an important requirement for meaningful learning. Mobile technologies support the learning environment regardless of the students' place, and they can be used in any context to help the learners focus on the context (Joo et al., 2016). Garrison (2011) explains that learning comes through activities and contexts, but he comments that in schools concepts that are not related to natural context are often taught. M-learning may be a pathway to bridging such situations, in which the context may be difficult to create with traditional means. Thus, m-learning may lead to more and more successful experiential and active learning, as it helps create this connection.

More specifically, mobile technology enabled the creation of a new learning method called "here and now learning", meaning that students can access information anytime and anywhere and adjust it to the context of their learning (Traxler & Crompton, 2015; Ligi & Raja, 2017). The "here and now" approach encourages students to create and receive content, note their observations, record sounds, and share their location-based projects with others (Mueller et al., 2012). However, there are two open questions regarding this method: (i) How impactful are the effects of "here and now" m-learning on student achievements in comparison to computer-based instructions (CBI)? (ii) Is student attitude improved by the "here and now" m-learning when compared to CBI? Learning can be influenced by the context in which it takes place, so knowledge should be placed within the context of authentic activities – this is the fundament of the "here and now" framework (Traxler & Crompton, 2015).

As NSSE identified, collaborative learning is one of the main advantages of the utilization of m-learning. Collaboration includes conversation and data sharing, highlighting the use of networked connections and interactions between learners, teachers, and other people, as well as exchanging ideas and sharing resources through collaborative assignments (Wang et al., 2009). This complex system consists of multimodal, communicative aspects of m-learning, more specifically information searching, production, and sharing (Mills et al., 2014; Sharples, 2013). Collaborative learning produces an efficient bridge for seamless transfers amongst online environments, consisting of private, semi-private, and public networks. These networks enable learners to collaborate with skilled learners and teachers in their local community (e.g., school-based classes) as well as unknown skilled learners and experts in broader communities. Royle et al. (2014, p. 34) expressed the view about this environment by their observation: "Though learning was once bounded by time and place, now, with mobile devices, it can seamlessly retrofit any human interaction to, as Dewey put it, emancipate the mind".

Cobcroft et al. (2006) proposed that mobile technologies can sustain learners' engagement in creative, collaborative, critical, and communicative learning activities. Assisted by m-technology, students can investigate, discuss their issues, collaborate, and create knowledge not only in the classroom. To apply this idea, students can create centered activities, collaborate and advise each other through apps that function as an interactive classroom to promote the students' collaboration and the digital skills of the curriculum (Chou et al. 2012; Luna Scott, 2015).

Due to the many positive aspects, the usage of mobile learning (m-learning) platforms in educational institutions is gradually increasing. The main obstacle to even greater usage is represented by the doubts held by the stakeholders in the education system. Despite this, a study has shown that school principals positively evaluated (88/100) the use of digital learning in high schools and its implementation. The use of mobile devices for teaching provides a novel and unique pedagogical approach. It could lead to an increase in students' motivation, initiative, and creativity, since it provides the learner with freedom of choice and personalization that is related to a wide

range of possibilities in terms of managing their own learning (Chang et al., 2016; Ciampa, 2014).

Although some studies have demonstrated the advantages of computer and network-based learning (Chu et al., 2010), educators still accentuate the importance of students' activities related to real-world problems. They think that technologies should direct the learner and that students should learn with, instead of from them (Jonassen & Carr, 2020). The integration of technology enables the students to create more learning activities that fit their individual learning styles. For example, standard activities in college classrooms, such as lectures and discussions, have been partially altered and enhanced by technological devices. Such a situation is described in a study (Beckmann, 2010) by a student who needed a different learning pace in order to focus on specific things - he reported how his iPad kept him actively involved and allowed him to learn with his hands and eyes, instead of sitting and listening. The usage of mobile devices had a positive impact in this study – the student's attitudes and relations were improved due to the learning barriers being removed, which resulted in all students being put on the same level, and enabled to engage in diverse activities (Beckmann, 2010). This is an example of how m-learning positively affected active and experiential learning, and how the students were able to utilize their own strengths to overcome their weaknesses.

Some researchers claim that educators must allow students to exercise utilizing m-learning in class, in order for them to adapt to the devices and reduce their frustration (Martin & Ertzberger, 2016). To prove that mobile technologies are not difficult to use, a research team (Martin & Ertzberger, 2016) gave students a few minutes to explore and experience new mobile devices for the first time. Findings from one of the studies point out that the use of a mobile tablet (iPad) in the classroom fits well within the learning environment. On the one hand, students enjoyed the benefits of iPads, such as their design and elements (touch screen and keyboard feature). The usage of iPads resulted in students asking fewer questions and being more focused. The students who used the iPads only a few times during the semester had to put in more effort than those who used them on a regular basis. They had access to an authentic, ubiquitous learning environment containing accurate information and structured content. On the other hand, the negative aspect was the free access to social networks, e-mail, and games that the students had. Thus, those who preferred to use the apps during class and those who found it difficult to listen to the teacher and explore the apps at the same time gave more negative reports.

Usually, when students report positive experiences with technology, they mention the instructional design as a decisive factor that contributes to their comfort and success (Armstrong et al., 2011; De Winter et al., 2010). However, some students report that instructional technology does not contribute to effective performance in classrooms (Armstrong et al., 2011). The literature also suggests that assisting the instructors is necessary, as the success of using new technologies in the classroom generally depends on them (Chang et al., 2016; De Winter et al., 2010).

2.1 Meaningful learning

Meaningful learning means that a concept that is being learned is actually and completely understood, so that connections with other knowledge can be constructed and it can be applied in various contexts (Mayer, 2002). M-learning improves the learning process and communication amongst students, as well as between educators and students. Furthermore, continuous changes in technology that m-learning utilizes have set up new possibilities and challenges for meaningful learning (Bestwick & Campbell, 2010). Jonassen & Carr (2020) assessed the possible use of technologies (such as Mindtools) that contribute to students' deep thinking, which is important for meaningful learning. It is important to understand the complex process of integrating m-learning into teaching, since the pedagogical uniqueness of this integration is exactly what can lead to meaningful learning (Huang et al., 2011).

2.2 Mobile learning in higher education

Mobile technology has become prominent in higher education. Its increasing usage in colleges includes learning activities, along with communication between students and their faculties (Alzaza & Yaakub, 2011). The benefits of mobile technology usage in academic, social, and economic domains have worldwide implications. UNESCO published extensive publications on the potential of mobile technology applications in education, including policy guidelines in this area and their implementation. These publications present unique advantages of mobile technology (Hanemann, 2014). Some of these advantages include striving for equality in education, promoting personalized learning, providing immediate feedback and assessment to

advance learning regardless of time or place, using time effectively, building learning communities, supporting contextual learning, promoting integrative learning, bridging formal and informal learning, reducing damage to education in disaster or conflict areas, assisting learners with special needs, improving communication and learning management, and maximizing the benefit-cost ratio.

Furthermore, UNESCO highlights the possibilities inherent to m-learning and the need for further research on it. As mentioned before, mobile technologies have great potential for higher education: they can motivate students to learn and persevere in tasks, personalize learning in terms of content, learning methods and learning pace, make the learner active by enabling him/her to participate in the interaction outside the classroom and make decisions related to his/her learning and enable the learning to occur at any place and at any time while simultaneously building knowledge, creativity and cooperation (Krull & Duart, 2017).

In order to advance the learning process through the usage of digital technologies and improve trust in them, faculties should invite students who have a deep knowledge of technology to share it with their colleagues and help them. For example, at Indianapolis University, students learned how to use the iPad as a part of a Faculty Learning Community (FLC). They learned how to use iPads as an additional tool in the classroom. M-learning can be applied to higher education institutions because most students already have mobile devices (tablets or smartphones) and many academic institutions already have free access to wireless networks (Meishar-Tal & Forkosh-Baruch, 2016). In a study (Papastergiou, 2009) dealing with students learning concepts through utilizing mobile technology, five topics were identified in students' responses to open questions, and each topic mentions the opportunities and the limitations of mobile technologies usage in the classroom. The topics include the following essential points:

- Access and availability of information
- Sharing and collaboration
- Novelty
- Learning styles and preferences
- Comfort and functionality (Papastergiou, 2009)

2.3 Self-Determination Theory (SDT)

The theory of self-determination was originally developed by Deci and Ryan (2002) at the University of Rochester, USA. This theory deals with a person's innate tendencies and psychological needs and emphasizes how much a person's internal sources and personality influence and how important they are for the development of his/her behaviour, self-regulation, curiosity, and creative growth. It also deals with challenges, focusing on the term “self-intention”, which refers to a person’s willingness to take responsibility for his/her personal goals, accomplishments, and failures. The term also refers to exploring different options and making decisions accordingly. Finally, the theory of self-determination proposes the conditions for the development of an autonomous person and the importance of self-determination for the normal and adaptive mental development of an individual. An autonomous person is an enterprising person who is consciously driven by their desires and takes responsibility for their own actions. On the contrary, a non-autonomous person allows external factors to direct their decisions and actions. This leads to negative effects such as depression, anxiety, and narcissism (Deci & Ryan, 2012). A study conducted on student populations from South Korea, Russia, Turkey, and the United States found a link between students' sense of autonomy and positive outcomes. The study connected the theory of self-determination presented above to the students' use of mobile learning, to examine how mobile learning has influenced the students' autonomy and motivation to explore and learn the topics taught in class. They became more intentional autonomous learners, and their learning process became more meaningful (Sha et al., 2012). Thus, m-learning has great potential for allowing students to determine their own intentions and, consequently, increase their motivation and the meaningfulness of their learning. This novel field, of course, requires further research, which is why it will be in the focus of this research paper.

2.4 The present study

Based on the cited literature, several research questions were developed. The main goal of the study was to explore the impact of mobile learning on students’ attitudes towards the integration of mobile learning in their lessons. More specifically, it investigated their perception of the effect of mobile learning on ubiquitous learning, cooperative learning, experiential and active learning, meaningful learning, and internal motivation for learning. It was generally expected that mobile learning and ubiquitous learning would affect meaningful learning and internal motivation for learning through increasing

experiential, active and cooperative learning. Aside from this, it was investigated whether or not these core variables differ between different demographic groups, in order to replicate and compare the results with the findings of Al-Emran et al. (2016).

In order to reach these research goals, several specific research questions have been proposed:

RQ1: Are there significant differences in the core variables between male and female participants?

RQ2: Are there significant differences in the core variables amongst participants from different age groups?

RQ3: Are there significant differences in the core variables amongst participants with different duration of education?

RQ4: Are there significant differences in the core variables amongst participants who spend different amounts of time using their mobile devices?

RQ5: What is the predictive power of mobile learning in predicting other core variables?

RQ6: Do experiential, active and cooperative learning mediate the relationship between mobile learning and ubiquitous learning on one side and meaningful learning on the other?

RQ7: Do experiential, active and cooperative learning mediate the relationship between mobile learning and ubiquitous learning on one side and internal motivation for learning on the other?

3. Methodology

3.1. Design

This study utilized a correlational design. Participants filled out several surveys, and the average scores were compared across groups in order to determine which of them benefited the most from mobile learning. Furthermore, the various types of benefits were correlated in order to determine the relationships amongst them.

3.2. Participants

The sample consisted of 200 participants. Their demographic characteristics are presented in Table 1.

Table 1. Frequencies for the sample's demographic characteristics

Gender		N	%
	Male	7	3.5
	Female	53	6.5
Sector			
	Jew	40	0.0
	Arab	6	8.0
	Other	4	.0
Age group			
	15-17	1	0.5
	18-25	35	7.5
	26-35	9	4.5
	36-45	5	0.5
Role			
	Pupils	1	0.5
	Education students	35	7.5
	Students	9	4.5
	Teachers	5	0.5
Years of education			
	8	2	.0
	12	68	84.0
	BA	9	9.5
	MA	1	0.5
Academic year			
	First-year	165	82.5
	Second-year	17	8.5
	Third-year	12	6.0
	Fourth-year	6	3.0
Average hours of use of cellular phones (Hours)			
	1-2	25	12.5
	3-4	84	42.0
	5-6	56	28.0
	7+	35	17.5
Academic achievements			
	Low	3	1.5
	Medium	96	48.0
	High	101	50.5

3.3. Measures

In order to measure the variables of interest, the following measurements were used. The complete list of items can be found in the Appendix A.

Internal motivation for learning – This scale consists of 4 questions in the questionnaire which measure internal motivation for learning, including interest and willingness for overcoming challenges (e.g., "I want to learn new things"). Scores are based on a 5-point Likert-type scale ranging from 1 (never) to 5 (very often). The score was computed by averaging the responses to the items. This scale showed excellent reliability ($\alpha = .87$).

Meaningful learning – This scale consists of 6 questions in the questionnaire which measures how digital methods contribute to meaningful learning, including convenience, understanding and exposure to

different things (e.g., "Contributes to an easier understanding of the studied material"). Scores are based on a 5-point Likert-type scale ranging from 1 (never) to 5 (very often). The score was computed by averaging the responses on the items. The scale showed excellent reliability (α = .93).

Experiential and active learning – This variable consists of 4 questions in the questionnaire which measures the experiential and active learning using the mobile tools, including challenges and fun (e.g., "Contributes to a better understanding of the material being studied "). Scores are based on a 5-point Likert-type scale ranging from 1 (never) to 5 (very often). The score was computed by averaging the responses on the items. The scale showed excellent reliability (α = .90).

Mobile learning – This variable consists of 5-item scale and measures attributes of using mobile tools for learning (e.g., "Mobile learning contributes to better learning from home"). Scores are generated based on a 5-point Likert-type scale ranging from 1 (never) to 5 (very often). The score was computed by averaging the responses on the items. The scale showed satisfactory reliability (α = .77).

Cooperative learning – This variable consists of 3 questions in the questionnaire and measures the contribution of mobile learning for work done in groups, including encouragement and usefulness (e.g., "Can encourage teamwork"). Scores are based on a 5-point Likert-type scale ranging from 1 (never) to 5 (very often). The score was computed by averaging the responses on the items. The scale showed excellent reliability (α = .91).

Ubiquitous learning –This variable consists of 2 questions in the questionnaire and measures the attitude towards distant learning everywhere - outside the classroom, including at home. Scores are based on a 5-point Likert-type scale ranging from 1 (never) to 5 (very often). The score was computed by averaging the responses on the items. The scale showed satisfactory reliability (α = .82).

3.4. Procedure

The questionnaire was created using the Google forms platform and was distributed to different social media platforms, mainly WhatsApp groups. A large proportion of the respondents were students who had experienced several lessons that utilized m-learning in various fields of study. Using mobile learning, they repeated the material and memorized it individually or in groups, with applications that can also be useful for educational needs, such as: Kahoot, Quizlet, Padlet, Triventy, Google Forms, Mentimeter, Wordwall, Thinglink, Wizerme, PowToon, Canva, Word-wall and other apps. The students received the questionnaire from one of their classmates in the WhatsApp group of their class and responded to it voluntarily, anonymously, in their free time and not as a part of their lessons.

4. Data analysis

The data was analyzed using SPSS software version 25.

Descriptive statistics for demographic characteristics were determined using frequencies. Differences between demographic characteristics in the core variables were evaluated using independent sample t-tests or one-way ANOVAs with Hochberg correction for post hoc analyses. Pearson correlations were conducted for assessing the associations between the core variables. Linear regression models were performed to predict the most essential predictors of meaningful, cooperative, and experiential learning. Finally, structural equation models were performed using Amos software version 26 for assessing the relationships between the core variables.

4.1. Results

The results will be presented in line with the answers to specific research questions. The basic descriptive statistics and correlations amongst all the core variables can be seen in Table 2.

Table 2. Means and standard deviations of core variables and their intercorrelations.

Variables	M (SD)	1	2	3	4	5
Internal motivation for learning	3.93 (0.98)					
Meaningful learning	3.74 (1.06)	.63**				
Experiential and active learning	3.83 (1.03)	.62**	.92**			
Mobile learning	3.70 (0.90)	.41**	.73**	.72**		
Cooperative learning	3.78 (1.06)	.56**	.76**	.76**	.60**	
Ubiquitous learning	3.79 (0.99)	.48**	.72**	.69**	.91**	.62**

*Note: ** = p < .01*

RQ1: Are there significant differences in the core variables between male and female participants?

In order to answer this research question, an independent sample t-test was conducted. Results (Table 3) show that women had higher internal motivation to learn in comparison to men. No other differences were found.

Table 3. Differences in the core variables between male and female participants

Variables	Male Mean (SD)	Female Mean (SD)	T (df = 198)	P
Internal motivation for learning	3.61 (1.08)	4.03 (0.93)	2.62	< .01
Meaningful learning	3.56 (1.00)	3.79 (1.07)	1.23	.22
Experiential and active learning	3.76 (0.94)	3.85 (1.06)	0.53	.60
Mobile learning	3.76 (0.84)	3.77 (0.92)	0.10	.92
Cooperative learning	3.62 (1.15)	3.83 (1.09)	1.15	.25
Ubiquitous learning	3.68 (1.04)	3.83 (0.98)	0.90	.37

RQ2: Are there significant differences in the core variables amongst participants from different age groups?

In order to answer this research question, a one-way ANOVA test was conducted between the participants amongst the ages 15-17 y/o, 18-25 y/o, and 26-45 y/o. Post hoc analyses were conducted with Hochberg correction.

Table 4. Differences in the core variables amongst the age groups of participants.

Variables	15-17 Mean (SD)	18-25 Mean (SD)	26-45 Mean (SD)	F (df = 197)	P
Internal motivation for learning	3.39 (1.20)	4.01 (0.92)	3.93 (0.96)	3.79	.02
Meaningful learning	4.16 (1.00)	3.70 (1.09)	3.67 (0.95)	1.82	.16
Experiential and active learning	4.17 (0.96)	3.78 (1.06)	3.83 (0.94)	1.30	.27
Mobile learning	4.35 (0.79)	3.66 (0.94)	3.83 (0.70)	5.76	< .01
Cooperative learning	3.79 (1.25)	3.77 (1.11)	3.80 (1.05)	0.02	.98
Ubiquitous learning	4.19 (0.94)	3.69 (1.03)	3.93 (0.82)	2.76	.07

The results (Table 4) show a significant difference in the means of internal motivation for learning. Specifically, participants in the 18-25 age group had greater internal motivation to learn compared to the participants in the 15-17 age group (pAdjust = .02). Furthermore, there was a significant difference in the means for mobile learning. In this case, the participants in the 18-25 age group of had lower mobile learning in comparison to the participants in the 15-17 age group (pAdjust < .01). Lastly, there was a marginal effect for ubiquitous learning. No other differences were found.

RQ3: Are there significant differences in the core variables amongst participants with different duration of education?

For assessing this research question, one-way ANOVA tests were conducted amongst the participants with 8, 12 years of study and an academic degree. No differences were found.

RQ4: Are there significant differences in the core variables amongst participants who spend different amounts of time using their mobile devices?

To answer this research question, one-way ANOVA tests were conducted between the participants who used their mobile phone for 1-2, 3-4, 5-6, and 7+ hours on average. Post hoc analyses were conducted with the Hochberg correction. Results (Table 5) show a significant difference amongst groups in ubiquitous learning. Specifically, participants who used their mobile phone for 7 or more hours on average had higher degrees of ubiquitous learning assessment in comparison to the participants who used their mobile phone for 1-2 hours on average (pAdjust = .04). Furthermore, a marginal difference was found for mobile learning. No other differences were found.

Table 5. Differences in the core variables amongst the groups of participants with different mobile phone usage times.

Variables	1-2 Mean (SD)	3-4 Mean (SD)	5-6 Mean (SD)	7+ Mean (SD)	*F* (df = 196)	*P*
Internal motivation for learning	3.82 (0.80)	3.82 (1.04)	3.92 (0.99)	4.27 (0.85)	1.89	13
Meaningful learning	3.61 (1.05)	3.71 (1.06)	3.70 (1.05)	4.02 (1.09)	1.05	37
Experiential and active learning	3.63 (0.94)	3.86 (1.00)	3.68 (1.10)	4.13 (0.99)	1.71	.17
Mobile learning	3.46 (0.99)	3.80 (0.84)	3.67 (0.81)	4.06 (1.04)	2.53	.06
Cooperative learning	3.57 (1.16)	3.72 (1.08)	3.85 (1.05)	3.95 (1.21)	0.72	54
Ubiquitous learning	3.46 (1.03)	3.76 (0.97)	3.77 (0.89)	4.17 (1.1)	2.75	.04

RQ5: What is the predictive power of mobile learning when predicting internal motivation for

learning, meaningful learning and cooperative learning?

To answer these research questions, three regression models were created. For each of them, mobile learning and relevant demographic variables were included as predictors. The demographic variables were included to control for their effects when estimating the effect of mobile learning.

For the first one, mobile learning and demographic variables (age, gender, role), which significantly correlated with internal motivation to learn, were used as predictors in the regression model predicting internal motivation. Since age and role correlated ($\chi 2(6) = 263.36$, $p < .0001$), one of them needed to be removed from the model, in order to prevent multicollinearity. Therefore, as a more relevant predictor, age was used and role was discarded. The results show that the 3 predictors explain 24.7% of the variance in internal motivation to learn. Internal motivation to learn was positively predicted by mobile learning ($\beta = .47$, $p < .01$) and being in the ages of 18-25 y/o ($\beta = .42$, $p < .01$) and 25-45 y/o ($\beta = .32$, $p < .01$) (in comparison to being 15-17 y/o). That is, higher mobile learning and being older than 18 y/o positively predict internal motivation to learn.

For the second one, no demographic variables had correlations with meaningful learning, and therefore, only mobile learning was used in the model as a predictor of meaningful learning. Results showed that mobile learning explains 53.5% in the variance of meaningful learning. Mobile learning had a positive correlation with meaningful learning ($\beta = .73$, $p < .01$), that is, the higher the mobile learning, the higher the meaningful learning.

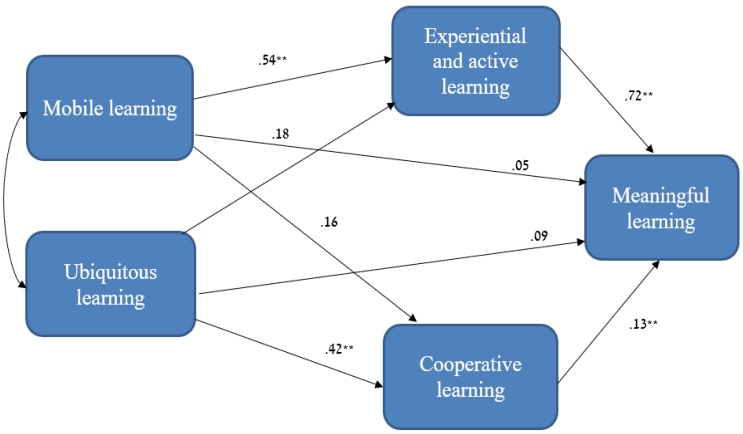
For the third one, no demographic variables had correlations with cooperative learning, and therefore, only mobile learning was used in the model as a predictor of cooperative learning. Results show that mobile learning explains 35.3% in the variance of cooperative learning. Mobile learning had a positive correlation with cooperative learning ($\beta = .60$, $p < .01$). That is, the higher the mobile learning, the higher the cooperative learning.

RQ6: Do experiential and active learning and cooperative learning mediate the relationship between mobile learning and ubiquitous learning on one side and meaningful learning on the other?

To answer the research question, structural equation modeling (SEM) was performed. Mobile learning and ubiquitous learning were exogenous variables; experiential and active learning and cooperative learning served as mediators and meaningful learning was the outcome tested. The model showed partially acceptable fit, $\chi 2\ (1) = 8.25$, $p < .01$, CFI = 0.99, GFI = 0.98, NFI = 0.99, RMSEA = 0.19, SRMR = 0.03.

As Figure 1 shows, mobile learning had a positive correlation with experiential and active learning ($\beta = .54$, $p < .01$), but not with cooperative learning ($\beta = .16$, $p = .25$) and meaningful learning ($\beta = .05$, $p = .45$). Ubiquitous learning had a positive correlation with cooperative learning ($\beta = .42$, $p < .01$), but no correlation with meaningful learning ($\beta = .09$, $p = .14$). Experiential and active learning had a positive correlation with meaningful learning ($\beta = 72$, $p < .01$) and so did cooperative learning ($\beta = .13$, $p < .01$).

Figure 1. Structural equation model of mediation.



Note. ** = $p < .01$*

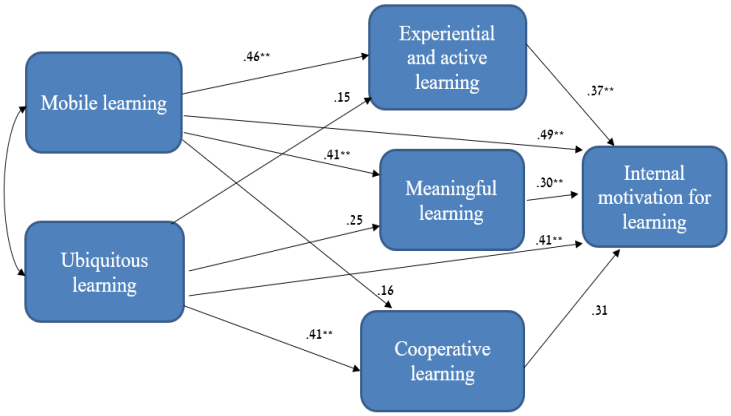
RQ7: Do experiential and active learning and cooperative learning mediate the relationship between mobile learning and ubiquitous learning on one side and internal motivation for learning on the other?

The SEM model (Figure 2) used to answer this research question included mobile learning and ubiquitous learning as exogenous variables, experiential and active learning, meaningful learning, and cooperative learning as mediators, and internal motivation to learn as the tested outcome tested. The model showed partially acceptable fit, $\chi 2\ (1) = 39.62$, $p < .01$, CFI = 0.97, GFI = 0.95, NFI = 0.97, RMSEA = 0.44, SRMR = 0.06.

Mobile learning positively correlated with internal motivation to learn ($\beta = .49$, $p < .01$), experiential learning ($\beta = .46$, $p < .01$), and meaningful learning ($\beta = .41$, $p < .01$), but no correlation with cooperative

learning (β = .16, p = .25). Ubiquitous learning had a positive correlation with internal motivation to learn (β = .41, p < .01) and cooperative learning (β = .41, p < .01) but no correlations with experiential and active learning (β = .15, p = .26) and meaningful learning (β = .25, p = .052). Experiential learning had a positive correlation with internal motivation to learn (β = .37, p < .01), and so did meaningful learning (β = .30, p < .01). However, cooperative learning did not have a correlation with internal motivation to learn (β = .31, p = .17).

Figure 2. Structural equation model of mediation.



Note. ** = p < .01

5. Discussions

This study investigated the attitudes towards m-learning and its relationships with ubiquitous learning, experiential and active learning, meaningful learning, cooperative learning, and internal motivation for learning. It also investigated the differences in attitudes towards these phenomena amongst various groups. There were seven specific research questions, which have been proposed to understand the main topic of the study.

The results concerning RQ1 showed that there were no differences in various forms of learning between the two genders. The only difference observed was in the level of internal motivation for learning, which was higher for female participants. This is in line with the findings of Al-Emran et al. (2016), who also found no differences in attitudes towards mobile learning between the two genders. The difference in internal motivation can, thus, be attributed to other factors (such as societal expectations, wish to prove oneself, etc.), and has no connection to mobile learning.

The results related to RQ2 showed that there were differences in the attitudes towards mobile learning based on age. The 15-17 group had higher attitudes towards mobile learning than the older groups, which is partially in line with the results of Al-Emran et al. (2016), who found an omnibus difference amongst all age groups, but no specific differences between any two age groups. This finding indicates that the youngest group has the highest attitudes, which was expected, as they have had access to mobile devices from a very young age and are probably the most accustomed to them. Furthermore, it has been shown that the 18-25 age group had a higher internal motivation than the 15-17 group, which is also sensible, as college education that occurs at the ages of 18-25 is much more self-directed and more important than high school education. In line with self-determination theory (Deci & Ryan, 2012), older students, who have the chance to direct their own learning and live authentic, independent lives, are also more motivated.

The results related to RQ3 showed that there were no differences in any of the core variables amongst the different levels of education. This is in line with Al-Emran et al. (2016), who also found no differences. It seems plausible that the level of education simply has no effect on attitudes towards m-learning, as it is more based on other variables, such as level of tech knowledge and usage.

The results related to RQ4 indicated that the participants who used their phones for more than 7 hours had the highest results for attitudes towards mobile learning and for ubiquitous learning. Thus, it is clear that those who use their phones the most also prefer to use them for learning purposes, which is in line with previous studies (Al-Emran et al., 2016; Khaddage and Knezek, 2013).

The results concerning RQ5 are also in line with previous studies, which found that attitudes towards m-learning correlate highly and positively with internal motivation for learning (Sha et al., 2012), meaningful learning (i.e., Ciampa, 2014; Kärki et al., 2018), and cooperative learning (i.e., Bryant, 2013; Johnson, 2012). The more specific relationships amongst these variables were explored in RQ6 and RQ7.

The SEM model of RQ6 was marginally significant, which indicates that further research is needed, but also that some inferences can be made. Mobile learning and ubiquitous learning were positive

predictors of experiential and active learning, and of cooperative learning, respectively. These two were significant and positive predictors of meaningful learning. This confirms the previously stated expectations that mobile learning is ubiquitous and drives cooperative and experiential/active learning, which then makes learning meaningful. In other words, m-learning does not make learning more meaningful, but by affecting other aspects of learning.

The SEM model of RQ7 was also marginally significant. Furthermore, it showed an absence of a mediation effect. The effects of mobile learning and ubiquitous learning on internal motivation to learn were present both directly and indirectly. Thus, while there may be some mediation present, it is also important to note that mobile and ubiquitous learning directly influence internal motivation for learning as well. This clearly indicates that mobile learning is a very potent tool for increasing the students' motivation. The marginal significance of the SEM models indicates that future studies should try and create different models, which may then be compared with the ones presented in this study. Furthermore, it would be useful if the future studies utilized larger samples, in order to produce more reliable models.

Taken together, these results show the importance of m-learning for the future of education. It is the most preferred way of learning by younger generations and people who use technology the most, which clearly suggests that it should continue being implemented into education more and more. The absence of educational or gender differences in attitudes is also informative and indicates that it is useful for many different populations. Although the youngest participants showed the highest attitudes towards m-learning, this is indicative of the generations that will soon enroll in faculty. Thus, changes in higher education in terms of integrating m-learning will probably be readily accepted by this generation, which will make the transition easier. Furthermore, this will help overcome the potential problems such as not being skilled at using mobile devices, since the students from these generations will already be equipped with these skills.

The most important results of this study are the relationships of m-learning with the other core variables. It positively correlates with all aspects of learning, and it has been demonstrated that these influences may be direct and indirect. When it comes to meaningful learning, the effect of m-learning is indirect, it is mediated by cooperative learning and experiential/active learning. As Sharples (2013) suggested, cooperative learning is in its nature a process of creating meaning through constructing interpretations of the learned material and the world in general. Thus, its promotion through m-learning necessarily leads to more meaningful learning. Furthermore, it has been stressed multiple times in the literature (i.e., Joo et al., 2016; Ligi & Raja, 2017; Garrison, 2011; Traxler & Crompton, 2015) that knowledge always needs to be contextualized and that it is necessary to actively work on it in order for it to gain actual meaning. Thus, the "here and now" model of education may be extremely beneficial for the progress of education programs, and it is indisputably made easier through the usage of m-learning.

On the other hand, the impact on internal motivation to learn is direct, which is in line with the self-determination theory (Deci & Ryan, 2002). The students can utilize mobile technologies to adapt the learning process to their own needs, and thus, they feel more control, autonomy, and authenticity. People have the highest sense of accomplishment and authenticity when they are allowed to explore their needs and fulfil them in the ways that they see fit. This feeling is a necessary condition for normal mental development, quality performance of complex tasks, assistance in dealing with failure, and increasing the student's belief in his/her ability to succeed (Sha et al., 2012). As has been shown in previous studies (Beckmann, 2010), allowing this may be one of the most prominent advantages of the usage of m-learning.

According to the literature, m-learning requires some transformation in the roles of both lecturer and student, and in their academic activities. The literature is based on needs, experiences, and interests of students, who is the center of attention and performs an active role in the learning process. The student can access information any time he/she wants, he/she is responsible for his/her learning, learns at his/her own pace, creates, and shares new information. In the m-learning environment, the learner himself makes a large use of personal and active learning. Consequently, the learner learns to evaluate his/her and other peers' learning while collaborating with them (Kukulska-Hulme, 2010). Although these tasks may be demanding and may require a certain level of adaptation from both the students and the faculty members, the benefits that may be gained from it seem to outweigh the costs, especially in the future generations.

6. Conclusion

The present study investigated the relationship of m-learning with demographic variables and core learning variables as experiential/active and collaborative learning. The study was correlational and was conducted on a sample of 200 students, through an online survey. The results suggest that mobile learning is a potent novel technology that can be utilized to improve the educational process, especially for students aged between 15 and 17. These generations will soon enrol into faculty, which makes them ideal in terms of readiness for the transition towards greater use of m-learning. Furthermore, it may be especially useful for the improvement of meaningful learning, through enhancing collaborative learning and experiential and active learning. Lastly, it has a strong, direct effect on the increase of internal motivation for learning, which can be well understood through the lens of the self-determination theory.

This study concludes that in comparison to other age groups, students who belong to the 18-25 age group have a higher internal motivation with the integration of mobile devices in learning. This is meaningful, since higher education in this age group is more self-directed, compared to high school education. In addition, students of all ages who mostly use their smartphones for all kinds of purposes also choose to use them increasingly for learning aims.

This research proves that students acquire increasing motivation when they direct their own learning independently. Mobile learning is considered an effective means for increasing students' internal motivation for learning; this motivation can be aroused directly or through mediating factors. However, the intrinsic motivation of women for learning by mobile devices was higher than that of men; there were no other findings that indicated differences in learning styles between the two genders.

Mobile learning devices enable accessibility and availability, learning management by the student independently, communication and transfer of information anywhere and anytime, accessibility between student and teacher and in addition, it allows easier communication in collaborations between student and peers and between learning groups. It can be identified that the student's attitude to experiential/active and collaborative learning changes positively by using the m-learning devices. This research approves that mobile learning, as a ubiquitous one, leads to these changes in learning. In addition, other mediating and affecting factors turn this learning into a more meaningful one for the students. The higher education system can and will prosper greatly due to the introduction of m-learning, since the students will be more motivated, more collaborative and ultimately, acquire more meaningful knowledge. Thus, the study highlighted m-learning as a learning method of the future that will bring about development to the whole learning process.

Authors note:

Shai Solomovich is a doctoral student at “Alexandru Ioan Cuza” University from Iași, and a lecturer at Kaye Academic College of Education, Beer Sheva, Israel and a teachers' instructor of ICT. His expertise scans a wide range of sectors in primary, secondary and higher education. His major academic research focuses on ICT for education involving learning development, use of synchronous and asynchronous environments in cloud environments to support education and training. His main academic research deals with integrating smartphones and applications, digital media and ICT. The aim is to award the teachers the ability to combine technological and digital skills in learning activities. A combination of smartphones in lessons is done to increase motivation, experiential and meaningful learning among students. Shay emphasizes the importance of building knowledge, independent learning and a collaborative process of ideas and dialogue between different populations, such as, between Arabs and Jews in a virtual environment in order to improve their mutual relationships.

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Appendix A

Items and their descriptive statistics for each of the factors.

α	*SD*	*M*	The questionnaire items included in the factor	The name of the factor
0.87	1.14	4.11	I want to learn new things	Internal motivation for learning
	1.28	3.78	It's interesting and intriguing to me	
	1.26	3.71	This is a challenging field	
	1.21	3.75	I find great interest in the lessons learned by mobile technology	
0.93	1.16	3.81	Contributes to an easier understanding of the studied material	Meaningful learning
	1.2	3.84	Helps to understand better the studied material	
	1.09	4.01	Contributes to exposing the student to additional fields	
	1.19	3.9	Is a convenient way to learn	
	1.17	3.77	Allows me to explore topics that interest me	
	1.21	3.78	Contributes to more meaningful learning	
0.9	1.08	4.04	Contributes to a better understanding of the material being studied	Experiential and active learning
	1.18	3.9	Contributes to more active learning	
	1.23	3.82	I want mobile learning to be challenging so I can learn new things	
	1.15	3.81	Gives me fun and pleasure	
0.77	1.22	3.92	Contributes to learning everywhere - inside and outside the classroom	Mobile learning
	1.29	3.73	Allows me to feel comfortable by learning with a mobile	
	1.11	3.76	Mobile learning contributes to better learning from home	
	1.07	3.88	Mobile learning enables learning while playing	
	1.09	3.89	With mobile learning it is easier to practice the material	
0.91	1.26	3.83	Can encourage teamwork	Cooperative learning
	1.22	3.71	Allows useful group learning	
	1.22	3.84	Contributes to more collaborative learning	
			Contributes to learning everywhere - inside and outside the classroom	Ubiquitous learning

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10.24193/ed21.2021.21.04

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Educatia 21 Journal, (21) 2021, Art. 04
doi: 10.24193/ed21.2021.21.04
Research article

Quo Vadis? School Principals' Educational Leadership in the Technological Era of the 21st Century

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Abstract

This article focuses on a case study of primary schools in the northern peripheral region in Israel. Its aim is acquiring insights into the influence of principals as educational leaders of meaningful use of information and communication technologies (ICT) in teaching and learning.
The data source in this study is qualitative based on personal interviews with 6 school principals and 9 teachers. The conclusion arising from these interviews was that school principals' areas of responsibility are anchored in leading teaching, educational and learning processes, molding schools' future image – vision and managing change, leading, and professionally developing staff, while concentrating on in individuals, managing links between schools and communities.
School leaders do not need to be IT experts, but it is important they have the vision to adopt change reform in the technological era of the 21st century. Principals are role models for teachers when they provide them with support and training to encourage them to employ ICT in planning their lessons. which is likely to improve their teaching and students' learning.

Keywords:
School leadership;meaningful use of ICT; ICT vision.

Zusammenfasung

Dieser Artikel konzentriert sich auf eine Fallstudie von Grundschulen in der nördlichen Peripherie Israels. Ziel ist es, Einblicke in den Einfluss von Schulleitern als pädagogische Führungskräfte auf die sinnvolle Nutzung von Informations- und Kommunikationstechnologien (IKT) im Unterricht und beim Lernen zu gewinnen.
Die Datenquelle in dieser Studie ist qualitativ und basiert auf persönlichen Interviews mit 6 Schulleitern und 9 Lehrern. Die Schlussfolgerung, die sich aus diesen Interviews ergab, war, dass die Verantwortungsbereiche von Schulleitern in der Leitung von Lehr-, Bildungs- und Lernprozessen, der Gestaltung des zukunftsorientierten Erscheinungsbilds von Schulen - Visionen und Bewältigung von Veränderungen -, der Führung und professionellen Entwicklung des Personals verankert sind, während sie sich auf Einzelpersonen konzentrieren und die Verbindungen zwischen Schulen und Gemeinden verwalten.
Schulleiter müssen keine IT-Experten sein, aber es ist wichtig, dass sie die Vision haben, Reformen im technologischen Zeitalter des 21. Jahrhunderts umzusetzen. Schulleiter sind Vorbilder für Lehrer, indem sie ihnen Unterstützung und Schulungen anbieten, um sie zum Einsatz von IKT bei der Planung ihres Unterrichts zu ermutigen, was ihren Unterricht und das Lernen der Schüler verbessern dürfte.

Schlüsselworte:
Schulleitung; sinnvoller Einsatz von IKT; IKT-Vision.

1. Introduction

The appearance of a global society driven by technological and communication developments has moulded the younger generation as future world citizens in the guise of "global citizens" with a broad range of tools and knowledge skills adapted to a competitive and information-based society. These developments have changed the role of students and teachers and has created a paradigm transition from a traditional industrial society to a knowledge and information society (Chai & Lim, 2011).

Successful ICT assimilation in school education systems requires changing and rethinking the learning paradigm in teaching. Whereas many researchers have emphasized the importance of teaching development and professionalism as important factors in ICT assimilation, many studies have confirmed the role of principals as educational leaders as a significant and essential factor driving teachers' motivation and commitment to efficient ICT integration into their teaching.

Stogdill (1974), presented several definitions of the leadership concept. Their common denominator is a person's ability to influence and motivate as well as concern for communication between all group members aspiring to reach its goal. Leadership creates suitable opportunities for members of an organization

to identify with it and its goals, and thus contributes to the effective success of organizations to which they belong. Therefore, schools' educational leadership plays an essential role in leading reforms in technological and pedagogical changes necessary for school ICT to succeed (Boulton, 2017; Japhet & Usman, 2018; Shin, 2015).

The theory behind the transformative leadership model was first developed by Burns (1977) and improved to a full range leadership model (FRLM) by Bass and Avolio (1993). School principals who adopt a transformative leadership style can influence the degree of technological integration at schools significantly. As creative leaders of school development, they must have qualifications and new technological qualifications in education because they fulfil a critical role in successful integration of school initiatives and serve as role models for those they lead (Schepers, Wetzels & Ruyter, 2005).

The International Society for Technology in Education (ISTE, 2014) proposed a range of teaching roles for school technology leaders: leadership with vision, culture, learning in a digital era, systemic improvement, and digital citizenship. These standards are the skills and knowledge school principals and leaders need to integrate technology successfully in schools. School principals are a central factor influencing the introduction of change. Principals provide the vision, direct teachers toward common goals and control resources required to progress change. How teachers teach, children learn, and principals manage their schools change as a result of ICT implementation. It appears that ICT can be efficient if school heads actively support it, learn it well, have appropriate knowledge, provide ongoing professional development, and support staff in this change process.

Therefore, the aim of this qualitative research is to identify the effect of leadership strategies on meaningful ICT use in schools.

2. Theoretical foundation

Electronic supply systems are widely used in today's education systems and expand access to education allowing learning to occur at any time in any place. ICT assimilation has turned education into an open system, which supplies global access to information, the internet, diverse data resources enabling borderless global communication (Arkorful & Abaidoo, 2014; Shan Fu, 2013). The purpose of integrating ICT into education was to move teaching and the learning process from traditional teaching centres to an approach focusing on learners with the active participation of learners' instructors (Voogt & Pareja, 2010; Voogt & Petgrum, 2005).

Educational technology as a construction tool can help students present their ideas, express their knowledge, investigate, use, and process information in a shared learning environment.

Integrating ICT helps constructivist learning where students connect with other learners, teachers, information sources and technology. Such an atmosphere provides learners with direction and a framework to construct their knowledge and skills. Students are likely to demonstrate abilities when they know how to apply and use technology in a manner that makes their learning easier. Such an atmosphere provides shared, rich learning conditions and gives learners opportunities to reveal diverse viewpoints in addressing the ICT issue by choosing and employing tools to solve problems and assess outcomes (Pierce, 2013; Ramorola, 2013).

The need to adapt the Israeli education system to changing times has been at the centre of public debate for many years. Apparently, the education systems' conduct and growing gap between what is done within school walls and the external world have led, to ongoing dissatisfaction. Against this background the education system introduced many reforms at the end of the 20th and beginning of the 21st centuries, which aspired, at least according to declarations, to instil in students' competences and skills relevant to the 21st century. Most reforms emphasized 'profound' pedagogical methods encouraging high level thinking, some sought to assimilate digital applications in schools, others focused on improving skills measure in internal comparative tests and there were those that widely addressed schools' autonomy and flexibility (Nir et al., 2016).

In the same context, several core leadership qualities were identified in the final report of the ICT educational and training plan in the European Unions' ICT cluster (EU ICT Cluster, 2010). First tangible support for digital education is required among all decision-makers in education. Second, visions of digital education must be accompanied by assimilation plans suiting existing reforms and management systems. Third, innovation leaders require administrative support to supervise adapting changes in education styles they intend to activate. Fourth,

opportunities to cooperate and reciprocal contacts among people as well as organizations can encourage motivation and disseminate recommended working methods. Fifth, every technological assimilation and application process requires continuous supervision and assessment to produce rapid feedback loops allowing immediate integration of the program. The last point on the issue of assessing policy of digital education plans, is expressed in the literature time and again (Condie & Munro, 2007; Fullan & Donnelly, 2013; FELTAG, 2013; Luckin et al., 2012).

School principals' leadership constitutes another central factor influencing the introduction of change. Principals provide the vision, direct teachers to common goals and control resources needed to progress change. Bodies that have reciprocal relationships with schools, such as local authorities and the Ministry of Education also influence ICT integration in schools. The abundance of bodies involved in change processes produces increased complexity and not once is the outcome shows demands that are not adapted to actual reality, simplistic solutions, and inconsistency in performance.

3. Research methodology

Semi-structured interviews in this study served as a technique to gather information from individual teachers and principals in face-to-face interviews. The purpose of interviews was to examine the current state of ICT use in teaching and learning from the viewpoint of 9 teachers and 6 principals and vice principals from four primary school in the northern peripheries of Israel. These interviews provided the main source of data for this study. To protect interviewees' identities and privacy, the researcher gave them pseudo-codes.

To analyse data acquired from semi-structured interviews, content analysis was employed, which was intended to inductively reach conclusions from 'text units', meaning from transcribed interviews, about their social context. An analysis unit was a word, expression or sentence affiliated to research aims, questions and examined issues. The analysis process began with an initial mapping stage, during which comparisons were made between interviewees' statements to find similarities and differences inductively. Similar statements were joined together under the same category by their congruence with the program (Shkedi, 2011).

Content analysis conducted on data collected from interviews provided three main themes and associated categories, described below:

- **Theme 1**: School culture contained two categories: (1) teachers' and principals' views about assimilating ICT in education. (2) Teachers and principals' views towards traditional teaching at school.
- **Theme 2**: School principals' leadership role and responsibility for assimilating ICT contained three categories: (1) School principals' level of assimilating ICT skills;
- (2) Formulating school vision and policy; (3) Creating an attractive school environment for ICT use.
- **Theme 3**: ICT policy and educational strategies contained two categories: (1) Teachers' and principals' perceptions of Ministry of Education's ICT policy; (2) Teachers' and principals' perception of school ICT policy (translating policy into action).

Table 1. Interview Guide – Principals and Teachers

Interview Guide –Principals and Teachers
In your daily life, do you use a computer? For what purpose?
Have you received ICT training in your work?
What do you think are the challenges and barriers that prevent or hinder the assimilation of ICTs in your school? Are they related to equipment and technical infrastructure, time, financial problems, lack of training or other problems?
Do you use a computer as a teacher in class? For what purpose?
Since we are in the technological age, tell me, how do you as a principal promote the integration of ICT into school teaching?
What are the difficulties and challenges you are experiencing or facing regarding the use of ICT in teaching at your school?
Can you please describe the current state of ICT use in your school teaching and education? (e.g. accessibility of computers, technological equipment and infrastructure, hardware and software, teacher and student use of these technologies etc.)
What are the computer skills you use in your managerial work?
How do you think a principal should act to promote the assimilation of school ICTs?
What role do you think teachers play in assimilating ICT in school teaching?
What do you think about the Ministry of Education's policy of assimilating ICT in teaching? Does the Ministry of Education provide you with support and guidance in achieving the goals and objectives? How?
Is there a school policy regarding the assimilation of technology in your school? How is it expressed?

4. Findings

4.1. Results and discussion of findings emerging from research question

How do the characteristics of formative leadership of school principals as pedagogical leaders influence the assimilation of ICT technologies in the teaching of teachers and students?

4.1.1. School culture - principals' and teachers' views about the importance of ICT assimilation in education

Qualitative research findings revealed that principals' views regarding employing the range of ICT currently available to them, enables improving and promoting students' learning skills and teachers' teaching. In the same context, principals' views of traditional teaching indicated the need to change this form of teaching. They expressed understanding and agreement that in fact educational technology was everywhere, at schools, home, market, work and entertainment, and modern education must include and even be based on using ICT tools and mentioned that both veteran and young teachers must use ICT, for example: "*Teachers need to change when they teach digital children… use diverse ways of teaching …Our ways of teaching must change. We cannot ignore the technological changes in our world*" (Pa). "*Many children with high technological skills who must get a chance to develop these skills for learning important subjects …*" (Pc).

Teachers reinforced the principals' approach about the important need to change traditional teaching and adjust to the technological age. T9 argued, "*We should use other teaching methods so that these children do not get bored .... They are connected to the Internet all day and know all kinds of sites and materials no less than us ... even more*".

In contrast, T6 explained her difficulties in changing her traditional teaching habits and employing ICT teaching, "I believe in traditional teaching; that is what I have been used to for many years ... I have a hard time adjusting to these changes with computers ... I have no confidence in dealing with it ... I'm not sure I will be able to cope with these innovations ... However, I think we should assimilate the two methods in the right dosage to give students the best".

However, principals' negative perceptions and views about the importance of assimilating ICT in schools, low awareness of the benefits of its integration into teaching and inappropriate decisions concerning ICT infrastructure, allow teachers to return to their previous teaching strategies and learning methods and can even undermine teachers' capability and commitment to employ ICT in teaching (Fullan, 2007)

These findings support research literature pertaining to integrating ICT in teaching, introducing ICT to schools and learning processes driven by global powers over and above school-based decision making (Oluwagbemi & Oluwaranti, 2010; Voogt, 2013).

Therefore, it is important for school leaders to encourage and enable ICT use among students born in this digital and global age (National Education Technology Plan (NETP), Update, 2017).

4.1.2. School principals' leadership role and responsibility for assimilating ICT

4.1.3 Level of school principals' and teachers' ICT skills

Research findings showed that most principals today use ICT tools, mainly to manage daily school tasks, for ongoing administrative matters and communication both within and outside school. Many principals had not received any training in ICT and its possibilities. "*I have not completely mastered ICT skills. I work with the basic tools for reporting purposes, records of staff and students… a lot of emails with teachers and the Ministry of Education*" (Pd). "*Almost 70% of my management work is done electronically. I use ICT in completing daily reports, and communicating with the Ministry, teachers and sometimes parents via e-mail* (Pe). Pf also testified to lack of training: "*I know how to surf the Internet, build PowerPoint presentations, but my skills are limited. ... I really have no idea about other types of ICT, and I really think I need training*"

Likewise, findings regarding teachers' ICT levels revealed diversity. Most only had limited basic skills. Principals mentioned the difference between young and veteran teachers with regard to their motivation to use ICT in teaching. It also appeared that young teachers had not received suitable training to use their skills prior to their entry to work.

Teachers described the low level of their ICT skills. T3 admitted, "*I know there are many skills that need to be learned more comprehensively ... I have not really mastered them all ... I can use e-mails,*

Office…Google ... opening files ... for example. Excel is really out of the question ...". T4 stated, "*I have only basic skills .... I do not know how to operate the computer for learning as required ... I have not had the appropriate training ... I know some office applications ... presentations, videos from YouTube .... but it is not enough*.

The explanation for these findings is that school principals serve as role models for teachers they manage. Although most principals use ICT tools in their daily tasks, it appears that an absence of training and ICT skills development projects negatively on leading and assimilating ICT.

These findings correspond with various studies that have shown that principals' leadership in developing a vision helps assimilate a digital culture, contributing to promoting teachers' and educators' professionalism and improving learning processes. Accordingly, principals must have appropriate technological skills in the education field and ability to support teachers understand diverse possible technological uses in teaching processes (ISTE, 2014; NETP Update, 2017; Northouse, 2013; Robbin & Judge, 2013, Yuki, 2013).

Hence educational leadership in relation to ICT assimilation in educational system in a global world is characterized by a high level of computer literacy that constitutes a role model for teachers and students in applying ICT skills at schools.

4.1.4. Formulating school vision and policy

Research findings revealed that even though principals recognized the importance of educational policy and its contribution to everything related to integrating ICT in teaching and learning, no practical evidence was found of the leadership expected of them as leading ICT use and application. Most principals reported that they had not formulated school vision and policy expressing values and norms of action and defining goals, shared with teachers, to advance ICT application and assimilation.

Regarding the structured ICT curriculum, principals placed responsibility on the Ministry of Education. Pb described, "*Every teacher … has to adhere to the curriculum... there are a lot of programs developed by the Ministry of Education ... I do not follow-up ... I am busy with the school system management and student achievements*." Pd admitted, "*I am not really familiar with all the compulsory ICT programs ... there is no real Ministry of Education enforcement or control …*" Pf complained, "*The Ministry of Education is up there ... lands programs on schools and expects them to do what is required .... it does not work that way … There are no clear guidelines whether it is a duty or a right ... we teach what is needed .... at the same time .... a clear ICT leadership plan should be part of the school … but when there is no support from the Ministry of Education for basic computer equipment and problems of untrained teachers .... how will I lead the school in this way*?"

Teachers explained their personal views with regard to principals' lack of leadership in integrating ICT in school. On the one hand, principals' heavy workload, and on the other, lack of ICT skills. T2 said, "*Our principal does not really follow what is happening with computers, but she receives all the information we pass on to her. I have no complaints … because I know she is extremely busy …*"

An absence of school principal leadership to build a vision to realize a defined school policy in relation to ICT testifies to a lack of a systemic view and awareness of the future developments of diverse technologies likely to integrate into teaching and learning. ISTE (2014) presented standards for skills and knowledge that school principals and leaders require to successfully integrate technology into schools. These include leadership based on vision – developing a digital learning culture referring all students and teachers to excellence in professional undertakings and managing ongoing systemic improvement in their organizations through efficient use of ICT resources.

Research literature has shown that school principals who used strategies integrating management and leadership aspects, based on the transformative leadership model of FRLM (Bass & Avolio, 1993) were more successful at achieving the goal of optimal ICT assimilation in school's ongoing functioning and raising teachers' commitment and motivation to achieve goals and objectives to realize the positive potential of ICT. Therefore, schools' educational leadership has an essential role leading to reforms required in technological and pedagogical changes for ICT to succeed in schools (Boulton, 2017; Japhet & Usman, 2018; Leong, Chua & Sathiamoorty, 2016; Mitchell et al., 2011; Shin, 2015; Stewart et al., 2009).

Many studies in the last decade have confirmed that principals' transformative leadership influences

teachers' willingness and commitment to technological changes needed in teaching and leading to excellence in students' learning outcomes (Arafeh, 2014; Fisher & Waller, 2013; Handford & Leithwood, 2013; Haynes et al., 2014; Papa, 2011; Richardson et al., 2012).

Hence educational leadership in relation to ICT assimilation in educational systems in the global world necessitates the development of a vision and policy with regard to ICT assimilation in educational systems.

4.1.5. Creating an attractive school environment to use ICT

Research findings showed an absence of principals' involvement in creating a collaborative learning environment. In addition, principals' control over ICT usage is expressed mainly in maintaining protected and controlled access to the internet and online information, in the context of protecting students' safety from dangerous internet and computer use, at an educational and social level.

Principals pointed to existing possibilities and means for a collaborative learning environment for teachers but also an absence of their involvement in this learning. Moreover, principals left collaborative learning to teachers' choice and judgment. However, teachers reported that in these actions there was no cooperation among teachers, and only some adopted this way.

"*I encourage teachers to use existing ICTs ... in their teaching. Some teachers are really into it, and I write letters of appreciation and gratitude to them*" (Pb). This approach derived from not introducing a school educational policy, which also affects this aspect. Pc supported the idea of encouraging ICT use, "*We have a school website ... Teachers can upload shared ICT materials that were taught in the lessons ... Teachers can enter the site and learn how to upgrade their lessons ... Involving teachers in ICT lessons is very important .... You can learn a lot together*". Pd expressed awareness of the need to use ICT, saying, "*Every teacher and educator must have his own laptop so that he can communicate online, solve problems and use the many knowledge materials available on the Internet*".

These findings can be explained by the absence of schools' educational vision and policy led by school principals. These include principals' lack of basic skills and training, low awareness of the benefits of technology in teaching that affect their lack of motivation to assimilate ICT in schools. As teachers' role-models, principals influence teachers' lack of motivation to participate in training exercises and implement ICT in their work.

Learning environments with positive and consistent principals' support for teachers is likely to promote assimilation of efficient teaching and learning strategies, including making collective decisions to build structured programs to teach ICT and provide opportunities for collegial learning which will ignite teachers' motivation to assimilate ICT into their class teaching.

These findings tally with studies that have shown that learning environment with principals' positive and consistent support for teachers are likely to promote the assimilation of efficient teaching and learning strategies, including making collective decisions to build structured programs to teach ICT and provide opportunities for collegial learning (Busher, 2006; Chang, 2018; Schert, 2009; Seyoum, 2004; Southworth, 2005; Tallerico, 2005).

Hence, school principals' realizing ICT use for educational purposes demonstrates to teachers how to follow them. Principals must be certified in all aspects of ICT assimilation, understand the potential in using new technologies, be skilled in their use, promote school ICT culture encouraging new teaching, learning and administrative techniques. All these are likely to make ICT assimilation easier in learning environments supporting teachers' continuous work and leading to desired change promising computerized learning and teaching methods. In addition, principals must develop spaces suitable for learning environments equipped with ICT infrastructure, cautiously guaranteeing the health and safety of teachers and students.

4.2 Teachers' and principals' perceptions of the Ministry of Education's ICT policy

Most principals and teachers pointed to a large gap between the Ministry of Education's stated goals ensuring ICT assimilation in schools and what is actually happening in school reality. Ministry of Education requirements are given top-down without supervision or activation of factors adapted to effective ICT assimilation in teaching and learning.

Ambiguity regarding Ministry of Education ICT policy invites principals and teachers' personal interpretation and assimilation. Pd described the gap

between needs for effective ICT assimilation and Ministry of Education declarations and goals, "*The Ministry of Education should be more actively involved in setting their policy, and especially in preparing future teachers, and they must ensure that teachers know the policy and act on it." T9 stated "There is a huge gap between the statements and goals of the Ministry of Education and their actions to be carried out in school ... they are up there, talking and writing all sorts of unclear instructions .... they do not understand that this is not the way they achieve the goals*"

Teachers and principals reported lack of clarity in Ministry of Education goals and strategies regarding assimilation and application of ICT in schools. Principals placed responsibility on the Ministry of Education and teachers placed the responsibility on principals. There appears to be a shared irresponsibility on all sides, when in practice the lack of clarity creates many gaps that hinder the realization of the educational vision for ICT assimilation in teaching.

The findings suggested that teachers and principals believed the Ministry of Education did not provide a clear strategy and necessary steps to ensure teachers' awareness of the importance and contribution of ICT assimilation in their work.

4.2.1. Teachers' and principals' perceptions of school ICT policy (translating policy into action)

All principals recognized the importance of educational policy in all subjects of study in schools. Principals and teachers reported that there is, in fact, no school policy regarding ICT integration into teaching. This was expressed by Pb, "*We do not really have a defined school ICT policy ... Our school policy includes social and educational curricula … I encourage teachers to use ICT tools ... I also cannot force them because their skills are basic and they have not received proper training*".

Teachers' statements about school policy reflected those of principals. Teachers considered themselves as educators for students' values, achievements, and social skills, when the use of ICT in teaching has not been the focus of their work.

T5 described the ICT situation at school "*If principals are convinced of the benefits and roles of ICT tools in education, they will be able to lead and persuade teachers to take action for more successful and effective assimilation in school…*" T6 observed, "*There is no school policy with really clear guidelines on this subject...*"

The gaps in clarity of and understanding Ministry of Education's policy regarding the assimilation and application of ICT in teaching and what is actually happening in schools also seemed to affect the lack of assimilation of this educational policy. The lack of ICT policy at school level indicated that ICT integration in teaching is carried out mainly by teachers who are interested and active, whereas other teachers are exempt from ICT integration in their teaching subjects

The absence of a school ICT policy means no systemic vision and a disregard for the important responsibility for enhancing the quality of education, which results in ICT use in schools not being considered mandatory and not being part of a school's vision.

5. Discussion

Research findings revealed that educational leadership in relation to assimilating ICT in educational systems in a global world were characterized by positive views about the importance of ICT assimilation in educational systems. Findings also revealed that educational leadership in relation to ICT assimilation in educational systems in a global word necessitated formulating a vision and policy in relation to ICT assimilation in educational systems. In addition, the findings showed that educational leadership striving to lead ICT assimilation in educational systems in a global world were characterized by high computer literacy skills, serving as role models for teachers and students in implementing ICT skills in schools.

Furthermore, findings revealed that educational leadership in relation to ICT assimilation in educational systems in a global world referred to skills and competences principals needed, including technical skills alongside social skills. In other words, school principals' areas of responsibility are anchored in leading teaching, educational and learning processes, moulding future school image – vision and managing changes, leading, and professionally developing staff, while focusing on individual people, managing relationships between schools and communities.

This view of principals' educational leadership combines management and leadership aspects. However, practically, this refers to two different

dimensions: management includes a critical aspect of school maintenance and daily activities, whereas the leadership emphasis relates to areas such as values, ethics, inspiration, consolidating goals, renewal, and motivating people to achieve agreed and shared goals.

The important challenge facing school principals and founding pedagogical leaders is to adopt and initiate strategies to change school management in the spirit of transformative management. Principals must develop and consolidate new, sustainable schools' vision together with teachers. Strategies devised by pedagogical leaders to realize these visions include providing setting a personal example, creating high performance expectations, and strengthening school culture, allocating appropriate resources, promoting group and achievable goals, supporting continuous and adjusted teacher training in daily teaching and learning methods, provide individual support, intellectual stimuli, problem solving and critical thinking. All these contribute to increasing teachers' commitment and motivation to achieve aims and common educational learning goals. Accordingly, school cultures will be developed to realize the positive potential of ICT that improve pedagogical processes in innovating teaching and learning processes taking place at schools and the environs.

Therefore, school require education principals and leaders who can make the change process easier and support learning communities to integrate technology. Successful development of an ICT culture in school education requires educational leaders to be aware of future developments of diverse technologies that are likely to be integrated into teaching and learning, change their traditional views of teachers, and translate educational processes into learning environments – learning with ICT as a key tool to achieve defined pedagogical goals.

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10.24193/ed21.2021.21.05

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Educatia 21 Journal, (21) 2021, Art. 05
doi: 10.24193/ed21.2021.21.05
Research article

Using students' reflection in the university educational process – a qualitative approach

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Abstract

The university learning process must be self-planned, self-directed, self-initiated, and frequently individually completed. To be able to achieve these goals, the students must have certain knowledge and skills. One of these is the reflective ability, developed through different modalities and using different tools. This article presents a qualitative interpretation of the students' responses written in a reflective journal, at the end of a semester, as a tool for self-assessment and self-reflection and feedback on the educational activities in which they were involved. We present, anonymously, the dominant answers for each item grouped in reflective dimensions about the teaching and learning process. Based on these responses, we tried to identify characteristics and/or difficulties in the teaching and learning process, not only to summarize and analyze but to value and/or optimize them in the future university educational process.

Keywords:
self-learning; self-assessment; feedback; self-reflection; learning journal.

Zusammenfasung

Der universitäre Lernprozess muss individuell zu einer selbstgeplanten, selbstgesteuerten, oft selbstinitiierten und häufig abgeschlossenen Lernaktivität werden. Um diese Ziele zu erreichen, müssen die Studierenden über bestimmte spezifische Kenntnisse und Fähigkeiten verfügen. Eine davon ist die reflexive Fähigkeit, die auf unterschiedliche Weise und mit unterschiedlichen Instrumenten erreicht wird. Dieser Artikel präsentiert eine qualitative Interpretation der Antworten der Studierenden, die am Ende eines Semesters in einem reflektierenden Journal verfasst wurden, als Instrument zur Selbsteinschätzung, Selbstreflexion und Feedback zu den Bildungsaktivitäten, an denen sie beteiligt waren. Wir präsentieren anonym die vorherrschenden Antworten für jedes Item. Die Fragen wurden in reflexive Dimensionen des Lehr- und Lernprozesses gruppiert. Basierend auf diesen Antworten haben wir versucht, die vorherrschenden Antworten zu bestimmten Elementen jeder Dimension zu identifizieren. Diese wurden qualitativ analysiert, um die spezifischen Elemente der Reflexion der Studierenden bei der Optimierung eines zukünftigen universitären Bildungsprozesses zu nutzen.

Schlüsselworte:
Selbstlernen; Selbstbewertung; Feedback; Selbstreflexion; Lernjournal.

1. Introduction

Students need personal autonomy and control over their learning activities. By learning autonomously, students assume a form of study in which they take the initiative to learn, with or without the help of others (teachers or group colleagues), to plan, lead and evaluate their learning activities. This is self-orientation, as a personal attribute or quality, through which the subject of learning assumes his responsibility for the various decisions associated with the learning efforts.

By accepting reflection as one's activity and as an equally important element in self-evaluation, evaluation becomes a formative one. This will ensure a permanent reporting of the students' results (knowledge, skills, competencies) to the training objectives (of the program/discipline) and a permanent reconsideration of them in terms of personal success. The strategies and types of evaluation used in the university process must be selected in such a way as to correspond to the formative character of the program, but also to the needs of acquiring specific competencies of self-learning and self-reflection and feedback.

2. Theoretical background

Self-directed learning is an independent and self-projected activity, which is individually finalized (Knowles, Holton & Swanson, 1998; Hiemstra,1976). In the literature various terms, concepts, definitions, and studies associated in some way with self-direction in learning are used by different authors (Hiemstra, 2004; Canipe & Fogerson, 2006). In the following and centered on this study's goals, we will present some approaches and relationships as fundamental

approaches needed for understanding the process of students' self-reflection process.

In this regard, the role of the teacher is very important and consists in familiarizing the student with different activities and learning styles proposed by him, in an appropriate learning environment. So, teachers must change the teaching process from 'the one with power' to 'the one with shared power', which supports self-directed learners to be active participants rather than passive recipients of knowledge (Sze-Yeng & Hussain, 2010). The teacher must understand and apply in the educational process the essence of providing opportunities, as well as stimulating the students' inquiring approach and responsibility (Silen & Uhlin, 2008).

Why is self-directed learning important for students? Because this will be the way to develop abilities to:

- set and impose realistic goals for the learning process. It is very important for ensuring an efficient educational process in which students and supervisors collaborate for alignment of the objectives with desired outcomes, to overcome different issues or challenges – (Larsen et al., 2017).
- look for the necessary information in different resources (library, Internet, various database, etc.). The student could develop their competencies through self-directed learning, involving significant changes in controlling their learning processes (Mok & Lung, 2005, p. 35). Students with higher academic success were found to have significantly higher self-directed learning skills (Tekkol & Demirel, 2018).
- activate during the study (learning) certain abilities and skills that they already possess and through which they make new acquisitions. The outcomes for learners who embrace self-directed learning are many, both for the learners and for the professionals (Patterson, Crooks & Lunyk-Child, 2002).
- be aware of what and how much they know, on the one hand, and what and how much they could know, on the other hand. The students acknowledge the information/learning task and how they understood them, as well as what and how much of it was assimilated (learned). This means that students reflect on their acquisitions. Because that self-directed learning propensity was found to be significantly related to the transformation of students' learning process in the direction of the reflective mode, the student became an active reflective participant (Hutto, 2009).
- know how to be self-motivated (to be aware of their interests, aspirations, goals) and to be emotionally involved in the learning process. This fact demonstrates that certain types of motivational beliefs help to promote and sustain self-regulated learning. The usage of various cognitive and self-regulatory strategies in the learning process demonstrates the involvement of a certain level of engagement (Pintrich, 1999).
- choose and use the most appropriate learning strategies to achieve their goals. The teacher must build and use teaching methods and materials that support the development of students' acquisitions, to achieve the specific skills for their discipline. However, we frequently find the following situation: the university professor considers that the student already has these autonomous learning skills and requests, consequently, to solve some concrete tasks, without ensuring that the students can solve them. For example, M. Yasmin et al. mentioned in their article (2019) the necessity that learning strategies and skills necessary for self-directed learning transition may be taught to students within course content or in the form of pre-session workshops.
- monitor, control and evaluate their facts and actions, take measures of self-mediation and self-correction, in other words, self-regulating their activity. In this process, students take control of their learning and create plans and strategies to achieve desired goals (Jackson, 2004; Van Hout-Wolters, 2000).

A teacher at tertiary level must build and use teaching methods and materials that support the training and development of these student acquisitions and abilities, to achieve self-directed learning. In this respect, he/she supports, guides, explains, and exemplifies the curricular contents involved in experiential learning; provides self-directed learning tasks; provides continuous monitoring and feedback on student learning activity and invites the student to reflect and to make self-evaluation.

Of course, self-learning is completed by self-assessment. In the literature are mentioned some relevant writings from educational psychology and psychometrics to define the need for a better understanding of accuracy in self-assessment (Brown,

Andrade & Chen, 2015). Self-assessment accuracy is done also by the systematic and continuous activity of monitoring and evaluating the own assessment process to obtain performances corresponding to the learning needs and an optimal motivational level (especially intrinsic motivation). More specifically, the objectives of self-assessment are pragmatic ones and refer to the identification of difficulties or threats that may disrupt the specific learning activity and also lead to a greater level of student independence in assessing their performances (Daniel, 2001).

The results of this consist in acquiring from the gained experience some optimizing perceptions for the subsequent learning activities and, last but not least, personal development or, even personal change, if necessary.

So, the reasons that determine the students to integrate self-assessment in their learning activities are also varied: finding the degree of achievement of the objectives proposed by the teacher or those established by each at the beginning of the training program or the beginning of each training sequence, the desire to self-knowledge and self-realization and not least the improvement of one's learning activity. Of course, not all students are motivated by such intrinsic reasons, some are guided in the activity of learning by extrinsic reasons such as advancement in the job, professional retraining, access to greater financial resources, etc. Is often difficult to convince about the need to supplement the teacher's assessment with personal self-assessment.

Often, the student invokes the fact that he/she does not know how to solve the learning problem situations or, quite frequently, he/she does not even make this difficulty known to the teacher or the workgroup. One of the common causes may be that the self-assessment process is not always doubled by self-reflection on that process.

Regardless of the motivation that guides students to achieve an effective self-assessment, it must go through certain stages and overcome certain obstacles: the mentality of the student who is not open to change and taking responsibility for learning (considers that this responsibility belongs to the teacher), the resistance of the student who invokes reasons such: I do not have time, not everyone wants self –assessment in evaluation and inexistence of personal values as a benchmarks in self-evaluation (different from individual to individual), etc.

On the other hand, student self-assessment, defined as a dynamic process in which students self-monitor, self-evaluate, and identify correctives to learn, is a critical skill that enhances student motivation and achievement (McMillan & Hearn, 2008). The final result of self-assessment is self-reflection, then extended to the student's ability to transfer the conclusions of self-reflection into the learning process and later into workplace activities to improve the personal work style. We observe, therefore, that self-evaluation is a cyclical process that has as a source and at the same time as finality, the practical dimension of learning. More specifically, self-assessment starts from the students' pragmatic experiences and aims at better coordination of the student's reflection on their learning process.

The cyclical nature of self-assessment revealed by C. Rolheinser (1996) in the model proposed for students refers to the fact that self-assessment being performed objectively, automatically determines the setting of higher goals, which requires effort from the student. As a result of their effort, knowledge is assimilated and certain competencies are formed. The student assesses his/her results in terms of personal value judgments and self-awareness. If the established goals are achieved, their self-esteem and personal involvement in self-assessment automatically increase.

Feedback on the teaching process and reflection on one's activity are constant approaches in formative assessment and are specific to the teacher and the student in the self-assessment process. There are many achievements for students who are self-aware in the educational process: grow the students' confidence, justification and assumption of their learning actions and the whole process of decision-making (Glaze, 2002); assures that students become professionals in self-monitoring and be able to identify multi-faceted problems and implement solutions in solving problematic situations (Tate, 2003); is a fundament for achieving higher levels of learning and full appreciation of complex concepts and problems (Kanuka, 2002); represents a mobile for active learning and involvement in the learning process through seeing things in a new way or to transform their perspective (Ruland & Ahern, 2007).

Critical reflection encompasses different purposes for students' learning process (thinking, learning, and assessment of self-systems), manifests different forms of reflection (personal, interpersonal, contextual, and

critical) in the educational process, and uses the different instruments for reflexive writing (reflective journals, reflective notes, reflective portfolios, etc.) (Smith, E., 2011).

The learning journal is a collection of notes, observations, thoughts, or other relevant materials built over a while, usually accompanying a student's period of study. Reflective learning journals support students in organizing and consolidating critical thinking by reflecting on newly learned ideas, concepts, abilities, and attitudes. They give the teachers an image of the evolution of students' learning, but also on their teaching activity, automatically becoming a useful feedback tool.

So, the benefits for using the reflective journal in the educational process are multiple as: assure confidentiality, a safe environment, and reassurance for the student which were extremely important for self-reflection (Chirema, 2007); promotes professional development, allowing students to establish connections between the personal self and the professional role that they assume; stimulate personal reflection and optimization of teaching process (Gillis, 2001); can form a means of communication between students and teachers, promoting a new approach to teaching (Phelps, R., 2005); it allows students to recognize and assume their strengths and weaknesses in the educational process (Glaze, 2002); helps students to evolve professionally, but also to set goals and ethical concerns regarding different ethical issues (Hubbs & Brand, 2005).

The reflective journal is also a feedback instrument. Giving feedback in reflective journal-keeping, this assessment modality has a powerful influence in fostering reflection during the semester (Pieper et al., 2021). Thus, the reflective journal reveals how students think about what and how they have learned and facilitates the integration of new acquisitions into their knowledge system. Also, it is a mirror of what and how has been developed in the teaching process.

3. Research methodology

In this research, we aimed to make a qualitative analysis on students' reflection on their learning activity and also on the teaching activity (self-reflection and feedback).

The literature review presented by M. E. Langley, & S. T. Brown, (2010) reveals that this kind of research can be structured on some dimensions, which showed some specific results. Starting with these, we created a learning journal with 12 questions (Appendix A). These items are distributed as following 3 questions for each dimension mentioned by relevant authors as benefits of the completion of the learning journal: professional development (1-3), personal development (4-6), empowerment (7-9), and facilitation of the learning process (10-12).

The group of the investigation consisted of 50 second-year students from the Teacher Training Department in Timisoara. Students filled in this reflective journal at the end of the semester, its completion being optional. The answers presented below are anonymous.

4. Results

The students' answers to question 1 revealed that this discipline supported them a lot in ensuring a theoretical-pragmatic foundation for the future teaching profession. Here are some of the students' answers:

I have reached an enormous amount of knowledge that I will use in my career as a teacher.

The subject of this discipline is focused on my training for becoming a specialized teacher.

It taught me how to approach teaching and students in my future professional career. It was the beginning of my training for the teaching profession by providing me with a wealth of information and materials that will be useful to me in the process of building a teaching career.

I consider that this discipline helped me a lot in my training for the future teaching profession. He provided me with the theoretical knowledge necessary for conducting teaching and evaluation in the classroom.

It gave me a better understanding of the activities performed by the teacher and the official documents that guide them.

I realized that it is not as easy as it looks from the outside...there are many steps to follow to become a teacher in a school...

Pedagogy II is the foundation I need to succeed in this future career.

I consider that I have acquired useful skills and concepts for the teaching profession, which I will use in the future profession.

I have learned certain methods, certain teaching strategies, which will help me a lot in my future teaching career.

Also, some students considered that the discipline has supported a better understanding and approach of the teacher-student relationship, both in the teaching process in which they are engaged and in the training for the future teaching career:

In addition to all this, I learned that the relationship between a teacher and his students is much more important than all the theoretical notions.

It taught me what the teacher has to do every day and to pay close attention to my future students.

I learned that without a combination of knowledge, patience, understanding, and perseverance, I could not be a really good teacher.

With the help of this discipline, I understood that a teacher must be supportive of the students and the most important element for a collaboration between the two is communication.

It helped me to understand that there are several types of teaching depending on each individual and the possibility of adapting each method to each person, according to students' needs. I developed the ability to understand the students better.

I understood much better how I could relate to students' needs, how I could improve the teacher-student relationship and how to focus teaching on students, and how to provide them with information that would be scientific and attractive at the same time.

Last but not least, we consider it extremely important that students have identified the contribution of the discipline to their personal development, despite the theme of this question. The answers are varied and denoted that the students consider personal qualities as teachers' qualities. They mentioned aspects such: communication, development of critical thinking and reflexivity, training and development of individual study skills, aspects of motivation and personal will in the learning process:

This discipline helped me to develop my communication style because I am a little more introverted when it comes to speaking in public. After this semester, I learned that I need to communicate more and have more confidence in my abilities.

…and it helped me realize that there is no wrong answer in the educational process, but it sometimes needs to be "polished" like a diamond.

I consider that I have evolved from some point of view.

What I noticed more pronounced was that I developed my horizons of thought and I did not have any impasse from which I could not get out. I can call it critical thinking and self-reflection.

.... not to be afraid to express my personal opinion on a given topic.

The teacher supported me by the simple fact that we were taught to work and put our soul into what we do.

This discipline taught me that, even if at the beginning this job will be difficult, I must always fight to become even better, because it is possible.

This discipline helped me get closer to my personal development goals.

... and that I can make a change on my own…

For question 2, some of the students specifically mentioned certain curricular contents that will support their subsequent teaching process for the specialized disciplines, but also certain strategies that they can apply to the learning process of the other faculty disciplines (methods, teaching aids, online applications).

During this semester, I mastered the school curriculum much better. I also managed to understand exactly how a lesson project is done and what the types of lessons are. I think that these aspects will help me to teach in the future the disciplines Romanian and German.

The teaching methods that I will apply to Romanian and French.

I have acquired a good knowledge of communication and skills on how to share scientific information, which will help me especially in the discipline of Romanian language and literature.

The teamwork used in this discipline will be very useful for me in the Geomorphology laboratory.

Watching movies to understand the subject matter. For example, for the subject "Contemporary Russian Language" watching movies will help me to understand the grammar of this complex language, but also the culture of these people.

I also started using the mapping platforms for the Effective Communication discipline and the Jam board for the Complex Analysis discipline.

In the students' answers, it frequently appeared that critical thinking and reflection, as skills developed in this discipline, will be useful in learning in different disciplines.

It helped me develop my critical thinking. This "tool" will be useful, especially in English literature where critical thinking has the main role.

Undoubtedly, the critical thinking and self-reflection that I gained during Pedagogy II. For example, in Comparative literature and in Romanian literature, where I have to interpret and reinterpret or focus on a certain keyword or clue, these two, reflection and critical thinking are a "must-have". Self-reflection is the first step towards an arguing of something and it certainly helped me, helps me, and will help me.

I will apply critical thinking and reflection on all the subjects I will study, taking into account the fact that they are interdependent. What I will learn represents somehow a consolidation and updating of what I have already learned, having the ability to do connections and reflection in my learning process.

We have identified several answers that mentioned the ability to "learn to learn" as an essential acquisition that can be used in any discipline. These skills are mentioned as certain specific elements: learning plan, systematic approach of the learning process, etc.

Most of all, I was taught to learn. I mean, at first, I learned everything that was on the platform, but I didn't realize that I missed a lot of things and I'm not concrete.

We have undertaken a series of tactics that make the learning process much more useful and enjoyable.

The seriousness with which I will perform my tasks, the organization of my learning time, in a useful way.

Most of all, I will be able to develop and use a practical learning style because I have found that it helps me to retain information, much better than the visual or auditory style helped me.

I will try schematically to highlight both the main ideas and the important notions in a certain text. I believe that I have learned to manage my learning more effectively through the strategies I have learned.

Self-assessment was a personal ability that was also mentioned by several students:

Self-assessment was a very important factor, which I managed to develop in this discipline.

The importance of self-assessment. I would like to apply this to all disciplines because I will be able to monitor my progress along my learning process.

I have gained self-evaluation techniques that will be usable in my educational process and my future exams.

The most important aspect mentioned by students (question 3) was the teacher-student relationship, as a good practice model for their professional development. In the students' answers, the most common are those that appreciate the use of open communication model, based on permanent understanding and support offered to the learner:

... a true connection with students and how teachers were attracting students to the discipline through its passion.

The interaction, the methods used, as well as the explanations, for me was a model for managing the learning situations proposed to the students.

The equal treatment and attitude towards all.

...to listen to the students, to give emotional support, to create a connection between me and my colleagues, to make sure that all the students have gained the best possible results.

...humanity, a vulnerability that, without being annoying, makes us feel connected. Sometimes we need a dose of humanity, feelings... the feeling (and the reality) that someone is there with us, next to us, like us... I must always support students to motivate them to become better because she did it with us!

Empathy is a quality that I will take with me in the classroom.

To pay as much attention as possible to my students…. a good relationship with them, in the benefit of both parties.

She wanted to get out the best of us, and I think she succeeded.

The importance of the connection between students and teachers, for a better understanding.

They were mentioned as models of good practice also different teaching strategies or particular elements of it: teamwork, worksheets, how to structure courses:

The team exercises and the team project. These helped us to develop our teamwork skills which I will also apply in my future teaching profession.

The way of working in a team.

I learned how to stimulate the student through different worksheets.

I had a good example of structuring and organizing the lesson, all courses and seminars being interactive; how to discuss /remedy problems.

Several responses considered feedback and reflection as important models for students' professional training:

Feedback on the partial assessment, because knowing that you did right or wrong is not enough, you need to know what you did or did not do well and why.

I also noticed the verbal feedback after each student's response and I think that had a positive effect on the students' development. The correctness and professionalism of the final assessment and the permanent feedback on students' learning activities.

It is very important in the teacher-student relationship to have such a good practice based on objectivity in the assessment process and in the learning process.

The opportunities of the students to reflect on the learning activity.

For question 4, the students were mentioned most often as strengths their personality attributes such as:

... creativity, the fact that I quickly grasp the meaning of things, without memorizing mechanically.

Being creative in solving certain requirements.

…. the fact that I am a person that is trustful to do its tasks in time.

Conscientiousness, punctuality, respect, adaptability, determination.

Ambition, perseverance, determination.

Several students also mentioned the communication and interaction with other people, as their strengths used in the educational process:

My oral and written communication, the way that I express myself in writing or dialogues with other people.

To collaborate with various colleagues to complete a task.

To socialize during classes, as well as my desire to learn new things.

During these courses, I developed the courage to express my opinion and to say what I think about a certain subject.

The ability to work in a team during the seminar.

Attention and teamwork.

I was able to express my opinion on the covered topics.

The following self-learning skills were mentioned as the singular answer to this question, such:

Tacking brief notes based on a large volume of materials.

My ability to research a certain topic, to synthesize information.

To realize where I am not well-prepared and where I still need to improve my knowledge.

To understand 100%, the material received from the teacher.

The compliance with the proposed deadlines for different tasks.

Regarding the weaknesses (question 5) optimized through the proposed activities of this discipline, most of the answers mentioned an improvement of communication, mostly the oral one:

Communication, socialization, and public speaking.

I corrected my problems by making complete and well-structured oral responses.

Confidence in the possibility of recovering my communication and social interaction.

The difficulty of working in a team.

I like to work confidently and get very involved when I work on something.

My public speaking aptitude it's a pretty strong point of mine.

Because I am a shy person, the interactions through this discipline helped me a lot to have the

courage to express my opinion without thinking that I will say something wrong or not.

The following are answers that pointed out weaknesses optimized through this discipline, mainly certain personality traits such as patience and self-esteem:

This discipline helped me to be more patient with the people around me.

I think that this discipline, first of all, supported me to be more patient.

To not be so critical of me.

To not underestimate me, to have more confidence in myself.

I corrected self-confidence through these interactions.

Only a few students mentioned as important the correction of aspects related to the learning process itself such as:

Sometimes I have to work harder and strive to research certain issues in more detail, to find the right solution, without stopping at the first result found.

A better understanding of the materials.

Many students repeated the answers regarding the acquired professional skills (question 6) and didn't focus on the acquisitions valuable for their personal development. We have selected some of the few answers offered to this question:

Supported me in dealing with the people I interact with within different fields.

The learning experience in this discipline helped me a lot in my personal development because I became a much more attentive person, more focused on duties. I have to fulfill and be much more attentive to the essential aspects of content.

I will be able to be a much more orderly person, who will be able to cope with any situation. All of these are some elements that will help me to be a good teacher, to be closer to the students.

Both from a professional and personal point of view, I am convinced that my interpersonal communication skills will be very helpful in the future teaching process.

Mostly, the learning styles used by students in the learning process is the visual style and the auditory one (question 7).

I combined several learning styles, but I mainly used the visual one. I made colorful diagrams and figures that summarized the main points of the courses, then I read the courses based on this skeleton of the information.

The auditory and the visual styles.

I used the visual learning style in this discipline, because the PowerPoints from the courses came in my support, being structured schematically with the help of some figures, for example. I think that in this way my visual memory was used much easier.

I used the auditory style, listening to the teacher's observations, but also the visual style, taking notes from his explanations. These useful explanations helped me to understand the subject matter.

I retained ideas and details through listening and seeing the presented images.

Only a low number of students mentioned that they have not used a specific learning style or different from the one they use commonly in other disciplines.

I can't say that I used a certain learning style.

I learned as I learn in other disciplines.

Most students mentioned in their answers the difficulties related to the curricular contents and its understanding (question 8):

In the beginning, I admit that it was hard for me to adjust to the requirements of the worksheets and this way of interacting ... but along the semester, I started to open up more and I communicated better.

The only difficulty I encountered was the fact that I confused some notions until I understood them well and couldn't make difference between them. Also, some of the concepts were difficult to remember, due to their complex definition.

Also, a few students stated that they did not have difficulties in the learning process, because of the teacher's support:

I did not have difficulties in the learning process, because I always read the courses and the gave information was enough to understand and learn the subject.

I can't say that I had any difficulties. Even though the classes were online, the teachers made sure that the theoretical notions were clearly understood.

There are a few students who mentioned some difficulties regarding online teaching related to attention and concentration.

I think the biggest difficulty was focusing my attention because sitting in front of the computer for so many hours distracted me and made me tired.

I quickly lost my concentration in the online process.

The predominant answers for question 9 were related to the need for change involvement and communication in the teaching process.

If I could change anything, I would have to be more present mentally, not just physically. I want to improve this because it can be a great advantage to say where you did not understand and to communicate more.

If I could change something, I would most likely do it in a way that made me more communicative.

I would change my implication in the course, I would try to get more involved in the activities.

About the same proportion, students mentioned aspects related to their learning style that needs to be changed/ optimized:

I would change my way of learning, I would like to not learn mechanically, I would like to start learning more logically.

I would try to take more notes because in the online learning process I did not write much.

I would probably try to read more in the first part of the semester, to shorten the period of accommodation with the curricular contents.

Mostly the human external factors were mentioned as supports for the students' learning (question 10):

The teacher, the communication model, the relationship with students.

The responsibilities that I have in this discipline, supported by the attitude and guidance of the teachers.

The warm and open attitude of the teacher, who was always there to answer any questions we might have and who explained to us each course. So, that was how I could better understand the contents and my responsibilities.

The good teaching model of the teachers.

The course teacher is the one who helped me to realize the responsibilities better in this discipline, through the very coherent explanations, the involvement that he had, and the patience that she showed during the semester.

Some answers punctually mentioned the support brought by the didactic strategy used, especially the didactic means:

The means provided by the "google meet" platform, for example, the digital whiteboard, where I was able to collaborate with my colleagues to accomplish a proposed task.

The course supports.

The team activities, the Padllet, and the Jamboard.

The team activities helped me a lot.

Only a few students mentioned the personal skills that supported their responsibility:

The fact that I know how to order the responsibilities according to their importance was very helpful.

The fact that I was present at both courses and seminars helped me a lot.

My self-determination and personal motivation to achieve everything, with hard work and implication, even with certain sacrifices.

The relationship with colleagues and teachers was considered good and very good. The students did not make proposals regarding the changes that could be implemented in a future relationship (question 11):

Even if this semester was different, this did not stop me from having a very good relationship with both my colleagues and the teachers.

I consider that I related well with other colleagues and teachers. At the seminar, it was a smaller group and I was able to relate much easier with the participants.

I learned how to cooperate well with my colleagues.

I considered my colleagues like my family, despite the online educational process. We had a very good relationship that should not be changed.

Most students said that they efficiently used the learning time for this discipline and offered motivation for the answers (question 12).

Yes, I always divide my time in such a way that I can solve all my homework on time.

I consider that I used my time efficiently because I managed to fulfill all my duties on time.

I consider that I used my time efficiently because I gave myself a certain time interval for a certain activity and I paid maximum attention in that interval.

I think so. Within this discipline, I received a lot of understanding and I met teachers who are dedicated to this profession. Each time spent in this activity represented for me a new stage of learning and advancement.

A few students were critics of their time management:

Certainly, my time could be used a little more efficiently in my activities.

I consider that yes, even if not always to maximum potential.

I think my time could have been used more effectively, but overall, I'm happy with the way I've managed it. I've never had any serious problems that I didn't solve in a good manner. I was able to find a solution for any problem at an optimal time.

5. Discussion and conclusion

Teacher learning and development is a complex process that brings together a host of different elements and is marked by an equally important set of factors (Avalos, 2011). The respondent students pointed three important dimensions approached during this discipline, as fundamentals for their future teaching career: the importance of the theoretical-pragmatic foundation; the relationship with students, and their personal development. We consider that their responses revealed the importance given by them to the theoretical framework of the teaching profession as a solid base for them, as future teachers. Also, it is interesting that they considered the understanding of how teacher-student relationships function to be very important for their professional foundation. In addition to Wubbels, T., & Brekelmans, M. (2012) students mentioned that communication with students must be characterized by helpful/friendly and understanding behaviors. Their dominant responses in this direction showed us that they considered very important the content and the model of the teacher-student relationship for better communication and preparation for an effective and future teaching career. Also, many answers affirmed that they gained some personal abilities which sustained them in their personal development. We observed that communication is frequently mentioned in students' answers, important for a future individual, not only for a teacher. Also, the development of critical thinking and reflexivity, training, and development of the individual study is mentioned by the students as being necessary abilities for in-depth learning and a would-be student-centered teacher.

The reflective journal is an instrument that also supports teachers to know the impact of their teaching in their learning in general and can serve as a self-assessment tool to evaluate educational philosophy and instructional approach in the classroom (Hume, 2009; I. Lee, 2008). All of these have an impact on the future learning of students in other educational contexts (disciplines or other types of activities).

Teaching and teaching development involve more than content, methods, and outcomes: being a teacher involves more than choosing content, employing appropriate methods, and aiming for appropriate learning outcomes (Åkerlind, 2004). We observed in students' journals that they used some educational strategies in learning, feedback, and self-evaluation used in other disciplines and that is proof that the teaching process was a reflective one. Also, the educational strategies used in this teaching process was considered by the respondents as a very important tool for their professional training as a future teacher. Feedback and reflection were mentioned frequently as very important when teachers try to support them in their professional development.

R. Edmunds and T. Richardson, (2009) had not found evidence for real changes in students' conceptions of learning, approaches to studying, personal development, and their change across their degree programmers. In our study, we considered it very important that students do a self-assessment regarding their strengths that supported the educational process, their weaknesses that were optimized in the educational process, to define their personality, but related to the educational process in which they were involved. This is what we see also when the students indicated how to use this learning experience for their personal development – their responses were related to personal professional development not on their personal development. This may suggest that students may not or do not want to present particular aspects of

their personality, only those that are present in the teaching process.

Personal agency means that students exercise internal control, responsibility, and efficacy in learning and regulating their actions (Deci & Ryan, 2002). So, personal agency is very important in the process of empowerment in the educational process. Regarding this, students reflected on their learning style in many answers given for this dimension. Although, some of them considered that they do not need to change something in their learning style or attitude for the educational process, probably because they declare that they didn't have difficulties in learning this discipline. A part of them considered that they have to change some aspects regarding their learning style. In the whole process of self-reflection and self-responsibility, it is very important to assume what are the difficulties which could be a gap between them and their empowerment process and how or with the help of who they will exceed them. In this respect, we provoked the students to answer also to the questions regarding who facilitated them in their learning process and how was their relationships with teachers or colleagues. Again, from their answers, we showed that the relationships with the teacher as a facilitator of learning (its personality or teaching techniques) and with the colleagues (as coworkers) were considered good modalities for supporting their learning.

Only a few students were critical of their time management and the rest were satisfied by it. In the literature, it was suggested that the relationship between personality and academic performance is mediated by study attitudes and habits such as time management practices (Credé & Kuncel, 2008). This is very important also, to sustain the teaching process and indicate their responsibility and self-management in the educational process.

In conclusion, the use of the students' learning journals in the educational process at university offers some personal and professional information about the respondent and the teacher. Also, the learning journal invites both participants to reflect on their implications and actions during the process and the results determined by these. The results could be manifested on students' learning or the teaching process and invite the responsible for each process to gain new strategies, better ones, for the next educational process in which will be involved.

Appendix A.

Student's learning journal

PROFESSIONAL DEVELOPMENT

1. How did this discipline support me in my professional development for the teaching profession?

2. What will I be able to capitalize mostly from this discipline in learning other disciplines? Please mention the discipline/disciplines and the aspects possibly to be capitalized.

3. Which part of the good practice models offered by the teachers will be most useful in my professional training as a future teacher?

PERSONAL DEVELOPMENT

4. What were the strengths that I valued in the interactions/ activities of this discipline?

5. What weaknesses were corrected through the interactions/ activities of this discipline?

6. How can I use this learning experience for my personal development in the future?

EMPOWERMENT

7. Did I use a certain learning style in the learning process of this discipline?

8. What difficulties did I encounter in the learning process of this discipline?

9. If I could change something in my attitude on this discipline, what would I do?

FACILITATION OF THE LEARNING PROCESS

10. What helped me better realize my learning responsibilities for this discipline?

11. How well did I relate to the other colleagues/ teacher? How could I have related otherwise?

12. Did I use my time effectively for the discipline's specific activities?

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10.24193/ed21.2021.21.06

Implications of the industrial revolution for the family and for the family education

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Educatia 21 Journal 21 (2021)

Educatia 21 Journal, (21) 2021, Art. 06
doi: 10.24193/ed21.2021.21.06
Research article

Implications of the industrial revolution for the family and for the family education

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Abstract

This paper presents an analysis of the contexts and implications of the industrial revolution for education and family, especially in its early stages. The main defining social aspects for the period after the development of the industry were the increase in the living standard, the development of transports and communications, the acceleration of the urbanization. All of these have experienced successive stages of increase or progress, based on the development of technology in developed countries, but an analysis of the implications they have had for family education and in terms of relationships between family members is all the more necessary since many problems from the previous stages remain current. The accelerated industrialization also brought with it the need to travel to different jobs, which led to a gradual decrease the time children could spend with their parents. In the current social context, marked in the world by an increasing rate of labour migration and implicitly by new challenges regarding education and relationships between family members, we have identified recurring hypostases and we synthesized a set of possible research topics able to offer data relevant to support the family in exercising its educational function.

Keywords:
industrial revolution; family; education; migration; educational research.

Zusammenfasung

In diesem Beitrag werden die Kontexte und Auswirkungen der industriellen Revolution, insbesondere in ihren frühen Stadien, auf Bildung und Familie analysiert. Die wichtigsten sozialen Aspekte für die Zeit nach der Entwicklung der Industrie waren die Erhöhung des Lebensstandards, die Entwicklung von Transport und Kommunikation, die Beschleunigung der Urbanisierung. All diese sind auf der Grundlage der technologischen Entwicklung in den Industrieländern aufeinanderfolgende Wachstums- oder Fortschrittsphasen durchgelaufen. Gerade deswegen, eine Analyse ihrer Auswirkungen auf die Familienerziehung und auf die Beziehungen zwischen Familienmitgliedern ist notwendig, um so mehr, dass viele von ihnen in den vorherigen Phasen der festgestellten Probleme aktuell bleiben. Die beschleunigte Industrialisierung brachte mit sich auch die Notwendigkeit zu anderen Berufe zu wechseln, was dazu führte, dass die Zeit, die Kinder mit ihren Eltern verbringen konnten, allmählich abnahm. Im aktuellen gesellschaftlichen Kontext, der weltweit durch eine zunehmende Arbeitsmigration und implizit durch neue Herausforderungen in Bezug auf Bildung und Beziehungen zwischen Familienmitgliedern gekennzeichnet ist, haben wir wiederkehrende Hypostasen identifiziert und eine Reihe möglicher Forschungsthemen synthetisiert, die relevante Daten für die Unterstützung der Familie bei der Ausübung ihrer erzieherischen Funktion anbieten.

Schlüsselworte:
Industrielle Revolution; Familie; Ausbildung; Migration; Bildungsforschung.

1. Introduction

The increasing steps taken by technology and implicitly industry in its stages of development have made the historical period after the beginning of the emergence of production technology and until now be generically called the Industrial Revolution, and then be divided into four stages (Banabic, 2018). The first industrial revolution began in the late eighteenth century, after the advent of the steam engine, which led to the rapid development of the industry. From a social point of view, the changes were major, as people and goods benefited from great mobility, both in a much shorter time over very long distances. The second industrial revolution (early nineteenth century) was marked by the emergence of electricity and the implementation of production on assembly lines. The third industrial revolution (after 1970) was marked by the development of automation in the industry, by the appearance of the possibilities to realize the remote control and by the integration of programmable computers with memory. The fourth industrial revolution, the current one, is called "Industry 4.0" and it is the next step in automating production by interconnecting the Internet of all systems involved in industrial processes (Desouttertools, 2021).

The factor that stimulated most of the changes brought by industrialization was the separation

between the concept of producer and that of consumer (Urseioana, 2012). The implications for the social environment, for the family and especially for the children, in their personal development, generated by the last three stages of the industrial revolution were found in the constant increase of the access to information and communication sources, of the living standard, but also in moving family members over increasing distances to work (Minge-Kalman, 1978). This phenomenon culminated in the massive labour migration to developed countries or regions, which led to an increase in time that children spend with other people than their parents or family and major changes in the cultural patterns adopted by family members (de Gabriel, 2014).

Despite all these major changes and difficulties, a certain support for family education came from models taken over and capitalized on based on the remarkable results of some schools in Western Europe (Roberts, 2013), from the pre-industrial period.

2. Methodological aspects

The present study aimed to investigate from an educational perspective the major changes and difficulties that the family went through, especially in the first part of the industrialization period, on issues related to its internal cohesion, changes in traditional roles of its members. A bibliography that included interdisciplinary analyses was used, in order to illustrate as many aspects of this issue as possible. Given the complexity of the analysed aspects, we argued the necessity for new educational investigations, for which we proposed some research topics and aspects that we consider a priority. Our research interest on this issue is also related to the evolutions of educational roles in the current family, with an additional emphasis on the situation in Romania. The context is that of the framework of current massive migration, which began more than two decades ago, which often leads to separation from parents or less and less time that children spend with them, aspects that find a significant correspondent in the developments of the first periods of industrialization.

3. The family during the industrial revolution and the education of the future adult

The development of industry led to major changes in society, and these needed changes in the classical paradigm of forms of organization, including the family, without which the development was not possible at the expected level (Cope, 1922). For the industrial period, research shows that the emphasis has been increasingly on the well-being of the child, who has become the centre of family concerns, with the status of the new ideal of the family (Hofstetter, 2012). This fact brought a first major change in terms of organization, but also family education. Even if it is in agreement with the paradigm of the Enlightenment, determinant at the time, many research questions arise permanently, including after our previous research, related to the impact that this new status of the child has on his development, but also on parents and family, in its ontological structure (Opriş & Opriş, 2011). When the child reaches adulthood and leaves the family, parents can easily ask themselves what is still the meaning of their own existence, to see the decrease in cohesion, to ask questions about the meaning of being together of its members (Minge-Kalman, 1978). Because the child grows in the family and he is training for life and for the cohesion of his own family, the defining model for the child is the one seen and lived, less the learned one, theoretically, reason for which the formative experience, direct, from the family can hardly be supplemented by the learning experiences he benefits from in school contexts (Ionescu, 2007).

The interest in the well-being of the child (Hofstetter, 2012) is legitimate in so far as it is subordinated to the desideratum of supporting his personal development. Research data shows that personal items, his physical condition and in general, the aspects that make his life comfortable and beautiful can end up being overly supported by his parents, to the detriment of the interest in personal training and becoming. The mechanism of obtaining the material things that the child needs or that the parents and in general, the adults around him think that he needs can create an unjustified enthusiasm, able to disturb the correct understanding by the parents of his needs, and through it to contributes to building a false image of the world and values, including education and family. This is one of the causes of the personal failure of the future adult, being accentuated by the impact of social migration (Schreuder, 2014). The lack of prioritize values in the family can also contribute significantly to the failure to form the character of the future adult (Akşit, 2013), with an impact on shaping the child towards the correct relationship with himself and those around him, aspects to which the finalities of moral education (Nicola, 2000) refer constantly.

The pertinent analysis made more than a century ago by Henry F. Cope insists that a major problem in the modern period for families with a good financial situation remains the way to create a favourable and correct self-image of the child, from which he, in equally, to recognize the value of work, to love the truth and life in communion with others, to have a correct motivation for one's own personal and professional development (Cope, 1922), as well as for helping those in difficult situations.

4. Sunday school, the great chance of education in the context of the development of industrialization

The industrial revolution contributed greatly to the dissolution of the traditional family model, in that it largely shifted labour from home to remote areas. It was added to this the increase the number of jobs on farms and in shops, which significantly reduced the degree to which obtaining the material values necessary for living is still a family act, a strong social fact (Mesquita, 2012). This change has had a major impact on education from family: it has increased the extent to which children and young people have acquired from parents, especially from the father, new knowledge and skills in areas required by the labour market, but with the price of maturity fast and often forced, with the decrease in the time they went through the early stages of life, including the seven years of education at home and with parents, or training through the classic games of childhood, increasingly replaced by others related to the work of parents in various factories, workshops, shops.

The confessional schools, including those that appeared in Protestant spaces (Rutz, 2012), could not make up for either the lack of a state-funded education system or the reduced concern for girls' education in a formal context (Akşit, 2013). A research question that is still being answered, including for the current period, is related to the work started since childhood, to the role it plays in going through the stages of personal development, about the possible extent to which it supports the increase of aggression at that age, against the background of increasing the promotion at European level of history works that promoted heroic characters (Meirlaen, 2012).

So, at this historical stage, the family moved to a new stage of material development, but it lost in unity and in the coherence of establishing and respecting educational norms, which were managed with increasing difficulty by the mothers left at home.

The role of parents has been largely taken over by the school, in the context of industrialization (Minge-Kalman, 1978). If this stage is undisputed a big step forward for school, it is a major setback in relation to the responsibilities understood and traditionally respected for the family. It is the period in which the idea of public schools is imposed, although the state's investment in these institutions was still only the desideratum of the great pedagogues of the time. The year 1780 can be considered a landmark for the gradual delegation by the family to the first schools in England of the responsibilities for the education of children. It is the time of the beginning of the Sunday school in which, in 1831, approximately 1,250,000 children were enrolled and studied weekly, respectively 25% of the population (Cope, 1922).

Following the model and experience of these schools, state-sponsored educational institutions were soon organized, to which the family gradually delegated most of the education of poor children (Mesquita, 2012) for profession and for life. After losing their father's educational support, teenagers begin to lose communion with other family members, with the widespread practice that they, especially boys, but not only, often work four to five hours on weekdays, including hard work, such as mining. The mothers were left almost alone at home, taking responsibility for raising the children. This new situation was later considered a true sale of family communion classes (Cope, 1922), and the consequences were not long in coming to the level of family unity and the harmonious education of children. The increase in family income has led to the diversification and increase in demand for household and personal items and objects, to the change in food expectations, to the emergence of spaces for food preparation for an entire community. Thus, the abandonment of traditional family education (Minge-Kalman, 1978) was followed by the debasement of the common activities of parents and children, generated significantly by the increased interest in community cuisine, often for larger communities, from which it reached high forms and increasingly expensive, later called restaurants. It is the stage in which the classical family, which for centuries gave the major coordinates of the formation of children, has entered a sharp decline and its unity is increasingly limited to hours of sleep and recreation (Cope, 1922).

5. Family education and the new socio-cultural models of the 19th century

From a complete unity, at the beginning of the industrial revolution, the family gets to ask itself if it is not the victim of its own desires for a better life. As in any period of major change, the family did not anticipate the major losses it would experience as a result of the changes in the lives of some of its members. The family felt that it could meet the new challenges or that the benefits of the new lifestyle would compensate for any losses in the education of children and their unity, as had happened in previous stages of social development. In addition to the changes in family life, there were those in the daily life of the community, especially in rural areas. Starting from the landmarks of the Greco-Roman space (Lawton & Gordon, 2002), education *in* and *for* was one of the cornerstones of the Christian formative model, a recurring theme in biblical and patristic literature, raised to the rank of educational principle by modern pedagogy. However, the educational function of the community, especially in rural areas, has experienced a permanent decline, reaching the last decades of the second Christian millennium to reach a minimum level, almost symbolic.

Thus, not only the work and the acquisition of the necessities of family life have ceased to be a unitary approach of parents and children, but also their education is increasingly taken over by other institutions or educational environments, many of them insufficiently prepared or not explicitly intended for this purpose. If the formation on cognitive aspects obviously knew new stages of development, the moral formation in the family and community suffered the most during this period. All this, in the context of new socio-cultural models, often in contradiction with the precepts of the family, values that came into contact with adolescents who left home to work on farms, shops, workshops or factories.

The diminution of the communion between the family members also materialized through the loss of the time spent in the evening together, hours destined for reading or other common activities. In their place, the commercial entertainment came, initially intended for young people in urban areas, for which the personal program began to be more and more different from that of parents. It is illustrative the fact that in the USA the urban population increased between 1800 and 1900, from 4% to 40% in this regard. The axiological change, supported by the increase of the living standard, determined the increase in expectations towards the living space and the separate rooms often appeared in large buildings. People changed their lifestyle, they accepted, for economic reasons, the agglomeration of houses and the sacrifice of green spaces, gardens and natural playgrounds for children, the connection that previously existed with the nature (Cope, 1922).

Traditional family life has partially continued to be a reality in rural communities. One of the relevant contexts in this regard was keeping the custom of eating together once a day, especially in the evening, followed by the development of leisure activities together, all while maintaining the consciousness of life "at home". Under the pressure of the city, however, the village gradually changes its ideals, urban habits are increasingly accepted, the social standard is set in the city, and the debasement of the village is accentuated by the growing criticism of young people moved to the city. For this entire context, the question that people have asked themselves is: What are the components for which this new lifestyle can be considered better than the abandoned one? (Cope, 1922) The answer could only be a nuanced one, because a person cannot be expected to live in material conditions or in difficult social contexts, just to maintain a cultural-educational paradigm considered by many to be already classical. In addition, all new aspects of accelerated urbanization cannot be categorized as negative, even if the sets of values are getting more, being on conflicting positions, including as a result of the increasing diversity of human communities.

6. Research topics and questions in the context of new family ideals

The rationales and analyses presented above, the complexity of the issue involved in changes in education within the family, especially in the current Romanian context of mass migration, in which a difficult number of children, estimated in 2018 across the country the figure was approximately 100,000, with the largest share in Suceava County (Spiridon, 2018), indicates a series of priority topics and leads us to questions for interdisciplinary research (Bocoş, Opriş & Opriş, 2006), with tools from the field of education sciences, which have the difficult task of identifying models and solutions to support the family in the efforts that this fundamental institution undertakes for the training of the new generations by relating to perennial values.

The first topic starts from the growing number of divorces, for which we consider it is important to identify answers to research questions such as: How can be explained the changes in families of today, expressed through the high divorce rate, the increasing number of young people living together and giving birth to children out of wedlock? What is the relationship between the decrease of the educational role of the community, the separation of young families from parents and the leaving of the parental home, between the increase of domestic comfort in young families and the decrease of concerns for civic and moral-religious education of children? What is the role of lost ideals and goals that are traditionally misunderstood and assumed by family members in the growing failure of today's young families?

We also consider that it is important to investigate the degree to which families consider themselves a moral-religious space (Opriş & Opriş, 2013), and starting from this idea, the way they jointly assume certain social, moral and religious terms, such as serving one's neighbour, humility or love for all people, not just for family. Among the research questions that can be asked on this topic, we mention: What is the connection between the religious life of the family and the moral education of children in the family, in non-formal or informal contexts? What should be the aims of moral education in these contexts (Engelen, Thomas, Archer & van de Ven, 2018), how can the evaluation be carried out in moral development (Kristjánsson, 2020)? What activities do children prefer to do, in age groups, with their parents and what do they prefer to do alone or with friends in their free time or on holidays, when their parents can be around them and spend more time together? In what circumstances do personal desires no longer respond or correspond to classical social responsibilities and in what way do the postmodern life coordinates of adolescents or young people mark their relationships with their parents? What are the defining elements in the formation of young people, so that they take seriously their own formation and, subsequently, the moral-religious education of children in their own family? Is it necessary to educate adolescents and young people to have their own family, their own home, respectively to live separately from their parents (Cope, 1922), depending on their particularities of socio-emotional development (Colareza & Neacșu, 2021)?

Regarding the new social ideals, we consider it is important to investigate, in relation to different categorical variables, the way in which the priorities in the social field are established, but also the impact they have on education. It can provide relevant data on investigative approaches based on research questions such as: Is there a link between dining together or separately, including in the city, going on holiday or short trips often / on weekends and different priorities that family members may have? What are the ways to achieve social and moral-religious education for children from families who spend little time together during the week? What is the role of men and respectively, of women, in establishing the ideals of the postmodern family, compared to those in the early period of industrialization? Is the discussion related to the feminization of men real, in the context in which, in education, female teachers work mainly? If so, what is the impact on the education for social and family responsibilities of adolescents (Șițoiu, Pânișoară, 2021)? What are the conditions for success in life that young people must observe in the family, compared to their emotional peculiarities (Sobe, 2012) and the ability to cope with difficult personal situations (Opriş & Opriş, 2012), to the goals of contemporary school, to the moral-religious norms etc.?

6. Discussions & Conclusions

The changes that appear both in terms of impact and social benefits, respectively costs, involved in successful family education make the training efforts carried out in the formal space to know more and more concerns and questions, starting with the way traditional roles of the family know significant changes in current society, compared to the early period of industrialization. The redefinitions regarding the relationship and the possibilities of cooperation between school and family, as fundamental institutions in the formation of the new generations for the family and for the social life, cannot be excluded from here. The research we consider a priority, previously marked at the level of topics, challenges or research questions, can get developments and deepening starting from the realities of education in the traditional family: the children's training to appreciate what the family can offer them, in harmony with those around you, educating the attention to the needs or expectations of other family members or people in the membership groups. All this in the current context, marked by the growing self-concern of young people, supported by the development of the Internet, the instant communication of information and images over very long distances. We consider that the extent to which young people have relevant information about the

implications of maintaining a home is not sufficiently researched, and the material difficulties they face when they end up living alone put them in difficult situations in family and society.

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10.24193/ed21.2021.21.07

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Educatia 21 Journal, (21) 2021, Art. 07
doi: 10.24193/ed21.2021.21.07
Research article

The Influence of Humor Styles on the Level of Academic Self-C Concept (ASC)

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Abstract

The use of humor by teachers can have a positive effect on improving the level of academic self concept and implicitly on motivation and academic results.
The present research aimed to investigate to what extent the humor styles practiced by teachers influence the level of academic self-concept (ASC) of students.
A number of 117 students who were enrolled in the master's programs in the field of public administration within the Faculty of Political, Administrative and Communication Sciences (FSPAC), Babeș-Bolyai University of Cluj-Napoca answered a questionnaire.
Our research shows that there is a link between the humor styles practiced by teachers and the level of ASC of students. Also, the findings indicate that the use of humor in the educational process can play a greate role, namely it can increase or decrease the level of ASC among students. In this sense, although the influence of students' humor styles on the ASC level of students is relatively weak, the connection is still significant.

Keywords:
academic self concept, teachers' humor, students, humor style.

Zusammenfasung

Der Einsatz von Humor durch Lehrer kann eine effektive Praxis zur Verbesserung des akademischen Selbstverständnisses und implizit der Motivation und der akademischen Ergebnisse sein.
Die vorliegende Untersuchung zielte darauf ab, zu untersuchen, inwieweit die von Lehrern praktizierten Humorstile das Niveau des akademischen Selbstkonzepts (ASC) der Schüler beeinflussen.
Als solches wurde ein Fragebogen verwendet, an dem 117 Studierende teilgenommen haben, die in den Masterstudiengängen im Bereich der öffentlichen Verwaltung der Fakultät für Politik-, Verwaltungs- und Kommunikationswissenschaften (FSPAC) der Babeș-Bolyai-Universität Cluj eingeschrieben sind.
Unsere Forschung zeigt, dass Unsere Forschung zeigt, dass es einen Zusammenhang zwischen den von Lehrern praktizierten Humorstilen und dem ASC-Niveau der Schüler gibt. Die Forschungsergebnisse zeigen auch, dass der Einsatz von Humor im Bildungsprozess eine große Rolle spielen kann, nämlich: Er kann das Niveau der ASC-Mong-Schüler erhöhen oder senken. Obwohl der Einfluss des Humorstils der Schüler auf das ASC-Niveau der Schüler relativ schwach ist, ist der Zusammenhang in diesem Sinne immer noch signifikant.

Schlüsselworte:
akademisches Selbstkonzept, Humor der Lehrer, Schüler, Humorstil.

1. Introduction

Humor is one of the main mechanisms by which a conducive learning environment can be ensured, and depending on the style of humor practiced by the teacher, it can increase motivation and academic performance. Still, the use of an aggressive style of humor can make the student avoid participating in the course due to lack of self-confidence, but also the tense atmosphere during classes.

According to Korobkin (1988), humor can reduce anxiety and the threatening nature of the course by changing the tone of the training process. Also, some researchers believe that humor can be used in teaching sensitive areas, such as Sex Education (Adams, 1974), as well as in teaching high-difficulty courses such as Statistics, Research Design, and Tests and Measurements (Berk and Popham, 1995).

The way of teaching in Romania, whether it is a high school or a higher level, is quite a rigid process, lacking in humor, an aspect that can be seen as a consequence of the low academic performance and motivation.

Literature and specialized studies indicate that students not only learn and understand much better from teachers who have a high level of humor (Buskist et al., 2002), but there is also the establishment of a

student-teacher relationship, but they also enjoy the learning process from them (Buskist et al., 2002). Thus, the use of humor can be an effective catalyst for teachers to encourage academic self-concept (ASC).

The aim of the research is to identify the extent to which teachers' humor styles influence the level of academic self-concept (ASC) of students. In other words, we tried to find out if the different styles of humor practiced by teachers in the educational process have a connection, respectively a positive or negative effect on the academic self concept (ASC) level of students.

We believe that depending on the style of humor used the concept of academic self can be positively or negatively influenced. Thus, we will briefly analyze the four styles of humor found in the literature.

2. Theoretical foundation

2.1. The humor styles

According to literature, humor is defined as any communicative instance perceived as humorous (Martineau, 1972), as a form of communication that produces a positive cognitive and affective response from listeners (Crawford, 1994, p.57), but also as a coping strategy, a defense mechanism or an interpersonal communication behavior.

The humor style indicates "the way in which behavior and stylistic features are achieved" (Martin, p.48, 2003) functions, forms or ways in which the individual uses humor (Martin, 2003, p. 51). Literature indicates four styles of humor amongst which two (affiliative humor and self-Enhancing humor) may have positive effects on ASC and the other two (aggressive humor and self-defeating humor) may have negative benefits on ASC:

- Affiliative humor

Practicing this style of humor aims to create a sense of cohesion, of fellowship, happiness and well-being. This style of humor is often used as a way to relax a critical situation, to amuse others by using jokes and involves the benign use of humor. In addiction, affiliative humor is found in individuals who tend to amuse others by telling jokes and funny stories and engaging in spontaneous play, in order to facilitate relationships and reduce interpersonal tensions (Lefcourt, 2001).

Thus, according to Kuiper, Grimshaw, Leite, and Kirsh (2004) affiliative humor styles were associated with higher self-esteem, better ability to understand the subject, higher performance and satisfaction.

Therefore, we can say that affiliate humor can have positive benefits on the concept of academic self, in the sense that the adoption of an affiliate humor by a teacher is positively correlated with a high level of ASC, positive emotions and academic results and is negatively correlated with the level of anxiety and depression in among students.

- Self-Enhancing humor

This style of humor is characterized by the use of jokes and humorous treatment of difficult situations being an effective way to cope with stress and at the same time it is a defense mechanism against other negative feelings.

Due to its characteristics it is believed that this type of humor refers to the fact that humor is used as a coping mechanism and is most consistent with the Freudian definition of humor as a healthy defense mechanism (Martin, Kuiper & Olinger, 1993).

At the same time it is characterized by the use of a coping strategy to regulate negative emotions and involves a humorous view of the realities of life (Kuiper et al., 2010). On the other hand, this style of humor is most often encountered in people who have the ability to laugh at themselves, the problem they face, precisely in the idea of putting in a positive light or difficult situation and to treat any problem positively. This style of humor contributes significantly to reducing stress, optimism, improving self-esteem, and people who resort to this style of humor are less prone to neuroticism.

- Aggressive humor

In terms of aggressive humor, Kuiper et al. (2004) showed that aggressive humor is negatively correlated with depression, and anxiety, low academic results and low self-esteem.

Aggressive humor is one of those styles of humor that has a negative impact on others, and is characterized by the use of sarcasm, ridicule, and teasing of others and is used to criticize and manipulate others (Kuiper, 2004).

In addition, aggressive humor is characterized by racism, sexism and is positively associated with high levels of neuroticism and lower levels of pleasure and conscientiousness. According to the literature, people who use this style of humor tend to have a higher level

of hostility and aggression and are more common among men.

Following the review of the literature, we can say that those who use aggressive humor are perceived as lacking concern and respect for others because they use course and vulgar language as well as sarcastic and mean spirited techniques when making fun of others (Kuiper et al., 2010). This aspect can be explained by the fact that aggressive humor is seen as having the role of division being the result of a constraint.

Thus, given the characteristics of aggressive humor, it has a negative effect on the level of academic self-concept.

- Self-defeating humor

This last style of humor is used by those people who tend to amuse others at their expense, make people laugh at their own weaknesses and even ridicule themselves, in order to get approval from other people (Martin, 2003). Although individuals with this style are seen as entertaining, there is an element of emotional neediness and low self-esteem in them that justifies the use of humor as a way of hiding negative feelings (Fabrizi & Pollio,1987).

Additionally, from a psychological point of view, this style of humor can be an unhealthy form of humor, and is sometimes used by the bullies' targets to try to avoid attacks and is positively associated with high levels of anxiety, depression, and psychiatric symptoms, but negatively associated with self-esteem, motivation, and psychological well-being. (Erickson & Feldstein, 2007).

Therefore, because the self-defeating humor is characterized by excessive use of contempt and cynicism and involves amusing others by satirizing oneself it can have negative effects on the academic self concept (ASC).

In conclusion, the effective use of humor by teachers can lead to increased levels of academic self concept among students depending on the style of humor adopted.

Moreover, the use of humor by teachers is even more beneficial in the current pandemic situation, given the development of online courses. According to studies, the online academic system is less efficient than the classic teaching system, it is characterized by lack of motivation, monotony, difficulty concentrating, digital difficulties (Raboca &Cotoranu, 2020), so using the humor during teaching hours can help improve to academic self concept.

Literature indicates four styles of humor amongst which two styles of humor (affiliative humor and self-enhancing humor) can have positive effects / benefits on ASC, being positively associated with a high level of academic performance, self-esteem, motivation. The other two styles of humor (self-defeating humor and aggressive humor) can have negative effects / benefits on ASC being negatively associated with lower self-esteem, greater depression and anxiety, and negative judgments of self-competence.

2.2. Academic Self-Concept (ASC)

Academic Self-Concept (ASC), in general, can be defined as the way in which individuals perceive their own academic abilities, respectively describes a student's perception of his own ability to interpret academic efforts and have academic results (Bong & Skaalvik, 2003; Trautwein et al., 2006). According to other studies, ASC is made up of a set of attitudes, beliefs, and perceptions that students have and which are related to their academic abilities and academic performance (Lent, Brown & Gore, 1997). Last but not least, Cokley (2000)) considers that ASC also includes a comparative assessment dimension in the sense that students assess their own academic attitudes and skills compared to other students.

From certain points of view, the interest for this concept is given by the fact that ASC can be considered a significant predictor of students' academic achievement. In fact, ASC can explain many aspects related to school functions, including not only aspects such as: student motivation, results of school and academic performance, persistence of tasks and self-regulation learning as well as those related to basic and transversal school skills such as be: reading, writing, communicating and solving problems. In this regard, a number of studies suggest that there is a significant correlation between ASC and student GPA and implicitly with academic achievement (Gerardi, 1990; Areepattamannil & Freeman, 2008; Ghazvini, 2011; Wu et al., 2021). Also, Dixson (2019) claims that the determination and involvement of students explained much less of the variation of GPA compared to ASC.

Regarding the factors that influence ASC, Cokley (2000) considers that both GPA and the quality of student-faculty interactions or class status are very good predictors of ASC. It should also be remembered

that Ferla et al. (2009) showed that ASC strongly influences students' academic self-efficacy beliefs, respectively ASC is a good predictor (and mediator) for affective-motivational variables.

In general, for measuring ASC, the instrument developed by Reynolds entitled "Academic Self-Concept Scale" (ASCS) is used as a measuring instrument - which was especially developed to assess the academic self-concept of college students. The interest in using this tool is that it has a high level of validity and reliability, confirmed by a large number of psychometric studies (Cokley, et al., 2003; Reynolds, 1988; Reynolds, 1980; Williams and Chung, 2013; Minchekar, 2019).

3. Research methodology

From a methodological point of view, the research is based on an opinion poll addressed to a number of 117 students enrolled in a master's programs in public administration at the Faculty of Political, Administrative and Communication Sciences (FSPAC), Babeș-Bolyai University of Cluj-Napoca.

Most of the respondents are in the second year of their master's program (table1). The research instrument used was the questionnaire. Respondents' answers were anonymous.

Table 1. Characteristics of the sampled population

Year of study	Nr. of students interviewed (%)
First year	46 (39,3)
Second year	71 (60,7)
Total	117 (100)

Also from a methodological point of view, the questionnaire used two large sections: the first section aimed to identify the humorous styles of teachers from the students' perspective. The evaluation of humor styles was done using the instrument called "Humor Styles Questionnaire" (HSQ) (Martin et al., 2003). HSQ consists of 32 articles divided into four dimensions, correlated with each other and referring to two styles of adaptive humor, positive and beneficial (affiliate and self-improvement) and other two negative and harmful styles (aggressive and self-defeat).

The scale used in the evaluation is a seven level Likert scale (1 = strongly against, 7 = totally agree). High scores for each dimension indicate high levels for that style of humor.

Section two aims to identify the level of ASC among students. Thus, to identify the level of ASC we used, as a measuring instrument, a modified variant of ASCS, namely (1) a short form of the original form of ASCS (ASCS-SF; Sweet, 2018); (2) the ASCS-SF measurement scale used is at seven levels (1 = strongly against, 7 = total agreement.) A high score identified indicates a high level of ASC, while a low score shows a low ASC level.

4. Results and discussions

In order to identify the link between teachers 'humor styles and students' ASC level, we used a statistical correlation analysis. Although the result of the correlation analysis (Table 2) shows that we can talk about a link between the humor styles practiced by teachers and the level of ASC of students, things are quite complicated.

On the one hand, not all humor styles have an impact on students' ASC levels. On the other hand, the effect of the impact is different in the sense that certain styles of humor have a negative impact on the ASC level of students, while other styles of humor have a positive effect.

In this sense, it is obvious that the practice of negative humor styles by teachers (Aggressive and Self-defeating humor style), although they don't have a great impact, contributes to the decrease of the ASC level of students. At the same time, the use of the affiliative humor style contributes to the increase of the ASC level of the students, although the influence is relatively small.

Table 2. Correlation analysis between different humor styles and ASC level of students

		Academic Self-Concept (ASC)
Academic Self-Concept (ASC)	Pearson Correlation	1
	Sig. (2-tailed)	
	N	117
Affiliative humor	Pearson Correlation	.365**
	Sig. (2-tailed)	.000
	N	117
Self-enhancing humor	Pearson Correlation	-.056
	Sig. (2-tailed)	.551
	N	117
Aggressive humor	Pearson Correlation	-.247**
	Sig. (2-tailed)	.007
	N	117
Self-defeating humor	Pearson Correlation	-.182*
	Sig. (2-tailed)	.049
	N	117

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

5. Discussions

Therefore, according to the literature there is a significant link between humor and academic self concept. Thus, there is a positive link between academic self concept and humor, a greater temporal stability of ASC and increased positive self-content (sociability) anddecreasednegative self-content (depressive personality) (Kuiper and Martin, 2009).

Also, a high level of humor among teachers can be positively associated with a high level of self-esteem, academic performance and lower levels of perceived stress.

From a certain point of view, research findings show that humor is used in the educational process can play a big role, namely: it can increase or decrease the level of ASC among students. In this respect, although the influence of students' humor styles on the ASC level of students is relatively small, the connection is still significant.

Therefore, we believe that it is important to pay attention and be aware of the type of humor used in the educational process. Basically, it is not the same for teachers in the educational process to use one style or another of humor.

If negative educational styles are used in the educational process, humorous types such as: Aggressive and Self-defeating, we must be aware that these are styles, among other things, by the fact that they can reduce the ASC level of students reduces and the level of achievements school and academic performance of students. In other words, we should not be surprised that among students, sooner or later there will be a lack of academic performance due to the use of negative humor styles.

At the same time, if we want to boost or increase the level of ASC and implicitly the level of academic performance of students, one of the honorable methods that can be used by teachers is to use, among other things, an affiliate style of humor.

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10.24193/ed21.2021.21.08

Adaptive coping strategies and mechanisms used by students to combat pandemic stress

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Educatia 21 Journal, (21) 2021, Art. 08
doi: 10.24193/ed21.2021.21.08
Research article

Adaptive coping strategies and mechanisms used by students to combat pandemic stress

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Abstract

The present study aims to investigate the adaptive coping strategies and mechanisms of students-future teachers in combating the stress caused by the pandemic. The subjects of the investigation were 58 master students, from the Faculty of Letters, University of Craiova, who are also studying to become teachers. The tool we used was an opinion questionnaire, through which we investigated the opinion of the subjects on the stated issue and we inventoried the ways they used to manage stress. We aimed to identify the most frequent emotional reactions of the students to the effects generated by the measures and restrictions imposed during the pandemic period, which the students critically analyzed, from the perspective of the caused shortcomings, but also the offered opportunities. We also investigated the students' opinion about the specifics of the teaching activity, carried out online, compared to the one face to face. The results obtained from the application of the instrument confirmed the research hypotheses.

Keywords:
stress; adaptive coping strategies and mechanisms; pandemic period; lockdown status; online activity.

Zusammenfasung

In der vorliegenden Studie sollen die adaptiven Bewältigungsstrategien und -mechanismen von Lehramtsstudenten bei der Bewältigung von Pandemiestress untersucht werden. Bei den untersuchten Personen handelte es sich um 58 Masterstudenten der Fakultät für Literatur der Universität Craiova, die sich gleichzeitig auf den Lehrerberuf vorbereiten. Das verwendete Instrument war ein Meinungsfragebogen, mit dem wir die Meinung der Probanden zu dem Problem untersuchten und die von ihnen verwendeten Stressbewältigungsmethoden erfassten. Ziel war es, die häufigsten emotionalen Reaktionen der Studenten auf die Auswirkungen der Maßnahmen und Einschränkungen während der Pandemie zu ermitteln, die die Studenten unter dem Gesichtspunkt der Unannehmlichkeiten und der gebotenen Möglichkeiten kritisch analysierten. Wir untersuchten auch die Meinung der Studierenden zu den Besonderheiten der Lehrtätigkeit, die online im Vergleich zu persönlichem Unterricht durchgeführt wird. Die durch die Anwendung des Instruments erzielten Ergebnisse bestätigten die Forschungshypothesen.

Schlüsselworte:
stress; adaptive bewältigungsstrategien und -mechanismen; pandemiezeit; abriegelungszustand; online-Aktivität.

1. Introduction

The pandemic period, caused by the SARS-COV-2 virus, has caused numerous effects, changes, both socially and individually. Society, as a whole, and each subsystem, has felt more or less these effects and had to find solutions, ways to overcome the difficulties. The medical problems, the threat of health, the need to comply with the imposed rules and restrictions can be considered as significant stressors on the population. Each individual has tried to find their own self-defense mechanisms.

The education system has also been affected by the effects of the pandemic. The school had to find solutions to allow the continuation of the fundamental activities, teaching, learning and assessment, thus, facing many difficulties related to the necessary infrastructure, the digital skills of both teachers and students, the need to adapt the didactic strategies used in face-to-face activities to the specifics of online education, to reduce the gap between the backgrounds of the beneficiaries (rural, urban), to provide solutions to the families and children with no material possibilities, to ensure digital literacy etc.

Beyond all these problems of the system as a whole, we cannot ignore the effects of this period on an individual level, as well as the ways in which students, teachers and school staff alike can be helped to get through this difficult period more easily. Perhaps for all the categories involved, the pandemic period has been a threat, a challenge, both due to the restrictions imposed, the stress caused by isolation, distancing, fear of illness and due to the need to adapt, in a very short time, to the specifics of online activities.

We are capturing these aspects in the context of academic activity, respectively in the field of the initial training of the students-future teachers. We are interested in their perception of the pandemic period, as well as the ways in which they managed to handle the stress caused by it. Both the stressors and the ways to diminish/ eliminate their effects specific, in general, to academic learning, acquire, in the new context, an increase in intensity and an increase in the frequency of manifestation.

2. Stress and the coping mechanisms

The concept of stress is, as difficult to define, as rich in meanings, semantic nuances. In trying to define stress, most people tend to describe how they feel or react to a stressful situation rather than saying what stress really is. Therefore, stress is perceived differently by different people. For some, stress represents the events or situations that cause them tension, pressure or negative emotions, such as anxiety or anger. For others, it is the answer to these situations (Baqutayan, 2015, pp. 479-480).

According to the first definition of this concept, offered by the "father" of stress, Hans Selye (apud Fink, 2017, p. 4), we can consider stress as the non-specific response of the body to any request.

From a psychological perspective, stress can be considered a mental state, felt as pressure or tension (Shahsavarani, Abadi, Kalkhoran, 2015, p. 230). The authors cited above state that it is desirable to have a low level of stress, which does not affect our performance in the activity. They also consider that, beyond the negative, well-known hypothesis of stress, one can also speak of a positive stress, which can be an important factor of motivation, adaptation and reaction to the environment. Otherwise, in the variant of a high level of stress, it can have biological, psychological, social consequences (Shahsavarani, Abadi, Kalkhoran, 2015, p. 230).

Stress can be caused by many and various factors or causes. Mazo (2015) makes a list of stressors that act on students, influencing their activity or academic performance. Here are some of them: tests, examinations; work tasks/ homework; school projects; practical/ demonstrative activities; presentations, speeches; family problems; conflicts; sentimental problems, deceptions; responsibilities at home; long distance between school and home; the high expectations of the teachers; strict, rigid parents; poor health; school rules/ policy (Mazo, 2015, p. 75).

The effects of stress on the body are treated in numerous studies. The effects can be physiological, psychological, behavioral. Mazo (2015, p. 76) analyzes, in a research, some of the most common effects: insomnia; poor performance at school; irritability; headaches; fatigue; sadness, the feeling of loneliness; nervousness; low appetite; absenteeism; late performance of tasks, homework; feelings of insecurity; an attitude of rebellion, revolt, conflict.

Some authors (Al Dubai, Al Naggar, Al Shagga, Rampal, 2011) group stressors into academic factors, which are related to the school activity of the pupils or students and non-academic factors, which address social, family, financial issues.

These effects are amplified and intensified, in the context of the pandemic period, by the conditions and restrictions imposed by it. Depression and anxiety are considered to be among the most common symptoms, which has led to an increased interest from the researchers (Mariani et al., 2020; Kecoevic, Basch, Sullivan, Davi, 2020).

In crises, stressful events, each person changes, regulates their own emotions, behaviors, way of thinking, through a voluntary effort, which can be considered as a coping strategy (Compas et al., 1999, apud Liang , Delvecchio, Buratta, & Mazzeschi, 2020).

Regarding the ways of stress management, specialized literature presents a series of mechanisms, focused either on the problem, on the situation or on the emotional dimension of the approach to the situation (Lazarus et al., 1986, Carver et al., 1989, apud Baqutayan, 2015, pp. 482). Following the research, the author proposes a list of strategies or mechanisms, grouping them into the two categories mentioned (Table 1).

Table 1. Stress management mechanisms

	Situation/ problem centered mechanisms	**Mechanisms focused on the emotional state**
1	Active coping	Seeking social support for emotional reasons
2	Planning	Positive reinterpretation and development
3	Retention coping	Acceptance
4	Seeking social support for instrumental reasons	Denial
5	Behavioral non-intervention	Refugee in religion
6		Focusing on emotions and expressing them
7		Mental non-intervention
8		Humour
9		Alcohol/ drug use

Source: Baqutayan, 2015, p. 483

In agreement with Mazo (2015, p. 77), we are mentioning other ways used to control stress: meetings with friends; seeking advice from a friend or classmate; watching TV shows or movies; computer use; emotion control; involvement in activities that keep him/ her busy; music; prayers; asking for help from parents; concealment, masking reactions or emotions; seeking the help of a school counselor or teacher. Unfortunately, some people use alcohol or drugs in stressful situations in order to reduce the emotional discomfort caused by the event or stressor.

Some authors (Chandra, 2021) mention emotional intelligence as a coping mechanism/ strategy of academic stress, in the context of the pandemic.

Let us list some tips/ recommendations that can support students in managing the stress caused by online activities (after Field, 2020, pp. 8-11):

- Ask the students about tools and platforms!
- Involve the students in class leadership!
- Favor asynchronous approaches!
- Use affordable technologies!
- Temper your expectations!
- Share your own experiences!
- Provide support and resources!
- Create opportunities for the students to process information!
- Don't forget about students with disabilities!
- Take care of yourself, while also providing a role model for the students!

The American Psychological Association (2020, pp. 1-2) recommends several ways to control pandemic stress:

- Practice self-care;
- Find ways to focus;
- Seek out social support;
- Help others cope;
- Find ways to manage disappointment;
- Limit your media consumption;
- Focus on things you can control.

Most of the time, stress management can be achieved through one's own self-control efforts or through self-imposed activities, which could diminish the state of emotional discomfort. In some situations, however, the people in question may seek the support of a specialist (counselor, psychologist, psychiatrist). The difficulty of controlling the effects of stress may be greater in children and adolescents, amid poor self-control. The support of the family, of the teachers must be substantial.

3. The design of the research

We conducted an empirical research, whose **aim** was to identify ways, mechanisms and

coping strategies used by the students to manage difficult situations during the pandemic.

The objectives we pursued were the following:

- Knowing the extent to which students consider that the pandemic period affected or influenced their school performance, learning activity in general;
- Identifying the most common emotional reactions of the students to the stress caused by the pandemic, as well as the extent to which they managed to handle stress;
- Highlighting the students' perceptions of the effects of online activities, compared to those performed in the face-to-face system;
- Inventory of the main shortcomings, disadvantages of the pandemic period, but also of its possible opportunities.

In accordance with these established intentionalities and in order to confirm them, we

established three working hypotheses, the truth of which was proven through the actions carried out with the target group:

1. The pandemic period and the conditions/ limitations imposed by it (distancing, isolation, danger of illness and awareness of its effects) caused significant emotional reactions among students.

2. There is a link between the emotional effects of the pandemic and the academic performance of the students.

3. The awareness of emotional states/ reactions, as effects of isolation or distancing favors the possibility of identifying adaptive mechanisms/ strategies for stress management.

In order to achieve the proposed finalities and to verify the true value of the hypotheses, we used **a sample of subjects** consisting of 58 master students from the first year, from different master programs within the Faculty of Letters, University of Craiova. In parallel they went through the psycho-pedagogical training program, in order to develop the skills necessary for the teaching profession.

The research methodology

In order to conduct the investigation, we used the survey method based on the questionnaire, the tool being applied to students online, through Google forms.

The description of the instrument

The questionnaire realised by us included 12 items varied in terms of response, from those with closed answers (single choice-items 1, 2, 4, 9, 10, 11, 12 or multiple - item 3), to those with semi-closed (item 6) or open (items 7 and 8) answers. Through this variety of question formulation, we aimed to reduce the shortcomings that, as we know, each category of item has, as well as to cover the entire issue, so that the information provided by the subjects allows an overall assessment, as objective as possible, of their opinion on the issues pursued. In this respect, some items in the structure of the questionnaire were considered to be control items. We also asked the subjects for factual data, which we considered relevant for the research (specialization, age, sex, birth place)

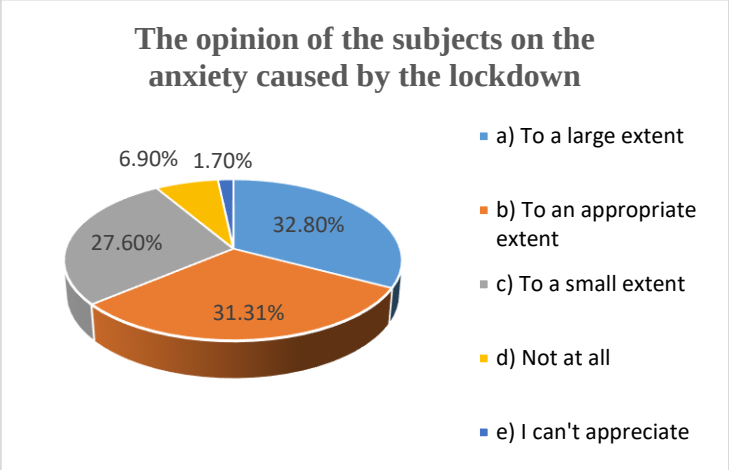
4. Results and discussions

We are now presenting the results of the investigation, grouping them according to their contribution to the confirmation of the truth value of the three hypothetical statements formulated.

4a. In order to test the first hypothesis, which states that ***The pandemic period and the conditions/ limitations imposed by it (distancing, isolation, danger of illness and awareness of its effects) caused significant emotional reactions among students***, we are presenting the results recorded in items 2, 3, 5 and 7 of the opinion questionnaire applied to master students.

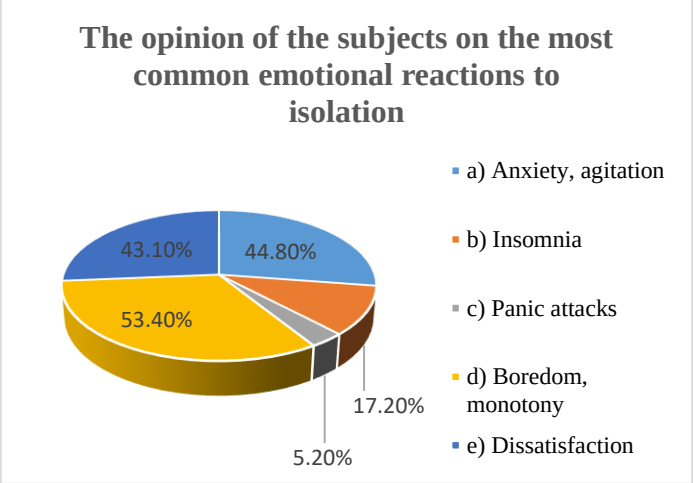
For item no. 2, regarding the anxiety caused by the lockdown state, a third of the respondents (32.8%) mentioned that this fact was largely achieved, and 31% - to an appropriate extent. 27.6% consider that the state of anxiety manifested itself to a small extent. Only 4 subjects (6.9%) mentioned that the pandemic situation did not affect them, and 1.7% could not appreciate it (see figure no. 1):

Figure no. 1. The opinion of the subjects on the anxiety caused by the lockdown



Item 3 of the questionnaire asked the subjects to mention the most common emotional reactions caused by isolation, this being a multiple choice item. Figure no. 2 presents the answers of the subjects to this item.

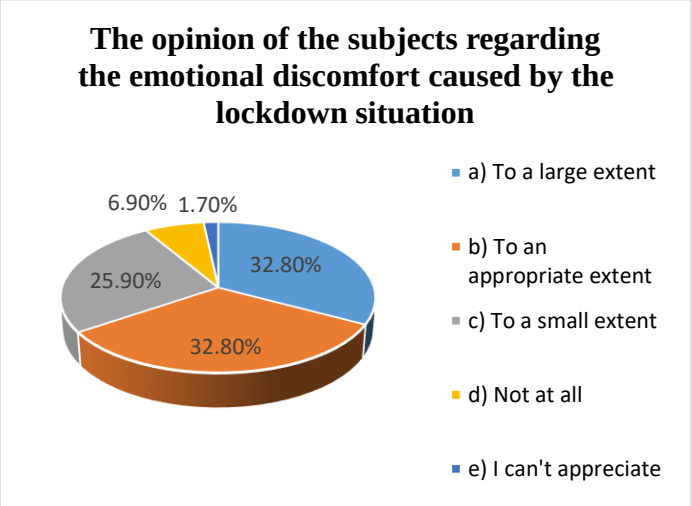
Figure no. 2. The opinion of the subjects on the most common emotional reactions to isolation



As there can be seen, the most commonly mentioned reactions are boredom and monotony, restlessness and agitation and dissatisfaction.

For more than 60% of the subjects, the rules imposed by the state of lockdown caused them emotional discomfort to a large extent (32.8%) and to an appropriate extent (32.8%). Figure no. 3 shows the way in which the answers were distributed on the other variants as well.

Figure no. 3. The opinion of the subjects regarding the emotional discomfort caused by the lockdown situation



Item 7 was an open-ended one. Here are the most common states, negative emotions, that the subjects felt during the pandemic period:

- Anxiety, agitation, fear, boredom, confusion, depression, loneliness, high stress
- Lack of freedom, communication with colleagues, socializing, family events
- Social distancing, health care, certain restrictions.
- Emotional discomfort caused by non-compliance with covid protection rules at work
- Decreased ability to concentrate on courses
- Monotony, uselessness, agitation, panic
- Insufficient training in working on online platforms;
- Lack of direct interaction (face to face);
- Much higher volume of work in solving tasks;
- Reduction of attention, sedentarization, reduction of motivation
- Impossibility to practice outdoor recreation activities; the impossibility to go to the theater, opera, various events, etc .; the impossibility to interact face to face with many of the acquaintances, some of the teachers, colleagues, etc.
- Fear of getting sick and transmitting the disease to others.

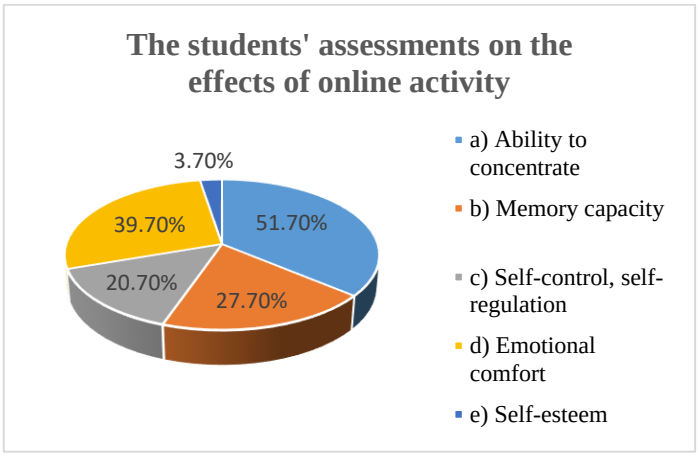
As there can be seen from the answers provided by the students, they mentioned negative non-academic emotional reactions caused by the pandemic, but also academic states and emotions, determined by the need to carry out teaching activities online. The lack of interaction with their teachers and colleagues are also mentioned in the students' responses.

4b. In order to test the second hypothesis, we are presenting the results obtained in items 1, 6, 9 and 10.

Thus, in item 1, the subjects appreciated to what extent the pandemic period affected their school activity. 43.1% of the subjects mentioned that this fact happened to a large extent, 27.6% - to a small extent, and 22.4 % - to an appropriate extent. Only 6.9% thought that this period did not affect them.

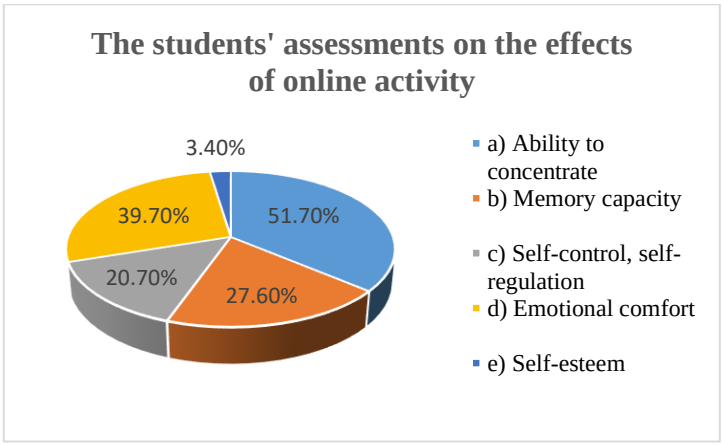
Regarding the effects of online activity compared to the face to face one, the students mainly mentioned the ability to concentrate (51.7%) and the emotional comfort (39.7%). The complete answers of the subjects to this item can be viewed in figure no. 4.

Figure no. 4. The students' assessments on the effects of online activity



To what extent the physical distance and the absence of interaction with teachers affected the school performance of the students, we can find out from the analysis of their answers to item no. 9. We are presenting, through figure no. 5, the way in which the answers to this item were distributed.

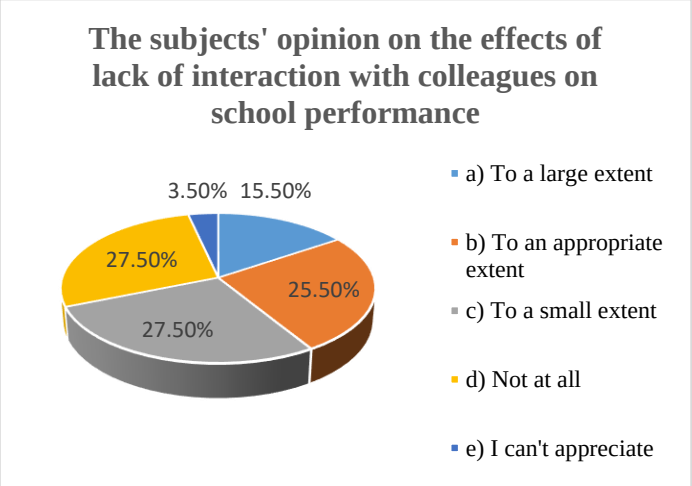
Figure no. 5. The subjects' responses to the effects of physical distance and teacher interaction on their school performance



As you can see, most answers are distributed on the first 3 answer options.

If regarding the lack of interaction with the teachers, the students appreciated that it influenced the school performance, in terms of the effects of the lack of interaction with the colleagues on the same performance, only 15.5% of the students mentioned that this was largely the case. 27.6% chose the "small" option and also 27.6% - the "not at all" option. The complete results are shown in figure no. 6.

Figure no. 6. The subjects' opinion on the effects of lack of interaction with colleagues on school performance



4c. The last hypothesis of the research aimed at confirming the statement ***Awareness of the emotional states/ reactions, as effects of isolation or distancing favor the possibility of identifying adaptive mechanisms/ strategies, stress management***.

In order to verify this statement, we are presenting the results obtained in items 4, 8, 11 and 12.

Item 4 required the subjects to self-analyze the possibility of managing the emotional state caused by the pandemic. 37.9% appreciated that they largely managed this emotional state, and 43.8-to an appropriate extent. 10.3% chose the option - to a small extent, and 3.4% could not appreciate.

Item 8 was an open-ended one and it asked the students to mention 3 opportunities offered by the pandemic period. We are summarizing in the following, the most frequent answers:

- more time spent with the family
- more time for rest
- the possibility of doing pleasant, favorite, relaxing activities (for example, reading, watching movies or TV shows)
- understanding of how important people and socialization are
- easier and faster access to information and teaching materials, better attendance (participation) in courses
- diversity of information sources
- real-time information exchange
- improving digital skills
- taking exams in minimum stress conditions
- developing one's own projects, practicing several activities at the same time
- saving time spent on travelling
- financial savings, as a result of working at home.

There were also students who mentioned that they did not find the advantages or opportunities of this period.

The last 2 items of the questionnaire aimed at knowing the opinion of the subjects regarding the stressful character of the didactic activities carried out online, respectively of the exams carried out in the same way. If in the case of teaching activities, the opinions are relatively balanced on the first two answer options (Yes, they are less stressful - 41.4% and No, they are not less stressful - 44.8%), regarding the evaluation, 62. 1% of the subjects consider that it is less stressful in the online version than face to face and only 34.5% say the opposite.

According to the results presented, we can consider that all the hypothetical statements made have proved their value in truth.

5. Discussions

The investigation we carried out aimed to find out the effects that the ongoing pandemic period has had, so far, on students, on their learning activity, on their school performance. We were able to make an inventory of the most common effects of the pandemic on the emotional state of the subjects, on their ability to concentrate, to remember. The answers of the students highlighted especially the psychological and behavioral reactions. In addition to highlighting the negative effects and consequences caused by the pandemic, some of the respondents also stressed the opportunities that the more time spent at home had.

Also following the application of the opinion questionnaire, we were able to identify coping mechanisms and strategies, used in managing stressful situations, in reducing the negative effects of isolation, distancing, in finding ways to ensure their emotional comfort, well-being. For most of the subjects, stress management was done through their own mechanisms, without the need to call on people specializing in counseling or psychotherapy.

The results of the applied research tool confirmed our hypotheses, while providing relevant examples and concretizations. Viewed from the perspective of future teachers, the issue of effective stress management is even more important, given their basic role, perspective, that of trainer, personality educator of the future students, who must be trained in the spirit of this inner discipline and self-control, which reduces the harmful effects of potential stressors. Beyond the pandemic period we are going through, which has often potentiated the effects of stress, daily life, academic activity, it can itself be a source of stress. However, students-future teachers must learn to control the effects of stress or, possibly, to turn certain factors into sources of positive stress.

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10.24193/ed21.2021.21.09

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Educatia 21 Journal 21 (2021)

Educatia 21 Journal, (21) 2021, Art. 09
doi: 10.24193/ed21.2021.21.09
Research article

How teachers contribute to student success in completing study programs

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Abstract

The present study analyzes the contribution that teachers, as important pedagogical factors, have in achieving success in the academic learning of students. With age, there comes a greater autonomy of the educated, and during the university studies, a maximum of the students' level of acquisitions is reached. Even if the most important factors in attending and completing studies are internal, and success is a relative, difficult situation to quantify, it is necessary to analyze it objectively, identifying the students' perceptions of the external support from the teachers. From an applicative point of view, our contribution consisted in verifying the extent to which the communication and didactic evaluation components are valued, by organizing focus groups, by applying appreciation scales to a sample of students preparing to become teachers, at the University of Craiova. The subjects responded to the request to perform reflective-appreciative exercises on themselves and on the activity of their teachers in the academic year 2020-2021. They indicated the degree of satisfaction they attribute to the way they were helped in: conducting didactic communication, experiencing the feeling of belonging to the university environment, applying a correct evaluation, heading towards academic success. The ways in which teachers contribute to the success of their students have proven their usefulness and can be transformed into directions of action. Teachers make it easier for young people or adults in the university environment to make the most of their potential, both through quality teaching and through encouraging evaluation.

Keywords:
students; professors; success; support; objectivity.

Zusammenfasung

Diese Studie analysiert den Beitrag, den Lehrende als wichtige pädagogische Faktoren zum Erfolg des akademischen Lernens von Schülern haben. Mit zunehmendem Alter besteht eine größere Autonomie der Ausgebildeten und während des Studiums wird ein Höchstmaß an Erwerb von Studierenden erreicht. Auch wenn die wichtigsten Faktoren in Beteiligung und Abschluss des Studiums, interner Natur sind und der Erfolg eine relative Situation ist, die schwer zu quantifizieren ist, ist es notwendig, diese objektiv zu analysieren und die Wahrnehmung der Studierenden an die externe Unterstützung durch die Lehrkräfte zu identifizieren. Aus applikativer Sicht bestand unser Beitrag darin, die Wertschätzung der kommunikativen und didaktischen Evaluationskomponente zu überprüfen, durch die Organisation von Fokusgruppen, durch die Anwendung von Bewertungsskalen an einer Stichprobe von Studenten, die sich darauf an der Universität von Craiova vorbereiten, Lehrer zu werden. Die Probanden kamen der Aufforderung nach, im Studienjahr 2020-2021 reflexiv-anerkennende Übungen an sich selbst und an der Tätigkeit ihrer Lehrenden durchzuführen. Sie gaben an, wie zufrieden sie waren, mit der Art der Förderung sie bekommen haben in : die Entwicklung der didaktischen Kommunikation, das Zugehörigkeitsgefühl zum universitären Umfeld, die Anwendung einer korrekten Evaluation, die Orientierung am Studienerfolg. Die Wege, auf denen, die Lehrkräfte zum Erfolg der Schüler beitragen, haben sich Ihre Nützlichkeit bewährt und kann in Handlungsanweisungen umgesetzt werden. Lehrerinnen und Lehrer erleichtern es jungen Menschen oder Erwachsenen im akademischen Bereich, ihr Potenzial voll auszuschöpfen, sowohl durch einen qualitativ hochwertigen Unterricht als auch durch die Förderung der Evaluation.

Schlüsselworte:
Studenten; Lehrer; Erfolg; Unterstützung; Objektivität.

1. Introduction. Quantifying academic success

Success is a very relative term, because it is best known to the person experiencing it. In the academic environment, it does not necessarily mean obtaining high grades. Failure has a strong negative emotional connotation, the term unsuccess being preferred, because it implies the possibility of recovery. We understand that unsuccess is no longer "only a pedagogical problem, but a social one, too", as Sălăvăstru (2004, p.229) pointed out, a problem of adapting to the actual tasks, relationships and institutional environment. It can exhibit itself in simple or serious forms, the serious ones determining the abandonment of studies. The complementarity of the internal-external determinants, of the subjective-

objective perceptions of success is often affirmed, especially when success is related to the completion of study programs and the meaning extends to professional success: ,,Measures of professional success provided by surveys on higher education graduates can be divided into objective (eg income or professional position) and subjective (eg job satisfaction, reported use of knowledge and skills, work autonomy) indicators. ” (Schomburg, 2007, p. 35).

In students, the study program consists of correlated curricular units of teaching-learning-research-practical applications and assessment, which provide a certified qualification, and the Romanian Education Law (2011), with subsequent amendments, shows that a student's academic success along a study program is determined by summative assessments under the form of an exam and by continuous assessment. Statistically, a large number of Romanian students complete their studies successfully. In the Periodic Public Report of the Romanian Ministry of Education, having as reference the year 2017-2018, we find that, out of a total of 405.6 thousand students enrolled at the beginning of 2016/2017 in the undergraduate university education, in the records at the end of the year they found 367.9 thousand (90.7%). Of these, 344.5 thousand (84.9%) promoted, and a share of 5.8% were declared repeaters and/ or with the situation unfinished. The highest promotion rate was recorded in full-time and private education. Of course, such quantitative data must also be interpreted qualitatively, in a contextual way. The “successful graduates” indicator is awarded for the category of graduates who, after completing their higher education, have obtained a diploma (for example, bachelor's degree, master's degree, doctoral degree). In 2019, the European Commission's Eurostat Barometer (2020) confirmed the directly proportional correlation between the level of education promoted and employment in the labor market, with a rate of 84.8% employment at EU level, much higher than the people with a lower level of training who do not hold these certifications.

Most analyzes in the field of literature have focused on predictive or correlational aspects of success in studying, and in some synoptic theoretical substantiations are presented the subordinate themes, inventories of standardized tools for measuring success (in York et al., 2015) or ways to support students to complete their studies, as a maximum level of success and support strategies support performing individual tasks, as a minimum level of success (in Ifenthaler & Yau, 2020).

Our choice to address a theme related to the contribution that university teachers make to the success of the students started from the fact that universities are seen as essential institutions and organizations, capable and responsible for implementing change. In order to achieve this, improving training is one of the axes of accumulatingon results, through a kind of teaching in accordance with the way learning is done (Biggs & Tang, 2011). Modern teachers have multiple roles: they are experts in their specializations, initiators and organizers of training situations, responsible for a pleasant socio-affective climate during the activities, they are the people who can motivate or encourage students, facilitators of accessing difficult content, such as coaches are, when they focus on achieving short-term goals, on engaging in solving tasks or mentors, when there is "mutual sharing of formative events, challenges, successes and failures (...)." (Stan, 2004, p. 30)

2. Theoretical foundation

What is success? In a well-known definition, achieving school success refers to the acquisition of skills specific to a particular educational level (York and others, 2015). The achieved results (Harackiewicz and others, 2002; Snyder and others, 2002; Tinto & Pusser, 2006; Tracey and others, 2012, according to York and others, 2015, pp. 13-15) and the institutional persistence, that is the fact that people continue their studies (Inoue-Smith, Y., 2020, p. 52), are the equivalent of training success. Success in studies is correlated or not with high chances of success in life, because the concept of successful life, even happy, is broader, personalized and goes beyond the training activity at a higher level or finding employment.

If in the past, the outcomes of learning were related to performance, as an articulated suite of proposed and achieved goals, with a minimum and maximum level of accomplishment of tasks, now education is concerned with skills training, through a mobilization of cognitive resources, which guide decision and action (Perrenoud, 2001; Delaunay, 2006). In our opinion, the success of the students must be considered the situation of having competencies, developed as solutions to problems, by activating a set of knowledge, skills and attitudes (De Ketele, 1996, according to Manolescu, 2010).

2.1. Priority internalist explanations

Garcia (2001) included among the competencies involved in academic success, as adaptation to this environment - the ability of the students to self-regulate, that is the degree to which they actively participate in the learning process. Self-regulation is specific to students (Zimmerman, 2002), and in the context of online training, which is becoming more and more pronounced in higher education, such a perspective is all the more desirable. Starting from their own expectations, Bandura and Adams (1977) focused on self-efficacy, in the sense of one's belief in the possibility of performing behaviors that will produce the expected results. The perception of self-efficacy has an impact on obtaining results. We deduce that the self-confident aspect can also be transferred in the case of success in the gradual approach of study disciplines and continuous or final evaluations.

In the model of global success, Crețu (2009) showed that internal factors are essential for the manifestation of excellence. The multivariate analysis made by the authoress, the bond with the axiological plan, understanding the concept as an individualized construct, with impact on personal life, highlights the need to socio-emotionally support and capitalize on the efforts of gifted people, by advising them. From another perspective, according to Kappe and van der Flier (2012), in achieving success in studies, conscientiousness has proven to be a much more important factor than intelligence.

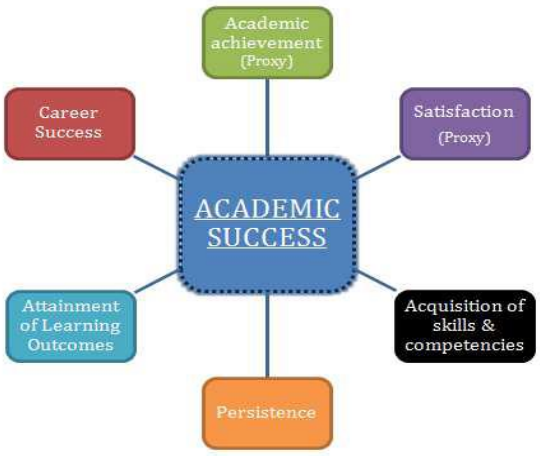
2.2. The double determination of success

Some studies have shown a directly proportional relationship between the communication skills of the teachers, understood as supportive communication, favourable to academic success, by increasing the results (Khan and others, 2017). The personal characteristics of the students maintain their dominant role, therefore, the effectiveness of teachers (Khurshid, 2014), following the collaboration with students, is an important variable, which is yet located in the background, being framed in "the institutional support" (Khurshid, 2014, p.45). It is, therefore, recommended that teachers provide their students with the socio-affective support or the inspirational model, that follow certain extracurricular activities. The student-centered approach is characterized by the presence of innovative teaching-learning-assessment methods, which aim to promote learning through communication with the teachers and other students involved in the learning process. These pathways consider the students to be active participants in their own learning, developing transferable skills, such as problem solving, critical thinking, and reflective thinking (Attard, Di Iorio, Geven & Santa, 2010, p. 7). Through these, the focus on students also meets academic success.

When referring to visible learning, Hattie (2009) argued that school should be built on what needs to be learned, if it is to continuously gather evidence of this learning and use this data to better meet the needs of learners, through systematic training and to improve the collective and individual professional practice of teachers. Therefore, designing teaching according to learning styles and adapting to the interests, requirements, difficulties of the students is also an opportunity to contribute to their academic success. We note that, even in the case of the students who come from disadvantaged socio-economic backgrounds, the teacher comes with real help in achieving success (Osman, Ydhag & Månsson, 2020). The fact that learning, as a complex activity, is determined by several factors, makes exactly the way the variables combine and influence it to determine the level of success (Mogonea & Mogonea, 2018).

An interesting model of academic success, proposed by York and others (2015), summarizes the main aspects with which it correlates (Figure 1) and confirms that it is necessary to consider the perspective of the students on this aspect, which aims at directly. Academic success is closely related to: academic achievement, satisfaction, acquisition of skills and competencies, persistence, attainment of learning outcomes, career success (see Figure 1).

Figure 1. Revised Conceptual Model of Academic Success (York, Gibson & Rankin, 2015, p.5)



Taking into account the need for persistence and completion of studies, the concept we adhere to is that

student success is doubly determined, important in terms of human resources being: motivation, effort, capitalization of personal qualities, which students must be aware of and use effectively, as well as opportunities for external support, from teachers or other significant colleagues.

3. Research methodology

3.1. Assumptions. Our research-action strategy, focused on qualitative tools, was built around the hypothesis that: For a successful learning, students must have created the well-being, that mental pattern or setting in which they accept and enjoy learning. In higher education, especially reorganized online, the situation depends on both them and the important pedagogical factors: teachers, through technical support, guidance, encouragement, the way they communicate and relate to them, through the suggestions and adjustments that appear after the evaluation. Thus, the students overcome the initial resistance/insecurity, participate in activities, apply the teachers' recommendations, maintain an intrinsic motivation in the long run.

3.2. Sample of subjects and content. In the academic activities within the training program for the teaching profession of a sample of 111 students from the University of Craiova, the approach of general education and classroom management gave us the opportunity to discuss how the causes of academic success are attributed, to find out what the evaluations are in relation to what the teachers offer them. Due to the specifics of the specialization of studies and the training as future teachers with specializations in the field of Foreign Languages (English, French - main), the sample included, mostly females (78%). The disciplines Fundamentals of pedagogy. Curriculum theory and methodology; The theory and methodology of training, The theory and methodology of evaluation, respectively The management of the class are fundamental, obligatory disciplines, in the curriculum of the students who are doing their initial psycho-pedagogical training for semesters 2, 3 and 5 of studies, but they go in their specialization through at least 12 other fundamental disciplines, specialized and optional, so they have a curriculum rich in disciplines and in number of hours.

3.3. Methodology used. We were interested in how teachers intervene and provide help, as people with responsibilities for organizing training and harmonizing academic relationships. Therefore, we aimed to know the students 'perception about the extent to which teachers' interventions contribute to their results in the study programs. The research was conducted through: organizing focus groups (Krueger & Casey, 2005), introducing formative-experimental measures, and then, using the semantic differentiator, adapted from Osgood and others (1957), accompanied by analysing promotion in exams in the academic year 2020-2021. These approaches were applied to students in the first, second and third years of undergraduate studies. We resorted to an adaptation of the semantic differentiator with the intention of measuring, at a subconscious level, the appreciation of some concepts related to academic success, in a variant that is as easy and fast as possible for the subjects included in the sample (1=very much for the positive adjective; 2= much for the positive adjective; 3= a little for the positive adjective; 4 = medium; 5 = a little for the negative adjective; 6 = much for the negative adjective; 7 = very much for the negative adjective). Thus, the questions in the questionnaire verified the following aspects: if their teachers assessed them correctly and gave them feedback at the end of the first semester; if the students are satisfied with the quality of the didactic communication; if they had the feeling of belonging to the academic environment; if their teachers guided them to success.

4. Results obtained

4.1. In the case of focus groups, the responses received referred to the following:

- Because they passed the exams in the first semester, the students considered that they were successful in learning, and the conditions for their success were: planning, perseverance, analysis of the formulated tasks, actions to solve them, reflections for improvement. A difficult situation, which was invoked by the students, for whom they needed guidance, was how to better manage their effort and time, in the conditions of online activity.
- In identifying the causes of the occasional learning failures, most students listed the internal causes: poor learning, underestimation of the importance and difficulty of the subject, their superficiality in approaching it. We notice that the assignment of causes was more internal. Very few students explain their success in external positions, acknowledging that their learning effort was small, but the exam subjects were easy.
- In most cases, the alternation of success and failure depends on the interest in the educational subject and the willingness to make the required

efforts. The students showed that the learning activity is an unpleasant activity, due to the constraining character it involves, when the contents are difficult and voluminous.

4.2. As a result of the focus group discussions, the students who were part of the natural sample, with whom we carried out teaching activities, were guided to become aware and get more support from their teachers during the second semester and at the end of it, when they are demotivated or fail to learn, by intensifying communication, by asking for feedback. As learning progress is staged, the request to reflect (Light & Cox, 2001) and to establish the essential criteria/ requirements for completing written and applied work was a measure that they agreed on and which the students followed.

4.3. In the case of the students in our sample, the minimum understood success, as persistence, participation and solving tasks, also illustrated as graduation rate in exams was 89% of the total number of students.

After the exams, in the post-test stage, the majority frequency of students valuing aspects related to the four dimensions proposed by us, through the Osgood scale, had the following configuration (Tables 1-4):

Table 1. Correct evaluation and feedback

Adjective	The value 1	The value 2	The value 3	The value 4	The value 5	The value 6	The value 7	Adjective	The total number	The number whith maximum frequency
Sweet	8	29	23	21	14	12	4	Bitter	111	29
Good	11	26	28	24	15	6	1	Bad	111	28
Correct	7	31	27	21	14	8	3	Incorrect	111	31
Beautiful	9	27	30	21	16	4	4	Ugly	111	30
Active	7	31	27	21	14	7	4	Passiv	111	31
Strong	10	26	25	21	16	7	6	Weak	111	26
Coherent	10	26	23	22	17	8	5	Incoherent	111	26
Simple	9	21	23	22	26	7	3	Complex	111	26
Warm	10	23	25	21	17	13	2	Cold	111	25
Bright	10	23	25	21	17	14	1	Dark	111	25

Legend: 1=very much for the positive adjective; 2= much for the positive adjective; 3= a little for the positive adjective; 4 = medium; 5 = a little for the negative adjective; 6 = much for the negative adjective; 7 = very much for the negative adjective.

From a socio-emotional point of view, success can be experienced subjectively, appreciated by the students themselves or it can be recognized, felt unanimously, from the outside, evaluated by evaluating teachers, other evaluators, colleagues. Making a correct assessment and giving feedback is useful for differentiating between real and false success stories. Moreover, the cases of true failure are delimited, compared to false failures. Consequently, it can be assessed, depending on the consistency, complexity of the evaluation, whether the success is situational or general, episodic or lasting.

Table 2. Didactic communication

Adjective	The value 1	The value 2	The value 3	The value 4	The value 5	The value 6	The value 7	Adjective	The total number	The number whith maximum frequency
Sweet	8	16	25	30	18	10	4	Bitter	111	30
Good	8	29	24	20	14	12	4	Bad	111	29
Correct	10	23	26	13	20	12	7	Incorrect	111	26
Beautiful	10	22	25	14	11	19	10	Ugly	111	25
Active	11	30	25	14	12	14	5	Passiv	111	30
Strong	10	22	22	28	8	14	7	Weak	111	28
Coherent	10	21	24	10	31	7	8	Incoherent	111	31
Simple	20	31	23	10	17	7	3	Complex	111	31
Warm	13	29	25	20	10	12	2	Cold	111	29
Bright	9	29	24	21	15	12	1	Dark	111	29

Legend: 1=very much for the positive adjective; 2= much for the positive adjective; 3= a little for the positive adjective; 4 = medium; 5 = a little for the negative adjective; 6 = much for the negative adjective; 7 = very much for the negative adjective.

The module/common value for this component was 2 (much for the positive adjective). Generally, the students' perceptions, the satisfaction they experience after obtaining results determine the perceptions, expectations and strategies of their teachers. Mutual feedback evolves like a "snowball." Feedback has effects on improving the motivational status and increasing social interactions. With the development of the level of preparation of the students, they stated that they identified, with the help of the teachers, perspectives for the implementation in practice of the acquired experiences. An important formulated

comment was the students' desire to be evaluated not necessarily in a stimulating manner, but as objective as possible.

The most frequent attribution for this component of didactic communication was 2 (much for the positive adjective). The promotion of modernized communication, in which the students are partners and active participants in their own learning, develops their transferable skills, such as: problem solving, critical thinking and reflexivity. The students reported that they were interested in getting advice and guidance from their teachers, as highly specialized people, for the difficult topics. The teachers intervened to reorganize the contents, making them accessible. The students' suggestion for this aspect focused on organizing the communication, showing that it would be necessary to be more coherent, varied, involving more, not only those who stand out.

Table 3. Experiencing the feeling of belonging to the university environment

Adjective	The value 1	The value 2	The value 3	The value 4	The value 5	The value 6	The value 7	Adjective	The total number	The number whith maximum frequency
Sweet	9	26	27	23	15	7	4	Bitter	111	27
Good	11	26	28	24	15	7	0	Bad	111	28
Correct	12	23	22	22	25	6	1	Incorrect	111	25
Beautiful	18	21	20	24	21	5	2	Ugly	111	24
Active	11	17	29	22	17	11	4	Passiv	111	29
Strong	11	17	29	22	17	11	4	Weak	111	29
Coherent	10	17	26	25	27	4	2	Incoherent	111	27
Simple	14	21	28	25	14	6	3	Complex	111	28
Warm	14	23	26	24	13	9	2	Cold	111	26
Bright	14	24	23	22	12	10	6	Dark	111	24

Legend: 1=very much for the positive adjective; 2= much for the positive adjective; 3= a little for the positive adjective; 4 = medium; 5 = a little for the negative adjective; 6 = much for the negative adjective; 7 = very much for the negative adjective.

The students, who considered that they have the feeling of belonging to our institution, stated that they feel integrated into an environment where there is a requirement to study. They stated that they are proud of the region they belong to, that they adhere to its goals, specificity, traditions. At the socio-emotional level, they feel understood by their teachers and colleagues, they interact positively with them. The most frequent attribution of the students' appreciations for experiencing the feeling of belonging to the university environment was 3 (a little for the positive adjective). Descriptively, the affiliation comes from a connection with the spaces, the materials they meet at the university, in a curricular or extracurricular context, but, especially, with the people. Although they were spatially separated, the sense of belonging to the academic environment was created by the informal interest in their experiences, sustained involvement in various formal activities, synchronous or asynchronous participation in courses, seminars, laboratory activities, homework solving, technical support in accessing modern training platforms, the flow of guidance on preparing and taking exams, which made them invest effort in continuing their studies, to consider their teachers and colleagues close, due to the proactive, assertive, enthusiastic attitude of others.

Table 4. Orientation towards academic success

Adjective	The value 1	The value 2	The value 3	The value 4	The value 5	The value 6	The value 7	Adjective	The total number	The number whith maximum frequency
Sweet	9	21	28	23	21	8	1	Bitter	111	28
Good	10	21	24	25	23	6	2	Bad	111	25
Correct	10	21	23	25	24	6	2	Incorrect	111	25
Beautiful	11	22	22	26	24	5	1	Ugly	111	26
Active	9	21	27	23	21	8	2	Passiv	111	27
Strong	9	21	27	23	21	9	1	Weak	111	27
Coherent	8	22	24	26	21	8	2	Incoherent	111	26
Simple	9	21	23	26	20	8	4	Complex	111	26
Warm	10	23	25	21	16	14	2	Cold	111	25
Bright	11	22	26	22	18	8	4	Dark	111	26

Legend: 1=very much for the positive adjective; 2= much for the positive adjective; 3= a little for the positive adjective; 4 = medium; 5 = a little for the negative adjective; 6 = much for the negative adjective; 7 = very much for the negative adjective.

The overall value given most often for this component was 3.5 (between a little for the positive adjective and medium). The students' learning interests are diverse, and in a dual version they appear as choices between: an instrumental orientation, for those who learn from strictly pragmatic needs, being motivated from the outside (at the insistence of the family) and a deep orientation, based on intrinsic motivation, towards long-term acquisitions, for those who want to assert excellence, through learning. The first orientation, with extrinsically activated interests, predisposes to a superficial approach to learning, based on reproduction and, it is true, a small part of the students is satisfied with promotion, as a sufficient level of appreciation from the teachers. Most of the students wanted to get the best result. Orientation towards in-depth learning is desirable, as an orientation towards success. The students who adhered to the conception that success is a maximum achievement, appreciated those teachers who formulated, at the beginning of the activity, differentiated objectives and, through perseverance, maintained a culture of quality, communicated their standards, the possibilities for improvement, managing to be convincing to assume these values, progressively.

Beyond the inherent methodological limitations of the assessment scale instrument, whose responses revolved around the central trend or those of the sampling that had a small number of subjects, the general assessment we were able to formulate, starting from the quantitative data in the previous tables show that, in essence, the students with a specialization in Foreign Languages are satisfied with the evaluation and feedback of their teachers, with the way they communicate in the university environment (Tables 1 and 2). They confirmed to us that teachers have a strong influence in the relationship with university students.

The other two components − experiencing the feeling of belonging and the orientation towards academic success have, in the students' appreciation, average but lower values (Table 3 and 4). Perceptions can be explained by the complexity of the context in which they were made, the specifics of the distance learning situation through technology, being one in which the sense of academic belonging has endured the change of physical environment, students participating from home. Consequently, orientation towards success was indirect, being done through training platforms, which, in turn, have a strictly behavioral design, undifferentiated in value. Regardless of the grade received by the students, in the subjects, they considered that the interaction with the teachers had the role of orienting them towards an attitudinal model characterized by intellectual and moral autonomy, promoting a democratic relationship in the university environment.

It can be concluded that teachers contribute to the success of training through empathic interaction, through behaviors that promote the responsibility and independence of the students.

5. Discussions

Especially in the first year of studies, the need to guide students towards learning success is confirmed by Sava and others (2015, p. 2), who showed that, „although the dominant opinion of the students about adapting to academic life, to the educational offer is positive, however, the main difficulties they face are related to adapting to the specifics of higher education in terms of the teaching-learning pace and the information volume management, greater awareness on the part of teachers who teach the students about these difficulties being necessary, to support them in managing them, preventing their demotivation, failure or even abandonment". A similar questionnaire, about the motivation of students to adapt to the university environment (Pleșca, 2017) claimed that, certainly, the positive interaction with the teachers contributes to a better adaptation to the academic life, to a better integration in the rhythm of student life. Our study proves that, even if the students are in the middle of the study program, they confirm the need to be guided by their teachers when participating in the actual activity or in order to prepare for the exams. The final year students follow the teachers' feedback, which confirms their correctness, the completeness of what they have learned, the quality of the applied research or the final works, where the teachers are their coordinators. In the analysis of the learning process, from a theoretical and practical point of view, the motivational-affective factors of learning cane be considered more important than the cognitive ones, for the energetic role they have. Learning depends both on the desire and willingness to learn, the sustained achievement of learning, as well as on the external feedback, which is accompanied by the satisfaction received after the effort. According to Neacșu (2006, p. 10), by stimulating learning autonomy, students themselves can "identify the implicit and explicit relationships between the different theoretical,

metatheoretical and procedural-methodological components of university studying, academic progress and success, orientation towards successful careers", and teachers should reflect on how they can help them study more deeply, more systematically, more actively.

In order to achieve academic success, Creţu (coordinator, 2019), had in mind the creativity manifestation of the learners, as a skill stimulated in the didactic interactions. This could be a way for the teacher to manifest his role, especially because the practice of critical and creative learning will be transferred to solve a wide range of situations: social and personal (Frăsineanu, 2005). Stimulating participation by implementing application tasks, including the use of new information technologies (Ilie, 2016), formative assessment, which supports learning (Havnes and others, 2012) are components that are associated with the students' persistence in performing tasks.

It is interesting to note that objectivity is pursued more intensely by the interested party in a direct way by the promotion aspect, that is by the evaluated one (and not by the evaluator). Objectivity in evaluation is obtained when the appreciation of the results reflects them undistorted, with impartiality and realism, regardless of the conscience and will of those involved, the resulting assessments being independent of personal opinions, beliefs, interests and dispositions, for the time being, and the objective evaluation was one of the students' wishes, repeatedly expressed. We can look at this action of searching for objective landmarks, through connection with others, as a metacognitive exercise, in which the adjustment stage is important, an exercise subsumed by an evolutionary, dynamic process, such as success in learning.

We overcome the unilateralism related to the responsibility of the students regarding success in higher education, the quantitative way of dealing with this subject, because quality training also includes the beneficiary's perception of the factors that ensured its success. The approach as success or achievement versus unsuccess, failure, initiated and supported by teachers, will have adaptive implications for the next stage that students will go through, either when they decide to continue their studies or as graduates, when integrating professionally.

6. Conclusions

Undoubtedly, as recommended by the educational policy documents in Romania or abroad, the quality of the teachers 'activity contributes to improving the students' results (whether young or adult), but after establishing the mechanisms by which it can be achieved, what matters are the experiences relevant for the students, their appreciation. The pursuit and success actions require human resources – teachers - their students − and they negotiate, establish agreements, empower, co-evolve, synchronize when they act to have results together. We argue that, if at the beginning of studies, it is useful to have a professional and study orientation, focused on optimal, appropriate options, to guide students in the specifics of the university environment, during or at the end of their studies, the pursued criteria should be well clarified, there should be made progress analyzes, so that the requirements can be maintained, and the students can accept and face them. The cognitive-affective errors that both students and teachers have in connection with success, with the roles of educational factors, such as extension of generalizations, exaggerations of attribution, excessive relativization, subjective interpretation, fatalism, pessimism, criticism, attitudes to avoid interaction should be acknowledged, but especially avoided. It is useful to convert negative attitudes into constructive, mobilizing, resolute manifestations. We advocate for: the need for contextual, differentiated assessment, the importance of interpersonal knowledge and respect for individual rhythms, focusing on critical-constructive approaches, highlighting the balance of achievements and failures, with establishing the aspects that should be improved in teaching, learning, assessment, relationships, management.

Although, the lack of time is often invoked, the teachers counseling and informing of the students, promoting successful models outside of classes, seminars or laboratories are actions that can be exploited by the beneficiaries of the teaching act.

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10.24193/ed21.2021.21.10

Adjusting 1st year students' teaching practice to the online environment

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Educatia 21 Journal 21 (2021)

Educatia 21 Journal, (21) 2021, Art. 10
doi: 10.24193/ed21.2021.21.10
Research article

Adjusting 1st year students' teaching practice to the online environment

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Abstract

The current study aimed to collect relevant feedback on teaching practice effectiveness in relation to the tutors, students' engagement in teaching practice, as well as self-reflection regarding necessary competences for a primary school teacher. Pedagogical activities within the teaching practice have considered: students' online attendance to the classes held by the primary teacher, filling in an observation form regarding the lessons taught, mentorship session for analyzing the lessons along with the teachers, drafting a psycho-pedagogical record for a pupil, filling a form on reviewing the student's performance and implication in the teaching practice. Having concluded the study's results, we can now state that the teaching practice's way of planning in the second school semester has proven efficient. The mentor-student / inter-student interaction has contributed to developing competences that a primary school teacher does require, through the feedback provided by the observation forms, as well as by involving students directly in the didactic activities, encouraging initiative and self-reflection. Objective analysis of results, suggestions, proposals, as well as difficulties encountered has made it possible to build a solid reference for future teaching practice – both online and in the classroom – and working towards improving it and all its partakers.

Keywords:
teaching practice; mentor; self-reflection; effective communication; primary school.

Zusammenfasung

Ziel der aktuellen Studie war es, relevante Rückmeldungen zur unterrichtspraktischen Effektivität in Bezug auf die Tutoren, das Engagement der Studierenden in der Unterrichtspraxis sowie die Selbstreflexion hinsichtlich der notwendigen Kompetenzen einer Grundschullehrerin bzw. eines Grundschullehrers zu sammeln. Zu den pädagogischen Aktivitäten im Rahmen der Unterrichtspraxis gehörten: Online-Besuch den Studenten zu den Klassen der Primarstufe, Ausfüllen eines Beobachtungsbogens zum Unterricht, Mentoring-Sitzung zur Analyse des Unterrichts gemeinsam mit den Lehrern, Erstellung eines psychopädagogischen Protokolls für einen Schüler, Ausfüllen eines Formulars zur Überprüfung der Leistung den Studenten und ihrer Beteiligungen auf die Unterrichtspraxis. Abschließend können wir sagen, dass sich die Planung der pädagogischen Praxis im zweiten Semester bewährt hat. Die Mentor-Student/ Studenten-Interaktion hat dazu beigetragen, durch das Feedback der Beobachtungsbögen sowie durch die direkte Einbindung der Student in die didaktischen Aktivitäten, die Initiative und Selbstreflexion zu fördern, Kompetenzen zu entwickeln, die ein Grundschullehrer benötigt. Objektive Analyse der Ergebnisse, Anregungen, Vorschläge, sowie Schwierigkeiten hat es ermöglicht, eine solide Referenz für zukünftige Unterrichtspraxis zu bauen - sowohl online als auch im Klassenzimmer - und an deren Verbesserung und allen Beteiligten zu arbeiten.

Schlüsselworte:
Unterrichtspraxis; Mentor; Selbstreflexion; effektive Kommunikation; Grundschule.

1. Introduction

The current conditions for the development of pedagogical practice have required the adaptation of all resources involved, being a challenge for all learning schools (Senge, 2016). The students' motivation was "an essential problem" (Pânișoară & Manolescu, 2019, p.43), the strategies approached requiring their stimulation for learning, in a context in which there were two different environments (physical and virtual) working together at the same time. Thus, technology becomes a "facilitator of content delivery" (Ceobanu, Cucoș, Istrate & Pânișoară, 2020, p. 24), in our case, of the lessons developed within the pedagogical practice.

The first semester of the 2020-2021 academic year has been a challenge for students of the Pedagogy of the Primary and Pre-school Education from the Faculty of Psychology and Educational Science, Babeș-Bolyai University, Cluj-Napoca. That is because teaching practice had to be held exclusively online, with no actual interaction with the children and school teachers, inside a classroom. The pandemic situation during the second semester allowed students

to virtually attend classes in real time, through an online platform, as these were held with both primary teachers and students, present at school. Having taken into consideration the two different manners in which teaching practice has been organized in both semesters, we found it necessary that we analyze students' perception regarding both ways of conducting courses.

2. Theoretical foundation

The teacher for primary education must have some general and specific competencies with the help of which to "ensure the quality and efficiency of the educational process" (Șerbănescu, Bocoș & Ioja, 2020, p. 20). "The paradigm of competence is value by contemporaneity" (Șerbănescu et al., 2020, p. 20), regardless of whether we are talking about initial and continuous training. The urge for online attendance of students in teaching practice has been determined by the need for adaptation, for finding new alternatives to the pedagogical context, as this field has taken a radical shift towards a new direction. Participants have been urged to reflect upon these questions, in order to optimize the teaching & learning process.

- To what extent will the teaching practice mentor manage to provide authentic experiences to the students?
- To what extent will the students manage to successfully identify theoretical aspects approached in the course?
- To what extent will the communication between the mentor and the students be clear and efficient?
- How will the students get involved in the teaching practice?
- To what extent do the students master self-reflective abilities regarding their own competences, as related to those particular to the primary teacher?
- To what extent will technical difficulties affect the quality and accuracy of teaching practice?

These questions arise from the previous experience of the first semester, during which we have concluded how necessary the "use of self-evaluation materials, reflexive behavior and highlighting engaging activities in teaching'' among the students is (Chiș & Truța, art. 07, p. 63, 2021). Mentor-student communication regards the comprehension of all elements particular to organizing and conducting didactic activities, both during the classes and during weekly meetings, as well as practicing self-reflective abilities, knowing the fact that teaching practice ought to be accompanied by constructive criticism, ,,the art of personal mastery […] achieved through self-reflection'' (Senge, 2016, p. 87).

Thus, activities carried out during teaching practice have taken into account: students' online attendance to classes held by the primary teacher, filling up observation forms, analyzing attended lessons, together with the teacher, filling up a psycho-pedagogical record for one of the children, filling up an evaluation form of the student, by the teacher, in which one highlights the level of implication and engagement during the practice season.

3. Research methodology

The study has been carried out from 23rd of February 2021 until the 6th of June 2021, and had 1st year students studying Pedagogy of the Primary and Pre-school Education from the Faculty of Psychology and Educational Science, Babeș-Bolyai University, Cluj-Napoca, as target group.

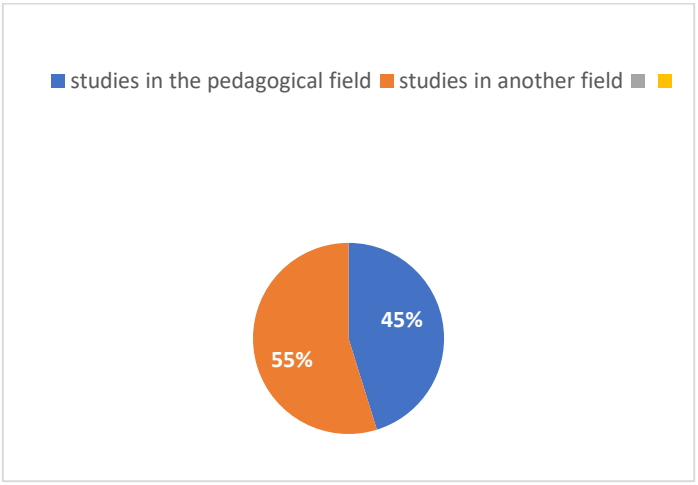
The purpose of the study has been that of collecting feedback on the efficiency of teaching practice, regarding mentorship interaction, students' implication and self-reflection on competences needed/required from the primary school teacher.

Objectives pursued throughout the research paper:

- Identifying efficient ways for organizing and planning teaching practice;
- The degree of applicability of theoretical resources / course materials in planning lesson stages;
- Finding efficient means of communicating between students and mentors;
- Identifying difficulties and obstacles that come up during online practice;
- Identifying critical abilities regarding self-reflection among students, about their own competences, as related to the ones particular to a primary school educator.

The present research paper has involved 93 participants studying Pedagogy of the Primary and Pre-school Education at university. Out of them, 42 (45%) are former pedagogy students and 51 (55%) have degrees in other fields, as illustrated in Figure 1. This aspect is particularly important for illustrating various perspectives of subjects involved, together with their experience regarding teaching practice held online.

Figure 1. Study subjects' previous academic experience



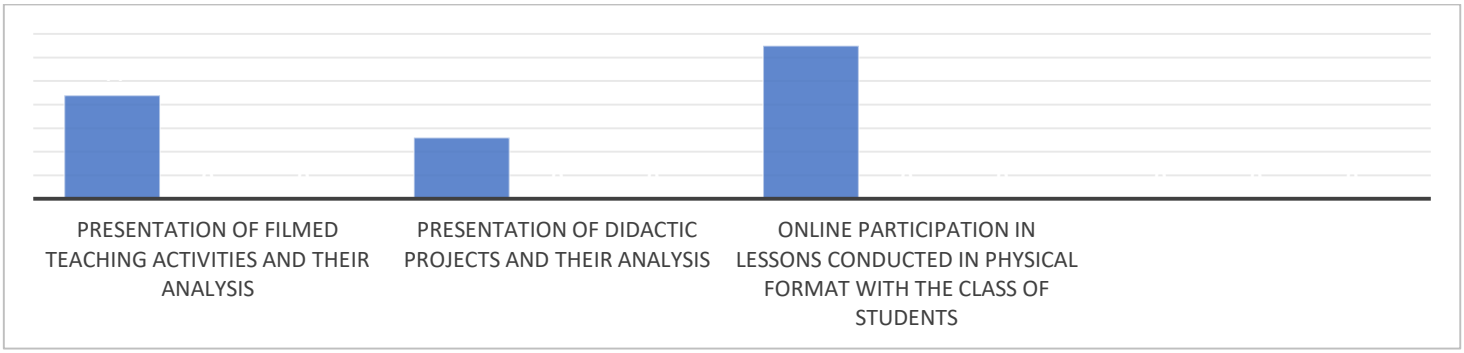
The 93 participants have answered the 14-question-survey online, on the following aspects:

- student's position (question 1);
- efficient methods for organizing teaching practice (question 2);
- the degree of applicability of theoretical resources / course materials in planning lesson stages (question 3);
- students – guiding teacher communication (questions 4, 6, 10, 11, 12, 13);
- identifying difficulties and obstacles that come up during online practice (question 5);
- identifying critical abilities regarding self-reflection among students, about their own competences, as related to the ones particular to a primary school educator (questions 7, 8, 9, 14).

4. Results

One of the preferred ways of organizing teaching practice is that of students attending, through an online platform, to classes held at school, with the teachers and pupils, as seen in Figure 2. If we look at the answers, we see that 70% (65) of students that already have degrees in the pedagogical field (67%) and those who have degrees in other fields (72,5%) have opted for this option. 47% of students (45%of those with pedagogical studies, 47% of those with other studies) have opted for presenting and analyzing filmed didactic activities from the classroom. The third alternative, that of holding presentations of didactical projects and analyzing these, has been the option of choice for 28% of students (31% of those with pedagogical studies and 25% of those with other studies).

Figure 2. Efficient ways of organizing teaching practice



Thus, the most important thing, from the students' perspective, is to experience the real situations in the classroom, even if through technology. It is important to observe the behaviors of those involved (students, teacher), class management in real time, having the opportunity to reflect on what is observed. Cerghit (apud Bocoș, 2013, p. 161) said that "without reflection there is no knowledge, elaboration, creation". As a result, the student will go through the personal filter of what is observed in the classroom, aiming to identify how it correlates the theoretical aspects with those found in practice.

Come to the degree of applicability of theoretical resources and course materials in planning lesson stages, we have concluded that the extent to which students have managed to corelate theoretical aspects to practical aspect has been, as seen in Picture 3:

- Very low: 2% - 2 students (2 with degrees in Pedagogy);
- Low: 24% - 22 students (11 with Pedagogy degrees, 11 with other degrees);
- Refrain: 7% - 7 students (3 with Pedagogy degrees, 4 with other degrees);

- High: 66% - 56 (21 with degrees in Pedagogy, 35 with other degrees);
- Very high: 6% - 6 (5 with Pedagogy degrees, 1 with other degrees).

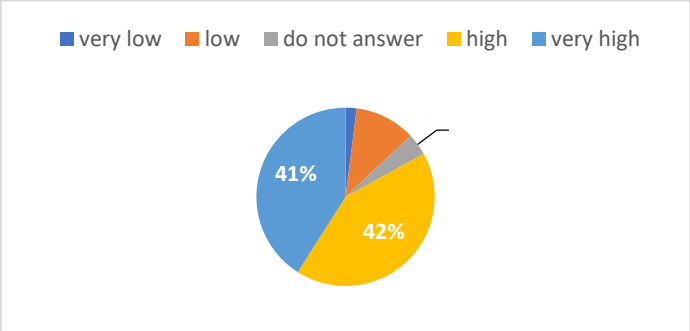
Even though a large number of students has successfully identified lesson planning stages during classes (over 70%), there is also a significant percent of them that has delimited lesson stages poorly or very poorly. We can notice the fact that, in order to improve the way teaching practice is conducted, students proposed (question 13) that, at the beginning their practice session, the mentor goes over the concepts they ought to operate with and thoroughly clarify all stages in lesson planning and classes for the day.

Figure 3. Identifying the stages in lesson planning

Student-mentor communication has been analyzed from a few perspectives, one of which vises the degree to which the primary school teacher (mentor) has successfully met the student's needs for knowledge, as shown in Figure 4:

- Very low: 2% - 2 students (with studies in other fields);
- Low: 11% - 10 students (6 who cu had previously studied Pedagogy and 4 who had studied something else);
- Restrain from answering: 4% - 4 students (1 with a Pedagogy degree, 3 with other degrees);
- High: 42% - 39 (21 who had a Pedagogy degree, 18 with other degrees);
- Very high: 41% - 38 (14 with degrees in Pedagogy, 24 with degrees in other fields).

Figure 4. Degree of satisfaction for students' need for knowledge by their mentors



The percentage of 83% of students who positively appreciate the way that the mentor responded to the knowledge needs is gratifying and denotes a very good communication between them. There is an interest of students with previous studies in another field who are aware of their own progress, so they show personal reflection on the level of knowledge specific to the pedagogic field.

Depending on the degree to which the mentor has managed to satisfy their student's need for knowledge, the latter have come up with recommendations, that were sorted depending on their former education:

- 17 % of those who had pedagogical studies: better communication / student interaction; in-depth analysis of taught lessons, after classes; setting up a day dedicated to observations and mentor-student dialogue; project models / lesson drafts for students;
- 31% of those who had degrees other than in Pedagogy: more openness towards the pupils' needs; providing lesson plan models that students can follow; explanations be given more often and in detail; better student-mentor communication; operational objectives be presented clearly.

Despite that, 70% of respondents had no recommendations for their mentors and stated they were satisfied with the professional connection they were able to build.

Among relevant points that were highlighted during the weekly student-mentor meeting, we find:

- students who had pedagogical studies: clarifying new terminology & notions; filling up observation forms for analyzing lessons taught; discussing aspects regarding class planning; up-to-date teaching methods; different lesson types;
- students who had degrees in a different field: clarifying different concepts used in class teaching;

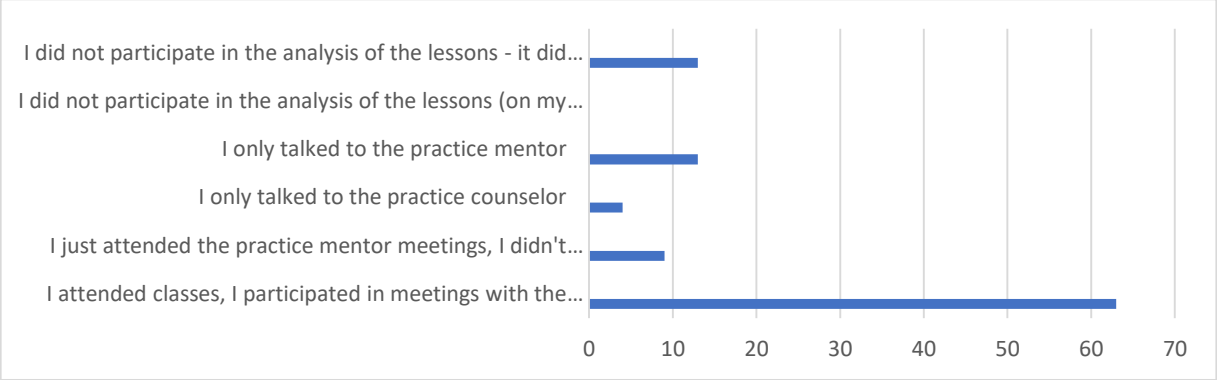
settling organizational aspects; filling up observation forms regarding lessons taught, as well as communication and relation between the primary school teacher and pupils; discussing a lesson plan's structure.

In order to further improve the weekly teaching practice, students have come up with the following suggestions, as follows:

- students who had previous pedagogical studies: at the beginning of the class, the teacher should clarify the technical concepts they will operate with; debating each particular lesson type, along with giving clear examples; organizing weekly student-mentor meetings; observing filmed lessons and analyzing them into detail;
- students who had degrees in another field: regular student-mentor meetings; collecting documents and resources that the students need and use, and uploading these on an online platform that they can have access to (such as Google Drive Cloud); presenting and discussing mock-up observation forms; presenting and discussing filmed lessons.

In order to showcase the students' involvement in the teaching practice activities, we see that 68% of students (29 (70%) with previous Pedagogy degrees, 34 (65%) with other degrees) attended the lessons, took part in the meetings with their mentor, filled up the observation forms, addressed relevant questions, discussed with their teaching practice mentor, as shown in Figure 5. 28% of students did take part in the meetings, although they did not address any further questions, while 4% did not participate in the lesson analysis meetings.

Figure 5. Students' involvement in teaching practice



During teaching practice, 43% of students had various initiatives, as follows:

- 11 students with Pedagogy degrees: participating in remedial activities; requesting teacher's assistance outside the course's hours; preparing and holding pedagogical activities during the "Different Learning" national school program.
- 19 with other degrees: requesting assistance in proofing and evaluating children's papers; discussing with children during recess; assisting other teacher's classes (e.g. English classes); carrying out games and alternative activities for the "Different Learning" week.

The initiative of students to get involved in activities other than those within the pedagogical practice, reflects their ability to address the status of teachers from the perspective of combining formal and non-formal education. Students' participation in these activities, under the guidance of pedagogical practice mentors, supports the development of professional skills and, implicitly, it provides a real overview of the entire educational approach specific to a teacher. At the same time, in the current context, lacking predictability, the teacher faces "diversification of challenges" (Șerbănescu et al., 2020, p. 32), thus, the students assumes roles that will later allow him to adapt to new, complex situations, facilitating the training of independent and autonomous learners in learning (2020).

Among difficulties encountered by students during teaching practice, 82% of them have named: having technical difficulties, connection problems, lack of children interaction, poor visibility over the classroom, pupils or blackboard, difficulties in clearly determining lesson stages, observing the children's behavior, troubles accessing the online platform used, connecting to the audio system or having poor sound quality in general, poor student-mentor

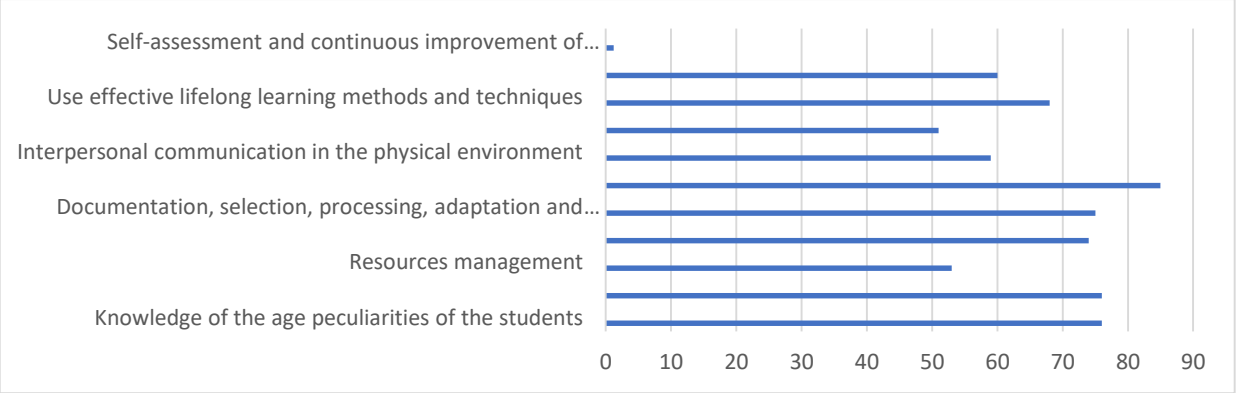
communication. 28% of them have not met any problems during teaching practice, whatsoever.

Practicing students, for the most part, are part of Generation Z, whose members, according to some authors, "live in a virtually connected world" (Ceobanu et al., 2020, p. 40). Cilliers (according to Ceobanu et al., 2020, p. 40) concluded from a study on some students of Generation Z that: they consider that "they have better digital skills than their teachers" and they "prefer face-to-face meetings". So, the development of the pedagogical practice with the Generation Z students in the online environment and the students in the classroom, explain, to a certain extent, the difficulties highlighted by the students within the pedagogical practice.

The following aspect covered is that of students' reflection on the competences that a primary teacher would need and they arranged these in order of importance, as seen in Figure 6:

- Adaptation and use of child-centered teaching and assessment strategies (personalized teaching methods, means of learning, organizational plans): 91% (85 students);
- Knowing of the age peculiarities of children: 82% (76 students);
- Design and implementation of teaching-learning-assessment lessons: 82% (76 students);
- Documenting, sorting, processing, adapting and providing learning content and resources: 81% (75 students);
- Student class management: 80% (74 students);
- Use of effective lifelong learning methods and techniques: 73% (68 students);
- Self-assessment and continuous improvement of professional practices and career evolution: 72% (67 students);
- Capitalization in formal circumstances, of abilities acquired in nonformal or informal contexts: 65% (60 students);
- Interpersonal communication in the physical environment: 64% (59 students);
- Resource management: 57% (53 students);
- Interpersonal communication in the virtual environment: 55% (51 students).

Figure 6. Primary teacher's required competences



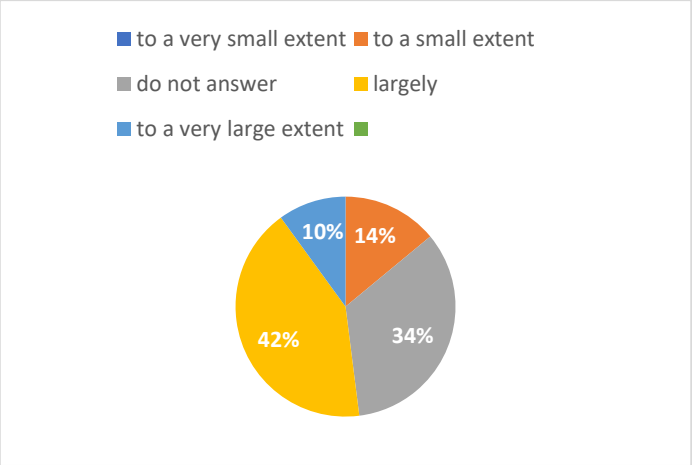
Each of the listed competencies contributes to the achievement of an effective educational act, but the students, through the hierarchy made, highlighted some ideas that support the profile of today's teacher, according to European values and practices: student focus, appropriate strategies, lifelong learning, adaptability, in-depth knowledge of students, self-reflection.

Regarding the students' ability to self-assess and self-reflect on their personal competences, as related to those required by the primary school teacher, we conclude the following, as shown in Figure 7:

- To a very small extent: -
- To a small extent 14% - 13 students (2 students with previous pedagogical studies, 11 students with studies in other fields);
- Refrain to answer: 34% - 32 students (12 students with previous pedagogical studies, 20 students with studies in other fields);

- To a large extent: 42% - 39 students (20 students with previous pedagogical studies, 19 students with studies in other fields);
- To a very large extent: 10% - 9 students (8 students with previous pedagogical studies, 1 student with studies in other fields).

Figure 7. Students' self-assessment regarding their pedagogical abilities, as related to those demanded by the primary school teachers



Even if 70% of students were able to self-evaluate their didactical competences, relative to the primary teacher's demands, a large percentage of them could not estimate objectively where exactly they situate in relation to this. Students considered this requested a more detailed introspection of what these abilities were, that the teacher vocation called for, and how to further exercise them. It is noted that there have even been students who had former studies in the pedagogical and yet were unable to successfully self-assess their competences.

On the other side, however, if we are to further look at what said competences imply, that the primary teacher should possess, students have named the following:

- Students who had previously studied Pedagogy: the ability to corelate curricular information to relevant situations in one's life, integrity, understanding pupils' age peculiarities, reflexive approach, ability to adapt to children's needs and demands, using efficient didactic methods and techniques, openness towards innovation, flexibility, empathy, professionalism, organizational skills, efficient communication, thorough lesson and course planning, ability to efficiently manage the student class, use of a child-centered pedagogical approach;
- Students who had previously studied in another field: use of efficient didactical strategies, openness towards innovation, flexibility, empathy, professionalism, good organizational skills, efficient communication, thorough lesson and course planning, ability to efficiently manage the student class, use of a child-centered pedagogical approach.

By observing the students' answers, we can conclude that those who had previously studied Pedagogy have identified some additional traits that the primary teacher should possess. This further highlights the need for personal introspection on students' competences, in relation to those taught in university for future teachers. All students who were not aware whether they meet the competences demanded from a primary teacher have, instead, mentioned their expectations, as if they were pupils themselves, so we can consider that they have an image of the skills needed by a teacher, in the current context in which "the individual intrinsic quality of students becomes very important" (Șerbănescu et al., 2020, p. 35) in order to professionalize the teaching career.

Conducting this semester's teaching practice has brought along some improvements, as found in 96% of the students' answers:

- Use of didactical strategies for making pupils more attentive during classes;
- Clearly delimiting lesson stages and steps;
- Filling up observation & analysis forms correctly;
- Primary school lesson types;
- School curricula's form and content be especially customized for primary level;
- The need to adapt and correlate curricula to the children's age peculiarities;
- Student class management;
- Activation of pupils' potential;
- Importance of children's socio-emotional state during the entire didactical process
- Organizing courses for different disciplines;
- Up-to-date teaching techniques and methods;
- Planning out operational goals;
- Efficient time management;
- Assessment methods;

- Ways to further improve and develop critical thinking.

The answers provided by the students clarify the initial question regarding the identification in practice of theoretical elements in the course support. Thus, the practice mentor managed to guide the students in the didactic approach, they managed to correlate the theoretical aspects with the practical ones, more than 70% as is turned out to the specific question.4% of students claim to have not learned anything new, during the teaching practice stage, 3 of them having had previously studied in fields different than Pedagogy. Previously, 2 of them stated they do have primary teacher competences to a small extent, and one of them restrained from answering. One single student who had previously studied Pedagogy claims to have not learned anything new during teaching practice, and stating he does possess qualities required from a primary teacher to a large extent.

5. Discussions

Having analyzed the survey's results, we seize remarkable progress regarding the degree of applicability of pedagogical resources: if, during the first semester, only 46% of students considered this degree as being high and very high, after the second semester, more than 70% of them are able to corelate theoretical aspects taught to in-person practice. This is attested by the fact that online attendance to in-person classes held with the children and teacher together was the preferred option by 70% of participants.

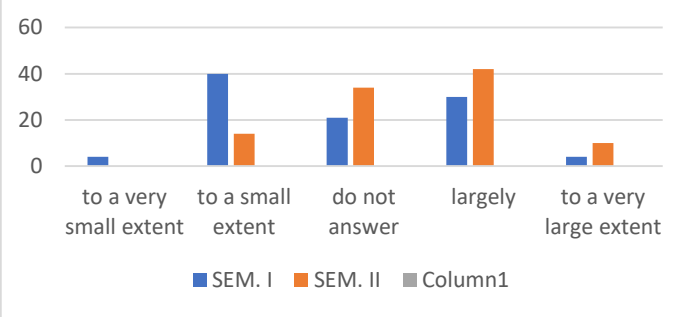
The questions that vised student-mentor communication highlight the fact that the educators did satisfy the students' needs regarding knowledge, as confirmed by 83% of the aforementioned. Students' recommendations to their mentors, the aspects highlighted as a result of the weekly meetings, their suggestions for improving the way teaching practice is done were complementary and even overlapped – this signifying mutual understanding of demands for knowledge and even use of particular terminology.

Another important aspect has to do with student's involvement in teaching practice – 68% of them attended classes, attended the weekly meetings with their mentor, filled up the observation forms, addressed relevant questions and discussed with their assigned teacher, outside classes. 43% of them had their own initiatives for engagement in their practice stage. Their devotion and strong implication in teaching practice is also reflected in the number of participant students that did increase from one semester to another: 47 in the first one and 93 in the second one.

The ability to self-reflect on one's professional competences highlights yet another aspect: if, during the first semester, student class management was considered important by only 49% of respondents, after the second semester, 80% of them now agree to this. On comprehending children's age peculiarities, 60% of the first semester participants found this relevant, and 82% did, in the second semester.

Personal assessment on one's abilities and skills, as related to those demanded from a primary school teacher show significant progress, as shown in Figure 8:

Figure 8. Comparative results regarding personal reflection on one's professional competences, related to those demanded from a preschool/ primary school teacher



The differences in percentage of the two semesters could have different causes:

- Teaching practice has been carried out differently for the two semesters (for the first one, the stage was held entirely online, with no direct contact to the preschool class);
- Students correlated their own competences to those of the primary teacher, rather to those of the preschool teacher's.

This way of holding teaching practice does come with difficulties and impediments, starting from the technical aspects – faced by 82% of participant students, that lead, inevitably, to interrupting or lowering transmission quality of the courses. A good part of inconveniences associated with a problematic experience in attending teaching practice are strongly related to technical difficulties.

6. Conclusions

In conclusion, we can attest that the way in which teaching practice has been carried out throughout the second school semester has proven efficient, student-

mentor interaction has contributed to developing strong competences in preparing one for the teacher vocation, with the help of assessment forms altogether and by actively involving students in activities, encouraging their contributions, but also advising self-reflection. Objective analysis of results, suggestions, proposals and difficulties encountered now constitute important reference that one can come back to, in order to further improve the teaching practice experience – both online and in-person, with all partakers being present.

Authors note:

The authors have equal contributions to this article.

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10.24193/ed21.2021.21.11

How can we illustrate the usefulness of the differential calculus course taught in a technical university

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Educatia 21 Journal 21 (2021)

Educatia 21 Journal, (21) 2021, Art. 11
doi: 10.24193/ed21.2021.21.11
Research article

How can we illustrate the usefulness of the differential calculus course taught in a technical university

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Abstract

Working in a challenging academic environment as mathematics professors for the Technical University of Civil Engineering Bucharest, we thought to find a teaching strategy that, in addition to the required standard, but also has the standard of attractiveness and accessibility. Why? This is due to the fact that our students have a very nonhomogeneous level of knowledge and logical-mathematical skills. That's how we came up with the idea of organizing each lesson in our courses in a gradual way, and completing them with an informal part. On the other hand, we set out to collaborate with professors working in the departments of other natural sciences or in engineering departments, enriching the mathematics courses with technical applications. This has led to write several didactic works, which also include such applications. Proving the usefulness of this courses, our new work offers two such technical applications for the mathematical analysis course, taught in the first semester and dedicated to the differential calculus of functions having one or several variables. More precisely, we present in a gradual way, two applications solved by using the mathematical modelling: a problem belonging to electricity and then, the cruising speed problem. The gradual presentation begins, for each of these problems, with the necessary notions (organized in the form of two dictionaries, for Math and for Physics, respectively), continues with the statement of the problem, with the solution methodology, and finally, with the solution itself. Our presentation will provide students with a model of logical (mathematical) approach, useful to them in the courses of other natural sciences and of engineering disciplines that they will study later. In addition, it will prove them why mathematics is a fundamental discipline for the engineering education.

Keywords:
Differential calculus; Lagrange theorem; study of the variation of functions; mathematical modelling; secondorder linear nonhomogeneous differential equation with constant coefficients; Cauchy problem; equation of motion;
electrical current; current with

Zusammenfasung

Wir haben reiche Erfahrung als Mathematikprofessoren an der Technischen Universität für Bauingenieurwesen Bukarest. In diesem akademischen Umfeld haben wir uns überlegt, eine Lehrstrategie zu finden, die neben dem geforderten Standard auch den Anspruch an Attraktivität und Zugänglichkeit hat. Warum? Dies liegt daran, dass unsere Studierenden einen sehr inhomogenen Wissensstand und logisch-mathematische Fähigkeiten haben. So kamen wir auf die Idee, jede Unterrichtsstunde in unseren Kursen stufenweise zu gestalten und mit einem informellen Teil zu ergänzen. Andererseits haben wir uns vorgenommen, mit Professoren aus anderen naturwissenschaftlichen oder ingenieurwissenschaftlichen Abteilungen zusammenzuarbeiten, um das Mathematikstudium um technische Anwendungen zu bereichern. Dies hat dazu geführt, dass mehrere didaktische Arbeiten verfasst wurden, die auch solche Anwendungen enthalten. Als Beweis für die Nützlichkeit dieser Kurse bietet unsere neue Arbeit zwei solcher technischen Anwendungen für den im ersten Semester gelehrten mathematischen Analysis-Kurs, der sich der Differentialrechnung von Funktionen mit einer oder mehreren Variablen widmet. Genauer gesagt stellen wir nach und nach zwei Anwendungen vor, die mit Hilfe der mathematischen Modellierung gelöst wurden: ein Problem der Elektrizität und dann das Problem der Reisegeschwindigkeit. Die schrittweise Darstellung beginnt für jedes dieser Probleme mit den notwendigen Begriffen (organisiert in Form von zwei Wörterbüchern für Mathematik bzw. für Physik), geht weiter mit der Problemstellung, mit der Lösungsmethodik und schließlich mit die Lösung selbst. Unsere Präsentation wird den Studierenden ein Modell des logischen (mathematischen) Ansatzes an die Hand geben, das ihnen in den Studiengängen anderer Naturwissenschaften und Ingenieurwissenschaften, die sie später studieren werden, nützlich ist. Darüber hinaus wird ihnen gezeigt, warum Mathematik eine grundlegende Disziplin für die Ingenieurausbildung ist.

Schlüsselworte:
Differentialrechnung; Lagrange-Theorem; Studium der Variation von Funktionen; mathematische Modellierung; lineare inhomogene Differentialgleichung zweiter Ordnung mit konstanten Koeffizienten; Cauchy-Problem; Bewegungsgleichung; elektrischer Strom; Strom

1. Introduction

The authors of this paper strongly believe that *teaching mathematics in a technical university* is a didactic challenge. This is because, in addition to the rigor of the traditional way of teaching, the teacher must also be concerned with increasing the *accessibility* and *attractiveness* of the presentation. To this end, the teacher should organize his presentation gradually, possibly adding an informal part, pointing out very briefly, if possible, the place of the subject in the history and philosophy of mathematics.

At the same time, the same professor who teaches mathematics in a technical university is put in the situation of finding a common language with the professors who teach the other fundamental disciplines and the engineering disciplines, the main goal being the mathematical modelling of some technical phenomena. Obviously, a step in establishing this common language is to find the most suitable technical applications and use the usual terminology and notations in the discipline applied in solving that application.

The person who teaches a mathematics course included in the technical higher education program must be aware that he must introduce his students to the technical disciplines that they will study later. He must also convince the students that everything they learn in mathematics will be useful in understanding other subjects.

It would be best for, for example, students in technical education to hear at the Course of the Mathematical Analysis about certain problems in Physics or in Mechanics and not vice versa, that is, to hear later that in solving such problems they need certain algorithms that were not taught in the math course.

We will exemplify this, showing how two problems in physics (from the "Electricity" chapter and the "Mechanics" chapter, respectively) can be solved:

1) A problem of electricity; 2) Cruise Speed Problem.

2. Theoretical foundation

Since we want this paper to be autonomous, before formulating (in the section "3. Research Methodology") the two problems mentioned at the end of the previous section, we mention everything necessary to understand and solve these problems. In this section we introduce the *notions of mathematics* and *physics* and subsequently, in the next section, the *algorithms* we will use.

2.1 The problem of electricity

For the statement of the problem, see Section 3.1.

2.1.A Dictionary of mathematics

We mention the following definitions:

Definition 1. If $J \subseteq \mathbb{R}$ is an interval, we say that a function $f: J \to \mathbb{R}$ is *strictly increasing* (*strictly decreasing*, respectively) on J, if for all $x_1, x_2 \in J$, with $x_1 < x_2$, the following inequality is valid: $f(x_1) < f(x_2)$ ($f(x_1) > f(x_2)$, respectively).

Definition 2. If $J \subseteq \mathbb{R}$ is an interval, we say that a function $f: J \to \mathbb{R}$ is *increasing* (*decreasing*, respectively) on J if for all $x_1, x_2 \in J$ with $x_1 \le x_2$, the following inequality is valid: $f(x_1) \le f(x_2)$ ($f(x_1) \ge f(x_2)$, respectively).

Remark. In the study of the variation of a function, study made for the purpose of the graphical representation of this function, a statement is used, which is a consequence of Lagrange's Mean Value Theorem. First we mention the statement of Lagrange's Mean Value Theorem.

Lagrange's Mean Value Theorem (also known as **First Mean Value Theorem).** *Let* $f:[a,b] \to \mathbb{R}$ *be a Rolle function, that is, a function having the following properties:*

1) f *is continuous on the closed interval* $[a,b]$*;*

2) f *is differentiable on the open interval* (a,b)*.*

Then there is at least one point $c \in (a,b)$*, such that* $f'(c) = \dfrac{f(b) - f(a)}{b-a}$ *or, equivalently,* $f(b) - f(a) = f'(c)(b-a)$.

Lagrange's Mean Value Theorem has several consequences, used in the study of the variation of functions. Of these, the following shows the connection between the *sign of the derivative* f' of a

differentiable function f on an interval $J \subseteq \mathbb{R}$ and the *monotony of* f. (Remind that a function $f: J \to \mathbb{R}$ is called *monotone on* J, if it is either increasing or decreasing on J.)

Corollary of Lagrange's Mean Value Theorem. *Let* $f: J \to \mathbb{R}$ *be a differentiable function on an interval* $J \subseteq \mathbb{R}$.

a) *If* $f' \geq 0$ *on* J (*that is,* $f'(x) \geq 0$, *for any* $x \in J$), *then* f *is increasing on* J

b) *If* $f' \leq 0$ *on* J (*that is,* $f'(x) \leq 0$, *for any* $x \in J$), *then* f *is decreasing on* J

a') *If* $f' > 0$ *on* J (*that is,* $f'(x) > 0$, *for any* $x \in J$), *then* f *strictly increasing on* J;

b') *If* $f' < 0$ *on* J (*that is,* $f'(x) < 0$, *for any* $x \in J$), *then* f *is strictly decreasing on* J.

Remark. The following two tables synthesize a') and b') from the above statement, for $J = [a, b]$.

Case a')

x	a	b
$f'(x)$	$+ + + + + + + +$	
$f(x)$	$f(a)$	$f(b)$

Case b')

x	a	b
$f'(x)$	$- - - - - - - -$	
$f(x)$	$f(a)$	$f(b)$

The statement also applies to $J = (a, b]$ or $J = [a, b)$ or $J = (a, b)$ and also, for $J = (-\infty, +\infty)$ or $J = (a, +\infty)$ or $J = (-\infty, a)$, with $a, b \in \mathbb{R}$.

2.1.B Dictionary of physics

The following notions appear in any elementary book on electricity, for example, in (Tamm, I., 1952).

- An *accumulator battery* is a rechargeable source of direct current, consisting of elements that store the electricity, by using chemical principles. Its operation is based on the appearance of an electromotive voltage created on chemical bases, obtained by combining in electrode-electrolyte combinations of different materials from an electrochemical point of view.

- The *electromotive voltage* is a physical quantity equal to the electrical voltage (see the definition below) at the terminals of an open circuit electric generator (that is, the positive terminal and the negative terminal are not connected and there is no electrical circuit). Usually, the electromotive voltage is denoted by e.

- The *electric potential* at a point in an electric field is a scalar field-type physical quantity that characterizes the electric field at that point; is defined as the ratio of the electrical work done to move a positive electric charge from infinity to that point and the value of that charge. The potential at infinity is chosen to be zero. Thus the electric potential for a point charge decreases with distance.

- The *electrical voltage between two points* of an electrical circuit is equal to the potential difference between the two points and represents the ratio between the electrical work done to move a positive charge between the two points and the size of that charge. Usually, the electrical voltage is denoted by U.

- The *intensity* of the electric current is a fundamental scalar physical quantity that measures the strength of the effects of the electric current. We refer to the *thermal effect* (Joule), the *chemical effect* (electrolysis) and the *magnetic effect*. Usually, the intensity of the electric current is denoted by i.

- The *simple electrical circuit* consists of at least one voltage source, connecting conductors (field guides) and a consumer.

- *Electrical resistance* is defined by the ratio between the voltage applied to its ends and the intensity of the current flowing through it. Physically, this means the ability of a conductor to resist the passage of electric current through it. The unit of measurement of electrical resistance, in SI, is the *ohm* denoted by Ω.
- The *internal resistance* is the resistance inside the source. Usually, it is denoted by r.
- *External resistance* is the resistance of what does not belong to the source. Usually, it is denoted by R.

In the following, we will apply *Ohm's Law* or the *law of electrical conduction*, which establishes the connection between the intensity i of the electric current, the applied electric voltage U and the total resistance R_t in the circuit, namely $I = \frac{U}{R_t}$.

2.2 The cruising speed problem

For the statement of the problem, see Section 3.2.

2.2.A Dictionary of mathematics

Definition 3. A *first-order linear differential equation, with constant coefficients* is an equation of form $a_1 y'(x) + a_0 y(x) = f(x)$, where $a_1, a_0 \in \mathbb{R}$, $a_0 \neq 0$ and $x \in J$ (J is an interval of the real axis) and $f : J \to \mathbb{R}$ is a continuous function. For simplification, we denote $a_1 = a$ and $a_0 = b$. With these notations, the above equation becomes:

$$a \cdot y'(x) + b \cdot y(x) = f(x), \tag{1}$$

where $a, b \in \mathbb{R}$, $a \neq 0$ and $x \in J$.

Definition 4. The first-order linear differential equation (1) is called:

1) a *homogeneous equation*, if the right member $f(x)$ of the equation satisfies the condition: $f(x) = 0$, for any $x \in J$.

2) a *nonhomogeneous equation*, on the contrary, that is, if the right member $f(x)$ of the equation satisfies the condition: there exists $x \in J$, with $f(x) \neq 0$.

Remark. According to „Definition 4. 1)", we deduce that a *first-order homogeneous linear differential equation* is of the form :

$$ay'(x) + by(x) = 0. \tag{2}$$

It is shown that the form of the *general solution of the nonhomogeneous linear equation* (1) willl be $y_o = y(x, C)$, with $C \in \mathbb{R}$, that is, it will depend on a real constant C. To determine a *particular solution* of the nonhomogeneous linear equation (1) it is necessary to particularize the constant C. To this aim, it is necessary to know an *initial condition* that the nonhomogeneous linear differential equation (2) must satisfy. Usually this "initial condition" imposes on the unknown function $y = y(x)$ the condition that $y(x_0) = y_0$, where $x_0 \in J$ and y_0 are two known real numbers.

Definition 5. It is called a *Cauchy problem* attached to the first-order nonhomogeneous linear differential equation (1), that is, to the equation $ay'(x) + by(x) = f(x)$, $x \in J$, a problem that requires determining a particular solution y_p of this equation, such that y_p checks the initial condition $y_p(x_0) = y_0$, where $x_0 \in J$ and $y_0 \in \mathbb{R}$ are two known numbers.

Remark. In other words, if $y_n(x, C)$ is the *general solution* of the differential equation (1), a *Cauchy problem* attached to this equation by the initial condition $y_p(x_0) = y_0$, requires determination of the constant C, so that the graph of the particular solution y_p of the equation (1) pass through the point $M(x_0, y_0)$ from the xOy plan.

Next, we recall how to solve the first-order ***nonhomogeneous*** linear differential equation, with constant coefficients (1).

Step 1. We start with *solving the first-order* ***homogeneous*** *linear differential equation* (2) attached to the equation (1) (by omitting the right member $f(x)$ of the latter). So we have to solve the equation (2) $(ay'+by=0)$ with $a,b\in\mathbb{R}$, $a\neq 0$.

Replacing y' by $\frac{dy}{dx}$, the equation (2) is written equivalent:

$$a\frac{dy}{dx}+by=0. \tag{3}$$

We observe that, in the first-order differential equation (3) the "variables" can be "separated", that is, (3) can be equivalently transformed into an equality, so that in the left member it "appears" only y and in the one on the right, only x. (Therefore, it is said that equation (3) "has *separable variables*".) Thus, from (3), it follows that:

$$\frac{dy}{dx}=-\frac{b}{a}y. \tag{4}$$

To "separate the variables" in this equation, we multiply by dx and we divide by y; but then we will have to impose the condition $y\neq 0$. We have two cases to study.

Case A): $y\neq 0$. Then from (4), it follows $\frac{dy}{y}=-\frac{b}{a}dx$. Now we integrate in both members and we logarithmically note the integration constant (which appears when calculating the primitives), in the form $\ln k$ with $k>0$. It follows:

$$\int\frac{dy}{y}=-\frac{b}{a}\int dx\Rightarrow \ln|y|=-\frac{b}{a}x+\ln k \text{, with } k>0\Rightarrow$$

$$\ln|y|-\ln k=-\frac{b}{a}x \text{, with } k>0\Rightarrow$$

$$\ln\frac{|y|}{k}=-\frac{b}{a}x\ (k>0)\Rightarrow |y|=k\cdot e^{-\frac{b}{a}x}\ (k>0)$$

$$\Rightarrow y=\pm k\cdot e^{-\frac{b}{a}x}, \text{ with } k>0.$$

We denote $\pm k=C$ and because $k>0$, it follows $C\in\mathbb{R}^*$ (that is, $C\neq 0$). So, in this case, the general solution y_o of the first-order homogeneous linear differential equation (2) is:

$$y_o=C\cdot e^{-\frac{b}{a}x}, \tag{5}$$

where $C\in\mathbb{R}^*$.

Case B): $y=0$. Then $y'=0$ and so $y=0$ checks the equation (2), that is, the equation $ay'+by=0$. So we complete the solution (5) of this equation (2) with $y=0$.

We wonder if $y=0$ is a *particular solution* or, respectively, a *singular solution* for the equation (2). We remind that:

1) It is called a *particular solution* of the differential equation (2) a solution of this equation that can be obtained from the general solution (5) by particularizing the real constant C.

2) It is called a *singular solution* of the differential equation (2) a solution that cannot be obtained from the general solution (5) by no particularization of the real constant C.

We notice that if we complete (5) with the value $C=0$ we obtain:

$$y_o=C\cdot e^{-\frac{b}{a}x}, \tag{6}$$

where $C\in\mathbb{R}$. For $C=0$ in (6), it follows $y=0$, which is exactly the additional solution of the equation (2) discussed in the "*Case B)*". Therefore $y=0$ it follows from y_o by particularizing the constant C in (6). In other words, $y=0$ is a particular solution of the equation (2).

Step 2. We will look for a *particular solution* for the *first-order* ***nonhomogeneous*** *linear differential equation* (1), that is, for the equation

$a\cdot y'+b\cdot y=f(x)$. For this, we will use the ***Method of variation of constants*** (***Euler-Lagrange Method***). (Actually, in this case, this method is more correctly called the ***Method of variation of constant***, because there exists a single constant.) Since from (6), the *first-order* ***homogeneous*** *linear differential equation* (2) ($ay'+by=0, x\in J, a, b\in\mathbb{R}$ and $a\neq 0$) has the solution $y_o=C\cdot e^{-\frac{b}{a}x}$, $C\in\mathbb{R}$, we will search for the ***nonhomogeneous*** equation (1) a particular solution y_p, having a similar form with y_o, but replacing the constant C with a function $C(x)$, unknown for instant. Hence:

$$y_p=C(x)\cdot e^{-\frac{b}{a}x}. \tag{7}$$

But

$$y_p'=C'(x)\cdot e^{-\frac{b}{a}x}+C(x)\left(-\frac{b}{a}\right)e^{-\frac{b}{a}x}. \tag{8}$$

We introduce (7) and (8) in the equation (2). It follows:

$$a\cdot y_p'+b\cdot y_p=f(x)\Rightarrow$$

$$a\cdot C'(x)e^{-\frac{b}{a}x}-b\cdot C(x)e^{-\frac{b}{a}x}+b\cdot C(x)e^{-\frac{b}{a}x}=f(x)$$

$$\Rightarrow C'(x)=\frac{f(x)}{a\cdot e^{-\frac{b}{a}x}}\Rightarrow C'(x)=\frac{1}{a}f(x)\cdot e^{\frac{b}{a}x}$$

By integrating, we get $C(x)=\frac{1}{a}\int f(x)\cdot e^{\frac{b}{a}x}dx$. Replacing this function in (7), we get:

$$y_p(x)=\left(\frac{1}{a}\int f(x)\cdot e^{\frac{b}{a}x}dx\right)\cdot e^{-\frac{b}{a}x}. \tag{9}$$

Step 3. The general solution y_n of the ***nonhomogeneous*** linear differential equation (1) $ay'+by=f(x),\ x\in J$ is:

$$y_n(x)=y_o(x)+y_p(x), x\in J, \tag{10}$$

where:

1) $y_o(x)$ is the general solution of the ***homogeneous*** linear differential equation (2) attached to the equation (1). It was determined at "Step 1.", see (6);

2) $y_p(x)$ is a particular solution of the ***nonhomogeneous*** linear differential equation (1). It was determined at "Step 2. ", see (9).

From (6) (in which we denoted C by D), (9) and (10) we deduce:

$$y_n(x)=D\cdot e^{-\frac{b}{a}x}+\left(-\frac{1}{a}\int f(x)\cdot e^{\frac{b}{a}x}dx\right)e^{-\frac{b}{a}x}$$ and hence

$$y_n(x)=e^{-\frac{b}{a}x}\left(D-\frac{1}{a}\int f(x)\cdot e^{\frac{b}{a}x}dx\right),\ x\in J, \tag{11}$$

where $D\in\mathbb{R}$ is the "constant of integration".

2.2.B Dictionary of physics

Actually, the notions of physics that we will remind, are taught to high school students, in the chapter 'Dynamics', which belongs to the classical mechanics. In this chapter, the relationship between the forces acting on a physical body and its movement is studied.

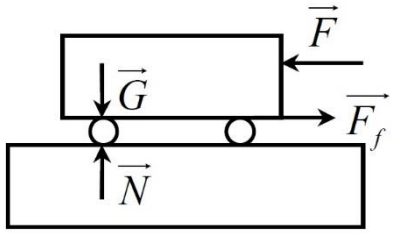
- *The traction force* (or, equivalent, the *tractive force*) $\vec{F}$ of a moving car is produced by its engine. By overcoming the resistances that oppose this movement, the traction force of the car causes it to move.

Convention. In the following, we will say, for example, the "*traction force*", both to the vector $\vec{F}$, and of the size (length, magnitude, modulus) F of this vector. We will do the same with all the forces that appear. The convention is justified, because we will discuss, for example, about the *speed v* of the car, but in a force diagram, we will represent the vector $\vec{v}$ and we will call it, also *speed.*

- *Friction force. Coefficient of friction. Normal force* (*reaction*). The *friction force* (also called the *kinetic friction force*) $\overrightarrow{F_f}$ at the contact surface between two bodies is the tangential component of the support force that one of the bodies exercises on the second body, see (Răduleț, R. et. al, 1957-1958). While driving a car, the frictional force opposes the movement, slowing it down. The history on studies on the friction force (studies that were initially experimental) showed that friction is a complex phenomenon, which can depend on many parameters.

The following figure represents the force diagram in case of a car movement.

Figure 1. Diagram of forces



These forces are: $\vec{F}$, $\overrightarrow{F_f}$, $\vec{G}$ (*weight*), $\vec{N}$ (*normal force* or, equivalent, *normal reaction*). The last two forces are the *interaction forces* between the two surfaces (one of these surfaces being the road on which the car travels). They prevent the two bodies in contact from passing through each other.

It is shown that the friction force $\overrightarrow{F_f}$ is generally given by the equality $\overrightarrow{F_f} = \mu \vec{N}$, where μ is the *coefficient of friction*. So the coefficient μ of friction is the proportionality factor between the sizes of $\vec{F}$ and $\vec{N}$.

Comment. We will see, in "Cruising Speed Problem", that we are interested in writing the equation of motion for speed control of the mechanical system, represented by a moving car, whose engine develops a traction force $\vec{F}$. For this, we will make a mathematical modelling of the system, by using differential equations, the analysis of the system being in the time domain. Basically, we will make a description of the system, using mathematical notions and algorithms. Following the mathematical modelling will result a mathematical model, obtained based on working hypotheses, called *simplifying hypotheses.*

In the matter of cruising speed, which we want to "model", *simplifying assumptions* will be made about the friction force $\overrightarrow{F_f}$, precisely because, as mentioned above, it can depend on many parameters, sometimes too many to allow "modelling". A presentation of these *simplifying hypotheses* can be found in (Popova, E. et. al, 2015). If we look at the history of physics, looking for the moments when these hypotheses were outlined, the best known is the "Coulomb moment". But before Charles-Augustine Coulomb (1736 - 1806), we must mention (even if his statements did not influence the science and engineering of his time), Leonardo Da Vinci (1452-1519), in whose famous notebooks can be found the main laws on the dry friction, see, for example, [Dowson, 1979]. Among these:

(F1) The friction force does not depend on the area of the contact surface.

About a century and a half after Da Vinci, Guillaume Amontons was born (1663-1705), the author of the first study published (in 1699) on friction, (Amontons, 1699). He formulated 4 laws of friction. Among these:

(F2) The friction force does not depend on the speed;

(F3) The friction force is proportional to the normal force (hypothesis known as *Amontons' Law*).

Amontons' work greatly influenced engineering practice, see (Popova, E. et. al, 2015). In the eighteenth century, Coulomb, mentioned above, would have led lengthy experimental studies on friction, a phenomenon that had proved to be complex. Coulomb's name is emblematic of the evolution of Physics and Engineering in France in that century. Coulomb's first seminal work was his memoir "*Théorie des machines simple*" ("*Theory of Simple Machines*"). The *dry friction* was known as the *Coulomb rubbing*. A study of this type of friction is performed in (Popov, 2010). Coulomb confirmed Amontons' law, but also studied the dependencies of friction on other parameters, even if these dependencies are weak. If we think intuitively, among these parameters, in the case of moving a car there is also the speed $\vec{v}$. Indeed, when $\vec{v}$ increases, in addition to road friction, there is also air friction, which makes the friction force no longer independent of $\vec{v}$, contradicting what is stated in **(F2)**. (Of course, it is possible that this *simplifying hypothesis* may be taken into account in the case of low speeds.) A study

of the dependence relationship between kinetic friction and velocity as well as a history of this problem also appear in (Braun, O. ; Peyrard, M., 2011).

In the mathematical modelling that we will use in this paper to determine the cruising speed, we will consider that the **friction force** F_f **depends linearly on the speed** v of the car. However, it is normal to also appeal to a law of Newton, as it is well known that *Newton's Laws*, also called the *Fundamental Principles of Mechanics*, are three laws that establish a connection between the movement of a body and the forces acting on it. Isaac Newton (1642-1727), based on the studies of his predecessor Galileo Galilei (1564-1642), wrote in 1687 a monumental work, fundamental to classical mechanics ("*Philosophiae Naturalis Principia Mathematica*"), in which he formulated these laws. In our paper we will use the **Second Principle of Dynamics** (also called **Newton's Second Law**). To state this law, we consider a force $\vec{F}$ that acts on a body, and imprints on it an acceleration $\vec{a}$ collinear with $\vec{F}$, and whose size $\vec{a}$ is proportional to the size F of $\vec{F}$ and inversely proportional to the mass m of the body. The relationship between $\vec{F}$, m and $\vec{a}$ is

$$\vec{F} = m\vec{a}.$$

We mention that, working in the time domain *t,* the acceleration $a(t)$ of the moving body shows how fast the velocity $v(t)$ changes:

$$a(t) = \frac{dv}{dt} \text{ or,}$$

with the notation used in mechanics,

$$\vec{a} = \dot{\vec{v}}.$$

3. Research methodology

3.1 The problem of electricity

We consider 72 battery elements with the same electromotive voltage e and each with internal resistance r and external resistance R.

Find the most efficient method of grouping the 72 elements in α series of β elements each, grouped in parallel so as to obtain a current of maximum intensity.

The ***methodology for solving*** the problem begins with its wording in the language of the Mathematical Analysis. For this, we will build a function f in the variable β and study its monotony, by applying the consequence of the Lagrange's theorem from the differential calculus of a function having only a variable, see 2.2.A (the **Dictionary of mathematics**). Solving will continue by making estimates to find the most effective method of grouping the 72 elements, in the meaning of the problem.

3.2 The cruising speed problem

In the Oxford English Dictionary (OED), the c*ruising speed* is defined as "a speed for a particular vehicle, ship, or aircraft, usually somewhat below maximum, that is comfortable and economical".

Expressing ourselves in an informal language, we are interested in the speed at which we can constantly drive a car, for optimal consumption and minimal engine wear, an important benefit being that we can drive on long roads without too much a lot of fatigue. In this sense, excluding possible engine wear, cruising speed is a kind of economical speed, or rather, a kind of optimum between speed and fuel consumption.

Comments

a.) If we refer to the **technical significance** of the problem, at any course of economic driving, we learn that engine manufacturers believe that the cruising speed is somewhere at about 75% of the maximum speed that the car can reach.

Obviously, it is important for any driver (especially for the truckers traveling thousands of kilometers per day), to identify and use cruising speed. Now, many modern cars, even cheaper models, are equipped with a cruise system. In fact, it is a cruise speed control system and has appeared for a long time, before many other systems that facilitate the control of the car. With the first such cruise control systems, American cars have been equipped for many years, because they usually run very long distances. Speaking more technically, but only informally, cruising speed control is done with a servo-device that connects to the vehicle's on-board computer and adjusts the throttle opening.

But in this didactic work, we are not interested in these technical aspects. Our concern is to make a **mathematical modelling** of this phenomenon.

b.) It is obvious that the **theoretical study of the problem of determining the cruising speed,** on which the control systems are based, is of interest.

As with the previous problem, the **methodology for solving** this problem begins with the formulation of the problem in the language of Mathematical Analysis, following the application of the theory of differential calculus of functions having a single variable. Using the second principle of dynamics (Newton's principle) we arrive at a first-order nonhomogeneous linear differential equation, the solution of which will give the cruising speed $v(t)$ of the car at time t. In fact, the differential equation that gives this velocity is accompanied by an initial condition ($v(0)=0$). Thus, we have to solve a Cauchy problem. Since $v(t)=x'(t)$, we can then determine the distance $x(t)$ traveled by the car up to time t.

4. Results

4.1 The problem of electricity

We remind again the statement of this problem.

We consider 72 battery elements with a same electromotive voltage e and each with internal resistance r and external resistance R.

Find the most effective method of grouping the 72 elements in α series of β elements each, grouped in parallel, so as to obtain the maximum intensity of the current.

Solving the electricity problem

To each series of β elements, we have the electromotive tension βe and the internal resistance βr. For all the battery, when we put in parallel the ones α series, the electromotive force is $(V=)\beta e$ and the internal resistance is $\frac{\beta r}{\alpha}$. This leads to a total resistance equal to $R+\frac{\beta r}{\alpha}$. The electric current intensity will be $i=\frac{\beta e}{R+\frac{\beta r}{\alpha}}$; since $\alpha=\frac{72}{\beta}$, it follows $i=\frac{\beta e}{R+\frac{\beta^2 r}{72}}$. So we obained the electric current intensity i as a function of the variable β. We aim to determine the monotony of the function i. We will note $i=f$ and $\beta=x$. We have the function $f(x)=\frac{ex}{R+\frac{rx^2}{72}}$. We aim to apply the consequence of the Lagrange theorem, mentioned in Section 2.1.A. For this, we calculate the derivative of the function f. It follows:

$$f'(x)=e\frac{R+\frac{rx^2}{72}-\frac{rx^2}{36}}{\left(R+\frac{rx^2}{72}\right)^2}\Rightarrow f'(x)=e\frac{R-\frac{rx^2}{72}}{\left(R+\frac{rx^2}{72}\right)^2}.$$

We remark that:

$f'(x)>0$ on the interval $\left(0,\sqrt{\frac{72R}{r}}\right)$, and

$f'(x)<0$ on the interval $\left(\sqrt{\frac{72R}{r}},+\infty\right)$.

According to the consequence of the Lagrange theorem, it follows:

x	0 $\quad\quad$ $\sqrt{\frac{72R}{r}}$ $\quad\quad$ $+\infty$
$f'(x)$	$+++++0-----$
$f(x)$	$\nearrow$ $\quad\quad$ $f\left(\sqrt{\frac{72R}{r}}\right)$ $\quad\quad$ $\searrow$

To solve our problem, we are looking for two consecutive divisors of 72, between which the real number $\sqrt{\frac{72R}{2}}$ is found and, next, we will determine for which of these divisors the higher intensity is obtained.

Particular cases:

1) $r=1\Omega,\ R=3\Omega$

2) $r=1\Omega,\ R=15\Omega$

3) $r=1\Omega,\ R=100\Omega$

4) $r=1\Omega,\ R=2\Omega$

5) $r=1\Omega,\ R=10\Omega$

We will analyze cases 3) and 5) the other cases leaving them as exercises.

Case 3. For $R=100$, it follows that $\sqrt{\frac{72\cdot 100}{1}}>72$. From the table above we deduce that the function f increasing on the interval $(0,72)$, so we take $\beta=72$ and $\alpha=1$.

Case 5. For $R=10$, it follows that $\sqrt{\frac{72\cdot 10}{1}}\cong 26,83$, which is between the divisors 24 and 36 of 72.

Remark. The most effective choice is $\alpha=3,\beta=24$ ($f(24)>f(36)$).

Ω

4.2 The cruising speed problem

We remind again the statement of the problem of "cruising speed", but we express ourselves in a more applied, more precise language.

We are interested in determining what is the size v of the (ideal) cruising speed, which a driver must keep on the highway, in order to have the lowest possible consumption, but running at a normal speed for a highway. Basically, we will work in the field of time t, finding, in certain hypotheses, the *expression of the size* $v(t)$ *of the speed at time* t and, consequently, the *equation corresponding to the motion of the car*. We assume that its engine develops traction force $\vec{F}$.

In this section we will apply the differential calculus of a function with one variable, to show how the cruise control system can be modelled.

In addition to the traction force $\vec{F}$, in the drawing from 2.2.B, there is also the friction force $\vec{F_f}$ that appears during the movement and opposes the movement. The size F_f of the friction force depends on the sides G and N of the two forces of interaction, $\vec{G}$ (the *weight of the car*) and $\vec{N}$ (the *normal force* or *normal reaction*) between the two surfaces in contact, the pair of forces (coming from gravitational acceleration), which prevents the bodies from passing through each other. We mention that in science and engineering, the weight of an object is related to the force acting on the object, either due to gravity or a reaction force that holds it in place.

We also mentioned that the size F_f of the friction force is generally given by equality $F_f=\mu N$, where μ is the *coefficient of friction.*

Solving the cruising speed problem

Let's start with the ***Problem data***.

We work in the field of time t, and we consider the size of the forces that appear. We will refer to each of these sizes with the same name as the force of which it is associated.

We assume that we know:

a) The motor-developed force, denoted by F

b) The mass m of the car;

c) The friction coefficient k_f with the road on which the car is travelling; this coefficient is constant and the road friction force, $F_f=F_f(t)$, it is directly proportional to the speed v, the proportionality factor being k_f, that is, $F_f(t)=k_f v(t)$, at the time t.

We start with a short comment, see 2.2.B, concerning "***The second principle of dynamics (Newton's principle)***", applied for an object which has a constant mass and is in motion (for the *cruising speed problem,* the object is a car in motion). This ***principle*** (which is a law of classical mechanics that describes a relation between the motion of the object and the forces acting on it) states that: *the size* R of the resultant of these forces is equal to $m\cdot a$, where m is the mass of the object and a is its acceleration.

Choosing an origin (the starting point of the car) and denoting by $x(t)$, the distance (from this origin) where the car is after a while t, the speed $v(t)$ and the acceleration $a(t)$ are given by:

$$v(t)=x'(t)$$

and:

$$a(t)=v'(t)=x''(t), \tag{12}$$

respectively.

We want to set the *differential equation of the motion of the car*, that is, to determine the function $x=x(t)$, $t\geq 0$. We will use the second principle of dynamics. Since F_t is opposed to force F, the resultant of the forces acting on the car is $R(t)=F(t)-F_f(t)$. It follows:

$$R(t)=F(t)-k_f v(t)=F(t)-k_f\cdot x'(t) \tag{13}$$

But, from the second principle of dynamics, it follows:

$$R(t)=ma(t)\overset{(12)}{=}mx''(t),$$

hence

$$R(t)=mx''(t) \tag{14}$$

From (13) and (14), it follows:

$$F(t)-k_f x'(t)=mx''(t). \tag{15}$$

We have to solve a Cauchy problem as we obviously have initial conditions given by the values of the functions $x(t)$ and $v(t)=x'(t)$ at the initial time $t=0$. More precisely:

$$x(0)=0 \text{ and } v(0)=0 \tag{16}$$

or equivalently $x(0)=0,\ x'(0)=0.$

The equation (15) is a ***second-order*** *nonhomogeneous linear differential equation*, *with constant coefficients*, but in incomplete form, because the term $x(t)$ is missing. (Notice that the differential equation (15) is called "a ***second-order*** differential equation", because the maximum order of derivatives - of the function $x(t)$ - that appear is 2.) Then we can reduce the order of this differential equation by performing a change of function. The new function will be:

$$v(t)=x'(t) \tag{17}$$

The differential equation in the function $v(t)$, is obtained from (15) and (17):

$$F(t)-k_f v(t)=mv'(t) \tag{18}$$

The equation (18) is a ***first-order*** *nonhomogeneous linear differential equation with constant coefficients.* But for the equation (18), we also have an initial condition:

$$v(0)=0.$$

So we have to solve a Cauchy problem:

$$\begin{cases} mv'+k_f v=F \\ v(0)=0 \end{cases} \tag{19}$$

Next we will solve this Cauchy problem.

Step 1. We start with solving the homogeneous differential linear equation attached to the equation (18):

$$mv'+k_f v=0 \tag{20}$$

The equation (18) is an equation with separable variables. Now we will separate the variables. $mv'=-k_f v\Rightarrow v'=-\frac{k_f}{m}v$. Since $v=v(t)$, it follows:

$$\frac{dv}{dt}=-\frac{k_f}{m}v.$$

In Section 2.2.A, we have shown that in order to separate the variables in this equation, we should

multiply with dt and divide by $v\left(=v(t)\right)$. From a mathematical point of view, we should discuss two cases:

Case A) $v\neq 0\left(\text{that is, there exists } t \text{ with } v(t)\neq 0\right)$;

Case B) $v=0\ \left(v(t)=0, \text{ for any } t\right)$.

But, from a physical point of view, Case B) no longer makes sense, because when the car starts moving, its speed is such that $v>0$. So $\frac{dv}{v}=-\frac{k_f}{m}dt$. Integrating, it follows that:

$$\int\frac{1}{v}dv=\int-\frac{k_f}{m}dt\Rightarrow \ln|v|=-\frac{k_f}{m}t+\ln k, \text{ where } k>0\Rightarrow$$

$$\ln\frac{|v|}{k}=-\frac{k_f}{m}t\Rightarrow|v|=ke^{-\frac{k_f}{m}t}$$

$$v(t)=\pm ke^{-\frac{k_f}{m}t}.$$

We denote $\pm k=C$ and, since $k>0$, it follows that $C\in\mathbb{R}^*$. Then the solution of the *homogeneous* differential equation is:

$$v_o(t)=C\cdot e^{-\frac{k_f}{m}t}, \tag{21}$$

where $C\in\mathbb{R}^*$.

Step 2. Now we are looking for a **particular solution** of the ***nehomogeneous*** differential equation that appears in (19), such that it has the form of v_o from (21), in which, the constant C replaced by a function not known for instant $C(t)$. Hence, by using the ***Method of variation of constant*** (***Euler-Lagrange Method***) we are looking for a particular solution having the form:

$$v_p(t)=C(t)\cdot e^{-\frac{k_f}{m}t}. \tag{22}$$

We "force" $v_p(t)$ from (22), to verify the nonhomogeneous differential equation (19). It follows:

$$mv_p'+k_fv_p=F\Rightarrow m\left(C(t)\cdot e^{-\frac{k_f}{m}t}\right)'+k_f\left(C(t)\cdot e^{-\frac{k_f}{m}t}\right)=F$$

$$\Rightarrow mC'(t)e^{-\frac{k_f}{m}t}+mC(t)e^{-\frac{k_f}{m}t}\left(-\frac{k_f}{m}\right)+k_fC(t)e^{-\frac{k_f}{m}t}=F\Rightarrow$$

$$\Rightarrow m\cdot C'(t)e^{-\frac{k_f}{m}t}=F\Big|\cdot\frac{e^{\frac{k_f}{m}t}}{m}\Rightarrow C'(t)=\frac{F\cdot e^{\frac{k_f}{m}t}}{m}\Rightarrow$$

$$\Rightarrow C(t)=\int\frac{F}{m}\cdot e^{\frac{k_f}{m}t}dt. \tag{23}$$

We denote $\frac{k_f}{m}t=u\Rightarrow du=\frac{k_f}{m}dt$. Replacing in (23), it follows:

$$C(t)=\frac{F}{k_f}\int e^{\frac{k_f}{m}t}\cdot\frac{k_f}{m}dt=\frac{F}{k_f}\int e^udu\Rightarrow C(t)=\frac{F}{k_f}\cdot e^u+C_0=\frac{F}{k_f}e^{\frac{k_f}{m}t}+C_0,$$

where $C_0\in\mathbb{R}$. Since from (21), $v_p(t)=C(t)e^{-\frac{k_p}{m}t}$, it follows:

$$v_p(t)=\left(\frac{F}{k_f}\cdot e^{\frac{k_f}{m}}+C_0\right)e^{-\frac{k_f}{m}t},$$

where $C_0\in\mathbb{R}$, or equivalently

$$v_p(t)=\frac{F}{k_f}+C_0e^{-\frac{k_f}{m}t},$$

with $C_0\in\mathbb{R}$.

Step 3. The **general solution** of the ***nonhomogeneous*** equation is:

$$v_n(t)=v_o(t)+v_p(t)\Rightarrow$$

$$v_n(t)=C\cdot e^{-\frac{k_f}{m}t}+\frac{F}{k_f}+C_0e^{-\frac{k_f}{m}t}$$

$$v_n(t)=(C+C_0)\cdot e^{-\frac{k_f}{m}t}+\frac{F}{k_f}.$$

If we denote $C+C_0=C_1$, it follows:

$$v_n(t) = C_1 e^{-\frac{k_f}{m}t} + \frac{F}{k_f}. \quad (24)$$

But $v_n(0) = 0,$ from the initial condition (16) of the Cauchy problem that we need to solve $(v(0) = 0)$. It follows $C_1 + \frac{F}{k_f} = 0 \Rightarrow C_1 = -\frac{F}{k_f}$. We replace this value of the constant C_1 in (24). It follows: $v_n(t) = -\frac{F}{k_f} \cdot e^{-\frac{k_f}{m}t} + \frac{F}{k_f} \Rightarrow v_n(t) = \frac{F}{k_f}\left(1 - e^{-\frac{k_f}{m}t}\right)$. So the ***cruising speed*** of the car in the simplifying assumptions imposed at the beginning of our mathematical modelling is:

$$v(t) = \frac{F}{k_f}\left(1 - e^{-\frac{k_f}{m}t}\right). \quad (25)$$

Since $v(t) = x'(t)$, from (25) we also get the ***equation of motion*** of the car:

$$x(t) = \int v(t)\,dt \overset{(25)}{=} \int \frac{F}{k_f}\left(1 - e^{-\frac{k_f}{m}t}\right)dt \Rightarrow x(t) = \frac{F}{k_f}\left(t -$$

,

where $C_2 \in \square$.

The relation (26) which follows, gives us the *equation of motion of the car in the matter of cruising speed*.

$$x(t) = \frac{F}{k_f}\left(t + \frac{m}{k_f}e^{-\frac{k_f}{m}t}\right) + C_2 \quad (26)$$

with $C_2 \in \square$.

We are going to determine the integration constant C_2. We use the *initial condition* (16) $(x(0) = 0)$. We replace $t = 0$ in (26), and it follows:

$$0 = x(0) = \frac{F}{k_f} \cdot \frac{m}{k_f} + C_2 \Rightarrow C_2 = -\frac{mF}{k_f^2}.$$

Replacing in (26), this value of the integration constant C_2, it follows:

$$x(t) = \frac{F}{k_f}\left(t + \frac{m}{k_f}e^{-\frac{k_f}{m}t} - \frac{m}{k_f}\right).$$

Ω

5. Discussions

The idea of this paper is not new to its authors. Indeed, this paper is added to the following works (among their authors being two of the authors of the current work) : [Dăneț, Dilimoț & Popescu, 2009], [Dăneț, Popescu & Dilimoț, 2008], [Dăneț, Popescu & Dilimoț, 2010], [Dăneț et.al, 2014], [Dăneț, Popescu & Voicu, 2008], [Dăneț, Popescu & Voicu, 2009], [Dăneț, Popescu & Voicu, 2011] and [Dăneț, Popescu & Voicu, 2010]

In all these works, we set out to change the face of teaching mathematics in a technical university, especially for first-year students who are preparing to become civil engineers. The main idea is that the rigorous, technical, specific exposition of mathematics teaching in a mathematics college is complemented by an informal exposition. Thus we can add historical information, we can find the motivation of the discussed topic, we can present some applications mainly in Physics or in engineering (or, sometimes, in economics) and we can formulate problems that remained open. In this way, the exposure becomes more accessible.

To these we add something that comes from our rich teaching experience as teachers in the Department of Mathematics of a technical university.

First we started from the hypothesis that the students to whom the courses are dedicated, possess certain calculation algorithms, but have no experience or have only a limited one, in the technique of rigorous demonstrations.

Therefore, the exposure is built gradually, with great care in choosing the titles corresponding to the different moments of the course. This is because we consider that, at an early stage, the knowledge of these titles is a first phase of awareness of the topics addressed, being a first summary of them.

The gradual exposition, step by step, follows the theoretical construction of the courses, but it is also modelled according to the students' capacity to assimilate this construction.

Thus the structure of the course contains the following steps:

- First of all the fundamental notions, which constitute the dictionary of the respective subject, as well as examples meant to facilitate the understanding of these notions;
- Then, the results that aim to fix the fundamental properties of the notions in the "dictionary", the connections between these notions, as well as certain calculation algorithms;
- It follows some proofs of these results, namely those that handle only the notions that appear and have the role of "theoretical exercises";
- Continues with examples of application of these results and with solved exercises, exploring the classic types of applications, as "models" of using the "theory" previously exposed;
- As a recapitulation of the main notions and results and of the fundamental algorithms, for each lesson a questionnaire is formulated that summarizes, with as few questions as possible, the previous "steps". The answers to these "questionnaires", optionally offered by students who want to be better prepared for the exam, are a summary of the course, so "course notes" made individually. (Note that these questionnaires are distributed to students at the beginning of each semester);
- Some proposed exercises.

Each step assimilated by the student is a step towards the maximum grade. In order to obtain the credits necessary to pass the exam, the students can only know the dictionary and some suitable examples as well as the fundamental algorithms. This *step-by-step approach* provides accessibility to both students who do not have a solid foundation and those who have such a foundation. It is a modern, original and attractive approach, presenting in a new way a standard and classic material. This smooths the transition from a more rigorous approach to one more accessible.

6. Conclusions

This paper, together with the papers mentioned in the previous section, serve the purpose for which they were written. As mentioned earlier, the goal is twofold.

On the one hand, all these works offer students a means of approaching some topics that they will study later, in other courses. On the other hand, the approach in our papers illustrates, as suggestively as possible, that what is taught in mathematics courses will be useful to students in understanding other disciplines, helping them to *rigorously* solve problems specific to these disciplines. We emphasize that, here, by "*rigorously* resolving" we mean "giving a solution, in which each statement is the clear consequence of the statements previously demonstrated". It is therefore a matter of cultivating logic and correctness of reasoning and in a technical university, this mission belongs to mathematics courses.

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10.24193/ed21.2021.21.12

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Educatia 21 Journal, (21) 2021, Art. 12
doi: 10.24193/ed21.2021.21.12
Research article

Psycho-Social Benefits of an Afterschool Program in Romania: Qualitative Analysis of Parental Perceptions

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Abstract

This study investigates in a qualitative manner the psychosocial benefits perceived by the parents of children enrolled in a private Aftershool (AS) program in Romania. The theoretical background includes aspects of school-family-community collaboration and characteristics and legislative frames supporting Afterschool programs in Romania and in the EU space. By using an online focus group approach, the objective was to identify the dimensions of the children-related benefits of the Afterschool program perceived by the parents (6 participants) at social, emotional and cognitive levels, as well as to identify their needs and suggestions regarding the compassion-based educational activities that the AS program might offer to their children. The results indicate a general satisfaction with the AS program, as well as the readiness of the parents to get involved in activities oriented towards community together with their children and the personnel of the AS program.

Keywords:
parental perceptions, afterschool, compassion-based education, focus group.

Zusammenfasung

Diese Studie untersucht auf qualitative Weise den psychosozialen Nutzen, den die Eltern von Kindern wahrnehmen, die an einem privaten Aftershool (AS)-Programm in Rumänien teilnehmen. Der theoretische Hintergrund umfasst Aspekte der Zusammenarbeit zwischen Schule, Familie und Gemeinschaft sowie Merkmale und rechtliche Rahmenbedingungen zur Unterstützung der Afterschool-Programme in Rumänien und im EU. Ziel war es, mithilfe eines Online-Fokusgruppen-Ansatzes die Dimensionen des kindbezogenen Nutzens des Aferschool-Programms zu ermitteln, die von den Eltern (6 Teilnehmer) auf sozialer, emotionaler und kognitiver Ebene wahrgenommen werden, sowie deren Bedürfnisse und Vorschläge zu identifizieren über die auf Mitgefühl basierenden Bildungsaktivitäten, die das AS-Programm ihren Kindern anbieten könnte. Die Ergebnisse zeigen eine allgemeine Zufriedenheit mit dem AS-Programm sowie die Bereitschaft der Eltern, sich gemeinsam mit ihren Kindern und dem Personal des AS-Programms für gemeinschaftsorientierte Aktivitäten zu engagieren.

Schlüsselworte:
elterliche Wahrnehmungen, Afterschool-Programm, mitfühlende Erziehung, Fokusgruppe.

1. Introduction

The partnership between school, family and community is one of the important aspects addressed by educational policies around the world. In Romania, according to the National Education Law no. 1/2011, parents are considered to be the main partners and beneficiaries of the educational process, so it is assumed that they should be involved in developing educational offerings for children, including extra-curricular activities and organizing afterschool programs. In the literature (for example, Epstein et al., 2009) it is considered that the involvement of parents in collaborating with the school can play a significant role in terms of education and socio-emotional development of children. This cooperation can have positive effects for parents, teachers and community. An important role in supporting the process of the cooperative interactions between school, family and community is played by the educational counseling services, but also the psycho-pedagogical assistance offices. An optimal relationship between the three components is generally considered to bring an educational balance, allowing a positive approach to the education process and adaptive flexibility in changing societies (Cara, Bulat, & Globu, 2018).

The school-parents-community collaboration is expected to include relationships based on respect,

sympathy, mutual admiration and acceptance. In addition, it is considered that it must be based on understanding and collaboration in order to achieve a high level of quality of education in each school. Building this partnership is a deliberate action that is done with multiple efforts of the people involved. Some studies support the idea of effective partnership programs, which allow both active involvement in the education of children, but also the involvement of parents from all backgrounds regardless of socioeconomic status, membership or living environment (for example, Cankar, 2009).

2. Theoretical foundation

The development of an educational climate in which the children feel comfortable, accepted, understood and desired, is an important goal to be pursued, so that the learning and development can be achieved in optimal conditions. It is well known that positive interactions with teachers/caregivers can have lasting effects on the academic achievements of the children, but also on the development of social skills and emotional and behavioral self-regulation. According to a study conducted at Vanderbilt University, children who experienced more positive interactions with their peers and with their teachers (who spent most of their time reinforcing positive behaviors), developed significantly higher social skills compared to problematic behaviors (Farran, 2016). To create a positive climate in communication contexts, including educational ones, one of the important factors is the need of children for belongingness and social connectedness, which are associated with a safe environment.

According to a study by Broderick (2013), social and emotional well-being play a key role in achieving school success in children. It is emphasized that school success comes when cognitive skills work simultaneously, and these acquired skills can help the child manage stress, understand and manage emotions, feel and empathize with others, make responsible decisions and maintain positive relationships (Broderick, 2013). The caregiver/teacher can set goals to encourage an environment of trust and mutual respect in which the children feel confident enough to express feelings and thoughts, to encourage their social relationships, increasing the feeling of belonging to community or the adaptability to cope with certain emotional situations (Brown, 2012).

Afterschool Programs (AS)

According to a report published in 2016 by the Ministry of Education and Research in Romania, the afterschool program is defined as a complementary, structured program that offers both formal and informal learning opportunities, aiming to strengthen skills through educational and recreational activities. AS programs can be carried out either before or after the compulsory school program, depending on the schedule of each level of study. These types of programs have been around for more than a century, as Robert Halpern relates in his work (Gayl, 2004). According to the Order no. 5349 issued in Romania in September 7, 2011, amended by the Ministry of National Education (No. 4802/ 31.08.2017), in addition to the activities carried out within the AS program, the project of implementing at national level the AS programs targets several aspects, such as learning remediation, social integration, personal development, keeping students in a safe space etc., as an alternative to spending free time in environments with development potential that meet the needs of all students.

AS programs exist in various forms in different parts of the world, with the goal to provide children and young people with a safe place to spend outside the school hours. Such programs often come to meet the needs of the parents, who desire to have qualified support for their children in order to increase their school performance, personal development and talent cultivation. Moreover, in socio-economically disadvantaged communities, it has been found that such programs, funded and implemented by the state or by private institutions, can contribute substantially to increasing the well-being of the families of pupils (Gayl, 2004). Studies conducted internationally have highlighted the positive impact that such programs can have on children, i.e. if properly targeted and well implemented, AS programs contribute to increasing school performance and personal development of children (Weissberg & Durlak, 2007).

Official reports and statistics indicate that Romania is facing high dropout rates and early school leaving, despite efforts aiming to implement specific public policies addressing these problematic aspects (Eurostat, 2020). In Europe, in 2015, there were more than 4 million young people who left school early, of whom only 40% had found an occupation. According to data provided by Eurostat (Eurostat, 2020), Romania is the only country in the EU where the rate

of early school leave has increased, which is currently about 19.1%, double the EU average. Therefore, AS programs represent one of the measures that can be implemented to reduce the rates of school dropout and early school leave, also increasing the school performance and the well-being of the students (Petre, Arnăutu, Georoceanu, & Darie, 2013).

In Romania, the findings of several projects that aimed to reduce the risk of leaving school early (Tîncă & Dulman, 2012) highlight the fact that the activities of the AS programs usually take place in spaces specially designed and equipped with appropriate equipment and furniture, not in classroom settings, that do not always allow AS-program related activities. The special designated spaces for AS-programs allow the planning of activities on several areas of interest, in which the children can work individually but also in groups, in which they can assume responsibilities but can also develop a feeling of community belongingness. Regarding the involvement in the AS-related activities of all the parties, an integrated approach was developed, the interventions being addressed to parents, children, but also teachers. Teacher training included topics such as: communication, how to manage conflicts, differentiated approach to learning, methods and techniques of non-formal education, classroom management, etc. At the level of several schools, the AS programs also included a component of parental counselling in order to develop parenting skills among others. For example, in the model developed within the AS project implemented by Dâmbovița County School Inspectorate and its partners, parents benefited from counselling both individually and in small groups aimed at respecting the child's rights to develop healthy relationally, intellectually and emotionally (Tîncă & Dulman, 2012). Analyses carried out by the NGO's that piloted AS programs in Romania recommend this type of programs as being efficient in reducing the risk of dropping out of school (Petre, Arnăutu, Georoceanu, & Darie, 2013).

As indicated in several studies and reports, afterschool programs promote positive development and contexts for the prevention of problematic behaviours in children, by addressing several aspects, such as: consolidating various prosocial behaviours, pursuing values and goals, but also promoting psychological flexibility. In addition, AS-programs include strategies to promote self-regulation in relation to mental health, special education and child welfare, and strategies to promote alternative thinking, such as social-emotional learning for emotional awareness and understanding of the rules (Cavoukian, 2018). We consider that parental awareness of the positive effects of AS-programs on the socio-emotional development of children and on the level of dropout is an important aspect of the school-family-community partnership.

3. Research methodology

General objective and research questions

The general objective of this study is to investigate the perceptions of parents of children enrolled in an afterschool program in Romania regarding the benefits of the program in various aspects of the quality of life of the children and of their families. The following research questions (RQ) were formulated: RQ1. What are parental perceptions of the afterschool activities in general? RQ2. What are the social, emotional and cognitive benefits perceived by parents? RQ3. What are parental suggestions for developing compassion for the needs of others and for the community in which they live?

Research participants

Participants were included based on convenience sampling, according to homogeneity criteria of the group, i.e. 6 parents of children from Ideo Academy Afterschool, Cluj Napoca, Romania, aged between 34 and 38 years (Table 1). Initially, a number of 10 subjects were approached, of which only 6 gave an affirmative answer for participating in the study, while the remaining 4 did not answer, or gave a negative answer supported by the lack of time to participate in it.

Table 1. The demographic characteristics of the participants.

Parent initials	Gender	Age	Family type	Number of family members	Level of education	Current profession
I.H	F	38	biparental	3	higher education	afterschool coordinator
I.Ș	F	34	biparental	3	higher education	freelancer photographer
S.K	F	38	biparental	4	higher education	economist
R.I.N	F	35	monoparental	2	higher education	accountant
Ș.R.L	F	38	biparental	3	higher education	economist
L.B	F	38	biparental	3	higher education	entrepreneur

Data collection

The method of online focus group was used in this research for data collection. The focus-group method does not have a clear or precise definition of the term

designating a variety of techniques (Carey, 1994). Broadly speaking, this focus group designates the realization of a built group that is focused on a certain theme. Merton, Fiske and Kendall (1940) legitimized it as a research technique in social psychology and later on, it became used at a large scale in marketing. In social sciences, it started to be used relatively recently in exploratory studies in medical research, education sciences, research conducted from feminist perspectives etc. The method comprises two distinct stages (I) Preparing the focus group and (II) Conducting the interview and recording the data, with several sub-stages (Stănciulescu, 2007).

Procedure

The group moderator (A.G.) proposed that participants voluntarily participate in a qualitative study and informed them about the subject of the questions and about the agreement regarding the recording of the session and collection of personal data. The moderator together with the participants agreed on a common date and time (the meeting took place online using the platform for connecting and recording the meeting: Whereby). When connecting to the meeting, but also before it (through informed consent) the participants were notified of the confidentiality of the data provided. The collection of personal data was carried out using Google forms questionnaire in which each participant in the study provided demographic data such as age, profession, and family composition (number of members). They were also informed about the number of questions to be asked and the need to answer each of them honestly, the time allotted for each question (approximately 3-5 min), and that there are no correct or wrong answers, i.e. each answer or all experiences/opinions are equally valuable.

The questions formulated during the online focus group meeting were chosen according to the degree of their relevance for the topic of the afterschool program:

Q1: "Why did you choose an afterschool program for your child?" This is a general question that refers to the perception of parents and why they decided to choose such a program for their child.

Q2: "What do you think are the most important activities they have in this type of program? Name the 3 most important of these from your point of view." This question aims to find out the hierarchy of activities carried out within the AS program from the point of view of parents but also possible arguments for which they are in the top of important activities for their children.

Q3: "How safe do you think this type of program is for your child? What are your fears and thoughts?" This question leads to an introspective analysis of the thoughts and fears that parents have about the program and implicitly their child.

Q4: "Which of the activities at Ideo Academy do you think bring the most social, emotional and cognitive benefits to your child?" This is a general question regarding the specifics of play and learning activities within the program that can facilitate social, emotional and cognitive plans through curiosity, exploration, manifestation of feelings, desire for knowledge, etc.

Q5: "Ideo-Academy offers, as you know, programming courses for the little ones but also creative-educational activities. What would you suggest we include in these activities to develop children's compassion for the needs of those around them and for the community in which they live?" This question aims to highlight the importance of developing compassion in children and to generate answers through which this skill could be developed and included in the environment of which they are part.

Q6: "Do you have any suggestions for activities in which you could get involved as a parent in the afterschool program?" This question concerns the expression by parents of their willingness to get involved in the afterschool program taking into account values such as patience, compassion, etc. It aims to initiate the planning of parent-child-educator activities in an emotionally secure space, in which the child is the main beneficiary.

Data analysis

The verbal responses recorded in the focus group were transcribed verbatim. The content analysis method used is the one described by Erlingsson & Brysiewicz (2017), with the following three steps: text transcription, text condensation by identifying units of meaning (codes), identifying themes and categories. According to the authors, content analysis is a method often used in qualitative research, allowing the exploration of reflections in the direction of identifying meaningful information from the life experiences of the interviewees.

4. Results

The results of the qualitative analysis are presented according to the questions posed during the focus group.

Q1: *Why did you choose an afterschool program for your child?*

The analysis of the answers received from parents indicates that most parents decided to choose an afterschool program in response to personal problems, such as lack of time and investments they did not want to make in a nanny, but also due to the perceived benefits of the program on the development of their children. They describe the AS program as being a safe learning space, an environment for social interaction and spending quality time with qualified staff who pay attention to the emotions, conflict resolution, safety and questions of children while pursuing academic development through foreign languages, programming and other creative-educational activities. Performing a frequency analysis of the occurrence of the answers, we can see that 2/6 share the same opinion on the decision to choose such a program. The codes to identify parents' perception related to the afterschool program were grouped into three categories, with several subcategories (Table 2).

Table 2. Coding and categorization of the responses to Q1.

Theme	Category	Subcategories	Codes
Afterschool program choice decision	Child benefit	Safe learning space/ environment	"The fact that it is in a safe, organized environment." L.B. "A good environment for him to unleash his imagination." L.B.
		Social interaction	"Plus it interacts and socializes." Ş.R.L "I knew he would have more children from his class, which is an advantage." Ş.L.R "I really wanted him to be surrounded by children: to be able to observe, to see what social interaction means, to figure out what are the right rules to interact with other children" L.B. "I really wanted to belong to a group." I.Ş
		Learning through play	"It's all through play and I think that's very nice" S.K. "Learn everything through play" I.Ş
		Socialization	"For us it was more the socializing part" L.B. "Also for socializing." I.Ş
		Quality time	"We opted for this option in which he spends quality time supervised by someone who takes care of them" S.K.
	Parent benefit	Time restrictions	"Our work would not allow us to go and pick up the child from school" S.K. "Because the work schedule did not allow us to take the child out at 12:00." Ş.R.L "First and foremost for time." I.H. "First of all, because of the schedule, my job." R.I.N
		Investing in nannies	"He can spend quality time supervised by someone who takes care of the children and not just some nannies who could just walk him in the park and bring him home" S.K. "Sitting at home, in the yard with the nanny, he wouldn't have learned so much." L.B.
	Program features	Child management	"We know what it's like to manage children a little differently." R.I.N
		Working with emotions	"Attention to emotions." R.I.N
		Transport safety	"The minibus doesn't leave until all the children are secured with seat belts, that's why we turned to an authorized child transport company." I.H.
		Attractive program	"I found the program very beautiful." S.K. "Many other extra options very nice for them." R.I.N
		Foreign languages	"I really liked the fact that it covers two foreign languages: English and German." S.K. "Two foreign languages." Ş.R.L
		Coding for kids	"The fact that I do a little basic programming." S.K. "Plus programming." Ş.R.L
		Outdoor activities	"That you have all kinds of activities, that you go out a lot with them." S.K. "Plus the fact that they're going out." Ş.R.L

Q2: *What do you think are the most important activities they have in this type of program? Name three most important of these from your point of view.*

The answers indicate the parents' propensity to choose activities related to the academic environment, mainly those activities related to the harmonious and beneficial development of the children, such as time spent outside, socializing and diversity of play. Parents indicated that the children feel part of a group, learn social rules together and learn a lot through playing. Performing a frequency analysis of the occurrence on the answers provided by parents, we can see that 3/6 share the same opinion on the order in which they describe the most important activities of the program. Following the analysis, the codes were grouped into eight categories (Table 3).

Table 3. Coding and categorization of the answers to Q2.

Theme	Category	Codes
Important activities of the program	Creative activities	"Creative activities, whatever you draw, collages, she really likes these." S.K.
	Socialization	"Through socializing we actually played and that seems very nice to me" S.K. "Learn how to communicate, play in a team, work in a team" I.Ş "Activities, socializing, are very important to them." Ş.R.L "They are all nice kids and I'm glad they socialize" I.H.
	Time spent outside	"And going out" S.K. "For me, it's important that you go out with them, that you stay out with them as much as possible, I think that's a plus." L.B. "I also like the fact that I go out, I spend time and time outside." Ş.R.L
	Foreign languages	"I have to connect with foreign languages, it seems to me that he is learning without realizing that he has something to do." S.K. "I can't support the german side and the fact that they learn german there helps us a lot." I.H.
	The diversity of the game	"The fact that you play really well with them and learn all kinds of games." S.K. "The way you play with them and learn everything through play" I.Ş "It's clear that something very beautiful is happening there, since every time we go to pick up the children we have to wait for them outside for a while because they are never ready to leave" Ş.R.L
	School-related tasks	"The most useful thing is that they do their homework there" S.K.
	Time management	"We took it as a minus for us as parents that we didn't have enough time to go with them to those places." L.B.
	Parental benefit	"If we had to do homework with them in the evening with them, it would be a disaster." S.K. "Somehow I would have liked to do this with them, but I'm glad you do it" L.B.

Q3: *How safe do you think this type of program is for your child? What are your fears and thoughts?*

Parents provided a large amount of information regarding the fears they face and less revealed thoughts regarding the safety of the program. Regarding the safety of the child during transport by car during trips, most parents expressed that the fear decreased after receiving information from the staff on safety procedures during transportation, but also in the event of injuries. Performing a frequency analysis of

the appearance on the answers provided by parents, we can see that 4/6 choose to share their fears about the program and only 2 of them consider that the program is a completely safe space / place for learning and development. Following the analysis, the codes were grouped into two categories with several subcategories (Table 4).

Table 4. Coding and categorization of the answers to Q3.

Theme	Category	Subcategories	Codes
Safety of the Afterschool Program	Fears	Crisis management	"What are your first aid procedures?" L.B. "If a child gets injured, whom do you call, do you have a first aid kit, can you give first aid…and other safety issues" L.B.
		Closing decisions	"My only fear is to not letting you keep working (due to the pandemic)" S.K. "I always think about what D. would do if the afterschool closed" Ş.R.L
		Adaptability to new environment	"My only fear was if he would adapt, if he would get along with the other children" Ş.R.L
		Change	"I wont change the afterschool, do you understand?" Ş.R.L
		Child safety during transport	"When I went by bus, I was wondering if A. was going to stay put" I.Ş "It gave me a lot of confidence that the staff sent us pictures of how the children board, how they stay in the bus, for me, I think it's safe" R.I.N
	Thoughts	The child's motivation for afterschool	"I can honestly say that I didn't expect him to tell me that he really likes him and that he wants to keep going on the first or second day when I take him out." Ş.R.L

Q4: *Which of the activities that take place within Ideo Academy do you consider to bring the most benefits to your child? In terms of social, emotional and cognitive levels?*

Table 5. Coding and categorization of the answers to Q4.

Theme	Category	Subcategories	Codes
Benefits of the program	Emotional	Attachment	"It seems to me that you miss them over the weekends" S.K. "He already has an attachment to you" S.K.
		Trust	"When D. has a problem, he trusts you to tell you; he knows that together you will find a solution." Ş.R.L "I see her much more confident and much calmer." S.K.
		Positive emotions	"I see she's happy." S.K. "She's in such great shape" S.K.
		Emotional and behavioral regulation	"It seems to me that the program raised her a lot emotionally" S.K.
	Cognitive	Communication	"She's super excited that she has new friends with whom she gets along, with whom you share your toys and her time there" R.I.N
		Troubleshooting	"I appreciate the way you relate to them and for the way you show them that they can solve problems" L.B.
		Accumulation of knowledge	„T. comes home with a lot of information, new games, songs" R.I.N "He talks a lot, he tells us many new words" Ş.R.L "Clearly german is super important to us and it can be seen that it is deepening very well." Ş.R.L
	Social	Social behaviors/ Interpersonal relationships	"It was such an oasis in which he managed to socialize a lot there with his children, to make friends." S.K. "The fact that you call us and talk and somehow in parallel we try to keep an eye on the whole thing" R.I.N
		Conflict resolution/ Normative behaviors	"I really wanted him to be able to observe, to be able to figure out what are the right rules to interact with other." L.B. "When there are conflicts between children, you get involved and try to make them understand" R.I.N. "For me, the part of your involvement in the conflicts between them is very important." R.I.N
		Gentle education	"I think it's great that you're super open and leave them and don't annoy them." R.I.N. "The gentle education you are promoting" L.B.

After qualitatively analysing the answers, it appears that the parents had more easily identified the benefits on cognitive and social levels compared to the emotional dimension. They stated that they would need a longer amount of time to be able to identify all the emotional benefits of the program. Parents refer to the gentle education achieved through the program, compassion-based education, interdisciplinary curriculum development and community learning, expressing gratitude to educators for the way these aspects are approached. After the analysis, the codes were grouped into three categories with the related subcategories (Table 5).

Q5: *Ideo-Academy offers, as you know, programming courses for the little ones but also creative-educational activities. What would you suggest that we include in these activities to develop children's compassion for the needs of those around them and for the community in which they live?*

It is noted that most parents have specified donations and volunteering as the main action for the development of compassion. Parents approached in a unitary way the activities oriented towards people, conservation of the environment, community but also those oriented towards animals. Their answers uniformly complete the four categories, while they requested other ideas/ suggestions to come from the educators regarding the development of their child's compassion. They indicated that attention should be paid to small actions with high impact on the ecological literacy, adapted to their needs and age. Following the analysis, the codes were grouped into four categories with the related subcategories (Table 6).

Table 6. Qualitative analysis of the responses offered to Q5.

Theme	Category	Subcategories	Codes
Suggestions for developing compassion	Community-oriented activities	No direct contact with the beneficiary	"Yeah, I'd say donations" Ş.R.L "Donate for Christmas and mak little things to sell later" S.K.
		Direct contact with the beneficiary	"To go to a nursing home or a puppy shelter to volunteer" L.B.
	Environmental conservation activities		"Activities related to ecology: selective collection or care for plants and everything around us" Ş.R.L "More efficient use of resources, managing of waste" L.B. "Small greening actions can be done in the park" L.B. "To draw their attention to the way the bank of the Someş looks, which means pollution; teaching them to care for the environment and everything around us, all on a much smaller scale and adapted to their needs and understanding capacities" L.B.

Q6: *Do you have any suggestions for activities in which you could get involved as a parent in the afterschool program?*

Parents expressed willingness to get involved in the activities of the afterschool program by proposing visits, thematic days, volunteering, but focusing mainly on involvement in creative activities. Most parents stated that they can come with ideas and proposals for activities, but at the same time, they also emphasized the insufficient time they have to organize them. Following the analysis, the codes were grouped into five categories (Table 7).

Table 7. Coding and categorization of the responses to Q6.

Theme	Category	Codes
Activities with parental involvement in the afterschool program	Reading time	"I know reading a book has caught on very well" Ş.R.L "So in the reading phase, yes, it sounds great to have a parent go one by one that every child would enjoy" I.Ş. "Yes, it may be reading time." I.H.
	Involvement in creative activities	"One made lanterns, one made Christmas decorations" R.I.N "Yes, I also come to the arts & crafts side" S.K. "Let's have them paint a jar for cookies" L.B. "Or let them decorate the windows" L.B. "Let each one decorate a jar, we provide them with stickers and we think of two or three products with which to fill that jar and they decorate it" L.B.
	Organization of visits in the community	"A visit to a music school." I.H. "They could come to the warehouse to make some cookies and sweets presents" L.B.
	Volunteering	"If he were to volunteer at the puppy shelter, I'll go there." I.Ş.

5. Discussion and conclusions

Regarding the activities offered within the afterschool program, the participating parents consider creative activities to be very important. Parents especially appreciated the time the children spend outdoors, were satisfied with the way they speak foreign languages and solve school-related tasks, and they considered that socialization and the diversity of play are key elements as part of a harmonious development of their children. Parents expressed satisfaction with the benefits of the AS program at cognitive and social levels. As for the emotional plan, they stated that they need to spend more time observing the possible benefits of the AS program on their children. Parents expressed gratitude towards the gentle education carried out within the program, as well as towards the activities related to the education based on compassion and learning towards the community.

The responses received from the parents included in our study, although a small number, indicate that they are turning their attention to interdisciplinary curricular development, with suggestions for activities that include compassionate development, specifically referring to people-centered actions, environmental conservation, animals and the community. We consider that the factors that optimized the data collection in this focus group, in terms of disclosure, are represented by the openness of parents and availability to share various thoughts and ideas, the possible factor that could interfere negatively would refer to the applicability of the recommendations (omission of parental vision in implementing and conducting the program). Even though the small number of participants represents a limitation of the study, it is important to specify that we consider this research as a useful exploratory study of the perceptions and the needs of the parents in relation to the AP program. Moreover, by using a focus group method, a small number of participants is accepted in terms of data collection and qualitative analysis.

Following the qualitative analysis of the data, several recommendations were elaborated on the needs of the parents and the needs of the children in order to increase the confidence and good development of afterschool programs:

- Reducing parental fears in terms of AS program safety procedures by attaching to the contract of documents proving the first aid training of the staff.
- Informing parents about the afterschool program from the perspective of benefits on children and families.
- Elaborating of a guide with suggestions and activities regarding the development of compassion, but also of other activities allowing the parental involvement.
- Designing and implementing targeted activities for parents to provide relevant information and feedback about the program, conflict management and management procedures, safety circle etc.
- Establishing an open diary containing suggestions and ideas regarding the optimization of the afterschool program taking into account the needs of parents.

As future directions, we are considering performing longitudinal studies on larger samples to obtain quantitative results, as well as pre- and post-test investigations of the parental perception following their involvement in various activities in afterschool programs. Studies conducted internationally (e.g. Harvard Family Research Project, 2008) highlight a positive impact of AS programs on children and their

families in terms of social functioning and general well-being of the family members, indicating that these programs require constant support and long-term investment, both in the public and in the private sectors.

Authors note:

The authors had equal contributions to this article.

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10.24193/ed21.2021.21.13

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Educatia 21 Journal 21 (2021)

Educatia 21 Journal, (21) 2021, Art. 13
doi: 10.24193/ed21.2021.21.13
Research article

The Impact of the Online Environment on Academic Learning and Communication

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Abstract

Starting from the premise that teaching is an act of communication, which is currently being done online, the main concern of education specialists is to optimize the process of online communication so as academic learning to be effective, meaningful and profound.
As there is an interdependent relationship between communication and learning, this study is an investigative approach that aims to provide some data on students' perceptions of online communication.
Effective and persuasive didactic communication, especially in the online environment, raises a number of difficulties and questions. How can the online communication process be optimized so that learning could be made more efficient? How can a challenging climate in the digital environment be built, what methods are more effective for stimulating interest and activating students? How do students relate to online training, what are the difficulties they encounter, the advantages and disadvantages they perceive? These are only a few questions that we are trying to find answers to in this study.
In order to conduct our investigation, we used a sample of 126 participants, and as a research method we used the questionnaire-based survey and the interview. Following the processing of the results obtained, we were able to formulate conclusions relevant to virtual communication. Among them we mention: training students in the online didactic activity is more difficult, their involvement and participation being strongly influenced by the stress caused by technology. As for building a disinhibiting, stimulating environment, students have high expectations from the teachers.

Keywords:
online communication; academic learning; challenging environment; motivation; socio-emotional reactions.

Zusammenfasung

Ausgehend von der Prämisse, dass Lehre ein Akt der Kommunikation ist und derzeit online gelehrt wird, besteht das Hauptanliegen der Bildungsspezialisten darin, den Prozess der Online-Kommunikation so zu optimieren, dass akademisches Lernen effektiv, sinnvoll und tiefgreifend ist.
Da es eine Wechselbeziehung zwischen Kommunikation und Lernen gibt, handelt es sich bei dieser Studie um einen investigativen Ansatz, der darauf abzielt, einige Daten über die Wahrnehmung der Online-Kommunikation durch die Schüler zu liefern.
Wirksame und überzeugende didaktische Kommunikation wirft insbesondere im Online-Umfeld eine Reihe von Schwierigkeiten und Fragen auf. Wie kann der Online-Kommunikationsprozess optimiert werden, um das Lernen effizienter zu gestalten? Wie kann im digitalen Umfeld ein Reizklima aufgebaut werden, welche Methoden sind effektiver, um Interesse zu wecken und Studierende zu aktivieren? Wie stehen die Studierenden zur Online-Ausbildung, welche Schwierigkeiten treten auf, welche Vor- und Nachteile werden wahrgenommen? Dies sind einige Fragen, auf die wir in dieser Studie Antworten finden.
Für unsere Untersuchung haben wir eine Stichprobe von 126 Probanden und als Untersuchungsmethoden die fragebogenbasierte Befragung und das Interview verwendet. Nach der Aufbereitung der gewonnenen Ergebnisse konnten wir relevante Schlussfolgerungen zur virtuellen Kommunikation formulieren, darunter erwähnen wir: Die Ausbildung der Studierenden in der Online-Lehrtätigkeit ist schwieriger, die Einbindung und Partizipation ist stark geprägt durch den Stress durch Technologie. In Bezug auf den Aufbau einer hemmenden, anregenden Umgebung haben die Schüler hohe Erwartungen an die Lehrer.

Schlüsselworte:
Online-Kommunikation; akademisches Lernen; anregendes Umfeld; Motivation; sozio-emotionale Reaktionen.

1. Introduction

It is a certainty that the educational process is carried out through and for communication, being, ultimately, an act of communication. Communication, in its turn, contains in itself educational potential: knowledge transmission, the training and development of thinking, the facilitation of intellectual processes, the self-regulation of cognitive activity, the stimulation of motivation, the development of attitudes and skills.

As to the effects, any communication usually produces a change of a present state, referring both to the relationship between the participants and to their relationship with the external environment (changing

the way of approaching a problem, urging on action or adopting certain behaviors and so on).

Didactic communication, seen as instrumental communication, directly involved in supporting a systematic learning process (Cucoș, 2006), aims to produce changes, positive transformations in terms of knowledge, affectivity and behaviors, in the personality structure of the participants.

Didactic communication can be considered "an axiomatic principle of the educational activity that involves an *educational message* developed by the subject of education (the teacher), able to provoke the formative reaction of the object of education, assessable in terms of external and internal inverse connection" (Cristea, 2000). What remains determinant is the formative characteristic of the didactic communication, the teacher simultaneously exercising his influence on the contents and the student.

In didactic communication we must be precise and expressive, at the same time, through clarity and conciseness facilitating both the transfer and understanding of the transmitted message; the transmitted information must be adapted to the purpose, the teaching objectives and the intellectual level of the students.

Didactic communication is not only an activity that connects the teacher and the student to achieve common goals, it is also a psychosocial process of influencing attitudes, behaviors, beliefs, affective-motivational and volitional components through specific languages.

Therefore, communicating effectively and expressively, especially in the online environment, raises a number of difficulties and questions:

How can the online communication process be optimized so that learning could be made more efficient? How can a stimulating climate be built in the online environment, a mobilizing climate, with positive values in the formative-educational plan? What methods are more effective in the digital context in overcoming the mere exposure in a high-profile, well-argued debate that is able to change the conformism of a student into participation and activism? How do students relate to online training, what are the difficulties they encounter, the advantages and disadvantages they perceive? What are their socio-emotional reactions?

These are some of the questions we started from in this study. We have been trying to find answers, from the position of the teacher who aims at streamlining the didactic communication and implicitly facilitating the academic learning.

2. Theoretical foundation

2.1. Barriers/ blockages that may occur in online communication

Communication, as a complex system, is influenced by a set of disruptive factors, generators of barriers/ blockages that can occur on a cognitive, psycho-social and material level.

In the specialized literature there is a difference between *barrier* and *blockage* in communication. The distinction between barrier and blockage is made by Edouard Limbos (1994): by communicative barrier we understand an obstacle that limits our optimal ability to express, receive the message, being determined by external factors, and blockage in communication is an obstacle essentially with a personal character. “Blockage” in communication refers to a set of actions or aspects that isolate, close, immobilize the individual. Communication blockages can be so intense that there are visible differences between the transmitted information and the perceived message.

Leonard Saules (apud Tran & Stanciugelu, 2003) considers that the following can intervene in the communication process:

- *Language barriers* (the same words have different meanings for different people; the emotional state of the receiver can distort what he/ she hears; preconceived ideas and routine influence receptivity; difficulties of expression, etc.);
- *Environmental barriers* (inadequate work climate, use of inadequate information media, etc.);
- *Conception barriers* (the existence of assumptions, the clumsy wording of the message by the sender, hasty conclusions about the message, the lack of interest of the receiver towards the message).

In online communication, *emotions* can be a difficult barrier to overcome. In addition to the emotions that the student generally experiences when expressing his opinions, there is also the emotion determined by the exposure in front of the camera. Strong emotion is sometimes responsible for the almost complete blockage of communication.

Semantic problems (generated by the use of words in different ways, or of different words in the same

way or determined by the *speed of speech, reception and processing of information, lack of interest of the interlocutor in the message sent* (it must be handled with ability in order to direct the message so as to correspond to the interests and needs of the recipient of the message), connection issues are some of the obstacles frequently encountered in communication on digital platforms.

Defensive perception is another side of distortion. Defensive communication is "a complex process through which the individual preserves his already acquired manners - dysfunctional, negotiates his feelings in different situations. Defenses are attempts to achieve a compromise between internal vital needs and external requirements, between desires and norms. At the level of virtual communication, defensive behavior generates defensive listening (the individual listens, but does not comment, has no reply), accompanied by attitudes and facial expressions that illustrate the increase of the individual's defense level (looking down, nodding without looking into the camera etc.). The more defensive a person becomes, the less able one becomes to accurately perceive the transmitter's motivations, values, and emotions (Melnic, 2011). Defensive perception manifests itself as a factor of resistance to change.

Resistance to change can be another obstacle in online communication. Evolution, progress compulsory requires the change of habits, norms, ways of action. Most people show a strong resistance to change, because changes cause fear, involving the unknown and taking risks;

Lack of self-confidence is an often overlooked dimension in the educational process. Individual and collective progress is based on self-confidence, on the motivation to do good things, and the belief that you can achieve them. Students must be encouraged, constantly stimulated for them to succeed in overcoming their fear of expressing their own views, especially in the online environment.

In order to overcome the barriers that appear in communication, N. Stanton (1995, p. 5) examines the ways in which communication can be achieved as efficiently as possible, the first and most important rule being anticipation. He believes that if some of the more difficult issues are analyzed before communicating, they can be avoided.

2.2. Climate and feedback - factors that have a strong impact on the effectiveness of online teaching communication

Effective communication is "a form of nonfusion communion at an affective and cognitive level (…) The premises of the ability to communicate effectively are related to the whole personality dynamics and can be highlighted by behaviors such as the capacity to refer directly to yourself, speech personalization or assumptions, representations and behaviors" (Georgescu, 2007, p. 140).

One of the factors that affects the efficiency of communication is the climate. *The climate* is a strong factor in mobilizing or demobilizing the members of an organization: it can have positive values and, in this case, it is a supporting factor or it can have negative values and it becomes a disruptive factor. In general, the term "climate" means:

- the intellectual and moral ambience that reigns in a group;
- the set of existing collective perceptions and emotional states;
- a state of collective psychology, a group phenomenon.

Neal, West, Patterson (2004) distinguish between the *psychological climate* that refers to individual perceptions and *the organizational climate* that refers to the evaluations shared by a sufficiently large number of the members of a team.

The climate is a strong factor in mobilizing or demobilizing the members of a team: it can have positive values and, in this case, it is a supporting factor or it can have negative values and it becomes a disruptive factor. We present in table no. 1 some characteristics of a climate:

Table no. 1. Characteristics of a climate

In general, a climate can be characterized as follows:
it is gradually structured (it is a latent variable) and it intervenes in the relationship between the individual and his activity environment;
it is strongly subjectivized, because it encompasses the meanings that the individual gives to those whom he interacts with, as well as to the different particular situations he faces;
it is situational and contextual, having, in addition to a certain stability, an accentuated dynamics.

The climate is the product of a multitude of factors, some of which stand out through their more obvious impact:

a) *Structural factors* – they are related to the various aspects that are about the structure of an organization; the structural factors with the greatest impact on the communication climate are:

- *the group size* - a larger number of people leads to a colder climate in communication, unlike smaller groups inside which the climate is warmer, but not completely devoid of possible tensions;
- *the human composition of the group*, which refers to the structure of age and sex, the degree of homogeneity of professional training, extra-organizational social position (the social environment they come from). In the online environment, the effects of the 2 mentioned factors on the climate are attenuated;

b) *Instrumental factors* – they refer to the conditions and means of achieving the educational objectives; in the digital environment, these factors include:

- *the teacher's teaching style;*
- *ways of communication.*

c) *Socio-affective and motivational factors* – they are manifested through their effects on the degree of socio-affective comfort, the interest of the members of the group of students; these factors include:

- *the emotional contamination of interpersonal relationships* (acceptance, rejection, indifference) *and the presence of likes/ dislikes;*
- *the satisfaction or dissatisfaction generated by the activity performed;*
- *the motivation techniques used;*
- *the relationship with the teacher* (close/ warm or cold/ distant).

Stress is an unproductive factor of the climate because it affects the performance, the work atmosphere, the quality of decisions; it involves depression, frustration, nervousness, fatigue, anxiety, etc.

In a stressful climate, communication cannot be effective. Etymologically, the term *stress* comes from the Latin verb *stringere* = to gather, to upset (Arnold et al, 1998; Légeron, 2003). Communication stress-inducing agents (adapted from Cooper, Marshall, 1976 apud László, 2008, pp. 549-554):

a) *stressors intrinsic to the activity*: repetitive and monotonous activity, workload, work pace, long activity;

b) *stressors resulting from relationships with others* (teachers, colleagues): lack of social support, verbal aggression;

c) *stressors related to personal and career development*: lack of opportunities for personal and career development;

d) *stressors related to the structure and climate of communication*: the freedom to decide is an important aspect in organizing learning;

e) *stressors resulting from the role conflict*: the conflict related to time, to behavior (the behavior practiced in one role is not compatible with the one necessary to fulfill another role).

Stress tolerance is correlated with the ability to manage time and fulfill responsibilities. Stress is the adaptation response, mediated by individual characteristics, response generated by external actions or events that require the individual a special mental and physical effort. In this sense, we highlight the following aspects (http://www.romanian-ports.ro/caprico/uploads/files/CAPRICO%20-%20CRIO%20-%20Suport%20curs.pdf):

- *assertive communication* (control element); it is the positive, responsible, self-confident communication that allows people to be themselves as unique, valuable, important individuals, to support their own rights without denying the value, importance and rights of the others.
- *generating social support* by organizing the activity environment (organizing element); social support refers to the totality of psychological information transmitted during the communication process, information that determines the individual to feel that he is accepted, that he is appreciated and that he belongs to the group;
- *time management (planning)* by using specific techniques (planning element); the “lack of time” is often invoked as a barrier to effective communication; such an attitude has a negative chain reaction: "running" communication inevitably leads to ineffective communication, it generates communication errors whose correction involves additional time consumption, so even more acute lack of time.

Regarding stress reduction, a number of strategies for reducing stressors are identified (Avram & Cooper, 2008, p. 33), such as: redesigning the work task; building a stimulating work environment; establishing flexible work schedules, encouraging participation, analyzing roles and setting goals, giving praise, rewards.

In order to streamline communication in general, and online didactic communication in particular, *feedback* plays a particularly important role. Communication involves an interaction focused on feedback on the information conveyed. The communicative act is an interactive, relational act. Communication must function as a circular system and it must self-regulate. About feedback we can say that:

- it is a very important component of communication. T. K. Gamble and M. Gamble define feedback as "all verbal and nonverbal messages that a person conveys consciously or unconsciously in response to another person's communication" (Gamble & Gamble, 1993, p. 151); feedback is needed to determine the extent to which the message has been understood and accepted ";
- it is a way to help someone think about changing their behavior, it means providing someone with aspects of their behavior and its effects;
- feedback helps the individual find out if their own behavior has had the expected effect, it informs them if they have not lost their "target" as they try to achieve their goals;
- it is essential for effective communication and it is the last step in ending communication. Effective feedback helps us become aware of what we do and how we act, giving us the opportunity to change our behavior. It must be offered in a delicate and supportive way;
- supportive feedback assumes that the issue that the other person considers important and significant, is also appreciated by the listener (receiver) as important and significant; supportive feedback is difficult because we need to be able to reduce the intensity of other people's feelings by letting them know that we consider their problems real and serious (as opposed to these is the approach by which other people's problems are minimized - a somehow "naturalized" approach in human interaction, implicitly educational).

3. Research methodology. The impact of the online environment on academic learning and communication - an investigative approach

3.1. The goal pursued

The initiated investigative research aimed to investigate the opinion of the future students-teachers on various aspects of online communication: stimulating motivation/ interest, dimensions of the teacher's behavior with an impact on online communication and, implicitly, on learning, obstacles, reactions of the participants on a socio-emotional level, the efficiency of virtual teaching training, advantages/ disadvantages.

3.2. The sample and methods of investigation

In order to conduct our investigation, we used a sample of 126 students from the following faculties: The Faculty of Social Sciences, The Faculty of Law, The University of Craiova, students who are also enrolled in the *Psycho-pedagogical Training Program for certifying competencies for the teaching profession*, level I, year II.

We used, as research methods, the questionnaire-based survey and the interview, which were accompanied by the appropriate tools.

The questionnaire applied to the participants included 16 various items, both with closed answers (most of them) as well as with open answers.

As the structure of the questionnaire is concerned, some of its items are dichotomous, others require the participants to prioritize various aspects, and the third category of items uses the Likert scale, where the students are asked to express their opinion on an abstract scale, marked with numbers from 1 to 7, (the lexical meaning assigned to the items being "not at all", "to a very small extent", "to a small extent", "to a moderate extent", "to a large extent", "to a very large extent"). These response variants were rounded by two others: "I don't know/ I cannot appreciate", in order to capture the students' indecision situations.

As content is concerned, the questionnaire and the interview aimed to collect data on the requirements/ exigencies that the future student-teachers outline concerning the impact of the online environment on academic learning and communication.

4. Results and discussion

Online communication has been a challenge for both teachers and students. Teachers needed time to adapt and to make the training strategies more flexible by using technology and electronic means of communication.

In this context, we have built and applied a questionnaire that aims to outline a clearer picture of online teaching.

We selectively present the responses provided by the participants to the items of the questionnaire. We mention that the answers collected and analyzed were given only by the students who participated *to a large extent* in the online classes (the target group was composed only of students who frequently participated in the teaching activity carried out on digital platforms).

The responses to the question *To what extent has the teacher stimulated, in the online environment, the motivation/ the interest of the students in learning?* are summarized in table 2 and represented in figure no.1.

Table no. 2: The extent to which the participants consider that the teachers have stimulated, in the online environment, the students' motivation/ interest in learning

Answers	Frequency	Percentage
Not at all	*6*	*4.76*
To a very small extent	*17*	*13.49*
To a small extent	*20*	*15.87*
To an appropriate extent	*28*	*22.22*
To a large extent	*22*	*17.46*
To a very large extent	*21*	*16.66*
I don't know/ I can't appreciate	*12*	*9.52*

As it can be observed from the gathered and processed data, the participants' opinions vary: most of the participants consider that teachers have stimulated, in the online environment, students' motivation/ interest for learning *to an appropriate extent* (22.22%). Close percentages were identified for the following response variants: *to a large extent* (17.46%); *to a small extent* (15.87%).

Carrying out the online teaching activity asks for a series of requirements/ conditions. The indicators that are important for the students and have learning effects are presented in table no. 3 and the related figure (fig. no. 2):

Table no. 3: The extent to which the participants appreciate the performance of teachers in the online environment

Indicators on the development of teaching activity	***Measure of satisfaction Frequency/ Percentage***						
	1	***2***	***3***	***4***	***5***	***6***	***7***
	not at all	*to a very small extent*	*to a small extent*	*to a moderate extent*	*to a large extent*	*to a very large extent*	*I don't know/ I cannot appreciate it*
Content (structuring, systematization, coherence, accessibility)	*12*	*13*	*17*	*21*	*30*	*20*	*13*
Activity dynamism / student activation	*13*	*16*	*26*	*20*	*20*	*16*	*15*
Providing and requesting feedback	*12*	*17*	*18*	*20*	*22*	*23*	*14*
Concern for formulating themes, learning and reflection tasks	*11*	*13*	*19*	*21*	*22*	*26*	*14*
Time management	*16*	*13*	*25*	*18*	*24*	*12*	*18*

We can observe from the data presented in the table that, first of all, the participants appreciate *the content* communicated in the online environment. Secondly, as an indicator of the teachers' performance, the participants appreciate *their concern to formulate topics, learning and reflection tasks*. Thirdly, *offering and requesting feedback* is an indicator according to participants.

Therefore, *the dynamism of the activity/ activation of the students* is perceived as an indicator that needs improvement. In virtual communication, training students is more difficult. Participation, in the sense of intervention and expression of one's own opinion, on one's own initiative, on digital platforms also faces the stress caused by technology (the participants' answers to the focus-group interview complete the data obtained by applying the questionnaire; they show that most of them feel the emotions caused by the video cameras). In academic success, the climate and the conduct of the teacher are essential aspects of the academic learning. In this context, the participants considered the following dimensions to be particularly important in learning (table no. 4 and Figure no. 3):

Table no. 4: Dimensions of the teacher's conduct, with an impact on learning

The teacher's conduct	***Frequency***	***Percentage***
A relaxing environment that ensures emotional comfort	*112*	*88.88*
Interaction, activation	*106*	*84.13*
Facilitating learning through schemes, examples, explanations	*99*	*78.57*
Awakening interest in knowledge	*97*	*76.98*
Providing and requesting feedback	*90*	*78.57*
The logic of the teacher's speech	*93*	*73.80*
Empathic communication	*88*	*69.84*
Coordinating, guiding students' learning activity	*84*	*66.66*
Placing students in real life situations or problem situations that activate and invite to reflection	*82*	*65.08*
Persuasive communication	*81*	*64.28*
Providing support materials	*79*	*62.70*

The data obtained show that the participants place first the relaxing, stimulating climate (88.88%), which draws the teachers' attention to the importance they must give to the emotional comfort. Second in importance, according to students' perception, is the activation, the interaction within the didactic activity (84.13%); thirdly, the participants value facilitating learning through schemes, examples, explanations (78.57%) and on the 4th place, the awakening of cognitive interest (76.98%).

For the question *To what extent did the teachers manage to reach your expectations in terms of online interaction and communication?* most of the participants answered that they are satisfied *to a large extent (50.79%)* and *to a very large extent (20.63%).* Results are summarized in table 5 and are represented in figure no. 4.

Table no. 5: The extent to which the participants are satisfied with online interaction and communication

Answers	Frequency	Percentage
Not at all	*2*	*1.59*
To a very small extent	*12*	*9.52*
To a small extent	*17*	*13.49*
To a large extent	*64*	*50.79*
To a very large extent	*26*	*20.63*
I don't know	*3*	*2.38*

The development of teaching activity on digital platforms, the effort to adapt to change, also required good emotional management from the students. The data regarding the way in which the participants from the sample managed this period of social distancing, the effects perceived in a socio-emotional plan, are presented in table no. 6 and the related figure (fig. no. 5):

Table no. 6: Socio-emotional reactions of the participants during the time spent in the online environment

Indicators of carrying out the didactic activity	*The extent of their satisfaction* Frequency/Percentage						
	1	*2*	*3*	*4*	*5*		*6*
	not at all	*To a very small extent*	*To a small extent*	*To a moderate extent*	*To a large extent*	*To a very large extent*	*I don't know /I cannot appreciate*
I enjoyed everything I managed to achieve academically and personally	*5 3.96%*	*16 12.70%*	*15 11.90%*	*22 17.46%*	*33 26.19%*	*29 23.01%*	*6 4.76%*
I felt confident, even optimistic	*5 3.96%*	*25 19.84%*	*35 27.78%*	*27 21.43%*	*14 11.11%*	*14 11.11%*	*6 4.76%*
I felt socially connected, despite the physical distance	*4 3.17%*	*28 22.22%*	*48 38.10%*	*22 17.46%*	*10 7.93%*	*9 7.14%*	*5 3.96%*
I managed my time well	*6 4.76%*	*14 11.11%*	*20 15.87%*	*37 29.36%*	*27 21.43%*	*18 14.28%*	*43.17%*
I felt overwhelmed emotionally/ stressed by too many requests from the teachers	*3 2.38%*	*10 7.93%*	*14 11.11%*	*24 19.05%*	*52 41.26*	*19 15.07*	*4 3.17%*
I felt distrustful/incredulously	*6 4.76%*	*14 11.11%*	*14 11.11%*	*27 21.43%*	*35 27.78%*	*25 19.84%*	*5 3.96%*
I felt alone/ socially isolated/ disconnected from others	*4 3.17%*	*9 7.14%*	*10 7.93%*	*22 17.46%*	*48 38.10%*	*28 22.22%*	*5 3.96%*

From the data presented in table no. 5 we draw the following conclusions:

- more than half of the participants in the sample felt emotionally overwhelmed/ stressed by too many requests from the teachers - 41.26% *to a large extent*, 15.07% *to a very large extent*;

- the results are also similar from the perspective of social relations: 38.10% of the participants felt alone/ socially isolated/ disconnected from the others *to a large extent*, and 22.22% *to a very large extent*;

- however, half of the investigated participants enjoyed everything we managed to achieve academically and personally: 26.19% *to a large extent*, and 23.01% *to a very large extent*;

- as for confidence, optimism, as a general state of mind, the results were as follows: 22.22% of the participants chose the variants *to a large extent* and *to a very large extent* and almost the same percentage (21.49%) chose the variant *to a moderate extent*.

As such, in terms of the socio-emotional dimension, the changes that have occurred on the social level, which have also affected the teaching activities, which took place mainly in the online environment, have come together with the emotional imbalances, stress, tasks felt as overwhelming and the feeling of disconnection from the others.

Although the tasks, as a whole, led to stress, most of the students feeling overwhelmed, the perception regarding the quality of the work tasks received online is a positive one: it is observed that more than half of the participants (57.14%) appreciate as being *constructive, useful, able to facilitate or guide learning*, so as to allow them to successfully solve problem situations, the percentage difference (42.85%) considering tasks, as a whole, *unattractive, inappropriate* and 5% chose the option *I don't know*.

Another item asks the participants to identify the extent to which the feedback provided by the teachers on the solved tasks and applications matters. Most of the participants consider that the feedback provided by the teachers to the solved work tasks as being useful *to a large extent* (26.19%) and *to a very large extent* (25.40%). About 20% consider it less useful (*to a small extent* - 12.70% and 8.73 - *to a very small extent*).

We are presenting it, in the following table (no. 7), with the afferent graphic representation (fig. no. 6), as it resulted from the data processing:

Table no. 7: The extent to which the participants consider useful the feedback provided by the teachers to the solved

Answers	Frequency	Percentage
Not at all	*6*	*4.76*
To a very small extent	*11*	*8.73*
To a small extent	*16*	*12.70*
To an appropriate extent	*21*	*16.66*
To a large extent	*33*	*26.19*
To a very large extent	*32*	*25.40*
I don't know/ I can't answer	*7*	*5.55*

Didactic communication, as a complex system, is influenced by a set of disruptive factors/ obstacles. They are, in the opinion of the students, presented in table no. 8 and the corresponding figure (no. 7):

Table no. 8: The main obstacles in online communication

Results	***Frequency***	***Percentage***
Loss of connection or poor Internet connection	*27*	*21.43*
Students' access to computer/ smartphone/ tablet technology, software	*11*	*8.73*
Involvement, activation of all students, stimulation of their motivation	*10*	*7.94*
Low level of digital competence among students	*26*	*20.63*
Low level of digital competence among teachers	*8*	*6.34*
Mental fatigue, much greater demand for eyesight and intellectual effort	*28*	*22.22*
Increased stress level associated with the loaded program (video courses, tasks to be solved on digital platforms)	*14*	*11.11*
I did not encounter any difficulties	*2*	*1.59*

Findings indicate that the most frequent obstacles relatively evenly distributed are: a) mental fatigue, much higher demand for eyesight and intellectual effort (22.22%); b) loss of connection or poor Internet connection (21.43%); c) low level of digital competence among students (20.63%).

As for the advantages/ disadvantages that participants have outlined with regard to the role of online communication in their academic success, we highlight the most common ones in the inventory lists (table no. 9):

Table no. 9: The participamts' perception of the advantages/ disadvantages of online communication in academic success

Advantages	*The information and materials taught can be saved and stored much easier*
	The speed of sharing virtual teaching materials
	The possibility to interact on digital platforms remotely
	Accessibility, flexibility and comfort
	Concise presentation of contents, with intuitive, visual support (power-point materials, schemes, video recordings, etc.)
	The individualization of the learning process (well suited to the pace and style of learning)
	The possibility of comfortable learning, in our personal environment
	The speed of sharing virtual teaching materials
Disadvantages	*It is not possible to have access to technological resources from any location*
	You can lose concentration; you can carry out other activities at the same time with the online teaching activities
	The lack of human interaction, diminished socialization
	The need to develop and assert digital skills
	The work tasks given by the teacher can also be solved by other people
	The incomplete communication (nonverbal communication is more difficult)
	It may deepen differences in social status within the group (implicit costs related to digital equipment, internet subscription)
	The loss of connection due to signal strength in different rural areas or overload of the internet
	The impossibility to conduct laboratory courses in the online environment
	The intellectual overload, due to the large volume of work

5. Conclusions

In the students' perception, the didactic communication, made in the online environment, determined, among the teachers, an increased attention paid to *the content, to the formulation of some topics*, *some learning and reflection tasks*. The students appreciate these requirements/ conditions, but also draw attention to the importance they give to *the climate, the dynamism of the activity*. Therefore, *the activation of students* is perceived as an indicator that requires improvement.

In virtual communication, training students is more difficult. Involvement and participation are strongly influenced by the stress caused by technology (the data show that most people feel the emotions caused by video cameras). Regarding the construction of a disinhibiting, stimulating environment, the students have high expectations from the teachers, most of the participants considering that the teachers have stimulated, in the online environment, the students' motivation/ interest for learning only *to an appropriate extent* (22.22%).

The data obtained show that the participants rank highest the relaxing, stimulating climate (88.88%), which draws the teachers' attention to the importance they must give to the emotional comfort. An environment in which communication is encouraged is recommended (for example, anecdotes and personal experiences encourage trust, which fosters a receptive and creative learning environment" (Hrastinski, 2008).

Feedback is also an important criterion; it is recommended to always offer the possibility to outline additional questions to clarify the message (Flahavan & Rudick, 2001).

Regarding the socio-emotional dimension, the changes that occurred on the social level, which also affected the teaching activities (they mainly took place in the online environment), came with emotional imbalances, stress, tasks felt as overwhelming and the feeling of disconnection from the others.

For the participants, the main obstacles encountered in online communication were: a) mental fatigue, much greater demand for eyesight and intellectual effort (22.22%); b) loss of connection or poor Internet connection (21.43%); c) low level of digital competence among the students (20.63%).

Virtual communication can have both advantages and disadvantages. Computer-mediated communication can lead to an increased negative tone, low assertiveness and depersonalization (Journal of Psychology, https://ultrapsihologie.ro/2015/02/02/comunicarea-virtuala-vs-realitate/).

Regarding the advantages that the participants have outlined about the role of online communication in academic success, we highlight the most common ones in the inventory lists: the speed of sharing virtual teaching materials; accessibility, flexibility and comfort; concise presentation of the contents, with intuitive, visual support (power-point materials, schemes, video recordings, etc.); the possibility of comfortable learning, in the personal environment, etc.

Among the inventoried disadvantages, we list: the loss of connection due to signal strength in different rural areas or overload of the Internet; other activities can be carried out at the same time as the online teaching activities; incomplete communication (nonverbal communication is more difficult); the impossibility of conducting laboratory courses in the online environment; intellectual overload, due to the large volume of work.

To conclude, regardless of the type or environment in which communication is achieved, it must promote experiences and positive feelings in order to streamline learning and have formative-educational effects. Combining the cognitive with the emotional is an essential dimension in the efficiency of learning and a direction of action on which all specialists in the field of education must focus their attention and efforts. In addition, in the direction of streamlining online communication, other suggestions and directions of action can be outlined: (https://www.umass.edu/oapa/sites/default/files/pdf/handbooks/teaching_and_learning_online_handbook.pdf): clarify computer skills/ terminology, explain the differences in online learning versus traditional classroom learning and clarify expectations.

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10.24193/ed21.2021.21.14

Attributes of social capital in the educational organisation

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Educatia 21 Journal 21 (2021)

Educatia 21 Journal, (21) 2021, Art. 14
doi: 10.24193/ed21.2021.21.14
Research article

Attributes of social capital in the educational organisation

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Abstract

The article highlights according to the concept of social capital, the changes generated by the COVID-19 pandemic in the educational system.
This research identified the attributes of social capital at the level of the adults involved in the educational process (parents, students), the impact of the current period on them and the opinion of the respondents regarding the education reform.
The conclusions of the study prove an activation of the intentions of involvement and participation in the management structures and in the educational projects at the level of the school organization, along with a low degree of confidence in the way the reform of the educational system is designed and implemented. Change management in recent years has highlighted the need for school involvement in the development of social capital and also the need to increase the role of social stakeholders in solving the challenges facing school organizations.

Keywords:
school organisation; social capital; management of change; reform.

Zusammenfasung

Der Artikel beleuchtet aus der Perspektive des Konzepts des Sozialkapitals die Veränderungen, die im Bildungssystem durch die COVID-19-Pandemie hervorgerufen wurden.
Durch die Untersuchung wurden die Eigenschaften des Sozialkapitals auf der Ebene der am Bildungsprozess beteiligten Erwachsenen (Eltern, Schüler), die Auswirkungen der aktuellen Periode auf sie und die Meinung der Befragten zur Bildungsreform identifiziert.
Die Schlussfolgerungen der Studie belegen eine Aktivierung der Beteiligungs- und Beteiligungsabsichten in den Führungsstrukturen und in den Bildungsprojekten auf Ebene der Schulorganisation bei gleichzeitig geringem Vertrauen in die Reform des Bildungssystems konzipiert und umgesetzt. Das Veränderungsmanagement der letzten Jahre hat die Notwendigkeit der Einbeziehung der Schulen in die Entwicklung des Sozialkapitals hervorgehoben, aber auch die Notwendigkeit, die Rolle der sozialen Akteure bei der Lösung der Herausforderungen, mit denen Schulorganisationen konfrontiert sind, zu stärken.

Schlüsselworte:
Schulorganisation; Sozialkapital; Änderungsmanagement; Reform.

1. Introduction

The definition of the concept of social capital is not yet unanimously recognised by researchers in the field, but its role in the development of a region or country is highlighted in many an empirical studies.

Systemic analysis allows us to understand the interdependent relationship between school and the social system. The specialised literature referring to the way in which the transformations in the social system trigger changes in the education system, put forward discussion in the context of cause-effect determinism, the principle of correspondence.

The school / educational organisation, by its very characteristics and attributions, represents an open social system, in permanent contact with the external environment, and that is why the degree of the social capital development generates a greater or lesser adaptability to change.

The educational relevance of this paper starts from one of the psychological characteristics of the school organisation, namely the assignment of the *learning organisation* syntagm, from the perspective of its influence both on the microenvironment and on the community and society as a whole, and thus the analysis of the attitude towards changes generated by the COVID-19 pandemic in the educational process are a highly relevant issue.

2. Conceptual approaches

E. Păun (1999) defines the organization as "a system of activities structured around explicitly formulated purposes (goals, objectives), which involve a large number of individuals who have well-defined

statutes and roles within a differentiated structure, with functions of management and activity coordination".

From this definition, the main characteristics of an organization can be deduced:

- goals stated clearly: it is important that the goals of the organisation are as convergent as possible with individual goals so as not to lead to frustrations;
- high number of individuals interacting with one another: however, this does not mean that the strength of an organisation is directly proportional to the number of individuals constituting it; the success of an organisation depends on the quality of interactions between its composing individuals;
- socially regulated division of labour: individuals fill different positions and play distinct roles, so they have a certain status; the organised activity supposes an internal structure where there are well determined positions and the information circulates both horizontally and vertically;
- management through its functions unites, in an integrated manner, the individuals constituting the organisation, its goals and its functionally differentiated activities.

In consideration of the above, the defining factors for an organisation have the following characteristics: organisational structure, organisational behaviour and organisational change materialised in staff development.

Before analysing the analogies between the social system and the school, it is necessary to emphasize the characteristics of the school as an open system. (E. Păun, 1999)

1. *Globalism* –school as open system is in its turn part of this system (the social system);

2. *Teleonomy* – the school is focused on certain goals, as a system it tends to reach a functional balance. The school system can be considered a system under formation, evolving towards a higher degree of unity and also towards a high degree of constitution (completion) or balance. The following situations may occur:

- the state of higher equilibrium in which the school resists restructurings and faces unfavourable factors from the external environment;
- the state of dynamic balance, which is an indication of stability and development. Dynamic equilibrium means that the system is capable of growth and change without restructuring itself;
- the state of stagnation, encountered when a system is no longer able to adjust, to self-adapt. But it cannot remain in this state for too long because the state of decline inevitably follows;
- the state of decline and disintegration, when the system moves away from the completion stage, becoming confused. This state is found in systems that are too large (too many constituent elements) or too small (not enough agents in relation to the assumed objectives).

3. *Equifinality* – school succeeds in achieving its projects and objectives by different means;

4. *Entropy* – it expresses the degree of disorganisation that increases in closed systems. School is an open system, so entropy is not found among its features. Negentropy represents information, so when negentropy is introduced into a system through different channels, entropy decreases. Disorders in the system can also have positive meanings because they lead to resettlement and readjustment. Although in certain systems the input of information from the outside can have beneficial influences in the reorganising of the respective systems, in the educational system the import of social dysfunctions (either economic or political) most often disorganises it.

Within the education reform, school was subjected to multiple influences and handled in the process. The changes inside the school were not the desired ones precisely due to the imbalance of the internal processes.

5. *Feedback* reflects the property of the results obtained to influence the subsequent behaviour of the system. The feedback can be positive for amplifying or maintaining the operation of the system and negative for the role of regulator, correction, braking. The self-regulation of the system depends on the flow of information and the quality of communication between the different subcomponents.

3. Literature review

A clarification of concepts such as social capital and human capital is required in line with the micro-level approach of the educational organization.

In the literature, there is a growing consensus on the approach of social capital as a multidimensional

construction. Social capital contains different dimensions and more indicators are needed for these dimensions to be properly measured (e.g., Johnston and Percy Smith, 2003) - indicators that may not necessarily correlate very closely with each other (Woolcock, 1998).

Until Bourdieu (1981, 1985) and Coleman (1988, 1990) constructed their individual theories of social capital, the social mechanism underlying this phenomenon was unclear (Portes, 1998; Flap, 1999).

They argue that social capital has not only a private aspect - reaching the personal goal - but also a public side. Social capital can have positive benefits for the wider society in which it manifests. Therefore, social capital can be aggregated, which means that it can be treated not only as a characteristic of individuals and their relationships, but also as a property of countries and regions.

The higher the levels of these characteristics, the more action and cooperation for mutual benefits and collective goods is facilitated.

Both Putnam (2000) and Fukuyama (1995) argue that countries or regions exhibiting higher levels of social capital aggregation are therefore linked to higher levels of political and economic performance. Others, such as Paxton (2002), have generalized the individual and socially aggregated level of the capital approach. They argue that social capital can be analysed on several levels, namely on the micro level of individuals and small groups, on the meso level of communities and associations, and on the macro level of sub-supranational regions and nation states.

Macro-sociological theories see social capital as the cement of society that makes it possible for people to cooperate in the common interest. Collective action requires widespread reciprocity, trust and "soft" regulations that go beyond the logic of simple instrumental reciprocity.

Putnam (2000) refers to the positive consequences of social capital - mutual support, cooperation, trust, institutional effectiveness - and negative manifestations - sectarianism, ethnocentrism, corruption.

From the perspective of the educational organisation, the attributes of social capital are manifested in the relationship between school / university and their adult beneficiaries, who can be directly involved in implementing educational projects, volunteering activities becoming active participants in a participatory management system of these institutions.

Many researchers (Clifton & Roberts, 1993; Evans-Harvey, 1995; Teachman, Paasch & Carver, 1997) consider the educational environment to be exciting and supportive for students, facilitating the acquisition of skills to a greater or lesser extent.

The social capital theory provides an eloquent framework for demonstrating how parents and students relate to their own expectations and can engage in the development of skills and attitudes that contribute to amplifying the positive values of human capital (Etcheverry, Clifton & Roberts, 2001).

A series of qualities from economic management, sociology, political science, psychosocial are transferred to educational management (Cristea, 1998):

- economic management provides the model for capitalizing on the institution's resources;
- psychological management offers the quality of directing interests;
- psychosocial management orients the personality resources both internally and relationally.

According to the experiential approach of a social / educational process (Trișcă, 2013), the dimensions of experience include the conceptual categories based on which the client phenomenologically evaluates the lived experience, more precisely: the pragmatic dimension of the experience (referring to the sacrifices / benefits perceived by the client in relation with the lived experience), the peace of mind dimension (related to aspects such as property and personal safety), the relational dimension (the relationship with other people, the relationship with the ideal self, the means of asserting social identity, group membership), the empowerment dimension (recognizing the importance of empowered interactions that underlie the co-creation of value), the escaping dimension, the fun dimension, the educational dimension, the surprise dimension, the aesthetic dimension of the experience, the nostalgic remembrance dimension (memory, sharing personal experiences with other people). We can say that the relational dimension is extremely important in the educational process, its absence in the current pandemic situation causing an incomplete and inefficient learning experience.

4. 4. Identifying the attributes of the social capital

Educational organisations in Romania do not yet have an efficient and viable system of communication between their main members (pupils / students, teachers, parents, local administration).

In the management of schools / universities, the magistocentric current was predominant, which emphasized the role of the teacher in the transmission of knowledge and the use of expository methods to the detriment of heuristic strategies.

The research question to be answered in this study is the following: Have the changes in the educational process caused by the COVID-19 pandemic triggered the improvement of the positive aspects of social capital (involvement, cooperation, trust, effectiveness)?

The research objectives are as follows:

Identifying the perception and attitude the main direct and indirect adult beneficiaries towards education;

Determining the level of social capital attributes under pandemic conditions;

Establishing an opinion regarding on education reform.

Research hypothesis statement: Pandemic increased the intention of involvement / cooperation among parents and students.

Research methodology

The design of the research generated an experimental, cross-sectional, multifactorial research, based on a Google Forms online questionnaire applied between March and April 2020, a period in which we passed from classroom teaching to generalised online teaching.

The sample of content generated by the topic of the questions contained in the questionnaire addresses the following aspects: the importance and perception of the purpose of education; changes in the educational process (online teaching); attributes of social capital (degree of involvement of parents / students in learning and assessment, volunteering, educational projects, management structures); degree of trust in the education reform (system improvement, financing, depolitisation, adaptation to labour market requirements).

The sample of participants was randomly constituted of 201 people distributed according to the following criteria:

Biologic gender: 162 women and 39 men;

Age: 49 pers. (18-25 years of age); 36 pers. (26-35 years); 80 pers. (aged 36-45) and 36 pers. (over 46);

Marital status: married / in a couple: 138 pers.; single: 63 pers.;

Employed: 138 pers. (in the country); 4 pers. (abroad); 59 pers. (unemployed);

The level of monthly family income: 46 pers. (below 2500 lei); 89 pers. (2501-5000 lei); 34 pers. (between 5001 and 7500 lei); 32 pers. (over 7501 lei);

Capacity of the adult respondent: 132 pers. parents/legal guardians; 69 pers. students;

The level of education of children / young people: 50 pers. (preschool); 37 pers. (elementary school); 38 pers. (middle school); 48 pers. (high school); 66 pers. (university).

The indirect survey method was used (online) which included 28 closed questions, of which 6 factual questions and 22 opinion questions, using the SPSS program for analysis and interpretation of the information obtained. Responses were graded on a Lickert 5-level scale (disagreement, slight disagreement, neither agreement nor disagreement, slight agreement and agreement).

Research results

The first four questions in the questionnaire aimed to identify the perception of education.

All respondents agreed on the importance of education, but in terms of how education is valued in Romanian society, only 39.1% considered it to be properly perceived.

As the perception of the purpose of education is concerned 83.7% of the subjects consider that this should be the development of professional skills for pupils and students.

99.1% of those surveyed place the following values on the list of values to be developed through education: work, honesty, respect and cooperation. These answers obviously highlight the exact awareness of the attributes that, unfortunately, are deficient in contemporary Romanian society.

The second set of questions aimed to identify the attitude towards the educational process, with the particularities determined by the current pandemic.

When asked about the effectiveness of online teaching, the percentage of those who consider it inappropriate is 49.5%, 15.3% are in the neutral zone, only 35.5% considering it appropriate. From the inferential analysis of the correlation coefficients with the distribution of adult parents / students, we found that the level of significance (Sig.) is below the value of 0.05 for the student category, highlighting the fact that this category is more satisfied with this teaching system. This attitude is determined on the one hand by the faster adaptative reaction of the university environment to change, by the increased digital skills of teachers and students, but also by the profile of the responding students, determined by their occupational status (28.5% of them being employed).

The statement "Only teachers are involved in the teaching-learning-assessment process (even during the pandemic period)" generated the disagreement of 25.3% of the respondents and 8.4% expressed a neutral attitude. Interestingly, the Sig. is less than 0.05, and the Pearson correlation coefficient has a value of 0.7 indicating a strong link between parent status for pre-schoolers and high school children, but a lower value of 0.4 for parents of primary school children. Could these correlations be an indication of the effectiveness of online teaching higher in the case of teachers than in secondary school teachers? Obviously, parents were more involved in their children's learning activity, as evidenced by the 56.4% agreement quota with the statement "Since the beginning of the pandemic, I have been more concerned with my child's learning activity."

Furthermore, in terms of the evaluation activity, 56.9% of the respondents stated that they paid more attention to this aspect, as there is a stronger correlation for students and parents of primary school children.

Expectations regarding the transparency of the educational process are highlighted by the percentage of 93.1% of those who wish to receive reports and information on the educational processes and results during the semester.

The next set of questions aimed to quantify the attributes of social capital from the perspective of direct (students) and indirect (parents) adult beneficiaries of the educational process.

Although 95.3% of the respondents agree that school / university represents the support of the educational process in which all social stakeholders must be involved (pupils / students, parents, employers, local and central public administration), 65.8% are willing to get involved in volunteer activities, 60.4% in educational projects and only 35.6% express their will to participate in leadership structures on the level of the class / group or school / university, thus highlighting a rupture between ideal and real situation. From the perspective of distribution by age groups, the 35-45 age group is the one showing the highest availability of involvement, and from the viewpoint of income those who have a monthly family income between 5001 and 7500 lei. The strongest correlation between the attributes of social capital (involvement, collaboration, support) and the level of education is registered among the mothers of primary school pupils.

The last questions relevant to the topic of the paper highlight the perception on the education reform. The results exhibit a predominantly pessimistic approach and distrust in the possibility of achieving, in the next 4 years, a structural reform leading to a Romanian education system adapted to today's society.

Only 18.9% of the persons surveyed consider that a significant improvement of the education system in Romania is likely to take place, 16.4% say that the financing of education according to the law (allocation of 6% of GDP) is possible and unfortunately only 9.4% of respondents consider there will be a depolitisation of the educational system management. Surprisingly, more than 30.2% consider it possible to adapt school / university curricula to the requirements of the labour market. For this last item there is a significant Pearson correlation coefficient for the parents of middle school pupils, but in the case of parents of high school students, although Sig. takes the value 0.04, the two variables are inversely correlated.

5. Conclusions

Educational policies are decided by the political class, which has no intellectual motivations or perspective on the educational profile of the society and its evolutionary dimension. The major problem facing national education is essentially the lack of prospect for curricular actors: pupils, teachers and the community. (Prodan & Nițulescu, 2013)

The way in which the educational system participates in the development of social capital and in

reverse, the way in which the stakeholders of the educational process are involved in the activity of school organisations has changed under the pressure of the health crisis generated by the SARS-COV-2 virus.

The transition from traditional on-site education to online education has generated a change in the school-adult relationship (parents, students) involved in the educational process, and the fact that almost 50% of them do not trust the effectiveness of the online teaching system, highlights a difficult transition to the digitalization of education.

The importance of using interactive teaching methods is highlighted in specialised studies (Nițulescu & Constantin, 2019).

According to the results of research conducted in March-April 2020, on a sample of 201 people, the pandemic generated a forced activation of some attributes of social capital, such as parental involvement, and less on the voluntary side, educational projects, but in parallel it was found that the degree of confidence in achieving a substantial reform of the Romanian education system is extremely low.

The confusion of the authorities in taking effective measures to combat the effects of the pandemic, the difficulties in communication and the shortcomings of the education system as a whole were highlighted by the answers provided by the research participants.

These past two years have generated an even deeper polarization of the education system between urban and rural, highlighting on the one hand the system's malfunctions and an educational policy with many gaps. On the other hand, great difficulties in school organisations adaptation, from the perspective of the digital level of the teachers and of the technical-material endowment.

The centralization of the results of the applied questionnaire highlighted a significant gap between the parents of primary school children and the parents of middle school pupils and high school students, the former being more willing to get involved in school activities, the interest decreasing with the increase of pupils' and students' age. Although it seems a natural trend, many studies show that parents' involvement would be useful for young adolescents, who are at increased risk of contagion with some dangerous habits (smoking, alcohol, drugs) at this stage of their life.

As an organization that constantly learns, adapting to changes in the internal and external environment, but also as an organization that represents a vehicle for change in the community, the school organization becomes a full learning organization.

The final conclusion of this article emphasizes the essential role of education in the development of social capital attributes at community and national level, but also the need to involve decision makers in designing a flexible education system, able to adapt and to involve all social stakeholders.

A constructivist approach to education that focuses on the safety needs and professional and personal development of students, cannot be implemented in the absence of involvement of their family and in the conditions of a precarious social capital in the community.

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10.24193/ed21.2021.21.15

The Teachers' Opinion about Online Learning Process for Children with Special Educational Needs

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Educatia 21 Journal, (21) 2021, Art. 15
doi: 10.24193/ed21.2021.21.15
Research article

The Teachers' Opinion about Online Learning Process for Children with Special Educational Needs

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Abstract

Communication in the online environment represents a real evolution for the whole society, hence for the educational system but because the whole change took place in a short span of time, the education has faced an unencountered challenge up to now. Component of the informational society, the educational dynamic and open system promotes nowadays ways of achieving the instructional educational process, offering to the teacher a multitude of organisational and functional variants. However, in the case of children with special educational needs, there are many barriers in the way of achieving their right to education in the virtual space. The present study consisted of achieving an inquiry-based questionnaire, applied to the teaching staff who works in inclusive education centres and to those who have students with different deficiencies and special educational needs in their class. The results of the study highlight both the difficulties and the opportunities of achieving a didactic activity in the online environment for students with special educational needs.

Keywords:
barriers; solutions, strategies; special educational needs; online environment.

Zusammenfasung

Die Online-Kommunikation stellt für der gesamten Gesellschaft einen wirklichen Vorschritt dar, somit auch für das Bildungswesen, aber aufgrund der Tatsache, dass der gesamte Wandel in kurzer Zeit stattfand, stand das Lehrwesen vor einer noch nie dagewesenen Herausforderung. Teil der informatisierten Gesellschaft, bietet ein dynamisches und offenes Bildungssystem den Lehrkräften eine Vielzahl von organisatorischen und funktionalen Möglichkeiten, um den instruktiv-pädagogischen Prozess zu erfüllen. Trotzdem, bei Kindern mit sonderpädagogischem Förderbedarf bestehen jedoch im virtuellen Raum mehrere Schranken im Weg der Umsetzung des Rechts auf Bildung. Die vorliegende Studie bestand in der Durchführung einer Befragung auf Grundlage eines Fragebogens, der bei Lehrkräften, die in inklusiven Bildungszentren arbeiten, als auch bei denen, wo in den Klassen Personen einen sonderpädagogischem Förderbedarf, auf Grund verschiedener Defizite, benötigen, angewendet wurde. Die Ergebnisse der Studie verdeutlichen sowohl die Schwierigkeiten als auch die Möglichkeiten der Online-Lehre für Studierende mit sonderpädagogischem Förderbedarf.

Schlüsselworte:
Schranken; Lösungen; Strategien; sonderpädagogische Förderbedarf; Online-Umgebung

1. Introduction

The online development of the educational process during the period marked by the Covid-19 crisis has highlighted numerous problems/difficulties to which the educational system in Romania and other systems were forced to deal with. "Online school has represented and still represents a challenge for all those involved in the educational process moreover for the students with special educational needs, both at macro-system and micro-system. Passing from face-to-face teaching to the online education has supposed to model on the emergency requirements but also a didactic turning point in the approach of learning activities for students with SED" (Cazacu, 2021, https://www.sipgalati.ro/2021/07/30/scoala-online-o-noua-provocare-pentru-elevii-cu-ces/).

2. Theoretical foundation

In the last two decades, the Romanian education system has encouraged the idea of an inclusive society, based on the value of the individual uniqueness and his/her bio-psychic characteristics. Prevention and combatting marginalization and social exclusion constitute the main objectives of the Romanian education system in order to offer a quality education to children with special educational needs, to retrieve the multitude of difficulties encountered by them and to facilitate their socio-professional integration.

2.1. Inclusive education- conceptual frame

"Inclusive education – type of basic education on the paradigm *education for all* highlighting the need

for the educational system, schools/kindergartens to change and adapt continuously in order to answer to the children's diversity and their educational needs. The main characteristics of inclusive education are: a) supports and confirms that all children can learn and they need a support for their learning; b) pursues to identify and minimize the learning barriers; c) is larger than common formal education containing: education for family, for community, other education opportunities beside school; d) supposes change of attitudes, behaviours, curriculum which should satisfy the children's diversity, including those with special educational needs (SEN); e) it is a dynamic process which develops continuously according to culture and context; f) it is part of the development strategy of an inclusive society. Thus, the inclusive education becomes the type of education responsible for the assurance of the right to education of all children without discrimination and especially ensuring a quality education" (Bocoș, Răduț-Taciu & Stan, 2016, pp. 39-40). "The training of teachers for inclusive school becomes a necessity of the present time. The complexity and diversity of educational needs of the pupils require, from the part of the school, adequate answers, meant to facilitate the access of all pupils to education, preventing and eliminating the risk of exclusion and/or social marginalisation. (…) The inclusive education highlights the valorisation of the existing differences between pupils, the development of the maximal potential everyone disposes of" (Ispas, 2019).

2.2. The new technologies – solutions in the teaching process of deficient children

The continuous progress of information technology has contributed to the improvement of learning quality, the teaching staff having the possibility to approach new perspectives and the students to access new learning opportunities (Brahim et al., 2013). The potential detained by e-learning in reducing the learning barriers for people with special educational needs is very optimistic (Fichten et al., 2009). An adequate technology is necessary to offer the students with disabilities some learning experiences adapted to their needs which should satisfy the needs of every type of disability in other words centred on the student and personalised. Furthermore, they should improve considerably the satisfaction, speed of learning and their learning efficiency.

Currently, some web pages bring a significant benefit in the learning process of disabled students. Worldwide, the internet, with a series of applications and platforms that disabled people can use, has a great potential to create new means of communication and relating in online communities. The benefits offered by the Internet world for the students with special educational needs are different according to the disability they have (Bühler & Fisseler, 2007). For example, for a person whose disability limits the move in the physical setting, the internet has the capacity to enlarge his/her knowledge and the interaction sphere in the online environment. In this way, they can have access to a series of workshops/webinars/virtual learning classes (Jaeger, 2012, pp. 3-5).

Assisted or empowered technology includes devices, instruments, hardware or software which partially allow the disabled people to use the computer. These present an alternative way to access the content of a screen, to use the computer or to process data. The specific adjustment software or devices for the computer manipulation include (Arrigo, 2005):

- Screen reading software (the displayed text speaks and allows for the simulation of actions of the mouse with the keyboard);
- Software to increase the screen (in order to increase the content of the screen);
- Braille display (for the display of Braille letters);
- Devices for alternative entrance (for example, screen keyboard) and special keyboard (in order to facilitate the introduction of data);
- Improvement of the keyboard and accelerators (such as StickKeys, Mousekeys, repeatKeys, SlowKeys, BounceKeys or Tog-gleKey);

Indicating alternative devices, such as a mouse which can be dealt with the foot, an indicator device mounted on the head or monitoring systems of the eyes (Douce, Porch & Cooper, 2010).

3. Research methodology

The purpose of the research consists in highlighting the difficulties and opportunities to achieve the instructional-educational act in the online environment for students with special educational needs. In accordance with the proposed aim, the research was focused on the following objectives:

- assigning the advantages as an outcome of applying learning strategies in the context of online school;
- the identification of the platforms used in the instruction of the students with special educational needs, in the online environment;
- enumerating of the barriers faced by the teaching staff in the context of online school;
- highlighting the feelings/states experienced by the teachers who work with students with different types of deficiencies.

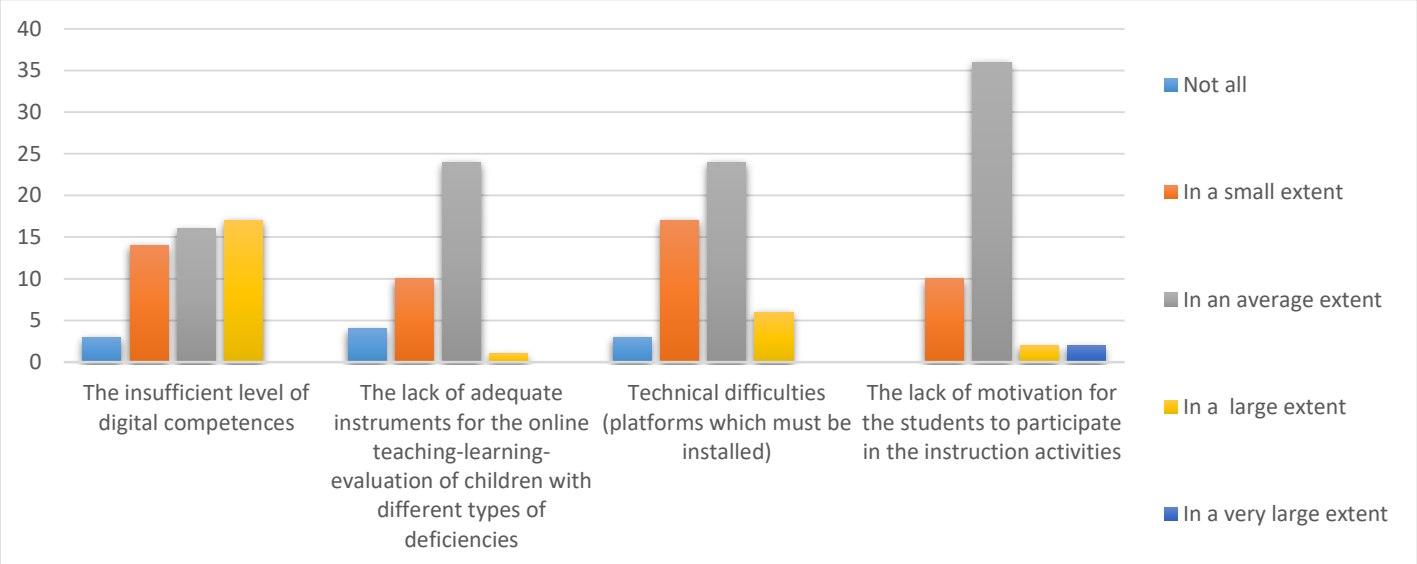
The research is based on the development of an inquiry-based questionnaire, applied to a sample of 50 teaching staff: a number of 40 (80%) of the participants are teachers who activate in centres of inclusive education and 10 (20%) have children with deficiencies in their class. Based on the received answers, we present the typology of these deficiencies: communication and relating disorders 27 (48%); language disorders - 9 (18%); sensorial deficiencies - 8 (16%); mental deficiencies - 5 (10%); physical deficiencies - 2 (4%); autism - 2 (4%). Most of the teaching staff come from the urban area, more precisely 78%, while the percentage of those who come from the rural area is 22%. The method of inquiry represents "a research method of interactive and extensive type, which supposes a direct exchange of information between the researcher and the subjects under investigation" (Bocoș, 2020, p. 43). The inquiry-based questionnaire involves "data collection (opinions, facts, educational needs, interests, motivations, desires, aspirations etc.) regarding certain issues, themes, situations, processes or educational phenomena of interest" (ibidem).

We used the technique of indirect inquiry. Respondents expressed their answers in written form via an online Google Forms questionnaire. The questions addressed to the respondents (14 in number) had different structures. According to the content, there were opinion questions, aiming subjective aspects (opinions, attitudes, expectations, limits of the educational process achieved in the online environment). As answers are concerned, there were closed questions which "allow only to choose a variant of answer according to the opinion of the questioned subject, from more possible variants of answer, explained and imbedded in the questionnaire" and open questions which "solicit the subjects to build answers in the desired manner (they are not restricted) and subsequently, their most accurate and complete registration" (Bocoș, 2020, p. 46).

4. Results

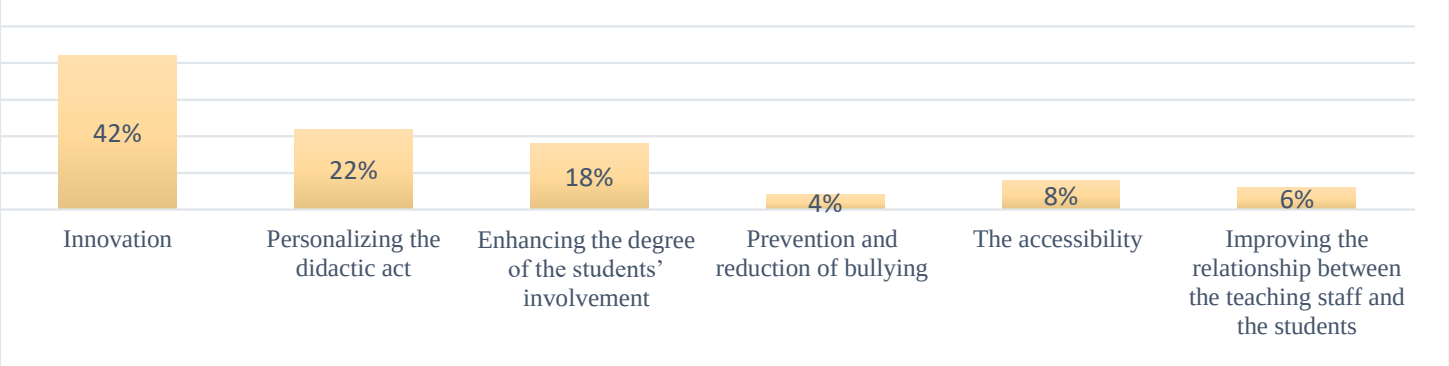
The results of the study highlight both the difficulties and the opportunities of conducting a didactic activity in the online environment achieved with the students with special educational needs. For 17% of the teachers participating in the study, the lack of adequate instruments for the online teaching-learning-evaluation of children with different types of deficiencies and the insufficient level of digital competences are elements which have hindered in a large extent the optimal achievement of the online instructional-educational process. The barriers that the teaching staff have encountered in their teaching the children with special educational needs, in the context of online school were the following:

Figure 1. Barriers in online teaching



However, despite the barriers encountered due to the suspension of face-to-face meetings between the teachers and the students, most of the teaching staff (21%) consider that the online school has represented a real opportunity to innovate the education. The advantages of applying psycho-pedagogical intervention strategies in the context of online school identified and prioritised by the teaching staff participating in the study are shown in the figure below

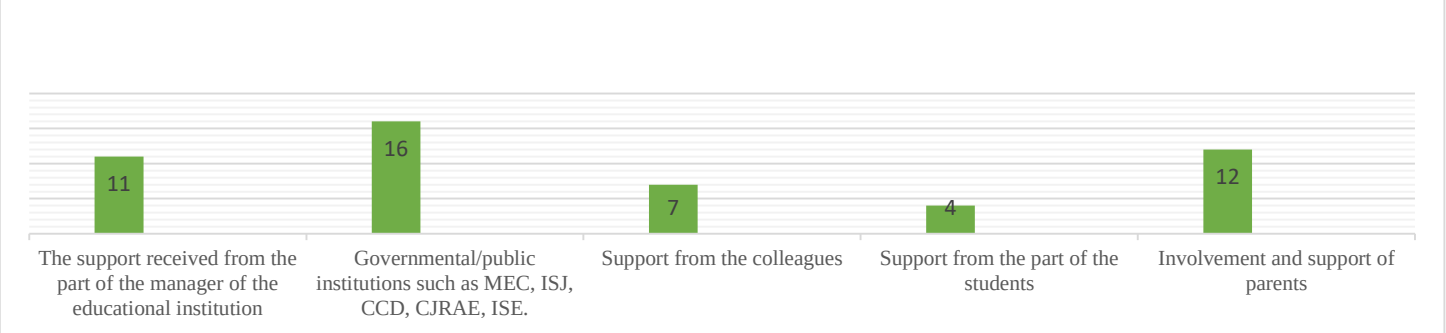
Figure 2. Advantages of online activities



Most off the teaching staff have used applications destined exclusively to online learning. Concomitantly, some applications were used for asynchronous communication in group through different social networks. The Google Classroom platform was used most frequently by the teaching staff (26 mentions); communication on the socializing networks and telephones (call and text message) was mentioned by 12 teachers; Zoom platform was mentioned by 10 teachers; platform eTwinning was used by 2 teachers.

In this period of lack of face-to-face activity, the findings of the study conclude that the participants have benefitted from support and guidance, as follows:

Figure 3. Support and guidance for teaching staff



The results of the quantitative analysis are supported by the qualitative analysis of answers which describes the impediments of online education for children with special educational needs during the pandemic: *"They can't focus adequately and I can't help them from behind a screen!"; "For the children with severe or associated deficiencies, it is very difficult to achieve the instructional educational process and the recovery process from several reasons: the attention deficit which is disturbed by many external factors; the lack of socialization extremely important for these children, lack of motivation, lack of contact with concrete didactic object-materials"; "The recovery therapies were done with great difficulty", "The lack of digital equipment for students and the lack of active participation of parents in the framework of online school".* On the other side, the teachers consider that despite the low preparation level in computer assisted instruction, online school gave them the possibility *"to innovate the didactic strategies, to personalise and centre on the student the contents taught and last but not least, to collaborate, to achieve partnerships and to exchange good practices with other colleagues by means of virtual groups".*

5. Conclusions and discussions

The study was conducted after coming back to face-to-face learning, which facilitated an introspective analysis, the study constituting an objective radiography of the limits and the new opportunities regarding the online achievement of the

educational process for the students with special educational needs. The interpretation of results indicates that a significant number of the teaching staff participating in this study has encountered barriers such as: the insufficient level of digital competences (34%), lack of adequate instruments for the online teaching-learning-evaluation of children with different types of deficiencies (32 %), as well as technical difficulties (12%). However, despite the difficulties encountered due to the suspension of face-to-face meetings between the teachers and the students, (42%) of the teaching staff consider that the achievement of education in the virtual environment has contributed to the increase of the didactic act quality, bringing a series of benefits such as innovation, the personalization of the learning, bullying reduction, accessibility. The findings of this research offer important aspects targeting education in relation to many dimensions: the situation of the technical infrastructure on which the online learning is built; the level of digital competence of the teaching staff; the wellness of the teaching staff in this period.

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10.24193/ed21.2021.21.16

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Educatia 21 Journal, (21) 2021, Art. 16
doi: 10.24193/ed21.2021.21.16
Research article

Perceptions and Challenges Regarding Cyberbullying during the Covid-19 Pandemic

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Abstract

The increased use of the Internet and digital communication platforms has facilitated the emergence and development of the phenomenon known in the literature as cyberbullying. This research aims to examine the perception of the interviewees about the phenomenon of cyberbullying in the period marked by the Covid 19 pandemic. In this research the method of sociological survey based on questionnaire was used. The research was attended by 541 people, mostly young people (83.5% of the interviewees are under 30 years old). The findings showed that the interviewees know to a large extent the phenomenon of cyberbullying; respondents believe that this phenomenon spread during the Covid 19 pandemic; half of those surveyed witnessed the phenomenon of cyberbullying, while 44.7% say they know people who have been victims of cyberbullying. The present study analyzes the way in which the interviewees position themselves in relation to different acts specific to cyberbullying. The study also highlights the opinions of the interviewees on effective action strategies to combat cyberbullying.

Keywords:
cyberbullying; Covid-19; cyber-aggressor; cyber-victim; cyber-witness; internet.

Zusammenfasung

Die verstärkte Nutzung des Internets und digitaler Kommunikationsplattformen hat die Entstehung und Entwicklung des in der Literatur als Cybermobbing bekannten Phänomens erleichtert. Ziel der Untersuchung ist es, die Wahrnehmung der Befragten zum Phänomen Cybermobbing in der Zeit der Covid-19-Pandemie zu untersuchen. In dieser Untersuchung wurde die Methode der soziologischen Erhebung auf der Grundlage von Fragebogen verwendet. An der Studie nahmen 541 Personen teil, überwiegend junge Leute (83,5% der Befragten sind unter 30 Jahre alt). Die Ergebnisse dieser Recherche zeigten, dass die Befragten das Phänomen Cybermobbing weitgehend kennen; die Befragten glauben, dass sich dieses Phänomen während der Covid-19-Pandemie ausgebreitet hat; die Hälfte der Befragten war Zeuge des Phänomens Cybermobbing, während 44,7% angeben, Menschen zu kennen, die Opfer von Cybermobbing geworden sind. Die vorliegende Studie analysiert, wie sich die Befragten vor verschiedenen Cybermobbing-spezifischen Taten positionieren. Die Studie beleuchtet auch die Meinung der Befragten zu wirksamen Handlungsstrategien zur Bekämpfung von Cybermobbing.

Schlüsselworte:
cybermobbing, Covid-19, cyber-täter, cyber-opfer, cyber-zeuge, internet.

1. Introduction

The exponential growth of virtual communications in the last decade has drastically changed the way individuals interact, often changing learning strategies, entertainment options. (Sonone et al., 2020). The rapid spread of social networks on the Internet, as well as the use of electronic communication tools such as email, websites, instant messaging, webcams, chat rooms, social networking sites, blogs and text messages (Hinduja & Patchin, 2010; Palfrey & Gasser, 2008) facilitated the exchange of information in various forms (text messages, graphics, audio-video, etc.) at any time of day or night, in real time.

The specific context generated by the Covid 19 pandemic has led to an increase in the use of communication technologies via the Internet in almost all areas of activity. The need for physical distance from others, as a measure to prevent infection with the Sars Cov 2 virus, has led to a rapid increase in the number of people who frequently use and own digital media.

2. Theoretical foundation

According to various dictionaries, the concept of cyberbullying refers to:

- "the use of electronic communication to bully a person, typically by sending messages of an intimidating or threatening nature." (Oxford English Dictionary)

- "the activity of using messages on social media, emails, text messages, etc. to frighten or upset somebody" (Oxford Advanced Learner's Dictionary)
- "the activity of using the internet to harm or frighten another person, especially by sending them unpleasant messages" (Cambridge Dictionary)
- "the act of harassing someone online by sending or posting mean messages, usually anonymously." (Dictionary.com)

Among the most credible definitions of cyberbullying are those of Smith, Mahdavi, Carvalho, Fisher, Russell and Tippett (2008), who define cyberbullying as an aggressive act performed through the use of electronic means of communication, individual or group, repetitive and durable over time against a victim who cannot easily defend himself. Patchin and Hinduja (2006) state that cyberbullying causes intentional rather than episodic damage caused by the use of electronic means, "cyberbullies have some perceived or actual power over their victims" (Patchin & Hinduja, 2006, p.152).

Cyberbullying is a form of bullying that takes place online. Thus, cyberbullying presents a series of elements common to the bullying phenomenon, such as intentionality, repetitiveness / persistence, power asymmetry. Between the two phenomena, bullying and cyberbullying, there are aspects that differentiate and nuance their specificity. If in bullying the aggressor's power was usually of a physical or social nature (competence or popularity), in cyberbullying the power can take the form of competence in the use of technology (digital competences), doubled by the possibility of access to technology and internet. "That is, youth who are able to navigate the electronic world and utilize technology in a way that allows them to harass others are in a position of power relative to a victim." (Patchin & Hinduja, 2006, p.152).

Cyberbullying tends to be more severe than bullying. Unlike bullying, victims of cyberbullying cannot be physically removed, as electronic devices continuously notify and download content from social networks or various sites. (Tanrikulu, Kinay & Aricak, 2015). At the same time, cyberbullies feel less inhibited in communicating with potential victims through electronic devices (Suler, 2004).

Cyberbullying takes different forms, being difficult to capture the real dimension of this phenomenon, given the fact that not all acts of cyberbullying are reported, and accurate statistics on this phenomenon are difficult to achieve.

3. Research methodology

The research was conducted using the method of *sociological survey*, based on a questionnaire. All persons involved in the research completed the online questionnaire. The research tool (questionnaire) included 12 items, of which 9 items of content and 3 items of identification.

3.1. The aim and the objectives of the research

The aim of the research was to *identify the perception of the interviewees regarding the phenomenon of cyberbullying in the period marked by the Covid 19 pandemic*. The goal was achieved through the following objectives:

- SO1: knowing the degree of familiarity of respondents with the phenomenon of cyberbullying
- SO2: identifying the perception of the evolution of the phenomenon of cyberbullying among young people during the Covid19 pandemic;
- SO3: identification of the mode of participation (as a witness, aggressor, victim) or non-participation of respondents in various forms of cyberbullying;
- SO4: highlighting respondents' perception of the main reasons for a person to engage in specific actions of cyberbullying
- SO5: specifying possible strategies for action in cyberbullying

3.2. Research period

The research was conducted between March 2021 - June 2021.

3.3. Investigated population - sample structure

The research involved 541 people from western Romania (Caraș-Severin and Timiș counties) who have the following characteristics depending on:

- Age

- under 14 years - 7 persons (1.3%)
- between 15 years-20 years - 283 persons (52.3%)
- between 21 years-25 years - 132 persons (24.4%)
- between 26 years-30 years - 30 persons (5.5%)
- over 30 years - 89 people (16.5%)

- Gender

- Male - 161 persons (29.8%)

- Female - 380 persons (70.2%)
  - Area of residence
- Urban area - 341 persons (63%)
- Rural area - 200 persons (37)
  - Social status
- student in high school - 7 persons (1.3%)
- student in high school - 234 persons (43.3%)
- student (bachelor, master) - 216 persons (39.9%)
- employee - 70 persons (12.9%)
- unemployed, homemaker - 9 persons (1.7%)
- Others: - 5 persons (0.9 %)

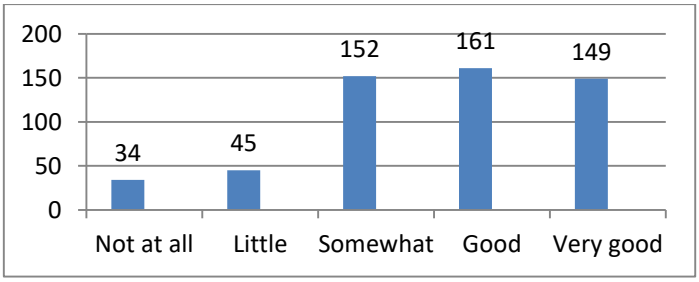
4. Results

In the presentation and interpretation of the data we chose to structure them according to the research objectives:

- **SO*1: knowing the degree of familiarity of the respondents with the phenomenon of cyberbullying***

To ensure that all respondents understand the term *cyberbullying*, a short description of this concept was introduced at the beginning of the questionnaire: "*cyberbullying is a form of bullying aggression using digital technologies. It takes place on various sites that allow interaction through messages, on social networks, on message exchange platforms, game platforms and on mobile phones. Cyberbullying refers to intentional behavior, repeated in order to denigrate, scare, anger or humiliate those targeted.*

Figure 1. The degree of knowledge of the phenomenon of cyberbullying by research participants



The survey of the respondents regarding the degree of knowledge of the cyberbullying phenomenon was done by using a scale from 1 to 5, where 1 meant *Not at all*, and 5 - *very well*. The results obtained are shown in the graph below. It is observed that a relatively small number of respondents (34 people, 6.3%) state that they do not know the phenomenon of cyberbullying, while at the opposite pole, 149 people (27.5%) consider that they know it *very well*.

Knowledge of a phenomenon such as cyberbullying indicates the extent to which respondents are informed about the existence of this phenomenon, the attention paid to understand its manifestation & its consequences. In our opinion, a high degree of knowledge of the phenomenon of cyberbullying implies the approach to its specificity, by assuming roles such as: cyber-aggressor, cyber-victim, cyber-witness. The data obtained from the following items confirm this hypothesis of ours.

- ***O2: identifying the perception of the evolution of the phenomenon of cyberbullying among young people during the pandemic with Covid 19;***

"The COVID-19 pandemic radically changed the context for bullying dynamics." (Bacher-Hicks et al., 2021).

The pre-pandemic literature with COVID 19 has reported the link between the increasing frequency of Internet use and the significant increase in cases of cyberbullying and cyber victimization among young people. (Kowalski, Giumetti, Schroeder, Lattanner 2014, Kowalski, Limber, McCord, 2019, Calvete et al., 2010).

Since March 2020, under the conditions of the Covid 19 pandemic, the excessive use of the Internet as a means of distance communication has allowed those with a tendency towards aggression to look for new ways of expression, in the shadow of the anonymity generously offered by the Internet. To date, few studies have looked at how reducing personal interactions and increasing communication through virtual technologies has impacted the phenomenon of bullying and cyberbullying. (Bacher-Hicks et al., 2021)

Jain et al. (2020) found that online behaviors associated with an increased risk of cyberbullying increased during the pandemic. Studies that analyze online searches about the phenomenon of cyberbullying using search engines, note that "in spring 2020, when schools shifted to remote learning due to the pandemic, search for school bullying and cyberbullying both dropped about 30 - 40 %. That drop is sustained through the subsequent 2020-21 school year, particularly in areas where more schools remained fully remote. (Bacher-Hicks et al., 2021)

According to the participants in the research, the evolution of the phenomenon of cyberbullying in the last year (2020-2021) among young people:

- there was a significant reduction in the number of cases (24 persons, 4.4%)
- there was a slight decrease (26 persons, 4.8%)
- it remained at approximately the same level (63 persons, 11, 6%)
- registered a slight increase (119 persons, 22%)
- registered a significant increase (201 persons, 37.2%)
- do not know (108 persons, 20%).

As can be seen from the data obtained most respondents consider that the phenomenon of cyberbullying is on the rise, which can be explained by the COVID 19 pandemic, when internet communication has grown exponentially, providing people with aggressive tendencies with the perfect environment to implement their ideas to intentionally hurt and repeated other p people.

- ***SO3: identification of the mode of participation (as a witness, aggressor, victim) or non-participation of respondents in various forms of cyberbullying;***

Cyberbullying phenomenon involving three roles: aggressor (cyberbully), victims and witnesses (witnesses - part of the problem or witnesses - part of the solution). (Willard, 2007). According to UNICEF, *"anyone can become a victim of cyberbullying"* (https: // www.*unicef.org/romania/ro/pove%C8%99ti/cyberbullying-ce-este-%C8%99i-cum-%C3%AEi-punem-cap%C4%83t).*

Research shows that "numerous adolescents repeatedly fall victim to bullying (cyberbullying)" (Katzer et al, 2009, p.32). The long-term consequences for victims can be very severe, including a higher likelihood of depression, anxiety, and drug abuse (Kowalski et al., 2014)

When asked if they *know someone who was a victim of cyberbullying*, 44.7% of the respondents (242 people) answered affirmatively, while 41.6% (225 people) answered negatively to this item, and 13.7% (74 people) have avoided giving an affirmative or a negative answer.

Knowing a person/victim of cyberbullying makes the phenomenon of cyberbullying not something abstract, but something related to the respondent through the person he/she knows. People who answered "yes" to this item found themselves in one of the situations: either they were the aggressors, or witnesses (direct or indirect - by telling the situation of cyberbullying by another person), or victims. Also, even among the people participating in the investigation, there is a good chance that some of the people who avoid giving an affirmative or negative answer are in the position of victims and / or aggressors and due to feelings of shame, embarrassment, guilt, anger, non-acceptance, etc. prefer neutral answers such as "I don't know / don't answer".

Figure 2. Results regarding the knowledge or not of a cyberbullying victim

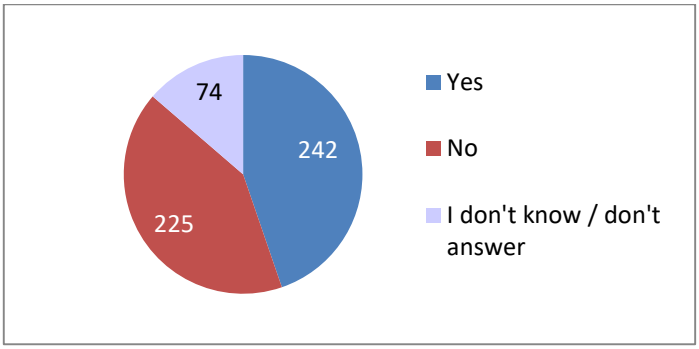


Table 1. Results regarding the knowledge or not of a person victim of cyberbullying

Answers	Nr. of people	%
Yes	242	44,7%
No	225	41,6%
Don't know/ Don't answer	74	13,7%

As we mentioned, the concept of "cyberbullying" (Ybarra & Mitchell, 2007) refers to the actions of posting comments, information, images, audio-video clips, etc. online that repeatedly and intentionally seek to offend, shame, frighten or denigrate someone by accessing that content by a wide audience. Often someone can unwittingly end up witnessing episodes of cyberbullying. In the present research we were interested to find out to what extent the research participants *ever witnessed an episode of cyberbullying* and how they would act if they found themselves in such a situation.

The responses received to the item *if they have ever witnessed an episode of cyberbullying* seem balanced, in the sense that almost half of the respondents say they were not witnesses (this does not

exclude the possibility that among those who say they were not witnesses there are people who participated in cyberbullying, but as cyber-aggressors or cyber-victims; obviously, among the respondents are also people who did not take part directly in cyberbullying either as witnesses or as victims or aggressors), while the other half also specifies the frequency with which the episodes of cyberbullying in which they took part as witnesses took place (most people took part only *once or twice*).

Figure 3. Results on the number of people who witnessed cyberbullying

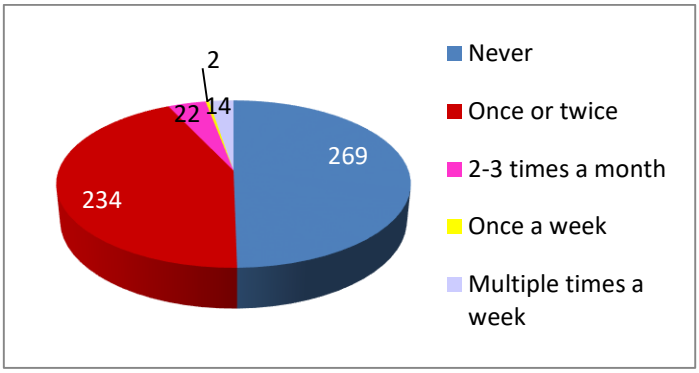


Table 2: Results on the number of people who witnessed cyberbullying

Answers	Nr. of people	%
Never	269	49,7%
Once or twice	234	43,3%
2-3 times a month	22	4,1%
Once a week	2	0,4%
Multiple times a week	14	2,6%

In order to identify the relationship that the respondents have with the phenomenon of cyberbullying, they were asked to specify the frequency (which varies from *Never* or *Only once or twice*, reaching up to *2-3 times a month* or *Once a week* or *From several times a week*) faced with certain situations (presented in the left column of the table below) in the sphere of the phenomenon of cyberbullying. The results obtained are presented in Table 3.

Analyzing carefully the table below we can see to what extent the research participants were victims (the first 10 statements aim at the role of victim), aggressors (the next eight statements present situations characteristic of cyberbullies) the answers obtained from the respondents indicate the variant *Never* or *Only once or twice* which shows that in their case we cannot talk about cyberbullying but rather isolated incidents. Those who have faced these situations several times a month or even a week have a high risk of being directly affected by cyberbullying, respectively being a victim and / or aggressor. Several studies have shown that students are often not exclusively classifiable as aggressors or victims (Austin & Joseph, 1996; Espelage & Swearer, 2003; Veenstra et al., 2005) and that these roles often intertwine, alternate.

Receiving silent phone calls is found *2-3 times a month* for 66 people, and much more often, respectively *once a week* for 21 people and *several times a week* for 8 people. Ignoring or being excluded from online groups *several times a week* happens to 10 people who participated in the research, while 9 people say that they receive several times a week, threats and insults by text message, on the Internet through websites, web pages, chat rooms, blogs, instant messaging (MSN, Facebook, Twitter, Myspace ...), by email, etc.

As aggressive online behaviors are concerned, far fewer participants state that they perform those actions repeatedly, *2-3 times a month*, *once a week* or *several times a week.*

Table 3. Results on the frequency of respondents' confrontation with situations in the field of cyberbullying

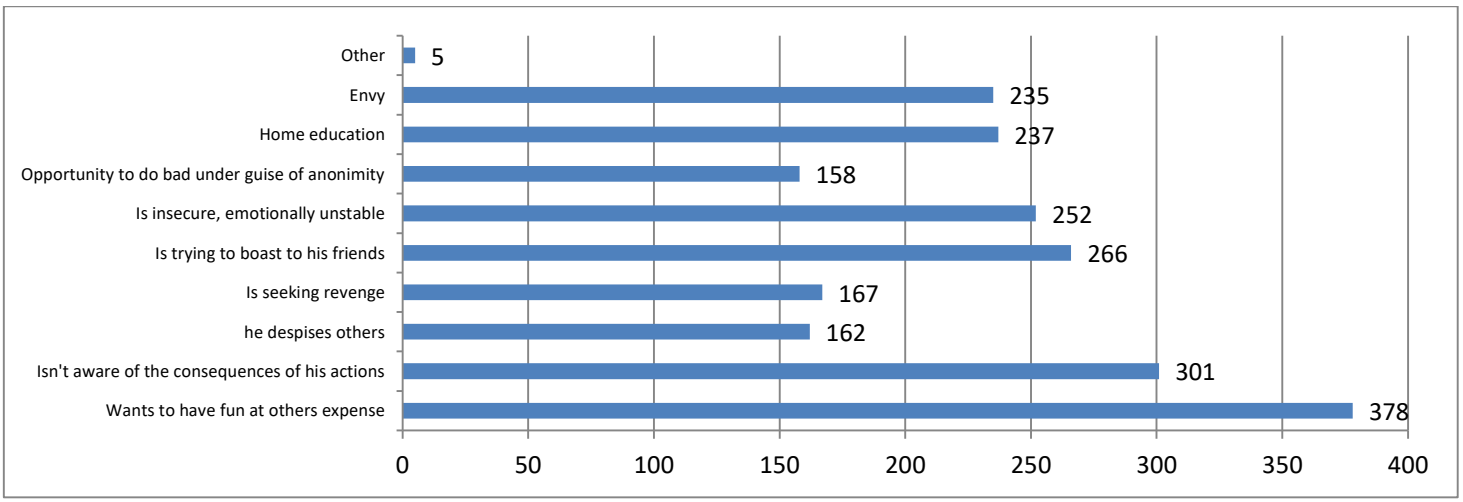
Answer variants	Never	Only once or twice	2-3 times a month	Once a week	Several times a week
I received threats and insults via text message, via websites, chat rooms, blogs, instant messaging (MSN, Facebook, Twitter, Myspace ...), by email etc	319	180	25	8	9
I received videos / photos / images with aggression or violence with me or other acquaintances	438	80	19	4	0
I received videos / photos / images of embarrassing or intimate situations with me or acquaintances	410	100	25	6	0
I received silent phone calls (the caller does not speak)	209	237	66	21	8

I found out that someone stole personal information or material about me (e.g. pictures, audio-video recordings etc ...) and then used it to slander me	456	70	11	3	1
I found out that someone shared personal and private material about me in order to have fun at my expense	433	88	17	2	1
I was deliberately ignored in groups online (chats, forums, Whatsapp groups, Facebook ...)	367	121	31	13	9
I was excluded or left out of online groups (chats, forums, Whatsapp groups, Facebook ...)	374	121	27	9	10
I learned that someone had hacked and used my password and account. under a false identity (e-mail, Facebook ...)	431	98	9	3	0
I found out that someone used my identification data (name, images, etc.) to create a false internet account	437	94	6	2	2
I sent threats and insults by SMS, on the Internet through websites, chat rooms, blogs, instant messaging (MSN, Facebook, Twitter, Myspace ...), by email etc	469	56	11	2	3
I shared videos / photos / images with aggression or violence via mobile phone, Internet (emails, websites, YouTube, Facebook, WhatsApp etc.)	501	32	6	2	0
I shared videos / photos / images with embarrassing or intimate situations of other people	503	28	8	2	0
I made hidden phone calls when I wanted to stress / insult / threaten someone	472	54	12	2	1
I manipulated personal information or materials about certain people (e.g.: pictures, audio-video recordings, etc ...) and I distributed them to laugh at or hurt those people	507	24	7	3	0
I have deliberately excluded or left out of online groups (chats, forums, WhatsApp groups, Facebook ...) certain people	463	64	10	3	1
I used fake Internet account (s) to harass others online	509	22	8	2	0
I contributed to the spread of gossip on the Internet	451	79	8	2	1

- ***SO4: highlighting respondents' perceptions of the main reasons for a person to engage in cyberbullying-specific actions***

For the item that regarded "the main reasons why someone commits cyberbullying" the following results were obtained in Graph 4: *they want to have fun at the expense of others* (378 people, respectively 69.9%), are *not aware of the consequences of their actions* (301 persons, respectively 55.6%); *try to assert themselves in their group of friends* (266 people, respectively 49.2%), *are insecure, emotionally unstable* (252 people, respectively 46.6%), *education received in the family* (237 people, respectively 43.8%) , *envy* (235 people, respectively 43.4%).

Figure 4. Findings on the main reasons why someone commits cyberbullying



- ***SO5: specification of possible action strategies in cyberbullying situations.***

The family has a particularly important role in preventing and combating the phenomenon of cyberbullying, a fact confirmed by the literature (Hinduja & Patchin, 2014, 2020, 2021, Cortés-Pascual et al., 2020, Bonil-Nissim & Sasson, 2018; Ibáñez-Cubillas, Díaz-Martín & Pérez-Torregrosa, 2017).

One of the most important roles of the school, of teachers, and the entire academic community in cyberbullying is to educate the community on the responsible use of digital communication devices, to convey that any form of cyberbullying is wrong and therefore unacceptable (Hinduja & Patchin, 2021).

According to the respondents, "a person who is a victim of cyberbullying" should: *ask for help from the family* (360 people, 66.5%) or *go to the police / justice* (299 people, 55.3%) *to not respond to the challenges from the aggressors* (260 people, 48.1%), *to block the aggressor online* (256 people, 47.3%), *to use the services of a psychologist / psychotherapist* (211 people, 39%), *to ask help from their* friends (193 people, 35.7%), to talk to a teacher (162 people, 29.9%) (see table 4).

Table 4. Results on possible cyberbullying action strategies

Answer variants	Nr. of people	%
To ignore the situation	115	21.3%
To ask for help from family	360	66.5%
To ask for help from friends	193	35.7%
To talk to a teacher	162	29.9%
To use the services of a psychologist / psychotherapist	211	39%
To inform the Police / Justice	299	55.3%
To take revenge	15	2.8%
To respond with the same methods to the aggressor	12	2.2%
To do nothing	14	2.6%
To block the aggressor online	256	47.3%
Not to answer challenges from aggressors	260	48.1%
To inform the Police	2	0.4%

For the item "If you inadvertently witness a cyberbullying situation how do you think you would behave" participants provided the following answers presented in Table 5.

Table 5. Results on how respondents would act if they witnessed cyberbullying

Answer variants	Nr. of people	%
I would ignore the situation; it has nothing to do with me	71	13.1%
I would take an attitude in favor of the victim	325	60.1%
I would be happy if the victim is an unbearable person	11	2%
I would clearly delimit myself from that situation, incriminating the aggressor's behavior	50	9.2%
I would pass everything in silence for fear of becoming a target of cyberbullying	23 23	%
I would tell the family the situation, asking them for advice on how to proceed	203	37.5%
I would tell other people in order to find a better solution with them	224	41.4%
I would beat / immobilize the aggressor	2	0.4%
I would talk to the victim and the aggressor	2	0.4%
I don't know	2	0.4 %
Other	8	1.5%

As can be seen in Table 5, a large number of respondents (325 and 60.1%, respectively) state that they *would take an attitude in favor of the victim*. Also, some of the respondents would tell the family (203 people, respectively 37.5%) or other people in order to find with them the best possible solution (224, respectively 41.4%).

5. Discussions and conclusions

The Covid 19 pandemic brought a series of changes in daily life. Unlimited internet access, coupled with the natural desire to overcome physical distances by connecting with others has provided an environment conducive to those with aggressive tendencies to engage in acts of cyberbullying. Studies are still insufficient on this topic and seem to highlight an expected increase in the rate of cybercrime (Jain et al., 2020). At the same time, there are studies based on the analysis of online search for data on cyberbullying which finds that during the period when schools physically closed their doors and transferred the educational act to the online environment, the incidence of cyberbullying data searches decreased by using search engines. Search, and the physical reopening of schools, indicates an increase in these searches. (Bacher-Hicks et al. 2021). Therefore, physical interactions seem to stimulate not only bullying behaviors, but also cyberbullying, and as people who use the Internet are better informed about this phenomenon, public authorities seek to develop

effective programs and tools to prevent and combat this phenomenon. Just as much, some aggressors refine their methods, choose their victims carefully and manage to carry out their plans.

The opinion of the participants who took part in this research, based on the information they each have, is that the phenomenon of cyberbullying is slightly increasing, that there are many intervention strategies through which the phenomenon of cyberbullying even if it cannot be stopped can be diminished by the contribution of each us who at some point may be involved in a cyberbullying situation. For most respondents, the family remains a relevant court in providing support and protection for cases of cyberbullying. In our opinion, there are still many steps to be taken to reduce the impact of this phenomenon, and this can only be achieved through adequate cooperation of public and private authorities to regulate as much as possible the phenomenon of cyberbullying, as well as to advance effective cyberbullying programs, preventing and combating this phenomenon.

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10.24193/ed21.2021.21.17

Strategies to Facilitate the Transition of Preschoolers from Kindergarten to School

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Educatia 21 Journal, (21) 2021, Art. 17
doi: 10.24193/ed21.2021.21.17
Research article

Strategies to Facilitate the Transition of Preschoolers from Kindergarten to School

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Abstract

The purpose of this study was to establish the main strategies that teachers could apply during preschool education in order to facilitate the transition from kindergarten to school. Data were collected using an online questionnaire designed by us. 238 preschool education teachers have filled in the questionnaire. The main strategies used in order to facilitate the preschoolers' adaptation to the school demands are visits to other educational institutions from their hometown, organizing workshops, in collaboration with primary school teachers, organizing meetings with pupils and primary school teachers, organizing didactic activities or educational workshops for parents and preschoolers, as a context for parents to present various school experiences or reading stories about school and the pupils' life. We have also discovered that in the opinion of most of the teachers, school adaption is an easy process for most preschoolers. For some of the preschoolers, this process could be difficult, and the actions of parents, teachers, and school counselors could be very helpful. The results of this study are useful for primary school teachers, teachers for preschool education, or researchers in the educational field interested in optimizing the transition of children from kindergarten to school.

Keywords:
School adaptation kindergarten, effective strategies, preschool level.

Zusammenfasung

Das Ziel dieser Studie war es, die wichtigsten Strategien zu bestimmen, die von Lehrern für die Vorschulerziehung angewendet werden können, um den Übergang vom Kindergarten in die Schule zu erleichtern. Die Daten wurden mittels eines von uns konzipierten Online-Fragebogens erhoben. 238 Lehrkräfte für Vorschulerziehung haben den Fragebogen ausgefüllt. Die wichtigsten Strategien, um die Anpassung der Vorschulkinder an die schulischen Anforderungen zu erleichtern, sind Besuche bei anderen Bildungseinrichtungen aus ihrer Heimatstadt, die Organisation von Workshops in Zusammenarbeit mit Grundschullehrern, die Organisation von Treffen mit Schülern und Grundschullehrern, die Organisation von didaktischen Aktivitäten oder pädagogischen Workshops für Eltern und Vorschulkinder, als Kontext für Eltern, um verschiedene Schulerfahrungen zu präsentieren oder Geschichten über die Schule und das Leben der Schüler zu lessen. Wir haben auch festgestellt, dass nach Meinung der meisten Lehrer die Anpassung an die Schule für die meisten Vorschulkinder ein einfacher Prozess ist. Für einige Vorschulkinder könnte dieser Prozess schwierig sein, und die Maßnahmen von Eltern, Lehrern und Schulberatern könnten sehr hilfreich sein. Die Ergebnisse dieser Studie sind nützlich für Grundschullehrer, Vorschullehrer oder Forscher im Bildungsbereich, die daran interessiert sind, den Übergang von Kindern vom Kindergarten in die Schule zu optimieren.

Schlüsselworte:
Schulanpassung Kindergarten, effektive Strategien, Vorschulstufe.

1. Introduction

The accommodation with the demands of the school is a very important process. Children's first experiences in the school space should be positive. The interactions with the primary school teachers and the social relationships with colleagues are also very important. The process of transition from kindergarten to school is facilitated by the actions made by the teachers for preschool education and by the strategies used. The positive interactions with primary school pupils or primary school teachers are also salient. In this article, we have made an inventory of the most effective strategies that teachers for preschool education have used or intend to use to facilitate the children's transition from kindergarten to school.

2. Theoretical foundation

The process of school adaptation can be facilitated through an authentic collaboration between school and family and an optimal involvement of the family in children's education (Zhao, 2017; Tan & Goldberg, 2009; Correia & Marques-Pinto, 2016). The socio-economic status of the family, the parental style adopted by the family, the learning experience carried out in the family, the level of children's self-esteem, the degree of development of children's emotional intelligence, and the ability to relate to others are also important factors (Akçinar, 2013; Vlaicu, Anghel & Voicu, 2019; Jung, 2016). Authors of recent studies have outlined the importance of the family's positive actions and attitudes (Vlaicu, Anghel & Voicu, 2019; Akçinar, 2013; Miller-Lewis, Sawyer, Searle & Sawyer, 2014). The positive parenting styles have positive effects on children's development, and at the same time on the school adaptation process (Miller-Lewis, Sawyer, Searle & Sawyer, 2014). "The child should be encouraged to explore and experience new activities and situations; placing him in such situations he gains the courage and confidence that he needs to overcome everyday obstacles and difficulties and develop personal autonomy" (Vlaicu, Anghel & Voicu, 2019, p. 1399).

At the same time, teachers for preschool education have an important role in facilitating the transition of children from kindergarten to school, being necessary for them to create a stimulating educational environment, favourable to good cognitive, emotional, and social development (Vlaicu, Anghel & Voicu, 2019). "The school readiness and adaptation should be considered together with all developmental areas, rather than just cognitive competence." (Akçinar, 2013, p. 1103). Children's social interaction skills are extremely important and have a positive impact on their school adaptation (Goble et al., 2017). "The first month after primary school enrollment should be set as a study preparation period. Meanwhile, the last two months of kindergarten classes should also be set as preparatory a period" (Zhao, 2016, p. 432).

Preschools institutions organize various programs, projects, or educational activities, through which children can be supported in the process of adaptation to school requirements (Marcineková, Borbélyová & Tirpáková, 2020). These programs should pay special attention to children's emotional development and relationship skills. It is beneficial for preschoolers to come into contact with the school environment and participate in various reading activities or learning contexts that allow them to interact with primary school teachers or students (Ólafsdóttir & Einarsdottir, 2019; Sobczak, 2017). "Kindergarten should cooperate with families and communities to interact with primary schools." (Zhao, 2016, p. 432).

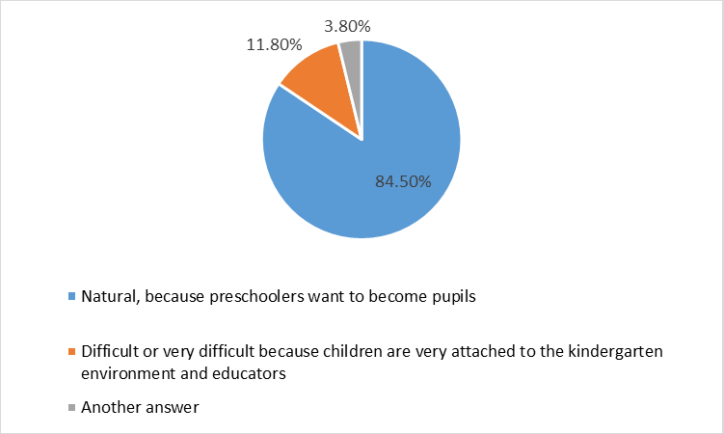
3. Research methodology

In this article, we would like to find the answer to the following question: Which strategies are efficient to facilitate the children's accommodation with the demands of the school? The questionnaire included in Appendix 1 was filled in the school year 2020-2021 by 238 teachers for preschool education in Romania. The online questionnaire contains 4 items and was designed in order to collect data about the preschoolers' transition from kindergarten to school.

4. Results

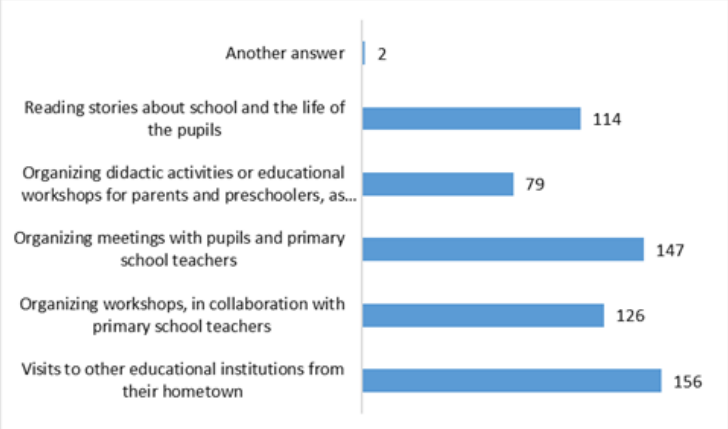
The first question of the questionnaire was formulated with the purpose to establish how difficult the process of accommodation to the demands of the school is for preschoolers. According to teachers' opinion, for most preschoolers, school accommodation is a natural process. The teachers who have selected another answer mentioned that the transition from kindergarten is perceived by children in individual ways, and the factors that influence the children's accommodation with the school demands are very different. Some of their personality characteristics are also important in this process. Thus, school accommodation could be a very simple process for some children, but at the same time, can be a very complicated process for others. Most of the children are enthusiastic, but some of them are feeling scared about the changes generated by their new roles and responsibilities. At the same time, the teachers for preschool education mentioned that the family plays a very important role in the process of school accommodation. The discussions with the parents about the changes generated by their new roles are of paramount importance. The kindergarten's environment is created in order to prepare children for a good adaptation to the demands of the school. According to the teachers who teach at the preschool level most of the children are very enthusiastic about de fact that they are becoming pupils (see Figure 1).

Figure 1. Teachers' opinion regarding the process of accommodation with the school demands



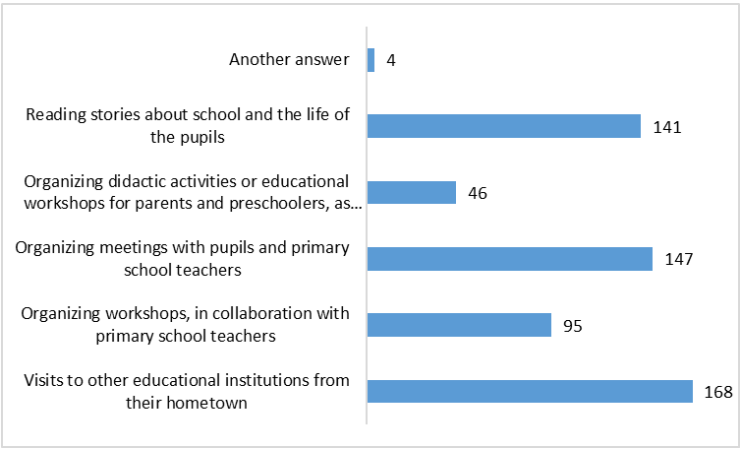
To prepare and facilitate the transition of preschoolers from kindergarten to school, teachers for preschool education consider that various educational activities should be carried out such as visits to other educational institutions from their hometown, organizing workshops, in collaboration with primary school teachers, organizing meetings with pupils and primary school teachers, organizing didactic activities or educational workshops for parents and preschoolers, as a context for parents to present various school experiences, and reading stories about school and the life of the pupils. Other strategies which can ensure the continuity between kindergarten and school demands are the simulation of a school day (organizing furniture in the form of benches, recognizing and using writing instruments and other supplies, getting acquainted with some notions from the preparatory class such as letters or numbers, etc.), and organizing educational workshops with the participation of preschoolers and their parents (see Figure 2).

Figure 2. Effective strategies that will be used in the future by teachers for preschool education



With the purpose to prepare and facilitate the transition of preschoolers from kindergarten to school, teachers for preschool education have carried out various educational activities (see Figure 3).

Figure 3. Effective strategies that were used before by teachers for preschool education



The project "Let's get ready for school!", during which are simulated various school contexts, was mentioned by some of the respondents as being very beneficial. Activities based on discussions about school events and school supplies, picture reading activities, activities carried out together with the school counsellor, the end of the school year celebrations, activities based on reading stories and poems about school and school habits are considered effective. The teachers for preschool education have mentioned that they have read aloud various books written by Romanian and foreign writers. The most recommended books/ resources used by teachers for preschool education are *Aricilă goes to school* (written by Heidi și Daniel Howarth) and *Jake's first day of school* (Twinkle Originals Stories).

Individual/group discussions with parents of preschoolers were also initiated by the teachers or counsellors from kindergarten. Organizing role-plays and dramatizations, discussing school experiences with guests (parents, pupils, teachers, or other members of the community), or singing songs about school or pupils' life were mentioned as positive strategies. Teachers have also organized debates about classroom rules, have initiated active partnerships kindergarten-school (in which preschoolers had the opportunity to visit the class, to sit in the bank, to carry out artistic-plastic activities with pupils or fun games). Other strategies mentioned by teachers for preschool education are activities in which the positive preparation of the children takes place. Some of the teachers mentioned that they read therapeutic stories

to preschoolers (in order to help them understand their emotions, to help them overcome them, and to facilitate their adaptation to school). Also, preschoolers were encouraged to create stories based on photos from the school environment.

5. Discussions and conclusions

It would be useful to establish which are the main actions realized by primary school teachers at the beginning of the preparatory grade to facilitate the school adaptation of preschoolers. It is also important that both primary school teachers and teachers for preschool education cooperate with parents and school counsellors to smooth the path of the accommodation process of preschoolers with the school demands. Future studies could study the views of preschoolers and parents of preschoolers on the activities that can be organized to facilitate the transition from kindergarten to school. The COVID-19 pandemic had major effects on the content and the type of activities that could be organized in kindergarten. In the current epidemiological context, it would be useful to investigate which activities were successful in the online environment with the purpose to facilitate the transition of children from kindergarten to school.

Appendix A.

Questionnaire Strategies that facilitate the transition of preschoolers from kindergarten to school

Through this questionnaire, we aim to identify effective strategies and activities that can facilitate the adaptation of preschoolers to school requirements.

1. For most preschoolers, the transition from kindergarten to school is a process:

- ☐ Natural, because preschoolers want to become pupils
- ☐ Difficult or very difficult because children are very attached to the kindergarten environment and the educators
- ☐ Other response

2. What strategies to ensure the continuity of the relationship between kindergarten and school do you consider to be effective and you would like to use in the future? (more possible answers)

- ☐ Visits to other educational institutions from their hometown
- ☐ Organizing workshops, in collaboration with primary school teachers
- ☐ Organizing meetings with pupils and primary school teachers
- ☐ Organizing didactic activities or educational workshops for parents and preschoolers, as a context for parents to present various school experiences
- ☐ Reading stories about school and the life of the pupils
- ☐ Other answer:_____

3. What educational activities have you organized over time to prepare and facilitate the transition of preschoolers from kindergarten to school? (more answers possible)

- ☐ Visits to other educational institutions from their hometown
- ☐ Organizing workshops, in collaboration with primary school teachers
- ☐ Organizing meetings with pupils and primary school teachers
- ☐ Organizing didactic activities or educational workshops for parents and preschoolers, as a context for parents to present various school experiences
- ☐ Reading stories about school and the life of the pupils
- ☐ Other answer:_____

4. What stories/books or poems about student life or the school environment have you to the preschoolers to help children adapt to school requirements?

_____

_____

Authors note:

The authors have equal contributions to this article.

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Liliana-Camelia Mărginean is a director at Kindergarten with Extended Program "Lumea Prichindeilor" Câmpia Turzii, from Câmpia Turzii, Cluj County. She is carrying out his managerial activity with passion and responsibility. She is interested in sharing experiences with other kindergartens, exploring new positive teaching experiences, and involving children and teachers in interesting learning activities.

Ionela-Lucia Șeulean is a director at Kindergarten with Extended Program "Pinocchio" Câmpia Turzii, from Câmpia Turzii, Cluj County. She considers it important to show confidence in the employees' abilities and to motivate them for continuous training. Also, she is preoccupied to create an optimal educational climate for all the 292 wonderful preschoolers, who are enrolled in kindergarten. She carries out the activity of institutional management with love and passion, respecting the legislation in force.

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10.24193/ed21.2021.21.18

Social-Emotional Development - Highlights in the Romanian Curriculum for Early Education

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Educatia 21 Journal 21 (2021)

Educatia 21 Journal, (21) 2021, Art. 18
doi: 10.24193/ed21.2021.21.18
Research article

Social-Emotional Development - Highlights in the Romanian Curriculum for Early Education

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Abstract

Social-emotional development represents a main developmental domain proposed by the current curriculum for early education in Romania. The main aspects related to this domain are the proper initiation and maintenance of social interactions, the ability to identify and express emotions, to react adequately to the emotions expressed by others, and the self-concept development. Thus, in kindergarten, children learn what solidarity and responsibility for their own actions and for their own behavior mean and that they can control their behavior towards others. All these are essential for the individual wellbeing and learning outcomes, as well as for his future social integration. The Romanian curriculum for early education describes behavioral indicators related to the social-emotional development of children, which can be followed by educators within daily didactic activities. The current study describes the main highlights related to this developmental field found in the main document of the regulatory framework for the Romanian preschool education system. Taking the pandemic context into consideration, we can affirm that educators are required to reconsider the implications of the proper development of social-emotional skills more than before.

Keywords:
social-emotional development; preschool Romanian education; early childhood curriculum .

Zusammenfasung

Die sozial-emotionale Entwicklung ist ein Hauptentwicklungsbereich, der im aktuellen Curriculum für die Früherziehung in Rumänien vorgeschlagen wird. Die wichtigsten Aspekte im Zusammenhang mit diesem Bereich beziehen sich auf die richtige Initiierung und Aufrechterhaltung sozialer Interaktionen, die Fähigkeit, Emotionen zu erkennen und auszudrücken, angemessen auf die Emotionen anderer zu reagieren und die Entwicklung des Selbstkonzepts. So lernen Kinder im Kindergarten, was Solidarität und Verantwortung für das eigene Handeln und für das eigene Verhalten bedeuten und dass sie ihr Verhalten gegenüber anderen kontrollieren können. All dies ist wesentlich für das Wohlbefinden und die Lernergebnisse sowie für die zukünftige soziale Integration des Individuums. Das rumänische Curriculum für die Früherziehung beschreibt Verhaltensindikatoren in Bezug auf die sozial-emotionale Entwicklung von Kindern, die von Erziehern im Rahmen der täglichen didaktischen Aktivitäten verfolgt werden können. Die aktuelle Studie beschreibt die wichtigsten Hauptmerkmale in Bezug auf dieses Entwicklungsfeld, die sich im normativen Rahmen des rumänischen Vorschulbildungssystems befinden. Unter Berücksichtigung des Pandemie-Kontextes können wir bestätigen, dass Pädagogen die Auswirkungen einer angemessenen Entwicklung sozial-emotionaler Fähigkeiten stärker als bisher überdenken müssen.

Schlüsselworte:
sozial-emotionale Entwicklung; Rumänische Vorschulbildung; Curriculum für die frühe Kindheit.

1. Introduction

Early childhood education and care in Romania addresses the children aged 0 to 6. Usually, the children aged 0 to 3 are included in nurseries or day centers, while the children aged 3 to 6 participate to the activities that take place in state or private kindergartens. The preschool education is structured in three main stages: small, middle and the big group. Often children are divided in homogeneous age groups, but there are also contexts where heterogeneous ones are present. The activities conducted in the preschool education are structured according the curriculum and to some national standards (Romanian Ministry of Education, 2021). The last curriculum for early education came into use in September 2019 and represents an updated, adjusted version of the last curriculum for preschool education from 2008. The latest curriculum for early education reflects that in the last period many efforts have been made in order to close the gap between the pedagogical activity in the kindergarten and the daily life and the rapid major changes of the society (Colberg-Schrader & Krug, 1980). This process represents the result of a long-term team work (kindergarten teachers, experts in the field of educational sciences, psychologists, sociologists etc.). The curriculum implemented in 2019 brings a modern

approach, aiming to ensure continuity within the same curricular cycle and interdependence between school subjects and learning activities within the preschool system. It was necessary to reconsider some elements of the curriculum implemented in 2008 as a result of some changes that took place in the educational system: the introduction of the preparatory class in the school system, the need to focus more on children's competences and observable behaviors and less on goals and knowledge, and to promote a systemic approach to early education. Thus, the Romanian preschool education has a strong dynamic character, being continuously influenced by main social changes. Education of the young generation focuses both on the cognitive and social-emotional development by educating prosocial, desirable behaviors, self-control and empathy, will and creativity and involving also the elements of the sensorial education.

One of the main development domains mentioned in the current curriculum for early childhood is the social-emotional one. The balanced development of this domain has a major impact on the other developmental domains mentioned in this document, and also on the wellbeing, learning outcomes and social integration of the individual. Within the current study we aimed to identify the current approach of this domain, since in the last period it has been observed that due to the pandemic context the need to ensure that children continue to develop social-emotional skills requires educators to rethink the existing perspectives and to teach children new social skills that are essential in the pandemic times (Egan, Pope, Moloney et. al., 2021).

2. Theoretical foundation

The most frequent name related to the field of social-emotional development is D. Goleman, who demonstrated that children's social and emotional skills can be stimulated and trained at early ages and the proper, balanced, development of these has both short and long term multiple benefits (Goleman, 2018 a, b): well-balanced cognitive development, success in the academic field and maintaing the state of well-being.

The link between the social and emotional skills and their development can be observed in the model of emotional intelligence proposed by Goleman (2018a), which encompasses five elements: self-awareness, self-control (emotion management), motivation, empathy and social relations management. Although the social-emotional skills of children are more limited than the ones of adults, the development of these competences at the early ages is characterized by a rapid rhythm of acquirements. Children experience a wide range of social interactions and become more aware of their own person. All these determine progress in the self-regulation capacity, young children become more capable to inhibit their action, to postpone rewards, to tolerate frustration, to obey rules and to adjust their behavior according to the context they find themselves in (Șerban, 2019).

Another particular aspect that can be observed in early education is that the development takes place in stages, but it is not uniform; each child has his own rhythm and periods of progress, stagnation or even regression. Therefore, children need, in order to become increasingly competent in the social-emotional field, to feel capable and stimulated to learn. Bilmes (2012) shows that a supportive environment, multiple activities and practice enables children to internalize the specific of social-emotional skills.

The social-emotional education was first mentioned in the context of preschool Romanian system in the curricular documents in 2008 (Bocoș & Brănișteanu, 2012), but it has been observed that until then elements related to this theme were found in the official documents that regulated the implementation of educational activities conducted in kindergartens. The curriculum is designed as a collection of ideas, as support in structuring and planning educational activities. The curriculum can offer suggestions and guideline for analyzing a current situation in order to identify future objectives, for preparing the stages of a didactic activity and for their implementation (Colberg-Schrader & Krug, 1980). The learning activities are not detailed to offer preschool teachers the possibility to design the activity according to the available resources, the age of the children and other particularities and to generate a learning experience that is reflective of the behavior of children.

The model of the modern child, as an active and competent actor, determines the need of simultaneous stimulation on all levels of development: cognitive, emotional, social, motor, aesthetic, creative and moral. Ensuring this complex stimulation represents an important milestone in establishing the quality in a preschool education institution. In other words, *a good kindergarten* is one that:

- helps preschool children develop an individual point of view and prepares them as effective as possible for future school life,

- develops fairness and respect,
- ensures equal chances to all children,
- supports families,
- contributes to the development of society's culture (Honig, Joos & Schreiber, 2004).

Rakap et. al. (2018) show that the development of social-emotional skills at early ages does not occur naturally. Children need to interact with nurturing adults and competent peers. These types of interactions take place frequently in early education institutions, so the role of the teacher in managing them is essential. The same authors show that if the social-emotional skills are not developed adequately, children are likely to develop and demonstrate challenging behaviours, so social-emotional learning at early ages can represent a way of prevention of future disruptive behaviours.

3. Methodology

We conducted a study on the main document that is included in the regulatory framework of the preschool Romanian education in order to establish which are the main aspects mentioned regarding the domain of social-emotional development of children. We chose to analyze this development domain as it is well known that social and emotional skills represent the main factors of the adjustment to school life and for the social integration of the individual throughout life. Its importance was also demonstrated within the rapid major changes in our life due to the current pandemic.

4. Results

The main document we analyzed for the current study was the Romanian curriculum for early education released in 2019 (Romanian Ministry of Education, 2019). The curriculum offers guidelines and information for teachers and other specialists working in the field of education with children ages 0 to 6. The structure of the curriculum covers the following aspects:

1. Arguments in favor of curricular changes in the early childhood

2. General principles underlying the development of the curriculum

3. Curriculum for early education

4. Methodology for applying the curriculum for early education

5. The teaching plan for early education. Curricular structure and the promoted model for curricular design

6. Developmental domains

7. Appendixes including: the scheme of designing the annual study topics, thematic activities or activities on experiential fields; the content of the annual study topics; the daily schedule for each age group and sheets for assessment of the individual progress of the child.

The first quote on the first page of the document refers already to the importance of adequate social-emotional development for the efficacy of learning: “Children learn better when they are in a safe socio-affective climate, when they have a pleasant relationship with their parents, educators and others around them” (John Bennet UNESCO, 2004).

In the first section of the curriculum the holistic perspective on child development is mentioned, and the field of social-emotional development is mentioned within the five developmental domains along with the other four: physical development, health and personal hygiene; cognitive development and knowledge of the world; language, communication development and the premises of reading and writing; learning abilities and attitudes. The curriculum explains that there are interdependencies between these development domains; an acquisition in one area determining the child's progress in other areas. These developmental fields are established according to another document present in the regulatory framework of the early education in Romania, namely: Fundamental landmarks in early learning and development (2010).

The curriculum presents in this first part some general characteristics of early childhood education, which are also relevant for the social-emotional development of children: the toughed curriculum has a great impact on the children’s development; the approach teachers choose can be individualized for each child; the balance between social-emotional aspects, learning and the wellbeing state of children can be achieved by involving all backgrounds (kindergarten, family, community) in conducting a coherent early education.

The principles and values underlying the conception (pages 4-5) of the curriculum for early education allow the efficient support of socio-emotional development for all children, by offering

the possibility of unique didactic approaches, by imposing respect for the child, by involving him in many activities and by creating an educational environment characterized by unconditional acceptance and openness to his needs. These are: the principle of child centeredness, the principle of respecting children's rights, the principle of active learning, the principle of integrated development, the principle of multiculturalism, the principle of fairness and non-discrimination, the principle of education as interaction between educators and children.

The principles that refer to the implementation of the curriculum for early childhood (pages 4-5) reinforce those mentioned above: the principle of individualization, the principle of game-based learning, the principle of diversity of learning contexts and situations, the principle of alternating the forms of instruction and of learning strategies, the principle of partnership with family and community.

In the next sections of the curriculum the main categories and types of learning activities conducted in the early education units are presented and detailed. Children aged 0 to 3 take part in games and freely chosen activities; routines and transitions and thematic activities, while children aged 3 to 6 participate in games and freely chosen activities, activities for personal development and activities conducted on experiential fields. Many details are offered for educators regarding these activities: number of activities for each day, time spent for each activity and explanations of each main category and type of activity for each age group, guidelines for organizing the daily routine. It is emphasized that the child should be actively involved in the learning process and his involvement depends on the occasions offered to him daily by educators. The way the learning environment is designed has an essential role, as well as promoting the play (organized, but also free play), as the main activity of the child, which supports all kinds of learning activities. We observe that within all categories and types of learning activities proposed in the curriculum and conducted daily in early childhood units, there are multiple possibilities for designing and implementing activities that determine the social and emotional development of children.

Regarding content division, the annual study program is organized around six main themes. One of these (*How do we express what we feel?*) refers directly to elements of social-emotional development, while the remaining five themes refer indirectly to aspects of this area of development (*Who am I/are we? When, how and why is it happening? How it is/was/ and will be here on Earth? Who and how do we plan/organize an activity? What and how do I want to be?*).

The curriculum explicitly mentions that "for groups of children aged 0 to 6 the activities conducted with children will all aim the child's socialization (communication, familiarization, integration, collaboration, cooperation, negotiation, joint decision-making, etc.), the gradual obtaining of a personal autonomy, as well as the preparation for social life (part of it being the preparation for school)". (p. 12).

Elements regarding the social and emotional development of children can be also identified in the main finalities of early education mentioned in the curriculum:

- "The free, integral and harmonious development of the child's personality, depending on his own rhythm and his needs, supporting his autonomous and creative formation;
- Developing the ability to interact with other children, adults and the environment to acquire new knowledge, skills, attitudes and behaviors;
- Encouraging explorations, exercises, trials and experiments, as autonomous learning experiences;
- The discovery, by each child, of his own identity, of autonomy and development of a positive self-image;
- Supporting the child in acquiring the knowledge, skills, abilities and attitudes necessary to enter school and throughout life" (p.14).

These general finalities of early childhood education constitute premises for the future key-competences that children should acquire later in the next educational stages. Also, in order to help educators follow these finalities, the curriculum structures them as it follows: developmental domains – developmental dimensions – behaviors. So, for each domain of development more specific types of finalities are established, so that educators can observe them better in case of each child and so that, they can adequately formulate their objectives for each activity they wish to implement.

The curriculum specifies that the domain of social-emotional development "aims the beginning of the child's social life, his ability to establish and maintain

interactions with adults and children. Social interactions mediate the way children look at themselves and the world around them. Emotional development focuses on the ability of children to perceive and express their emotions, to understand and respond to the emotions of others, and the development of self-concept, crucial for this area. In close correlation with the concept of self, the child's self-image develops, which decisively influences the learning process" (p. 17).

Regarding the domain of social-emotional development the established development dimensions are the same for both age groups (0-3 and 3-6 years): interactions with adults and children of similar ages; prosocial behaviors, acceptance and respect for diversity; self-concept; self-control and emotional expressiveness. The behaviors described for each of these dimensions are different from one age group to another. So, when children are three years old, they should demonstrate the following behaviors for each dimension (pp. 19-20):

- For the dimension: interactions with adults and children of similar ages the child imitates and plays with adults, interacting positively with them; asks the adult for help when he is in trouble and enjoys the company of children at play;
- For the dimension: prosocial behaviors, acceptance and respect for diversity – the child plays in the presence of other children, different in terms of gender, language, ethnicity or special educational needs; anticipates and follows of simple rules / routines, with supervision and if he is reminded; starts sharing and returning toys with the help of adults; with the help of an adult, talks to another child to resolve a conflict and demonstrates awareness of different emotional states through role play;
- For the dimension: self-concept – the child draws attention to him, in photos or in the mirror and recognizes his own objects;
- For the fourth dimension - self-control and emotional expressiveness – the child recognizes and names simple emotions (fear, joy, sadness) and begins to control his/her impulses;

The expected behaviors for children up to the age of six for the four dimensions are the following:

- Dimension "Interactions with adults and children of similar ages": the child shows confidence in known adults by practicing interaction with them; demonstrates abilities to ask for help and receive it in specific problematic situations; initiates / participates in positive interactions with children of similar age;
- Dimension "Prosocial behaviors, acceptance and respect for diversity": the child expresses recognition and respect for similarities and differences between people; acquires and follows rules, understanding their effects in terms of social relations, in familiar contexts; Practice, with support, the assumption of age-specific responsibilities, in various contexts; practices, with support, negotiation and decision-making skills and demonstrates acceptance and understanding towards other people in the immediate environment;
- Dimension "Self-concept": the child practices, with support, positive self-esteem in different educational situations and promotes his self-image, through his manifestation as a unique person, with specific characteristics;
- Dimension "Self-control and emotional expressiveness": the child recognizes and expresses basic emotions, produced by musical pieces, literary texts, art objects and demonstrates emotional self-control skills.

We positively appreciate the emphasis of the current curriculum on the social-emotional development of each child. It is also remarkable that each component of this developmental domain is materialized in the form of direct observable behavioral manifestations, which eases the work of educators. They can observe the manifestations of each child and can decide regarding the most efficient strategy in order to develop the skills that are not acquired already. The connections between this domain and other domains of child development explained in the curriculum, allow educators to design an authentic learning situation.

Mentions regarding the social-emotional development of children can also be observed in the field of assessment of children at early ages. The last appendix of the curriculum presents a model of assessment sheets targeting the individual progress of the child before entering preschool/ primary education. For each group, behavioral indicators are mentioned and the teacher has to establish the degree of its fulfilment (achieved, developing, needs support). The indicators of social-emotional development for the children of 3 years old mentioned in this sheet are (pp. 33-34): interacts positively and plays with adults;

plays near another child; follows group routines; says his name and age if asked; recognizes simple emotions (fear, happiness, sadness). For children at the end of the preschool period (age 6) and beginning of primary school the indicators for the social-emotional domain are (p. 37): follows adults indications regarding the proper behavior in certain situations; interacts, on his own initiative, with children close in age, in different contexts; adjusts his behavior according to rules of different situations (e.g. whispers in the library); properly mentions his name, surname, age, month, day, city and country in which he was born; shares with others his feelings/ emotions and reacts adaptively to various social contexts. The educator can also mention within each developmental domain other specific behaviors of each child, which are relevant in order to get to know the child better and identify the most adequate future pedagogical approach for him.

We also went through the document entitled *Fundamental landmarks in the early learning and development of children from birth to 7 years* (2010), which represents an important framework for the early childhood curriculum in Romania, and we observed that there is a complementarity between this document and the curriculum. The presentation of the social-emotional domain is rendered again, and for each landmark of this developmental domain the educators receive indications regarding supportive practices they can implement to enhance children development.

5. Discussions and conclusions

Taking into consideration the results identified in the current study, we observe that the curriculum for early childhood in Romania integrates the domain of social-emotional development with others developmental domains, fact that determines that some of the main kindergarten outcomes are the training and achieving of positive social behavior and learning engagement at preschool children.

In order to facilitate preschool children with an efficient development of their social and emotional skills, teachers can reflect on the following parameters involved in their daily didactic activity, since the curriculum presents a flexible, open, character and enables them to train these skills daily, in multiple contexts:

- the constant care for a comfortable, pleasant atmosphere in the group
- discussing situations with strong emotional impact directly with the preschool children
- stimulating children to reflect to the value of feelings and objects
- stimulating each child to compare different emotions (such as anger and pride)
- teaching children to behave properly towards animals and plants
- offering preschool children the opportunity to express feelings by drawing, gestures, music or drama
- presenting children images and stories in which they can find different emotions
- teaching each child to distinguish between proper and inappropriate behaviors
- taking care that preschool children listen one to another when they communicate
- stimulating children to perceive, recognize and accept certain individual differences
- discussing the group situation frequently with the children (from the perspective of a person from outside the group) (Ministry of Culture, Youth and Sports from Baden-Würrtemberg, 2007).

As Rakap et.al. (2018) mention, the existence of the guidelines regarding the social-emotional development of children does not guarantee that teachers implement the recommended practices and strategies to support this domain of children's development. Further research on this aspect should be necessary in order to identify eventual training needs of teachers working in early education institutions in order to help them manage inadequate behaviors of children and also enhance social-emotional development.

The way in which teachers working in early education institutions manage to support social-emotional development of young children should be also addressed in future studies that take into considerations the effects of the interruption caused by the pandemic on the wellbeing of children during this special period (Linnavalli & Kalland, 2021). Nowadays there are many programs for social-emotional development that are implemented in the Romanian early education system at different units and levels: kindergarten, kindergarten group, family, community (Bocoș & Brănișteanu, 2012). But all these should be reconsidered in the current pandemic context.

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10.24193/ed21.2021.21.19

The Use of English in SKAM. Exploring Authentic Resources in Learning Norwegian at BA Level at Babeș-Bolyai University

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Educatia 21 Journal 21 (2021)

Educatia 21 Journal, (21) 2021, Art. 19
doi: 10.24193/ed21.2021.21.19
Research article

The Use of English in SKAM. Exploring Authentic Resources in Learning Norwegian at BA Level at Babeș-Bolyai University

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Abstract

The goal of this paper is to explore how the use of the popular Norwegian web-based TV series SKAM (SHAME) can enhance cultural awareness by exposure to authentic language and to diverse discourse practices that have both a multilingual and a multicultural dimension. English, through the use of anglicisms and code-switching in SKAM, acts as a cohesive factor that reflects the changes within the Norwegian society while building bridges between different cultures because of its global influence, particularly upon the younger generations. These generations no longer perceive English as a foreign language, but rather as an essential part of their personal and collective identity, and this is reflected in their discourse practices. The analysis of the teenage informal discourse in the series SKAM provides insights into the benefits of using authentic resources to acquaint BA students with the Norwegian contemporary culture.

Keywords:
authentic resources; teenage discourse; code-switching; Anglicisms; SKAM.

Zusammenfasung

Das Ziel dieses Beitrags ist es zu untersuchen, wie der Einsatz der beliebten norwegischen webbasierten TV-Serie SKAM (SHAME) das kulturelle Bewusstsein durch den Kontakt mit authentischer Sprache und verschiedenen Diskurspraktiken, die sowohl eine mehrsprachige als auch eine multikulturelle Dimension haben, verbessern kann. Englisch wirkt durch die Verwendung von Anglizismen und Code-Switching in SKAM als ein kohärenter Faktor, der die Veränderungen innerhalb der norwegischen Gesellschaft widerspiegelt und gleichzeitig aufgrund seines globalen Einflusses, insbesondere auf die jüngere Generation, Brücken zwischen verschiedenen Kulturen baut. Diese Generationen nehmen Englisch nicht mehr als Fremdsprache, sondern als wesentlichen Teil ihrer persönlichen und kollektiven Identität wahr, was sich in ihren Diskurspraktiken widerspiegelt. Die Analyse des informellen Diskurses von Teenagern in der Reihe SKAM bietet Einblicke in die Vorteile der Verwendung authentischer Ressourcen, um BA-Studenten mit der norwegischen zeitgenössischen Kultur vertraut zu machen.

Schlüsselworte:
authentische Ressourcen; Teenager-Diskurs; Code austausch; Anglizismen; SKAM.

1. Theoretical background

This paper aims to discuss the prospective benefits of using the Norwegian web-based TV series SKAM to enhance BA students' language and cultural awareness. The majority of students who begin the study of Norwegian at BA level have no previous language knowledge. The textbooks that are used comprise both explicit (literature, customs, music, etc.) and implicit (values, norms, beliefs, non-verbal language, etc.) cultural representations to provide students with a comprehensive view of the Norwegian culture (Pop 2015: 31). Our research intends to explore cultural awareness in the form of discourse practices. The findings of this current paper can become a valuable input for other teachers of Norwegian who intend to use this particular authentic resource in their teaching practice with the aim to provide the students with an accurate picture of day-to-day current teenage discourse practices in Norway.

As the relationship between language and culture in the teaching of a foreign language is deeply intertwined, the need to bring authenticity into the formal educational environment is vital. Many scholars have agreed that foreign language learning entails tackling language and culture in an integrated manner (Byram 1997; Kramsch 1993; Liddicoat & Scarino 2013; Risager 2011). In this line of thought, Brown (2010:45) suggests that films represent an "excellent source of native dialogue, cultural context and interesting material" in the foreign language classroom in which sometimes artificially created situations are incorporated to supply for a suitable language context to emerge.

The paradigm proposed by the intercultural communicative competence (Byram 1997) has become of paramount importance in the context of teaching and learning a foreign language because it aimed to develop the students' intercultural knowledge, skills and attitudes. In addition, when learning a new language, one can "experience a different culture from the inside, so as to empathize with a broader range of others and to enrich one's ability to appreciate varied human experiences" (Kim 2020: 519) and thus be able to communicate efficiently in diverse cultural contexts.

A growing body of research (King 2002; Shing & Yin 2017; Khan 2015; Hu, Sun & Li 2017) supports the effectiveness of using films and documentaries to teach both language and culture related aspects. In a similar vein, Khan (2015: 46) suggests that exposure to films can improve the students' speaking skills in a foreign language classroom. Audio-visual resources provide students both with a realistic environment that is conducive to learning (in particular spoken language proficiency) and a boost in the students' motivation (Shing & Yin 2017: 61). Thus, various competence areas can be covered by using films as teaching tools: pronunciation, stress, turn-taking, discourse markers, slang, informal language, speech pace or non-verbal language.

Another pedagogical direction refers to incorporating films in the foreign language classroom to develop the students' (inter)cultural awareness (Hu, Sun & Li 2017). Films facilitate their access both to authentic spoken communication and to intercultural competence. Because sometimes the formal foreign language classroom can be perceived as an artificial environment, resources that incorporate authentic communicative instances are valuable to further understand how interconnected language and culture are. Therefore, films offer the students opportunities to investigate "one's identity in relation to mother-tongue culture and the target culture" (Pop 2016: 237). When teaching Norwegian, films can be used as learning aids to develop the students' four language skills: listening to actors, reading subtitles, speaking and writing incorporated in tasks after viewing the audio video resource. Moreover, films as cultural products can enhance the development of their intercultural competence, which is highly relevant if we consider that cultural learning influences in a positive way the students' linguistic acquisition and culture-based activities increase their cultural awareness (Kozhevnikova 2014: 4463). In this respect, authentic resources such as films and media provide a much needed cultural exposure that enables students to widen their sociolinguistic competence, cultural awareness and linguistic competence (discourses, accents, slang, collocations, colloquialisms etc.).

To achieve "effective language learning and intercultural understanding'' (Helot & Laoire 2011: XI), the teachers of a foreign language should encourage students to develop a full language repertoire so that they become efficient communicators in both formal and informal settings. Similarly, the Directorate-General for Education and Culture (European Commission 2006: 2), indicates that one European priority for the 2016-2017, Language labels, referred to the "Language-friendly society – informal language learning". This priority is placed within a social learning theory but it also promotes multilingualism as a valuable resource within each society. Of particular relevance for this current paper is the perspective that language learning should occur not only in the formal educational environment, but also in informal contexts:

> Language learning happens in the family, while watching TV or using on-line media, from exposure to the environment, reading newspapers and books, by listening to the radio or viewing films or television, interaction with speakers of other languages or use of new technologies and on-line resources. (European Commission 2006: 2)

Thus, language learning should not be confined to the formal teaching environment. If the situation does not permit a change of the teaching setting, then the informal can be brought into the classroom. Various online media can be used in order to develop the students' communicative skills, as well as their critical thinking and learning autonomy. Authentic materials (videos, brochures, blogs, labels, etc.) represent genuine sources of valuable language input that can be explored in the foreign language classroom to develop the students' linguistic, sociolinguistic, discourse and pragmatic competences. In foreign language learning, finding innovative ways to make language learning and teaching more effective or interesting can be a recipe for success.

2. The Status of English in Norway

English has gradually become the global language of communication, a lingua franca that has been steadily incorporated into Norwegian in various domains of activity (fashion, sports, academia, etc.)

but also in the daily speech of teenagers. English as a foreign language (EFL) has been incorporated in the Norwegian curriculum starting with the preschool level (Framework Plan for Kindergartens 2017). The decision to make English a compulsory subject is grounded in perspectives related to being multilingual and managing communication across languages and cultures in a social arena that becomes more diverse.

Svanberg (2005: 8) discusses the "great diversity of language and culture that is characteristic for the North in the 21st century" as one can hear young people using different types of ethnolects: kebab-Norwegian, Paki-Danish or Rinkeby-Swedish.

To better understand the teenage discourse exhibited in the TV series SKAM and understand its pedagogical implications, our paper analysed examples of anglicisms and of code-switching which are a "demonstration par excellence of "culture" immanent in language" (Silverstein 2004: 633).

Language borrowings are indicators of linguistic influence of a source language over a recipient language (Sunde 2018: 106). In the case of direct integration, borrowings are imported in the recipient language without any modification (e.g., pasta, pizza, etc.) (Pulcini et al. 2012). Indirect integration refers to either word-for-word translations or to assigning a different spelling or pronunciation to a word to make it more suitable for the recipient language (Pulcini et al. 2012). In Norway, the primary source of language borrowings is English (Sunde & Kristoffersen 2018: 275). Anglicisms, which are examples of language borrowings from English, are prevailing in the teenage discourse in SKAM.

Code-switching entails the simultaneous or interchangeable shift between two or more languages within the same conversation (Grosjean 1982: 145). Traditionally, code-switching was associated with a bilingual context, but in today's global world characterized by multilingualism, this phenomenon can be visible in various contexts: the art industry (music, movies, literature), in social media or the educational setting. Our research indicates that the status of English as an international language favours these code-switching practices.

Code-switching can be divided into several categories: inter-sentential code-switching (i.e. the insertion of a phrase from the source language in the recipient language in a written or oral discourse); intra-sentential code-switching (i.e. the insertion of words or phrases from a source language in the middle of a sentence uttered in the recipient language); tag-switching (i.e. exclamations, tags, discourse markers, terms of address, etc. from the source language) (Poplack 1980: 581-618).

Interlocutors perform code-switching to express group membership (Poplack 1980); to establish continuity with the previous speaker (Hoffman 2014); to achieve particular discursive aims, to fill linguistic gaps, to express ethnic identity (Bullock & Toribio 2009); to emphasize a point, to attract attention (Malik 1994). This paper intends to clarify what types of code-switching were performed by the teenagers in SKAM and the reasons leading to this alternation between English and Norwegian.

3. Discourse practices in SKAM

SKAM, a Norwegian online TV series produced and broadcasted by the state television in Norway, NRK, between 2015-2017, focuses on the story of a group of high-school teenagers in Oslo. The series has been highly appreciated for its innovative approach in terms of production, a hybrid between television and social media that actively engaged the viewers. Hence, short videos, as well as text messages between the characters were published online throughout the week, discussed by the actors with the fans, and then compiled into episodes lasting from 20 to 40 minutes which were broadcasted on Friday nights. This format proved very successful because it also made use of the characters' social media accounts, allowing the viewers to discuss the show together with the characters as the events were unfolding, including the viewer in the narrative, thus enacting "collectivity in its narration" (Walker Rettberg 2021: 232).

The Norwegian public television wanted to reconnect with younger audiences (Andersen & Sundet 2019: 5), so the producers of SKAM created the series after various interviews with teenagers in order to design a show that could reflect their interests and preoccupations. Moreover, the topics addressed in the series, such as friendship, sexuality, peer pressure, identity, and religion, contributed to the global success of the teen drama, as it deals with issues with which all teenagers struggle. Reaching beyond its targeted audience, the series enjoyed international success and the fans from all over the world provided pirated versions of the episodes that could be viewed only in the Nordic countries, but also translations of subtitles, since no official subtitles were issued (Walker Rettberg 2021: 234). Throughout the four seasons, the

TV series transformed "from an online drama targeting young Norwegians to a global cult phenomenon with viewers and fans in all age groups and on all continents" (Andersen & Sundet 2019: 2), revealing the importance of reflecting authentic experiences, as is the case with the genuine informal interactions of the teens in SKAM.

Sundet highlights the use of the term 'authentic' in relation to the series, referring to both its closeness to realism and everyday life, but also to its production through 'real time' publishing and social media content that succeeded to bring spontaneity and create a feeling of 'liveness', going way beyond traditional TV drama (Sundet 2020: 74). In addition, Sundet believes that this 'real-time' publishing strategy strengthened audience identification with the main characters, bringing them closer to the story world (2020: 78), further blurring the lines between reality and fiction.

The focus of this study is on the language used by the teens in the TV series, more specifically on the influence of English in youth discourse. Thus, SKAM provides opportunities for sociolinguistic investigation (Mureșan & Pop 2021: 151). On the one hand, the multicultural environment, specific particularly to the Oslo region, is reflected through 'kebabnorsk', an urban multi-ethnolect that contains elements from languages of Arabic, Turkish, Kurdish, etc. immigrants. On the other hand, the series abounds in anglicisms and code-switching, with English as the main provider of language transfer and as a marker of youth identity. Due to the great influence of English in media, particularly social media, but also in everyday life, in Norway as all over the world, the context was already conducive to the use of English in both formal and informal settings. One of the most conclusive instances of code-switching is "Alt er love!" [All is love!], a phrase that appears in the last season of SKAM that came to be widely associated with the TV series, indicating the fans' connection to the TV series.

The unclear line between reality and fiction and the way in which the TV drama SKAM tried to convey as faithfully as possible the Norwegian teenage life reveal its potential as an authentic resource in the study of Norwegian language and culture.

4. Teaching Norwegian as a foreign language in Cluj-Napoca, Romania

The Department of Scandinavian Languages and Literatures at the Faculty of Letters of Babeș-Bolyai University in Cluj-Napoca has been offering a BA programme (3 years) in Norwegian since 1991. It is the only BA in Norwegian language and literature which is accredited at national level in Romania. In the past years, the demand for enrolling in this programme has considerably increased, reaching a staggering number of 355 students (Tomescu Baciu et al. 2019). Job opportunities, academic development as well as a multitude of intrinsic motivational factors have triggered this interest. Learners come from diverse areas of Romania to begin from scratch the study of Norwegian. They have on average between 8-10 hours/weekly courses delivered in Norwegian. There is also a variety of optional courses, such as Swedish or didactics for pre-service teachers.

To become proficient in Norwegian, students are offered an array of resources (authentic resources, multimodal resources) and a variety of learning experiences (guest lecturers, international webinars, Norwegian authors who are invited by the department, a Norwegian lecturer, summer camps, scholarships, etc.). During the COVID-19 pandemic, when teaching was performed exclusively online, students have used a variety of media in Norwegian, thus developing "their digital literacy, multicultural literacy, critical literacy and multimodal literacy" (Pop 2020: 86).

5. Research design

This study did not involve students, as it represents a pre-assessment of the benefits of teaching Norwegian language and culture through the use of an authentic resource such as the TV series SKAM. This study is the outcome of several focus-groups conducted in the beginning of the autumn semester, for the past three academic years, when teachers encountered first year students enrolled at the BA Programme in Norwegian at Babes-Bolyai University. Asked to answer the following questions (What do you know about Norway? Why do you intend to study Norwegian? Have you experienced any previous contact with Norwegian?) almost all students mentioned the TV series SKAM. Thus, we acknowledged that for our students, this genuine contact with Norwegian language and culture represented a powerful motivational factor.

This research is based on a case study design as we have focused on the Norwegian TV series SKAM in order to see to what extent authentic resources such as popular TV series could enhance cultural awareness by connecting cultures through English. As we have previously mentioned, English is the lingua franca of

the younger generations, with a growing influence on both Norwegian (the language we teach) and Romanian (the language of our students). By identifying the language borrowings and code-switching performed in SKAM we discuss the strong influence of English within the Norwegian informal teenage discourse.

The researchers conducted this analysis by viewing all the episodes in the TV series with the intention to identify the occurrence of English words, seen as common in the teenage discourse worldwide. The intention of the researchers is to eventually introduce SKAM as a teaching aid into the Norwegian classroom for the 2nd and 3rd year students of Norwegian, with different purposes.

Hence, we intend, based on this study, to introduce the TV series in teaching Norwegian at university level starting from the model designed by Brown (2010: 47-53) for the use of popular films. We consider that the methodology cannot be followed in its entirety, but that the pre-movie questionnaire, the proper implementation of the activities, as well as the evaluation questionnaire are essential for a successful implementation of SKAM as an authentic resource in the teaching of Norwegian.

We will now explain the research method. A qualitative corpus analysis was conducted on season 1, (episodes 1, 6 and 11), season 2 (episodes 1, 6 and 11), season 3 (episodes 1, 5, 10) and season 4 (episodes 1, 5 and 10) of the TV series SKAM. As the purpose of this study was not to perform an extensive quantitative research, the first, middle and last episodes have been selected with the intention to provide a chronological perspective, but also to cover all the four seasons in the series. We have made use of the transcripts of the selected episodes, available in Norwegian at https://www.opensubtitles.org/en/ssearch/sublanguageid-all/idmovie-452446. In order to identify the language borrowings, we have carefully read the transcripts as we simultaneously watched the episodes to ensure the accuracy of the transcripts. Considering the theoretical framework, we have mentioned earlier, through careful reading we identified the language borrowings and code-switching in the selected episodes and then categorized them according to the preset categories (Taylor-Powell & Renner 2003: 3) discussed above: intra- and inter-sentential code-switching and tag-switching.

6. Data analysis

The qualitative analysis of data revealed numerous instances of code-switching and anglicisms. However, we have selected several examples in order to reveal the variety of anglicisms and types of code-switching used in SKAM. In addition, we have tried to avoid repetition of the terms and the many expletives, because this is an academic paper, all this while trying to reveal as accurately as possible the variety of borrowings present in the teenage discourse of the TV series.

Thus, a great variety of inter- and intra-sentential code-switching[1], but also tag-switching could be identified in the episodes we have selected.

Several instances of inter-sentential code-switching are quoted below:

[He's just not that into you]. (season 1, episode 6)

[Karma is a bitch.] (season 1, episode 11)

[You know I love you.] (season 2, episode 1)

[Another trick. Shit!] (season 2, episode 1)

[Beers at 7, prayers at 8.] (season 2, episode 6)

[I know.] (season 2, episode 12)

[We have the right to remain silent.] (season 2, episode 12)

[Ok. Let's do it!] (season 2, episode 12)

[Story of the Ibsen? The Ibsen of the story?] (season 2, episode 12)

[Who cares?] (season 2, episode 12)

[Ok. Whatever.] (season 3, episode 1)

[Sorry, bro…!] (season 3, episode 5)

[Voilà! For you!] (season 3, episode 5)

[Lucky pig. You'd better watch out. I might steal him.] (season 3, episode 10)

[Hello, boys …] (season 4, episode 1)

[Ok, sorry.] (season 4, episode 5)

[See you there.] (season 4, episode 10)

[No stress.] (season 4, episode 10)

[Love me.] (season 4, episode 10)

[1] Some of the examples from seasons 1 and 4 have been discussed in the paper MUREȘAN, I.-A., POP, R. (2021) "Cross-Cultural Communication in the Norwegian Teenage Series SKAM". Crisis Communication and Conflict Resolution, ed. Delia Pop-Flanja, Presa Universitară Clujeană: Cluj-Napoca, 2021, pp. 148-158.

[In a pretty hot sauce.] (season 4, episode 10)

[Eskild! Hands off!] (season 4, episode 10)

[Hey, girl!] (season 4, episode 10)

Intra-sentential code-switching is also present and the examples we have selected from the transcripts have been supported by their English translation [our translation from Norwegian]:

Ingenting, men han **screenshotta** det. [Nothing, but he took a screenshot of it.] (season 1, episode 6)

Alle jenter med respekt for seg selv, har **blacket** ut en eller annen gang. [All girls who respect themselves have blacked out at some point.] (season 1, episode 11)

Jeg **ditchet** bestevenninnene mine. [I ditched my best friends.] (season 1, episode 11)

Samtidig er det viktig at vi er **strong and independent**. [At the same time, it is important for us to be strong and independent.] (season 2, episode 1)

Hvorfor **chatter** du med henne, da? [Why do you chat with her, then?] (season 2, episode 1)

Hun virker skikkelig **bossy**. [She seems to be really bossy.] (season 2, episode 6)

Ikke **blame** henne for det. [Don't blame her for that.] (season 2, episode 6)

Jeg trenger litt **space**. Du trenger ikke **space**. [I need some space. You don't need space.] (season 2, episode 12)

Har dere lyst til å gå rundt og være **nobody**? [Do you feel like going around and being nobody?] (season 3, episode 1)

Jeg bare **chiller**. [I'm just chilling.] (season 3, episode 5)

Da er dette bare **waste of time** å diskutere. [Then it's a waste of time to discuss this.] (season 3, episode 10)

Hun liker **bad boys**. Kjenner vi noen? [She likes bad boys. Do we know anyone?] (season 4, episode 1)

Er ikke det **disrespect** overfor religionen? [Isn't this disrespect for religion?] (season 4, episode 5)

Litt **over the top** på slutten der. [A bit over the top there, at the end.] (season 4, episode 10)

For hun har en skikkelig **soft side**. [For she has a real soft side.] (season 4, episode 10)

Moreover, tag-switching (inserting a tag from one language to another one) was also identified throughout SKAM:

a. **Yes**! Vi skal ikke ha barn! [Yes! We will not have children!] (season 1, episode 11)

b. **Hello, boys**. (season 4, episode 1)

c. Og så kom du gående forbi, og jeg bare: "**Wow! Damn**!" [And I just passed by and I only: Wow! Damn!] (season 4, episode 10)

d. **Ouch**. (season 4, episode 10)

e. **Wow**! Skal vi prøve? [Wow! Shall we try?] (season 4, episode 10).

While focusing on the frequency of code-switching and borrowings, we could observe a gradual increase in the number of anglicisms and code-switching used in the selected episodes. Hence, the three episodes from the first season contain 28 word/phrase occurrences. The first episode alone in season 2 shows the use of 32 word/phrase occurrences, more than in all the first-season episodes that have been analysed.

Even if this was not aimed explicitly in our research, we identified an increased occurrence of code-switching and anglicisms beginning with the second season. An argument could be the growing visibility of the TV series, as SKAM began to become highly popular worldwide. Hence, the first episode contains 7 words or phrases borrowed from English, whereas the last episode, the tenth of the fourth season, registers 50 word/phrase occurrences, revealing the increasing use of anglicisms and code-switching in the well-known Norwegian TV series.

7. Discussions

Besides the inherent functions of code-switching – to establish continuity with a previous speaker, or to express ideas, emphasize a point, or to express group membership (Mureșan & Pop 2021: 155) –, the implications of our analysis run deeper. By analysing the teenage discourse practices in the increasingly multicultural Norwegian society, as reflected in SKAM, we intended to highlight the importance of developing intercultural competence to enhance both cultural awareness and language acquisition. According to Byram (1997), the learners of a foreign language should demonstrate intercultural knowledge (be aware of different registers of language use and discourse and master the pragmatics of the target language, become aware of social and cultural norms both in one's mother tongue and in the foreign language; have the ability to identify and relate to culture specific beliefs and values; be knowledgeable about the way in which language use is subjected to implicit and explicit elements of culture, etc.), intercultural skills (be able to use appropriately the foreign language in different intercultural contexts, etc.) and intercultural attitudes (exhibit respect and

curiosity towards other foreign languages, etc.). The use of SKAM can bring authenticity in the teaching of Norwegian as a foreign language, it can support the development of intercultural communicative competence and can convey an accurate picture of the teenage discourse exhibited in Oslo, Norway.

The gripping influence of English upon teenage discourse in Norway, through the lenses provided by the TV series that we have discussed here, can be considered positive due to its secondary role of enhancing cultural understanding. Thus, teenagers worldwide are most likely to be influenced by English, which acts as a linking factor between youth with different cultural backgrounds. Moreover, the anglicisms and code-switching performed in SKAM are an indicator of the cultural changes occurring within the Norwegian society. We argue, hence, that authentic materials such as this TV series can be highly useful for a complete language teaching experience. These results should be, of course, considered with reference to the importance of developing cultural competence, essential in any process of language learning.

This pre-assessment of SKAM reveals a high occurrence of anglicisms and code-switching supporting the idea that English can be perceived as a language mediating cultural awareness. Thus, for third- year students in Norwegian at the Faculty of Letters in Cluj-Napoca who should acquire a B1-B2 level before graduation this encounter with SKAM could be a useful resource for further understanding Norwegian language and culture (through exposure to slang, teenage discourse, cultural customs, syntax or morphology).

There are certain limitations that need to be mentioned, and the first would be that we, researchers, are not native speakers of Norwegian or English, but we do have competence in these languages. Moreover, we have not made generalizations regarding the entire TV series as our research did not analyse all the episodes. As this paper focuses on the TV series SKAM, the research tackles a single corpus of authentic materials that could be used in teaching Norwegian. Nonetheless, further directions for this study can be envisioned. One of them would be to conduct a research that involves investigating the students' perspective on the use of SKAM.

8. Conclusions

The TV series SKAM can be considered as a valuable authentic resource in teaching and learning Norwegian due to its genuine glimpse into Norwegian popular culture and the teenagers' informal speech.

An authentic image of the Norwegian teenage life, of Norway's society that has been influenced by the increasing immigration in the last decade, the series shows how younger generations in Norway tend to engage more in code-switching and language borrowing, indicating the global influence of English, perceived as an essential part of their daily lives.

The TV series can represent a useful tool in the teaching of Norwegian at BA level as the increasing use of code-switching and anglicisms as the seasons unfolded revealed a growing influence of English. English permeates the teenage informal speech, reflecting the evolution of the Norwegian culture, but it can also be perceived as a connecting factor between the cultures, particularly for the younger generations.

The next step in our research would be to conduct an empirical study in which students are involved, so that they can benefit from the chance to overtly express their opinion concerning the use of such authentic materials. The student perspective would complete the teacher perspective that we have presented here. Moreover, other authentic materials could be worth analysing to provide a broader framework for the development of the Norwegian cultural and language competence.

Authors note:

The authors had equal contributions to this article.

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Educatia 21 Journal 21 (2021)

Educatia 21 Journal, (21) 2021, Art. 20
doi: 10.24193/ed21.2021.21.20
Research article

Synchronous and Asynchronous in Online Teaching and Learning during the Covid-19 Pandemic: Students' Perspectives

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Abstract

One of the main changes that occurred after the coronavirus outbreak and that represents one of the main measures taken in order to limit the virus spread refers to the conversion of the educational activities conducted conventionally into activities implemented by means of online platforms. The transition was sudden, unexpected and it still can be indefinitely prolonged. The main approaches encountered in the context of online education are asynchronous and synchronous ones. Our paper contains the results of an interpretive analysis of the opinions expressed by a group of 37 undergraduate students on asynchronous and synchronous online educational activities. We considered their opinions relevant due to the fact that since they started their studies at the university in October 2020, they conducted exclusively online activities. We explored students' preferences and limitations of the both approaches, but also their wishes for the next period. Students expressed their interest in keeping online asynchronous and synchronous activities for the future academic years, at least for part of their subjects.

Keywords:
synchronous and asynchronous online education; students' opinions.

Zusammenfasung

Eine der wichtigsten Änderungen nach dem Ausbruch des Coronavirus und eine der wichtigsten Maßnahmen zur Begrenzung der Virusausbreitung bezieht sich auf die Umwandlung der konventionell durchgeführten Bildungsaktivitäten in Aktivitäten, die über Online-Plattformen durchgeführt werden. Im Kontext der Online-Bildung werden hauptsächlich asynchrone und synchrone Ansätze angetroffen. Unser Beitrag enthält die Ergebnisse einer interpretativen Analyse der Meinungen einer Gruppe von 37 Studenten zu asynchronen und synchronen Online-Bildungsaktivitäten. Wir hielten ihre Meinungen für relevant, da sie seit Beginn ihres Studiums an der Universität im Oktober 2020 ausschließlich Online-Aktivitäten durchgeführt haben. Wir haben die Präferenzen und Schwierigkeiten der Studenten zu den beiden Ansätzen untersucht, aber auch zu ihren Wünschen für die nächste Periode. Die Studierenden haben ihr Interesse bekundet, für die kommenden Studienjahre zumindest für einen Teil ihrer Fächer asynchrone und synchrone Online-Aktivitäten aufrechtzuerhalten.

Schlüsselworte:
synchrone und asynchrone Online-Bildung; Studenten Meinungen.

1. Introduction

The pandemic caused by the coronavirus, and declared by the World Health Organization in March 2020, determined the appearance of a series of particularities in the way that education took place from that date further. The onsite educational activities were suspended and replaced by activities carried out at distance, by means of technology. The importance granted in this context to the online conducted activities represents a new dimension of the current curriculum design.

The scholars described this transition as an 'emergency remote teaching' (Hodges et. al., 2020), referring to the fact that the transition was conducted in a very short time, without any preparation of the online teaching and learning activities and this quick-fix led to a great amount of improvisation, very different from the planned online teaching. It was found that the simple change from one setting to another was not enough to facilitate students' learning. Previously conducted studies show the relevance of considering students' learning when reflecting about their active attendance to online conducted activities (Fabriz, Mendzheritskaya & Stehle, 2021).

Thus, starting from the potential use of online education, the transition from emergency online education to a high quality one should also consider students' needs and opinions. Within the current paper we explore insights of a small group of undergraduate Romanian students regarding their experience acquired during one academic year in both synchronous and asynchronous online settings, exclusively online. Their opinions express many

changes in roles, competencies, teaching-learning-assessing strategies and teaching staff development, which should be taken into account in the future post-Covid educational context.

2. Theoretical foundation

The latest main changes in the educational system, driven by the attempt to adjust specifics of the current society have been mainly driven by the 2019 pandemic. The single solution to continue the educational activity after the suspension of onsite activities was represented by the transition towards digital education. Until now, many universities continue to conduct this kind of activities in order to protect their staff and students. This approach allows also furthering following the skills required in a knowledge society: communication skills, the ability to learn independently, ethics and responsibility, teamwork and flexibility, thinking and digital skills and knowledge management (Bates, 2019).

The virtual educational delivery involves two main approaches: synchronous and asynchronous. The synchronous one involves real time online communication with the help of media such as videoconferencing or chat and contributes to the development of learning communities. The main feature of the synchronous activities refers to the replication of the classroom experience of information exchange and social interactions (Shahabadi & Uplane, 2015). On the other side, during asynchronous e-learning participants are not online at the same time. The asynchronous activities are supported by media like e-mail or discussion boards and are thus characterized by a great amount of flexibility: "Asynchronous learning refers to instruction that is not constrained by geography or time" (Khan, 2005). Regarding the dimension of learning stimulated by each approach, it is considered that synchronous activities stimulate the personal participation, while the asynchronous one the cognitive involvement, so the two approaches are complementary. The combination of the two settings supports best the students' learning and communication with teachers and colleagues (Hrastinski, 2008) and also takes advantage of the immersion in and facility with digital technology of the current generations of students (Bates, 2019).

The current paradigm that characterizes the education in universities places the student in the center of the didactic activity, which has to focus on the students' activation as a context for preparing them for individual and autonomous study. So, the student possesses the means of his own development. The paradigm of competence centeredness is also present within this educational sector as an answer to the education centered on the student. The paradigm of student centeredness enables a good quality of the teaching and learning processes. Some of the concrete elements of the teaching that is being student centered are: establishing qualitative standards for teaching-learning-assessment; maintaining transparency during the instructional process; planning the didactic activity starting from the student's learning needs; using active and interactive teaching methods; encouraging autonomy in learning; formation of the lifelong learning habit; diversifying the evaluation methods; reconsidering the teachers' role by extending the social dimension of teaching (Bernat & Chis, 2003). These parameters need to be taken carefully into consideration in the online education as well and adjusted according to the specific character of this setting. One of the possible ways to maintain all these parameters at a balanced level in order to keep the student-centered paradigm in the online educational environment can be based on the identification of students' opinions, insights and learning needs.

Previous studies (Nurwahyuni, 2020; Armstrong-Mensah, Ramsey-White, Yankey & Self-Brown, 2020; Fabriz, Mendzheritskaya & Stehle, 2021) that explore students' opinions regarding synchronous and asynchronous settings in the academic education during the Covid-19 pandemic show that the engagement in online settings was challenging for both teachers and learners, but both categories have made many efforts to make the activities in this context more and more effective. Also, it has been stressed out that education in university should continue to be student-centered and should further promote active learning, especially within the online context. The interactions between the students and teachers, their colleagues and studied contents became key aspects and should be planned and promoted by teachers.

Facilitating students' learning within both synchronous and asynchronous settings is conditioned by the teachers' actions. It is demonstrated that digital teacher competence and teacher education opportunities to learn digital skills are essential for efficiently adapting to online teaching (König, Jäger-Biela & Glutsch, 2020).

3. Methodology

The current exploratory research aimed to gain relevant, meaningful information for conducting an interpretive analysis. In order to implement the exploratory research, the questionnaire-based survey was used. The questionnaire addressed to students was developed by us, included a reduced number of items, and was anonymous. From the total number of 8 questions, two questions required demographic information, while the other 6 referred to students' opinions regarding asynchronous and synchronous online educational activities. The students were invited, within 5 open-ended questions, to express the advantages and disadvantages of these activities, taking into consideration the experience they gained during their first year of university. The single close-ended question of the questionnaire aimed to find out the students' preference for these activity types. The reduced number of questions in the questionnaire meant to prevent the boredom of the respondents and considered the students' ability to provide synthetic answers regarding the approached subject.

The research questions followed in the present context were:

- What do students think about synchronous and asynchronous online educational activities?
- Do they want to keep these activities in the future or do they want to return to exclusively onsite activities?

The investigation gathered opinions from a small group of students in their second year of university. Since they started their studies at the university, they conducted exclusively online courses and seminars, so their experience with synchronous and asynchronous online activities is relevant and enduring enough in order to provide worthy information on the research subject. Also, as Smart & Cappel (2006) show, few studies were conducted so far on the satisfaction of students with online education, so we considered this situation as an opportunity to try to cover this gap.

The questionnaire was developed and completed online. The participants (N=37, 36 females and 1 male) are students at the Babes-Bolyai University, Romania, studying at the undergraduate program at Targu-Mures extension and specializing in the domain of Preschool and Primary Pedagogy. The average age of these participants was 20,9 years old. The students haven't met their teachers and colleagues in person and have not experienced onsite academic activities so far.

The data collected in October 2021 using the mentioned questionnaire focused on the following aspects:

- students' opinion regarding advantages and disadvantages of synchronous online educational activities
- students' opinion regarding advantages and disadvantages of asynchronous online educational activities
- students' wishes and expectations for the next academic years according to their preference for these activities.

The respondents were encouraged to think about their own experience and express their opinions. The option for open-ended questions was also sustained by the goal to give students the possibility to express themselves as they wished. The answers were qualitatively analyzed.

4. Results

The results were gathered around the main aspects aimed by the questionnaire and will be presented for each established topic.

4.1. Students' opinions regarding synchronous online educational activities

The most appreciated aspect of the synchronous activities among students was the rapid, immediate feed-back, received right after offering an answer or solving a working task. Thus, they can benefit from the teachers' support and clarify what they don't understand.

Few students mentioned also that they have the impression that during the synchronous activities they can feel part of the atmosphere of the face-to-face, onsite activities, which they experienced before entering university.

The majority of the students perceived synchronous activities as an opportunity for exchanging ideas with their colleagues and teachers, for participating to free discussions, for active attendance to courses and for learning in real time. The transparency and dynamic atmosphere perceived by students during synchronous activities offered them also the possibility to develop new skills. Beyond developing their general knowledge according to the studied domain, students mentioned they developed

new technical and digital skills, but also social skills. They learned to use their devices in formative manners, for searching information and attending to meetings, but also to prepare and expose a presentation. Regarding their social skills, they learned to communicate with their teachers and colleagues (to express an opinion, to give feed-back, to ask questions). Even if they didn't meet their colleagues and teachers in person, students managed to know their colleagues taking other parameters into account, for example the answers offered by colleagues during meetings or the materials they conceive and present. The many tasks they received to solve in groups or teams helped them in knowing each other better as well.

Other aspects that students mentioned and appreciated by students, based on their experience within synchronous activities, were: the organized character of the meetings, the presentation of a structured content (so they know in the future on what to focus when they retake the same content in asynchronous contexts); the facile access to structured materials (taking into consideration that during the pandemic the access to materials in general was limited); the possibility to access the meetings from many different places in a comfortable manner; the possibility to present materials or projects and to clarify the requirements of certain working tasks.

The main challenges encountered by students within the synchronous activities relate to the following aspects: technical difficulties in accessing materials; difficulties in learning in the own pace; fatigue due to the long time spent before screens; the need to possess certain digital abilities in order to actively attend meetings; lack of technical resources; the lack of active attendance of certain students and the lack of direct eye contact with teachers and colleagues.

4.2. Students' opinion regarding asynchronous online educational activities

The students associated asynchronous online activities with the sense of independence in learning, comfort and flexibility, learning alone from home, individual study and self-discovery learning. Becoming more autonomous in learning and distancing the learning process from the teachers' person was the most mentioned advantage of this online setting. Students were of the opinion that they were very involved in the asynchronous online activities, although the teacher was not present at the same time with them and they couldn't immediately communicate.

Although they experienced this type of activities rarely than the synchronous ones, they felt that asynchronous settings offer them the possibility to control many parameters involved in the learning process: they could learn in their own pace, establish their own learning program and choose between many learning strategies and experience them. They mentioned also that within the asynchronous activities they had the possibility to deepen the information covered in the synchronous meetings in order to understand it better, to check if they understood what they have read or listened to before and to spend more time for individual study or for exercising. They observed that by involving themselves in these activities they were more often able to find solutions on their own for different situations, since the feed-back from the teacher is usually delayed in this context.

The most frequent type of asynchronous activities that the participants experienced consisted in carrying out some work tasks after going through some materials sent previously by teachers and sending the solutions or solving plans back. This context offered students the possibility to observe some of the main conditions under which the asynchronous activities are efficient: tasks need to be understood by students before the activity, so the teachers have to find a way to ensure this aspect; the students need to have access to the materials or documentary sources they need during the asynchronous activities; the teacher has to anticipate if students are likely to lose sight of essential aspects of the studied topic without his direct support.

The main disadvantage of the asynchronous activities that students mentioned was the lack of rapid help or support in solving tasks and the uncertainty regarding the correctness of their work. The delayed feed-back within asynchronous activities was perceived both positively and negatively. It made students become more involved in searching clarifications, but other times it determined difficulties in the process of searching, selecting and understanding information.

Even if the asynchronous online setting is associated with flexibility, half of the investigated students mentioned that they encountered time management issues within this context (procrastination, insufficient and to long time allocated in relation to work tasks). So, there is a

significant need at the level of the investigated group for conceiving a conceptual framework for the effective time management regarding the educational domain (Muste, 2018).

The challenges mentioned by students towards asynchronous online activities can also lead to a decreased motivation of students. They mentioned that they appreciate a balanced number of asynchronous activities, since a higher frequency of this activities limited their social interactions and didn't gave them the opportunity to share thoughts, ideas or feelings with their colleagues and teachers.

4.3. Students' preferences towards synchronous/ asynchronous online educational activities

The majority of the participants (27 students) expressed their preference for a mixed approach between synchronous and asynchronous activities. They feel that this approach facilitates the best their learning process, by offering them the possibility to interact with teachers and colleagues in online environment, but also to spend time for individual study. The complementary character of the two approaches was perceived by students.

Students observed that the balanced mix between synchronous and asynchronous online activities has determined an increase in their academic results and skills acquirement. Opre et. al. (2020) show that the adequate number of hours allocated to the synchronous and asynchronous activities for each subject can be established with the aid of the syllabus and curriculum, which present the exact number of hours allocated for each subject during each semester. Students mentioned also the need to organize a proper timetable, if these mixed approach will be implemented in the future.

4.4. Students wishes and expectations for the next academic years

Only a reduced number of participants (4 students) expressed their wish to give up online education altogether, because of the fatigue caused by the long time spent in front of screens, and to have the opportunity to experience the traditional, face-to-face, student life. They expressed their high need for social interaction with colleagues and their availability to respect as many security measures as necessary in order to get the chance to meet their teachers and colleagues in person.

The other students expressed their wish for a hybrid approach between online (both synchronous and asynchronous) and onsite education. They took into consideration the main advantages of the online settings, mentioned before, and wish to experience onsite activities only for part of the studied subjects. They think that for subjects that have allocated a reduced number of credits, the activities could go on online, but they also mentioned the need of direct interaction in the case of the specialized practice.

5. Discussions and conclusions

The obtained results show that students were objective enough to share both advantages and challenges they perceived in both synchronous and asynchronous formats. The students involved in the current study may not represent a significant group for the researched topic, but their opinions can be taken into consideration as a starting point in considering online education an alternative for the current context. In this case the training of teachers for becoming more competent in using technology support systems and delivering online courses becomes essential (Lin & Gao, 2020).

It is also clear that universities were not fully prepared for this sudden change regarding the transition to online activities and taking the answers we obtained from students into consideration we can observe that the process of adjusting to this new context evolved gradually (Chakraborty et. al., 2020). Students observed that teachers have constantly tried to improve their teaching strategies and also to facilitate students' learning in both synchronous and asynchronous contexts. So, this rapid transition determined teachers to professionally evolve and develop, fact that can be considered a main advantage of the current situation.

Compared to a similar study (Oltean, 2020), which focused on middle school students, the undergraduate students' wish to maintain the use of synchronous and asynchronous in the future for part of the subjects they go through represents a particular aspect. We must also take into consideration that the investigated group didn't have the opportunity to participate at onsite activities at the university. This experience could change their opinion in the future. So, the return of students to the university has to be carefully prepared, so that advantages perceived by them during the online courses and seminar can be further maintained. It is also noticeable that many students enroll in online

courses due to their asynchronous character (Hrastinski, 2008).

The only subject for which students mentioned the importance of direct, face-to-face, attendance was the specialized practice. Students expressed the difficulty in perceiving essential aspects related to this field when attending to online synchronous activities at this subject. So, both synchronous and asynchronous online activities need to be completed by the onsite ones in some particular situations.

We conclude that altogether the current study shows that distance learning, both in synchronous and asynchronous forms, had positive effects on students learning. Students were conscious that during this particular context this was the only manner in which they could continue their studies. Palvia et. al. (2018) anticipate that online education will become mainstream by 2025, so it should, from now on, be a matter of interest for all educational actors and stakeholders, since it is very possible that distance learning will be offered more often in higher education (Lin & Gao, 2020).

The limitations of our study include aspects related to the dimension of the sample of involved students, their unique perspective, the reduced number of research methods, but also the validity of the results obtained within the qualitative research. In further studies students' opinions could be compared to the ones of teachers regarding the use and experience with synchronous and asynchronous online activities, but also to the ones of students, who had the possibility to take part in onsite activities at the university. Also, a larger sample of participants and research methods could be used.

Appendix A.

Questionnaire regarding students' opinions about online synchronous and asynchronous activities during Covid-19 Pandemic

Through this questionnaire we aim to find out your opinion regarding the experience you had with online synchronous and asynchronous activities during the Covid-19 Pandemic. The questionnaire is anonymous and will only be used within a pedagogical study. Feel free to share your thoughts, feelings and opinions, mention anything you find relevant regarding your experience during this special period.

1. Which are the main advantages you encountered within synchronous online educational activities?
2. Which are the main challenges you encountered within synchronous online educational activities?
3. Which are the main advantages you encountered within asynchronous online educational activities?
4. Which are the main challenges you encountered within asynchronous online educational activities?
5. Do you prefer:
   a. exclusive synchronous activities
   b. exclusive asynchronous activities
   c. both approaches

   Please explain your option!
6. What are your wishes for the current academic year and for the next ones?
7. Gender M☐ F☐
8. Age …….

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10.24193/ed21.2021.21.21

Fostering digital literacy and German language with the use of digital learning games in the middle school

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Educatia 21 Journal, (21) 2021, Art. 21
doi: 10.24193/ed21.2021.21.21
Research article

Fostering digital literacy and German language with the use of digital learning games in the middle school

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Abstract

In this article, fostering the German language using digital learning games plays the central role. The endless possibilities of digital media and tools for language acquisition offer teachers and learners the opportunity to learn a foreign language creatively, playfully, in a fascinating way and with a certain degree of facilitation in teaching. Through our research we tried to prove the priority of digital media in the field of education and formation. We selected as the target group of the research the pupils of two fifth grades, who learn German as a foreign language in a Romanian school. The use of the chosen learning game led to a considerable increase in the participation of the students in German lessons, created a suitable learning atmosphere in the room and increased the motivation of the participants. The results of this research prove what we expected for the relationship between German lessons and the use of digital learning games in the classroom.

Keywords:
education; digital media; media literacy; german language; digital learning games.

Zusammenfasung

Im vorliegenden Artikel spielt die Förderung der deutschen Sprache anhand digitalen Lernspiele die zentrale Rolle. Unendliche Einsatzmöglichkeiten der digitalen Medien und Werkzeugen beim Spracherwerb bieten den Lehrenden und Lernenden die Gelegenheit an, kreativ, spielerisch, faszinierend und mit einer gewissen Erleichterung der Unterrichtsgestaltung eine Fremdsprache zu lernen. Mit unserer Forschung versuchen wir die Wichtigkeit digitaler Medien im Bereich der Bildung und Erziehung zu beweisen. Wir haben als Zielgruppe der Forschung die Schüler zweier fünften Klassen, die Deutsch als Fremdsprache an einer rumänischen Schule lernen ausgewählt. Die Anwendung des ausgewählten Lernspieles brachte zu einer erheblichen Zunahme der Beteiligung der Schüler im Deutschunterricht, erzeugte eine passende Lernstimmung im Raum und stieg die Motivation der Teilnehmer. Die Ergebnisse der vorliegenden Forschung beweisen das, was wir auch erwartet haben an der Beziehung von Deutschunterricht und dem Einsatz digitaler Lernspiele im Unterricht.

Schlüsselworte:
Bildung und Erziehung; Digitale Medien; Medienkompetenz; Deutsch; digitale Lernspiele.

1. Introduction

Nowadays, when we want to send someone a message, the easiest and closest thing to do is to take the cell phone out of our pocket and type the words on it. The digital menu offers us on different devices such as the cell phone, the tablet, the computer the infinity of exploring the digital world. In order to find the paths that lead us to our goal, people need to encourage and to promote media skills from an early age. To do this, you need to know what digital media literacy means and which tools can be used to practice it. Not only everyday life, leisure time or communication can be influenced by the mediatized world, but also school education, teaching and learning. Everything that means digital is developing rapidly and is constantly increasing. In order to achieve the best understanding and use of the information, tools, platforms, search engines, movies, photos, social networks or applications offered, teachers who want to use different digital instruments in their lessons should develop their media skills themselves, try the digital tools themselves and clarify the expectations of a computer-based teaching in order to acquire the desired competencies at the end of the lesson. Books, lectures, workbooks are the traditional media that offer students access to information. The Internet and the technology used in most of the schools in urban Romania enable learning anywhere, anytime, with a wide range of information available to teachers and learners in all areas. Along with other subjects, foreign language teaching takes part in the use of technology in the domain of teaching and learning. The digital tools are among the most efficient teaching methods

that awake interest and curiosity in the learner, but also control attention and active participation in the classroom.

This research examines the expected results of media use using the Kahoot! application with the students of a 5th grade, at two different groups, which learn German as a second language in a Romanian school. We will also mention the general conditions for the use of digital tools in German lessons and describe the application we have chosen for the research.

2. Digital media and the fostering of media literacy in the classroom

In this article, the fostering of the German language using digital tools plays the central role. The endless possibilities of using digital media and tools for learning a language offer teachers and learners the opportunity to learn a foreign language creatively, playfully, in a fascinating way and with a certain degree of facilitation in teaching. A pedagogically successful use of media happens after the teacher has redefined their role in digital teaching. First, however, as a teacher you should deal with the definitions of the following terms: digital media, media education, media didactics, media education work and media literacy. After deciding whether or not you are media literate, the teacher can jump to the next steps, set teaching goals and try out suitable digital teaching tools that can be used as a way of achieving the goals and as a creative method in the classroom.

First of all, we want to echo a brief explanation of the term "media education". Media education contains all theories and studies that deal with the role of the media in the formation, education and socialization. The term refers to pedagogy and educational science. From 1990 the term "media education" was used more often, which takes place as a lifelong educational process. The term "education" enables participation in culture, with media education clarifying cultural techniques and leading to broad literacy. (Süss, 2018)

Furthermore, we want to emphasize the importance of the use of digital devices by children and young people. For decades, digital devices have been one of the top things on young people's wish-lists. Almost every child holds a smartphone in their hand and feels more confident with it. Unfortunately, young adults cannot always develop media literacy on their own. They just use cool applications that involve them in a virtual society, play digital games with friends and often pointlessly explore the virtual world of the Internet. The smartphone emerges as the most important technical device that adolescents and children possess. Proof of this is the following quote from a young woman entitled "What makes young people tick in 2016?" (Calmbach, 2016):

> "My sister used to say [...] you used to make phone calls in these phone booths. Just think how sick it must be to put coins in this machine. I don't know, I can't imagine that. I just can't imagine that you don't have a phone in your pocket. Imagine something happens or I'm bored on the street. What am I doing?!" (Female, 16 years)

First of all, the smartphones are used by children and young people to communicate. Whether you talk to your parents, grandparents, colleagues, friends or strangers using smartphones, the device plays the most important role in socialization. Settings for different applications make it possible for users to stay permanently connected without having to log out. This simple attitude unfolds the fear of missing something, the so-called FOMO, the fear of missing out and forces the person involuntarily to remain logged in in order not to be thrown outside of a group of people. Digital participation replaces social participation, so that the smartphone plays an important role in the function of social back-up. (Calmbach, 2016)

So that other roles of digital devices can also be discussed among children and young people, teachers are taking an important role in the digital world today. Firstly, media literacy is promoted among adults, so that later on, together with the teachers, they can use the world of the Internet in a targeted manner and have fun with it. Using digital media and digital tools in the classroom is a major challenge for teachers. One tries not only to promote digital media literacy as a central prerequisite for social participation among children and young people, but also to achieve other important goals of the lifelong learning process with it. The importance of digital media literacy in various future professions must be taken into account by parents and teachers. The opinion of a young man speaks for it (Calmbach, 2016):

> "Of course it depends on what kind of job you choose. Of course, if I'm a craftsman now, it doesn't really matter that much, unless I want to google it 'bird house'. Otherwise, if you are working on the computer. That's why I would also like, because there are so many office jobs, that teachers do that more in class, but they just don't do it."(Male, 14 years old)

In order to promote media competence as a key competence for the professional success of young

adults, one needs to replace the old media with the new ones in different subjects and to meet the expectations of the young learners.

But what are digital media and how can we use them in the classroom? In didactic terms, digital media are instruments, teaching and learning objects that support the learning and teaching process. Each digital media offer has different characteristics that play an important role in the classroom. The content, the process structures, the interactivity properties and the objectives are some of them that influence the choice of users and their use in the classroom. (Herzig, 2014)

Visual and auditory forms can be distinguished in terms of learning success. In his work, Professor Herzig mentions important effects of digital media use on the level of the individual, which build up a higher learning success in terms of "knowledge acquisition, problem-solving ability and transferability" (Herzig, 2014):

- Information is presented as text and images, instead of being presented only as text,
- Illustrations for a text are presented as annotated illustrations, instead of illustrations without descriptions
- Information is presented integrated in text and image (in spatial proximity to one another), instead the text being presented before the illustrations.

These are pictures and illustrations in lessons that use digital media and the content of digital tools to promote learning, make learning fun and increase media literacy in learners. In order to expect a higher learning success, according to Herzig, the following can be taken with regard to sensory modalities (Herzig, 2014):

- Information is presented aurally (as spoken text) and visually (as an image or as animation), as if it is only presented visually (as written text and as an image or as animation) or only aurally (as spoken text);
- Information is presented aurally (as spoken text) and visually (as animation) simultaneously, as if it were presented aurally (as spoken text) and visually (as animation) one after the other;
- Information is presented visually (as written text and as animation) in spatial proximity to one another (integrated), as if it was presented spatially separately.

Using auditory and visual information interactively in the classroom requires a digitally furnished room and digital tools that serve as instruments in the class. In order to offer a constructive use of media to children as well as to young people and adults, one needs to promote media literacy in schools and educational institutions. This will also weaken the negative effects of the media on society and the new media will become more valuable. The mediatization of everyday life happens in constant change. In order to cope with the development and socialization processes, children, adolescents, but also adults are faced with new challenges. In order to master these challenges, one needs to be able to deal competently with digital networks, forms of communication and media offers. Technological developments prove that media literacy is not a condition that happens once in a lifetime, but belongs to the lifelong learning process. (Süss, 2018)

3. Digital tools in German lessons

Numerous applications of digital tools enable teaching and learning and support digital teaching. The Internet is a limitless pool of knowledge that opens the gates to infinite areas and reveals the paths to both technical and media skills. Five important theses should be kept in mind when setting up digital teaching (Hirsch, 2020, p. 16-17):

- "Digital teaching" offers access to practically unlimited information;
- Digitally supported teaching offers helpful tools for teaching and learning;
- Network principles are a tailwind for modern education;
- Digitally supported teaching is based on the realities of life of children and adolescents;
- Digitally supported teaching promotes digital maturity and sovereignty.

What is meant by this is the importance of using digital tools in today's classroom. E-learning is slowly becoming part of our school education. Teaching with a game character motivates the learners, relaxes the teaching and learning atmosphere and transforms the dry frontal teaching into an interactive collaboration.

Kahoot! - is a trivia and gaming platform that has become very popular among teachers and students in the recent years. It can be used both in class as a live exercise during class and as a challenge that can be done in a certain amount of time (as a homework, for example). Kahoot! can be used on any device. The teacher can design a variety of activities, games, multiple choices, exercises that can be connected to

the content of the subject taught in class. Kahoot! also provides a timely report on the response of each student. It also provides a visible ranking for students, which leads to their motivation to reach the podium of the game.

Digital educational games already express a positive meaning by their very concept. The free learning platform Kahoot! offers numerous predefined learning games or the possibility of designing games on different topics both as a teacher and as a student and makes teaching easier in a playful way. The subject, the teacher and the class gain a positive impression during and after the game. Due to its easy-to-use structure Kahoot! is also suitable on your own mobile device in schools, where the opportunity to provide a digital device for every student does not exist. Kahoot! offers quizzes with multiple choice questions and a countdown. The quiz app offers the design of learning processes as a game and promotes the gamification of learning. The teacher lets the quiz play on the screen so that all learners can see and follow it. The only movement you have to make is to tap the correct symbol with your finger; otherwise the teacher will moderate the entire course of the game. (Ammenwerth, 2017)

Not only can you have fun while accessing Kahoot! in kindergarten and elementary school, with your grandparents or while traveling, but Kahoot! and other digital learning games are also suitable for teaching at secondary school, high school and also at university, encouraging the use of digital methods in the classroom: “If you use Kahoot in class, you immediately notice: It works.” (Wampfler, 2017)

Game-based learning is used as a good practice to involve students in reviewing classroom content. Creating an atmosphere in which students think critically and are involved is essential for student learning and teaching. (Icard, 2014)

But how do digital learning games work in our German lessons? We present in the next chapters of this article the results of our research for using the digital app Kahoot! in the German lessons of two 5th grade classes.

4. Research methodology

In the last year, the need to digitize education has become more needed than ever. If until recently the use of computers, tablets or smartphones was an optional issue, or used only during certain classes, the new times have led to an urgency, willy-nilly, but sine qua non, of the digitization of schools. The education that has passed in the online environment has undergone a rapid adaptation and a long-awaited innovation in the school environment. Even if face-to-face teaching methods in a classical classroom are desired by most beneficiaries of the learning act, digital methods used successfully in education will remain as a valuable tool in modern, student-oriented teaching, the use of digital technologies leading to an improvement of the educational quality and a completion of the lessons taught.

4.1. Objectives of the research

The objectives of the hereby research are to measure the implication, the active participation and the increase of the student’s motivation during the German lessons, in which modern educational software like Kahoot! are used.

4.2. Hypothesis and the variable of the research

The present study aims to test the hypothesis which emphasizes that the usage of the educational software Kahoot, during the German lessons, leads to a higher implication and active participation among students of the 5th grade.

4.3. Research sample

To obtain the above-mentioned data, a 5th grade class of 30 pupils was used as an experimental group, where the Kahoot! app was regularly used. There was also a control group of 29 students in a different 5th grade class from the same school. The experimental class has 30 students: 9 boys and 21 girls. The control class is formed out of 16 boys and 13 girls, a total of 29 students.

Both classes involved in the research have particularly good students. Most of the students are active and curious. In both classes the students are incredibly involved, without any cognitive problems. One student from the control class is particularly chatty, involved, always wants to answer and to read. Only one student had missed several classes because of personal health problems.

The amount of time provided for the data collection was 3 months, with the students using the app at least once a week during the German classes.

4.4. The research methods:

The main research method that was used is the experimental psycho-pedagogical method. This was

implemented with the help of the observational method, using a follow-up grid for these aspects:

- How many students were able to answer the teacher's question in Kahoot! vs. direct questions?
- How many students ask questions (e.g.: for clarification) vs. how many students find answers on their own after playing the consolidation game?
- How many questions does the teacher ask in the classroom?

5. Research results

Using Kahoot! at the experimental class we have concluded that approximately 25 students have managed to respond to every question from Kahoot! (at 10 questions / game), often even using 2 Kahoot! games resulting in even 20 questions per hour.

The number of 25 students out of 30 is due to some technical issues, poor internet connectivity, and to the fact that not all students could access the app.

Concerning the class that was part of the control group, the number of questions that the pupils could answer was one question per pupil, the number of consolidating asked questions reaching 5-6.

After the lesson was finished, the teacher asked 5-6 questions to verify if the transmitted information was understood. Each question was answered by a random pupil. Thanks to the app, at the experimental class, 25 students managed to answer 10 or 20 questions.

The number of questions asked by the students, after the lesson was taught, was maximum one. At the experimental class, the app was used as a method to verify the new learned knowledge. Although, the students in this class didn't ask questions for clarification purposes either, with the help of the app the answers of the students were reviewed in real time and checked in what proportion these were right or wrong, in order to be able to bring additional explanations. The answers are highlighted in Table 1:

Table 1. The comparison of the target aspects in the experimental and control class

	Experimental class (30 students) – with Kahoot!	Control-group (29 student) – without Kahoot!
How many students were able to answer the teacher's question in Kahoot! vs. direct questions?	25	1
How many students ask questions (e.g.: for clarification) vs. how many students find answers on their own after playing the consolidation game?	0	0-1
How many questions does the teacher ask in the classroom?	10/20	5/6

We can notice that approximately 25 students have managed to respond to every question from Kahoot! (at 10 questions / game), often even using 2 Kahoot! games resulting in even 20 questions per hour, comparing to the class that played the role of the control group, the number of questions that the pupils could answer was one question per pupil, the number of consolidating asked questions reaching 5-6.

6. Discussions and conclusions

Using the Kahoot! app while teaching has led to a significant increase in the implication of the students during the German classes. Most students from the classroom have asked for Kahoot! every hour. The competition spirit and the playful characteristic of the app has brought a pleasant atmosphere in the classroom and, at the same time, bringing with it benefits like consolidation, improvement, and repetition of the information from a higher number of participating students than during a classic class.

The students were not required to expose themselves in front of the class to ask clarifying questions. Due to the end report that was provided at the end of the game, the teacher was able to observe if there was misunderstood information from the taught lesson and if and where the teacher should intervene.

The students were also able to self-evaluate their performance in real time, learning from their own mistakes and correcting themselves. "Kahoot!" is a very practical learning game, that can be used both as a means to consolidate, to summarize and to exercise, by being a novelty and a breath of fresh air - for both the students and the teacher - that can easily be used in the classroom.

Not just Kahoot!, the learning game chosen by us proves to be a benefit of teaching, but also other digital games can be used as new teaching method, which

arouse the students' interest and gain the attention of the lesson content.

Both young teachers and the senior teachers are invited to have the courage to apply the new teaching methods in the subjects taught by them and they will have a great result and the topics of their lessons will be a major success.

The new media are the method of an effective long-term learning, starting with the first years in education and continuing throughout life. Digital learning games foster both the digital literacy and the competences requested by each thought subject. This article is the first piece of a larger future research discussing the same topic but applied on a higher sample of students different ages and also teachers from different teaching fields. We wish our research to succeed in motivating as many future and current teachers as possible and convince them to have the courage to apply digital media and new teaching methods in their classes.

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10.24193/ed21.2021.21.22

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Educatia 21 Journal, (21) 2021, Art. 22
doi: 10.24193/ed21.2021.21.22
Research article

Tools for optimizing internal communication at the level of educational organizations. Study at the level of kindergartens in Cluj County

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Abstract

Effective communication involvement in the decision-making process of kindergarten of all members at each level of management, which leads to interactions, teamwork, exchanges of good practice, initiative. A complex tool that can be used at the level of educational organization, and that involves all levels of management, refers to the documented procedures. Am efficient communication will allow the revision of the procedures, the regulation of the institutional approaches, so that the assumed objectives and performance indicators are permanently taken into account. Thus, the purpose of the presented study aimed to establish the efficiency of documented procedures specific to managerial activities in kindergarten on the optimization of internal communication. The research involved the application of an online questionnaire that addressed the components of internal communication and documented procedures at the level of kindergartens in Cluj County. The intervention within the formative experiment, by implementing the documented procedures, had as a positive impact the highlighting, in the post-experimental stage, of some positive effects on the communication, from the perspective of the relationship with them. Documented procedures, as working tools, represent a vector for establishing and maintaining communication relations at kindergarten level, given their complexity in terms of their development and, subsequently, their implementation. The strategies used (creation of inclusive work teams, development of cooperation actions between management levels, taking responsibility for those involved by valuing their professional expertise) led to the harmonization of the manager-teacher relationship for preschool education, identifying a common vision that can be supported only by optimal internal communication.

Keywords:
kindergarten; internal communication; documented procedures; optimization.

Zusammenfasung

Eine effiziente Kommunication beinhaltet Engagement an Entscheidungs prozess von Kindergarten, alle Mitglieder auf jeder Führungsebene, was zu Interaktionen führt, Zusammen arbeit, austausch bewürter, Initiative. Eine komplexer Arbeitweise die auf der Ebene der Bildungsorganisation eingesetzt werden kann und alle Managementebene einbeziehen, verweist auf dokumentierte Verfahren. Eine effiziente Kommunication ermöglicht die Überprüfung der Verfahren, Regulierung institutioneller Ansätze, so dass die angenommenen Ziele und Leistung indikatoren permanent in Blick zu haben. So dass, das Ziel der vorgestellten Studie, zielt darauf ab, zu etablieren die Effizien dokumentierte Verfahren speziell für die Managementtätigkeiten im Kindergarten zu ermitteln zur Optimierung der Internen Kommunication. Die Forschung umfasste die Anwendung eines Online Fragebogens, der auf die internen Kommunicationskomponenten abzielte und dokumentierte Verfahren auf der Ebene der Kindergarten aus Stadt Klausenburg. Interventionen in das Trainingsexperiment durch Implementierung dokumentierter Verfahren wirkte sich positiv aus, die Hervorhebung, in der nacherlebten Pfase, von positiver Auswikung auf die Kommunication aus der Perspektive der Beziehung zu ihnen. Dokummentierte Verfahren als Arbeitsinstrument, repräsentiert ein Vektor zum Aufbau und zur Pflege von Kommunicationsbeziehung auf Kindergartenebene, unter Berücksichtigung ihre Komplexität der Ausarbeitung und anschliepsend ihre Implementierung. Verwendete Strategien (Arbeisteams, Entwicklung von Kooperationsmapmahmen zwischen Managementebene, verantwortung für die Beteilgten übernehmen durch Wertschätzung ihrer fachtliche Expertise, feihrte zu einer Harmonisierung des Manager-Lehrer Verhältnisse für die Vorschulerziehung, Identifizierung einer gemeinsamen Vision, die aufrechterhalten werden kann, nur mit optimaler interner Kommunication.

Schlüsselworte:
kindergarten; interne Kommunication; dokumentierte Verfahren; Optimierung.

1. Introduction

The kindergarten, as an educational organization, represent "a structured set of human and material resources articulated and mobilized convergently, by capitalizing of them in structured and systematic social activities, consciously aimed at achieving previously established goals, rigorously-scientifically" (Răduț-Taciu, Bocoș & Chiș, 2015, p. 37).

Human resource, as it known, is the main factor in the development of the educational organization. The relationships yhat are established betwen the members of the educational organization, from all level of management, influence the way of achieving the established objectives. Thus, is necessary to develop harmonious communication relationships between them in order to improve all the process carroed out in kindergarten, but also "involvement and responsibility, on the one hand, as well as strategic thinking and control, on the other hand" (Pânișoară & Manolescu, 2019, p. 45). Effetive communication at the organization level is given by the existence and observance of regulations, procedures specific to activities, applicable, not only their formal and unnecessary existence for fear of bureaucracy (Dietrich, Gavrilovici, Iosifescu, Năstase & Niculescu, 2003).

2. Theoretical foundation

The efficiency of communication "reflects the very essence of educational act" (Stan, 2010, p. 115) and involves the correlation of communication methods in kindergarten, in order to optimize them. In other words, organizational communication, managerial communication and didactic communication, associated with the three levels of organizational management (management, commissions, classroom), require the identification of strategies to support their real manifestation and assumed by those involved.

The diversity of existing human resources in a kindergarten is a permanent challenge for the manager. Its role is to capitalize on the individual and group potential of the members of the organization, minimizing/eliminating the gaps between them, from the perspective of the position held, the status, seniority and location in which they operate. At the same time, the feedback provided by him encourages personal reflection, the process of regulation/self-regulation in terms of the evaluated aspect.

Effective communication involves involvement in the decision-making process of kindergarten of all members at each level of management, which leads to interactions, teamwork, exchanges of good practice, initiative. It is a good opportunity for preschool teachers to demonstrate that "teaching and daily learning practices are the main focus and everyone is responsible for the performance of that school" (Hattie, 2014, p. 305). The influence of the group can have important effects on each member, so that, through the interaction between them, they stimulate each other, each tending to capitalize on their own potential (Păuș, 2006).

An OECD study from 2013 (OECD, 2014) highlights a number of issues regarding the collaboration between teachers, but also regarding the feedback received from the members of the educational team:

- 50% state that they are rarely or never teach with colleagues;
- 2/3 of the respondents did not participate in demonstration lessons of colleagues;
- 58% did not receive feedback from a colleague;
- 46% state that they never received feedback from the principal;
- 51% say they have never received feedback from any member of the management team;
- In Romania 40% din not received feedback from the designated mentor.

A complex tool that can be used at the level of the educational organization, and that involves all levels of management, refers to the documented procedures. These "represent the specific way of carrying out an activity or a process, published on a paper or electronically" (*Ordinul nr. 600/2018 privind aprobarea Codului controlului intern managerial al entităţilor publice*, p. 11). The elaboration of the documented procedures and, subsequently, their implementation, implies the involvement of all members of the educational organization. An efficient communication will allow the revision of the procedures, the regulation of the institutional approaches, so that the assumed objectives and performance indicators are permanently taken into account.

3. Research methodology

The study took place between October 2020 and April 2021, at the level of kindergartens with legal personality in Cluj County. Its purpose was establish the effectiveness of documented procedures specific to managerial activities in kindergarten on optimizing internal communication.

The objectives pursued in the study:

- Implementation of documented procedures specific to managerial activities in kindergarten level;

- Identifying the dimensions (position held, status, seniority, location of activity) that can influence the internal communication in kindergartens.

The general hypothesis of the research was formulated as follow: the use of documented procedures specific to managerial activities in kindergarten leads to the optimization of intra-institutional communication.

The secondary hypotheses of the research were:

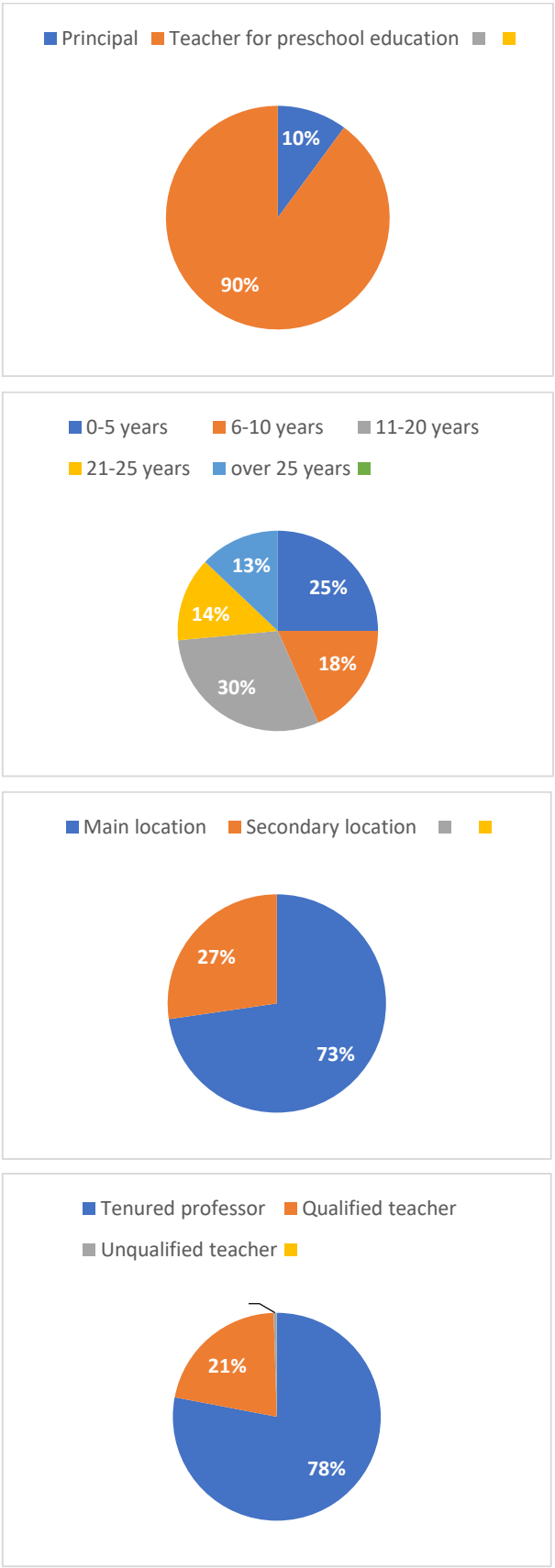
- There are significant differences in internal communication and documented procedures in terms of the position held;
- Seniority in office does not influence the average scores offered for the variables involved;
- The status of the respondent in kindergarten influences the answers provided for the variables involved;
- The location of the activity impacts the internal communication.

Independent research variable: use the documented procedures specific to managerial activities in kindergarten.

Dependent variable: internal communication.

During the study, 396 subjects were involved, selected on a voluntary basis, of which 40 participants (representing 10% of total) hold the positions of principal, and 356 are teachers for preschool education (representing 90% of the total); 73% of them carry out their daily activity in kindergartens with the form of legal personality organization, and the rest of the participants in kindergartens that represent their structures; 78% of participants staff have the status of incumbent (employed for an indefinite period), 21% of qualified substitute (employed for a fixed period, having studies corresponding to the position), and 1% of unskilled substitute (employed for a fixed period, without studies corresponding to the position); the most consistent age groups in the current position occupied, in terms of the volume of subjects, are the age group between 11-20 years (30% of the total) and 0-5 years (25% of the total), and the lowest age group is over 25 years, with 13% of the total participants (Figure 1):

Figure 1. Brief description of the sample of subjects used in the research. Source: own processing in SPSS



The research involved the application of an online questionnaire that addressed the components of internal communication and documented procedures

at the kindergarten level, including seven items that aimed to:

- The efficiency of the analysis of educational practices with colleagues at the kindergarten level:
- The existence of the exchange of good practices, face to face or online, between colleagues at the kindergarten level;
- Providing feedback by the kindergarten management;
- Popularizing the performances/successes of teachers at the kindergarten level;
- The need to use documented procedures in kindergarten;
- The extent to which managerial activities are regulated by documented procedures;
- The extended to which the documented procedures specific to managerial activities are applied in kindergarten.

During the research, a series of specific methods were used, such as: the questionnaire-based survey method, the observation method, the psycho-pedagogical experiment. The research methodology involved processing in the SPSS statistical application of the data collected through the research tool (questionnaire), the use of principal Components Analysis (ACP) was used, descriptive analyzes, hypothesis testing, correlations variables, estimation and validation of regression models were performed.

The research design included 3 stages:

a) Pre-experimental stage: the questionnaire with items presented previously was applied; the results obtained were analyzed; documented procedures specific to managerial activities that could lead to the optimization o intra-institutional communication were developed (Table 1):

Table 1. Documented procedures delivered to kindergartens during the research

Name of the documented procedure	**The level of kindergarten management involved**
Operational procedure on internal communication	The level of leadership, committees, and classroom
Operational procedure for drawing up weekly group planning	The level of leadership and classroom
Operational procedure regarding the control of school documents	The level of leadership and committees
Operational procedure for monitoring the activity of teachers through assistance	The level of leadership and classroom
Operational procedure for carrying out inter-assistance activities at unit level	The level of leadership, committees, and classroom
Operational procedure for mentoring for novice teachers	The level of committees and classroom

b) The stage of formative experiment: it consisted of managerial intervention activities for the implementation of the documented procedures in the kindergarten, following:

- Creation of work teams within the commissions of the kindergarten in which to include teachers for preschool education with different statutes and age groups, to be assigned to different locations (main location and secondaries locations);
- Carrying out activities that involve each level of management in kindergarten (related to the performance indicators specific to the kindergarten);
- Valorization of teachers for preschool education with professional expertise (over 25 years old) as mentors in the exchange of good practices face to face or online at kindergarten level.

c) Post-experimental stage: the questionnaire from the pre-experimental stage was applied again, making comparisons and analyzes of the results obtained in the two stages.

4. Results

The interpretation of the results was made from the perspective of several dimensions that could influence the internal communication, but also the effect of implementing the documented procedures: the position held, seniority, status and location of respondents.

The analysis of the Main Components highlighted the grouping of the items in the questionnaire on two major components: internal communication and documented procedures. Analyzing the results obtained in the pre-experimental stage, we find that the most relevant item for respondents is related to the extent to which the management of the kindergarten provide feedback on their activity, and the least relevant is that subjects assess the effectiveness of analyzing educational practices with colleagues at kindergarten level (Table 2).

These findings show that, for both principals and preschool teachers, leadership feedback is extremely important and should be supported, while the item with the lowest value is at odds with other items (exchange of good practices and popularization of performance), although they fall into the same segment. The conclusion we can draw can be one that shows us that, although exchanges of good practice take place, they are not sufficiently analyzed at the level of the organization to be effective, being

correlated with the need for feedback, validation in order to regulate the didactic approach.

Table 2. Relevance of items associated with the internal communication component. Source: own processing in SPSS

Associated items	Compound
	1
1. To what extent does the management of the kindergarten provide feedback on the activity carried out in the classroom?	.825
2. To what extent are the performances / successes of the teachers popularized at the kindergarten level?	.778
3. To what extent is there an exchange of good practices between colleagues face to face or online (demonstrative methodological activities, inter-assistance) at the kindergarten level?	.755
4. To what extent do you consider that the analysis of educational practices with colleagues at the kindergarten level is effective?	.577

Regarding the documented procedures component, the most relevant item for respondents shows us that specific documented procedures are applied in kindergarten, but does not consider it necessary to use them in their daily activities (Table 3):

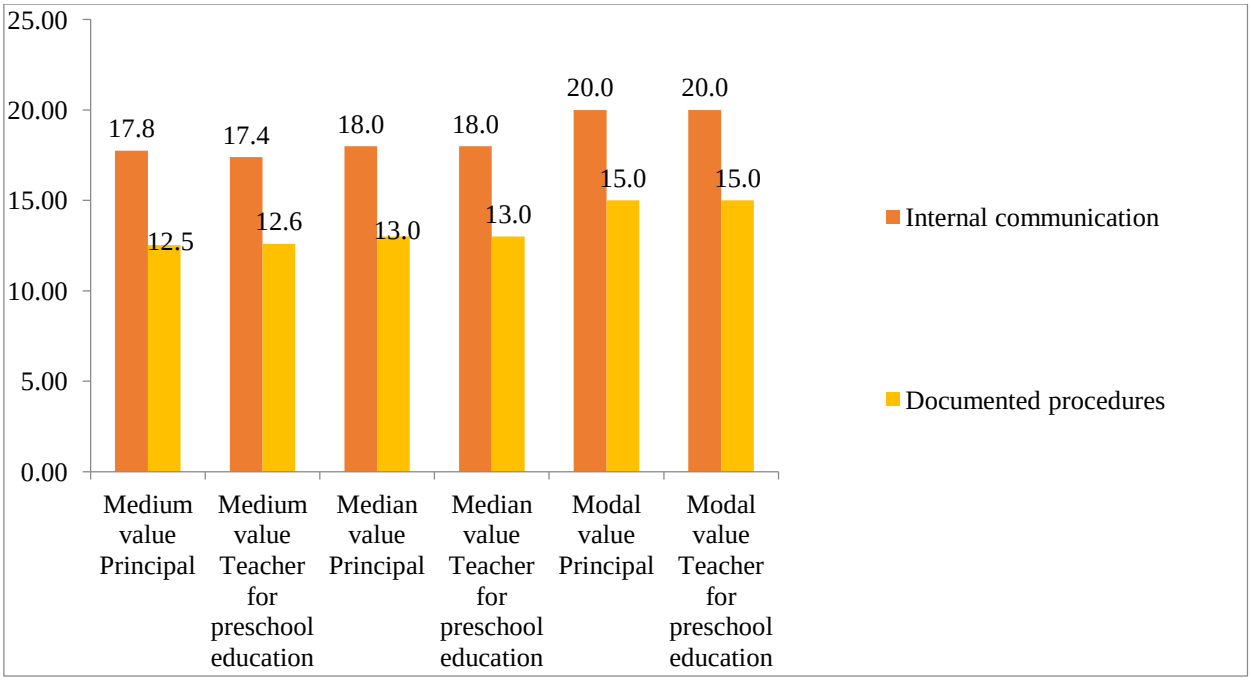
Table 3. Relevance of items associated with the documented procedure component. Source: own processing in SPSS

Associated items	Compound
	1
5. To what extent are the documented procedures specific to the existing managerial activities applied in kindergarten?	.916
6. To what extent are managerial activities regulated by documented procedures?	.911
7. To what extent do you consider it necessary to use in kindergarten the documented procedures aimed at the management of learning activities?	.648

The conclusion that emerges from this analysis can be related to the fact that the members of the educational organization do not understand the role of the documented procedures in regulating the functioning of the institution, being necessary their involvement in the elaboration and revision of all procedures.

Comparing the two components, from the perspective of the function held by the respondents and the scores given, it is highlighted that the scores given by preschool teachers for the documented procedures component are higher than in the case of principals, while for the internal communication component the situation changes, the principals giving higher scores, being small differences between them. (Figure 2):

Figure 2. Central trend indicators based on the function held in kindergarten. Source: own processing in SPSS



Even if the differences highlighted are not large, it is necessary to have another perspective, apart from that of the position held by the respondents. Each, in turn, consciously, relates to one or more levels of management in kindergarten. Thus, even more, it is necessary to optimize the internal communication, considering the various roles assumed by the members of the organization at a time.

Table 4. Indicators of the central tendency based on seniority according to the position held in kindergarten. Source: own processing in SPSS

Seniority of respondents		Internal communication	Documented procedures
Medium value	0-5 years old	17.4	12.7
	6-10 years old	17.73	12.73
	11-20 years old	17.27	12.28
	21-25 years old	17	12.3
	over 25 years old	17.82	13.2
Median value	0-5 years old	18	13
	6-10 years old	18	13
	11-20 years old	18	12
	21-25 years old	17	12
	over 25 years old	18	14

Regarding the seniority of the respondents, we can say that teachers for preschool education older than 25 years have higher average scores than the other age groups involved in the study for both components analyzed. We also draw attention to the slightly lower scores given both for internal communication and for procedures documented by those who fall into the 21-25 years old group, although it is a listed segment with professional expertise (table 4).

We can assume that, for the 21-25 age segment, receiving feedback and the efficiency of the analysis of educational practices can influence the perspective on documented procedures and internal communication.

It is necessary, therefore, to enhance the expertise of teachers for preschool education with over 25 years of experience in the training experiment. Regarding the location of the subjects' activity, the internal communication component was analyzed, resulting in the fact that those in the main location have higher scores than those who work at the structures (Figure 3):

Figure 3. Central trend indicators based on the location where the daily activity takes place. Source: own processing in SPSS

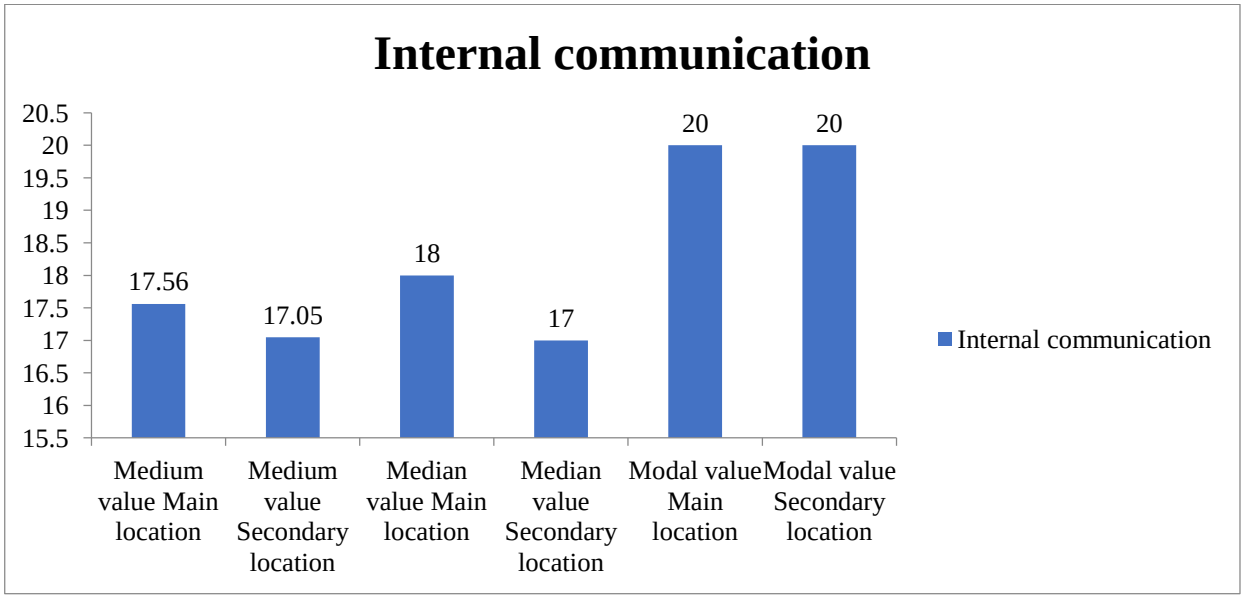
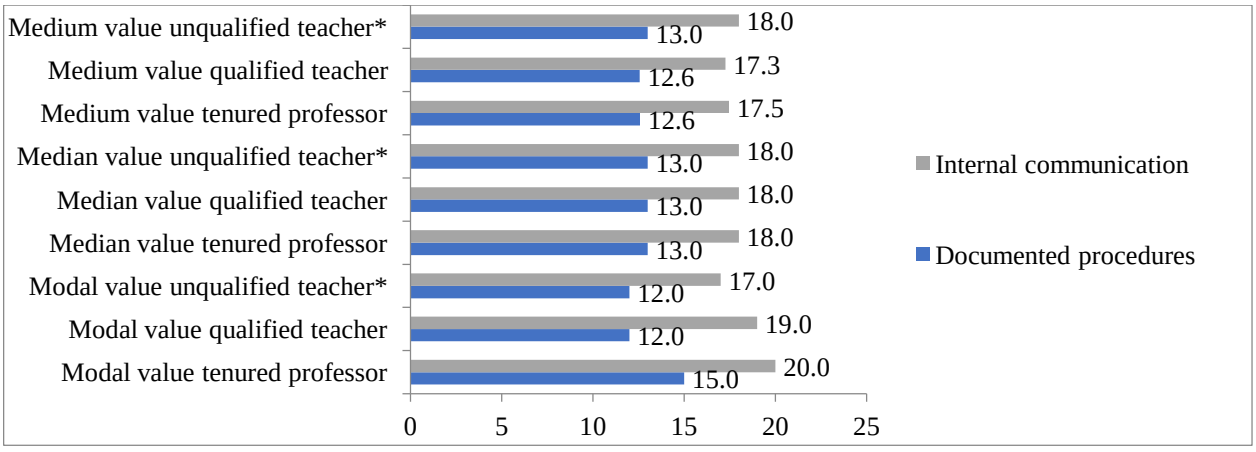


Figure 4. Indicators of the central tendency on the status of the respondent in kindergarten. Source: own processing in SPSS



It follows that, in the main location, the organizational and managerial communication are more intense than at the level of structures. Regarding the didactic communication, we cannot comment.

It is therefore necessary to intensify the cooperation relations between the locations in the formative experiment stage, by identifying appropiate strategies. Compared to the status of the subjects, the average scores given by the unqualified substitutes, compared to the incumbents and qualified substitutes, are higher for both components analyzed (Figure 4).

The median value is identical for the three types of status included in the analysis in the case of internal communication and documented procedures, so it can be stated that the distribution of scores by median is the same for these two variables, regardless of the status of the reporting teacher. The conclusions of the pre-experimental stage regarding the formulated hypotheses are the following:

- The secondary assumption that there are significant differences in internal communication and documented procedures in terms of the position held is not validated at this stage;
- The secondary hypothesis seniority in office does not influence the average scores offfered for the variables involved is not validated for the age groups 21-25 years and over 25 years and only for the variable documented procedures for the intervals 11-20 years and over 25 years;
- The secondary hypothesis regarding the fact that the status of the teacher in kindergarten influences the answers provided for the variables involved is not validated at this atsge of the research;
- The secondary hypothesis regarding the fact that location of the activity impacts the internal communication is validated for this stage.

Regarding the general hypothesis, the use of documented procedures specific to managerial activities in kindergarten leads to the optimization of intra-institutional communication, it is also validated by the existence of a statistically significant direct link, of medium intensity (Table 5). Thus, if the scores of the documented procedures will increase, the same will happen with the scores of internal communication.

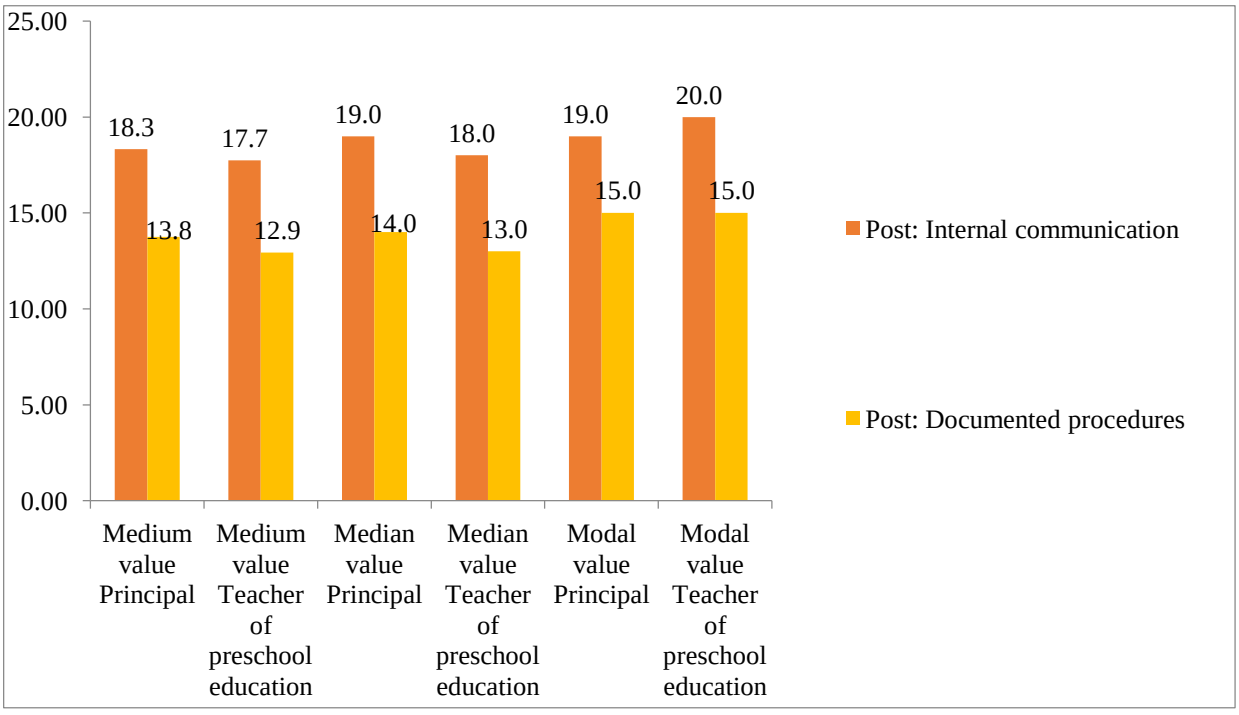
Table 5. Correlations between internal communication and documented procedures, pre-experimental stage

	Documented procedures
Internal communication	.566***

*** significant at the significance threshold of 0.1%

After completing the training experiment, the post-experimental stage took place, applying, again, the initial questionnaire.

Figure 5. Central tendency indicators based on the function held in kindergarten in the post-experimental stage. Source: own processing in SPSS



If in the pre-experimental stage, teachers for preschool education gave higher scores to the documented procedures, compared to principals, in the post-experimental stage they gave lower scores than

the principals of both variables analyzed (documented procedures, internal communication), according to figure 5. This change in the scores associated with the two categories of respondents may result from streamlining managerial activity through the use of procedures documented by principals, and this may seem too rigorous for teachers for preschool education. Or, another perspective may be that the principal uses documented procedures at the level of all departments in the kindergarten, and the regulatory impact, felt by him, is much stronger. The increase in average scores for the internal communucation variable is 0.5 points for principals and 0.3 points for preschool teachers. The variable documented procedures registered an increase of 1.3 points from the principals (average score), and for teachers of 0.3 points. This aspect is also reinforced by the fact that the median value for the documented procedures variable is the same for teachers for preschool education in both stage analyzed. In contrast, the median value for the same variable, associated with the principals, increased by one point in the post-experimental stage.

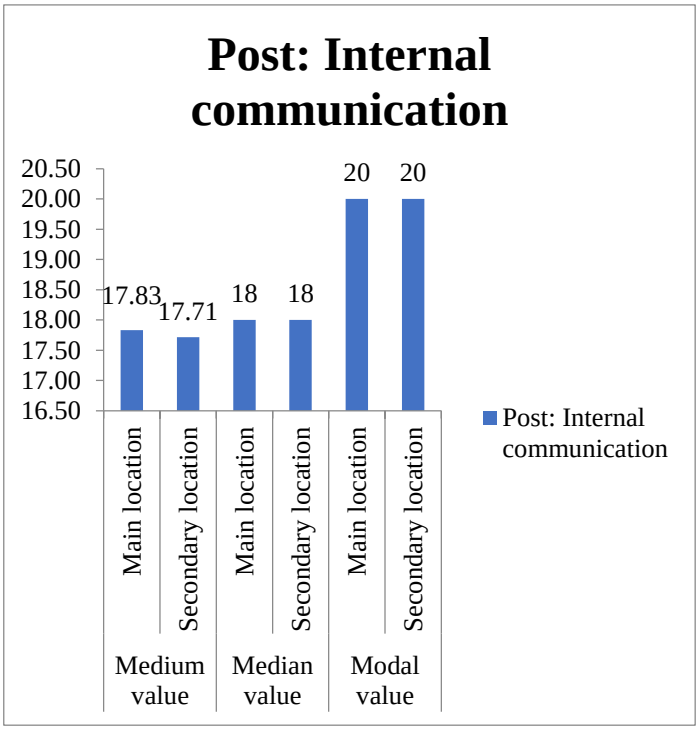
The size of seniority in office shows average values of approximately equal scores regarding the internal communication variable, with the mention that the subjects included in the seniority group over 25 years are associated with the highest average values, as in the case of the documented procedures variable. A significant jump in terms of documented procedures is shown by the average scores for the 11-20 year old group, which increased compared to the initial stage from 12.28 pointsto 13.08 points. At the same time, the median values for the groups of 11-20 years and over 25 years are the highest, supporting the average values identified. For the internal communication variable, the median values are identical for all age groups analyzed in this stage, with the group 21-25 years registering an increase of one point compared to the pre-experimental stage (Table 6). It is important that the highest value increases are found in the 11-20 and 21-25 age segments, covering a percentage of 44% of respondents. Certainly, the area of influence of the respondents with more that 11 years of experience (57%) will subsequently determine significant value increases in the 0-10 age segment, both in terms of internal communication and in terms of perception on documented procedures.

Table 6. Central tendency indicators based on seniority in kindergarten, post-experimental stage. Source: own processing in SPSS

Seniority of respondents		**Post: Internal communication**	**Post: Documented procedures**
Medium value	0-5 years old	17.95	12.90
	6-10 years old	17.68	12.97
	11-20 years old	17.89	13.08
	21-25 years old	17.37	12.81
	over 25 years old	17.92	13.41
Median value	0-5 years old	18	13
	6-10 years old	18	13
	11-20 years old	18	14
	21-25 years old	18	13
	over 25 years old	18	14

Regarding the location of the activity, the average value of the scores is higher for the respondents from the main location than for the structures, a situation identical to that of the pre-experimental stage (Figure 6).

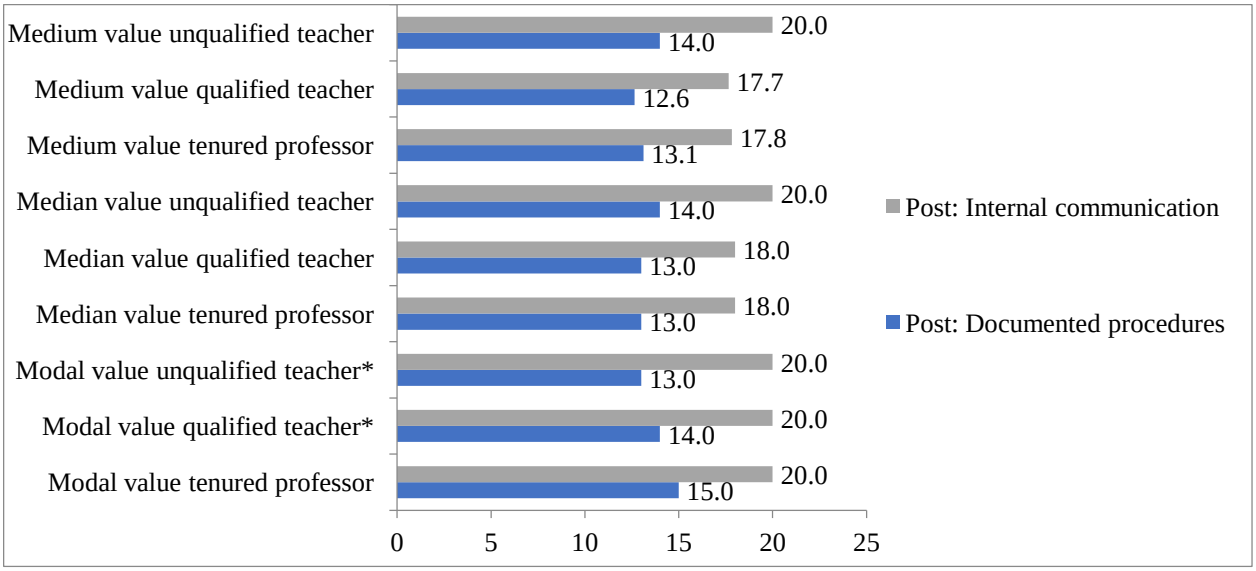
Figure 6. Indicators of the central tendency based on the location of daily activity, the post-experimental stage. Source: own processing in SPSS



Identical to the pre-experimental stage, the average scores given by unqualified substitutes are higher than those given by holders and qualified substitutes for both variables analyzed. Given the uncertain status of unqualified substitutes, we will highlight the differences between the twi stages for incumbents and qualified substitutes. Thus, the average values of the

scores associated with the internal communication variable increased slightly compared to the pre-experimental stage for both selected statuses. Regarding the veriable documented procedures, an inscrease of 0.5 points is registered in the right of the holders, for the qualified substitutes remaining the same values as in the pre-experimental stage. This fact can be explained by the motivation of the incumbents to assume the implementation of the documented procedures (being employed for an indefinite period), while the qualified substitutes are employed for a determined period, without stability in kindergarten. Staff mobility can be a disruptive factor in achieving effective internal communication, but also in implementig procedures, lacking continuity in activity. The median values are identical to those in the initial stages, some higher being recorded only in unqualified substitutes (Figure 7).

Figure 7. Indicators of the central tendency on the status of the respondent in kindergarten, the post-experimental stage. Source: own processing in SPSS



The conclusions of the post-experimental stage regarding the formulated hypotheses are the following:

- The secondary assumption that there are significant differences in internal communication and documented procedures, from the point of view of the position held, is validated at this stage only in the case of documented procedures;
- The secondary hypothesis, the seniority in office does not influence the average scores offered for the variables involved, it is validated for all the analyzed seniority group;
- The secondary hypothesis regarding the fact the status of the teacher in kindergarten influences the answers provided for the variables involved is validated for the research variable documented procedures;
- The secondary hypothesis regarding the fact that the location of the activity impacts the internal communication is not validated at this stage.

Regarding the general hypothesis, the use of documented procedures specific to managerial activities in kindergarten leads to the optimization of intra-institutional communication, it is also validated by the existence of a statistically significant direct link, of medium intensity (Table 7). Thus, if the scores of the documented procedures will inscrease, the same will happen with the scores of internal communication. It can be seen that we have a higher correlation coefficient thar that obtained in the pre-experimental stage, as shown in Table 7:

Table 7. Correlations between internal communication and documented procedures, post-experimental stage. Source: own processing in SPSS

	Post: Documented procedures
Post: Internal communication	.631**

** significant at the significance threshold of 1%

5. Discussions

Correlating the answers regarding the importance of the feed-back on the activities carried out with those regarding the inefficiency of analysis of educational practices with colleagues, but also with the minimization of the role of documented procedures, we consider that actions are required to enhance the role of feed-back at the kindergarten level. In this sense, communication between the three levels of

management can be improved by developing clear documented procedures, so as to concretely regulate the methods, tools, responsible human resources, periodicity and effective means of communication.

6. Conclusions

The intervention within formative experiment, by implementing the documented procedures, had a positive impact the highlighting, in the post-experimental stage, of some positive effects on the communication, from the perspective of the relationship with them. Documented procedures, as working tools, represent a vector for establishing and maintaining communication relations at kindergarten level, given their complexity in terms of their development and, subsequently, their implementation. By facilitating communication at the horizontal level (at management level), but also in a vertical, hierarchical sense (between levels), the manager created a tool managed to reduce the communication gaps between them. The strategies used (creation of inclusive work team, development of cooperation actions between management levels, taking responsibility for those involved by enhancing their professional expertise) led to the harmonization of the manager-teacher relationship for preschool education, identifying a common vision that can be supported only by optimal internal communication.

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10.24193/ed21.2021.21.23

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Educatia 21 Journal 21 (2021)

Educatia 21 Journal, (21) 2021, Art. 23
doi: 10.24193/ed21.2021.21.23
Research article

The Attitude of Teachers Towards Intercultural Education in Schools

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Abstract

Promoting an intercultural perspective in education must rely on a certain vision upon society. Given the special significance in educational approaches, ***the intercultural approach*** is a new way of designing and implementing the school curriculum and a new relational attitude among teachers, students and parents. The intercultural perspective opens new avenues for the manifestation of diversity and differences. Intercultural positioning is not reduced to a cumulative presentation of knowledge about the values of others, but it means cultivating attitudes of respect and openness to diversity. This attitude is born through a permanent communication with others and through a careful and optimal decentralization towards one's own cultural norms. Therefore, the management of the intercultural conflicts made in the context of school learning experiences must be related to the dynamic perspective on the changes that characterize the educational reality in terms of educational innovation. As a consequence, a pertinent analysis of this phenomenon is required, in order to bring the necessary restructuring in order to optimize school activity and prevent conflict management between students belonging to different cultures, being known the fact that the more elaborate the interaction, the more effective and productive it becomes.

Keywords:
culture; interculturality; intercultural education; Intercultural conflicts.

Zusammenfasung

Die Förderung einer interkulturellen Perspektive in der Bildung muss auf einer bestimmten gesellschaftlichen Vision basieren. Angesichts der besonderen Bedeutung in Bildungsansätzen ist der interkulturelle Ansatz eine neue Art der Gestaltung und Umsetzung von Schullehrplänen und eine neue Beziehungshaltung zwischen Lehrern, Schülern, Eltern. Die interkulturelle Perspektive eröffnet neue Wege für die Manifestation von Vielfalt und Unterschieden. Interkulturelle Positionierung reduziert sich nicht auf eine kumulative Präsentation von Wissen über die Werte anderer, sondern bedeutet, eine Haltung des Respekts und der Offenheit für Vielfalt zu pflegen. Diese Haltung entsteht durch eine permanente Kommunikation mit anderen und durch eine sorgfältige und optimale Dezentralisierung auf die eigenen kulturellen Normen. Daher muss die Herangehensweise an das Thema interkultureller Konflikte im Kontext schulischer Lernerfahrungen mit der dynamischen Perspektive auf die Veränderungen verknüpft werden, die die Bildungsrealität im Hinblick auf Bildungsinnovation charakterisieren. Daher ist eine entsprechende Analyse dieses Phänomens erforderlich, um die notwendigen Umstrukturierungen herbeizuführen, um den Schulbetrieb zu optimieren und Konflikte zwischen Schülern unterschiedlicher Kulturen zu verhindern, zu verbessern, ist bekannt, dass die Interaktion umso effektiver wird, je aufwendiger sie ist. und produktiv.

Schlüsselworte:
Kultur; Interkulturalität; interkulturelle Bildung; interkulturelle Konflikte.

1. Introduction

The school is a microcosm in which a specific culture is promoted, which is as dynamic and unpredictable as the "external" culture. Thus, the school, as a social institution, must reunite and recompose the intrinsic plurality of culture, to meet diversity.

In the broadest sense, "culture today can be considered as the set of distinctive, spiritual and material, intellectual and affective traits that characterize a society or a social group. It encompasses, in addition to the arts and letters, ways of life, fundamental human rights, value systems, traditions and beliefs. Culture gives man the ability to reflect on himself. Man expresses himself through it. He tirelessly seeks new meanings and creates works that transcend him" (Dasen, Perregaux & Rey, 1999, p. 85).

We figure out from Perregaux's definition that this culture should no longer be understood as a finite sum of particular traits that comes with stereotypes, and the intercultural approach thus becomes possible in so far as it is admitted that the negotiations which establish connections among individuals belonging to different cultures may lead to the creation of new cultural practices, value transfers, new conjunctions between their different sequences. With the emergence of some

contacts among several cultures, new cultural practices are created, carrying new meanings.

2. Theoretical foundation

Intercultural education has appeared on Europe's political agenda with the schooling of immigrants' children in Western European societies. It was then acknowledged for the first time that the existence of groups that have a cultural background different from that of the majority population can be a challenge.

Related to conceptualization, we find that the term **intercultural communication** was first used by Edward Hall (1959) in the paper named *"Silent Language*", where he addresses issues related to the importance of nonverbal behaviour in communication, defining nonverbal communication as an exchange that does not involve words.

In his turn, Constantin Cucoș defines intercultural communication as an "exchange or value transaction accompanied by the understanding of the adjacent meanings, among persons or groups who/which are part of different cultures. Exchanges can be made at the ideational, verbal, nonverbal, behavioural, physical, objective, organizational level" (Cucoș, 2000, p.136).

Cultural diversity is no longer a prejudice, but a reality that must be fruitful in the school environment. Cultural plurality raises not only the problem of defending differences, but of *cultural dialogue*, which recognizes that each must contribute to the enrichment of human experience and that each culture is an effort to universalize a particular experience.

The idea of **intercultural dialogue** must have as a starting point the recognition of the difference and the multiple perspectives and dimensions of the world we live in. That is why, "*the dialogue, communication or intercultural mediation* aim to analyze these diverse perspectives with a precise purpose, namely to understand and learn based on diverse intercultural experiences" (Cozma, 2001, p. 179).

The ability to interact and communicate effectively also involves the ability to resolve **communication conflicts** that may arise. Conflict does not necessarily involve only negative aspects (e.g. tension, quarrel or physical confrontations). There can also be positive effects of conflicts:

1. increasing *interest and motivation* for change;
2. improving the process of i*dentifying* problems and solutions;
3. increasing *the cohesion of a group* in the event of joint conflict resolution;
4. developing the capacities of individuals *to adapt* to reality;
5. offering *opportunities* for knowledge and development of practical skills for solving states of uncertainty;
6. developing creativity and ingenuity to find optimal solutions, etc.

In any field, "the existence of conflicts must be accepted as part of the process of interpersonal interaction while communication must respect the rules for resolving these conflict states" (Cucoș, 2000, p. 178). That is why conflicts are usually regarded as part of the process of interaction and communication.

Depending on the opportunity or inopportuneness of the conflict within the school organization, there are three fundamental concepts (Coste, 1995, p. 142):

a) ***traditional*** - considers the conflict harmful for schools, and its appearance represents a failure of the principles of educational management;

b) ***behavioural*** - considers conflict a common phenomenon in the life of organizations, because their members have various needs, interests, abilities, etc. which often collide with each other. That conception regards conflict as something normal where people work together;

c) ***interactionist***, currently dominant, considers the conflict inevitable and even necessary, because it requires the search for solutions, stimulates thinking and creativity.

The core of the concept of "intercultural education" is: *the dialogue of cultures, the understanding among cultures, the value and originality of each culture, comprehension among communities.* A comprehensive definition is found in the author Micheline Rey, where the term "*intercultural"* is used both because of the rich meaning of the prefix "*inter*" and the (anthropological) meaning of the word "*culture"*. Thus, when we say intercultural, we necessarily mean interaction, exchange, reciprocity, interdependence, solidarity. We also say: the recognition of the values, of the ways of life, of the symbolic representations to which the human beings, the individual or the groups refer in the relations with the fellows and in the understanding of

the world; recognizing the interactions that occur at a given time between multiple aspects of the same culture and between different cultures in time and space (Dasen, Perregaux & Rey, 1999, p. 152).

Intercultural education is today in the attention of all the education systems and all the educators. And they are a result of social learning whose mission is constantly expanding. The task of this pedagogy is, according to the same Micheline Rey, to ensure the transition from an egocentric thinking to a solidary thinking, which would favour cooperation more than competition. Among the competencies, knowledge and privileged concerns of the professor, the author lists (Rey, 1999, pp. 186-187):

a) the democratic organization of classes (groups);

b) experiencing different social roles (including animators, leaders);

c) to follow the quality of the relations among the students in the service of promoting the prestige of each one;

d) to control the phenomena of violence;

e) to ensure the observance of the rights of all categories of minorities;

f) to ensure the opening of the group to the outside.

The learning activity becomes learning of acceptance of otherness, a process of formation of cultural maturity materialized in the intercultural competence. As a goal of education for diversity, intercultural competence "means that relational ability to relate to people from other cultures, demonstrating permissiveness, respect and understanding of diverse cultural meanings" (Cucoș, 2000, p. 213). But to form this competence in the educated individual according to the informative side, does not mean just the presentation of knowledge or an ideology, but involves a deliberate action of training and transforming the personality of the educated by constantly relating to the principles of flexibility and cultural openness. In this educational situation, teachers are faced with problems that involve the pre-existence of intercultural competence even in the educators themselves. Intercultural education emphasizes the need to reorient to a pedagogy of models and emphasizes the role of training teaching skills in achieving effective educational acts.

In conclusion, today's society requires the teacher to be trained from an intercultural perspective in order to facilitate the spiritual and cultural permeability of students. Accepting otherness and interdependence, creating the conditions for expressing the other's personality, laying the foundations of a solidary behaviour, must represent the objectives of any teacher involved in the educational process. If the teacher can make the new generations recognize the essential role of interdependencies and interactions, learn a more dynamic way of human rights, then it can be hoped that students will be prepared to meet the new demands of today's society: intercultural openness.

3. Research methodology

The research undertaken has as a starting point the measurement of the teachers' attitude towards intercultural education, on the three operationalized dimensions of the concept of "attitude", namely: knowledge, perceptions and behaviours related to intercultural education.

The purpose of this research was to determine the extent and manner in which teachers promote and use intercultural education in various school subjects.

The fundamental objective of this research was to study the way in which teachers put into practice the principles of intercultural education in schools with an interethnic composition of students. Within the general objective, there are several specific objectives that we will pursue during the research:

1. *Identifying the level of knowledge* of the respondents regarding the intercultural education, and interculturality in the broad sense of the term;

2. *Determining the behaviours* of teachers, related to the coexistence of several ethnic groups in the school environment in which they work or attend.

The method used in this approach is mainly the investigation. We have chosen this method because it involves a direct exchange of information between the researcher (me in this case) and the subjects under investigation (teachers), in which we will collect data on their attitude towards intercultural education. The arguments for which we opted for this method can be found in an attempt to describe as objectively as possible the way in which teachers promote intercultural education in different subjects, but also the attitude they have towards achieving intercultural education in order to prevent and alleviate conflicts

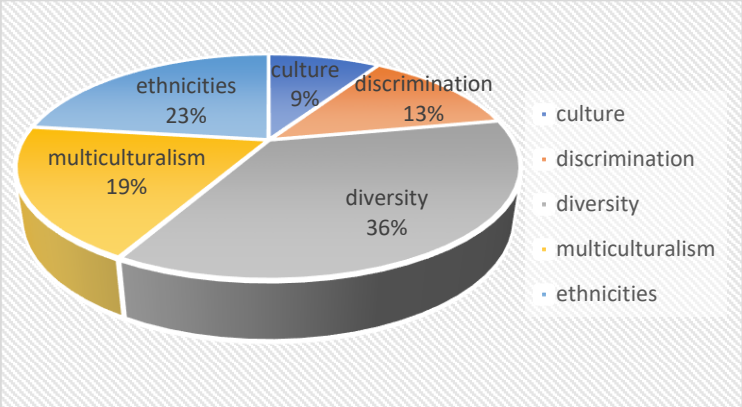
between majority and minority students. The specific tool used in this survey is the questionnaire. The survey technique used is the indirect one, in which the teachers answer the questions formulated in writing. The questionnaire was applied to 100 teachers from different high schools in Cluj-Napoca and Bistrita. Teachers were randomly chosen.

The concept of attitude has been operationalized in a three-dimensional research, which will be presented in turn in this section. The first dimension concerns the respondents' *knowledge* about intercultural education, and interculturality in the broad sense of the term. Then, the conclusions on the dimension of *perceptions* regarding intercultural education will be presented, and finally the dimension of *the behaviours* of teachers, students and parents will be addressed, related to the coexistence of several ethnic groups in the school environment in which they work or attend.

4. Results

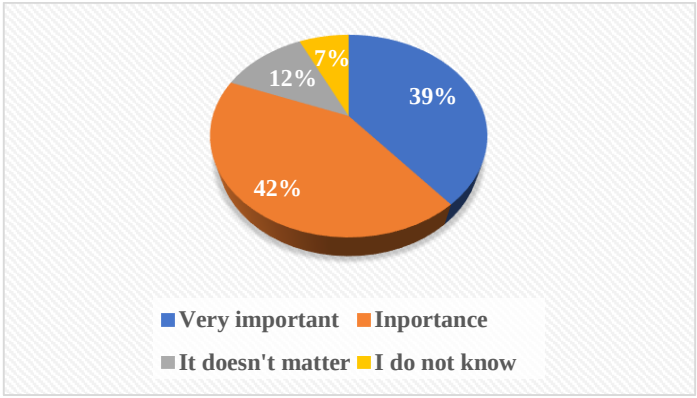
The teachers' answers to the first question helped us form an image of the knowledge they had about intercultural education. Thus, the teachers mastered very well the key terms related to the intercultural phenomenon. It is primarily about the cultural diversity between the majority and the minority groups, the multicultural space where these groups coexist. In fact, they also figured out the purpose of the intercultural education: to reduce discrimination between minority and majority groups.

Figure 1. Frequency of words related to intercultural education



In figure 2 we notice that a great importance is given in schools to intercultural education and only some teachers do not know much about it. 39% of teachers consider it very important to include and promote intercultural education in schools. With a higher percentage, in case of 42% of teachers the importance of implementing an optional class on "intercultural education" in ranked second, considering it not essential but only important. Teachers who deny the importance of intercultural education in school are 12%. Many of them do not place much value on the promotion of intercultural education due to the fact that they do not have much information about it and due to the lack of the in-service training on this topic. There are teachers who do not know (7%) whether intercultural education is beneficial or not in the instructive-educational process in school.

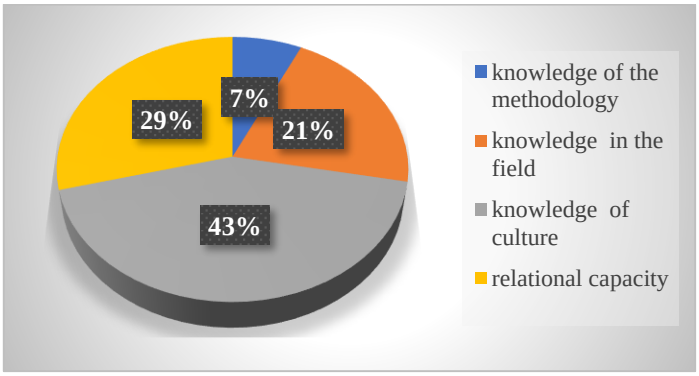
Figure 2 The importance of the intercultural education in schools



Teachers consider that it is very important to know the culture of others (43%), in order to be able to teach intercultural education in school. It is also important for the teacher to relate effectively with students, to communicate and adapt the educational content to the age and psychological level of the child. Thus, 29% of teachers consider that having the ability to maintain educational relationships with others and have knowledge in the field is essential.

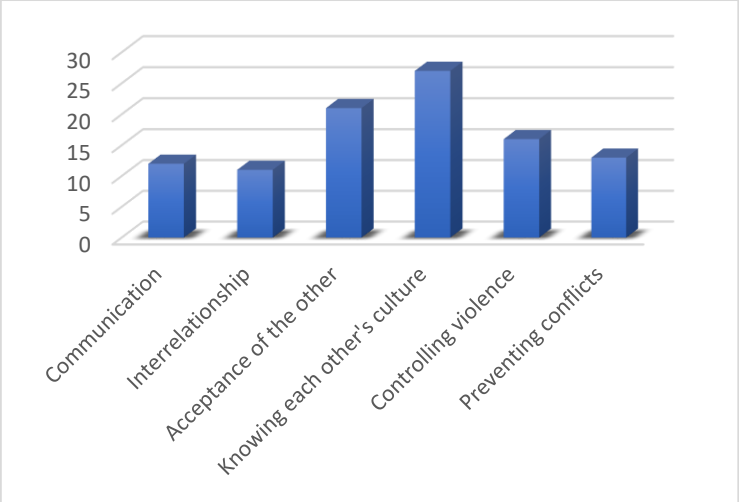
Unfortunately, teachers do not place much emphasis on the methodology for conducting intercultural education, only 7% of them considered it important to know this aspect. Without the application of a correct methodology, teachers may erroneously apply the principles of intercultural education, so it is necessary to take specialization courses on this topic.

Figure 3 Skills required for teaching the intercultural education



Regarding the knowledge and skills that students can acquire through intercultural education, teachers believe that students must first know the culture of the other colleague (27 teachers consider it important to know the culture of the other) which is not the same ethnicity. It is very important to approach other cultures in different subjects, to highlight their riches and traditions in order to familiarize children and to achieve cultural openness.

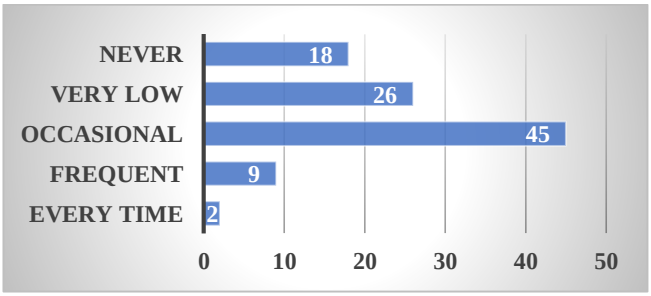
Figure 4. Knowledge and skills acquired by students



Teachers (21 of the total number) consider it important to accept those around us, even if we are not part of the same culture, do not share the same faith and do not speak the same language. Teachers believe that there is an urgent need for intercultural education in order to prevent and eliminate conflicts between majority and minority students. Unfortunately, there are many conflicts between these students and that is why we must intervene with methods that involve cooperation, acceptance and relationships with others. Children need to be trained in certain disciplines to accept each other because we are all equal, to resolve conflicts amicably and to communicate, to socialize without putting labels and without judging those around us.

In figure 5 we notice that most teachers apply the principles of intercultural education occasionally or very little, only when some proposed topics require an intercultural approach.

Figure 5 The employment of the intercultural education



Unfortunately, when it comes to applying intercultural education to the classroom, things are not going very well. Only 2% of teachers work interculturally in any circumstance of teaching activity. Most teachers (45%) occasionally apply intercultural education in the classroom.

5. Discussions

From this analysis obviously emerged the training needs of teachers, but also the obstacles that hinder the emergence of a genuine interculturality in the educational system in Romania.

The picture that this research has outlined is far from optimistic. The obstacles that hinder the emergence of interculturality in the educational system in Romania are numerous, deeply rooted and difficult to eradicate. The main failure factor of the penetration of intercultural education in schools is the strong deficit of initial teacher training in the field, coupled with unstructured in-service education, sometimes of poor quality, sometimes supported by amateur pedagogical supports and trainers who sometimes transmit their own stereotypes, instead of awakening a real reflection on prejudices and discriminatory attitudes.

Despite the development of literature and the maturation of the debate in the field of intercultural education and globalization, we have very few signals of transfer or didactic transposition of these topics in the practice of the Romanian school.

Therefore, no matter how willingly the intercultural curriculum is accepted in the national curriculum, through the School Customized Curriculum, as an optional subject or included in the national curriculum containing the compulsory subjects, it remains underexploited in the school for the time being. But how can we define the intercultural curriculum?

The attempts to define intercultural curriculum should not be considered through eliminating the

definitions given to the curriculum in general; also, the intercultural curriculum should not be perceived as a separate, distinct component of the curriculum or education, but an integrated element of them, a segment included in the general curriculum. In other words, we can define the intercultural curriculum as the set of educational processes and learning experiences that allow students to learn the principles of cultural pluralism, tolerance, but also human rights, acceptance of diversity, acquisition of intercultural skills. The intercultural curriculum is positioned in the same stages of elaboration (Cretu, 2001), of any curriculum the emphasis falling on objectives and not on contents, although in terms of intercultural training they are of great importance, aiming at either a relatively new issue or different ways of relating to them.

6. Conclusions

Therefore, the knowledge regarding intercultural education is deepened only where the interculturality guides transversally the way in which the educational process takes place, being not only well understood by the teachers, but also applied in the daily pedagogical practice. Otherwise, the understanding of interculturality is superficial, theoretical, and in certain situations this superficial understanding jeopardizes the very achievement of the purpose of intercultural education, namely the eradication of stereotypes about otherness and respect for diversity in equity.

If there is still a lot of work to be done in the field of intercultural knowledge, the ground seems conducive to sowing the seeds of interculturality: teachers' perceptions of intercultural education are generally positive. The subject is seen as something useful and desirable, but at the same time pleasant, both for teachers, for students and parents. Sometimes, the attractiveness of intercultural education seems to reside in the novelty of the theme for education in Romania; even if this perception risks disappearing with the deeper acquaintance with the concepts of intercultural education, thus being a surface attraction for the issue, it must be exploited to take advantage of the openness that seems to benefit among teachers.

At the level of multicultural behaviour, however, the situation is worrying. If certain knowledge about interculturality is found in the discourse of some of the interviewed teachers, they remain at a theoretical and formal level, not being transposed in the daily pedagogical practice.

In conclusion, today's society requires that the teacher is trained from an intercultural perspective to facilitate the spiritual and cultural permeability of students. To accept otherness and interdependence, to create the conditions for expressing the other's personality, to lay the foundations of a solidary behaviour, must represent the objectives of any teacher involved in the educational process. If the teacher can make the new generations of learners to acknowledge the essential role of interdependencies and interactions, to learn a more dynamic way of human rights, then one can hope that students will be prepared to meet the new demands of today's society: intercultural openness.

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Educatia 21 Journal 21 (2021)

http://educatia21.reviste.ubbcluj.ro

Book Review

„Parteneriatul educaţional şcoală-familie.

Ghidul profesorului pentru învăţământ primar”

by Diana-Crina Marin, Mușata-Dacia Bocoș, Anicuța Todea and Maria Sofia Pintea (coordinators)

Presa Universitară Clujeană Publishing House

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Specific Details

The book “The school-family educational partnership. The teacher's guide for primary education” (400 pages, ISBN: 978-606-37-1155-8) was published in 2021 in the collection Paedagogia at Presa Universitară Clujeană Publishing House affiliated with Babeş-Bolyai University, in Cluj-Napoca, Romania. This book is the outcome of constant preoccupations and exemplary collaborations between the four coordinators, Diana-Crina Marin, Mușata-Dacia Bocoș, Anicuța Todea and Maria Sofia Pintea. The experience of coordinators gained over a long period of time, as well as the know-how (solid educational, curricular and managerial contributions aimed at identifying ways to ensure the well-being of learners) provided by the over 50 authors represent a substantial guarantee for the usefulness of this book and for its impact on the community.

Contextualization

The educational partnership is legislated in Romania by the National Education Law No. 1/2011, with subsequent amendments and completions and is highlighted in educational policy documents, as well as in current research. Therefore, there is increasing interest both theoretically and practically. Consequently, the establishment of the triarchic relationship between teacher - student/class - parent and the identification of responsibilities within the School – Family - Community partnership represents a salient aspect of an effective school. Furthermore, schools are required to significantly intensify interactions within the School-Family-Community partnership. They are also called to consolidate parents’ status as secondary beneficiaries of education – as provided in the National Education Law No. 1/2011, subsequently amended and supplemented (Article 79).

This book aims to answer specific professional requirements related to ensuring a functional and viable partnership between the school and the family, in primary education, by offering personalized and validated educational practices. Likewise, the practical examples offered in the book, as well as the operational recommendations formulated by the authors, based on their own teaching and managerial experience, constitute a valuable source of educational inspiration.

The educational message of the book

The main educational message of the book suggests that an authentic, constructive and visible school-family-community educational partnership supports the appropriate educational rights and responsibilities and contributes to a higher purpose – to ensure the well-being and success of the learner.

The content of the book

The book offers an operational conceptualization of the school-family educational partnership, portraying it as a principle in the pedagogy of primary education, as it expresses the unity and coherence of the requirements and expectations of the school and

the families in educating the learners. Students begin their educational journey in their family and continue it in school, so both environments are needed to achieve a harmonious, complete, integral development of the student. Therefore, the school must consider the importance of parental participation in children's education and the need for a collaborative and constructive relationship between teachers and parents, while ensuring equality, trust and mutual respect. In this way, teachers can teach effectively and achieve the desired educational goals, while parents will become genuine "catalysts" in the teacher-student educational relationship.

The book has a wide addressability – would-be practitioners and current primary school practitioners, school managers and parents. It has the status of a didactic guide, as it comprises and provides examples of good practices that can be used in the initiating and consolidating the school-family partnership.

The added value of the book refers to the fact that, in addition to approaches and theoretical references, it offers examples of good educational, curricular and didactic practices. Multiple perspectives are offered: of the researchers working in higher education, of the specialized school inspectors, of the practitioners from the primary education and of the school principals. The research was carried out collaboratively by research teams consisting of researchers in the field of education and practitioners in pre-university education. The research had a pragmatic, namely to provide authentic and valuable educational tools, ideas and resources, which can be used to streamline the collaborative relationship between school and family.

The book presented in a strong pragmatic vision the illustrative results of recent scientific studies, which highlight analytically the positive multidimensional effects of cooperation between school, family and community members. Consequently, the book analysed by us supports this conclusion and provides details of unique educational activities and projects which have been validated in practice. The fact that all the educational projects presented in this book have been explored in a practical manner represents another element of added value. These can be easily taken over, adapted and put into practice by primary education teachers to increase the quality of cooperation between school and family.

Conclusions regarding the relevance of the book

The book "The school-family educational partnership. The teacher's guide for primary education" has a strong practical, hands-on and instrumental feature. It represents an invitation to reflective and active reading about the promoted values, the educational and the didactic messages of the text and their constructive application to increase the degree of family involvement in school life and in children's education.

Reviewed by
Associate Professor Georgeta Pânișoară