Original Article

Variation of perceptions of teachers on administrative ability of the Principal-Teacher of Physical Education according to their age, teaching experience and specialty of the teachers

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Published online: September 30, 2014

(Accepted for publication September 10, 2014)

DOI:10.7752/jpes.2014.03056;

Abstract:

The aim of the present study is to examine how age, experience, teacher's specialty, differentiate the views of teachers on the performance of Physical Education teachers as School Principals through the factors of administrative ability that contribute in the school's efficiency. The questionnaire Principal Instructional Management Rating Scale-PIMRS adjusted to Greek reality was used. A total of 580 teachers of all specialties in 35 schools of Regional Administration of Primary & Secondary Education of Central Macedonia, where Principals are teachers of physical education, were asked to participate. The analysis of one way ANOVA check presented statistically significant results on all questions included in the questionnaire. Findings revealed that perceptions of teachers on the performance of Principals-Teachers of Physical Education vary depending on their demographic characteristics. More specifically,, the **experience** of teachers varies their perception on five (5) out of the eight (8) Competency Principal Factors that contribute to an efficient administration of Principals-Teachers of Physical Education. On less Competency Principal Factors the teachers' perceptions differentiate according the **age** of teachers, which differentiates two (2) out of the eight (8) Competency Principal Factors. On the contrary, no differentiation in the teachers' perceptions is found according to **specialty** of the teachers on any of the eight (8) factors of Competency Principal Factors that contribute to an efficient administration of Principals-Teachers of Physical Education.

Key Words: Principal, School efficiency, Teacher of Physical Education

Introduction

Research on the most efficient principal was done in various, consecutive stages. Oriented by the general question "how the principal contributes to school's operation", the present study tried to clarify the relations among the principal's attitude on specific efficiency criteria by using as efficiency indicators the perceptions of teachers on the school's administration or the level of their job satisfaction. This is the reason why there are so many studies abroad that study the perceptions of teachers as a procedure for the localization of the quality of school administration and administrative efficiency of principals (Saitis & Eliophotou, 2004 ; Linn, Sherman, & Gill, 2007, Saiti, 2007, Rhodes & Brundrett, 2009). The present study proves that the perception on efficient administration of Principals-Teachers of Physical Education varies intensively according to the teachers' experience and their age while no affect was found based on their specialty.

Many researchers adopt the view that the success of the efforts done for the upgrading of the school depends highly on the nature and quality of the principal's school leadership (Fullan, 2007), that contributes significantly on the efficiency of the school unit (Hoy & Miskel, 2005). The term "school efficiency" includes complex concepts and multiple characteristics due to which even up to date it has not been completely clarified. The factors of school efficiency are multidimensional constructions and can be measured against specific dimensions existing in each school (Creemers & Kyriakides, 2008)

The indirect but powerful influence of school leadership on ensuring and improving of the performance of students is documented in many studies. Parallel to the quality of the teacher, leadership and school culture seem to influence and determine the levels of student performance due to the decisive effect they have on the motivation of teachers and therefore the quality of teaching (Manzano, Waters, and McNulty, 2005). It is important that school leaders own the abilities needed in order to be able to improve teaching and learning and through them, the achievements and growth of students (Supovitz, Sirinides and May, 2010 ; Lumby, Crow & Pashiardis, 2008). Hoy & Miskel (2008) classify the features of an efficient school leadership in three categories: a) personality, including self esteem, integrity, stress endurance and emotional growth, b) work motivation including duty, interpersonal needs and expectations, and c) competence including technical, interpersonal and administrative competencies.

In an effort to measure administrative efficiency of Teachers of Physical Education as Principals of school units and “school efficiency” the present study adopted the Principal Instructional Management Rating Scale –PIMRS (Hallinger, 2008, 2013) questionnaire, an instrument for the measurement of efficiency for school administration based on the teachers’ perceptions. This instrument covers the factors mentioned above which affect the perceptions of teachers on the efficient operation of their school. More specifically, the PIMRS questionnaire evaluates three dimensions of school leadership: a) the determination of school goals and mission, b) the curriculum and c) the promotion of a positive environment of teaching in school. The dimension of “determination of goals” refers on the operations of the role of the Principal in cooperation with teachers in order to ensure that the school’s mission is clear and focused on the academic proficiency of students. The second dimension “the management of the curriculum” includes the supervision and assessment of directions, the coordination and observation of the students’ progress. The third dimension “the promotion of a positive climate in teaching” includes various operation of leadership such are the promotion of professional development of teachers, motivation as well as the creation of a culture of continuous improvement through the development of high specifications and expectations. These dimensions are particularized on the specific questionnaire as factors of competence of administrative efficiency as follows: a) Instructional mission and goal, b) School curriculum: observation & improvement of teaching, c) Educational training of the school principal, d) Student progress: progress observation & student assessment, e) Professional progress of teachers, f) Professional credibility-Principal’s responsibility, g) School climate, h) Parents’ involvement (Hallinger, 2008).

School’s principal from a Principal “processor” today (Iordanidis, 2006 ; Matsaggouras, 2006), should be transformed to a Principal “Leader” in order to be able to better respond to the contemporary demand for a more efficient education. Based on the above it is necessary to identify what affects the perceptions of teachers in order to consider that the Teacher of Physical Education efficiently responds to the contemporary demand for a more efficient education.

Aim

The aim of the present study was to identify the way the teachers’ perception vary on the abilities/competencies of Principals-Teachers of Physical Education on every factor of administrative competency (Competency Principal Factors) that contributes on the efficient school administration based on age, experience, and specialty of the teachers

Material and method

The questionnaires were distributed mainly through the personal contact of the researcher with the teachers within the school premises. The filling out of the questionnaire by the teachers-sample was done anonymously at the Teachers’ lounge during school breaks. Sample consisted by 992 teachers of all specialties of school units of the Secondary Education and Regional Administration of Elementary and Secondary Education of Central Macedonia, having as a Principal a Teacher of Physical Education. Five hundred and eighty 580 questionnaires were filled out. Following are the profiles of the participants.

Table 1. Sex, age, specialty, total work experience, level of education and area of the participants.

Age	N	%
Below 29 years of age	19	3,3
30-39 years of age	156	27
40-49 years of age	281	48,6
50-59 years of age	122	21,1
Specialty	N	%
Philologists	106	18,4
Mathematicians	88	15,3
Physical Science	94	16,3
Foreign Languages	76	13,1
Physical Education	78	13,5
Other Specialties (Secondary Education)	135	23,4
Total work experience	N	%
0- 4 years	52	9
5-9 years	168	29
10-14 years	158	27,3
15-19 years	104	18
20 and above years	97	16,8

Experimental Tool. The Questionnaire Principal Instructional Management Rating Scale –PIMRS (Hallinger, 1982, 1983, 1990, 2013) was selected for the purposes of the present study. Many researchers

studying school leadership consider scale PIMRS as the most appropriate tool for the measurement of the efficiency of school administration based on the perceptions of teachers (Hallinger, 2008). Initially the scale consisted of 11 factors (subscales) and 72 questions. Following its review it was limited to 10 factors (subscales) and 50 questions (Hallinger, 1983). The initial study for the ratification of PIMRS showed high validity standards (Hallinger, 1983) with an internal consistency indicator above .800 at alpha Cronbah. Since then various studies have supported the initial study for the ratification of the scale (O'Day, 1983; Taraseina, 1993). For the needs of the present study the questionnaire was partially reformed in order to correspond more efficiently. The adaptation of the tool in the Greek language was done through the process of double translation. Its translation in Greek was done with the assistance of two bilingual experienced translators followed by the process of the reverse translation. In an effort for a better adaptation in Greek the 8 factors (subscales) and the 44 questions were maintained. Validity analysis (alpha Cronpach) presented satisfactory results. The internal coherence of factors (subscales) was high (.740 - .900), confirming in this way the developers of the questionnaire. More specifically, Phillip Hallinger, Wen-Chung Wang and Chia-Wen Chen, (2013) by insisting on construct validity with no factorial analysis, present a meta analysis of validity results coming from 52 data totals, from 43 independent empirical studies (mainly doctoral thesis) where PIMRS questionnaire was used.

Competency Principal Factors	Cronbach's Alpha
Instructional mission and goal setting	.778
Instruction	.740
Student Progress	.832
Professional development	.900
Professional accountability	.830
School Climate	.842
Parent involvement	.794
	.873

For the statistical processing of data the statistical package SPSS 16.0 was used. Due to the interval scale used which allows the use of parametric methods mostly means, typical deviations and frequencies were used. One-way ANOVA was used to reject or accept zero hypothesis (Ho) that "the perceptions of teachers on the level of Administration Competency that accept the fact that the Principal is actually competent, do not vary according to age, experience, specialty of the teacher ($\mu_1=\mu_2=\mu_3=, \dots, =\mu_v=0$).

Results

Table 1. Variation of the perceptions of teachers on Competency Principal Factors for efficient administration of school units by Principals-Teachers of Physical Education depending on the age of teachers.

Competency Principal Factors	>29 yrs (N=19) Mean (SD)	30-39 yrs (N=156) Mean (SD)	40-49 yrs (N=281) Mean (SD)	50-59 yrs (N=121) Mean (SD)	Significance of difference
Determination & Diffusion of educational goals (EDUCATIONAL MISSION & GOAL)	3,52(.660)	3,57 (.821)	3,47(.884)	3,33 (1.009)	$F(3,573)=1.646$ $p=.178, p > 0,05$
Observation & improvement of teaching process (SCHOOL CURRICULUM)	3,49(.704)	3,61(.967)	3,48(.998)	3,30 (1.076)	$F(3,573)=2.110$ $p=.098, p > 0,05$
Maintaining of the role of Teacher-Leader-Mentor (EDUCATIONAL TRAINING OF THE PRINCIPAL)	3,75(.506)	3,78*(.868)	3,59(1.014)	3,47* (.997)	$F(3,572)=3.630$ $p=.013, p < 0,05$
Observation of the progress and assessment of students (STUDENT'S PROGRESS)	3,60(.664)	3,65 (.902)	3,53(.945)	3,37 (1.058)	$F(3,573)=2.032$ $p=.018, p > 0,05$
Promotion of the professional development of teachers (PROFESSIONAL GROWTH OF TEACHERS)	3,87(.534)	3,66 (.957)	3,52(1.019)	3,40 (1.248)	$F(3,573)=2.055$ $p=.105, p > 0,05$
Sense of duty & ability to exercise duty (PROFESSIONAL CREDIBILITY/ACCOUNTABILITY)	4,01(.487)	3,77 (.782)	3,67 (.876)	3,69 (.993)	$F(3,571)=1.245$ $p=.293, p > 0,05$
Creation-Maintenance of a positive climate (SCHOOL CLIMATE)	3,95(.728)	4,05 (.761)	4,10 (.765)	3,98 (.885)	$F(3,572)=.894$ $p=.444, p > 0,05$
Parents' Involvement in learning process (PARENTS' INVOLVEMENT)	3,77(.647)	3,66 (.779)	3,68 (.899)	3,69(1.045)	$F(3,569)=.087$ $p=.967, p > 0,05$

Turkey analysis presented that differences in these perceptions are statistically significant among teachers aged 30-39 and 50-59 years of age. More specifically it is found that teachers of 30-39 years of age believe that their Principals own and exhibit the abilities/competencies of the maintenance of the role of teacher-leader-mentor (EDUCATIONAL TRAINING OF A PRINCIPAL) and of the observation of the student's progress and assessment (STUDENTS' PROGRESS) at a greater level, contrary to teachers aged 50-59 years of age who consider that their Principals own and exhibit during their administration, the abilities/competencies of this factor at a medium level.

Table 2. Variation of the perceptions of teachers on Competency Principal Factors for the efficient Administration of school units by Principals-Teachers of Physical Education depending on the experience of teachers.

Competency Principal Factors	0-4 yrs (N=52) Mean (SD)	5-9 yrs (N=168) Mean (SD)	10-14 yrs (N=158) Mean (SD)	15-19 yrs (N=104) Mean (SD)	>20 yrs (N=96) Mean (SD)	Significance of difference
Determination & Diffusion of educational goals (EDUCATIONAL MISSION & GOAL)	3,57 (.704)	3,66* (.844)	3,52* (.847)	3,32* (.894)	3,44(1.072)	F(4,573)=3.503 p=.008, p < 0,05
Observation & improvement of teaching process (SCHOOL CURRICULUM)	3,41 (.936)	3,71* (.926)	3,30* (.914)	3,42 (1.085)	3,45(1.145)	F(4,573)=3.722 p=.005, p < 0,05
Maintaining of the role of Teacher-Leader-Mentor (EDUCATIONAL TRAINING OF THE PRINCIPAL)	3,74 (.613)	3,98* (.917)	3,44* (.867)	3,47* (1.024)	3,28*(1.596)	F(4,572)=10.224 p=.000, p < 0,05
Observation of the progress and assessment of students (STUDENT'S PROGRESS)	3,74 (.639)	3,77* (.848)	3,38* (.882)	3,33* (1.113)	3,43 (1.110)	F(4,573)=5.858 p=.000, p < 0,05
Promotion of the professional development of teachers (PROFESSIONAL GROWTH OF TEACHERS)	3,86 (.857)	3,64* (.956)	3,39* (.963)	3,45 (1.177)	3,56 (1.227)	F(4,573)=2.667 p=.032, p < 0,05
Sense of duty & ability to exercise duty (PROFESSIONAL CREDIBILITY/ACCOUNTABILITY)	3,81 (.624)	3,75 (.790)	3,73 (.768)	3,64 (.994)	3,60 (1.107)	F(4,571)=.837 p=.502, p > 0,05
Creation-Maintenance of a positive climate (SCHOOL CLIMATE)	4,16 (.708)	3,99 (.779)	4,13 (.663)	4,01 (.811)	4,05 (.987)	F(4,572)=1.043 p=.384, p > 0,05
Parents' Involvement in learning process (PARENTS' INVOLVEMENT)	3,93 (.791)	3,76 (.708)	3,60 (.791)	3,59 (1.081)	3,61 (1.128)	F(4,569)=2.011 p=.092, p > 0,05

Statistically significant differences in the perceptions of teachers depending on their years of experience were found regarding the level of application of abilities/ competencies by their Principals on the following factors: 1) EDUCATIONAL MISSION & GOAL: statistically significant differences were found among the perceptions of teachers with 5 to 9 years of experience, who perceive at a greater level the exhibition of their Principal's abilities/ competencies on the specific factor and a) those who have 10-14 years of experience and b) those who have 15-19 years of total experience who perceive at a medium level the exhibition of their Principal's abilities/ competencies on the specific factor. 2) SCHOOL CURRICULUM & PROFESSIONAL DEVELOPMENT OF TEACHERS: statistically significant differences were found among the perceptions of teachers with working experience among 5 and 9 years, who perceive at a greater level the exhibition of their Principals' abilities/competencies on the specific factor and those with working experience of 10 to 14 years who present a medium level perception of the exhibition of their Principals' abilities/competencies on the specific factor 3) EDUCATIONAL TRAINING OF THE PRINCIPAL & STUDENT'S PROGRESS: Significant statistically differences were found in the perceptions of teachers with teaching experience from 5 to 9 years who perceive their principals' exhibition of abilities/competencies at a greater level than those of the three other groups of experience (10-14, 15-19, 20 and more), who perceive that their Principals exhibit their competencies/abilities at a medium level.

Table 3. Variations on the perceptions of teachers on Competency Principal Factors for an effective administration of school units by Principals/ Teachers of Physical Education according to the specialty of teachers

Competency Principal Factors	ΠΕ 02 (N=106) Mean(SD)	ΠΕ 04 (N=94) Mean (SD)	ΠΕ 03 (N=88) Mean (SD)	ΠΕ05- 06-07 (N=75) Mean (SD)	ΠΕ08- 16-11 (N=78) Mean (SD)	Λοιπές (N=135) Mean (SD)	Significance of difference
Determination & Diffusion of educational goals (EDUCATIONAL MISSION & GOAL)	3,49 (.955)	3,58 (.861)	3,60 (.825)	3,26 (.948)	3,51 (.830)	3,39 (.884)	F _(5,570) =1.765 p=.118, p > 0,05
Observation & improvement of teaching process (SCHOOL CURRICULUM)	3,46 (1.008)	3,60 (.994)	3,54 (.982)	3,32 (1.079)	3,55 (1.054)	3,40 (.933)	F _(5,570) =1.008 p=.412, p >

Maintaining of the role of Teacher-Leader-Mentor (EDUCATIONAL TRAINING OF THE PRINCIPAL)	3,52 (.975)	3,74 (.972)	3,70 (.959)	3,42 (1.139)	3,70 (.790)	3,57 (.977)	0,05 F _(5,569) = 1.423 p= .214, p>0,05
Observation of the progress and assessment of students (STUDENT'S PROGRESS)	3,51 (1.011)	3,61 (.880)	3,51 (.867)	3,36 (1.085)	3,64 (.904)	3,52 (.962)	F _(5,570) = .879 p= .495, p>0,05
Promotion of the professional development of teachers (PROFESSIONAL GROWTH OF TEACHERS)	3,54 (1.118)	3,59 (1.014)	3,56 (.941)	3,41 (1.050)	3,67 (1.041)	3,50 (1.086)	F _(5,570) = .581 p= .714, p>0,05
Sense of duty & ability to exercise duty (PROFESSIONAL CREDIBILITY/ACCOUNTABILITY)	3,67 (.934)	3,77 (.820)	3,73 (.803)	3,57 (.913)	3,87 (.833)	3,66 (.880)	F _(5,568) =1.117 p= .350, p > 0,05
Creation-Maintenance of a positive climate (SCHOOL CLIMATE)	4,01 (.853)	3,99 (.803)	4,07 (.709)	4,00 (.857)	4,29 (.644)	4,03 (.804)	F _(5,569) = 1.621 p= .152, p > 0,05
Parents' Involvement in learning process (PARENTS' INVOLVEMENT)	3,73 (.940)	3,65 (.843)	3,83 (.779)	3,47 * (.968)	3,86 (.846)	3,58 (.918)	F _(5,566) = 2.429 p= .034, p < 0,05

The above table shows no variations of the teachers' perceptions on seven (7) out of the eight (8) Competency Principal Factors for an effective administration of school units by Principals-Teachers of Physical Education according to the specialty of teachers. On the contrary, statistically important differences were found in teachers of Foreign Languages (IIE 05-06-07) who tend to believe that their Principals own and exhibit during their administration the abilities/competencies (Parents' involvement in learning process) of the specific factor at a medium level, while teachers of all other specialties consider that their Principals own and exhibit abilities/competencies of this factor at a great level. Nevertheless it should be mentioned that these differences in perceptions among Foreign Language teachers (IIE 05-06-07) and the rest of the teachers (of other specialties) were not statistically important based on the Turkey check.

Discussion-conclusions

It was found that teachers of various specialties perceive on the same level the exhibition of abilities/competencies by their Principals/Teachers of Physical Education on all factors. This finding confirms that Educational Leadership is not an issue of some teachers who carry specific characteristics but regards all teachers who work within Secondary Education. Teachers of various ages show different perceptions. An older teacher (50-59 years of age) enters the stage of "adjustment" during which he/she has expanded his/her teaching practices, his/her teaching repertoire and has enriched his/her teaching activity with qualitative elements. Therefore, the need for guidance by the Principal is not much and this is the reason why the teacher does not perceive at a great level the Principal's educational training. Teachers with the smallest amount of teaching experience feel a greater need for mentoring, observation and assessment of students and for professional growth since they try to enter the educational system and the process of teaching-learning as smoothly as they can. Therefore, they expect their principal to help them. On the contrary, teachers with greater experience enter the stage of "growing" and have already created their professional self-sufficiency.

The present study shows a number of limitations and therefore the generalization of its findings is also rather limited. Its biggest limitation is that its findings cannot be compared to those of other similar studies. The fact that there were no similar studies dealing with the Teacher of Physical Education as an efficient school Principal is probably due to the unified character of the scientific area of "Educational Leadership" and "School Efficiency" which are not approached according to the teachers' specialties. Another limitation may be the fact that the present study's findings cannot be generalized on the total of Principals-Teachers of Physical Education, since it was not limited only to Secondary education schools. Naturally the findings of the present study cannot be generalized on all principals regardless of their specialty in secondary education, since although its subject may regard Educational leadership, its research design is not.

The study did not take under consideration the views and perceptions of all agents of educational process (e.g. students-parents) for the efficient administration exercised by the Teacher of Physical Education acting as the school's principal as well as the views and perceptions of higher ranking officials (e.g. School Consultants-Directors of Education). The study located the views and perceptions of teachers at a specific time during which data collection took place. These views-perceptions of the teachers may have been different at a different time.

The present study detected on the way age, experience, teacher's specialty, affect the teacher's perception on each factor of Competency Principal Factors of an efficient school administration. The findings offer the Principal-Teacher of Physical Education an important advantage on focusing each time on various abilities/competencies for an efficient administration in order to be considered by teachers as an efficient school Principal.

Finally, it should be mentioned that the present study would have been more complete if it had search more aspects of an effective school leadership exercised by Teachers of Physical Education and the views of students and their parents on the effective leadership. The detection of perceptions of parents and students on an

effective leadership by a Principal/ Teacher of Physical Education could become a future research subject. Future studies could search on the perceptions of higher ranking officials in education (e.g. Directors of Education-School Consultants on Physical Education) for school efficiency and leadership quality in Greek schools.

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