

Variation of perceptions of teachers on administrative ability of the Principal-Teacher of Physical Education according to their demographic characteristics

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Abstract

The aim of the present study is to examine how sex, the area of the school and school's level 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 and the t-test 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 level of the school (High School-Lyceum) varies the perceptions of teachers on six (6) out of the eight (8) Competency Principal Factors. On less Competency Principal Factors the teachers' perceptions differentiate according to the area of the school (urban-suburban-rural), which differentiates three (3) out of the eight (8) Competency Principal Factors. On the contrary, no differentiation in the teachers' perceptions is found according to sex 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 on whether they serve at a high school or a lyceum and less intensively on the area of the school while no affect was found based on their sex.

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 sex, school area and school level where the teacher serves.

Methodology

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.

Sex	N	%
Men	248	43
Women	332	57
Total	580	100
Level of Education	N	%
High School	459	79,1
Lyceum	121	20,9
Area	N	%
Rural	255	44
Semi Urban	68	11,7
Urban	257	44,3

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.

Table 2.

Competency Principal Factors	Cronbach's Alpha
<i>Instructional mission and goal setting</i>	.778
<i>Curriculum</i>	.740
<i>Instruction</i>	.832
<i>Student Progress</i>	.900
<i>Professional development</i>	.830
<i>Professional accountability</i>	.842
<i>School Climate</i>	.794
<i>Parent involvement</i>	.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 the area of the school” ($\mu_1=\mu_2=\mu_3=,\dots,=\mu_v=0$).

In order to reject or accept the 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 sex (men-women) and the level of school (High School-Lyceum), the independent t-test was used for variances among means in independent samples. ($\mu_{\sigma\eta\mu\alpha\nu} = \mu_{\epsilon\phi\alpha\rho}, p<0,05$).

Results

Variance of the perceptions of teachers in Competency Principal Factors for an efficient administration of school units of Principals-Teachers of Physical Education according to the sex of teachers.

Table 3. Competency Principal Factors according to the sex of teachers.

Competency Principal Factors	MEN (N=248) Mean (SD)	WOMEN (N=331) Mean (SD)	Significance of difference
Determination & Diffusion of educational goals (EDUCATIONAL MISSION & GOAL)	3,48 (.892)	3,47 (.895)	$t_{(577)} .162, p=$.871
Observation & improvement of teaching process (SCHOOL CURRICULUM)	3,55 (1.023)	3,43 (.986)	$t_{(577)} .1455, p=$.146
Maintaining of the role of Teacher-Leader-Mentor (EDUCATIONAL TRAINING OF THE PRINCIPAL)	3,65 (1.014)	3,56 (.955)	$t_{(576)} .1023, p=$.307
Observation of the progress and assessment of students (STUDENT'S PROGRESS)	3,52 (.956)	3,53 (.960)	$t_{(577)} .162, p=$.871
Promotion of the professional development of teachers (PROFESSIONAL GROWTH OF TEACHERS)	3,52 (1.023)	3,55 (1.067)	$t_{(577)} -.353, p=$.724
Sense of duty & ability to exercise duty (PROFESSIONAL CREDIBILITY/ACCOUNTABILITY)	3,73 (.887)	3,69 (.857)	$t_{(579)} .603, p=$.546
Creation-Maintenance of a positive climate (SCHOOL CLIMATE)	4,08 (.766)	4,04 (.806)	$t_{(576)} .539, p=$.590
Parents' Involvement in learning process (PARENTS' INVOLVEMENT)	3,70 (.908)	3,67 (.887)	$t_{(573)} .243, p=$.808

Regarding the sex of teachers none of the Competency Principal's Factors vary. Men and women teachers serving at schools where the Principal is a teacher of Physical Education perceive their Principal as one exhibiting the same abilities/ competencies in all Competency Principal Factors.

Table 4. Variation of perceptions of teachers on Competency Principal Factors depending on school level.

Competency Principal Factors	URBAN (N=256) Mean (SD)	SUBUR BAN (N=68) Mean (SD)	RURAL (N=255) Mean (SD)	Significance of difference
	Determination & Diffusion of educational goals (EDUCATIONAL MISSION & GOAL)	3,58* (.885)	3,43 (.802)	
Observation & improvement of teaching process (SCHOOL CURRICULUM)	3,63* (.926)	3,42 (1.083)	3,34* (1.036)	F(2,576)=5.656 p= .004, p < 0,05
Maintaining of the role of Teacher-Leader-Mentor (EDUCATIONAL TRAINING OF THE PRINCIPAL)	3,66 (.981)	3,53 (1.005)	3,57 (1.003)	F(2,575)=.846 p= .430, p > 0,05
Observation of the progress and assessment of students (STUDENT'S PROGRESS)	3,55 (.939)	3,63 (.971)	3,46 (.971)	F(2,576)=.937 p= .361, p > 0,05
Promotion of the professional development of teachers (PROFESSIONAL GROWTH OF TEACHERS)	3,60 (1.046)	3,66 (.995)	3,45 (1.059)	F(2,576)=1.807 p= .165, p > 0,05
Sense of duty & ability to exercise duty (PROFESSIONAL CREDIBILITY/ACCOUNTABILITY)	3,79* (.835)	3,79 (.873)	3,60* (.895)	F(2,574)=3.190 p= .042, p < 0,05
Creation-Maintenance of a positive climate (SCHOOL CLIMATE)	4,13 (.729)	4,07 (.841)	3,99 (.829)	F(2,575)=2.076 p= .126, p > 0,05
Parents' Involvement in learning process (PARENTS' INVOLVEMENT)	3,77 (.875)	3,54 (.931)	3,63 (.900)	F(2,572)=2.669 p= .070, p > 0,05

Significant statistical differences are found in the perceptions of teachers depending on the level of school they serve at, at 6 out of the 8 Competency Principal Factors. No variations are found in teachers' perceptions for the factors Observation of student progress & assessment (STUDENTS' PROGRESS) and Creation-maintenance of a positive climate (SCHOOL CLIMATE). Teachers serving at schools where the Principal is a Teacher of Physical Education perceive their Principal as one exhibiting the same abilities/ competencies in all Competency Principal Factors.

Table 5. Variations on the perceptions of teachers on the Competency Principal Factors for an effective Administration of school units by Principals-Teachers of Physical Education, according to the area of school

Competency Principal Factors	HIGH SCHOOL (N= 459) Mean (SD)	LYCEYM (N=120) Mean (SD)	Significance of difference
Determination & Diffusion of educational goals (EDUCATIONAL MISSION & GOAL)	3,41 (.877)	3,70 (.925)	t(577) -3.085, p= .002
Observation & improvement of teaching process (SCHOOL CURRICULUM)	3,41 (1.019)	3,73 (.906)	t(577) -3,111, p= .002
Maintaining of the role of Teacher-Leader-Mentor (EDUCATIONAL TRAINING OF THE PRINCIPAL)	3,54 (.991)	3,85 (.908)	t(576) -3,072, p= .002
Observation of the progress and assessment of students (STUDENT'S PROGRESS)	3,50 (.974)	3,64 (.889)	t(577) -1,428 , p= .154
Promotion of the professional development of teachers (PROFESSIONAL GROWTH OF TEACHERS)	3,48 (1.055)	3,81 (.974)	t(577) -.3,145, p= .002
Sense of duty & ability to exercise duty (PROFESSIONAL CREDIBILITY/ACCOUNTABILITY)	3,85 (.878)	3,91 (.809)	t(575) -2,937, p= .003
Creation-Maintenance of a positive climate (SCHOOL CLIMATE)	4,04 (.785)	4,12 (.803)	t(576) -,991, p= .322
Parents' Involvement in learning process (PARENTS' INVOLVEMENT)	3,61 (.893)	3,95 (.858)	t(573) -.3,681, p= .000

Statistically important differences in the perceptions of teachers depending on the area where their school is situated in 3 out of the 8 factors of Competency Principal Factors. Specifically at the factor "EDUCATIONAL MISSION & GOAL" statistically important differences were found on the perceptions among teachers who work in schools of urban areas and who consider that the level of application of abilities/competencies and goal diffusion by their principals is greater compared to the principals of schools situated in rural areas. On the factor "SCHOOL CURRICULUM" statistically important differences were found among the perceptions of teachers working in urban areas, who consider that their principals apply abilities/competencies of observation and improvement of learning at a greater level than those working at rural areas who consider that their principals

apply abilities/competencies at a medium level. On the factor “PROFESSIONAL CREDIBILITY/ACCOUNTABILITY OF PRINCIPAL” statistically important differences were found on the perceptions among teachers who work in urban areas, who consider that their principals exhibit abilities/competencies on the sense of duty at a greater level than the perceptions of teachers working at rural areas.

Discussion-Conclusions

The results show that some demographic characteristics of teachers differentiate their perceptions of the level they consider their Principal/ Teacher of Physical Education owns and exhibits during school administration on each one of the Competency Principal Factors while some do not differentiate any of those factors that assist an effective school administration.

More specifically it was found that men and women teachers perceive the exhibition of abilities/competencies of their principals at the same level on all factors. Teachers in High Schools and Lyceums perceive their principal as someone who acts in order to ensure a pleasant and smooth climate within the school, since the factor “SCHOOL CLIMATE” presents high points. Teachers in both levels do not perceive their principal as someone who acts towards an assessment system for the student’s progress, since the factor “STUDENT’S PROGRESS” presents lower points in both school levels. It is confirmed that such a behavior is adopted by principals-teachers of physical education in both high-schools and lyceums.

Teachers in schools of urban areas consider that the level of application of abilities/competencies of the factors “EDUCATIONAL MISSION & GOALS”, “SCHOOL CURRICULUM” and “PROFESSIONAL CREDIBILITY/ACCOUNTABILITY” is greater than those in rural areas. A possible explanation could be the fact that at schools situated in urban areas the pressure for academic results of principals and teachers is greater than the one exercised on schools situated in rural areas. This is also confirmed by studies that located that the contacts of parents with the school are increased when parents come from middle or privileged social and cultural backgrounds, since principle’s cod and interest on the institution of school is more common to those adopted by the school itself.

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 sex, area of school and school level, 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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