GREEK TEACHER'S PERCEPTIONS ABOUT "EFFICIENT" AND "NON-EFFICIENT" STUDENTS DEVELOPMENT OF AN ATTRIBUTION QUESTIONNAIRE FOR TEACHERS IN THE NORTH AEGEAN REGION

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Abstract

This research is an attempt in investigating the attributions of teachers about cognitive, learning and psychological characteristics of "good" and "bad" students. A written questionnaire consisting of 35 items, which described potential student behaviour, was filled by 377 Primary, Secondary and University teachers from the North Aegean region. From the factor analysis we can observe five factors characterised "good" students: 1) Parent involvement and behaviour (11 items-16,5% of the variance), 2)Interpersonal adjustment (9 items-10,3% of the variance), 3) Intrapersonal adjustment (6 items-7,8% of the variance), 4) Independence (6 items-5,8% of the variance), 5) Classroom behaviour (3 items-4,6% of the variance). Furthermore we can observe five factors characterised "bad" students: 1) Parent involvement and school achievement (11 items-17,3% of the variance), 2)Learning behaviour (6 items-8,7% of the variance), 3) Negative behaviour (6 items-6,2% of the variance), 4) Team working (8 items-5,4% of the variance) and 5) Behaviour towards teacher (3 items-4,1% of the variance). Significant differences in teachers' perceptions were found with the respect to teachers' gender, age and years of service as well as regarding several questionnaire dimensions.

Keywords: teachers' perception, students' achievement, primary, secondary and tertiary education

Introduction

In recent years in Greece, significant attempts have been made towards the improvement and modernization of the Greek educational system by means of new curricula, new textbooks, creation of new supporting material, educational software and finally training seminars for teachers (Governmental Paper, 2001; 2003). These educational changes focus on the promotion of equal opportunities for people of both sexes, for group of people with special needs and for minority groups with their own ethnic, cultural and language characteristics. Within this framework school education also should promote student-centred and creative learning, involving all participants in the learning process. Thus adopting, new educational practices that promote the critical thinking, collaborative skills and creative activity constitutes a social demand of our times.

Despite all these efforts, however, the improvement of students' achievements and the creation of an accomplished personality have barely taken place (PISA, 2003; Klonari, 2004; Klonari & Karanikas, 2004), because, even today, the principles of traditional teaching practices that promote mainly the cognitive development of students and a rather passive attitude towards learning, seems to be the teachers' priority. All the above profoundly influence teacher's perceptions about school behaviour and students achievement. It's also well known from the literature in general (Lumpe et al., 2000; Bibou-Nakou et al., 2000) that the role of teachers, how they are thinking about education and the attitudes they adapt towards the subject matter of their teaching, is very important because it has a strong relationship to effective teaching and students learning in schools. In line with this, many studies of

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educational processes examine teacher thinking as a significant antecedent to teacher practice (Yero, 2002).

Furthermore research studies have also examined the relation between the beliefs that teachers have about students and their casual attributions for students' performance (Ho, *et all*. 1999; Feather, 1994). According to Miller (1995), attribution is the explanation and evaluation of behaviour of others and our own. Heider (1958), who is considered by many to be the father of attribution theory, suggested that people are not content simply to observe events around them, but strive to understand their causes as well. In his earlier writings, he maintained that actions are usually attributed to stable and enduring factors, such as the actor's personality characteristics, rather than transitory or variable factors as moods. Another leading person in this area Weiner (1985; 1994; 2000), proposed a three dimensional taxonomy of attribution. According to this taxonomy, an attribution can be internal or external in terms of its *locus*, stable or unstable in terms of its *stability* over time, and controllable or uncontrollable by the acting individual (*controllability*). In the context of education, effort and ability are two major internal sources of attribution; the first is controllable but unstable, while the second is stable but uncontrollable. The Weiner's theory maintains that people spontaneously find explanations for failure, and also to a lesser extent for success, which affect their subsequent behaviour. Previous research also suggested that student achievement is associated with a number of school characteristics. The five most commonly mentioned characteristics are: an emphasis on teaching basic skills, high expectations for student achievement, frequent evaluation of student progress, a safe and orderly school climate, and educational leadership (Reynolds, et al.,, 1996). Also it can be assumed that teachers frequently make attributions about students' success or failure in order to adjust teaching goals and strategies (Graham, 1991; Georgiou, *et all.,* 2002; Ho, *et all.,* 1999).

Finally other studies have shown that such attribution have significant implications for teachers' perception of their own responsibility for students performance as well as their subsequently behaviour towards the students (Mavropoulou, Padeliadu, 2002; Poulou, Norwich, 2000; Tollefson, 2000). Research has shown that teachers' expectations for students tend to be self-fulfilling. Therefore, Brophy J. (1986) advises teachers to "routinely" project attitudes, beliefs, expectations, and attributions. It is known that lower-achieving students, being labelled as failures, have impact not just on current feelings about their ability to learn, but lower further their already low self-esteem and reduce the chance of future effort and success. Poor performance in school is often attributed to low ability. Therefore, poorly performing students often come to believe that no matter how much effort they put forth, it will not be reflected in improved performance. In this context, the focal point of this study is the examination teachers' attributions about students' achievement. The current literature on attribution theory provides adequate evidence to suggest that teachers' causal attributions of their students' successes and failures are very important, since they influence students' own attributions through teacher behaviour (Fennema et al, 1990).

Furthermore major development to arise out of attributional research is the notion that causal factors and their underlying structures are perceived by individuals differently under differencing contexts. As a result, investigators looking at causal factors for success and failure in new domains or contexts are encouraged to develop new attribution measurement instruments instead of relying upon instruments valid under different conditions.

The aim

The aim of this research was the development of a questionnaire about teachers' perceptions on students' characteristics that contribute to the classification of students as "good" and "bad". Also this study aimed to explore the attributions of teachers about cognitive, learning and psychosocial characteristics of good and bad students.

The initial hypotheses involved factors such as parent involvement, interpersonal and intrapersonal behaviour, school achievement, organizational abilities. The second hypotheses referred in the perceptions of teachers according to their gender. The third hypotheses involved teacher's experience as counted by years of educational service.

Method

Sample

In the present study, which is part of an extended research program, 377 [177 (46,9%) male and 200 (53,1%) female] teachers participated from Primary and Secondary schools from the North Aegean region and a few number of teachers from the University of the Aegean. In terms of teaching experience they can be differentiated into four groups: a) 77 (20,4%), teachers without teaching experience b) 128 (34,1%) teachers with low experience (1 -11 years), c) 102 (27,2%) teachers with average experience (12 – 23 years) and d) 68 (18,1%) teachers with high experience (24 – 35 years). The first group included participants age between 21-25 years old, the second group teachers 26-41 years old, the third teachers between 42-50 years old and forth over 50 years old.

Since the informants of this study were teachers and no students, additional demographics, such as socioeconomic status are not needed. All the teachers in Greek public schools enjoy the same social status. Their salary is also more or less the same since it depends mainly on their years of experience in the service. In general the population of Greek teachers is quite homogeneous and only variables such as gender and age can be possibly produce dispersion of scores regarding their perceptions and attitudes.

The teaching staff was randomly selected from a list of 600 schools and University Departments in the North Aegean region.

Procedures

Schools of an educational district in northern Aegean Region in Greece were included in this study's sample. 600 anonymous questionnaires were given to the teachers, who taught in Primary and Secondary Schools during the 2005-2006 school year. To this end students from Social School of the University of the Aegean were asked to carry the questionnaire personally, to explain the purpose of this study and invite teachers to participate. The participants were asked to fill in the questionnaire and to give back to the students in fifteen days. In spite researchers efforts only 377 questionnaires were returned.

The questionnaire consisting of 35 items, which described potential student behaviour. Teachers had to assign those behaviours to either bad or good students, according to their perceptions or experience.

Measures-Instruments

The improvised questionnaire, designed for the purpose of this study, was based on the relative international literature, School Social Behavior Scale (SSBS) (Merrell, 1993) and it was adjusted to the special characteristics of the sample of teachers. The questionnaire consists of two subscales: One for the characteristics of "good" students and one for "bad" students. Any of subscale has 35 questions. The two subscales consists of the following conceptual units: a) *Parent Involvement*, b) perceptions about children's adjustment *(intrapersonal and interpersonal)*, c) perceptions about student' s behaviour (towards teachers, peers) and d) general attitudes towards learning. The questionnaire includes also demographic questions. The first and the last unit is composed of open and closed questions, which are not presented in the particular study for reasons of brevity. The rest units consist of closed questions with a 5-point Likert- type scale and the participants were asked to indicate how much each item characterizes the "good" or "bad" students' behaviour. The scale had five points as follows: 4= always, 3= many times, 2= sometimes, 1= seldom, 0= not at all.

Results

Factor analyses were performed separately for good and bad students through exploratory factor analytic models. The 35 variables of subscale of "good" students were factor analyzed for the pooled dataset through exploratory factor analytic models, by employing the Principal Components method for factor extraction and by rotating the factors orthogonally. The solution resulted to five factors for good students accounting for 45.2% of the total variance.

The factors that emerged were rather salient: 1) *Parent Involvement and behaviour* (11 items) – accounting for 16.5% of the variance. The factor includes questions like: "His /her parents usually visit the school, in order to meet the educators" and "His /her parents need to know his fiends out of school", 2) *Interpersonal adjustment* (9 items) – 10.3% of the variance. The factor includes questions like: "He /she usually helps other pupils, when needed" and "He /she easily makes the other children to like him", 3) *Intrapersonal adjustment* (6 items) – 7.8% of the variance. The factor includes questions like: "He /she feels loneliness at school" and "He/she usually nags and complains", 4) *Independence* (6 items) – 5.8% of the variance. The factor includes questions like: "He /she is assertive, when needed" and "His /her parents usually help him /her with his homework" (negative loading), 5) *Classroom behaviour* (3 items) – 4.6% of the variance. The factor includes questions like: "He /she usually annoys his /her schoolmates" and "He /she usually asks clarification of the educator's directives in suitable way" (negative loading). For these five factors we computed composite indices to be used further on in the analysis.

Also, we factor analyze the 35 variables of subscale of "bad" students for the pooled dataset through exploratory factor analytic models, by employing the Principal Components method for factor extraction and by rotating the factors orthogonally. The solution resulted to five factors for bad students accounting for 41.8% of the total variance. The factors that emerged were rather salient: 1) *Parent Involvement and school achievement* (11 items) – accounting for 17.3% of the variance. The factor includes questions like: "His/her parents seem to be very satisfied when he /she takes good marks" and "His /her parents consider that the school record of their child, is very important for' them", 2) *Learning behaviour* (7 items) – 8.7% of the variance. The factor includes questions like: "He /she does his/her homework in time" and "He /she does his/her homework completely alone", 3) *Negative behaviour* (6 items) – 6.2% of the variance. The factor includes questions like: "He /she is impulsive" and "He /she usually annoys his /her schoolmates", 4) *Team working* (8 items) – 5.4% of the variance. The factor includes questions like: "He /she effectively participates in school activities" and "He /she is a leader" and 5) *Behaviour towards teacher* (3 items) – 4.1% of the variance The factor includes questions like: "He /she seeks for the educator's attention" and "He /she is assertive, when needed". For these five factors we computed composite indices to be used further on the analysis.

According to table 1 parents of high achievers involve to school activities in a moderate way. Parent involvement has correlation with behaviour of students with high achievement. Also, high achievers have a moderate interpersonal adjustment, they are independent (factor items have negative loading) and they have an adequate classroom behaviour (factor items have a negative meaning).

Table 1: Means, Std. Deviation and Percentiles of behaviour structure of "good" students

		Parent Involvement and behaviour	Interpersonal adjustment	Intrapersonal adjustment	Independence	Classroom behaviour
Mean		2,7198	2,5013	2,0323	1,9074	1,7356
Std. Deviation		,37502	,48249	,52598	,40869	,44158
Percentiles	10	2,2727	1,8889	1,3333	1,3333	1,3333
	25	2,5455	2,2222	1,6667	1,6667	1,3333
	50	2,7273	2,5556	2,0000	1,8333	1,6667
	75	3,0000	2,7778	2,3333	2,1667	2,0000

According to table 2 parents of low achievers involve to school activities sometimes. Also, low achievers have not the appropriate learning behaviour and they have sometimes negative behaviour in classroom. Also, they have difficulties to cooperate within a team and they have not the appropriate behaviour towards teachers.

Table 2: Means, Std. Deviation and Percentiles of behaviour structure of "bad" students

		Parent Involvement and school achievement	Learning behaviour	Negative behaviour	Team working	Behaviour towards teacher
Mean		2,0557	1,6665	2,3205	1,7480	1,6737
Std. Deviation		,53495	,38025	,62140	,43214	,62546
Percentiles	10	1,2727	1,1429	1,5000	1,2500	,6667
	25	1,7273	1,4286	2,0000	1,5000	1,3333
	50	2,0909	1,5714	2,3333	1,7500	1,6667
	75	2,4545	2,0000	2,6667	2,0000	2,0000

In regard to the gender differences for "good" students, the analysis of variance designs resulted to significant differences for three factor indices: α) *Parent Involvement and behaviour* was differently *evaluated* by man and woman in the teacher sample (MoM[1]=2,65 S.D.=0,40, MoW[2]=2,78 S.D.=0,33, t (375) = -3.39, p<.001), b) *Interpersonal adjustment* (MoM=2,39 , S.D.=0,48, MoW=2,59 S.D.=0,45, t (375) = -4.13, p<.001) and c) *Classroom behaviour* (MoM=1,67 S.D.=0,43, MoW=1,78 S.D.=0,44, t (375) = -2.40, p<.005) (Figure 1). Women believe with significant difference from men that a) parents of high achievers participate in education and go often to the schools, b) students with high achievement have interpersonal adjustment and c) they have appropriate classroom behaviour.

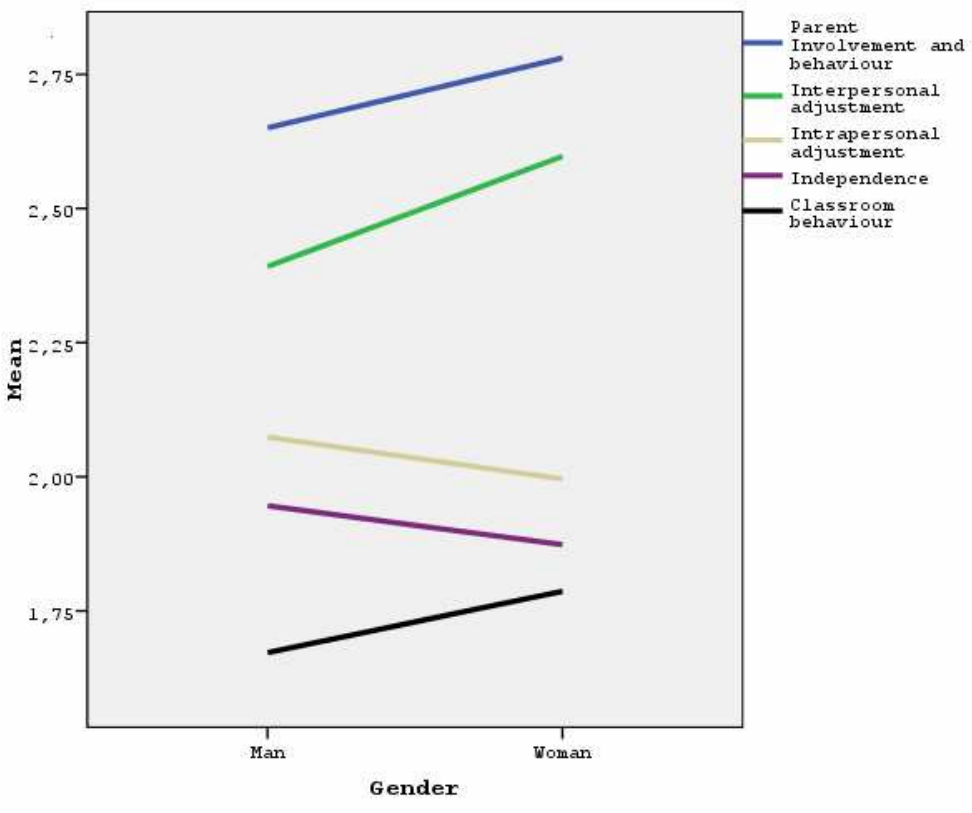

Figure 1: Gender differences among teachers for behaviour structure of "good" students

In regard to the gender differences for "bad" students, the analysis of variance designs resulted to significant differences for two factor indices: α) *Parent Involvement and school achievement* was

[1] MoM=mean of men
[2] MoW=mean of woman

differently *evaluated* by men and women in the teacher sample (MoM=1,99 S.D.=0,52, MoW=2,11 S.D.=0,54, t (375) = -2.10, p<.005) and b) *Team working* (MoM=1,68 S.D.=0,37, MoW=1,80 S.D.=0,46, t (375) = -2.60, p<.005) (Figure 2). Women believe with significant difference from men that a) parents of low achievers participate in education and with the schools and b) students with low achievement have difficulties in cooperation with others in teams.

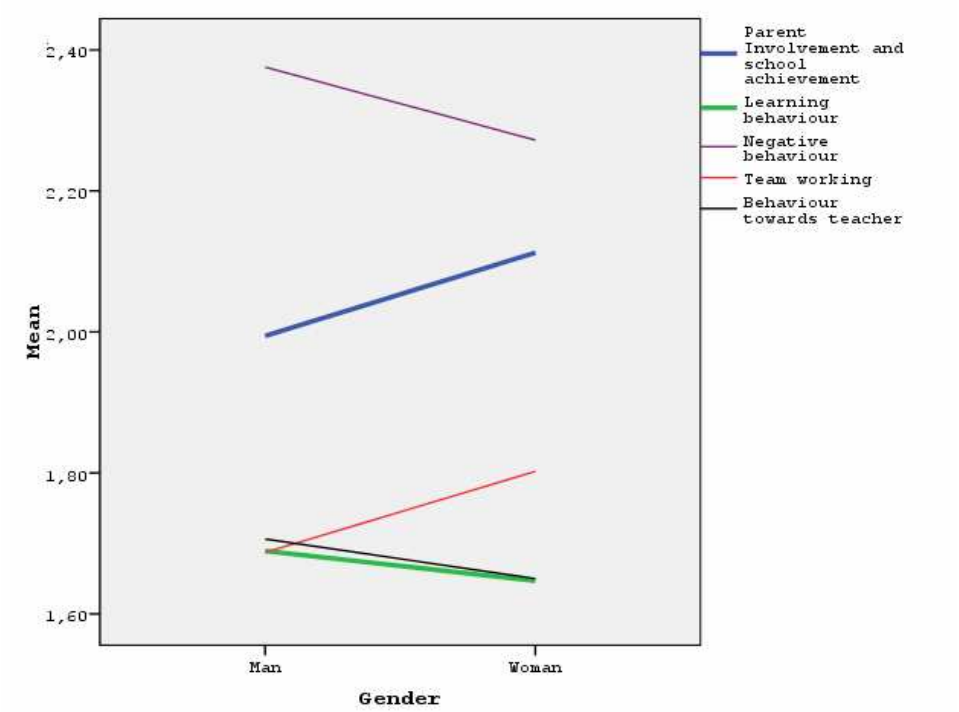

Figure2: Gender differences among teachers for behaviour structure of "bad" students

Another important aspect that might differentiate teacher's beliefs towards behavioral profile of "good" and "bad" students was the years of services. For this comparison four factors were statistically significantly differentiated beliefs towards "good" students: *Parent Involvement and behaviour, Interpersonal adjustment Independence* and *Classroom behaviour*. Respectively, F 2, 372 = 5.07, p<.005, F 2, 372 = 12.31, p<.001, F 2, 372 = 4.51, p<.001 and F 2, 372 = 3.18, p<.005. Means for all five factors are presented in Table 3. According to these results, teachers without experience believe with significant difference from teachers with 12-23 years of service that parents of high achievers involve in education of their children. Also, teachers without experience believe with significant difference from all other teachers that a) students with high achievement succeed interpersonal adjustment and b) students with high achievement behave in classroom with a more appropriate manner. Finally, teachers without experience believe with significant difference from teachers with 0-11 years of service that high achievers are independence.

Table 3: Means, Std. Deviation, F-test and Significant by year of service for behaviour structure of "good" students

Factors	Scale	Mean	Std. Deviation	F	Sig.
Parent Involvement and behaviour	Without experience	2,60	0,29	5,07	0,00
	0 - 11	2,69	0,36		
	12-23	2,81	0,42		
	24 and above	2,75	0,38		
Interpersonal adjustment	Without experience	2,23	0,60	12,31	0,00
	0 - 11	2,53	0,48		
	12-23	2,58	0,39		
	24 and above	2,63	0,33		
Intrapersonal adjustment	Without experience	2,12	0,57	1,65	0,17
	0 - 11	2,03	0,45		
	12-23	2,04	0,53		
	24 and above	1,92	0,59		
Independence	Without experience	1,76	0,42	4,51	0,00
	0 - 11	1,96	0,39		
	12-23	1,93	0,41		
	24 and above	1,94	0,39		
Classroom behaviour	Without experience	1,66	0,50	3,18	0,02
	0 - 11	1,80	0,43		
	12-23	1,77	0,42		
	24 and above	1,64	0,41		

Also, two factors were statistically significantly differentiated beliefs towards low achievement students: *Parent Involvement and school achievement* F 2, 372 = 3,09, p<.005 and *Team working* F 2, 372 = 8.44, p<.001. Means for all five factors are presented in Table 4. According to these results, teachers without experience believe with significant difference from all the other teachers' group a) that parents of low achievers involve in school achievement of their children and b) that students with low achievement have difficulties in cooperation with their schoolmates in teams.

Table 4: Means, Std. Deviation, F-test and Significant by year of service for behaviour structure of "bad" students

Factors	Scale	Mean	Std. Deviation	F	Sig.
Parent Involvement and school achievement	Without experience	2,14	0,43	3,09	0,03
	0 - 11	2,01	0,61		
	12-23	1,97	0,51		
	24 and above	2,18	0,52		
Learning behaviour	Without experience	1,69	0,37	2,12	0,10
	0 - 11	1,62	0,41		
	12-23	1,65	0,33		
	24 and above	1,76	0,40		
Negative behaviour	Without experience	2,26	0,41	1,99	0,12
	0 - 11	2,42	0,71		
	12-23	2,30	0,63		
	24 and above	2,22	0,62		
Team working	Without experience	1,86	0,47	8,44	0,00
	0 - 11	1,61	0,40		
	12-23	1,76	0,42		

	24 and above	1,88	0,39		
Behaviour towards teacher	Without experience	1,70	0,67	1,92	0,13
	0 - 11	1,66	0,65		
	12-23	1,58	0,58		
	24 and above	1,81	0,58		

Conclusions-Discussion

According to our results, teachers' perceptions about the characteristics of high or low achieving students varies. In general there was a prevailing perception that parents influence both student's achievement and behaviour. Although it should be noted that novice and preservice teachers are ready to accept part of responsibility for students' performance while experienced teachers tend to think that parents are responsible for students success or failure.

The findings also show that teachers consider as "good" students not only high achievers but as well as those with "appropriate" behaviour in the classroom, in contrast to "bad" students who are the failure students with low ability and problematic behaviour. These stereotypes are consolidated in teachers' perceptions as the years of service pass. Furthermore teachers seem to believe that exist a positive relation between students' emotional intelligence and their school achievement.

These findings indicate that perhaps teachers have no idea about the amount of controllability and causality teachers have on instructional settings and learner outcomes. For this reason it would be very useful if we know how their causal explanations of achievement formulated. In this way we can predict teachers' behaviour related with attribution of failure or success. So teachers need to be informed on what factors in student achievement are controllable from teacher's perspective and what factors are not. It would be desirable to shift their causal attributions to controllable teacher's factors such as classroom management and instructional strategy. In addition it would be fruitful to examine the pattern of changes that may exist between the novice and preservice teachers and the experienced teachers' causal attribution for students' achievements.

Additionally, from this study, it should be possible to be designed and be applied supporting training programs that will develop teachers' quality and teachers' reflection and to this way to help students to increase their performance using suitable strategies (Hatzichristou**,** 1998). Furthermore, in the classroom context, when this is supporting and no competitive, via his structure (goals and objectives, students' assessment, etc.), encourages students to develop better strategies of learning and to have particular motives for the school (Ames & Archer, 1988). It is necessary the teachers' training and the operation of educational system to help in the creation of a democratic, positive, productive and supporting environment, where each student has his place, and is recognized his value.

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