

Greek Teachers' Attitude towards Multiculturalism: Psychometric Properties of the Teacher Multicultural Attitudes Survey Scale (TMAS)

Aspasia Athanasopoulou¹, George Tsitsas¹, Anastasia Psalti², Vasiliki Yotsidi³, Kallia Kounenou³

¹Harokopio University, Athens, Greece

²A.T.E.I. of Thessaloniki, Thessaloniki, Greece

³School of Pedagogical & Technological Education, Athens, Greece

Email: tsitsas@yahoo.com

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Abstract

The aim of the present study is to adapt the “Teacher Multicultural Attitude Survey (TMAS)” developed by [Ponterotto, Baluch, Greig, & Rivera \(1998\)](#), to Greek teachers. More specifically, it examines the reliability and validity of the “Teacher Multicultural Attitude Survey (TMAS)” as an appropriate instrument for the evaluation of Greek teachers’ multicultural attitudes. The Greek version of the questionnaire was administered to 273 teachers from different regions of Greece and its validity and reliability were tested. The data analysis led to a three-factor structure. The results indicated that the Greek version of the “Teacher Multicultural Attitude Survey (TMAS)” is a reliable psychometric tool and can be used to evaluate Greek teachers’ style toward multiculturalism.

Keywords

Multiculturalism, Teachers, Attitude inside Classroom, Teacher Multicultural Attitude Survey (TMAS), Confirmatory Factor Analysis

1. Introduction

The multiculturalism of the classroom constitutes a reality of the Greek educational system that has been included in the programs of teachers’ training and education the last years.

Multicultural education is associated with inclusive educational policies and educational practices for culturally diverse students and educators at all educa-

tional levels. The tendency of the ongoing rational, ethnical and linguistic variety between the first and second grade students is willing to be continued in the most countries (Turner, 2007) and according to educational planning, is estimated that till 2020, 48% of the first and second grade students in education will be colored (Pallas, Natriello, & McDill, 1989).

The cultural knowledge is a main advantage and characteristic of all teachers (Chamberlain, 2005). Teachers' attitudes and abilities that facilitate the cultural characteristics of the students are a necessity for an appropriately trained teacher (Banks, 2004).

The necessity of the cultural knowledge as well as the influence that the various cultural and ethnic aspects exert in the educational process (Capella-Santana, 2003) is enhanced from the fact that the cultural misunderstandings of the teachers can affect importantly the measurement of their students' abilities (Banks, 2004). The classroom climate, the teaching content and the way of teaching, as well as the individual student progress of the classroom students are important factors being affected by teachers' attitudes and expectations (Graybill, 1997). Moreover, research studies have referred the correlation between the student progress and the teachers' expectations (Dusek & Joseph, 1983; Good & Weinstein, 1986).

2. Teacher Multicultural Attitude Survey

One of the most characteristic scales about the measurement of teachers' attitude towards multiculturalism is the (TMAS) Ponterotto, Baluch, Greig, & Rivera (1998), an estimation scale of the teachers' attitude towards multiculturalism. According to Ponterotto, the teachers that are aware of the current multicultural reality of the societies, confront the cultural variety as a qualification and therefore they consider as important issues related to multiculturalism to be included in their teaching subjects and in the training programs for teachers (Ponterotto & Pedersen, 1993).

Dotger (2010) used the specific scale in an educational training program of teachers, the Parent/Caregiver Conferencing Model (PCM), with very satisfying results. Moreover, Szabo and Anderson (2009), in their survey regarding the attitudes of candidate teachers towards the multicultural environments used Ponterotto's scale and confirmed the criterion validity (criterion validity) and the reliability of the specific scale. Lee, Summers, & Garza (2009) gathered alike results in their research regarding teachers.

The aim of the present study is to contribute to the development of the appropriate instruments of the impression of the teachers' attitude towards classroom multiculturalism through exploring the psychometric properties of the *Teacher Multicultural Attitude Survey, TMAS*, in Greek reality.

3. Methodology

3.1. Participants

The participants of the survey were: 1) N = 273 teachers of the secondary educa-

tion and masters of Informatics who were working as teachers in first grade education and were attending the Annual Program of Pedagogical Training of School of Pedagogical & Technological Education during the academic years 2008-2013.

(110 males and 163 females) The M_{age} was 32.7 years old (SD = 4.16) (**Table 1(a)**).

Table 1. Allocation (absolute and relative frequencies) of the sample's demographic characteristics.

| (a) | | |
|--|-----|------|
| Characteristics | N | % |
| Sex | | |
| Male | 110 | 40.2 |
| Female | 163 | 59.8 |
| Age | | |
| Up to 40 | 148 | 54.2 |
| 41 to 50 | 100 | 36.6 |
| Above 51 | 25 | 9.2 |
| Previous Employment | | |
| Up to 10 years | 130 | 47.6 |
| 10 to 20 years | 120 | 43.9 |
| More than 20 years | 23 | 8.5 |
| Further Education (Msc. or Phd.) | | |
| Has got | 50 | 18.3 |
| Has not got | 223 | 81.7 |
| School Area | | |
| Athens - Thessalonica | 160 | 58.6 |
| Urban areas | 80 | 29.3 |
| Semi urban and campestral areas | 33 | 12.1 |

| (b) | | |
|--|----|------|
| Characteristics | N | % |
| Sex | | |
| Male | 11 | 33 |
| Female | 19 | 67 |
| Age | | |
| Up to 40 | 10 | 33.3 |
| 41 to 50 | 15 | 50 |
| Above 51 | 5 | 16.7 |
| Previous Employment | | |
| Up to 10 years | 10 | 33.3 |
| 10 to 20 years | 15 | 50 |
| More than 20 years | 5 | 16.7 |
| Further Education (Msc. or Phd.) | | |
| Has got | 5 | 16.6 |
| Has not got | 25 | 83.4 |
| School Area | | |
| Athens - Thessalonica | 20 | 66.6 |
| Urban areas | 7 | 23.3 |
| Semi urban and campestral areas | 3 | 10.1 |

2) 30 teachers ($M_{age} = 35.1$, $SD = 4.26$) from the wide area of Attica were used in order to test the reliability control of the Scale by the test-retest method (test-retest reliability) (Table 1(b)). This sample size is generally small (50 participants should be better).

3.2. Research Instruments

The teachers who participated in the current research completed: 1) one extemporary questionnaire with demographic information such as sex, age, basic education level, accessional education level, previous employment and the school area, as well as 2) the Teacher Multicultural Attitude Survey Scale, TMAS, of Ponterotto et al. (1998).

3.3. Description

The scale is an extemporary instrument which included 51 questions in its initial form coming from team discussion and literature review. Later, the questions were lowered to 31 in order to reflect positive and negative direction and it finally includes 20 questions in its final form which are placed according to a 5-point Likert scale. The grading comes out by the total calculation of the 20 statements-questions of the scale. Higher score indicates positive attitude of the teachers, recognition of the problems that result from the existence of foreign students in their classrooms and caring about their solution.

3.4. Greek Translation

The scale was accurately translated to the Greek language by the reversed translation method. At first, the scale was translated in Greek from the writers of the current study. The comparison of the Greek attributions of the questionnaire led to necessary language modifications where the 19 of the 20 questions were used because the question Nr. 5: "I often invite members of the greater family (i.e. cousins, grandparents, godparents, etc.) to attend the parents-teachers sessions" does not correspond to the Greek reality.

The question eliminated will not affect the overall effect of the questionnaire.

The reversed translation of the questionnaire was operated from two single bilingual psychologists whose translations were identified with the initial interpretation. The above procedure led to the final form of the Greek scale.

Ponterotto et al. (1998) refer that during the development of the TMAS scale the internal consistency, the reliability of the recall examinations, the criterion and the convergent validity were examined. TMAS has credibility coefficient Cronbach's alpha 0.86 and in three weeks test-retest examination which was operated in a sample of 16 students of Pedagogics, the credibility coefficient was found 0.80 (Ponterotto et al., 1998). Other studies give credibility coefficient Cronbach's alpha 0.82 (Cicchelli & Su-Je, 2007).

4. Results

Test-retest method as well as the internal consistency method was adapted in

order to operate the reliability control of the Greek questionnaire. The internal consistency of the questionnaire was examined by the Cronbach alpha technique, while in the test-retest method the Pearson consistency coefficient was used. The lack of a research instrument, similar to the questionnaire which was under examination, calculated in the Greek reality led to the inability of its validity control.

4.1. Control of the Internal Structure of the Teacher Multicultural Attitude Survey Scale, TMAS

In order to examine the structure of the examined questionnaire the exploratory factor analysis was adapted according to the main components method. [Pontorotto, Baluch, Greig, & Rivera, \(1998\)](#) found a single factor according to the factor analysis about the control of the internal structure of the initial scale. The factor analysis of the scale data revealed three factors fluctuating from 5.53 to 1.34. Questions Nr. 6 and 8 were deducted from the analysis since they were pointing out to 2 factors. The formation of the factors pointing out of the scale's statements is appeared in [Table 2](#).

The first factor, which defines the 30.96% of the total fluctuation was named "teachers attitude towards multiculturalism". The second factor defines the 8.28% of the total fluctuation and constitutes the type "Emphasis of the educational system on multiculturalism". The third factor which defines the 7.44% of the total fluctuation was named "Satisfaction from teaching in multicultural classrooms".

4.2. Reliability Control of the Teacher Multicultural Attitude Survey Scale, TMAS

In order to control the reliability of the questionnaire with the test-retest method (test-retest), another group of teachers ($N = 30$) completed the questionnaire twice during one month. From the answers to these two allowances of the Scale to the teachers a high consistency coefficient came out ($r = 0.77, p < 0.001$).

Also, the internal consistency method was used (internal consistency) and more specifically the Cronbach alpha (α) in order to calculate the stability of the answers for every single criterion of the questionnaire. The consistency coefficients Cronbach alpha (α) of the scales are presented in [Table 3](#).

According to [Table 3](#), the consistency coefficients Cronbach alpha (α) fluctuate from 0.73 to 0.84. As a result, the Scale can be assumed as reliable and the same goes for its adaptation to Greek people from teachers.

5. Discussion

The aim of the current study was to explore the psychometric properties of the "*Teacher Multicultural Attitude Survey, TMAS*" in Greek teachers, in order to create a reliable instrument appropriate to appreciate *the teachers' attitude towards classroom multiculturalism*.

Table 2. The formation of the factors pointing out of the 17 statements.

| STATEMENTS | FACTORS | | |
|---|--------------|--------------|------|
| Teachers attitude towards multiculturalism (a = 0.84) | | | |
| Teachers ought to be aware of the cultural background of their students. | 0.85 | | |
| In order to be an effective teacher someone must be aware of the cultural differences of his students. | 0.78 | | |
| The training about multiculturalism can help me in order to work more effectively with a culturally differentiated audience. | 0.76 | | |
| The teaching methods must be adapted to the needs of the culturally uneven rates. | 0.75 | | |
| I believe that the role of the teacher must be redefined in order to be adapted to the needs of the students with different cultural background. | 0.55 | | |
| The training of the teachers about multiculturalism topics is not necessary. | 0.53 | | |
| I can learn many things from students with different cultural backgrounds. | 0.53 | | |
| Independently of the rational and the national composition of my classroom it is important for all of my students to be aware of the cultural unevenness. | 0.53 | | |
| Emphasis of the educational system on multiculturalism (a = 0.74) | | | |
| Current analytic studies programs emphasize excessively on multiculturalism and on differentiation. | 0.77 | | |
| Sometimes I think that inordinate emphasis is given on sensitization and training of the teachers in relation to multiculturalism. | 0.72 | | |
| Teaching topics which refer to cultural unevenness will only succeed in causing classroom conflicts. | 0.60 | | |
| I am aware of the different cultural backgrounds of my classroom students. | 0.55 | | |
| Students must only communicate in the Greek language in the school environment. | 0.55 | | |
| Being aware of the multiculturalism is not coherent to the subject I teach. | 0.50 | | |
| Satisfaction from teaching in multicultural classrooms (a = 0.73) | | | |
| As the classrooms become more culturally differentiated the teaching profession comes more satisfying. | 0.75 | | |
| I feel satisfaction when I teach in culturally uneven classrooms. | 0.70 | | |
| As the classrooms become more culturally differentiated the teaching profession comes more satisfying. | 0.67 | | |
| Eigenvalues | 5.573 | 1.490 | 1.34 |
| % of Variance | 30.96 | 8.28 | 7.44 |

Table 3. Consistency coefficients Cronbach alpha (a) of the Teacher Multicultural Attitude Survey Scale, TMAS.

| Scales | Alpha |
|--|-------|
| Teachers attitude towards multiculturalism | 0.84 |
| Emphasis of the educational system on multiculturalism | 0.74 |
| Satisfaction from teaching in multicultural classrooms | 0.73 |

The test-retest and internal consistency methods were used for this purpose and the reliability of the *Teacher Multicultural Attitude Survey, TMAS*, was confirmed. Three factors came out from the factor analysis: 1) Teachers attitude towards multiculturalism, 2) Emphasis of the educational system on multiculturalism and 3) Satisfaction from teaching in multicultural classrooms.

The structure of the Greek Scale does not absolutely correspond with the structure of the initial one, something that is acceptable since the cultural characteristics of every crowd differentiates greatly. While the first factor “Teachers attitude towards multiculturalism” also exists in the initial Scale too, the other two factors appear in the Greek version of the Scale.

The second factor “Emphasis of the educational system on multiculturalism” can be excused from the structure of the Greek society which does not have great experience towards the multicultural education. It is bibliographically referred that the differences in the Scale of the multiculturalism are observed in social environments which do not have a longtime experience of conjunction with nationally cultured differentiated people (Bostic, 2006). The social environment is modulated from the choices and the legitimate adjustments of each time authoritative state.

Finally, the third factor “Satisfaction from teaching in multicultural classrooms” is related to the training of the Greek teachers as far as topics of multicultural education are concerned. In the Greek state’s educational politics, the assimilative education model was dominated till 1990 in all the education levels. Continuously, the first attempt of approaching the intercultural education was made without the existence the adequate infrastructures, analytic education programs, school textbooks, teachers training and further education concerning the operation of the specific model till today. The teachers state that they do not have cultural adequacy and preparation for the teaching of the foreign people (Nikolaou, 1999; UNICEF, 2001). The inability to manage the discreteness of their multicultural classroom affects their attitude towards it.

6. Conclusion

The results of the current research lead to the conclusion that the *Teacher Multicultural Attitude Survey, TMAS*, constitutes a reliable instrument and it can be used in the Greek population. One of the Scale’s limitations is that it was given to a small sample of teachers, something that constitutes a problem about research in Greece. Further research is required in order to understand the varying nature of the multiculturalism and help us to understand people much better as well as their attitude towards multiculturalism.

With the limitations given above, the authors believe that the spirituality questionnaire represents a valid instrument to assess four core dimensions of spirituality. Even in the event of weak loadings, which was not the case in the present investigation, the sample sizes were large enough to give valid results. All scales present with good reliability and a clear structure almost identical in the

two samples. The questionnaire is easy to apply, and respondents usually have no problems filling it out. Items are clearly worded and the answering categories seem adequate. The authors hope that the spirituality questionnaire will encourage others to do research in a field which is important for many patients but has been almost overlooked in medical research.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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