

## The Self-Concept in Specific Areas of Students attending Multigrade and Single Grade Elementary Schools. Comparative Approach

Dr. Eleni Pistioli

**Abstract.** The aim of this study was to investigate self-concept in specific areas of students attending multigrade and single grade primary schools. The sample of the survey consisted of 698 pupils, aged between 11 and 12 years old, having no socioeconomic differences. All students were enrolled in multigrade and single grade primary schools of six Greek prefectures. The participants completed the 'Student Self-Concept Scale' of Gresham, Elliott & Evans-Fernandez, (1993). The method for the selection of participants was based on the "layered" and "block" random sampling. The results of the survey showed that students attending multigrade schools have no significant differences, at least in most areas of their self-concept (academic skills and emotional behavior) nor in self-esteem (athletic performance, physical appearance, popularity), compared to peers of single grade schools. Furthermore, the social development of students in multigrade schools is not only incomplete but greater compared to the one of single grade schools.

**Keywords:** multigrade school; single grade school; elementary school; self-concept.

### Introduction

An important parameter that significantly affects the personality of children is self-concept. As Papastamatis (2004, p. 95) notes the child's good image for himself, in other words the positive self-concept, contributes to his socio-emotional development and such aims should be key objectives of the modern school.

Colega (2003, p.25) points out,

*"A man must know himself in order to create motivation for proper behavior and have a balanced personality."*

Higgins (1987 in Kolega, 2003, p. 25) considers self-esteem as a process by which the individual constantly compares himself with the characteristics he attributes to himself, with the characteristics that the individual (the ideal self) would like to have, as well as with the ones which he should have. In addition, Rosenberg

(1986 in Kolega, 2003, p. 26) emphasizes that self-concept requires that the individual takes the position of an observer towards himself and be as objective as possible. In a similar way, Lopez (1972 in Kolega, 2003, p. 26) states that self-concept reveals to what degree the individual believes that he is remarkable, important, competent and successful. Specifically, self-concept is the person's knowledge of himself, and refers to himself as 'an object of experience' (Giannelos, 2003, p. 129). According to Gouvia (2003, p. 80) self-concept is the summary of our view of the physical and spiritual characteristics, and of our appraisal for them with regard to the perception we have of the 'ideal'.

For some researchers, the terms self-concept and self-esteem are considered synonymous. For others, self-concept is related to the individual's knowledge about himself, while self-esteem refers to the evaluation of the individual for himself, which is sometimes interpreted as self-acceptance and sometimes as the quotient of the individual's achievements to his aspirations (Kolega, 2003, p. 25). The above definitions demonstrate the importance of self-concept for an individual, with the latter playing an important role. The individual shapes his self-concept through his experiences, which constantly change, creating a set of cognitive structures (Kolega, 2003, p. 26).

Shavelson & Bolus (1982 in Kobal & Musek, 2001) expressed the view that self-concept is 'multidimensional and hierarchical'. Self-concept is categorized as following: "self-concept of academic ability" associated with one's opinion for his performance in school lessons. "Social self-concept" which refers to the relationship with their parents and the overall social environment, "emotional" which refers to the way of conduct and behavior and finally 'physical' which is associated with the appearance and performance in sports (Giannelos, 2003, p. 130; Kotopoulos, 2003, p. 63).

According to Leondari (1998, p. 90), the model that prevails in the structure of self-concept is "hierarchical". According to this, "General Self-Concept" consists of "Self-Concept of Academic Skill" (Language, History, Mathematics), "Social Self-Concept" (friends, important others), "Emotional Self-Concept" (emotional situations) and "Physical Self-Concept" (Physical Capability, Appearance). Thus, the individual develops several images of himself depending on his/her abilities, knowledge and skills, while the relationship of images with the individual's overall image for himself/herself (general self-understanding) can vary from person to person. For example, a person may have a negative impression of academic ability in the mathematics lesson without this implying that his/her self-concept will be affected altogether.

The way in which the individual sees himself is significantly influenced by how the individual interacts with society (Kolega, 2003, p. 29). James (1890 in Pigga, 2009, p. 39) points out the dual nature of the concept of one's self, which consists of "I" and "Me". The "social self" relates both to what I am "to the others" and to what I am "for the others". Cooley (1902 in Pigga, 2009, p. 40) and Mead (1934 in Pigga, 2009, p. 40) supported the significant effect of interacting with the "important others" in the formation of one's self. Both self-concept and self-esteem are greatly influenced by what the individual believes that others think about it. According to Mead (1934 in Pigga, 2009, p. 41), Hargreaves (1975 in Pigga, 2009, p. 41), Rogers (1998 in Pigga, 2009, p. 42) and Rosenberg (1989 in Pigga, 2003, p. 42), one's self is shaped throughout the person's life as the

individual interacts with his environment. One's self has a "social composition" and is a "social conciliation".

Family, school and social environment play an essential role into formatting children's self-concept. The individuals consisting a family are for the infant the 'important people' that with love, care, encouragement and support catalytically contribute into creating a positive self-concept. At a later stage of a child attending school and in case the teacher is having a friendly and supportive attitude with high expectations for the students, will also decisively influence the shaping of their self-concept. Along with school environment, the group of peers and friends with who each child is inevitably compared, significantly affects the development of a positive self-concept (Chatzitheologou, 1999, p. 56-59).

The child's acceptance from parents, the way the child is treated and the emotional climate prevailing in the family environment are factors that decisively contribute into the shaping of positive self-concept of a child. Then the school environment influences the formation of self-concept as well as traumatic experiences that may arise from the family environment (separation of parents, mistreatment) and from natural or social causes (war, natural disasters) (Kolega, 2003, p. 29). "Important persons" are also considered important in children's lives. The relationship between young children and their peers plays an important role into shaping a positive image of themselves. Meeting with peers who are non-family members, supporting them and experiencing common experiences is a personal achievement of children that stimulates the feeling of self-worth and makes them feel that their social surroundings accept them (Dunn, 1999, Savvala, 2002). In particular, pupils, depending on the appreciation they receive by "important persons" (parents, teachers and interviewees) and through the actions and attitudes of the above persons, attribute value to themselves respectively (Pigga, 2009, p. 42).

Right after the primary socialization of children in the family environment, the daily life of children is affected even more decisively by school (Papastamatis, 1998, p. 17-19).

In both single-grade and multi-grade elementary schools, children are divided into classes based on their age. Such grouping of children has its roots in Comenius, which first supported the idea of grouping and teaching a large number of students at the same time, in the same way (Brouzos, 2002: 49). Later, during the industrial revolution, there was a need for massive public education of a large number of students with as little cost as possible (Gaustad, 1992).

In the early 19th century, large educators argued to age grouping and favored multi-age grouping (Brouzos, 1999; Brouzos, 2002: 50-53).

Series of educational reforms and changes shaped the educational system that applies up to our days in single grade and multigrade primary schools of the country. Usually, the size of the elementary school is set (Government Gazette. 1507/13-10-2006, Vol. B'; Brouzos, 2002, p. 34-35; Papastamatis, 1998, p. 21; Fykaris, 2002, p. 130) by the teacher - student ratio. 'Multigrade' schools or 'small' or 'provincial' or 'rural' schools, are full primary schools with six classes, of which two or more classes are co-taught, and which as a result have fewer than six teachers (Brouzos, 2002, p. 34; Papastamatis, 1998, p. 21). The 'single

grade schools' are also full primary schools where each teacher teaches the lessons of a single class (Petroulakis, 1992, p. 3454).

### **Literature Review**

The effectiveness of multigrade schools has been at the center of scientific debate both in Greece and internationally. Although empirical studies of multigrade schools in Greece are minimal (Fykaris, 2002, pp. 15, 23-24), research data show that both internationally and in Greece, students of small schools feel like 'family', have a positive attitude for themselves, and enjoy participating in all kinds of extracurricular activities. The students of these schools develop higher self-concept, better social behavior and stronger interpersonal relationships (Brouzos, 2002, p. 198-199). Research findings show clearly the positive effect of multiage grouping on pupils studying in multilingual segments (Riley, 2016). The age grouping of children creates a particularly helpful and cooperative environment for pupils, since each one benefits either by helping other students or by having the ability to come in contact and adopt many different behavioral patterns (Schweitzer, 2015).

Research findings show the significant impact of positive self-concept for success in school, into daily interaction with peers in social adaptation and into the development of interpersonal relationships (Sharpes & Wang, 1997 in Pigga, 2009, p. 68). Students of multiage classrooms have a higher self-esteem since these classes provide care and harmony in contrast to single grade class environments that cultivate more competition and aggression (Smit & Engeli, 2015). High performance and student learning are minimised when students feel pressure in school (Sotardi, 2016). As Milburn points out (1981), the student's attitude towards school and learning is an indicator of his self-esteem. In the international school arena, with respect to self-concept in specific areas and specifically for academic self-concept of students attending multi-age grades and single grades, studies of Schrankler, 1976; Ford, 1977; Miller, 1990; Cotton, 1993; Kadivar, Nejad & Emamzade, 2005, confirmed the superiority of multi-age grouping. Studies of Schrankler, 1976; Ford, 1977; Miller, 1990 confirmed the superiority of social self-concept in multi-age grouping, while there was no difference in the academic - social self-concept in the study of Way, 1981, and social self-esteem in the study of Kadivar et al, 2005. Additionally, differences were found on self - esteem in the field of external appearance in studies of Way, 1981 and Kadivar et al. 2005 and furthermore on self-concept in the area of behavior according to the study of Way, 1981. An important effect of multiage grouping on students' self-esteem has also been shown by the results of another study into which children were particularly independent during school activities and developed significant friendships with younger and older children of the class. They improved their self-esteem parallel with their trust in others. Significant effect was also noticed by the small number of pupils in multiage classrooms and also by the fact that such classrooms provide an environment of acceptance even for students with difficulties (Farrant, 2017).

Findings in Papastamatis (2004) research in Greece showed that students of both school types did not differ in average performance of self-concept, while Kapsalis (2000) with his research showed that the interaction of students in small

schools is not lacking. Fykaris (2002) indicates through his research that students in multigrade schools do not lack interpersonal relationships and do not have poor socialization. Furthermore, with respect to the parameter of students' behavior it was found that in both types of school disruption and disobedience do not prevail between students, while behavior does not overpass the acceptable standards.

The present study aimed to investigate the self-concept in specific areas of students in multigrade and single grade primary schools, neutralizing the factor of the socioeconomic status of students. The responses of single-grade and multi-grade school pupils regarding the profession and educational status of their parents set up the factor of the social and economic status of single-grade and multi-grade school pupils.

Research data demonstrate the influence of the socioeconomic status of students on the formation of self-concept. Particularly in the Bogdanou and Pappas survey (1986 in Pigga, 2009, p. 68) which was conducted in elementary school pupils of 6<sup>th</sup> grade it was found that the pupils' image of themselves is significantly influenced by their social background. At the same time, according to Chatzitheologou (1999) research data, in a sample of 503 pupils from 2<sup>nd</sup> and 6<sup>th</sup> grade elementary school, the relationship between the socioeconomic status of students and the general self-concept was confirmed, with the first having a significant effect especially for second graders. The differences of the two parameters were not statistically significant in the case of pupils where both socioeconomic and educational status coexisted. Results of another survey by Leontari and Gialamas (1998) of 634 primary school pupils from 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> grade showed that there was no relationship between self-concept and the social class of the sampled pupils.

In order to further examine the self-concept in specific areas and after eliminating the socioeconomic status factor of pupils attending multigrade and single grade schools and based on relevant literature, the following exploratory hypotheses and exploratory question were made:

### **Exploratory Hypotheses**

- Students attending multigrade schools develop better self-concept in the academic field compared to students who attend single grade elementary schools.
- Students attending multigrade schools have better self-concept in the social field than students attending single grade schools.
- Students attending multigrade schools do not significantly differ in self-emotional behavior from those attending single grade schools.
- Students attending single grade and multigrade schools do not significantly differ in self-esteem regarding elements of their self-image.

### **Exploratory Question**

- Do students attending single grade and multigrade schools differ in self-esteem regarding their athletic abilities?

In continuation to the above exploratory hypotheses and question it is clear that an important motivation for the study of self-concept in individual sections of

students enrolled in multigrade and single grade schools was the lack of accomplished research approaches in Greece. Regarding students' self-concept in individual sectors, basic parameters associated with the benefits of small schools remain unclear. However important decisions are taken for the future of these schools.

## **Method**

### **Participants and Data Collection Procedure.**

The research participants were 698 pupils aged between 11 and 12 years old of multigrade and single grade primary schools. The prefectures of Aitoloakarnania, Arta, Evritania, Thesprotia, Ioannina and Preveza were selected. The method for the selection of participants was based on the "layered" and "block" random sampling. The data was collected during a survey which was conducted in 2006.

### **Instrument Data Collection.**

In order to measure self-concept participants completed a psychometric test, the 'Student Self-concept Scale' of Gresham, Elliott & Evans-Fernandez (1993). This psychometric self-report test consists of 57 statements, which measure the self-efficacy and self-esteem in the Self Confidence Subscale. More specifically, 50 statements require students to evaluate the degree of self-confidence into exhibiting specific behaviors (self-efficacy) or to have personal characteristics culturally valuable (self-esteem). The measurement of self-confidence consists of a three-stepped rating scale: not at all sure, not sure, sure. Furthermore, among the 50 self-concept statements, there are seven statements that form the Lie Scale, where false answers are detected and subsequently are not taken into consideration. This self-concept scale is covering essential areas of self-concept, such as self-image, academic and social dimensions. The field of self-image measures self-concept in terms of self-esteem, reflecting the perceptions of students for culturally valuable behaviors-activities ("I can practice sports as well as my classmates") or for culturally valuable personal characteristics of assessable self-worth ("I'm proud of who I am") or popularity ("Others easily like me") or appearance ("I look as good as other kids of my age") and physical skills ("I can run as fast as other kids of my age"). The academic and social field measures self-concept in terms of self-efficacy, reflecting the perception of student's confidence into behaviors associated with academic skills ("I can speak in class when my teacher asks for it") and social skills ("I can share my things with others") (Gresham et al. 1993, p. 2-3).

### **Data Analysis.**

The statistical analysis was performed by applying Bivariate and Multivariate analyses for which the statistical package SPSS 15 was used. Prior to data analysis it was determined whether the research participants differed regarding socioeconomic status. The variable social status was dependent by the overall responses of students based on the type of parent's work and their educational status. The difference in the "socioeconomic status" average of pupils enrolled in multiage and single grade grouping was statistically analyzed. This was found to be significant,  $t(1139,840) = -10,103$ ,  $p = ,000$ . Excluding some outliers, a

subset of participants was created that did not differ in their social status,  $t(598,360) = -1,692$ ,  $p = ,091$ . As a result, Bivariate and Multivariate analysis was applied in the final subset of participants.

For Bivariate analysis and the selection of appropriate statistical criterion it was primarily tested if the data came from a population that forms a normal distribution (criterion of Kolmogorov-Smirnov-test).

- ( $H_0$ ): Data come from a population that follows a normal distribution.
- ( $H_1$ ): Data come from a population that does not follow a normal distribution.

Because  $p$ -value =  $,00 < ,05$  the null hypothesis is rejected, regularity is not observed and non-parametric tests were made with the Mann-Whitney-U-Test for independent samples. The multivariable analysis was applied in the research by the 'Path Analysis' model of Multiple Regression Analysis.

## Results

### Bivariate Analysis.

**Bivariate analysis (academic self-concept).** In bivariate analysis, a comparison of the variable averages was performed in order to identify the differences which are statistically significant. Comparing students of multigrade schools with the ones of single grade schools with respect to the parameters of their academic self-concept, the following was found: In the bivariate analysis performed in 698 participants, which do not differ to socioeconomic status, there seemed to appear no statistically significant difference between the two types of schools in terms of student self-confidence for issues of academic success or academic skills ( $Z = -,048$ ,  $p = ,962$ ).

**Bivariate analysis (social self-concept).** Bivariate analysis was performed in 698 participants having no socioeconomic differences. From the statistical analysis of the "certainty of students' social skills" variable, in the sub-scale of self-confidence, a significant difference was found ( $Z = - 2,207$ ,  $p = ,027$ ). More specifically, the pupils of multigrade schools (Mean Rank = 362,80) were more confident that they could apply social behaviors compared with students of single-grade schools (Mean Rank = 331,33).

**Bivariate analysis (physical skills).** The variable "certainty of students for their athletic skills", in confidence subscale, was not different for students of both school types which do not differ regarding to the social and economic situation of their families ( $Z = -,822$ ,  $p = ,411$ ).

**Bivariate analysis (self-image).** Students of the two school types who do not show differences in their social and economic status, regarding their confidence of having particular characteristics of self-worth, physical appearance or popularity ( $Z = -1,178$ ,  $p = ,239$ ) statistically do not differ in a significant amount in the averages of this variable.

**Bivariate analysis (emotional dimension).** Regarding the variable of emotional dimension in the confidence subscale and for the number of participants that do not differ in their socioeconomic status the following were observed: The students of both school types are confident of feeling emotions

when expressing social or academic content behaviors. Statistically the averages of the two groups do not differ in a significant way ( $Z = -.471$   $p = .638$ ).

### Multivariate Analysis

**Multivariate analysis (academic self-concept).** In Multiple Regression analysis, with the use of Path Analysis Model and in participants who did not show differences in the socioeconomic status of their families, the relations between the independent variables and their overall effect on the dependent variable were examined. In this model (Figure 1) with the “certainty of students for their academic skills” as a dependent variable, direct influence is exercised by the degree in the Language course. Specifically, students who perform well in language courses are more confident about their academic skills. Indirect effect through the intervening variable of the grade in mathematics is not exercised to the dependent variable. On the contrary, indirect effect on the dependent variable, by the degree of Language (second endogenous variable) is exercised by the student gender and the school size. Students in multigrade schools and particularly boys had lower performance on language courses in relation to girls and students in single grade schools.

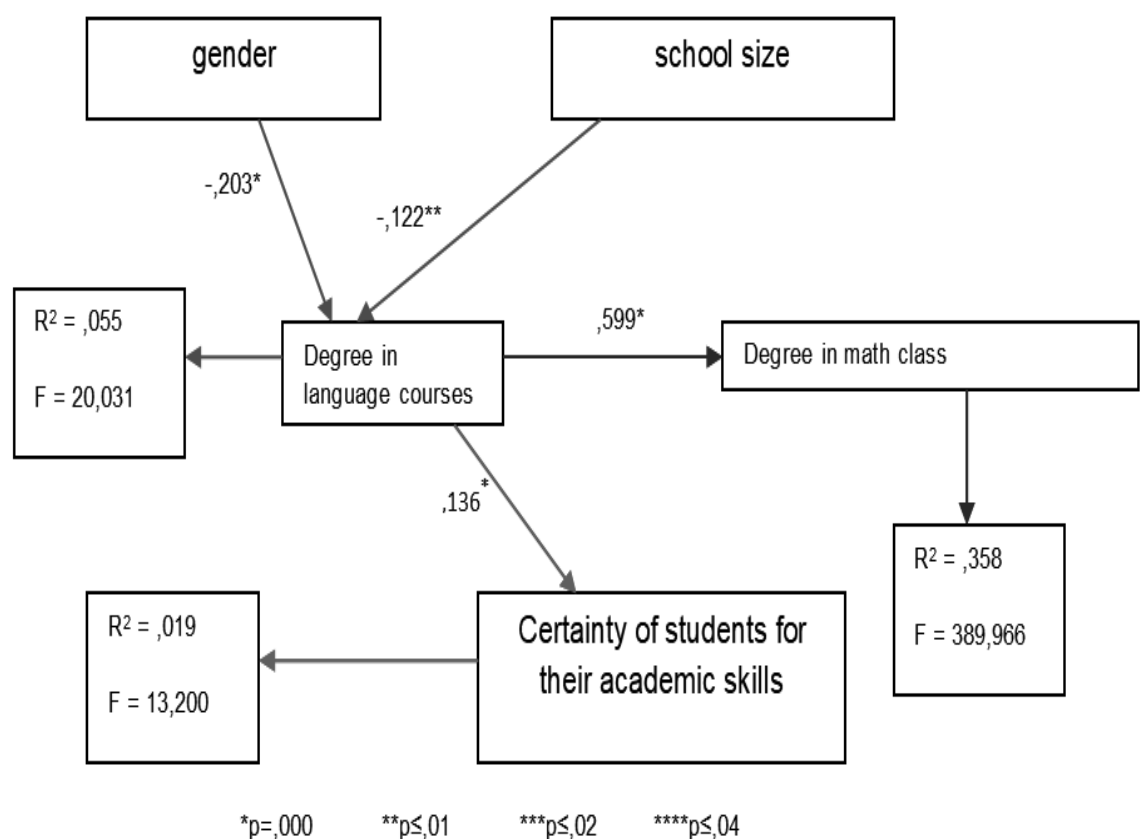
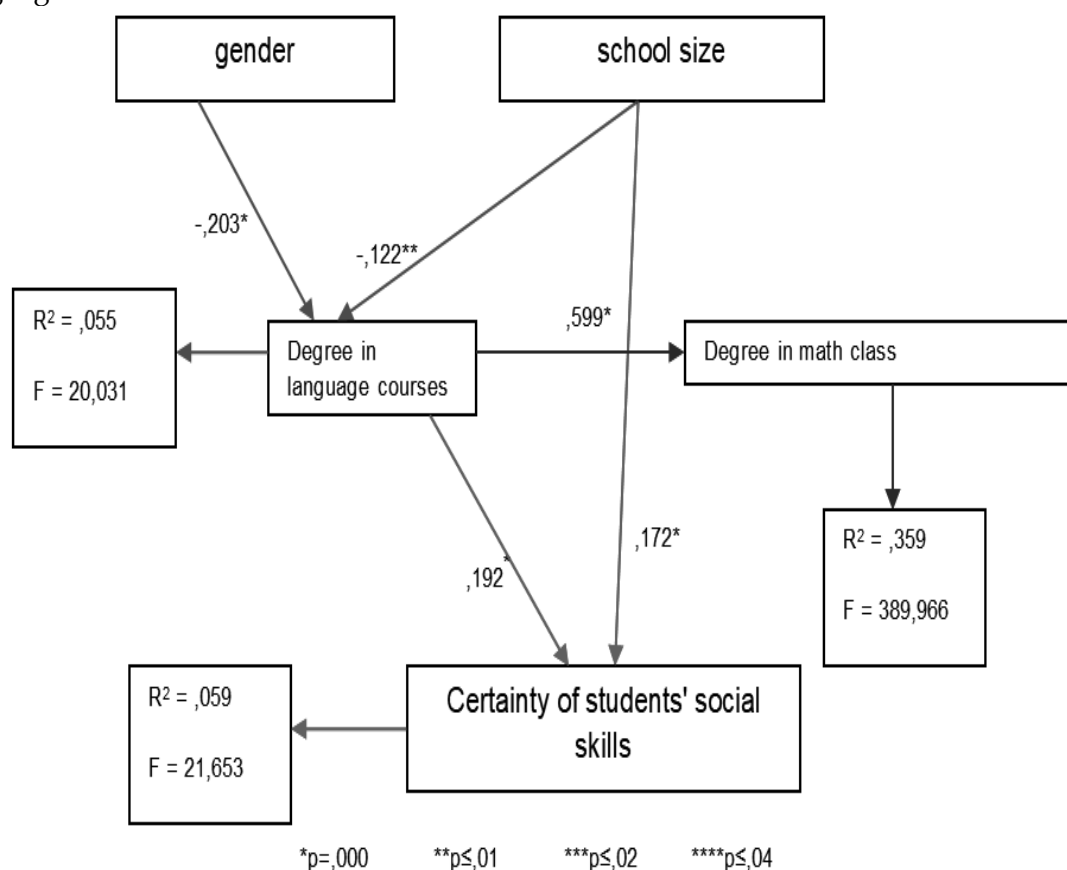


Figure 1: Path analysis model with dependent variable the certainty of students for their academic skills



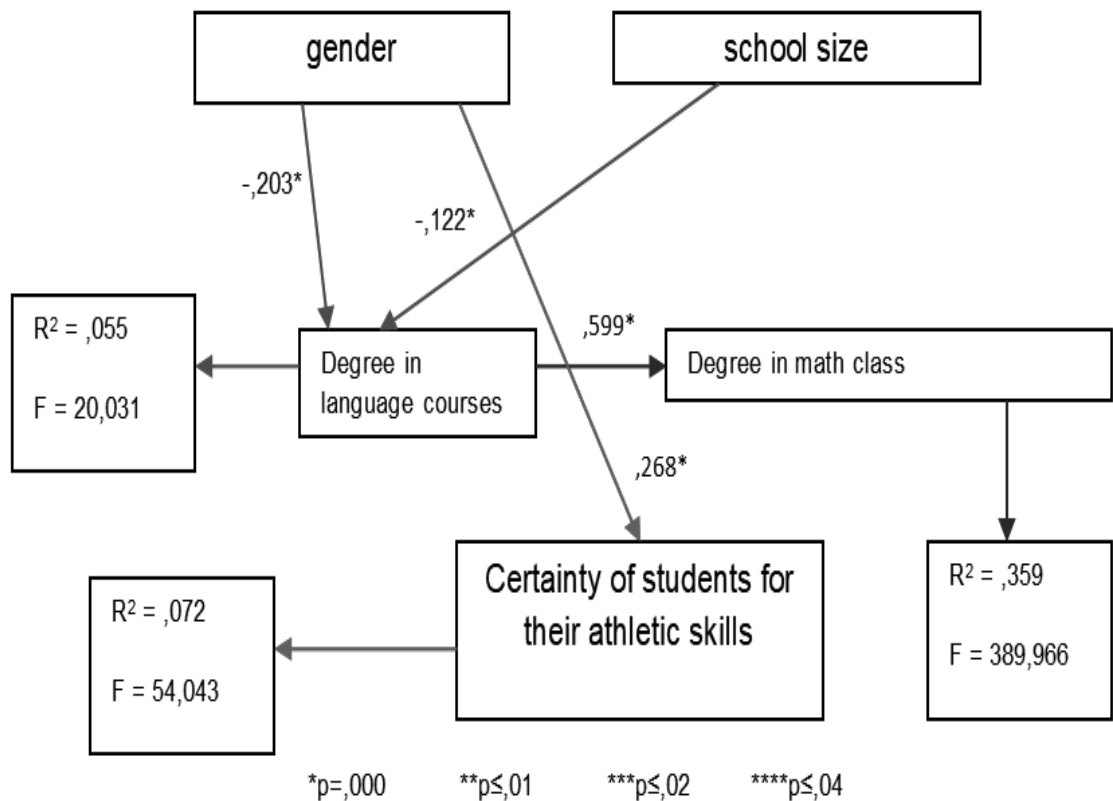
**Multivariate analysis (social self-concept).** In the number of participants with similarities present in their socioeconomic status and in the variable associated with 'certainty of students for their social skills', Multiple Regression Analysis with Path Analysis Model (Figure 2) was performed. In this model with 'the certainty of students for their social skills' as a dependent variable, direct influence is exercised by the variable of school size and of the degree in the Language course. Students in multigrade schools are more confident for their social skills. Also, better marks in language courses make students even more confident that they can perform such behaviors. Indirect effect through the intervening variable of the grade in mathematics is not exercised in the dependent variable. In contrast, indirect effects on the dependent variable, by the degree in the Language course (second endogenous variable) is the student gender and the school size. Students in multigrade schools and particularly boys do not perform well in language courses compared with girls and students in single grade schools.



**Figure 2: Path analysis model with dependent variable the certainty of students in their social skills**

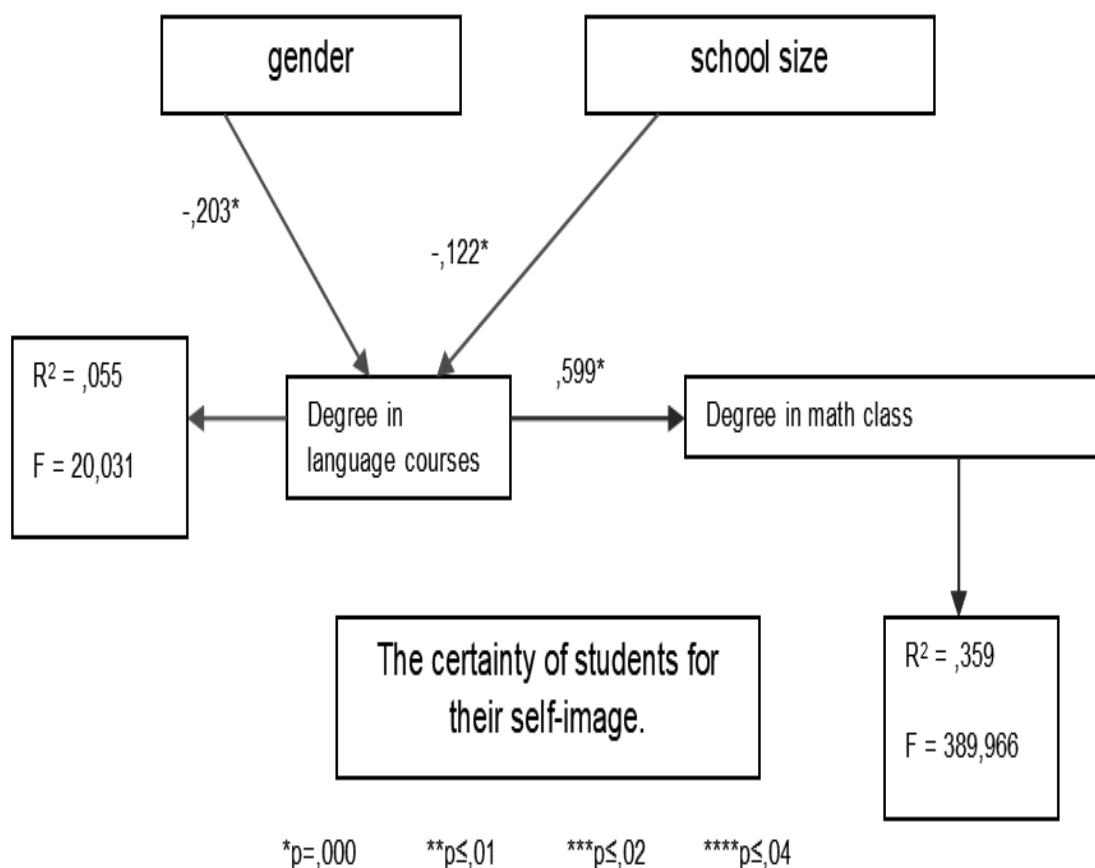
**Multivariate analysis (self-concept sports skills).** In the number of participants which are similar with respect to socioeconomic status and also in the variable that refers to 'the certainty of students for their athletic skills', Multiple Regression Analysis with Path Analysis Model (Figure 3) was performed. Direct impact on the dependent variable is exerted by student gender. Boys are more confident than girls for their athletic performance.

Indirect effects through intervening variables of the degree in Mathematics (first endogenous variable) and the degree in Language (second endogenous variable) indicate that is not exercised in dependent variable.



**Figure 3: Path analysis model with dependent variable the certainty of students for their athletic skills**

**Multivariate analysis (self-image).** Through Multiple Regression Analysis with Path Analysis Model (Figure 4) and in participants that did not show differences in the socioeconomic status of their family, the relation between the independent variables and their overall effect on the dependent variable was tested. In this model, with 'the certainty of students for their self-image' as a dependent variable, all the factors (gender, size) which through bivariate analysis appeared to be statistically significant were used as independent variables whereas the performance in two courses, Language and Mathematics were used as endogenous variables. Regression analysis did not show a direct or indirect impact on the dependent variable.



**Figure 4: Path analysis model with dependent variable the certainty of students for their self-image**

**Multivariate analysis (emotional dimension).** In participants who did not show differences in the socioeconomic status of their families, through the Multiple Regression Analysis with Path Analysis Model (Figure 5), and with 'the certainty of students for their emotional behavior in academic and social issues' as a dependent variable, direct influence is exercised by the degree in the Language course. The better marks that students get in the Language course make them feel more certain about their emotional behavior regarding academic and social issues. Indirect effect through the intervening variable of the grade in mathematics is not exercised in this dependent variable. In contrast, through Language grade (second endogenous variable), the gender of the student and the school size exercise indirect influence on the dependent variable. Students in multigrade schools and boys had lower performance on language courses compared to girls and students in single grade schools.

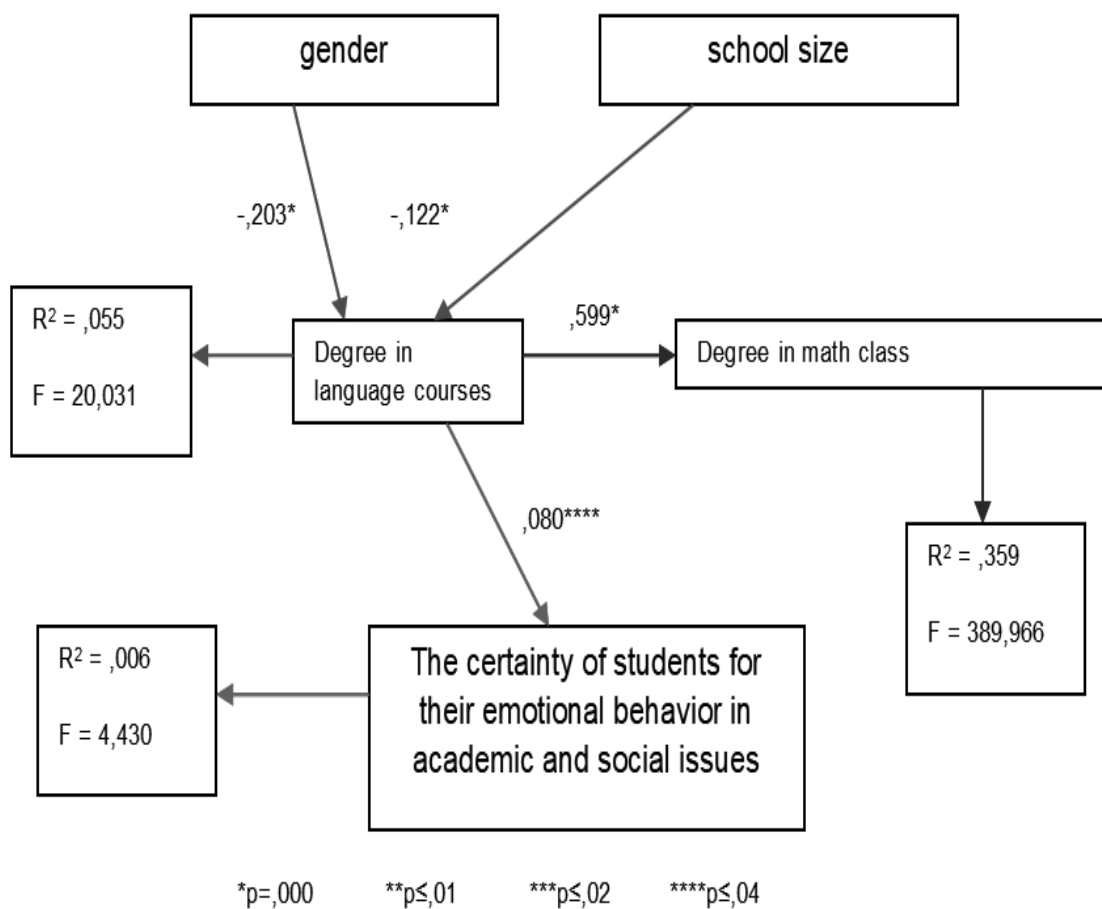


Figure 5: Path analysis model with dependent variable the certainty of students for their emotional behavior in academic and social issues

## Discussion

The aim of this study was to comparatively examine the self-concept of students attending multigrade schools or single grade schools in specific fields such as academic and social skills, emotional behavior in academic and social skills, self-image and athletic performance.

Considering the self-concept of students in academic skills and by not taking under consideration the factor of socio-economic background statistically it was found that students of both school types, in terms of self-concept in academic abilities, do not differ. Sampled students in both types of schools perceive themselves as effective into exhibiting behaviors of academic nature (e.g. homework handling and homework on time delivery, proper implementation of directives and regulations, diligence regarding homework and other school obligations). The self-concept of academic abilities involves, as Dermitzaki says (2001, p. 102):

*“the set of beliefs and attitudes that the individual has for his abilities and weaknesses as knowledgeable human being in various cognitive areas’.”*

These findings, however, do not agree with the initial hypothesis nor with research findings of Schrankler, 1976; Ford, 1977; Miller, 1990; Cotton, 1993; Kadivar, Nejad & Emamzade, 2005, which indicated that students of multi-age grouping compared with students in single grade schools excelled in academic self-concept. However, this finding statistically agrees with Way (1981) findings, where students of multi-age grouping, regarding their academic self-concept, did not differ significantly from peers in single-age grouping.

As a possible cause for the interpretation of such differentiation in Greek multigrade schools (particularly in one-teacher and two-teacher schools), can be considered the fact that in the small schools of the country multi-age grouping is lacking in joint classes. In such cases the phenomenon of one classroom can be observed into which more than one grades coexist containing younger and older students. This, moreover, is due to the lack of space or because of the small number of students and not as a practice of maximizing the benefits actually derived from multi-age class composition.

Alongside the academic self-concept, students of multigrade and single grade schools were asked to reflect their perception of their ability in sports. After excluding the factor of socioeconomic status from the research sample it was found that students attending multigrade and single grade schools tended not to differ in self-concept in athletic performance. Students in both types of schools believe that they can perform in a satisfactory way both in sports in general and in specific athletic activities.

Regarding the self-concept of student's characteristics of external-physical appearance or self-worth, students in multigrade and single grade schools do not statistically differ. This was noted again after eliminating the factor of socio-economic status in this field of self-concept. Students in both types of schools evaluate themselves and believe that they fulfill to the same degree elements of their external appearance, popularity, and various culturally valuable characteristics.

These findings confirm the initial hypothesis and agree with research findings of Way, 1981, and Kadivar et al. 2005 by which there was no statistically significant difference in self-concept and self-esteem of students regarding their external appearance and popularity.

Apart from self-image and academic and physical skills children grow and develop their emotional world. The research findings confirmed the initial hypothesis that students in multigrade and single grade schools do not differentiate among themselves and with respect to their emotional behavior in academic and social skills since the factor of socio-economic origin is neutralized. Students in both types of schools perceive themselves as capable of expressing emotions of inconvenience, discomfort, annoyance or disagreement, to introduce-present themselves to others without been told to do so, and face their mistakes with sympathy thus making social interaction and academic success. These findings are in accordance with findings in surveys of Fykaris (2002) and Way (1981) where students of single-age and multi-age grouping did not statistically differ in their self-perception regarding the parameter of behavior.

Further statistical analysis confirmed the initial hypothesis that the self-concept of students in the social field is significantly different in the two types of schools,

if the factor of socio-economic background of students is again neutralized. Specifically, students in multigrade schools see themselves as more capable of demonstrating some social behaviors and interacting with their environment (classmates, friends, social environment) compared to their peers in single grade schools.

The above findings are in accordance with the initial hypothesis and the research findings of Schrankler, 1976; Ford, 1977; Miller, 1990; Kapsalis, 2000, and is not in accordance with the research studies of Way, 1981, and Kadivar et al, 2005 where students of both school types did not differ significantly regarding their social self-concept. Moreover, this does not partially agree with research findings of Fykaris, 2002, where no differences in interpersonal relationships and socialization between multigrade and single grade schools were noted. In multigrade schools each child can relate with other peers not always with age criteria but also taking into consideration other factors such as physical development, vocabulary, capabilities-skills and to interact without being competitive. On the contrary, student's relationships with their peers in single grade schools provide autonomy opportunities and cultivate various social skills, while nevertheless sometimes enhance competitive mood and aggressive behavior (Fykaris, 2002, p. 388). Rubin (1987, p. 121) characteristically says:

*"mutual action in groups of children of different ages helps to overcome this antagonism [...]. Such interaction between children of different ages ensures that young children are encouraged and guided by older children and at the same time this inspires the oldest with pride and a sense of responsibility that comes from helping others."*

## **Conclusion**

Taking into account the main findings of the research, it should be pointed out that the apparent issue of the effectiveness of small schools over the last few decades has been the subject of scientific discussion. In discussions concerning the future of these schools, some people are supportive and stand in their favor, while some others are judgmental as they feel that they lack in educational standards and have serious deficiencies. In conclusion it has to be noted that according to the survey findings the pupils in multigrade schools show no significant differences, at least in most areas of their self-concept (academic skills and emotional behavior) nor in self-esteem (athletic performance, physical appearance, popularity) compared with their peers in single grade schools. The above findings are in accordance with survey findings of Papastamatis (2004, p. 103) accomplished in multigrade and single grade schools of Western Macedonia, where statistically it was found that students in multigrade schools do not significantly differ in the average performance of their self-concept compared to their peers in single grade schools. Although a relative preponderance of students from single grade schools was shown.

These findings have a significant value because they confirm the fact that in a multigrade school, students obtain consciousness and confidence of succeeding both in school and sports activities and proper behavior, of expressing their feelings and understanding that they are important and easily acceptable by

others. Better "social adjustment" and "emotional balance" is achieved by individuals who have a positive image of themselves, as opposed to those that feel they are worthless (Papastamatis, 2004, p. 95). Although the cultivation of having a positive self-concept, values and incentives should be main objectives of school, many believe that students in multigrade schools do not have equal educational opportunities when compared to their peers in single grade schools. Although significant opportunities must be available in multigrade schools to further improve the self-concept and self-esteem of students, mainly through cooperative learning, peer learning and total participation, however, the findings show that the way school is organized and works does not substantially differentiate it from single grade school. Furthermore Kapsalis (2000, p. 244) states that the curriculum for students attending multigrade and single grade schools in Greece is the same, it has a teacher-centered nature, most of the time students listen passively their teacher or work 'silently' without interacting with their peers and their teacher.

Moreover, the supremacy of multigrade schools in terms of social development (social self-concept) of the pupils attending such schools is confirmed by the findings of this research. In small schools, age difference is not a criterion affecting friendship and children relationships. These are more stable since children spend longer time together. Younger and older children by working and playing together, gain knowledge and enhance 'self-determination'. So partnerships are less competitive, while social relations are more honest (Papastamatis, 1998, p 40; Kwan, 2006). When children work in an age mixed classroom (Evangelou, 1989) they enjoy interacting with younger children and without any pressure what so ever. Since multigrade schools have a small number of students, and the participation of each one is essential (Barker, 1986) in all activities each student has a variety of opportunities to take initiatives and progress. Royal & Rossi (1997) point out that the 'sense of community in each small school creates a supportive environment where all students are active and feel comfortable even when they perform insufficiently in courses. Katz (1995) emphasizes that the acceptance, the care and the trust of the "important others" towards children help them to gain healthy self-esteem and "good feelings". Fykaris (2002, p. 388) points out that in these schools, children can co-operate with each other, not always with age-oriented criteria, and interact in a non-competitive way.

In addition, teachers of multigrade schools encounter several difficulties related to teachers of other school types (organization and operation of multigrade school), social (geographical and social isolation) and economic factors (Brouzos & Economopoulos, 2016). The reason of these difficulties is the fact that they consider it as an "emergency school" even if it offers jobs and acts as a factor that prevents urbanism. They believe it is preferable to stop existing, since any support that the teachers receive in this school comes mainly from informal implementation of the approved educational policy (Brouzos & Economopoulos, 2017). However, a newer Ministerial Decision (Government Gazette 1800/24-05-2017) strengthens the functioning of multigrade schools by placing training specialists and strengthening structures such as the one-day school, which demonstrates the state's positive attitude towards the small provincial schools of the country.

Consequently, the results of this research should be interpreted with relative limitations. The universality of the findings of the present research cannot be fully ensured as the sample is not representative. The present study reveals, however, a tendency of differentiation and superiority by students of multigrade schools in self-concept and in the specific fields of social skills. All these can be stated after eliminating the socioeconomic origin effect of pupils into both school types.

In addition, one limitation of the present study is that the research data has been gathered several years ago, so someone would argue that several things have changed since nowadays in school life. For this, it should be noted that during all this time there has been no new research published as far as multigrade schools of the Greek region regarding the parameters of pupils' self-perception on attending these schools. Furthermore the teaching techniques and the overall way of function remain about the same. However, a future research applied in a sufficient sample that covers the entire student population of the country becomes absolutely necessary. Such research will have to study the parameter of self-concept of single grade and multigrade students as well as other parameters such as student's performance or the difficulties faced by students and teachers from this school type. Such findings, by demonstrating the benefits of small schools, will make a decisive contribution into reviewing the attitude of the State and of all others that are involved and suggest the merging and abolishment of small schools.

Fykaris (2005, p. 166) notes the following:

*"the pressure exerted by school in a class in order to achieve equal results of achievement in specific and predetermined time, creates intense competition, increased anxiety, failure conditions and strong sense of rejection."*

Therefore, in accordance with scientific findings from other countries but also based on the few researches in Greece regarding the benefits of multiage grouping in cognitive and socioemotional development of children, Greek multigrade schools must be maintained and strengthened. In Greek multigrade schools, younger and older children are grouped and coached by necessity and not by practice and philosophy (applying the principles of multigrade clustering). From the analysis of this research, it becomes apparent that such findings can change the attitude not only of the State but also of the teachers working in these schools. Despite the difficulties that these teachers face, their primary concern could be the positive feedback and the high expectations for their students and subsequently seeking ways of effective classroom organization and teaching by appropriate methods.

In cases where school merging is necessary for several other reasons, all conditions that justify such a decision must be fulfilled since the multigrade school is a vital element of national, social and educational policy.



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