

Academic Achievement in Language Teaching: The Impact of Teaching with Cartoons

Angeliki Markoglou,

markangel@ppp.uoa.gr

University of Cyprus

Andrea Karkavitsa 5, 2109, Nicosia, Cyprus

+357-99761810

Abstract

The current dissertation's aim was to perform a study considering possible differentiations in the students' academic achievements on the course of Greek language, comparing conventional teaching and teaching using cartoons. Research sample consisted of 651 students from 12 Model Experimental Junior High Schools in the entire territory of Greece. In particular, 150 teaching sessions were performed, in order to seek answers to the research questions. The research method of diagnostic evaluation criteria was applied, collecting 3646 criteria. Data analysis revealed significant differentiation in students' academic achievements, between teaching with and without cartoons. In addition, differences were detected in girls' and boys' achievements in relation to the language course. In summary, it appears that the differentiation of the language course teaching design and the introduction of cartoons had positive effects both on girls and boys, improving their language academic achievements.

Keywords: academic achievement; gender; language teaching; cartoons

1. Introduction

In most countries internationally, language teaching and the development of students' language skills (literacy) are core components of Primary and Secondary Education and used as the foundation of the Studies Curriculum. Language teaching allows young students to communicate effectively and understand meaning deriving from printed and electronic means (literacy, critical literacy, and multiliteracy). It also helps them realize that language is not merely a means of communication, but also carries social messages (Kress & van Leeuwen, 2010), it is a cultural product, it constitutes in itself a value and an educational good, it is an element of identity and, of course, it is the expression of civilization itself. It is evident that language teaching is neither easy nor exhausted in the memorization of certain rules. On the contrary, it is closely linked with the arrangement of an appropriate learning environment, within which students are asked to comprehend the language system and the communication parameters affecting speech, progressing from text to sentences and from sentences to words and their function (Mitsis, 2004). At the same time, appropriate creative language activities are employed, providing motivation and interest for participation.

The students' academic achievements are reinforced by actions that help elevate the quality of education provided. In order to achieve this, the students' learning outcomes must also be reinforced. These learning outcomes are obtained according to the quality of knowledge and skills acquired in their learning context. Thus, they are expressed in students' achievements. Consequently, an overall improvement of the educational context is necessary to help reinforce academic achievements (Wiyono et al., 2017).

During the last few years, research and data have revealed some interesting information with regard to language learning. Language teaching is a core area of the school educational system, necessitating the application of certain methodologies to achieve effectiveness. In addition, it has special characteristics which require a specific approach in its implementation. For instance, experience has shown that vocabulary teaching is often performed in a manner that fails to motivate students or capture their interest (Wiyono et al., 2017). In Greece in particular, reading levels are not as good as the OECD average and have declined since 2006. The challenges faced by students in reading and writing and their poor and limited vocabulary are also

confirmed by the results of the Pan-Hellenic Examinations in the courses of Ancient and Modern Greek Language of the past few years (<http://www.minedu.gov.gr/>).

The above data can also be confirmed via discussions with active teachers and from our own teaching experience. Teachers often mention that vocabulary teaching is difficult and non-measurable and students are often unable to comprehend new words or have trouble introducing them in their speech. Students are thus unable to enrich their vocabulary and add the so-called “difficult” words in it. Consequently, they feel challenged in selecting proper words to accurately convey their thoughts and prefer borrowing words from other languages.

The emergence of programmes assessing academic achievement, such as PISA, PIRLS etc., has showcased differentiations according to gender. In reading comprehension, girls have been shown to achieve higher grades than boys, who present higher academic achievements in Mathematics courses (OECD, 2016). However, boys’ performance improved, particularly among the highest-achieving boys, while girls’ performance deteriorated. Similar results have been reported by TIMSS 2015, with boys achieving higher academic achievements than girls in Mathematics, in approximately one third of the countries considered. (Marcenaro-Gutierrez et al., 2017; Mullis et al., 2016). With regard to both genders, approximately 20% of students in OECD countries fail to achieve baseline reading levels (PISA, 2015).

Thus, the students’ academic achievements are directly linked with the organization of the course and the application of a proper educational design, creating a framework of acceptance, cooperation and encouragement or support. In educational planning, teachers must take into consideration the students’ interests and aptitudes, gaining their attention during the course. Being aware of the students’ learning styles allows teachers to differentiate teaching methods accordingly and thus achieve a more successful lesson delivery (Myron & Keith, 2007; Toh, 2009). The use of various educational means (such as images, mind maps, cartoons etc.) can attract the students’ attention to the knowledge being offered, allowing them to learn and assimilate new information easily. As the number of senses being stimulated by the teaching process is increased (Gardner, 2006, p. 44), learning possibilities can be enhanced even further. Using cartoons in teaching - given the importance students bestow to them, when matched to their interests - may affect learning motivation and improve academic achievements (Wigfield & Eccles, 2000, p. 68-81).

Cartoons and comics have been successfully utilized in attracting adolescents in advertising, as shown by media research (Toh, 2009). This success can also be reproduced in learning, introducing cartoons in the process. Thus, dealing with the challenges of language learning and the contribution of cartoons in the learning process, the current dissertation sought to differentiate the vocabulary teaching method in the framework of the Greek language teaching, creating and utilizing an educational tool featuring cartoons. The goal was to provide a comparison of the students’ academic achievements, with and without the use of cartoons.

2. Academic Achievement

Academic achievement is a complex concept, determined by various factors. It is correlated to individual skills, inherent or acquired. According to Aristotle, people can only be happy when they are given the opportunity to practice their skills: the more they practice them, they more these evolve and are perfected. Academic achievements are often defined as the evaluation of a student's performance in relation to the educational process. They are affected by various factors, such as individual factors, social factors, learning factors, family factors etc. which are involved in the educational framework.

At school, academic achievements usually refer to an outcome with common specifications, with students achieving results corresponding to previously determined success criteria, such as teaching aims. This means that in school, the concept of “achievement” is usually considered in relation to teaching aims (Kapsalis & Haniotakis, 2011, p. 79). In the Greek educational system, the concept of academic achievement has been directly linked to the level acquired by students who have achieved the aims and purposes of the various learning objects. This outcome is quantitatively translated via the grade (on a 10-point or 20-point scale) achieved in courses and can be attained via various methods and techniques.

In other words, academic achievements relate to a set of actions and activities developed by students, reproducing or utilizing the information acquired during learning provided at school. The concept of achievement refers to the obligation of producing work in class. It refers to the student’s role in “learning”

and must be focused on an individual procedure of learning and progress for students. It is the outcome of a coordinated bodily or mental effort. In order for this outcome to be characterized as achievement, the effort must be significant. It must provide the subject with the experience of success and at the same time acknowledgment by his/her closer and wider circle.

2.1 Academic Achievement and Cartoons

Various teaching approaches have been proposed and advocated internationally. Some teachers suggest that an upgrade of conventional teaching methods is required, better suited to the educational needs of the modern era (Bell, 2016, p. 48). For instance, the introduction of cartoons or comics in teaching shows promising results as a tool reinforcing students' learning. Cartoons are a popular method of attracting students' attention and interest and they help them develop several skills in the learning context. Cartoons are popular among students, reinforce their learning incentives and are a fun addition in class (Toh et al., 2017, p. 437-452).

Using cartoons in teaching - given the importance students bestow to them - may positively affect and improve their academic achievements (Wigfield & Eccles, 2000, p. 68-81). It is widely known that cartoons offer entertainment elements in teaching and at the same time: a) they motivate students, offering incentives via elements such as challenge, imagination, acknowledgment and acceleration; b) they offer a game-like structure to the course, as there are rules based on which a game is played and the achievement of a final purpose is sought; and c) they stimulate the students' senses, by using graphics, images and other effects, so that students can participate in the teaching process in body and in spirit. In addition, cartoons feature: a) "living" characters; and b) images that attract attention, accompanied by enjoyable sounds and music. Thus, teachers enjoy using cartoons during the teaching of all learning objects (Arikan & Ulas, p. 2010- 5212).

Teachers have started acknowledging the importance of cartoons as an educational tool, used to incite students' interest (Cleaver, 2008) and improve their academic achievements (Tilley, 2008). Research has shown in the past that cartoons and comics are very popular among younger students (Wright & Sherman, 2006). Children are often able to easily combine visual and textual cues when reading comics or watching cartoons. Consequently, the use of cartoons in teaching can enhance skills and creativity and improve the students' ability to understand content.

Arikan and Ulaş (2010, p. 5215) examined the effectiveness of cartoons in teaching English language to students in Turkey. They used two student groups in their research. The first group was taught using conventional methods, while the second group was taught using popular cartoons (The Simpsons). The comparison of the learning outcomes between the two groups showed that the second group had higher achievements when taught vocabulary and watching cartoons. This data is also confirmed by the research of Dalakosta (2009, p. 159-164), who showcased the contribution of cartoons in the learning approach and their effective utilization during teaching. Perales-Palacios & Vilchez-Gonzalez (2005, p. 1666-1669) studied the option of teaching with the use of selected episodes of known commercial series (such as The Simpsons and Pokemon) of cartoons broadcast on TV. This research was performed at secondary education schools and included a personalized determination of the knowledge acquired by students, with the use of respective episodes. The researchers found that using cartoons encouraged students' incentives and reinforced their self-evaluation. When students were asked to draw comics at class during the course of language, children with lower achievements showed increased willingness to participate. This in turn has reinforced their overall participation in the language course (Toh, 2009, p. 235).

Yaman's research (2010, p. 1235-1237) on the use of cartoons in teaching grammar showed that cartoons increased students' success rates during learning. He also supported that they had positive outcomes in academic achievements and improved success rates, in comparison to conventional methods. He noted that teaching with the use of cartoons created a pleasant and entertaining feeling in class. Cartoons played an important role in learning acquisition of new grammar rules. At the same time, students noted that cartoons: a) made the course happier; b) learning became easier; c) improved their learning acquisition and memory; d) reduced repetitions; e) made memorization easier; f) developed their creativity levels; g) established learning; and h) reinforced their incentives and participation in class.

During the teaching act, cartoons may facilitate teachers in offering new information and assist students in comprehending various concepts, which can be more easily connected to their pre-existing knowledge. Teachers initially attempt to incite the students' interest and attract their attention, in order to be able to

communicate with them and transfer, as well as restructure, their knowledge (Roesky & Kennepohl, 2008, p. 1355-1360). Teachers suggested that the use of cartoons in teaching provided students with greater incentives of participation. This led to better cooperation between teachers and students in the learning process (Toh, 2009).

2.3 Academic Achievement and Gender

It is a fact that students' academic achievements may be affected by various factors. These factors interact, often preventing an accurate evaluation of their individual contributions in students' academic achievements. Research has supported that gender is among these factors (Carvalho, 2016; Voyer & Voyer, 2014) and it has shown that it affects and causes pervasive differences in academic achievements.

Since the 1990s, English literature in particular has shown reduced achievement by boys in various examinations. It is clear that girls outperform boys in several educational fields. Boys achieve lower grades, attend higher education with lower rates, quit school more often (Buchmann et al., 2008), and appear in high rates in special education services. International research confirms the gap between girls' and boys' achievements (OECD, 2015; Vantieghem & Van Houtte, 2018). Research data suggests the girls' obvious dominance in relation to boys with regard to academic achievements, in all grades of the educational system. Boys seem to not be at par with their female classmates, in reading and writing. A research held in Sweden showed that girls have better grading achievements in all compulsory school courses, except for physical and health education (Skolverket, 2006). In the United Kingdom, girls were better in language courses and boys were better in mathematics (Sammons et al., 2008).

Overall and despite the fact that both genders possess the same intellectual abilities, girls outperform boys (Steinmayr & Spinath, 2008). Researchers have been trying to detect the reasons behind this tendency (Carvalho, 2016, p. 54-58). Girls have been shown to outperform boys in education, score better grades and achieve more educational titles (Carvalho, 2016; OECD, 2015; Voyer & Voyer, 2014). In all OECD countries, girls are better than boys in reading and boys have better achievements in mathematics (PISA, 2015). However, this gap in mathematics achievements seems to be smaller, when girls perform good in all courses. At the same time, although the gender gap in mathematics is reduced, it is increased when it comes to reading, with girls achieving higher performance (Hadjar et al., 2014).

This study showed girls having low achievements in mathematics and higher ones in reading and writing, an outcome that has been sustained over time. Amidst these tendencies, there are also social factors in place, for instance, comparison patterns among students. The results have shown that these comparison mechanisms play a larger role in these fields. Although stereotypes in the learning context have not been eradicated, they are not considered to be the main culprit behind gender differences. All social comparison mechanisms should be taken into consideration when examining gender differences (Parker et al., 2018).

Research efforts on the teaching of Modern Greek Language in Greece have studied gender effects in the students' language achievements. Kassotakis & Flouris (1981) stress girls' dominance in language courses, a finding that also seems to be repeated in Galizi's (2007) research: "Girls read more than boys [...] girls showed preference in stories and boys in comics [...] girls usually have higher academic achievements in language courses than boys do". Spinath et al. (2010) hypothesized that in the Language course, where oral achievement plays a substantial role, higher levels of extroversion are beneficial; this has been particularly favorable for girls. For boys, on the other hand, high levels of extroversion may be correlated with low achievement in Language

courses. Spinath et al. (2010) assume that extroverted boys violate the school class rules more frequently (e.g. they talk without being allowed to, they communicate with their classmates on topics not related to the course), a fact which possibly disorients them during class and carries punishment by teachers, reducing their academic achievement.

3. Aim and Research Question

The basic purpose of this thesis is to compare academic achievements of pupils on the course of Greek language (vocabulary), with and without the use of cartoons. The main aim is to consider the possible modification of girls' and boys' academic achievements by applying teaching with the use of cartoons in comparison to "conventional" methods of teaching. Thus, the research question is based on the comparative evaluation of "effectiveness" between the "conventional" and "new" teaching methods in enriching boys' and girls' vocabulary. In detail:

(1) Was there differentiation in students' academic achievements when teaching with and without the use of cartoons?

(2) Are there gender differences in academic achievements on the language course?

3.1 Sample Data

This research was held during school year 2014-2015 in 12 Model Experimental Junior High Schools in the entire territory of Greece (Athens-Thessaloniki-Ioannina-Patras-Crete). 150 teaching sessions were performed (75 conventional teaching sessions and 75 teaching sessions with the use of cartoons), with the participation of 651 students of Junior High B Class, collecting 3646 diagnostic evaluation criteria (vocabulary tests).

3.2 Description of Research Procedure

During the research procedure, students were taught (attended teaching sessions) using two different methods: a) conventional method; and b) use of cartoons in teaching. In teaching vocabulary with the utilization of cartoons, teachers were asked to apply an educational tool created for the purposes of this research. Teaching sessions were performed using an interactive board and included popular cartoons (such as Finding Nemo, SpongeBob, Minions, Ice Age etc.). Via a series of interesting activities, students sought the meaning of words and were asked to explain them to their classmates. Each "new" word was offered with the deductive teaching method, allowing students to investigate it. The teacher's role was auxiliary, based on the constructivism framework, providing necessary clarifications and facilitating students, when necessary. The assimilation of new knowledge was achieved using specially arranged worksheets. Upon the teaching session's completion, students filled out a properly arranged diagnostic evaluation criterion (vocabulary test), allowing the researcher to consider any possible differentiation on the students' academic achievements, following the introduction of cartoons in teaching.

3.3 Methodology

The diagnostic evaluation criteria (vocabulary tests) used in the current research were created by the researcher. The research general and special aims were determined, the content of teaching sessions was organized in a series of questions and an evaluation scale was selected. These tests were administered to students: a) following the completion of "conventional" teaching sessions (without the use of cartoons); and b) following the application of the new teaching approach (with the use of cartoons). The basic purpose was to review the results of applying this differentiated teaching method including the use of cartoons.

The researcher used the tests as an effective method of collecting research data with regard to the research purposes. The tests' validity and reliability were ensured via the following:

(1) the vastness of the group taking the tests (the sample range included students from schools all over the country, N=651) (Wolf, 1994, p. 121-132);

(2) the test duration (lasting only a few minutes) (Wolf, 1994, p. 121-132) and its construction, allowing an almost identical difficulty for all tests and for both groups (tests in teaching sessions without cartoons and tests in teaching sessions with cartoons) (Cohen et al., 2008, p. 562);

(3) the anonymity of subjects and the avoidance of a test-centered approach, allowing responses to be honest and as objective as possible, seeking to reduce the students' school stress (Creswell, 2011, p. 197);

(4) the existence of an experimental group taught with the use of cartoons and a control group (Cohen et al, 2008, p. 562) taught without cartoons. This allowed the comparison of average academic achievements during teaching sessions with and without cartoons; and

E) the words that the students were examined on were of graded difficulty in all tests granted: four words on the easy scale, four words on the moderate scale and two words on the difficult scale, in the two exercises included in each test (Cohen et al., 2008, p. 562).

4. Results

The students' diagnostic evaluation criteria (vocabulary tests) showed that cartoons significantly helped all students better assimilate new knowledge, reinforcing their academic achievements. Out of a total of 3646 vocabulary tests (table 1) 1873 vocabulary tests were collected without, and 1773 with the use of cartoons in teaching. It was shown that the students' language achievements were significantly increased (17.83) with the use of cartoons, in comparison to conventional teaching (14.47). Vocabulary comprehension and utilization was easier, with students scoring more "Excellent" grading achievements (61.9%) in comparison to conventional teaching (19.9%). Another impressive finding was that grading achievements below the baseline of 10 were significantly reduced (1.5%) in comparison to teaching without the use of cartoons (13.8%).

The contribution of cartoons appeared to be decisive in the comprehension of new knowledge by students (Figure 1). In comparison, it seems that in teaching with cartoons, students appeared to better comprehend words, achieving higher grades in comparison to conventional teaching. As we see in the graphic, the students' average grades were increased by approximately 3.5 points.

Studying gender effects on students' academic achievements in the course of language, it is shown that girls have evident dominance over boys, both in teaching without cartoons and in teaching with cartoons (Table 2). In detail, girls scored an average grade of 14.94 in teaching without cartoons, with boys falling behind on 13.98, showing a difference of approximately one point ($14.94-13.98=0.96$). The use of cartoons during teaching the language course appears to equally help girls and boys, as they showed impressive improvement on their average grades (18.1 & 17.55 respectively) (Figure 2). Girls showed improvement by approximately 3 points ($18.1-14.94=3.16$), and boys a little more, by approximately 3.5 points ($17.55-13.98=3.57$). This confirms research data supporting that boys enjoy the use of cartoons more (Galizi, 2007). Despite that, in teaching both with and without the use of cartoons, there is an evident dominance of girls in vocabulary tests, confirming related research that supports girls outperforming boys in language (OECD, 2016; Vantieghem & Van Houtte, 2018).

5. Discussion

Research data suggests that the use of cartoons had positive effects in the course of Greek language. It offered a sense of familiarity, liveliness and a pleasant feeling in class. At the same time, it directly corresponded to the students' needs, experiences and knowledge levels (Wright & Sherman, 2006). Cartoons seemed to have a positive effect on students and facilitated teachers using this teaching approach. They emerged as an effective, complementary educational tool in class, reinforcing students' incentives for learning.

Particularly in research question 1 (Was there differentiation in students' academic achievements when teaching with and without the use of cartoons?) findings showed that students scored 17.83 in teaching with the use of cartoons. These results were significantly better in comparison to teaching without cartoons (14.47). These results confirm the findings of Wigfield and Eccles (2000, p. 68-81), according to which the use of cartoons in teaching practice can positively affect and improve students' academic achievements. In this way, the learning procedure becomes more creative, as students discover the meaning of visual cues (Ausekle & Šteinberga, 2011, p. 110). At the same time, cartoons seem to promote learning, reinforce student interest and make the course more attractive (Madden et al., 2009; Toh, 2009). Another impressive finding is that students' grades below the baseline of 10 were significantly reduced, at 13.8% in teaching without cartoons and 1.5% in teaching with cartoons.

Interpreting these results, it seems that differentiating the teaching design of the course and the introduction of cartoons have significantly helped students improve their achievements. This has also reinforced their knowledge flexibility, rendering them able to select the necessary information and properly combine them to acquire knowledge (Spiro et al., 1992). Success rates based on vocabulary tests showed the contribution of cartoons in teaching, as they reinforced memorization of new knowledge and helped students more effectively recover previous knowledge. In addition, cartoons helped in dealing with any comprehension misunderstandings and boosted the students' knowledge and conceptual development.

Using cartoons, the texts received by students derive from multiple sources and are not only lingual but a combination (Adaloglou, 2007, p. 29). These multi-faceted texts use a combination of semiotics resources to convey messages (Kress & van Leeuwen, 2010: 280) and they usually combine words, animation or static images, sound, music and charts. It seems that images, colors and cartoons have positive effects on students, as they effectively contribute in teaching, providing important information. The use of cartoons in teaching incentivizes students and provides them with options of free expression and personal expression. In this way, the learning procedure becomes more creative, since students develop interpersonal skills and learn how to discover the meaning of visual cues (Ausekle & Šteinberga, 2011, p. 110). Wright & Sherman (2006) stress that the use of cartoons responds in various ways to the students' school needs, experiences and knowledge level.

In the same framework, the research by Yaman and Yildiz (2008, p. 367-377) showed that language teaching with the use of presentation equipment reinforces students' academic achievements. The researchers stressed that the use of cartoons can improve educational outcomes. Oluk and Ozalp (2007, p. 859-896) found that cartoons and comics are an important educational tool, offering attractiveness to teaching, improving the educational context and allowing students to better focus and become more efficient, saving valuable teaching time.

In research question 2 (Are there gender differences in academic achievements on the language course?), data indicated that girls had an average achievement score of 14.94 in Greek language and boys 13.98. This result showcases the better performance achieved by girls in comparison to boys and the fact that gender is a factor involved in academic achievements. The results confirmed the findings of Spinath et al. (2010), stating that girls have significantly better academic achievements than boys in the language course. The research completed by Galizi (2007) is also confirmed, stating that girls prefer reading and boys prefer comics and cartoons.

Interpreting the above results, it seems that there are gender-based differences in academic achievements. In the USA, where cognitive skills tests are established, achievement differences are noticed between the two genders. These tests examine skills in language and mathematics, with boys having higher performance in mathematics and girls outperforming them in language. This may be due to the belief already existing in societies that certain topics can be tackled only by girls and others only by boys. Consequently, a view has been socially established, according to which boys are better than girls in certain knowledge objects and vice versa.

Girls make stereotypical selections in courses (e.g. studies directions in Senior High School) and choose occupations based on stereotypical criteria (Leonard, 2006: 196-197). Boys have comparatively lower achievements in courses conventionally considered female (and connected to the increased value attributed to communicational skills) such as language courses and foreign languages (Arnot & Ghail, 2008, p. 17). In addition, in secondary education, rewards by the school and teachers seem to have positive effects in academic achievements with a greater frequency in girls (Davies et al., 2006, p. 212-220). This leads to boys often showing lower incentives and having less positive attitudes for school in relation to girls (Warrington et al., 2000). Thus, social and/or cultural factors may possibly be related to the attitudes formed by both genders with regard to school, a factor that will affect their academic achievements.

Theoretical literature uses two factors to explain gender differences in academic achievements: biological factors and social factors (Marcenaro-Gutierrez et al., 2017). Initially, it seems that the former factor (biological) is not sufficient to explain differences in academic achievements between girls and boys (Deary et al., 2007). Turner (1998, p. 32) states that the biological factor is a predisposition for a certain kind of behavior, but the social factor is the one determining how and when this predisposition will have an effect.

In social factors, according to gender theory, boys and girls enter the educational procedure with different sets of behaviors, attitudes and values. This differentiation is an outcome of socialization during childhood, according to the cultural standards of masculinity and femininity. Thus, it is stated that education and teaching have been “feminized” and schools no longer sufficiently respond to boys’ educational needs. Another interesting fact is that boys’ low academic achievements are more frequently understood as an outcome of extrinsic insufficiencies such as teachers, school, teaching methods and evaluation methods. In the same framework we also find the stance deriving from the “poor boys discourse” (Epstein et al., 1998), stating that boys are now disadvantaged in school, as girls’ progress seem to have occurred at the boys’ expense.

Thus, it is suggested that male behaviors, values and attitudes in school affect boys’ academic achievements. For instance, the fact that school requires compliance with the rules and the authority of teachers can be considered to be feminizing their behavior. This can often convert them to passive recipients of educational authority. Boys then become opposed to school practices and principles, showing indifference which may even lead to adopting an entirely anti-school culture. In a research held by Warrington et al. (2000) it seems that boys presented feigned indifference for school activities, in order to avoid becoming the subject of mockery by their peers and to gain their acceptance.

Gender stereotypes are often repeated in textbook images, depicting boys as professors, lawyers or doctors and girls as mothers, nurses, cooks etc. These stereotypes help establish certain images in the minds of students, with regard to the role they are expected to assume in society. Students’ parents also contribute in stereotyping, gifting toy cars or toy tools to boys and dolls or kitchen sets to girls. The teachers’ contribution on this issue is by offering different treatment to boys and girls in class, sometimes to the point that they suggest different career options according to their own gender stereotypes. In society, there are still many occupations considered best for men or women. Men find it easier to acquire leadership positions in their work environment. Women often find themselves limited to assisting position, despite putting in the same amount of work. There are countries where no female prime ministers or presidents have ever been elected (Ezendu & Obi, 2013). Societal expectations have been different based on gender. This tendency certainly affects students’ choices and their academic achievements (Ezechi & Chinyere, 2018).

6. Conclusion

As shown from the analysis of our data, the use of cartoons seems to help achieve learning goals, significantly improving the levels of school effectiveness. Important differentiation was found in the learning procedure, between “conventional” teaching and teaching with the use of cartoons. These results indicate that there is still an important gender gap in the teaching of language courses. Educational planning and various educational tools can help close this gap. It became evident that differentiating the teaching method and including cartoons in the course of Greek language seemed to help in improving academic achievements in both genders. At the same time, the gender gap was narrowed. In addition, it seems that girls outperform boys in language. The use of cartoons improves both genders’ academic achievements, with boys being more attracted by them (cartoons).

In conclusion, the current research shows that:

- The use of cartoons significantly helped both groups of students (girls and boys) develop their vocabulary base (18,10 & 17,55);
- Girls (14.94) clearly outperform boys (13.98) in the course of language. This confirms research suggesting that girls seem to have better grade performance in language courses in comparison to boys;
- Cartoons seem to help boys more in developing their vocabulary, a fact confirming research data. Boys tend to prefer cartoons (Galizi, 2007), reducing difference from girls (0.55 VS 0.96).

In conclusion, the lack of student incentives and interest on teaching is an important aspect affecting educational effectiveness and academic achievements of all students (boys and girls). Our research findings show that differentiating the teaching method and introducing cartoons have positive effects in students’ academic achievements. Not only is the students’ interest captured, but their knowledge level is expanded, helping them achieve higher grading performance. It became evident that students taught with the use of cartoons managed to introduce “difficult” concepts and words in their vocabulary, in a way that was

unavailable to them before this intervention. It seems that the modification of teaching planning effectively helped students and teachers. Towards this direction, we suggest that teachers should:

- Frequently modify their educational planning, contributing in better organization and proper allocation of the course's teaching time and providing more effective achievement of teaching and learning goals. A teaching planning option covering a variety of methods and teaching strategies seems to contribute in creating a lively educational context.
- Introduce educational tools in teaching according to the students' requirements and needs. They should also aim to create a pleasant educational context, within which students can learn independently, in the framework of personalized teaching. The use of multiple-type intelligence tests in the beginning of the school year can provide important directions for their teaching methods.
- Regularly use different educational tools (digital or not), strictly adopting student-centric teaching models, in order to attract students' interest and activate their personal incentives.

Finally, future educational research needs to aim to the development, collection and dispersion of knowledge. Each teacher's basic aims must include differentiating the teaching method of a course according to the students' requirements and needs and a constant effort to incite students' interest. The variety of teaching approaches offers various options for teaching, which must be further investigated so that any innovations will be supported scientifically.

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Tables and Graphics

	N	Mean	Std. Deviation
Greek language without using cartoons	1873	14.47	3.578
Greek language with using cartoons	1773	17.83	2.315

Table 1. Average Grades of Students in Teaching Sessions with and without the Use of Cartoons.

	Gender	N	Mean	Std. Deviation
Greek language without using cartoons	Girls	949	14.94	3.238
	Boys	924	13.98	3.839
Greek language with using cartoons	Girls	905	18.10	2.177
	Boys	868	17.55	2.420

Table 2. Average Grades of Girls and Boys in Teaching Sessions with and without Cartoons.

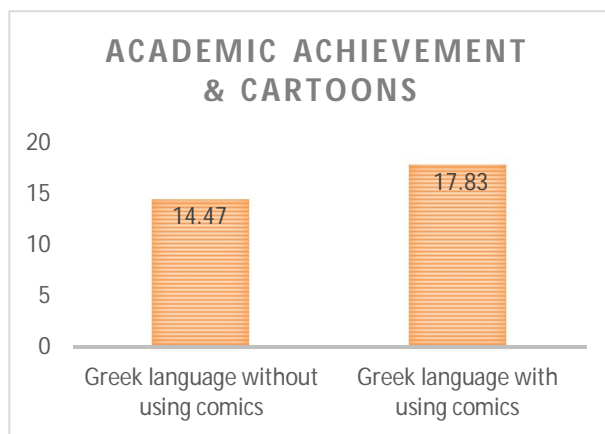


Figure 1. Average Grades of Students in Teaching Sessions with and without the Use of Cartoons.

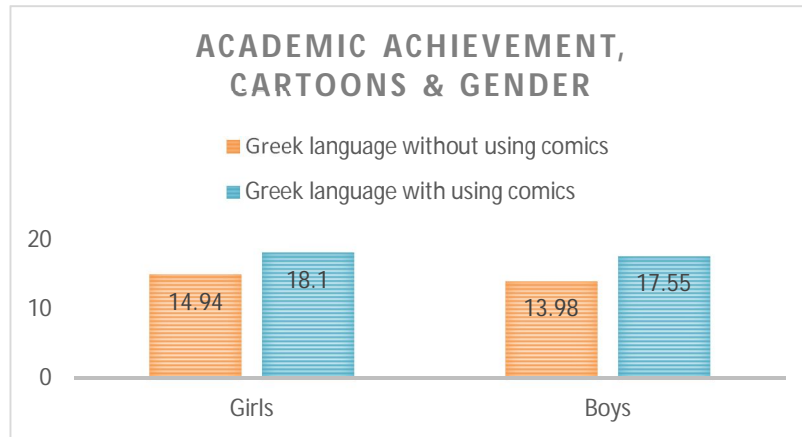


Figure 2. Average Grades of Girls and Boys in Teaching Sessions with and without Cartoons.