Lower Secondary School Students' Attitudes towards Home Economics and Cross Curricularity: The Effect of the Flexible Zone Program

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Abstract

New curricula were introduced for the Greek compulsory education in the first decade of the 21stcenturythatwerebasedonthecross-thematic/curricular approach (named CTC- Cross Thematic Curricula). The effective application of the innovative and theoretically substantiated cross-thematic approach to teaching, learning and assessment is expected to maximize learning success. By investigating the attitudes of students towards the Home Economics lesson, it was expected to determine the degree of utilization of cross-curricularity, as well as the experiential and collaborative methodologies used in the Flexible Zone, in the classroom and whether teaching was designed and implemented based on the needs, desires, interests of students. To assess the attitudes of students a specially designed questionnaire with an inventory was used which contained Likert-type questions and which was distributed to a representative sample of students. The findings of high positive attitudes related to the Flexible Zone and all the relevant qualities of the cross curricular/thematic approach are of particular research interest both to educators in general and especially to teachers of Home Economics as well as to all interested in an education that reinforces positive pedagogy in schools.

Keywords: Home Economics, Cross-Thematic Approach, Flexible Zone, Students' Attitudes, School pedagogy

1. Introduction

The cross-thematic/curricular approach in the Home Economics course is referred to practices that push students to identify connections, coherence, and continuity between a range of learning experiences, enabling them to formulate correlations and generalizations, solve problems, and address issues and issues of everyday life in a research, analytical and critical spirit. In this sense, as presented by Alahiotis and Karatzia-Stavlioti (2006), the term "cross-curricularity/ cross-thematic approach" extends beyond the interconnectedness of sciences, ie involving a greater breadth and utility than that of interdisciplinary (Karatzia- Stavlioti & Alahiotis 2007a; 2007b; Koustourakis, 2007; Fterniati & Spintouraki 2006).

The adaptation of the lesson to the interests of the students is achieved by frequent references of the content of the taught lesson-topic to the respective events or phenomena of the daily social environment, as well as through simple referential extensions of related or non-related courses-topics such as e.g. from Mathematics, Language, Science in order to create a familiar learning environment and to enhance the cognitive function improving the educational design and process.

The Home Economics course is a cross-thematic one in nature, as it addresses issues and topics that students have encountered and will encounter in other subjects as well as school curriculum activities. At the same time, it is an ideal lesson for the use of the possible horizontal and vertical interfaces/extensions, in order for the students to study issues more holistically and to understand them in their real dimensions. However, especially in secondary education, subjects such as Home Economics seem to be squeezed between the subjects of high prestige as the teaching hours were two in A Gymnasium and one in B Gymnasium (13-15 year-olds) for the school years that the research took place. In such a context, the role of teachers emerges as a decisive factor in overturning the current situation (Sofou & Tsafos, 2010). The effectiveness of the teaching of Home Economics depends both on the attitudes of the students towards the lesson and on the attitudes of the teacher himself towards it. Understanding, active involvement and deep learning, are ensured when the attitudes of the students towards the taught lesson and the teacher are positive (Koustourakis, Asimaki & Sianou-Kyrgiou, 2016).The development of positive attitudes initially involves the cultivation of interest and pleasure in the content of the Home Economy and its relationship to being responsible adults and active citizens (Vardalou, 2016).

2. Theoretical and empirical considerations – Definition of terms

In the current field of investigation there is a strong support of the use of a cross-thematic/cross-curricular pedagogic approach and the consequent holistic acquisition of the relevant knowledge, skills, attitudes and behaviors; these may be related to the, so called, basic, key and multi- prismatic competences (Alahiotis & Karatzia-Stalioti, (2006, 2008) ; Organization of Economic Development and Collaboration-OECD, 2004)and, they are thought to characterize the world societies (OECD, 2012; Vardalou,2016).In the international political discourse, a lot of interest is shown towards the cultivation of positive learning attitudes to students (Eurydice,2012;OECD, 2004, 2012). The OECD applied its considerations to the Program of International Student Assessment (PISA). The referred texts identify the important pedagogic role of the cross-thematic competence cultivation/development towards the common goals for education and training and, even, life-long learning (Karatzia-Stavlioti, 2005; Jarvis, 2009). It is also anticipated that the Lisbon Treaty goals of the EU (Eurydice, 2012), can be promoted in a more efficient way (Karatzia-Stavlioti & Lambropoulos, 2009).

It is considered necessary to clarify the term "attitude", since its measurement is the main aim of the study. In the relevant literature, attitudes are defined as *predispositions to respond to certain types of stimuli* (Rosenberg & Hovland, 1966), as *predispositions, learning products, to respond in a consistent favorable or unfavorable way in relation to a given object* (Ajzen & Fishbein, 1980), as *general and persistent, positive or negative emotions about an object or subject* (Petty & Cacioppo, 1981), but also *as evaluations that a person makes about an object of thought* (Pratkanis & Greenwald, 1989). In short, there is convergence in the existing definitions that "attitude" we call the idea and the emotional-value position that a person has for an issue. The attitude of the person prescribes both his behavior and his reaction to this issue. Attitudes are not necessarily based on valid knowledge and information as they are influenced by the emotions, traditions, culture, experiences and character of the individual (Eggen & Kauchak, 1994, p.167-168; Karatzia-Stavlioti, 1997).

The literature is concerned firstly with the cross-curricularity effectiveness (as this is mainly -but not only- applied in the Greek case) and, secondly, the students' and teachers' attitudes referred to it (Koutrouba, Baxevanou & Koutroumpas, 2012; Vathi-Sarava &Karatzia-Stavlioti, 2020; 2021). Research with Kinder-garden students (Apostolou, Stellakis & Koustourakis, 2020;Zacharos, Koustourakis& Papadimitriou**,** 2014**;**Sofou and Tsafos.2010) and primary and secondary school ones (Askew, Holden, Hossain & Bretcher, 2010;Zbainos& Kyritsi, 2011; Mavrogianni, Vassilaki, Spandidakis, Sarris, Papadaki-Michailidi & Yachnakis, 2020), provided us with important insights on the application of school-curricularity and the expected positive didactic and learning outcomes, such as meta-cognitive learning and creativity as well as deep learning in all curriculum areas (Barrot, 2019;Dehaene, 2020; Maingain &Dufour,2002;Eickson,1998;Gärdenfors,2019; Karatzia-Stavlioti,2009; Amadio, 2014; Minder,1999). Even more, researchers involved in the process of the making of the Greek cross-thematic curricula extend their theoretical work to the establishment of a new learning theory, that of "Biopadagogism" (Alahiotis & Karatzia-Stavlioti, 2008), which brings together the Biology of learning (evolution and development), Neuroscience and Education; a theory that was assessed empirically with very positive results in all levels of education and, always related to cross-curricularity (Alahiotis & Karatzia-Stavlioti 2008; 2013; Nikita, Karatzia-Stavlioti and Alahiotis, 2015; Vathi-Sarava & Karatzia-Stavlioti , 2020; 2021).

Of special importance to the present research are studies that investigate, even with qualitative approaches the attitudes of students and/or teachers and their inter-relation as is the one by Pratt, Wang & Zaier (2020), which studied the factors that indicate foreign language teachers' positive impact on students to maintain their interest; the following were identified: their engagement during class activities and academic success, the motivation they demonstrated, the feedback they provided about their classes and activities, and their relationships with their teachers.

3. The research

3.1. Aims of the study

The aims of the present study are:

1. To determine the attitudes of the students towards the course of Home Economics and its teaching,
2. To test whether there are any differences between the attitudes by personal characteristics, such as gender.
3. To investigate the possible correlations of the students' attitudes with participation in the Flexible Zone program. This was an innovative program in the compulsory school timetable in which projects of variable interesting and useful to the students' themes are materialized through the use of holistic and cooperative methodologies. It is purely cross-thematic intervention that is based to the principles of citizenship (Alahiotis & Karatzia- Stavlioti, 2006).

3.2. Methodology

The empirical quantitative research undertaken had two phases:

-The first aimed at the formation of the appropriate statistical tool to be used for the isolation of the Factors influencing the students' attitudes; for this purpose a large random representative sample of the students of A and B classes in 8 lower secondary schools in Western Greece was used (chosen with the criteria of their geographical position, their size e. t. c). The appropriateness of the 8 schools in terms of the school population was checked accordingly and found positive.

-The second aimed at the implementation of a more focused approach with the use of the research tool in a smaller sample of 3 schools (chosen with the criterion of urbanity) in the district of Achaia that provided the researchers with more personal/individual student information and gave the opportunity for deeper analysis.

3.3. Questionnaire design

In order to determine the students' attitudes towards the course of Home Economics, a questionnaire with special Likert type-four scale questions/inventory items was designed (Newby, 2014; Oppenheim, 2005); the intention was to avoid the five scale one, as the middle number could lead to misleading results (Woodhouse & Goldstein, 1988). In the first phase the questionnaire was piloted (for reasons of validity and reliability) in a B' grade lower secondary/Gymnasium class with 20 students. Constructive validity was examined through the Cronbach's a test, which had the value of α=0,845 for the specific questionnaire that is over 0,7 and considered a positive result (Oppenheim, 2005).

3.3.1. Structure of the questionnaire

The questionnaire had two parts. The first included personal information such as individual/personal characteristics and on their involvement in the Flexible Zone, foreign language knowledge and computer use knowledge. The second part was the attitude inventory which contained 43 questions/statements/items that expressed positive and/or negative aspects/opinions towards the lesson and the way it is implemented in class. The scale used aimed to identify the degree of agreement that the participants had with the content of each question/statement/item and it was: 1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree. It is noted that the factor analysis could, in such a case, be a useful statistical tool in identifying the Factors that could be related to the explanation of the usefulness of cross-curricularity in the lesson and its contribution to the development of cross-curricular competences.

4. Data collection, analysis and results

4.1. Statistical analysis of the data from the sample of 8 schools.

4.1.1. General issues of descriptive statistics

The sample consisted of 752 students of 8 schools (Gymnasiums) from Western Greece. The access to the schools was obtained from the regional educational Authority and the visits of the researcher were planned with the Heads and the teachers of the participating classes (Vardalou,2016). After the collection f the questionnaires and their coding, they were analyzed with the Statistical package for Social Sciences (SPSSv20). Descriptive statistics was used to check the statistical significance of the distribution of the demographics/personal characteristics and other general information of the sample, especially with the use of the Chi Square (χ^2)tests (cross tabulation to investigate whether the distribution of the variables on general information by personal characteristic was statistically significant).The question seeking information on the students' experience/participation in the Flexible Zone program gave the choice among: 1=non-existing, 2=average, 3=a lot and 4=excellent. Aχ^2 test shows statistically significant differences among the 8 schools' students regarding the Flexible Zone participation.

4.1.2. Factor analysis

The students' answers to the inventory items were used to investigate the possibility of the induction of Factors that could contribute to the explanation of the students' attitudes to the lesson investigated. Four Factors were inducted that could explain more than 40% of the variance, as it is shown in Table 4.1.2.1 below.

The following four Tables(4.1.2.2,3,4,5) concern the Factors and the items loading to them (with more than 0,4 coefficient) (Hatcher,1994,p.115). Factor 1 consists of 12 items that expresses the *Attitude towards the lesson implementation by the teacher*. Factor 2 contains 5 items and refers to the *Attitude towards the lesson.* Factor 3 consists of 7 items and expresses the *Attitude on the role of the student in class.* Factor 4 contains 5 items and is related to the *Attitude on the educational material used by the student.* The afore mentioned Factors contribute to the high degree of the inventory's validity. Below, the Factors and the items loading are presented (the content of the items may be seen in the Questionnaire, which is in the Appendix).

The above findings indicate the importance of the students attitudes towards the materialization of the lesson and its content, as well as towards the educational material and the role they play class (how much interested and participative they are); issues that were identified in the literature mentioned above.

4.2. Statistical analysis of the focused study data

4.2.1. General issues of descriptive statistics

The aim of the focused empirical study (of 3 schools and 65 students) was to further investigate the statistics on the experience of the Flexible Zone, as this variable was found to have a high positive significant effect in the large study. The data referring to the focused sample were analyzed by school and the major findings are:

1. 16 (23,5%) of the students come from school 1, 23 (35,9%) of the students come from school 3 and 26 (40,6%) of the students come from school 2.
2. 28(42,2%) of the students were boys and 37 (57,8%) were girls.
3. 2 (1,6%) stated that their knowledge on Computers is non existing, 6 (9,4 %) that is medium, 9 (14,1%) that is good and 19 (29,7%) that is excellent.
4. 3 (4,7%) stated that the foreign language acquisition level is medium, 4 (6.2%) that is good 35 (53,8%) that is very good and 22 (33,8%) that is excellent.
5. 17(25%) out of the 64 that responded to this question stated that their experience with Flexible Zone is none.

In the Table 4.2.1.1 the distribution of the students in every school according to their response on their experience with the Flexible Zone (1=None, 2= Medium, 3=Very good/ A lot, 4= Excellent/Very high) is shown.

The Table shows differences among the schools regarding their students' experience with the Flexible Zone. More specifically, school 1 has the higher percentage of students stating that they have very high experience. The same applies to the percentage with a lot of experience and with these findings school 1 seems to be in a very positive position regarding the Flexible Zone. It is also evident that school 3 has got the higher percentage of students with none experience.

4.2.2. Factor analysis

The Factors extracted with the large sample data are identified in this focused analysis too and found to be relevant and statistically significant, as they are loading highly and, therefore contributing to the formation of the students' attitudes towards the Home Economics course. In the final analysis two (summed up) characterizations were used: 1 was for Disagree and 2 for Agree. Table 4.2.2.1 presents the students' attitudes by Factor and presents the items (questions) that are loading in every case; a synopsis of the question content and the percentage that agree to it are also presented.

5. Further analysis

Further analysis was undertaken in order to investigate the relationship between the individual characteristics and their Attitudes towards the Home Economics course. Correlations and the Pearson coefficients were used towards this direction. The results of the correlations by gender do not show statistically significant differences between boys and girls. Other analyses, however, give significant results.

5.1. Flexible Zone (FZ) program and the responses to the inventory

The results of the analysis regarding the Flexible Zone (the sum of their answers to the relevant question formed the variable of their views on the Flexible Zone) had some statistical significance, which is of interest. Table 5.1.1. show the questions/items that showed statistically significant results and referred to the Flexible Zone (the question/item number corresponds to the one in the Questionnaire, which is in the Appendix).

As shown above, the highest correlation is among their views on their FZ experience and their positive response to the question whether they use additional educational resources in class (apart from the textbook). The correlation 0,43 and it is significant at the level of 0, 01.A synthesis of the results in Table 5.1.1. shows that most of the students though very highly positive of the characteristics of the Home Economics course; those were the cultivation of positive attitudes towards the environment, the dietary habits, collaboration, the connection of learning/school to everyday life, the cultivation of skills useful in future work, and, even more the search for knowledge and its discovery through multiple sources.

5.2.: Analysis of Variance (ANOVA) and Mean differences as a tool to further investigate the goals of the study

Towards the above goal, the Mean of the findings regarding two of the questions/items (in which it was rather high) was used (as being more relevant to the general goals regarding the Home Economics course). These questions/items were: *The connection of the lesson to other ones* (Question/Item 34) and *the assistance/support the lesson offers them in solving everyday life problems* (Question/Item 2).

The Mean was used as it is considered the most appropriate measure of the distribution of the findings for each question/item and the differences that appear between the two Means towards the explanation of the data findings (Katsillis,2006).

Table 5.2.1. shows the Means of the answers given to the two aforementioned questions/items. Regarding the one on the connection of the lesson to others (an item that contributes to the first factor), school 1 students seem to agree more (Mean 1=3,66), as opposed to those of schools 2 and 3 (Mean 2=2,69 and Mean 3=2,60). In reference to the other one concerning weather the lesson helps them with everyday life problems (an item that contributes to the second factor), school 1 students seem to agree more (Mean 1=3,53), as opposed to those of schools 2 and 3 (Mean 2=2,61 and Mean 3=2,61).The differences of the Means were tested for their statistical significance using ANOVA and the results are shown in Table 5.2.2.As shown, the differences among the Means of the responds to questions/items 34 and 2 given by the students in the three schools are statistically significant ($p=0.000<\alpha=0,05$).

Bonferonni Multiple Comparison test was also undertaken in order to acquire more detailed information on the above presented findings. The results of two comparisons are presented in Table 5.2.3.

As indicated, the Mean differences of both Questions between schools 1 and 2 and 1 and 3 are statistically significant; while the ones between 2 and 3 are not.

6. Discussion

The fact that the lesson of Home Economics is related to cross-curricularity and experiential collaborative approaches (mostly connected to the Flexible Zone program) should be considered a very important issue contributing to the significant findings reported above, related to the positive attitudes of the students for Home Economics; similar are the findings of other research (Karatzia-Stavlioti & Alahiotis, 2007a; 2007b). More specifically, it was found that more than 90% of the students states that they like to work with other classmates and these seem to be the ones who have more experience with FZ (as found in the analysis of the question for FZ).

The focused study research findings also show very positive views towards the general description of the lesson, as these can be identified in the responses given in the relevant questions/items. More than 75% find the lesson pleasant and useful in everyday life; a situation that contributes to a more positive Attitude towards the course. Findings related to Mathematics (Koustourakis & Zacharos, 2011), Language (Fterniati, 2010) and Social and Political Education in various class levels (Karatzia-Stavlioti & Alahiotis, 2007a; 2007b; Vardalou & Karatzia-Stavlioti, 2018) have similar results. Even more, the findings regarding the usefulness of the lesson to their future occupation (over 50% agree), although it could be more studied in the future, are of special interest in the field of relating school to the labor market and future societal needs, environmental initiatives and individual stances for sustainability (ie correct dietary habits and health education in general) (Fterniati, 2010; Karatzia-Stavlioti and Lambropoulos, 2009; Koustourakis, 2007; Koustrourakis, Asimaki &Sianou-Kyrgiou, 2016; Soultatou,Tzamalouka,Markatzi, Kafatos & Chiaoutakis,2009).

More than half of the participants agree to the statement that the textbook's content is related to their needs and responds to the goals of the lesson in a way that is connected to other lessons, but it is related to the way that it is materialized by the teacher; the role of the teacher, as, almost always, is found an important factor to teaching effectiveness (Karatzia-Stavlioti, 1997; Sofou and Tsafos , 2010).

The Median differences identified among the three schools used in the focused study (Stake, 1995) of the two most significant responses (the connection of the lesson to other ones and its usefulness to everyday life) threw light on the existing situation in Greek secondary schools. The opportunities that are offered to students to approach holistic and cross-thematic learning that is related to everyday life is identified in all three schools; Median differences are statistically identified but, such a finding might be considered not a "strange" finding, as, more time should be needed for a more effective application of changes such as is that of cross-curricularity, holistic learning, collaborative and experiential (Alahiotis & Karatzia-Stavlioti, 2006; 2013;Askew, Holden, Hossain & Bretcher, 2010;Barrot, 2019; Dehaene, 2020)

8. Concluding remarks

The effective application of the cross-thematic approach in the lesson of Home Economics should contain a holistic approach to learning with connections to other lessons and to everyday life situations empowering the students (in the case of the present study lower secondary ones) as individuals and as members of the society through experiential and

collaborative approaches to learning. The above is strongly related to the didactics used by the teacher during the course of the lesson. The study showed that the FZ program which is based on cross-thematic projects of varying content, had a very positive effect on students' views and consequently on their Attitude towards Home Economics.
The above is a useful input in the understanding of the Home Economics course and its effective teaching, as well as for the design of relevant future research on other lessons in a way that could contribute to the betterment of the education quality offered in schools.

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Appendix

A. Tables

Table 4.1.2.1: Total Variance Explained by the Factors inducted

(Components)	Initial Eigen values		Rotation Sums of Squared Loadings	
	Total	% of Variance explained	Total	% of Variance explained
Factor 1	7,287	25,126	4,992	**17,215**
Factor 2	2,565	8,846	3,021	10,417
Factor 3	1,407	4,851	2,687	9,266
Factor 4	1,232	4,249	1,790	6,174

Table 4.1.2.2: Factor 1: Attitude towards the lesson implementation by the teacher

Statement//Question No	Coefficients
13	,515
20	,516
27	,526
29	,447
33	,636
34	,538
35	,596
37	,514
38	,560
40	,563
41	,620
42	,653

Table 4.1.2.3*:* Factor 2: Attitude towards the lesson

Statement/Question	Coefficients
1	,591
2	,442
11	,431
15	,594
19	-,728

Table 4.1.2.4*:* Factor 3: Attitude towards the role of the student in class

Statement/Question	Coefficients
3	-,435
5	,589
16	-,552
21	,668
28	-,569
32	,463
36	-,563

Table 4.1.2.5: Factor 3: Attitude towards the educational material used

Statement/Question	Coefficients
4	,490
12	,520
18	-,693
31	,674
43	,657

Table 4.2.1.1.: Distribution of the students by school and their experience with the Flexible Zone (N=64)

SCHOOL		**1**	**2**	**3**	**4**	**ΣΥΝΟΛΟ**
1	Student No	0	4	8	3	15
	Percentage	0%	26,7%	53,3%	20,0%	100,0%
2	Student No	7	11	6	2	26
	Percentage	26,9%	42,3%	23,1%	7,7%	100,0%
3	Student No	9	7	5	2	23
	Percentage	39,1%	30,4%	21,7%	8,7%	100,0%
SUM	**Student No**	**16**	**22**	**19**	**7**	**64**
	Percentage	**25,0%**	**34,4%**	**29,7%**	**10,9%**	**100,0%**

Table 4.2.2.1.: Factors and the questions/items loading (content synopsis) (N=63)

A. FACTOR 1 – Students' attitude towards the implementation of the lesson by the teacher and the items/questions that are loading					
Question 13	**Question 20**	**Question 27**	**Question 29**	**Question 33**	**Question 34**
The lesson helps me to get correct dietary habits.	The lesson is related to everyday life.	The lesson helps me respect the environment.	The way it is taught makes it understandable.	The teacher helps us when needed.	It is related to other lessons.
82,9% Agrees	89% Agrees	80% Agrees	90,7% Agrees	92,2% Agrees	71,8% Agrees
Question 35	**Question 37**	**Question 38**	**Question 40**	**Question 41**	**Question 42**
It makes me understand better what happens in societies.	The content of the Unit is connected to our prior knowledge.	Other sources of information are used in class (apart from the lesson book).	We are given the opportunity for discussion.	It makes me understand family issues.	The teacher answers all our questions.
81,2% Agrees	81,2% Agrees	75% Agrees	92,2% Agrees	73,4% Agrees	93,8% Agrees

B. FACTOR 2 – Students' attitude towards the lesson				
Question 1	**Question 2**	**Question 11**	**Question 15**	**Question 19**
I find the lesson pleasant.	It helps me solve everyday problems.	It is useful to my future occupation.	It must be taught for more hours.	It is less important to other lessons**.**
78,1% Agrees	75,1% Agrees	53,1% Agrees	64% Agrees	43,8% Agrees

CII. FACTOR 3 – Students' attitude towards their role in class						
Question 3	**Question 5**	**Question 16**	**Question 21**	**Question 28**	**Question 32**	**Question 36**
The lesson is only for girls.	I like working together with my classmates.	When asked to work together we fight.	I like working with others.	I think my point of view is always the right one.	I respect my classmates' initiatives during lesson.	I like working alone.
10,9% Agrees	90,7% Agrees	23,4% Agrees	82,8% Agrees	79,7 Agrees	84,3% Agrees	70,3% Agrees

D. FACTOR 4 – Students' attitude towards the educational material used				
Question 4	**Question 12**	**Question 18**	**Question 31**	**Question 43**
In the text book I find themes and	I find concepts and phrases I don't understand.	The textbook is not attractive.	I do not have access to the internet at home.	I do not know how to use the internet.

issues of everyday life.				
87,5% Agrees	35,9% Agrees	59,3% Disagrees	87, 5% Disagrees	92,2% Disagrees

Table 5.1.1: Correlation of the Flexible Zone (FZ) views with the Questions/ Items (N=63)

	Question 4	**Question 11**	**Question 13**	**Question 20**	**Question 21**	**Question 27**	**Question 38**
FZ views	0,268*	0,219*	0,272*	0,237*	0,227*	0,251*	0,43**

The asterisks are used to indicate the level at which the Pearson p significant.
* The correlation is significant at the level of 0,05 (Sig 1-tailed).
** The correlation is significant at the level of 0,01 (Sig 1-tailed).

Table 5.2.1.: Means of the responds in questions/items 34 and 2 in the 3 schools and a schematic representation of their correspondence to an Attitude Factor

School	**Factor 1** Students' Attitude towards the implementation of the lesson by the teacher.	**Factor)** Students; Attitudes towards the lesson.
	↑ **Question/Item 34** Home Economics is connected to other lessons.	↑ **Question 2/Item** The lesson helps with everyday problems.
1	**3,66**	**3,53**
2	**2,69**	**2,61**
3	**2,60**	**2,61**

Table 5.2.2.: Analysis of Variance (ANOVA) on the Mean differences (N=63)

ANOVA		**Sum of Squares**	**Degree of Freedom**	**Mean Square**	**F**	**P (Sig)**
Question 34	Between groups	20,308	2	10,154	23,663	,000
	Within groups	26,176	61	,429		
	Sum	46,484	63			
Question 2	Between groups	12,635	2	6,317	13,123	,000
	Within groups	29,365	61	,481		
	Sum	42,000	63			

Level of statistical significance $\alpha=0,05$

Table 5.2.3.: Multiple comparisons of the Means - Bonferonni test results

Dependent Variable	SCHOOL	SCHOOLO	GroupMeanDefferences	Std. Error	P(Sig)
Question 34 Home Economics is connected to other lessons	1	**,00**	,97436*	,21240	**,000**
		,00	1,49275*	,21741	**,000**
	2	,00	-,97436*	,21240	,000
		,00	,51839*	,18751	,023
	3	,00	-1,49275*	,21741	,000
		,00	-,51839*	,18751	,023
Question 2 The lesson helps with everyday problems	1	**,00**	,91795*	,22496	**,000**
		,00	1,14203*	,23027	**,000**
	2	,00	-,91795*	,22496	,000
		,00	,22408	,19861	,791
	3	,00	-1,14203*	,23027	,000
		,00	-,22408	,19861	,791
		,00	-1,04058*	,28186	,001

Asterisks denote that the differences are statistically significant
Level of statistical significance ***α=0,05***

B. Students' Questionaire

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

	1	2	3	4
1. I find the lesson pleasant				
2. It helps me solve everyday problems.				
3. The lesson is only for girls.				
4. In the textbook I find themes and issues of everyday life.				
5. I like working together with my classmates.				

6. It would be better if we had some extra hours for workshops (practical part).				
7. Home Economics class is not interesting.				
8. I don't get information from the Internet.				
9. The teacher cooperate with other teachers				
10. I don't agree with all classmates' views during class.				
11. It is useful to my future occupation.				
12. In the textbook I find concepts and phrases I do not understand.				
13. The lesson helps me to get correct dietary habits.				
14. When I study at home it's hard for me to memorize entire paragraphs.				
15. It must be taught for more hours.				
16. When asked to work together we fight.				
17. I hesitate to participate in the class.				
18. The textbook is not attractive.				
19. It is less important to other lessons.				
20. The lesson is related to everyday life.				
21. I like working with others.				
22. I only use the schoolbook.				
23. I've come across a lot of topics and concepts in elementary school classes				
24. The teacher does not have time to deal with weak students.				
25. Activities are carried out during the lesson.				
26. The textbook mentions details I don't need to know.				
27. The lesson helps me respect the environment				
28. I think my point of view is always the right one.				
29. The way it is taught makes it understandable				
30. Only female teachers are more appropriate for teaching Home Economics.				
31. I can't access the internet at home.				
32. I respect my classmates' initiatives during lesson.				
33. The teacher helps us when needed.				
34. It is related to other lessons.				
35. It makes me understand better what happens in societies.				
36. I like working alone.				
37. The content of the Unit is connected to our prior knowledge**.**				
38. Other sources of information are used in class (apart from the lesson book).				
39. I don't need the teacher when I'm working in groups with my classmates.				
40. We are given the opportunity for discussion.				

41. It makes me understand family issues.				
42. The teacher answers all our questions.				
43. I don't know how to use the internet.