Perceptions of Teachers Regarding Three Data Sources and Curricular Elements in Elementary Schools of TRNC

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ABSTRACT

The purpose of this study is to investigate whether the Ministry of National Education, Youth and Sports take into consideration Frances Klein's nine curricular elements and Ralph Tyler's three data sources while designing a curriculum for elementary schools. This study also investigates to what extent these nine curricular elements and three data sources are implemented by elementary school teachers.

From a total of 1,268 teachers in all five districts of North Cyprus (Nicosia, Famagusta, Kyrenia, Iskele and Morphou), thirty percent (i.e., 380 teachers) were randomly selected for this study, which used quantitative research methodology. A questionnaire was prepared in three sections. The first section of the instrument was for collecting demographic data (gender, age, years of experience, area of teaching, grade level, type of school), the second section concerned Ralph Tyler's three data sources and the last section, Frances Klein's nine curricular elements. The instrument consisted of one hundred questions and was distributed to the 380 teachers in 56 schools. Only 325 teachers completed and returned the instrument. A five-point Likert type scale was used to get responses from teachers. SPSS program was used to analyze the data.

The results of this study indicate that teachers do not have any knowledge on how specialists design curriculum, nor are they aware of what elements are important for curriculum design.

Keywords: Curriculum, Frances Klein's nine curricular elements, Ralph Tyler's three data sources.

ÖZ

Bu çalışma Milli Eğitim, Gençlik ve Spor Bakanlığı'nın ilkokul müfredatlarını hazırlarken Frances Klein tarafından geliştirilen dokuz müfredat öğesini ve Ralph Tyler'ın üç veri kaynağını dikkate alıp almadıklarını ayrıntılı olarak incelemeyi amaçlamaktadır. Çalışma aynı zamanda bu dokuz öğenin ve üç veri kaynağının ilkokul öğretmenleri tarafından ne derece uygulandığını araştırmaktadır.

Kuzey Kıbrıs'ta beş ilçe bulunmaktadır ve bu araştırma için tüm ilçeler seçilmiştir. Bu ilçeler: Lefkoşa, Gazimağusa, Girne, İskele ve Güzelyurt'tur. Bu çalışmada nicel araştırma yöntembilimi kullanılmıştır. Beş farklı ilçede çalışan toplam 1,268 öğretmen vardır. Toplam sayının %30'unu oluşturan 380 öğretmen rastlantısal şekilde seçilmiştir. Anket üç bölüm halinde hazırlanmıştır. İlk bölüm, demografik verileri (cinsiyet, yaş, tecrübe yılı, öğretim alanı, sınıf seviyesi, okul türü), ikinci bölüm Ralph Tyler'ın üç veri kaynağını, son bölüm de Frances Klein'ın dokuz müfredat öğesi içermektedir. 56 okuldan 380 öğretmene yüz soruluk anketler dağıtılmıştır. Öğretmenlerden yalnız 325 tanesi anketi dolurup iade etmiştir. Öğretmenlerin tepkilerini toplamak için beş aşamali Likert ölçeği, verilerin analizi için ise SPSS programı kullanılmıştır.

Bu araştırmanın sonuçları, ilkokul öğretmenlerinin müfredat düzenleme konusundaki bilgi yetersizliğini ve aynı zamanda müfredat için hangi unsurların önemli olduğunun farkında olmadıklarını göstermiştir.

Anahtar Kelimeler: Müfredat, Frances Klein'ın dokuz müfredat öğresi, Ralph Tyler'ın üç veri kaynağı.

This thesis is dedicated to my family

My father Osman Kaymakam, my mother Kezban Kaymakam,

my little daughter Kezban and my husband Hasan Karagil

who all supported and encouraged me during my studies.

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LIST OF ABBREVIATIONS

MNEYS - Ministry of National Education, Youth and Sports

TRNC - Turkish Republic of Northern Cyprus

Chapter 1

INTRODUCTION

Curricula have been one of the significant elements of education, particularly in the 20th century, with the spread of education throughout the whole of society. The issue of curriculum has undergone changes parallel to other developments in education. The introductory chapter seeks to establish the background and context of the study, problem statement, research questions, the purpose and significance of the study and definitions of terms in detail.

1.1 Background to the Study

As mentioned above, curriculum has an important impact on education. It is assumed that learning takes place step by step. Curriculum provides a list to guide teaching activities toward learning, guides teaching with respect to what, how, when and where to teach and learn. In other words, curriculum leads education. William C. Ayers (2004) (as cited in Encyclopedia of Curriculum Studies by Craig Kridel, 2010) believes that, "For humanists, the value of education and curriculum is its identity with the general quest for human enlightenment and human liberation" (p.191). Ayers also states that curriculum and education are essentially the same thing. In addition, education is a life-long process, starting with birth continuing throughout life. It is continuous and increases one's consciousness. Minds are open and hungry to learn. Every day and every moment, one learns different things. Education is a way of life with no limits.

The purpose of education is to raise children as good people and productive citizens in society. According to Bobbitt (1941) (as cited in Encyclopedia of Curriculum Studies by Kridel, 2010), the goal of education is to increase students' ability to produce. In addition, education tries to improve children's abilities, interests, higher-order skills as well as to change their attitudes toward the natural environment.

Benjamin Bloom (1956) presents six categories of educational objectives in the cognitive domain, known as 'Bloom's Taxonomy', namely, knowledge, comprehension, application, analysis, synthesis and evaluation. Küçükahmet (2007) believes that children's first source of education is their parents, followed by their friends and the environment. These three natural educators teach both good and bad things. According to Küçükahmet (2007), this kind of learning is unplanned and undirected whereas real education starts at school where children are presented with knowledge.

It is obvious that education is nothing without curriculum. Curriculum is the main guide for education. Moreover, curriculum is a part of the life experience that children receive in school (Eisner, 1985). Every child has a different culture, learning style, character, aptitude and different prior experiences. For this reason, it is very difficult for teachers to implement a curriculum exactly as planned. The curriculum guides teachers in their teaching to make this job easier.

A curriculum is also a body of teaching and learning theory. Johnson (as cited in Posner, 1995) believes that the curriculum controls the instructional system and includes both content and teaching strategies. A curriculum is an education program which is planned and programmed by specialists.

Klein (1985) states that nine curricular elements should be considered when designing a curriculum, namely, objectives, content, materials, learning activities, teaching strategies, evaluation procedures, grouping, time and environment (p.1163). All elements are important and each official curriculum should include all nine elements. Designing a curriculum is a very difficult job since all these elements have to be considered seriously. Some academicians like Akker (2003) suggest that rationale, teacher roles, location and assessment should also be included in Klein's curricular elements. In addition, Klein (1985) believes that, "curriculum is made up of broad and specific levels. Broad level involves basic value choices and specific level involves technical planning and implementation" (p.1163). Klein also believes that at the broad level, curriculum planning is influenced by Tyler's three data sources (as cited in Klein, 1985).

According to Ralph Tyler (as cited in Posner, 1995) there are four questions to be answered before planning a curriculum. These are:

1) What educational purposes should the school seek to attain?
2) What educational experiences can be provided that are likely to attain these purposes?
3) How can these experiences be effectively organized?
4) How can we determine whether these purposes are being attained? (pp.13-14.)

In addition, Tyler (as cited in Klein, 1985) believes three data sources (society, subject matter and students) need to be considered before designing a curriculum. The curriculum should be appropriate for the society in which education takes place.

Social and cultural factors affect the curriculum as, in turn, the curriculum reflects the particular society and its values. Before designing a curriculum, specialists should specify the needs of that society. In addition, students' physical, social and integrative needs, as well as their past experiences, should be considered before designing a curriculum. Another important data source is the subject matter or body of knowledge. Subjects are usually taken from daily life and the cultural heritage. Subject matter consists of a list of content. Posner (1995) states that a curriculum has two dimensions: scope and sequence, the horizontal and vertical organization of the content. Posner (1995) believes that a curriculum model includes the organization of content, objectives and experiences.

On the other hand, according to Harris (1989), a curriculum has three dimensions: "explicit (what is consciously presented, including objectives, materials, lesson plans), implicit (including patterns, organization) and null curriculum (what is not included)" (pp.68-70, parentheses mine), which are similar to Eisner's three dimensions of curriculum. According to Dewey (as cited in Eisner, 1985) what is taught in the schools is the explicit curriculum. According to Posner (1995), there are five concurrent curricula: "official (written curriculum), operational (taught by the teacher), hidden (not officially recognized), null (not taught) and extra (including experiences)" (pp.10-12, parentheses mine). Marsh and Willis (2007) believe that curriculum contains three levels: planned, enacted and experienced.

Moreover, developing a curriculum is a process of research. According to Taba (1962), seven steps should be considered: "diagnosis of needs, formulation of objectives, selection of content, organization of content, selection of learning experiences, organization of learning experiences, and determination of way to

evaluate" (p.12). Richards (2001) states that the knowledge, skills and values that students learn in school should be determined during the development of the curriculum.

1.2 Context of the Study

The present research was conducted in North Cyprus. Cyprus is an island in the Eastern Mediterranean south of Turkey. After 1974, Cyprus was divided into two parts, the North and South, where two separate communities, Turkish Cypriots and Greek Cypriots, live. On 15 November 1983, Turkish Cypriots declared their independence under the name of Turkish Republic of Northern Cyprus (TRNC), which is only recognized by Turkey. The TRNC has been under Turkish influence since 1974. The latest census (2011) puts the population of the TRNC around two hundred and ninety-five thousand.

The TRNC consists of five districts: Nicosia (Lefkoşa) with twenty elementary schools, Famagusta (Gazimağusa) with twenty-nine, Kyrenia (Girne) with thirteen, Morphou (Güzelyurt) with twelve and Iskele with fourteen. Of the eighty-eight elementary schools, 56 were selected at random for this study.

1.3 Problem Statement

In North Cyprus, the curriculum is planned and designed by the Ministry of National Education, Youth and Sports (MNEYS). Teachers are required to design their lessons according to the curriculum provided.

It has been observed that in North Cyprus, the MNEYS take into consideration neither Frances Klein's nine curricular elements nor Ralph Tyler's three data sources

while designing the curriculum for elementary schools. In addition, individual subjects come from different designers. The Turkish language program has a book but no curriculum. For mathematics and science, the curricula and books come from Turkey and have no relationship to the Cypriot culture and curriculum. The MNEYS prepare the curriculum for social studies but the curricula and books come from Turkey. Some teachers use the curriculum prepared by the MNEYS while others the use curriculum from Turkey.

Furthermore, teaching strategies and materials are not included in the curricula. In addition, scheduling does not allow for general revision.

1.4 Purpose of the Study

The purpose of the study is to examine thoroughly the perceptions of teachers about the use of the three data sources and the nine curricular elements, as suggested by Tyler and Klein, respectively, and also whether or not the MNEYS take into consideration these nine curricular elements and three data sources while designing curricula for elementary schools. This study therefore considers the following research questions:

1- How do teachers perceive that specialists in the MNEYS make use of the three data sources specified by Ralph Tyler while planning the curriculum?

2- How do the perceptions of teachers regarding the use of Ralph Tyler's three data sources by specialists in the MNEYS in planning the curriculum vary with respect to

a) gender of the teachers,

b) age of the teachers,

c) years of experience of teachers,

d) location of schools, and

e) school size?

3- How do teachers rate the attributes of the nine curricular elements?

4- How do the ratings of the attributes of nine curricular elements vary with respect to

a) gender of the teachers,

b) age of the teachers,

c) years of experience of teachers,

d) location of schools, and

e) school size?

5- How do teachers perceive the degree of consideration of the attributes of nine curricular elements by the MNEYS?

6- How do the perceptions of teachers about the consideration of the attributes of nine curricular elements by the MNEYS vary with respect to

a) gender of the teachers,

b) age of the teachers,

c) years of experience of teachers,

d) location of schools, and

e) school size?

1.5 Significance of the Study

This study is significant for the TRNC since no research has been conducted on the use of Klein's nine curricular elements and of Tyler's three data sources. It is hoped that this study will provide valuable information for specialists who design curricula for the MNEYS.

1.6 Definition of Terms

1.6.1 Curriculum

Taba (1962) defines curriculum as course or plan for learning. Wilson (2005) states that a curriculum is a set of subjects, materials, performance objectives and a course of study. According to Marsh (2007), a curriculum is what is taught both inside and outside of school. Bobbitt (1918) defines curriculum as an experience (as cited in Kridel, 2010) while Mauritz Johnson (as cited in Posner, 1995) states that it guides the instructional system and consists of content and teaching strategies.

1.6.2 Curriculum Design

Stephen Thornton (nd.) believes that curriculum design includes a series of activities. Subjects, society, personal experiences and intellectual development are to be considered when designing a curriculum (as cited in Kridel, 2010). According to Coles, "curriculum design is an iterative process, a holistic and continuous one" (November 2006, paper entitled "Curriculum building: how to proceed" presented at the meeting of the Hermes, Zurich). Klein (1985) believes curriculum design to be influenced by Tyler's three data sources, subject matter, society and students.

1.6.3. Curriculum Development

Curriculum development is a systematic process. According to Frances Klein (1985), there are two levels of development, namely, the broad level, or basic choices, and the specific level, which is the planning and implementation of elements. Klein also states that behaviorism (predetermined outcomes and planning of curriculum) and reconceptualism (self-actualization and experience of people) are very important for developing a curriculum. According to Tyler (1949), four steps should be considered when developing a curriculum: "stating objectives, selecting experiences, organizing experiences and evaluating" (p.3).

Chapter 2

LITERATURE REVIEW

This chapter consists of various definitions of curriculum, different approaches to curriculum, how to design a curriculum and the historical background of curriculum.

2.1 Definition of Curriculum

What is *curriculum?* Curriculum, a broad concept described in various ways by different scholars, eludes definition. According to Bobbitt (1918), considered as the father of curriculum, the word "curriculum comes from the Latin word 'currere' and it means, race course, race itself – a place of deeds or series of deeds" (p.42).

Eisner (1985) states that a curriculum is "a course to be run" (p.39). Taba (1962) that it is a "course or plan for learning" (p.11) and Bobbitt (1918), that it is a set of subjects, content, materials, teaching procedures, objectives, learning experiences and evaluation. He states that curriculum can be defined in two ways:

> it is the entire range of experiences, both undirected and directed, concerned in unfolding the abilities of the individual; or it is the series of consciously directed training experiences that the schools use for completing and perfecting the unfoldment (p.43).

Bobbitt believes that a curriculum is a series of experiences, including experiences which students get from school (planned) as well as outside (unplanned) of school. Education makes people work cooperatively and improves their social relations. Bobbitt further argues that there are two types of educational experiences, play-level and work-level. "The play is short-sighted; even blind in the face of modern conditions. Work, when fully developed, is far-sighted, clear-sighted, fully conscious of ends and means" (p.18). Play-level is subjective and unplanned, undirected and pleasurable. Children learn by playing and gain experience. "Play is Nature's active mode of education" (p.8). In contrast, work-level is objective and directed. It teaches actively and provides experience. Bobbitt adds that one precedes the other. One without the other does not work. Each completes the other. First, one gets pleasure by playing and remembers easily what one did, then, when one practices, one starts to get the feel of it and can focus on the details. This means that learning begins at the play-level and then continues at the work-level. Curricula need both. Organized work-level experience and unplanned play-level experience should each be considered while designing a curriculum. Students get knowledge from school (directed experience) while, at the same time, they get knowledge outside of school (undirected experience). For Bobbitt, "Experience is the best teacher" (p.30). He argues that human beings need abilities, attitudes, habits and knowledge, all of which bring experience. Children develop their abilities through their experiences. Bobbitt also says, "Which shall the tree produce, the flower or the fruit? It must produce both or it will not perform its full function" (p.6). It is same in a curriculum. If there is no play-level, one cannot reach work-level. Bobbitt adds that the word 'school' comes from Greek word 'schole', meaning leisure. This

indicates that not only work-level at schools, but also play-level is necessary for entertaining students in their leisure time.

According to Pınar (2004), a curriculum is an educational experience, a process for getting knowledge from school and using this knowledge throughout life.

According to Posner (1995), a curriculum is the ends and means of education. Curriculum is content, learning experiences, objectives, and teaching strategies which teachers use in the class. It is a set of courses which includes both a vertical and a horizontal dimension, the vertical being the sequence and the horizontal being the scope. The vertical dimension is like a hierarchy of content where topics are arranged step by step. The horizontal dimension is like broad level, where every 'unit' has many headings. A second concept within curriculum is syllabus, a plan for all courses, including goals, objectives, assignments, and evaluations. The third concept is a content outline, which is a list of topics which makes the sequence easy to follow. The fourth concept is the textbook, which teachers can use to guide them through the lessons by following the instructions and units and doing the lessons step by step. The fifth concept is course of study. A curriculum has many courses that students must follow. Each course is very important for their development as it affects their learning, abilities, intellectual skills and psychology. The final concept is experiences planned for the students by the schools. Posner states that not only planned experiences, but also outside experiences affect students as they learn both in and out of the school. He says, "rather than being a description of student learning, whether intended or unintended, or content covered – whether decided by the state, district, textbook, or teacher – curriculum comprises all the experiences of the students planned by the school" (p.7).

2.2 Different Approaches to Curriculum

Various scholars have different approaches to curriculum. According to Posner (1995), there are five types of curriculum. The first, official curriculum is a formal curriculum designed by specialists. It is a written document and easy for teachers to follow, like a lesson plan. One can see objectives, courses which students will have, and how students will be evaluated. He says, "curriculum is documented in scope and sequence charts, syllabi, curriculum guides, course outlines, and the list of objectives" (p.11). The second type is the operational curriculum. The teacher prepares and teaches the curriculum. It includes tests and teaching practices. Posner states that an operational curriculum has two aspects: "(1) the content included and emphasized by the teacher in class, for example, what the teacher teaches and (2) the learning outcomes for which students are actually held responsible, for example, what counts". The hidden curriculum is the third type of curriculum and includes norms and values. Students learn how to behave and what is right and wrong, the norms and values of society. Posner states that the "hidden curriculum concerns issues of gender, class and race, authority and school knowledge among others. The lessons that the hidden curriculum teaches include lessons about sex roles, 'appropriate' behavior for young people, the distinction between work and play, which children can succeed at various kinds of tasks" (p.12). The fourth one is the null curriculum, which has no subject matter as it is a curriculum which is not taught. The last one is the extra curriculum which has both planned and unplanned experiences. This curriculum also supports the official curriculum, since it is planned and written by school.

According to Hollins (2008), a curriculum has three dimensions, parallel to Posner's five concurrent curricula. The first dimension is the explicit curriculum, which is what schools teach, similar to Posner's official curriculum. It includes content, curriculum guides and textbooks. The second dimension is the implicit curriculum, which is not as obvious as the explicit curriculum. It is like Posner's operational and hidden curricula as it includes norms and values. The third dimension is the null curriculum and has no subject, like Posner's null curriculum.

Harris (1989) also believes a curriculum has three dimensions. These are (1) the explicit, which is formal and includes lesson plans, materials, and objectives; (2) the implicit, which has patterns and organization; and (3) the null, which is empty, not included (pp.68-70).

Elliot Eisner also has three dimensions like Harris and Hollins. The explicit curriculum is what is taught in the school and helps teacher in how to teach children to read, write and learn something about their country. The implicit curriculum is teaching children about beliefs, norms and values. Eisner says, "What schools teach they teach in the fashion that the culture itself teaches, because schools are the kinds of places they are" (p.93). The last one is the null curriculum, i.e., what does not exist in the curriculum. Eisner believes that what "schools do not teach may be as important as what they do teach" (p.97).

Eisner believes that a "Curriculum is a series of planned events" (p.45), designed by school administrators. Courses, materials, syllabus, teaching strategies are all designed and planned by school administrators. A curriculum helps students to improve their experiences. Each student has a different curriculum, learning style

and experiences. Eisner says that a "Curriculum is a program that is intentionally designed to engage students in activities or events that will have educational benefits for them" (p.46). Planning a curriculum is a very important mission. One has to consider the students' environment, problems in society, and the culture they live in. Eisner states that there are two aspects of a curriculum. The first one is the intended curriculum, which is the planned course of study and the second one is the operational curriculum which is a set of events (p.47).

Eisner further describes five concepts related to curriculum. (1) Development of cognitive process. A curriculum should develop children's cognitive skills through activities designed for that purpose. Through these activities children can learn to solve problems and become good at remembering information. As Eisner says, the aim of curriculum is "to help children learn how to learn" (p.62). (2) Academic rationalism. Subject matter is the most important concept of a curriculum. Eisner says, "This orientation argues that the major function of the school is to foster the intellectual growth of the student in those subject matters most worthy of study" (p.66). He argues that schools should introduce students to concepts, problems or issues that they can face in their lifetime (p.66). (3) Personal relevance. Schools are responsible for developing programs and make them meaningful to students. Teachers should develop the educational program rather than staff who do not know anything about children (p.69). (4) Social adaptation and social reconstruction. In order to design a curriculum, society should be analyzed. Objectives and content should be prepared after such an analysis. Eisner believes that schools are "created to serve the interests of the society" (p.74). When they design a curriculum they should consider the needs, problems and weaknesses of their society. Thus, the

children will become aware of these and learn how to overcome them (p.76). (5) Curriculum as technology. Before designing a curriculum, a pre-test should be given to students to see their level. Based on the results, the type of content and tasks to be included in the curriculum can be selected. Eisner says, "technical orientation influences the values the curriculum emphasizes" (p.81).

2.3 Curriculum Planning

According to Eisner, there are two models for curriculum planning. The staircase model is systematic and well-organized. Students can see what comes next. The spider web model, which is student-centered, consists of activities and engages students rather than controls them. They work independently under teacher control (p.144).

In addition, students get basic skills through the curriculum, which provides opportunities for creativity, curiosity, cooperation, and imagination for students (p.128). Eisner believes that teachers know how to apply the curriculum. They know which topics are important and unnecessary for the students. When they teach something, they know how to use the materials to get the students' attention. Teachers create materials which suit to topic. They use time efficiently and know how to transfer knowledge to students. Eisner states that "the role of the teacher in curriculum decision making is always important because the teacher serves as an interpreter of educational policy and because the teacher is the major mediator of what shall be taught – if not learned – in the classroom" (p.129).

Moreover, Eisner argues that "curriculum development is working under the aegis of school district" (p.130). Teachers, specialists, committees and other staff members

who work in state departments of education and the government play an important role in planning the curriculum. Textbook are also a very important resource.

Eisner states that aims, goals and objectives are very important for curriculum planning. Goals should describe the school program. The aim of the school is to raise children as good persons. Goals are more specific than aims. For example, the goal of a certain course may be to help students to learn about the effects of global warming. Objectives are the results of goals. When students learn what global warming is, then they are able to talk about it and justify their opinions. It goes from ends to means. Eisner says, "The planning process is supposed to be a step by step process from general to specific; from ends to means" (p.137).

Tyler (1949), another specialist in the area of curriculum, states that there are four questions need to be answered in order to design a curriculum. These are:

1) "What educational purposes should the school seek to attain?" (p.1)

Materials, teaching procedures, topics are very important and should be selected carefully. Teachers should know which topics are useful and which are useless for students. They should also know how to present knowledge and materials to them. According to Prescott (as cited in Tyler, 1949), children have three kinds of needs which schools need to fulfill: (1) physical needs, like food and water (2) social needs, like affection, belonging and respect, and (3) integrative needs, like students coming together and creating something. Prescott believes that schools are responsible for satisfying these needs which every child has (p.7). The school is a special place where children get these experiences.

2) “What educational experiences can be provided that are likely to attain these purposes?” (p.1)

The experience which a learner has is very important for curriculum. Tyler says that, “The term ‘learning experiences’ is not the same as the content with which a course deals nor the activities performed by teacher” (p.63). The term

> ‘learning experience’ refers to the interaction between the learner and the external conditions in the environment to which he can react. Learning takes place through the active behavior of the student; it is what he does that he learns, not what the teacher does. (p.63)

Each student has different experiences and learning style. Some of them have a good memory and remember every subject taught while others work better at problem solving. Learning experiences develop students’ cognitive skills. Learning experiences have two types, deductive and inductive thinking. Deductive thinking is from the general to the specific whereas inductive thinking goes from the specific to the general. In order to teach effectively, the teacher has to know all students’ needs, learning styles and their situation in the class (pp.63-68).

3) “How can these educational experiences be effectively organized?” (p.1)

Learning experiences can be broken down into units, courses and programs. There are three types of criteria organizing learning experiences. These are (1) continuity, which is vertical, hierarchical and organizes the curriculum step by step; (2) sequence, which evaluates curriculums’ development deeply and checks the order; and (3) integration, which integrates learning experiences in a horizontal way. All three are in chronological order. Tyler says, “One of the most common principles of

organization used in school curricula is the chronological" (p.97). Students can follow what they learnt before and what they will learn after.

4) "How can we determine whether these purposes are being attained?" (p.1)

By using evaluation, one can check whether goals, objectives and learning experiences have been achieved. Tyler believes that "Education is a process of changing the behavior patterns of people" (p.5). One can also observe students' behavior and evaluate whether their attitudes have changed through the curriculum. Tyler states that two appraisals are very important for curriculum. One appraisal should be at the beginning of classes and the other at the end of the semester, first to see their levels and second to see what has changed on their behavior (p.106). One can also find out weaknesses and strengths in the curriculum through evaluation (p.105).

In addition, according to Saraçoğlu, Yılmaz and Çengel (2010), teachers should take seminars about curriculum before implementing a curriculum and then be evaluated after implementation. Teachers can express their opinions about the curriculum and what they think is right and wrong with it. Dewey (1902) states that "The child is the starting-point, the center and the end" (p.9). A curriculum needs to be developed according to children's needs and experiences. In addition, according to John Goodlad (as cited in David G. Armstrong, 1975), curriculum development is described as child-centered and society-centered. A combination of these two factors gave birth to discipline-centered (p.252).

Klein (1985) lists nine elements which very important for designing a curriculum. These are "objectives, content, materials, learning activities, teaching strategies, evaluation procedures, grouping, time and environment" (p.1163). According to Klein, these elements are influenced by Tyler's three data sources, namely, learners, society and subject matter. Before designing a curriculum, *objectives* should be considered, i.e., what students should learn, what topics would suitable and what they will be able to do after learning. There are two kinds of *content*, scope and sequence, one vertical and one horizontal element, which provide topics both step by step and detailed. Specialists who work on curriculum design need to consider which *materials* would be useful for students' learning. Textbooks are very important and useful materials both for students and for teachers as it provides guidance. Students have no role in selecting materials. *Learning activities* play a major role in students' learning. The four skills, namely, reading, writing, speaking and listening, should be considered while designing these activities. Teachers need to be aware of students' learning styles and use appropriate *teaching strategies*, of which there are three kinds: (1) diagnostic, where the teacher controls students' learning and the problems they face, (2) prescriptive, where teachers teach and move on to the next step, and (3) evaluative, where teachers evaluate students to see whether or not they understood the lesson. *Evaluation procedures* are implemented by teachers to see whether students have changed their behavior through the curriculum. Using paper-and-pencil tests, they evaluate students quantitatively. Certain teachers use qualitative evaluation in courses like music or art. Teachers also evaluate students by observing them. *Grouping* also needs to be considered while designing a curriculum. All students have different learning styles as mentioned before and their levels are not same. When put together, they interact and transfer knowledge to each other. A

curriculum also needs to specify *time* as the teacher needs to know how to use time in the classroom effectively. Finally, *environment* plays a major role in designing a curriculum. For example, art, music and science classes should be held special rooms. These rooms affect students' learning as well as well as the school grounds and classroom size.

Chapter 3

METHOD

This chapter provides detailed information on the research design, population and sampling procedures, data collection, analysis of data and the validity and reliability of the research.

3.1 Research Design

Quantitative research methodology was used in this study. Quantitative research is a scientific method where numerical data is analyzed.

> Quantitative research is to develop and employ mathematical models, theories and/or hypotheses pertaining to phenomena. The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and the mathematical expression of quantitative relationships. Quantitative data is any data that is in numerical form such as statistics, percentages, etc.
> (http://en.wikipedia.org/wiki/Quantitative_research).

This research helps us to understand what people think and feel about the survey. Quantitative research is based on a questionnaire or instrument. According to Elzey (1985), quantitative research describes behavior in numerical terms. Elzey describes the quantitative method as follows: "The numbers constituting a set of data are

quantitative representations of what we observe directly or infer from observations. These numbers can result from various types of measurement. Thus, measurement techniques provide us with a process for transforming observations or inferences into usable numbers" (p.5).

The main aim of this study is to collect data about the perceptions of teachers regarding three data sources and nine curricular elements in elementary schools of the TRNC.

In this study, the survey research method was used in order to investigate the curriculum of elementary schools. The quantitative research method was used to analyze the data obtained. In addition, descriptive statistics were used to summarize and present the data. The t-test, Mann Whitney U test, Kruskal-Wallis test and ANOVA were used to examine differences between the opinions of different groups of teachers.

3.2 Population and Sampling Procedures

The population under investigation includes all teachers in elementary schools in all five districts in North Cyprus. The total number of elementary school teachers is 1,268 – 371 in the Famagusta district, 359 in the Nicosia district, 239 in the Kyrenia district, 160 in the Morphou district and 139 in the Iskele district. 380 (about 30%) elementary school teachers from five districts were selected using random convenience sampling, where every teacher had an equal chance of being selected. A list of all the schools for the five districts was obtained from the MNEYS. The schools were numbered and the number of each school was written on pieces of paper as many times as the number of teachers in that particular school. Each piece

of paper was glued on a bottle cap and all the caps were mixed thoroughly in a basket and 380 caps were randomly drawn. The numbers on the caps drawn were recoded to form the sample of the study. Out of the 88 schools on the numbers, 56 schools were drawn. Hence, 22 schools were left out of the sample. Convenience sampling was used to choose teachers in each school. For example, if the number of a school was drawn ten times, then ten available voluntary teachers from that school were chosen for the administration of the instrument. Out of the 380 teachers, only 325 teachers completed and returned the instrument, achieving a return rate of 85.5%. Demographic information about the participants is shown in Table 1.

Table 1 Demographic information about teachers who participated in the study (N=325)

		N	%
Gender	Female	210	64.6
	Male	115	35.4
Age	21-25	50	15.4
	26-35	109	33.5
	36-45	122	37.5
	46 +	44	13.5
Years of experience	0-2 years	35	10.8
	3-5 years	44	13.5
	6-10 years	48	14.8
	11-20 years	127	39.1
	20 years +	71	21.8
Teaching area	Class Teacher	230	70.8
	Social Studies	4	1.2
	Math and Science	4	1.2
	Language	20	6.2
	Branch	67	20.6
Grade level	1st	68	20.9
	2nd	58	17.8
	3rd	55	16.9
	4th	53	16.3
	5th	91	28.0
School Type	Private	0	
	Public	325	100
School Location	Town	199	61.2
	Village	126	38.8

Female teachers were 210 (64.6%) and male teachers were 115 (35.4%). There were 199 teachers from town schools and 126 teachers from village schools. 68 (20.9%) participants were 1st grade teachers, 58 (17.8%) 2nd grade teachers, 55 (16.9%) 3rd grade teachers, 53 (16.3%) 4th grade teachers and 91 (28.0) 5th grade teachers.

There were 50 (15.4%) teachers aged twenty-one to twenty-five, 109 (33.5%) twenty-six to thirty-five, 122 (37.5%) thirty-six to forty-five and 44 (13.5%) forty-six and up.

35 (10.8%) participants had 0 to 2 years' experience, 44 (13.5%) between 3 and 5 years, 48 (14.8%) between 6 and 10 years, 127 (39.1%) participants between 11 and 20 years, and 71 (21.8%) more than 20 years.

230 (70.8%) class teachers, 4 (1.2%) social studies teachers, 4 (1.2%) math and science teachers, 20 (6.2%) language teachers and 67 (20.6%) branch teachers participated in this research. Only public schools were taken as sample for this research (see Appendix A).

3.3 Permission

Permission to conduct the study was obtained from the MNEYS (see Appendix B).

3.4 Data Collection Procedures

In order to investigate the perceptions of teachers and consideration by the MNEYS of three data sources and nine elements for the elementary school curriculum, an instrument was prepared by the researcher and then a pilot study was made in Alasya

Elementary School in the Famagusta district. Five teachers from that school completed the instrument and informed the researcher that there were no problems. Hence, face validity is considered to be high. For content validity, the instrument and research questions were given to three experts in the field of curriculum and instruction and necessary changes were made according to their recommendations. After the piloting, during March 2101, the instrument was distributed to 380 teachers in 56 schools and 325 teachers returned the completed instrument.

The first section of the instrument concerns demographic data. Teachers were asked about their gender, age, amount of experience, teaching area and grade level. The second section of the instrument includes items related to Ralph Tyler's three data sources. The third section of the instrument includes items about Frances Klein's nine curricular elements. Odd numbered items use a 5-point Likert-type scale and even numbered items can be responded as 'yes' or 'no'.

The format of 5 points Likert-type scale is as follows: Strongly agree = 5, agree = 4, not sure = 3, disagree = 2 and, strongly disagree = 1. Out of the 100 items, 98 are positive. The remaining two items are negative and reverse coding was used (strongly agree = 1, agree = 2, not sure = 3, disagree = 4 and, strongly disagree = 5).

3.5 Analysis of the Data

The SPSS program was used to analyze the data. First, the reliability was checked for each section to see if the questionnaire has good reliability. Then, mean, standard deviation, t-test, ANOVA, Mann Whitney U test, Kruskal Wallis test and frequencies for the stated research questions were done to analyze the data. One sample t-test was used to see how teachers perceive the attributes of nine curricular elements in

the curriculum planned by the MNEYS. Independent samples t-test, ANOVA, Mann Whitney U test and Kruskal Wallis test were used to examine teachers' opinions about the consideration of the three data sources and nine curricular elements of elementary school curriculum with respect to gender, school location, grade level, age, years of experience and teaching area.

3.6 Validity and Reliability of the Research

Frances Klein's nine curricular elements were researched and translated into Turkish. The translation was checked by native speakers working in the English Preparatory School in Eastern Mediterranean University. They checked both the Turkish translation and the English version of the each item had the same meaning. After this, three curriculum experts in the department of Educational Sciences checked the instruments for validity. They concluded that the statements in each section were understandable and clear. Validity is a process for preparing an instrument, selecting items for each section, and trying to make it meaningful. Fraenkel and Wallen (2006) state that "Validity is a correctness, appropriateness, meaningfulness and usefulness of the inferences a researcher makes" (p.150). In order to find out whether the instrument had face validity or not, five teachers were selected from Alasya Elementary School and the instrument was given to them. Based on the responses of these five teachers, it was concluded that the instrument had face validity.

According to Fraenkel and Wallen (2006) "reliability refers to the consistency of the scores obtained – how consistent they are for each individual from one administration of an instrument to another and from one set of items to another" (p.157). In order to calculate the reliability of the instrument, Cronbach's Alpha was

computed. According to George and Mallery (2001) there are six rates of Cronbach's Alpha, also known as the alpha coefficient. These values are listed below:

$\alpha > .9$ – Excellent

$\alpha > .8$ – Good

$\alpha > .7$ – Acceptable

$\alpha > .6$ – Questionable

$\alpha > .5$ – Poor

$\alpha < .5$ – Unacceptable

Cronbach's Alpha value for the three data sources were found as .958, thus showing excellent reliability for the second section of the questionnaire. The Cronbach's Alpha value for the nine curricular elements which is the third section of the instrument was found as .931, which also means excellent reliability. The results of Cronbach's Alpha value can be seen in Table 2.

Table 2**.** Cronbach's Alpha Value of Items

	Cronbach's Alpha	Number of Items
Three data sources	.958	12
Nine curricular elements	.931	41

Chapter 4

STUDY FINDINGS

This chapter concerns the analysis of the data collected from 325 teachers from the five districts in the TRNC.

4.1 Analyses Related to Research Question 1

"How do the teachers perceive that the specialists in the MNEYS make use of the three data sources specified by Ralph Tyler while planning the curriculum?"

As can be seen in Table 3, 30% of teachers disagreed with the first three statements. They thought that specialists who design the elementary school curriculum in TRNC did not take into consideration the 'wishes of the students', 'skills of the students' and 'areas of interest of the students'. About 25% of the teachers stated they thought that curriculum designed by specialists in TRNC took into consideration these elements while designing the curriculum. About 40% (129) of the teachers agreed with the fourth statement, as they thought that specialists design the curriculum according to the cognitive development of students. About 28% (90) of the teachers stated they thought that specialists who design the curriculum take into consideration the 'personal development of the students' while about 24% (78) of the teachers disagreed with this statement.

About 30.5% (99) of teachers thought that the 'needs of society' (sixth statement) were taken into consideration by the specialists who design the curriculum while

about 29% (94) of the teachers disagreed. About 31.1% (101) of the teachers disagreed with the seventh statement concerned with ‘problems of the society’. They thought that the problems of society were not taken into consideration by specialists. About 40.0% (130) of the teachers stated they thought that specialists took into consideration the ‘cultural values of the society’ (eighth statement) while designing the curriculum. About 30.5% (99) of the teachers agreed with the ninth statement, that the ‘social order of the society’ was taken into account by the specialists designing the curriculum. About 28.3% (92) of teachers agreed with the tenth statement concerned with the ‘area of interest of society’ while 92 (28.3%) of teachers were not sure.

About 32.6% (106) of teachers agreed with the eleventh statement, as they thought that specialists took into consideration the ‘ever-growing knowledge of humanity’ while designing the curriculum. For the last statement, ‘all issues that include the cultural heritage of humanity,’ about 28.3% (92) of the teachers were not sure but about 25.5% (83) agreed that the curriculum includes the cultural heritage of humanity.

Table 3. Descriptive statistics for Ralph Tyler's three data sources

		Strongly Agree N(%)	Agree N(%)	Not Sure N(%)	Disagree N(%)	Strongly Disagree N(%)	Mean *M*
	Learner						
1	Wishes of the students	18(5.5)	91(28.0)	55(16.9)	105(32.3)	56(17.2)	2.72
2	Skills of the students	18(5.5)	85(26.2)	65(20.0)	108(33.2)	49(15.1)	2.74
3	Areas of interest of the students	20(6.2)	75(23.1)	88(27.1)	91(28.0)	51(15.7)	2.76
4	Cognitive development of the students	34(10.5)	129(39.7)	55(16.9)	68(20.9)	39(12.0)	3.16
5	Personal development of the students	30(9.2)	90(27.7)	82(25.2)	78(24.0)	45(13.8)	2.94
	Society						
6	Needs of the society	19(5.8)	99(30.5)	62(19.1)	94(28.9)	51(15.7)	2.82
7	Problems of the society	18(5.5)	84(25.8)	67(20.6)	101(31.1)	55(16..9)	2.72
8	Cultural values of the society	23(7.1)	130(40.0)	57(17.5)	68(20.9)	47(14.5)	3.04
9	Social order of the society	19(5.8)	99(30.5)	80(24.6)	73(22.5)	54(16.6)	2.86
10	Areas of interest of the society	15(4.6)	92(28.3)	92(28.3)	80(24.6)	46(14.2)	2.85
	Subject-matter						
11	Ever-growing knowledge of humanity	17(5.2)	106(32.6)	83(25.5)	77(23.7)	42(12.9)	2.94
12	All issues that include the cultural heritage of humanity	30(9.2)	83(25.5)	92(28.3)	74(22.8)	46(14.2)	2.93

According to one sample t-test result, which can be seen Table 4, teachers seemed to be neutral about the consideration of the learner, society and subject matter as sources by the MNEYS. This is because teachers might not have enough information about how the curriculum is prepared by the Ministry.

Table 4. One sample t-test results for three data sources

	N	Std. Deviation (SD)	Mean	Accepted Mean	Mean Difference	t	Df	p
Learner	325	1,05860	2,8646	2,9	-,03538	-,603	324	.547
Society	325	1,03704	2,8585	2,9	-,04154	-,722	324	.471
Subject matter	325	1,06213	2,9323	3	-,06769	-1,149	324	.251

4.2 Analyses Related to Research Question 2

"How do the perceptions of teachers regarding the use of three data sources of Ralph Tyler by the specialists in the Ministry of National Education, Youth and Sports in planning the curriculum vary with respect to

a) gender of the teachers,

b) age of the teachers,

c) years of experience of teachers,

d) location of schools, and

e) school size?

As can be seen in Table 5, Levene's Test results indicated that there is a significant difference in the variances of the perceptions about society as data source for male and female teachers, F= 8.63, p = .004<.05. This means that equal variances for perceptions of male and female teachers about society as a data source cannot be assumed. Hence t-test for groups of unequal variances was used. In addition, Levene's Test showed that equal variances for the learner and the subject matter as sources can be assumed F= 1.68, p = .196>.05, and F= .057, p = .811>.05, respectively. An independent sample t-test was conducted to test the difference in the perceptions of male and female teachers. The results indicate that there are no

significant differences in the perceptions of teachers with respect to gender about the consideration of the learner, t(323)= .682, *p*= .496>.05; society, t(201.157)=.861, *p* = .390>.05; and subject matter t(323)= 1.446, *p* = .149>.05 as data sources while planning the curriculum.

Table 5. Independent samples t-test for differences in teachers' attitudes of three data sources vary with respect to their gender.

	Levene's Test		t-test			
	F	Sig	df	t	*P*	*d*
Learner	1.680	.196	323	.682	.496	.078
Society	8.630	**.004**	201.157	.861	.390	.102
Subject matter	.057	.811	323	1.446	.149	.166

As shown in Table 6, results of the Test of Homogeneity of Variances revealed that there is a significant difference in the variances of the perceptions of specified age groups of teachers about the use of the learner, F(3, 321)=4.787, *p* = .003<.05, and of society, F(3, 321)= 2.875, *p* = .036<.05, as a data source. Hence, ANOVA test cannot be used because of the violation of the assumption that "The variances of the normally distributed test variable for the populations are equal" (Green, S., & Salkind, N., 2004 p.168). Instead, the Kruskal Wallis test is used to test the differences in perceptions of teachers with respect to age. The Test of Homogeneity of Variances results revealed that there is no significant difference between age groups as concerns subject matter as a data source, F(3,321)= 1.656, *p*= .176. Hence, ANOVA test for the difference in the perceptions of age groups of teachers about subject matter as a data source can be conducted.

Table 6. Test of Homogeneity of Variances results for differences in variances of teachers' perceptions of three data sources with respect to age.

Data sources	Levene Statistic	df1	df2	*P*
Learner	4.787	3	321	**.003**
Society	2.875	3	321	**.036**
Subject matter	1.656	3	321	.176

As can be seen in Table 7, ANOVA test results revealed that there is no significant difference in the perceptions of teachers about the consideration of the subject matter as a data source while planning the curriculum with respect to the age of teachers, $F(3, 321)=1.348$, $p = .259>.05$.

Table 7. ANOVA test results for differences in teacher's perceptions about using subject matter as a data source with respect to age.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	4,548	3	1,516	1,348	.259
Within Groups	360,963	321	1,124		
Total	365,511	324			

As can be seen in Table 8, the Kruskal-Wallis test revealed that the perceptions of the four different age groups of teachers about the learner and society as data sources differed significantly, $\chi^2 = 13.06$, $df = 3$, $p = 0.005<.01$, and $\chi^2 = 15.96$, $df = 3$, $p = 0.001<.01$, respectively. A significant result from Kruskal Wallis test means the Mann Whitney *U* Test has to be conducted to find how these elements differ pairwise, as advised by Howitt and Cramer (2008).

Table 8. Kruskal-Wallis test for differences in ratings of teachers about three data sources with respect to age.

	Chi-Square	*Df*	Asymp. Sig.
Learner	13.060	3	**.005**
Society	15.961	3	**.001**

As can be seen in Table 9, the Mann Whitney *U* Test found that the opinions of teachers aged 21 to 25, group 1, about the consideration of the learner as a data source were significantly higher than the opinions of teachers aged between 26 and 35, group 2, $U = 2116$, $N_{1=} 50$, $N_{2=} 109$, $z = -2.27$, $p = 0.023<.05$.

Table 9. Mann Whitney U Test for three data sources with respect to age - group 1 and group 2

	Age group 1 (21-25)		Age group 2 (26-35)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp. Sig (2- tailed)
Learner	92,18	50	74,41	109	2116	-2,266	**.023**
Society	85,41	50	77,52	109	2454.5	-1,008	.313

As shown in Table 10, the Mann Whitney *U* Test revealed that the opinions of teachers aged between 21 and 25, group 1, about the consideration of the learner as a data source were significantly higher than the opinions of teachers aged 36 to 45, group 3, $U = 2104$, $N_{1=} 50$, $N_{2=} 122$, $z = -3,20$, $p = 0.001<.01$. The opinions of teachers aged between 21 and 25, group 1, about the consideration of society as a data source were significantly higher than the opinions of teachers aged 36 to 45, group 3, $U = 2088.5$, $N_{1=} 50$, $N_{2=} 122$, $z = -3.25$, $p = 0.001<.01$.

Table 10. Mann Whitney U Test for three data sources with respect to age - group 1 and group 3

	Age group 1 (21-25)		Age group 3 (36-45)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp. Sig (2- tailed)
Learner	105,42	50	78,75	122	2104	-3,199	**.001**
Society	105,73	50	78,62	122	2088.5	-3,253	**.001**

As can be seen in Table 11, according to the Mann Whitney *U* Test results, the opinions of teachers aged between 21 and 25, group 1, about the consideration of learner as a data source were significantly higher than the opinions of teachers aged

above 46, group 4, U = 771.5, $N_{1=}$ 50, $N_{2=}$ 44, z = - 2.49, p = 0.013<.05. The opinions of teachers age between 21 and 25, group 1, about the consideration of society as a data source were significantly higher than the opinions of teachers aged above 46, group 4, U = 758.5, $N_{1=}$ 50, $N_{2=}$ 44, z = -2,59, p = 0.009<.01.

Table 11. Mann Whitney U Test for using the learner and society as data sources with respect to age - group 1 and group 4

	Age group 1 (21-25)		Age group 4 (46+)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp. Sig (2- tailed)
Learner	54,07	50	40,03	44	771.5	-2,495	**.013**
Society	54,33	50	39,74	44	758.5	-2,595	**.009**

As shown in Table 12, according the results of to the Mann Whitney U Test, the opinions of teachers aged 26 to 35, group 2, about the consideration of society as a data source were significantly higher than the opinions of teachers aged between 36 and 45, group 3, U = 5167, $N_{1=}$ 109, $N_{2=}$ 122, z = -2,93, p = 0.003<.01.

Table 12. Mann Whitney U Test for three data sources with respect to age - group 2 and group 3

	Age group 2 (26-35)		Age group 3 (36-45)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp.Sig (2- tailed)
Learner	124,79	109	108,15	122	5691	-1,894	.058
Society	129,60	109	103,85	122	5167	-2,932	**.003**

As summarized in Table 13, the Mann Whitney U Test found that there were no significant differences between the opinions of teachers aged between 26 and 35, group 2, and those aged above 46, group 4, z = -1,31, p = 0.190>.05 ; z =*1,94,* p = 0.052>.05, respectively, about the consideration of the learner and society as data sources.

Table 13. Mann Whitney U Test for three data sources with respect to age - group 2 and group 4

	Age group 2 (26-35)		Age group 4 (46+)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp.Sig (2- tailed)
Learner	79,98	109	69,63	44	2073.5	-1,312	.190
Society	81,40	109	66,10	44	1918.5	-1,940	.052

As indicated in Table 14, the Mann Whitney *U* Test revealed that there were no significant differences the opinions of teachers aged between 36 and 45, group 3, and those of teachers whose ages are above 46, group 4, z = -.251, p = 0.802>.05; z = -.095, p = 0.924>.05, respectively, about the consideration of the learner and society as data sources.

Table 14. Mann Whitney U Test for three data sources with respect to age - group 3 and group 4

	Age group 3 (36-45)		Age group 4 (46+)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp.Sig (2- tailed)
Learner	82,94	122	85,06	44	2615.5	-,251	.802
Society	83,29	122	84,09	44	2658	-,095	.924

As can be seen in Table 15, according to the results of the Test of Homogeneity of Variances, the perceptions of the teachers about the consideration of the learner, society and subject matter as a data source while planning the curriculum with respect to the years of experience of teachers, there was no significant difference in terms of years of experience, p = .149>.05; p = .360>.05 and p = .644>.05 respectively.

Table 15. Test of Homogeneity of Variances for the differences in variance of teachers' attributes of three data sources with respect to years of experience.

Data Sources	Levene Statistic	df1	df2	P
Learner	1.704	4	320	.149
Society	1.094	4	320	.360
Subject matter	.626	4	320	.644

As shown in Table 16, the Kruskal-Wallis Test revealed that the perceptions of the five different groups of teachers in terms of years of experience differed significantly $\chi^2 = 16.81$, $df = 4$, $p = 0.002<.01$, and $\chi^2 = 16.92$, $df = 4$, $p = 0.002<.01$, respectively.

Table 16. Kruskal-Wallis test for differences in ratings of teachers about three data sources with respect to years of experience.

Data Sources	Chi-Square	df	Asymp. Sig.
Learner	16.807	4	**.002**
Society	16.922	4	**.002**
Subject matter	2.045	4	.727

As can be seen in Table 17, the Mann Whitney *U* Test found that there were no significant differences between the opinions of the teachers with 0 to 2 years' experience, group 1, and those with 3 to 5 years' experience, group 2, $z = -1.75$, $p = 0.081>.05$; $z = -1.62$, $p = 0.104>.05$; $z = -.755$, $p = 0.450>.05$, respectively, about the consideration of the learner, society and subject matter as data sources.

Table 17. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to years of experience - group 1 and group 2

	Group 1 (0-2 years)		Group 2 (3-5 years)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Learner	45,04	35	35,99	44	593.5	-1,747	.081
Society	44,69	35	36,27	44	606	-1,625	.104
Subject matter	42,16	35	38,28	44	694.5	-,755	.450

As can be seen in Table 18, according to the Mann Whitney *U* Test, the opinions of teachers with 0 to 2 years' experience, group 1, about the consideration of the learner as a data source were significantly higher than the opinions of teachers with 6 to 10 years' experience, group 3, $U = 589.5$, $N_{1=} 35$, $N_{2=} 48$, $z = -2.32$, $p = 0.020<.05$.

Table 18. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to years of experience - group 1 and group 3

	Group 1 (0-2 years)		Group 3 (6-10 years)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Learner	49,16	35	36,78	48	589.5	-2,320	**.020**
Society	46,66	35	38,60	48	677	-1,512	.131
Subject matter	43,21	35	41,11	48	797.5	-,397	.692

As shown in Table 19, the Mann Whitney *U* Test revealed that the opinions of teachers with 0 to 2 years' experience, group 1, about the consideration of the learner as a data source were significantly higher than the opinions of teachers with 11 to 20 years' experience, group 4, $U = 1328$, $N_{1=} 35$, $N_{2=} 127$, $z = -3.65$, $p = 0.000<.01$. Similarly, the opinions of teachers in group 1 about the consideration of society as a data source were significantly higher than the opinions of teachers in group 4, $U = 1463$, $N_{1=} 35$, $N_{2=} 127$, $z = -3.10$, $p = 0.002<.01$.

Table 19. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to years of experience - group 1 and group 4

	Group 1 (0-2 years)		Group 4 (11 -20 years)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Learner	107,06	35	74,46	127	1328	-3,651	**.000**
Society	103,20	35	75,52	127	1463	-3,101	**.002**
Subject matter	87,63	35	79,81	127	2008	-,883	.377

As can be seen in Table 20, the Mann Whitney *U* Test found that the opinions of teachers with 0 to 2 years' experience, group 1, about the consideration of the learner

as a data source were significantly higher than the opinions of teachers with more than 20 years' experience, group 5, U = 728.5, $N_{1=}$ 35, $N_{2=}$ 71, z = -3.46, p = 0.001<.01. Similarly, the opinions of teachers in group 1 about the consideration of society as a data source were significantly higher than the opinions of teachers in group 5, U = 690.5, $N_{1=}$ 35, $N_{2=}$ 71, z = -3.72, p = 0.000<.01.

Table 20. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to years of experience - group 1 and group 5

	Group 1 (0-2 years)		Group 5 (20+ years)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp.Sig (2- tailed)
Learner	68,19	35	46,26	71	728.5	-3,463	**.001**
Society	69,27	35	45,73	71	690.5	-3,721	**.000**
Subject matter	59,03	35	50,77	71	1049	-1,314	.189

As can be seen in Table 21, The Mann Whitney U Test found that there were no significant differences between the opinions of teachers with 3 to 5 years' experience, group 2, and those of teachers with 6 to 10 years' experience, group 3, about the consideration of the learner, society and subject matter as data sources z = -.454, p = 0.650>.05; z = -.192, p = 0.848>.05; z = -.281, p = 0.779>.05, respectively.

Table 21. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to years of experience - group 2 and group 3

	Group 2 (3-5 years)		Group 3 (6-10 years)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp.Sig (2- tailed)
Learner	47,82	44	45,29	48	998	-,454	.650
Society	45,94	44	47,01	48	1031.5	-,192	.848
Subject matter	45,69	44	47,24	48	1020.5	-,281	.779

As shown in Table 22, the Mann Whitney U Test revealed that there were no significant differences between the opinions of teachers with 3 to 5 years' experience, group 2, and those of teachers with 11 to 20 years' experience, group 4, z

= -1.51, p = 0.130>.05; z = -1.18, p = 0.234>.05; z = -.016, p = 0.987>.05, respectively, about the consideration of learner, society and subject matter as data sources.

Table 22. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to years of experience - group 2 and group 4

	Group 2 (3-5 years)		Group 4 (11-20 years)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp.Sig (2- tailed)
Learner	95,70	44	82,64	127	2367	-1,512	.130
Society	93,63	44	86,10	127	2458.5	-1,189	.234
Subject matter	83,36	44	85,96	127	2789.5	-,016	.987

As shown in Table 23, the Mann Whitney U Test revealed that the opinions of teachers with 3 to 5 years' experience, group 2, about the consideration of society as a data source were significantly higher than the opinions of teachers with over 20 years' experience, group 5, U = 1192, $N_{1=}$ 44, $N_{2=}$ 71, z = - 2.14, p = 0.033<.05.

Table 23. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to years of experience - group 2 and group 5

	Group 2 (3-5 years)		Group 5 (20+ years)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp.Sig (2- tailed)
Learner	65,10	44	53,60	71	1249.5	-1,803	.071
Society	66,41	44	52,79	71	1192	-2,137	**.033**
Subject matter	60,51	44	56,44	71	1451.5	-,643	.520

As can be seen in Table 24, according to the results of the Mann Whitney U Test, there were no significant differences between the opinions of teachers with 6 to 10 years' experience, group 3, and those with 11 to 20 years' experience, group 4, z = -1.03, p = 0.301>.05; z = - 1.39, p = 0.165>.05; z = - .296, p = 0.767>.05, respectively, about the consideration of the learner, society and subject matter as data sources.

Table 24. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to years of experience - group 3 and group 4

	Group 3 (6-10 years)		Group 4 (11-20 years)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp.Sig (2- tailed)
Learner	94,43	48	85,57	127	2739.5	-1,035	.301
Society	96,63	48	84,74	127	2634	-1,389	.165
Subject matter	89,82	48	87,31	127	2960.5	-,296	.767

As shown in Table 25, according to the results of the Mann Whitney *U* Test the opinions of teachers with 6 to 10 years' experience, group 3, about the consideration of society as a data source were significantly higher than the opinions of teachers with over 20 years' experience, group 5, $U = 1303$, $N_{1=}$ 48, $N_{2=}$ 71, $z = -2.18$, $p = 0.029 < .05$.

Table 25. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to years of experience - group 3 and group 5

	Group 3 (6-10 years)		Group 5 (20+ years)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp.Sig (2- tailed)
Learner	65,35	48	56,38	71	1447	-1,396	.163
Society	68,35	48	54,35	71	1303	-2,180	**.029**
Subject matter	63,18	48	57,85	71	1551.5	-,835	.404

As can be seen in Table 26, the results of the Mann Whitney *U* Test revealed that there were no significant differences between the opinions of teachers with 11 to 20 years' experience, group 4, and those of teachers with over 20 years' experience, group 5, $z = -.835$, $p = 0.404 > .05$; $z = -1.40$, $p = 0.163 > .05$; $z = -.853$, $p = 0.393 > .05$, respectively, about the consideration of the learner, society and subject matter as data sources.

Table 26. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to years of experience - group 4 and group 5

	Group 4 (11-20 years)		Group 5 (20+ years)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Learner	102,04	127	94,96	71	4186.5	-,835	.404
Society	103,74	127	91,92	71	3970	-1,397	.163
Subject matter	102,07	127	94,90	71	4182	-,853	.393

As can be seen in Table 27, according to the results of the independent sample t-test, there is no significant difference in the perceptions of the teachers about the consideration of the learner p = .073>.05, *d* = -.207; society *p* = .053>.05, *d* = -.224 and subject matter *p* = .260>.05, *d* = -.128 as data sources while planning the curriculum with respect to the location of their schools. For Levene's Test, there is also no significant difference in the variances of the teachers' perceptions of Tyler's three data sources with respect to the location of their schools. Levene's Test for Equality of Variances revealed that equal variances for learner, *p* = .094>.05, society, *p* = .109>.05 and subject matter, *p* = .772>.05 in both town schools and village schools can be assumed.

Table 27. Independent samples t-test for differences in teachers' attributes of Tyler's three data sources with respect to location of school.

	Levene's Test		t-test			
	F	Sig	df	t	P	*d*
Learner	2.830	.094	323	-1.798	.073	-.207
Society	2.586	.109	323	-1.944	.053	-.224
Subject matter	.084	.772	323	-1.129	.260	-.128

As can be seen in Table 28, according to the results of the Test of Homogeneity of Variances, there is no significant difference in the variances of the perceptions of the teachers about the consideration of the Tyler's three data sources while planning the

curriculum with respect to school size, F(3,321) = 1.687, p = .170>.05; F(3,321) = 1.417, p = .238>.05 and F(3,321) = .231, p = .875>.05.

Table 28. Test of Homogeneity of Variances for the differences in variances of teachers' attributes of three data sources with respect to their school size.

Data Sources	Levene Statistic	df1	df2	P
Learner	1.687	3	321	.170
Society	1.417	3	321	.238
Subject matter	.231	3	321	.875

As shown in Table 29, the Kruskal-Wallis Test found that teacher's perceptions about the use of the learner as a data source in four different school sizes differed significantly, χ^2 = 9.30, df = 3, p = 0.026<.05.

Table 29. Kruskal-Wallis test for differences in ratings of teachers about three data sources with respect to school size.

Data Sources	Chi-Square	Df	Asymp. Sig.
Learner	9.298	3	**.026**
Society	6.642	3	.084
Subject Matter	2.277	3	.517

As can be seen in Table 30, the Mann Whitney U Test revealed that there were no significant differences between the opinions of teachers who worked in small schools, and those of teachers who worked in medium schools, z = -1.44, p = 0.149>.05; z = -1.02, p = 0.307>.05; z = -.665, p = 0.506>.05, respectively, about the consideration of learner, society and subject matter as data sources.

Table 30. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to school size - small and medium

	Group 1 (small)		Group 2 (medium)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp.Sig (2- tailed)
Learner	98,79	94	110,94	116	4821.5	-1,443	.149
Society	100,76	94	109,34	116	5006	-1,022	.307
Subject matter	102,44	94	107,98	116	5164	-,665	.506

As shown in Table 31, the Mann Whitney *U* Test found that there were no significant differences between the opinions of teachers who worked in small schools, and those of teachers who worked in large schools, z = -1.36, p = 0.172>.05; z = -.763, p = 0.445>.05; z = -.548, p = 0.584>.05, respectively, about the consideration of learner, society and subject matter as data sources.

Table 31. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to school size - small and large

	Group 1 (small)		Group 3 (large)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp.Sig (2- tailed)
Learner	89,03	94	78,74	74	3052	-1,365	.172
Society	87,03	94	81,28	74	3240	-,763	.445
Subject matter	86,30	94	82,21	74	3308.5	-,548	.584

As can be seen in Table 32, according to the results of the Mann Whitney *U* Test, there were no significant differences between the opinions of teachers who worked in small schools, and those of teachers who worked in very large schools, z = -1.45, p = 0.147>.05; z = - 1.74, p = 0.082>.05; z = - .752, p = 0.452>.05, respectively, about the consideration of learner, society and subject matter as data sources.

Table 32. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to school size - small and very large

	Group 1 (small)		Group 4 (very large)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp.Sig (2- tailed)
Learner	71,22	94	60,62	41	1624.5	-1,451	.147
Society	71,86	94	59,15	41	1564	-1,741	.082
Subject matter	69,65	94	64,21	41	1771.5	-,752	.452

As shown in Table 33, according to the results of the Mann Whitney *U* Test, the opinions of teachers who worked in medium schools, about the consideration of

learner as a data source were significantly higher than the opinions of teachers who worked in large schools, U = 3369, $N_{1=}$ 116, $N_{2=}$ 74, z = -2.50, p = 0.012<.05.

Table 33. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to school size - medium and large

	Group 2 (medium)		Group 3 (large)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp.Sig (2- tailed)
Learner	103,46	116	83,03	74	3369	-2,503	**.012**
Society	100,69	116	87,36	74	3689.5	-1,636	.102
Subject matter	99,20	116	89,70	74	3862.5	-1,175	.240

As can be seen in Table 34, the Mann Whitney U Test found that the opinions of teachers who worked in medium school, about the consideration of the learner as a data source were significantly higher than the opinions of teachers who worked in very large schools, U = 1815.5 $N_{1=}$ 116, $N_{2=}$ 41, z = - 2.25, p=0.024<.05. The opinions of teachers who worked in medium schools, about the consideration of society as a data source were significantly higher than the opinions of teachers who worked in very large schools, U = 1794.5, $N_{1=}$ 116, $N_{2=}$ 41, z = - 2.34, p = 0.019<.05.

Table 34. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to school size - medium and very large

	Group 2 (medium)		Group 4 (very large)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp.Sig (2- tailed)
Learner	83,85	116	65,28	41	1815.5	-2,254	**.024**
Society	84,03	116	64,77	41	1794.5	-2,338	**.019**
Subject matter	81,69	116	71,40	41	2066.5	-1,258	.208

As shown in Table 35, the Mann Whitney U Test found that there were no significant differences between the opinions of teachers who worked in large schools, and those of teachers who worked in very large schools, z = - .144 p = 0.886>.05; z = - .762, p

= 0.446>.05; z = - .260, p = 0.795>.05 respectively, about the consideration of the learner, society and subject matter as data sources.

Table 35. Mann Whitney U Test for differences in teachers' attributes of three data sources with respect to school size - large and very large

	Group 3 (large school)		Group 4 (very large school)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp.Sig (2- tailed)
Learner	58,33	74	57,40	41	1492.5	-,144	.886
Society	59,76	74	54,83	41	1387	-,762	.446
Subject matter	58,59	74	56,93	41	1473	-,260	.795

4.3 Analyses Related to Research Question 3

"How do the teachers rate the attributes of nine curricular elements?" In order to answer this question, frequencies of responses for the attributes of the nine curricular elements were found to see how teachers evaluated the consideration of nine curricular elements in TRNC.

As can be seen in Table 36, the majority of the teachers had nearly the same opinion in that they agreed or strongly agreed with each statement. 'Objectives' is the first element of Frances Klein's curriculum. For items 1, 3, 5, 7, and 9, more than 90% of the participants mentioned that they agreed or strongly agreed with these statements. In second element, 'Content', for items 11, 13, 15, and 17 more than 80% of the participants agreed or strongly agreed with these statements. For item 19, "General goals and objectives that include society's needs and demands should be written," more than 50% of participants disagreed or strongly disagreed. For the third element, 'materials', more than 80% of participants mentioned that they agreed or strongly agreed with items 21, 23, 25, and 27. For items 29, 31, 33, 35, 37, 39, 41, and 43, which concern 'Learning activities', more than 80% of participants agreed or strongly agreed with these statements. 'Teaching strategy', Klein's fifth curricular

element, was covered in items 45, 47, 49, 51, and 53 and more than 85% of the participants agreed or strongly agreed with these statements. 'Evaluation', the sixth element, covered in items 55, 57, 61, and 63 yielded agreement or strong agreement from more than 80% of the participants. For item 59, "In-class homework should be given to find out about students' performances," the mean was 2.92, nearly 3. More than 70% of participants mentioned that they were not sure for this statement. 'Grouping' is the seventh element of Frances Klein's curriculum. For item 65, more than 90% of the participants agreed or strongly agreed with this statement. For items 67, 69, and 71, more than 70% of the participants mentioned that they were not sure or agreed with these statements. 'Time' is Klein's eighth curricular element. For item 73, "A sample exam covering the whole content should be provided with the program," more than 70% of participants mentioned that they were not sure or agreed with this statement. The mean of the perceptions of teachers about this statement was 3.98, very nearly 4. In other words, most teachers chose the "Agree" option on the Likert scale. For item 75, more than 90% of participants mentioned that they strongly agreed or agreed with this statement. 'Space' is the ninth element of Frances Klein's curriculum. For item 77, "Exams should be prepared centrally, by the Ministry," the mean was 3.81, again nearly 4. More than 65% of the participants mentioned that they were not sure or agreed with this statement. For items 79 and 81, more than 90% of the participants agreed or strongly agreed.

Table 36. Descriptive statistics for Klein's nine curricular elements

		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Mean
		N (%)	N (%)	N (%)	N (%)	N (%)	*M*
	GOALS AND OBJECTIVES						
1	General goals and objectives that include society's needs and demands should be written.	161 (49.5)	138 (42.5)	13 (4.0)	8 (2.5)	5 (1.5)	4.36
3	Goals and objectives should be prepared considering the students' levels.	200 (61.5)	98 (30.2)	16 (4.9)	8 (2.5)	3 (.9)	4.49
5	Goals and objectives should be related to the subject areas to be taught.	218 (67.1)	86 (26.5)	13 (4.0)	5 (1.5)	3 (.9)	4.57
7	Goals and objectives should include learners' measurable behavior.	177 (54.5)	119 (36.7)	17 (5.2)	9 (2.8)	3 (.9)	4.41
9	Objective behaviors should help you to evaluate.	191 (58.8)	110 (33.8)	19 (5.8)	4 (1.2)	1 (.3)	4.50
	CONTENT						
11	The content of the lessons should be provided as a list of topic headlines.	194 (59.7)	104 (32.0)	18 (5.5)	6 (1.8)	3 (.9)	4.48
13	The content of the lessons should be chosen in a way that will lead to the specified goals and objectives.	200 (61.5)	103 (31.7)	14 (4.3)	6 (1.8)	2 (.6)	4.52
15	*The vertical organization of the content shows the hierarchical process of learning.* The vertical organization should be satisfactory within the curriculum.	153 (47.1)	108 (33.2)	45 (13.8)	14 (4.3)	5 (1.5)	4.20

(table continues)

Table 36. (continued)

		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Mean
		N (%)	N (%)	N (%)	N (%)	N (%)	*M*
17	*The horizontal organization of the content is done in order to make the learner's knowledge more meaningful, integrate with other subject areas and apply the knowledge in the future. The horizontal organization of the content is processed consistently.* The horizontal organization of the content should be satisfactory within the curriculum.	175 (53.8)	110 (33.8)	33 (10.2)	6 (1.8)	1 (.3)	4.39
19	There is no need for an additional subject list as the topics are in the course book.	25 (7.7)	82 (25.2)	47 (14.5)	99 (30.5)	72 (22.2)	2.66
	MATERIALS						
21	Course book should be specified in the curriculum.	158 (48.6)	100 (30.8)	28 (8.6)	32 (9.8)	7 (2.2)	4.15
23	Materials suggested for the lesson should be consistent with the content of the lesson.	206 (63.4)	89 (27.4)	16 (4.9)	9 (2.8)	5 (1.5)	4.48
25	Information on the materials prepared by the teachers should be included in the curriculum.	179 (55.1)	111 (34.2)	23 (7.1)	11 (3.4)	1 (.3)	4.40
27	The curriculum should include materials prepared and offered to the teachers' use by the Ministry of National Education, Youth and Sports.	184 (56.6)	100 (30.8)	23 (7.1)	16 (4.9)	2 (.6)	4.38
	LEARNING ACTIVITIES:						
29	Activities should be planned based on the students' skills.	204 (62.8)	92 (28.3)	22 (6.8)	5 (1.5)	2 (.6)	4.51

(table continues)

Table 36. (continued)

		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Mean
		N (%)	N (%)	N (%)	N (%)	N (%)	*M*
31	Traditional activities such as reading, writing and listening should be the most used activities in the classroom.	144 (44.3)	93 (28.6)	38 (11.7)	44 (13.5)	6 (1.8)	4.00
33	In-class activities should be planned with the aim of changing students' behavior to meet the goals and objectives in the program.	201 (61.8)	95 (29.2)	19 (5.8)	9 (2.8)	1 (.3)	4.50
35	Learning activities that will motivate the students should be chosen.	228 (70.2)	72 (22.2)	14 (4.3)	8 (2.5)	3 (.9)	4.58
37	Learning activities should be specified in the program.	178 (54.8)	116 (35.7)	20 (6.2)	8 (2.5)	3 (.9)	4.41
39	Learning activities should be prepared by the teachers.	130 (40.0)	131 (40.3)	44 (13.5)	16 (4.9)	4 (1.2)	4.13
41	In-class homework should be given to find out about students' performances.	180 (55.4)	115 (35.4)	18 (5.5)	8 (2.5)	4 (1.2)	4.41
43	Homework should be given to take home in order to find out about the students' performances.	177 (54.2)	96 (29.2)	31 (9.2)	17 (5.2)	4 (1.2)	4.31
	TEACHING STRATEGIES						
45	The teaching strategies that will be used in the lessons should be specified in the program.	150 (46.2)	119 (36.6)	35 (10.8)	18 (5.5)	3 (.9)	4.22

(table continues)

Table 36. (continued)

		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Mean
		N (%)	N (%)	N (%)	N (%)	N (%)	*M*
47	The choice of teaching strategies should be done by the teachers.	164 (50.5)	125 (38.5)	27 (8.3)	6 (1.8)	3 (.9)	4.36
49	Teaching strategies that will help to reach the goals specified in the program should be chosen.	206 (63.4)	99 (30.5)	13 (4.0)	5 (1.5)	2 (.6)	4.54
51	Teaching strategies should be chosen according to the learning styles of the students.	190 (58.5)	109 (33.5)	15 (4.6)	6 (1.8)	5 (1.5)	4.46
53	Teaching strategies that will motivate the students should be chosen.	211 (64.9)	90 (27.7)	14 (4.3)	7 (2.2)	3 (.9)	4.54
	EVALUATION PROCEDURES						
55	A sample exam covering the whole content should be provided with the program.	149 (45.8)	118 (36.3)	36 (11.1)	16 (4.9)	6 (1.8)	4.19
57	Exams should be prepared by the subject teacher.	183 (56.3)	110 (33.8)	23 (7.1)	6 (1.8)	3 (.9)	4.43
59	Exams should be prepared centrally, by the Ministry.	44 (13.5)	80 (24.6)	71 (21.8)	66 (20.3)	64 (19.7)	2.92
61	Exams should be prepared according to the level of the students.	225 (69.2)	80 (24.6)	11 (3.4)	5 (1.5)	4 (1.2)	4.59
63	Exams should be prepared based on the goals specified in the program.	208 (64.0)	87 (26.8)	19 (5.8)	9 (2.8)	2 (.6)	4.51
	GROUPING						
65	If small, in-class groups will be formed, students who will benefit from interaction with other should be included in the groups.	203 (62.5)	92 (28.3)	19 (5.8)	8 (2.5)	3 (.9)	4.49

(table continues)

Table 36. (continued)

		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Mean
		N (%)	N (%)	N (%)	N (%)	N (%)	*M*
67	Curriculum should specify guidelines for grouping in each topic.	128 (39.4)	103 (31.7)	60 (18.5)	28 (8.6)	6 (1.8)	3.98
69	Students with the same level of learning should be grouped together.	116 (35.7)	86 (26.5)	64 (19.7)	45 (13.8)	14 (4.3)	3.75
71	Students with different learning skills should be grouped separately. (Thus, the average level of groups will be equal.)	134 (41.2)	115 (35.4)	53 (16.3)	20 (6.2)	3 (.9)	4.10
	TIME						
73	The expected time to be spent on each topic should be specified on the program.	122 (37.5)	121 (37.2)	43 (13.2)	33 (10.2)	6 (1.8)	3.98
75	Time management during lessons should be done by the teachers.	200 (61.5)	100 (30.8)	19 (5.8)	2 (.6)	4 (1.25)	4.51
	SPACE						
77	The place for each topic should be specified on the program.	125 (37.8)	93 (28.6)	45 (13.8)	53 (16.3)	11 (3.4)	3.81
79	Applied subjects (e.g. science, music, English, physical education, etc.) should take place in a laboratory, library, hall, music room or sports field.	222 (68.3)	83 (25.5)	12 (3.7)	3 (.9)	5 (1.5)	4.58
81	Observation-based lessons should occur in original spaces.	208 (64.0)	90 (27.2)	20 (6.2)	3 (.9)	4 (1.2)	4.52

4.4 Analyses Related to Research Question 4

"How do the ratings of the attributes of nine curricular elements vary with respect to

a) gender of the teachers,

b) age of the teachers,

c) years of experience of teachers,

d) location of schools,

e) school size?"

In order to answer this question, the independent sample t-test was used to see the difference between the male teachers' ratings and female teachers' ratings. ANOVA, Test of Homogeneity of Variances and Kruskal Wallis Test were used to see the difference in terms of teachers' age and years of experience in their ratings of the nine curricular elements. The independent sample t-test was used to see the difference between ratings from town schools and from village schools. ANOVA, Test of Homogeneity of Variances and Mann Whitney *U* Test were used to see the difference between teachers' ratings in different school sizes.

As can be seen in Table 37, according to the results of independent sample t-test, the perceptions of the teachers about the consideration of materials as an element while planning the curriculum, female teachers' ratings $M = 4.43$, $SD = 0.68$ were significantly higher $t = 2.71$, $df = 323$, $p = 0.007 < .01$, $d = .313$ than male teachers' ratings, $M = 4.22$, $SD = .69$.

Table 37. Independent samples t-test for differences in teachers' attributes of nine curricular elements with respect to gender.

	Levene's Test		t-test			
Elements	F	Sig	df	t	*p*	*d*
Objectives	.337	.562	323	.748	.455	.09
Content	.001	.981	323	1.423	.156	.165
Materials	.006	.938	323	2.707	**.007**	.313
Learning activities	4.669	.031	185.151	1.618	.107	.195
Teaching strategies	1.866	.173	323	1.143	.254	.129
Evaluation	.030	.863	323	1.187	.236	.138
Grouping	.191	.662	323	1.055	.292	.123
Time	.298	.586	323	.210	.834	.024
Space	1.210	.272	323	1.505	.133	.171

As shown in Table 38, according to the results of Test of Homogeneity of Variances, there was no significant difference in the variances of the perception of teachers about the consideration of objectives $p = .769 > .05$; content $p = .545 > .05$, evaluations $p = .179 > .05$, grouping $p = .835 > .05$, and time $p = .082 > .05$ while designing a curriculum with respect to age.

Based on the results for materials, learning activities, teaching strategies and space in the Test of Homogeneity, the assumption of equality of variances has been violated, $F(3, 321) = 4.935$, $p = .002 < .050$. Consequently, Kruskal Wallis was used to see the differences between teachers' attributes of nine curricular elements with respect to age.

For differences in the perceptions of the teachers about the consideration of materials, $p = .026 < .05$, learning activities, $p = .038 < .05$, and space, $p = .032 < .05$ while designing a curriculum with respect to the age of teachers, the results of the Test of Homogeneity of Variances specified that there were significant differences between age groups.

Table 38. Test of Homogeneity of Variances for the differences in variances of teachers' attributes of nine curricular elements with respect to age.

Elements	Levene Statistic	df1	df2	p
Objectives	.377	3	321	.769
Content	.713	3	321	.545
Materials	3.114	3	321	**.026**
Learning activities	2.842	3	321	**.038**
Teaching strategies	4.935	3	321	**.002**
Evaluation	1.646	3	321	.179
Grouping	.287	3	321	.835
Time	2.257	3	321	.082
Space	2.978	3	321	**.032**

As can be seen in Table 39, according to the results of the Kruskal-Wallis Test, there was no significant difference in the perceptions of teachers about the consideration of objectives, $p = .402>.05$; content, $p = .343>.05$; materials, $p = .165>.05$; learning activities, $p = .704>.05$; teaching strategies, $p = .415>.05$; evaluation, $p = .348>.05$; grouping, $p = .205>.05$; time, $p = .612>.05$, and space, $p = .604>.05$ while designing a curriculum with respect to age.

Table 39. Kruskal-Wallis Test for differences in ratings of teachers about the nine curricular elements with respect to age.

Elements	Chi-Square	df	Asymp. Sig.
Objectives	2.932	3	.402
Materials	3.334	3	.343
Content	5.097	3	.165
Learning activities	1.406	3	.704
Teaching strategies	2.850	3	.415
Evaluation	3.295	3	.348
Grouping	4.583	3	.205
Time	1.812	3	.612
Space	1.849	3	.604

As can be seen in Table 40, according to the results of Test of Homogeneity of Variances, there was no significant difference between the perceptions of the teachers about the consideration of objectives, $p = .609>.05$; content, $p = .157>.05$;

evaluation, p = .338>.05; grouping, p = .505>.05; time, p = .199>.05, and space, p = .137>.05 while designing a curriculum with respect to years of experience.

Concerning differences in teachers' perceptions about the consideration of materials, p = .035<.05, learning activities, p = .032<.05, and teaching strategies, p = .002<.05 while designing a curriculum, the Test of Homogeneity of Variances results revealed a significant difference in terms of years of experience. This data, especially teaching strategies (p = **.002**<.05), does not meet parametric one-way ANOVA's procedures, which is why the Kruskal-Wallis (nonparametric test) was used.

Table 40. Test of Homogeneity of Variances for the differences in variances of teachers' attributes of nine curricular elements with respect to years of experience.

Elements	Levene Statistic	df1	df2	P
Objectives	,677	4	320	.609
Content	1,669	4	320	.157
Materials	2,627	4	320	**.035**
Learning activities	2,680	4	320	**.032**
Teaching strategies	4,317	4	320	**.002**
Evaluation	1,139	4	320	.338
Grouping	,834	4	320	.505
Time	1,509	4	320	.199
Space	1,758	4	320	.137

As shown in Table 41, according to the results of the Kruskal-Wallis Test, there was no significant difference between the teachers'' perceptions about the consideration of objectives, p = .419>.05; content, p = .526>.05; materials, p = .394>.05; learning activities, p = .073>.05; teaching strategies, p = .177>.05; evaluation, p = .108>.05; grouping, p = .189>.05; time, p = .161>.05; and space, p = .078>.05 while designing a curriculum with respect to years of experience.

Table 41. Kruskal-Wallis Test for differences in ratings of teachers about the nine curricular elements with respect to years of experience.

Elements	Chi-Square	df	Asymp. Sig.
Objectives	3.908	4	.419
Contents	3.194	4	.526
Materials	4.090	4	.394
Learning activities	8.556	4	.073
Teaching strategies	6.313	4	.177
Evaluations	7.591	4	.108
Groupings	6.143	4	.189
Time	6.560	4	.161
Space	8.389	4	.078

As can be seen in Table 42, according to the results of independent sample t-test, the perceptions of the teachers about the consideration of groupings as an element while planning the curriculum, town school teachers' ratings, M = 4.14, SD = 0.66, were significantly higher, t = 2.06, df = 323, p = 0.041<.05, than those of village school teachers', M = 3.98, SD = .73.

Table 42. Independent samples t-test for differences in teachers' attributes of nine curricular elements with respect to the location of schools.

	Levene's Test		t-test			
Elements	F	Sig	df	t	P	*d*
Objectives	3.830	.051	323	.281	.779	.032
Content	5.527	.019	300.603	.392	.695	.043
Materials	1.885	.171	323	-.151	.880	-.017
Learning activities	4.087	.044	317.890	-.037	.971	-.003
Teaching strategies	3.136	.078	323	-.588	.557	-.069
Evaluation	.055	.814	323	-.322	.748	-.036
Grouping	1.821	.178	323	2.056	**.041**	.231
Time	8.777	.003	304.513	-.740	.460	-.082
Space	2.311	.129	323	-.472	.638	-.054

As shown in Table 43, according to the results of Test of Homogeneity of Variances, the perceptions of the teachers about the consideration of evaluations, p = .505>.05; groupings, p = .505>.05; time, p = .064>.05; and space, p = .479>.05 while designing a curriculum with respect to their school sizes there is no significant difference between them.

For differences in the variances of the perceptions of the teachers about the consideration of objectives, p = .002<.05; contents, p = .043<.05; materials, p = .000<.01; learning activities, p = .000<.01 and teaching strategies, p = .011<.05 while designing a curriculum, Test of Homogeneity of Variances results specified that there was a significant difference between their school sizes. In the data, especially materials and learning activities (p = **.000**<.01) do not meet parametric one-way ANOVA's procedures. Therefore, Kruskal-Wallis (nonparametric test) was used.

Table 43. Test of Homogeneity of Variances for the differences in variances of teachers' attributes of nine curricular elements with respect to their school sizes.

Elements	Levene Statistic	df1	df2	P
Objectives	5.166	3	321	**.002**
Content	2.742	3	321	**.043**
Materials	7.641	3	321	**.000**
Learning activities	8.576	3	321	**.000**
Teaching strategies	3.755	3	321	**.011**
Evaluation	.781	3	321	.505
Grouping	.782	3	321	.505
Time	2.448	3	321	.064
Space	.829	3	321	.479

As can be seen in Table 44, The Kruskal-Wallis Test found that there were significant differences in terms of school size for the curricular elements of objectives, χ^2 =7.83, df = 3, p = 0.050<.05; content, χ^2 = 19.15, df = 3, p = 0.000<.01; materials, χ^2 = 21.94, df = 3, p = 0.000<.01; learning activities, χ^2 = 12.80, df = 3, p = 005<.01; evaluation, χ^2 = 13.30, df = 3, p = 0.004<.01; grouping, χ^2 = 22.39, df = 3, p = 0.000<.01; and time, s χ^2 = 9.84, df = 3, p = 0.020<.05.

Table 44. Kruskal-Wallis Test for differences in ratings of teachers about the nine curricular elements with respect to school size.

Elements	Chi-Square	df	Asymp. Sig.
Objectives	7.832	3	**.050**
Content	19.146	3	**.000**
Materials	21.937	3	**.000**
Learning activities	12.802	3	**.005**
Teaching strategies	6.470	3	.091
Evaluation	13.298	3	**.004**
Grouping	22.393	3	**.000**
Time	9.844	3	**.020**
Space	3.022	3	.388

As shown in Table 45, the Mann Whitney *U* test was used to find out where school size was significant for the use of the nine curricular elements. As can be seen in Table 45, the results for teachers' perception of the consideration of materials, U = 3902.5 N1= 94, N2= 116, z = -3.60 p = 0.000<.01; learning activities, U = 4115 N1= 94, N2= 116, z = -3.07 p = 0.002<.01; grouping, U = 3546.5 N1= 94, N2= 116, z = -4.38 p = 0.000<.01; and time, U = 4436 N1= 94, N2= 116, z = -2.40 p = 0.017<.01 for medium schools were significantly higher than for small school.

Table 45. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to school size - small and medium

	Group 1 (small school)		Group 2 (medium school)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp.Sig (2- tailed)
Objectives	104,30	94	106,47	116	5339.5	-,261	.794
Content	97,49	94	111,99	116	4699.5	-1.736	.083
Materials	89,02	94	118,86	116	3902.5	-3.604	**.000**
Learning activities	91,28	94	117,03	116	4115	-3.069	**.002**
Teaching strategies	104,22	94	106,54	116	5331.5	-.280	.779
Evaluation	109,17	94	102,53	116	5107	-.795	.426
Grouping	85,23	94	121,93	116	3546.5	-4.384	**.000**
Time	94,69	94	114,26	116	4436	-2.396	**.017**
Space	99,71	94	110,19	116	4907.5	-1.268	.205

Table 46 shows the results of the Mann Whitney *U* Test indicating that the perception of teachers about the consideration of materials, U = 2801.5 N1= 94, N2= 74, z = -2.20 p = 0.028<.05; learning activities, U = 2742 N1= 94, N2= 74, z = -2.36 p = 0.018<.05; grouping, U = 2401.5 N1= 94, N2= 74, z = -3.47 p = 0.001<.01; and time, U = 2784 N1= 94, N2= 74, z = -2.28 p = 0.022<.05, in large schools was significantly higher than in small schools.

Table 46. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to school size - small and large

	Group 1 (small school)		Group 3 (large school)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp.Sig (2- tailed)
Objectives	80,24	94	89,91	74	3078	-1,305	.192
Content	79,97	94	90,26	74	3052	-1,381	.167
Materials	77,30	94	93,64	74	2801.5	-2,200	**.028**
Learning activities	76,67	94	94,45	74	2742	-2,363	**.018**
Teaching strategies	83,86	94	85,31	74	3418	-,195	.845
Evaluation	80,25	94	89,90	74	3078.5	-1,291	.197
Grouping	73,05	94	99,05	74	2401.5	-3,466	**.001**
Time	77,12	94	93,88	74	2784	-2,283	**.022**
Space	79,08	94	91,39	74	2968.5	-1,665	.096

As can be seen in Table 47, according to the Mann Whitney *U* Test, the perception of teachers about the consideration of content, U = 1368 N1= 94, N2= 41, z = -2.70 p = 0.007<.01; teaching strategies, U = 1490.5 N1= 94, N2= 41, z = -2.12 p = 0.034<.05; and evaluation, U = 1354.5 N1= 94, N2= 41, z = -2.78 p = 0.006<.05 in small schools were significantly higher than in very large schools.

Table 47. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to school size - small and very large

	Group 1 (small school)		Group 4 (very large school)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Objectives	71,98	94	58,88	41	1553	-1,812	.070
Contents	73,95	94	54,37	41	1368	-2,699	**.007**
Materials	71,19	94	60,68	41	1627	-1,451	.147
Learning activities	68,94	94	65,85	41	1839	-,423	.673
Teaching strategies	72,64	94	57,35	41	1490.5	-2,116	**.034**
evaluations	74,09	94	54,04	41	1354.5	-2,767	**.006**
groupings	64,02	94	77,13	41	1552.5	-1,805	.071
Time	69,02	94	65,67	41	1831.5	-,470	.639
space	66,67	94	71,05	41	1802	-,610	.542

As shown in Table 48, according to the results of the Mann Whitney U Test, there was no significant difference in the perceptions of teachers about the consideration of objectives, p = .214>.05; content, p = .666>.05; materials, p = .551>.05; learning activities, p = .649>.05; teaching strategies, p = .941>.05; evaluation, p = .057>.05; grouping, p = .829>.05; time p = .700>.05; and space p = .560>.05 while designing a curriculum with respect to their school size.

Table 48. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to school size - medium and large

	Group 2 (medium school)		Group 3 (large school)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Objectives	91,62	116	101,58	74	3842	-1,242	.214
Content	96,86	116	93,37	74	4134.5	-,432	.666
Materials	97,34	116	92,61	74	4078.5	-,596	.551
Learning activities	96,94	116	93,24	74	4125	-,455	.649
Teaching strategies	95,73	116	95,14	74	4265	-,074	.941
Evaluation	89,49	116	104,92	74	3595	-1,906	.057
Grouping	96,18	116	94,43	74	4213	-,216	.829
Time	94,32	116	97,35	74	4155	-,385	.700
Space	93,69	116	98,34	74	4082	-,582	.560

As can be seen in Table 49, according to the Mann Whitney U Test, the perception of teachers about the consideration of objectives, U = 1853 N1=116, N2= 41, z = -2.13 p = 0.034<.05; content, U = 1375 N1=116, N2= 41, z = -4.05 p = 0.000<.01; materials, U = 1434 N1=116, N2= 41, z = -3.85 p = 0.000<.01; learning activities, U = 1817.5 N1=116, N2= 41, z = -2.25 p = 0.024<.05; teaching strategies, U = 1786 N1=116, N2= 41, z = -2.40 p = 0.016<.05; evaluation, U = 1820.5 N1=116, N2= 41, z = -2.25 p = 0.024<.05, and time, U = 1883 N1=116, N2= 41, z = -2.04 p = 0.041<.05, in medium schools were significantly higher than in very large schools.

Table 49. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to school size - medium and very large

	Group 2 (medium school)		Group 4 (very large school)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp.Sig (2- tailed)
Objectives	83,53	116	66,20	41	1853	-2,126	**.034**
Content	87,65	116	54,54	41	1375	-4,047	**.000**
Materials	87,14	116	55,98	41	1434	-3,850	**.000**
Learning activities	83,83	116	65,33	41	1817.5	-2,254	**.024**
Teaching strategies	84,10	116	64,56	41	1786	-2,399	**.016**
Evaluation	83,81	116	65,40	41	1820.5	-2,250	**.024**
Grouping	82,92	116	67,90	41	1923	-1,836	.066
Time	83,27	116	66,93	41	1883	-2,043	**.041**
Space	79,55	116	77,45	41	2314.5	-,259	.795

As shown in Table 50, the Mann Whitney *U* Test shows the teachers' perception of the consideration of objectives, U = 1075 N1=74, N2= 41, z = -2.64 p = 0.008<.01; content, U = 876 N1=74, N2= 41, z = -3.81 p = 0.000<.01; materials, U = 1041 N1=74, N2= 41, z = -2.83 p = 0.005<.01; teaching strategies, U = 1146.5 N1=74, N2= 41, z = -2.19 p = 0.029<.05; and evaluation, U = 929.5 N1=74, N2= 41, z = -3.47 p = 0.001<.01 in large schools were significantly higher than in very large schools.

Table 50. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to school size - large and very large

	Group 3 (large school)		Group 4 (very large school)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Objectives	63,97	74	47,22	41	1075	-2,637	**.008**
Content	66,66	74	42,37	41	876	-3,810	**.000**
Materials	64,43	74	46,39	41	1041	-2,833	**.005**
Learning activities	62,27	74	50,29	41	1201	-1,854	.064
Teaching strategies	63,01	74	48,96	41	1146.5	-2,190	**.029**
Evaluation	65,94	74	43,67	41	929.5	-3,469	**.001**
Grouping	61,31	74	52,02	41	1272	-1,445	.149
Time	62,26	74	50,30	41	1201.5	-1,903	.057
Space	59,51	74	55,28	41	1405.5	-,671	.502

4.5 Analyses Related to Research Question 5

"How do the teachers think that the MNEYS take into consideration the attributes of nine curricular elements?" In order to answer this question, even items' frequencies were computed.

As can be seen in Table 51, for items 1, 3, 7, 9, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 71, 73, 75, 77, 79, and 81, more than 60% of the participants thought that these elements are not included in the curriculum designed by the MNEYS. For items 67 and 69, more than 80% of the participants thought that these elements are not included in curriculum either. Both means are .19. For item 5, however, 53.8% of the participants mentioned that this element is included in the curriculum designed by the MNEYS. For items 11 and 13, more than 53.5% of the participants mentioned that these elements are not included in curriculum, the mean being .50. More than 49.8% mentioned that these elements are included in curriculum, with a mean of .46.

Table 51. Number and percentages of teachers' responses for consideration of Klein's nine curricular elements by the MNEYS while preparing the curriculum.

		Mean	Yes	No
		M		
	GOALS AND OBJECTIVES			
1	General goals and objectives that include society's needs and demands should be written.	.33	108 (33.2)	217 (66.8)
3	Goals and objectives should be prepared considering the students' levels.	.40	129 (39.7)	196 (60.3)
5	Goals and objectives should be related to the subject areas to be taught.	.54	175 (53.8)	150 (46.2)
7	Goals and objectives should include learners' measurable behavior.	.41	134 (41.2)	191 (58.8)
9	Objective behaviors should help you to evaluate.	.42	138 (42.5)	187 (57.5)
	CONTENT			
11	The content of the lessons should be provided as a list of topic headlines.	.50	162 (49.8)	163 (53.5)
13	The content of the lessons should be chosen in a way that will lead to the specified goals and objectives.	.46	151 (46.5)	174 (53.5)
15	*The vertical organization of the content shows the hierarchical process of learning.* The vertical organization should be satisfactory within the curriculum.	.32	105 (32.3)	220 (67.7)
17	*The horizontal organization of the content is done in order to make the learner's knowledge more meaningful, integrate with other subject areas and apply the knowledge in the future. The horizontal organization of the content is processed consistently.* The horizontal organization of the content should be satisfactory within the curriculum.	.40	129 (39.7)	196 (60.3)

(table continues)

Table 51. (continued)		Mean	Yes	No
		M		
19	There is no need for an additional subject list as the topics are in the course book.	0.37	119 (36.6)	206 (63.4)
	MATERIALS			
21	Course book should be specified in the curriculum.	0.40	130 (40.0)	195 (60.0)
23	Materials suggested for the lesson should be consistent with the content of the lesson.	0.43	140 (43.1)	185 (56.9)
25	Information on the materials prepared by the teachers should be included in the curriculum.	0.28	91 (28.0)	234 (72.0)
27	The curriculum should include materials prepared and offered to the teachers' use by the Ministry of National Education and Sports.	0.29	94 (28.9)	231 (71.1)
	LEARNING ACTIVITIES			
29	Activities should be planned based on the students' skills.	0.30	96 (29.5)	229 (70.5)
31	Traditional activities such as reading, writing and listening should be the most used activities in the classroom.	0.41	134 (41.2)	191 (58.8)
33	In-class activities should be planned with the aim of changing students' behavior to meet the goals and objectives in the program.	0.36	117 (36.0)	208 (64.0)
35	Learning activities that will motivate the students should be chosen.	0.34	112 (34.5)	213 (65.5)
37	Learning activities should be specified in the program.	0.42	135 (41.5)	190 (58.5)
39	Learning activities should be prepared by the teachers.	0.41	133 (40.9)	192 (59.1)
41	In-class homework should be given to find out about students' performances.	0.46	149 (45.8)	176 (54.2)
43	Homework should be given to take home in order to find out about the students' performances.	0.44	144 (44.3)	181 (55.7)

(table continues)

Table 51. (continued)		Mean	Yes	No
		M		
	TEACHING STRATEGIES			
45	The teaching strategies that will be used in the lessons should be specified in the program.	0.37	121 (37.2)	204 (62.8)
47	The choice of teaching strategies should be done by the teachers.	0.44	143 (44.0)	182 (56.0)
49	Teaching strategies that will help to reach the goals specified in the program should be chosen.	0.40	129 (39.7)	196 (60.3)
51	Teaching strategies should be chosen according to the learning styles of the students.	0.29	95 (29.2)	230 (70.8)
53	Teaching strategies that will motivate the students should be chosen.	0.29	93 (28.6)	232 (71.4)
	EVALUATION PROCEDURES			
55	A sample exam covering the whole content should be provided with the program.	0.24	78 (24.0)	247 (76.0)
57	Exams should be prepared by the subject teacher.	0.44	144 (44.3)	181 (55.7)
59	Exams should be prepared centrally, by the Ministry.	0.29	93 (28.6)	232 (71.4)
61	Exams should be prepared according to the level of the students.	0.36	116 (35.7)	209 (64.3)
63	Exams should be prepared based on the goals specified in the program.	0.39	128 (39.4)	197 (60.6)
	GROUPING			
65	If small, in-class groups will be formed, students who will benefit from interaction with other should be included in the groups.	0.25	81 (24.9)	244 (75.1)
67	Curriculum should specify guidelines for grouping in each topic.	0.19	62 (19.1)	263 (80.9)
69	Students with the same level of learning should be grouped together.	0.19	61 (18.8)	264 (81.2)
71	Students with different learning skills should be grouped separately. (Thus, the average level of groups will be equal.)	0.26	83 (25.5)	242 (74.5)

(table continues)

Table 51. (continued)		Mean	Yes	No
		M		
	TIME			
73	The expected time to be spent on each topic should be specified on the program.	0.43	139 (42.8)	186 (57.2)
75	Time management during lessons should be done by the teachers.	0.38	125 (38.5)	200 (61.5)
	SPACE			
77	The place for each topic should be specified on the program.	0.21	67 (20.6)	258 (79.4)
79	Applied subjects (e.g. science, music, English, physical education, etc.) should take place in a laboratory, library, hall, music room or Sports field.	0.21	68 (20.9)	257 (79.1)
81	Observation-based lessons should occur in original spaces.	0.28	91 (28.0)	234 (72.0)

4.6 Analyses Related to Research Question 6

"How do the thoughts of teachers about the consideration of the attributes of nine curricular elements by the MNEYS vary with respect to

a) gender of the teachers,

b) age of the teachers,

c) years of experience of teachers,

d) location of schools,

e) school size?"

In order to answer this question, even items' means were found to see what teachers think about the existence of nine curricular elements in TRNC. For the sections concerning gender and location of school, instead of the independent sample t-test, the Mann Whitney *U* test was used to see the difference between the male and

female teachers' ratings and also teachers' ratings from town and village schools. For age, years of experience and school size sections, instead of ANOVA, the Kruskal-Wallis Test was used to see the difference in teachers' ratings in the various groups.

As can be seen in Table 52, the Mann Whitney *U* Test conducted to see the differences of thoughts of teachers about nine curricular elements with respect to gender found that the opinions of female teachers about the consideration of objectives were significantly higher than the opinions of male teachers $U = 9.493$, $N_{1=}115$, $N_{2=}210$, $z = -3.26$ $p = 0.001<.01$.

Table 52. Mann Whitney U Test for differences of thoughts of teachers about nine curricular elements with respect to gender.

	Male		Female				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp. Sig (2-tailed)
Objectives	140.55	115	175.30	210	9493	-3,260	**.001**
Content	156.31	115	166.66	210	11306	-,967	.334
Materials	158.17	115	165.64	210	11520	-,709	.478
Learning activities	156.32	115	166.66	210	11307	-,957	.338
Teaching strategies	154.63	115	167.59	210	11112	-1,222	.222
Evaluation	155.09	115	167.33	210	11165	-1,151	.250
Grouping	151.57	115	169.26	210	10760.5	-1,839	.066
Time	159.21	115	165.07	210	11639.5	-,565	.572
Space	159.15	115	165.11	210	11632.5	-,615	.539

As shown in Table 53, the Kruskal-Wallis Test found that the perceptions of the teachers about the consideration of objectives, $\chi^2 = 16.41$, $df = 3$, $p = 0.001<.01$; materials, $\chi^2 = 8.60$, $df = 3$, $p = 0.035<.05$; learning activities, $\chi^2 = 17.30$, $df = 3$, $p = 0.001<.01$; teaching strategies, $\chi^2 = 8.52$, $df = 3$, $p = 0.036<.05$ and time, $\chi^2 = 8.50$, $df = 3$, $p = 0.037<.05$, in the four different age groups differed significantly. According to the results for objectives, materials, learning activities, teaching strategies and

time, the Mann Whitney *U* Test needs to be conducted to find how these elements differed significantly.

Table 53. Kruskal-Wallis Test for differences in ratings of teachers about the nine curricular elements with respect to age.

Elements	Chi-Square	Df	Asymp. Sig.
Objectives	16.407	3	**.001**
Content	4.751	3	.191
Materials	8.602	3	**.035**
Learning activities	17.301	3	**.001**
Teaching strategies	8.520	3	**.036**
Evaluation	3.620	3	.306
Grouping	3.135	3	.371
Time	8.503	3	**.037**
Space	6.217	3	.102

As can be seen in Table 54, the Mann Whitney *U* Test revealed that the opinions of the teachers about the consideration of objectives in age group 1, between 21 and 25 years of age, were significantly higher than in age group 2, between 26 and 35, U = 2.161, $N_{1=}$ 50, $N_{2=}$109, z = *-2.12* p = 0.034<.05.

Table 54. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to age - group 1 and group 2

	Age group 1 (21-25)		Age group 2 (26-35)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp. Sig (2- tailed)
Objectives	91,28	50	74,83	109	2161	-2,125	**.034**
Content	81,07	50	79,51	109	2671.5	-,202	.840
Materials	84,63	50	77,88	109	2493.5	-,882	.378
Learning activities	83,60	50	78,35	109	2545	-,673	.501
Teaching strategies	72,25	50	83,56	109	2337.5	-1,464	.143
Evaluation	71,85	50	83,74	109	2317.5	-1,545	.122
Grouping	75,82	50	81,92	109	2516	-,861	.389
Time	76,33	50	81,68	109	2541.5	-,706	.480
Space	74,46	50	82,54	109	2448	-1,119	.263

As shown in Table 55, the Mann Whitney *U* Test found that the opinions of the teachers about the consideration of objectives, $U = 2.006$, $N_{1=}$ 50, $N_{2=}122$, $z = -3.61$ $p = 0.000<.01$; materials, $U = 2.263{,}5$ $N_{1=}$ 50, $N_{2=}122$, $z = -2.75$ $p = 0.006<.01$; and learning activities, $U = 2.056{,}5$ $N_{1=}$ 50, $N_{2=}122$, $z = -3.39$ $p = 0.001<.01$ among age group 1, between 21 and 25 years of age, were significantly higher than among age group 3, between 36 and 45.

Table 55. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to age - group 1 and group 3

	Age group 1 (21-25)		Age group 3 (36-45)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Objectives	107,38	50	77,94	122	2006	-3,614	**.000**
Content	96,05	50	82,59	122	2572.5	-1,643	.100
Materials	102,23	50	80,05	122	2263.5	-2,753	**.006**
Learning activities	106,37	50	78,36	122	2056.5	-3,395	**.001**
Teaching strategies	91,34	50	84,52	122	2808	-,851	.395
Evaluation	85,73	50	86,82	122	3011.5	-,134	.893
Grouping	85,75	50	86,81	122	3012.5	-,144	.885
Time	94,65	50	83,16	122	2642.5	-1,470	.142
Space	90,19	50	84,99	122	2865.5	-,722	.470

As can be seen in Table 56, the Mann Whitney *U* Test found that the opinions of the teachers about the consideration of objectives in age group 1, between 21 and 25 years of age, were significantly higher than in age group 4, above 46 years of age, $U = 699{,}5$ $N_{1=}50$, $N_{2=}$ 44, $z = -3.08$ $p = 0.002<.01$.

Table 56. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to age - group 1 and group 4

	Age group 1 (21-25)		Age group 4 (46+)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp.Sig (2- tailed)
Objectives	55,51	50	38,40	44	699,5	-3,087	**.002**
Content	50,24	50	44,39	44	963	-1,056	.291
Materials	51,44	50	43,02	44	903	-1,535	.125
Learning activities	50,01	50	44,65	44	974,5	-,958	.338
Teaching strategies	47,61	50	47,38	44	1.094,5	-,043	.966
Evaluation	46,40	50	48,75	44	1.045	-,429	.668
Grouping	49,27	50	45,49	44	1.011,5	-,796	.426
Time	50,13	50	44,51	44	968,5	-1,043	.297
Space	48,70	50	46,14	44	1.040	-,523	.601

As shown in Table 57, the Mann Whitney *U* Test revealed that the opinions of teachers about the consideration of objectives, U = 5.608,5 $N_{1=}$ 109, $N_{2=}$122, z = *-2.11* p = 0.035<.05; materials, U = 5.635,5 $N_{1=}$ 109, $N_{2=}$122, z = *-2.08* p = 0.038<.05; learning activities, U = 4.874,5 $N_{1=}$ 109, $N_{2=}$122, z = *-3.54* p =0.000<.01; teaching strategies, U = 5.224,5 $N_{1=}$ 109, $N_{2=}$122, z = *-2.88* p = 0.004<.01; time U = 5.360 $N_{1=}$ 109, $N_{2=}$122, z = *-2.68* p = 0.007<.01; and space, U = 5.583 $N_{1=}$ 109, $N_{2=}$122, z = *-2.34* p = 0.019<.01, in age group 2, between 26 and 35 years of age, were significantly higher than in age group 3, between 36 and 45 years.

Table 57. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to age - group 2 and group 3

	Age group 2 (26-35)		Age group 3 (36-45)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Objectives	125,55	109	107,47	122	5.608,5	-2,107	**.035**
Content	124,32	109	108,57	122	5.742,5	-1,824	.068
Materials	125,30	109	107,69	122	5.635,5	-2,079	**.038**
Learning activities	132,28	109	101,45	122	4.874,5	-3,541	**.000**
Teaching strategies	129,07	109	104,32	122	5.224,5	-2,883	**.004**
Evaluation	123,48	109	109,32	122	5.834	-1,645	.100
Grouping	119,94	109	112,48	122	6.220	-,945	.345
Time	127,83	109	105,43	122	5.360	-2,681	**.007**
Space	125,78	109	107,26	122	5.583	-2,347	**.019**

As can be seen in Table 58, the Mann Whitney U Test found no significant difference in the teacher's perceptions about the consideration of objectives, $p = .091>.05$; content, $p = .310>.05$; materials, $p = .447>.05$; learning activities, $p = .597>.05$; teaching strategies, $p = .165>.05$; evaluation, $p = .357>.05$; grouping, $p = .090>.05$; time, $p = .061>.05$, and space, $p = .114>.05$ with respect to their ages.

Table 58. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to age - group 2 and group 4

	Age group 2 (26-35)		Age group 4 (46+)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Objectives	80,77	109	67,67	44	1.987,5	-1,688	.091
Content	79,27	109	71,38	44	2.150,5	-1,015	.310
materials	78,68	109	72,84	44	2.215	-,761	.447
Learning activities	78,19	109	74,05	44	2.268	-,528	.597
Teaching strategies	80,10	109	69,32	44	2.060	-1,388	.165
Evaluation	79,06	109	71,91	44	2.174	-,922	.357
Grouping	80,44	109	68,49	44	2.023,5	-1,698	.090
Time	81,11	109	66,83	44	1.950,5	-1,874	.061
Space	80,28	109	68,86	44	2.040	-1,581	.114

As shown in Table 59, the Mann Whitney U Test revealed that there is no significant difference in the perceptions of teachers about the consideration of objectives, p = .989>.05; content, p = .595>.05; materials, p = .506>.05; learning activities, p = .064>.05; teaching strategies, p = .502>.05; evaluation, p = .756>.05; grouping, p = .293>.05; time, p = .734>.05; and space, p = .974>.05, with respect to age.

Table 59. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to age - group 3 and group 4

	Age group 3 (36-45)		Age group 4 (46+)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp.Sig (2- tailed)
Objectives	83,53	122	83,42	44	2.680,5	-,013	.989
Content	82,34	122	86,73	44	2.542	-,531	.595
Materials	82,09	122	87,42	44	2.511,5	-,665	.506
Learning activities	79,42	122	94,82	44	2.186	-1,855	.064
Teaching strategies	82,06	122	87,49	44	2.508,5	-,672	.502
Evaluation	82,82	122	85,38	44	2.601,5	-,311	.756
Grouping	85,53	122	77,88	44	2.436,5	-1,051	.293
Time	82,80	122	85,45	44	2.598	-,339	.734
Space	83,44	122	83,67	44	2.676,5	-,032	.974

As can be seen in Table 60, the Kruskal-Wallis Test found that teachers' perceptions of the consideration of objectives, χ^2 =12.81, df = 4, p = 0.012<.05, materials, χ^2 =20.79, df = 4, p = 0.000<.01, and learning activities, χ^2 =11.75, df = 4, p = 0.019<.05 in the five different experience groups differed significantly. According to these results, Mann Whitney U Test is needed for objectives, materials, and learning activities to find how these elements differed significantly.

Table 60. Kruskal-Wallis test for differences in ratings of teachers about the nine curricular elements with respect to years of experiences

Elements	Chi-Square	Df	Asymp. Sig.
Objectives	12.809	4	**.012**
Content	4.013	4	.404
Materials	20.794	4	**.000**
Learning activities	11.747	4	**.019**
Teaching strategies	4.435	4	.350
Evaluation	1.803	4	.772
Grouping	2.733	4	.603
Time	4.029	4	.402
Space	2.964	4	.564

As shown in Table 61, the results of the Mann Whitney *U* Test showed that the perceptions of teachers about the consideration of materials in group 1 (0-2 years' experience) were significantly higher than in group 2 (3-5 years' experience), U = 508,5 $N_{1=}35$, $N_{2=}44$, z = *-2.66* p = 0.008<.01.

Table 61. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to years of experience - group 1 and group 2

	Group 1 (0-2 years)		Group 2 (3-5 years)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp.Sig (2- tailed)
Objectives	45,03	35	36,00	44	594	-1,768	.077
Content	41,19	35	39,06	44	728,5	-,416	.677
Materials	47,47	35	34,06	44	508,5	-2,663	**.008**
Learning activities	44,24	35	36,63	44	621,5	-1,479	.139
Teaching strategies	37,24	35	42,19	44	673,5	-,970	.332
Evaluation	43,06	35	37,57	44	663	-1,082	.279
Grouping	38,99	35	40,81	44	734,5	-,393	.695
Time	40,76	35	39,40	44	743,5	-,273	.785
Space	41,49	35	38,82	44	718	-,558	.577

As shown in Table 62, the Mann Whitney U Test found no significant difference in teacher's perceptions of the consideration of objectives, p = .053>.05; content, p = .635>.05; materials, p = .349>.05; learning activities, p = .129>.05; teaching

strategies, p = .913>.05; evaluation, p = .627>.05; grouping, p = .464>.05; time, p = .705>.05; and space, p = .515>.05 with respect to years of experience.

Table 62. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to years of experience - group 1 and group 3

	Group 1 (0-2 years)		Group 3 (6-10 years)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp.Sig (2- tailed)
Objectives	47,90	35	37,70	48	633,5	-1,933	.053
Content	43,44	35	40,95	48	789,5	-,474	.635
Materials	44,84	35	39,93	48	740,5	-,937	.349
Learning activities	46,67	35	38,59	48	676,5	-1,520	.129
Teaching strategies	42,33	35	41,76	48	828,5	-,109	.913
Evaluation	43,47	35	40,93	48	788,5	-,486	.627
Grouping	39,94	35	43,50	48	768	-,733	.464
Time	40,87	35	42,82	48	800,5	-,379	.705
Space	43,84	35	40,66	48	775,5	-,651	.515

As can be seen in Table 63, the Mann Whitney U Test found that the opinions of teachers about the consideration of objectives, U = 1.503 $N_{1=}$35, $N_{2=}$ 127, z = *-2.99* p = 0.003<.01; materials, U = 1.181 $N_{1=}$35, $N_{2=}$ 127, z = *- 4.40* p = 0.000<.01; and learning activities, U = 1.470,5 $N_{1=}$35, $N_{2=}$ 127, z = *-3.09* p = 0.002<.01 in group 1 (0-2 years) were significantly higher than in group 4 (11-20 years).

Table 63. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to years of experience - group 1 and group 4

	Group 1 (0-2 years)		Group 4 (11-20 years)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp.Sig (2- tailed)
Objectives	102,06	35	75,83	127	1.503	-2,988	**.003**
Content	87,43	35	79,87	127	2.015	-,859	.390
Materials	111,26	35	73,30	127	1.181	-4,406	**.000**
Learning activities	102,99	35	75,58	127	1.470,5	-3,094	**.002**
Teaching strategies	84,97	35	80,54	127	2.101	-,509	.611
Evaluation	88,54	35	79,56	127	1.976	-1,029	.304
Grouping	81,43	35	81,52	127	2.220	-,012	.991
Time	86,93	35	80,00	127	2.032,5	-,819	.413
Space	88,41	35	79,59	127	1.980,5	-1,106	.269

As shown in Table 64, the Mann Whitney *U* Test revealed that the perceptions of teachers about the consideration of objectives, $U = 766{,}5$ $N_{1=}$ 35, $N_{2=}71$, $z = -3.27$ $p = 0.001<.01$; materials, $U = 927{,}5$ $N_{1=}$ 35, $N_{2=}71$, $z = -2.17$ $p = 0.030<.05$; and learning activities, $U = 929$ $N_{1=}$ 35, $N_{2=}71$, $z = -2.12$ $p = 0.034<.05$ in group 1 (0-2 years) were significantly higher than group in 5 (20 and above).

Table 64. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to years of experience - group 1 and group 5

	Group 1 (0-2 years)		Group 5 (20+years)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp.Sig (2- tailed)
Objectives	67,10	35	46,80	71	766,5	-3,270	**.001**
Content	61,04	35	49,78	71	978,5	-1,813	.070
Materials	62,50	35	49,06	71	927,5	-2,170	**.030**
Learning activities	62,46	35	49,08	71	929	-2,123	**.034**
Teaching strategies	56,67	35	51,94	71	1.131,5	-,773	.440
Evaluation	54,49	35	53,01	71	1.208	-,237	.813
Grouping	55,44	35	52,54	71	1.174,5	-,538	.590
Time	58,43	35	51,07	71	1.070	-1,221	.222
Space	58,96	35	50,81	71	1.051,5	-1,479	.139

As can be seen in Table 65, the results of the Mann Whitney U Test showed no significant difference in the perceptions of teachers about the consideration of objectives, p = .756>.05; content, p = .902>.05; materials, p = .223>.05; learning activities, p = .884>.05; teaching strategies, p = .284>.05; evaluation, p = .493>.05; grouping, p = .724>.05; time, p = .487>.05; and space p = .826>.05 with respect to years of experience.

Table 65. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to years of experience - group 2 and group 3

	Group 2 (3-5 years)		Group 3 (6-10years)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp.Sig (2- tailed)
Objectives	47,39	44	45,69	48	1.017	-,310	.756
Content	46,85	44	46,18	48	1.040,5	-,123	.902
Materials	43,06	44	49,66	48	904,5	-1,218	.223
Learning activities	46,08	44	46,89	48	1.037,5	-,146	.884
Teaching strategies	49,56	44	43,70	48	921,5	-1,072	.284
Evaluation	44,56	44	48,28	48	970,5	-,685	.493
Grouping	45,56	44	47,36	48	1.014,5	-,353	.724
Time	44,56	44	48,28	48	970,5	-,694	.487
Space	47,08	44	45,97	48	1.030,5	-,220	.826

As can be seen in Table 66, the results of the Mann Whitney U Test showed that the perceptions of teachers about the consideration of learning activities in group 2 (3-5 years) were significantly higher than the opinions of teachers in group 4 (11-20 years), U = 2.238,5 $N_{1=}$ 44, $N_{2=}$127, z = *-1.99* p = 0.047<.05.

Table 66. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to years of experience - group 2 and group 4

	Group 2 (3-5 years)		Group 4 (11-20years)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Objectives	93,20	44	83,50	127	2.477	-1,147	.251
Content	90,05	44	84,60	127	2.616	-,640	.522
Materials	97,42	44	82,04	127	2.291,5	-1,861	.063
Learning activities	98,63	44	81,63	127	2.238,5	-1,989	**.047**
Teaching strategies	97,59	44	81,98	127	2.284	-1,846	.065
Evaluation	84,52	44	86,51	127	2.729	-,236	.813
Grouping	88,91	44	84,99	127	2.666	-,511	.609
Time	89,18	44	84,90	127	2.654	-,525	.600
Space	89,55	44	84,77	127	2.638	-,618	.537

As shown in Table 67, the Mann Whitney U Test found that there was no significant difference in the perceptions of teachers about the consideration of objectives, p = .095>.05; content, p = .138>.05; materials, p = .974>.05; learning activities, p = .532>.05; teaching strategies, p = .053>.05; evaluation, p = .383>.05; grouping, p = .249>.05; time, p = .328>.05; and space, p = .253>.05 with respect to experience.

Table 67. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to years of experience - group 2 and group 5

	Group 2 (3-5 years)		Group 5 (20+ years)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Objectives	64,40	44	54,04	71	1.280,5	-1,667	.095
Content	63,74	44	54,44	71	1.309,5	-1,485	.138
Materials	58,13	44	57,92	71	1.556,5	-,033	.974
Learning activities	60,44	44	56,49	71	1.454,5	-,626	.532
Teaching strategies	65,43	44	53,39	71	1.235	-1,934	.053
Evaluation	54,65	44	60,08	71	1.414,5	-,872	.383
Grouping	61,97	44	55,54	71	1.387,5	-1,153	.249
Time	61,66	44	55,73	71	1.401	-,978	.328
Space	61,94	44	55,56	71	1.388,5	-1,142	.253

As can be seen in Table 68, the Mann Whitney *U* Test revealed that the opinions of teachers with 6 to 10 years' experience, group 3, about the consideration of materials as an element were significantly higher than the opinions of teachers with 11 to 20 years' experience, group 4, $U = 2829$, $N_{1=} 48$, $N_{2=} 127$, $z = -2.70$ $p=0.007<.01$.

Table 68. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to their years of experience group 3 and group 4

	Group 3 (6-10 years)		Group 4 (11-20 years)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Objectives	92,56	48	86,28	127	2829	-,752	.452
Content	89,81	48	87,31	127	2961	-,297	.767
Materials	104,08	48	81,92	127	2276	-2,701	**.007**
Learning activities	98,09	48	84,19	127	2563.5	-1,641	.101
Teaching strategies	90,39	48	87,10	127	2933.5	-,394	.693
Evaluation	91,69	48	86,61	127	2871	-,607	.544
Grouping	93,49	48	85,93	127	2784.5	-,988	.323
Time	96,44	48	84,81	127	2643	-1,425	.154
Space	90,54	48	87,04	127	2926	-,459	.647

As shown in Table 69, the results of the Mann Whitney U Test showed no significant difference in teacher's perceptions of the consideration of objectives, $p = .180>.05$; content, $p = .195>.05$; materials, $p = .344>.05$; learning activities, $p = .488>.05$; teaching strategies, $p = .456>.05$; evaluation, $p = .861>.05$; grouping, $p = .115>.05$; time, $p = .066>.05$; and space, $p = .290>.05$ with respect to experience.

Table 69. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to their years of experience group 3 and group 5

	Group 3 (6-10 years)		Group 5 (20+ years)				
	Mean Rank	N_2	Mean Rank	N_1	*U*	*z*	Asymp.Sig (2- tailed)
Objectives	64,99	48	56,63	71	1.464,5	-1,341	.180
Content	64,86	48	56,71	71	1.470,5	-1,297	.195
Materials	63,51	48	57,63	71	1.535,5	-,946	.344
Learning activities	62,64	48	58,22	71	1.577,5	-,693	.488
Teaching strategies	62,77	48	58,13	71	1.571	-,746	.456
Evaluation	59,34	48	60,44	71	1.672,5	-,175	.861
Grouping	65,35	48	56,38	71	1.447	-1,576	.115
Time	66,76	48	55,43	71	1.379,5	-1,840	.066
Space	63,54	48	57,61	71	1.534	-1,057	.290

As shown in Table 70, the Mann Whitney U Test found no significant difference in the perceptions of teachers about the consideration of objectives, $p = .402>.05$; content, $p = .243>.05$; materials, $p = .111>.05$; learning activities, $p = .326>.05$; teaching strategies, $p = .651>.05$; evaluation, $p = .495>.05$; grouping, $p = .426>.05$; time, $p = .575>.05$; and space, $p = .468>.05$ with respect to experience.

Table 70. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to years of experience - group 4 and group 5

	Group 4 (11-20 years)		Group 5 (20+ years)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2-tailed)
Objectives	101,97	127	95,08	71	4.195	-,839	.402
Content	102,98	127	93,27	71	4.066	-1,168	.243
Materials	94,88	127	107,76	71	3.922	-1,594	.111
Learning activities	96,55	127	104,77	71	4.134	-,983	.326
Teaching strategies	100,83	127	97,12	71	4.339,5	-,452	.651
Evaluation	97,48	127	103,11	71	4.252	-,682	.495
Grouping	101,59	127	95,76	71	4.243	-,796	.426
Time	101,10	127	96,64	71	4.305,5	-,560	.575
Space	101,41	127	96,08	71	4.266	-,726	.468

As can be seen in Table 71, the Mann Whitney *U* Test found that the perceptions of teachers about the consideration of objectives U = 9,840.5 $N_{1=}$199, $N_{2=}$126, z = *-3.34* p = 0.001; content U = 10,524.5 $N_{1=}$199, $N_{2=}$126, z = *-2.48* p = 0.013, learning activities U = 10,688.5 $N_{1=}$199, $N_{2=}$126, z = *-2.26* p = 0.024 and evaluation U = 10.859 $N_{1=}$199, $N_{2=}$126, z = *- 2.08* p = 0.037 in village schools were significantly higher than in town schools.

Table 71. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to location of school

	Town		Village				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp. Sig (2- tailed)
Objectives	149.45	199	184.40	126	9840.5	-3,342	**.001**
Content	152.89	199	178.97	126	10524.5	-2,483	**.013**
Materials	156.10	199	173.89	126	11164.5	-1,721	.085
Learning activities	153.71	199	177.67	126	10688.5	-2,262	**.024**
Teaching strategies	162.90	199	163.15	126	12518	-,024	.981
Evaluation	154.57	199	176.32	126	10859	-2,083	**.037**
Grouping	162.03	199	164.54	126	12343.5	-,266	.790
Time	157.66	199	171.44	126	11474	-1,354	.176
Space	158.99	199	169.33	126	11740	-1,086	.277

As can be seen in Table 72, the Kruskal-Wallis Test revealed that the perceptions of teachers about the consideration of objectives, χ^2 =22.93, *df* = 3, p = 0.000<.01; content, χ^2 =22.08, *df* = 3, p = 0.000<.01; learning activities, χ^2 =23.41, *df* = 3, p = 0.000<.01; teaching strategies, χ^2 =9.74, *df* = 3, p = 0.021<.05; evaluation, χ^2 =24.57, *df* = 3, p = 0.000<.01; and time, χ^2 =10.75, *df* = 3, p = 0.013<.05 in the four different school sizes differed significantly. According to these results, the Mann Whitney *U* Test is needed for objectives, contents, learning activities, teaching strategies, evaluation and time to find how these elements differed significantly.

Table 72. Kruskal-Wallis Test for differences in ratings of teachers about the nine curricular elements with respect to school size

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Elements	Chi-Square	df	Asymp. Sig
Objectives	22.933	3	**.000**
Contents	22.079	3	**.000**
Materials	1.571	3	.666
Learning activities	23.406	3	**.000**
Teaching strategies	9.736	3	**.021**
Evaluations	24.566	3	**.000**
Groupings	1.784	3	.618
Time	10.745	3	**.013**
Space	6.680	3	.083

As shown in Table 73, the results of the Mann Whitney U Test showed no significant difference in teachers' perceptions of the consideration of objectives, $p = .335>.05$; content, $p = .599>.05$; materials, $p = .322>.05$; learning activities, $p = .989>.05$; teaching strategies, $p = .223>.05$; evaluation, $p = .100>.05$; grouping, $p = .980>.05$; time, $p = .105>.05$; and space, $p = .816>.05$ with respect to school size.

Table 73. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to school size - small and medium

	Group 1 (small)		Group 2 (medium)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Objectives	109,91	94	101,92	116	5037	-,964	.335
Content	103,09	94	107,45	116	5225.5	-,525	.599
Materials	109,97	94	101,88	116	5032	-,990	.322
Learning activities	105,44	94	105,55	116	5446	-,014	.989
Teaching strategies	111,05	94	101,00	116	4930	-1,218	.223
Evaluation	113,03	94	99,40	116	4744.5	-1,647	.100
Grouping	105,40	94	105,58	116	5442.5	-,025	.980
Time	112,74	94	99,63	116	4771.5	-1,623	.105
Space	104,52	94	106,30	116	5359.5	-,232	.816

As can be seen in Table 74, the Mann Whitney U Test showed that teachers' perceptions of the consideration of objectives, U = 2.267,5 N_1= 94, N_2= 74, z = *-3.95* p = 0.000<.01; content, U = 2.341 N_1= 94, N_2= 74, z = *-3.72* p = 0.000<.01; learning activities, U = 2.173,5 N_1= 94, N_2= 74, z = *-4.22* p = 0.000<.01; teaching strategies, U = 2.554,5 N_1= 94, N_2= 74, z = *-3.05* p = 0.002<.01; evaluation, U = 2.091 N_1= 94, N_2= 74, z = *-4.57* p = 0.000<.01; time, U = 2.502,5 N_1= 94, N_2= 74, z = *-3.26* p = 0.001<.01; and space, U = 2.895 N_1= 94, N_2= 74, z = *-2.15* p = 0.002<.01 in small schools were significantly higher than in large schools.

Table 74. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to school size - small and large

	Group 1 (small)		Group 3 (large)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	*z*	Asymp.Sig (2- tailed)
Objectives	97,38	94	68,14	74	2267.5	-3,951	**.000**
Content	96,60	94	69,14	74	2341	-3,727	**.000**
Materials	88,03	94	80,02	74	3146.5	-1,095	.274
Learning activities	98,38	94	66,87	74	2173.5	-4,220	**.000**
Teaching strategies	94,32	94	72,02	74	2554.5	-3,048	**.002**
Evaluation	99,26	94	65,76	74	2091	-4,569	**.000**
Grouping	87,91	94	80,16	74	3157	-1,169	.243
Time	94,88	94	71,32	74	2502.5	-3,262	**.001**
Space	90,70	94	76,62	74	2895	-2,155	**.031**

As shown in Table 75, the Mann Whitney U Test found that teachers' perceptions of the consideration of objectives in small schools were significantly higher in than large schools, U = 1238.5 N_1= 94, N_2= 41, z = *-3.35* p = 0.001<.01.

Table 75. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to school size - small and very large

	Group 1 (small)		Group 4 (very large)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp. Sig (2- tailed)
Objectives	75,32	94	51,21	41	1238.5	-3,356	**.001**
Content	70,72	94	61,76	41	1671	-1,247	.212
Materials	69,53	94	64,50	41	1783.5	-,709	.478
Learning activities	72,14	94	58,50	41	1537.5	-1,880	.060
Teaching strategies	70,43	94	62,44	41	1699	-1,116	.264
Evaluation	68,72	94	66,35	41	1859.5	-,329	.742
Grouping	67,93	94	68,16	41	1920.5	-,035	.972
Time	71,81	94	59,27	41	1569	-1,780	.075
Space	68,69	94	66,43	41	1862.5	-,344	.731

As can be seen in Table 76, the Mann Whitney U Test revealed that the perceptions of teachers about the consideration of objectives, U = 3141 N_1= 116, N_2=74, z = *-3.20* p = 0.001<.01; content, U = 2719 N_1= 116, N_2=74, z = *-4.34* p = 0.000<.01; learning activities, U = 2770 N_1= 116, N_2=74, z = *-4.17* p = 0.000<.01; teaching strategies, U = 3535.5 N_1= 116, N_2=74, z = *-2.11* p = 0.034<.05; evaluation, U = 3039 N_1= 116, N_2=74, z = *-3.51* p = 0.000<.01; and space, U = 3484 N_1= 116, N_2=74, z = *-2.48* p = 0.013<.05, in medium schools were significantly higher than in large schools.

Table 76. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to school size - medium and large

	Group 2 (medium)		Group 3 (large)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp.Sig (2- tailed)
Objectives	105,42	116	79,95	74	3141	-3,201	**.001**
Content	109,06	116	74,24	74	2719	-4,349	**.000**
Materials	96,78	116	93,49	74	4143.5	-,417	.676
Learning activities	108,62	116	74,93	74	2770	-4,171	**.000**
Teaching strategies	102,02	116	85,28	74	3535.5	-2,115	**.034**
Evaluation	106,30	116	78,57	74	3039	-3,513	**.000**
Grouping	98,63	116	90,59	74	3928.5	-1,136	.256
Time	100,65	116	87,43	74	3695	-1,720	.085
Space	102,47	116	84,58	74	3484	-2,480	**.013**

As shown in Table 77, the Mann Whitney U Test found that teachers' perceptions of the consideration of objectives in medium school were significantly higher than in very large schools, $U = 1718$ $N_1=116$, $N_2= 41$, $z = -2.70$ $p = 0.007<.01$.

Table 77. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to medium school and very large school size

	Group 2 (medium school)		Group 4 (very large school)				
	Mean Rank	N_1	Mean Rank	N_2	*U*	z	Asymp.Sig (2-tailed)
Objectives	84,69	116	62,90	41	1718	-2,702	**.007**
Content	83,03	116	67,59	41	1910	-1,899	.058
Materials	78,86	116	79,39	41	2362	-,066	.947
Learning activities	82,95	116	67,83	41	1920	-1,846	.065
Teaching strategies	78,90	116	79,29	41	2366	-,049	.961
Evaluation	76,82	116	85,16	41	2125.5	-1,030	.303
Grouping	78,90	116	79,28	41	2366.5	-,052	.959
Time	80,28	116	75,38	41	2229.5	-,629	.529
Space	80,00	116	76,17	41	2262	-,510	.610

As can be seen in Table 78, the results of the Mann Whitney U Test showed that the perceptions of teachers about the consideration of content $U = 1178.5$ $N_1= 74$, $N_2=$

41, z = *-2.06* p = 0.040<.05, and evaluation U = 923.5 N_1= 74, N_2= 41, z = *-3.62* p = 0.000<.01 in very large schools were significantly higher than in large schools.

Table 78. Mann Whitney U Test for differences in teachers' attributes of nine curricular elements with respect to school size - large and very large

	Group 3 (large)		Group 4 (very large)				
	Mean Rank	N_1	Mean Rank	N_2	U	z	Asymp.Sig (2- tailed)
Objectives	58,36	74	57,35	41	1490.5	-,164	.870
Content	53,43	74	66,26	41	1178.5	-2,057	**.040**
Materials	57,63	74	58,67	41	1489.5	-,167	.867
Learning activities	54,20	74	64,87	41	1235.5	-1,689	.091
Teaching strategies	54,41	74	64,48	41	1251.5	-1,624	.104
Evaluation	49,98	74	72,48	41	923.5	-3,618	**.000**
Grouping	55,95	74	61,70	41	1365.5	-1,011	.312
Time	56,24	74	61,18	41	1386.5	-,823	.411
Space	55,24	74	62,99	41	1312.5	-1,434	.152

Chapter 5

CONCLUSIONS AND DISCUSSIONS

5.1 Summary of the Study

The purpose of the study was to investigate whether the MNEYS take into consideration Frances Klein's nine curricular elements and Ralph Tyler's three data sources while designing a curriculum through using the perceptions of elementary school teachers. A sample of 325 teachers from the five districts of the TRNC (Famagusta, Nicosia, Morphou, Iskele and Kyrenia) participated in this research. There are 1,268 teachers who work at elementary schools in the five different districts. An instrument was prepared and distributed to 380 teachers (30% of total elementary school teachers) in 56 different schools. Only 325 teachers out of 380 completed and returned the instrument.

The instrument consisted of three different sections. In the first section, teachers' age, gender, school location, grade level, years of experience, teaching area and type of school were asked. The second section concerned Ralph Tyler's three data sources and the last section, Frances Klein's nine curricular elements. This instrument aimed at investigating teachers' perceptions of the extent to which these elements and data sources are used by the MNEYS while designing a curriculum. Quantitative research methodology was used to design the instrument. After getting responses from teachers, the collected data was analyzed by SPSS program.

5.2 Conclusion and Discussion related to Research Question 1

Almost all the teachers gave the same responses in the second section of the instrument regarding the use of Ralph Tyler's three data sources. For items related to learner as a data source, the means were between 2.72 and 3.16, for items related to society as a data source, between 2.72 and 3.04, and for items related to subject matter as a data source, between 2.93 and 2.94. In other words, most teachers' answers were between not sure and disagree. Since most teachers are not sure whether these data sources are used by the MNEYS while designing a curriculum, it implies that they probably do not know how the elementary school curriculum is prepared. One sample t-test was used to see the perception of teachers about using the learner, society and subject matter as data sources while designing a curriculum and revealed that they are not sure how the curriculum is prepared by the Ministry. Triche (2002) asserts that Ralph Tyler's three data sources are very important for designing a curriculum. Sahlberg (2006) believes that Tyler's three data sources provide the basis to making changes in the curriculum. On the other hand, teachers' responses seem to indicate that the MNEYS does not give sufficient consideration to these data sources.

5.3 Conclusion and Discussion related to Research Question 2

Related to this research question, differences in teachers' perceptions about the consideration of Tyler's three data sources while planning the curriculum were analyzed with respect to age, gender, school size, location of school, and years of experience.

With respect to gender, no significant difference was found between the perceptions of male and female teachers about the consideration of the learner, society and subject matter as data sources by the curriculum specialists in the MNEYS. In other words, both male and female teachers have the same the views about how these three elements are being used by the Ministry. According to the culture and social structure of the Turkish society in Cyprus, there is no great gender difference and this is the reason why there are no significant differences between the views of male and female teachers.

With respect to age groups, on the other hand, there were significant differences in teachers' perceptions of the use of the learner and society as data sources. According to the results of the analyses for this research question, there was a significant difference in the perception of teachers whose ages were between 21 and 25 (group 1) and other age groups about the use of the learner and society as data sources. For group 1, the learner and society as data sources are more important factors than for the other age groups. These teachers have recently graduated from university and are more likely to have up-to-date knowledge about the procedures used in curriculum design. Hence, their perceptions are different from older teachers. They believe that learner's wishes, skills, interests, cognitive and personal development as well as the problems, needs and cultural values of society should be considered by specialists while designing a curriculum. According to the other age groups there were no significant differences in the perceptions of teachers about the consideration of the learner and society as data sources. Furthermore, teachers in group 1 are new in the teaching arena and probably have higher motivation than those in the other age

groups. This also pushes them to attach importance to a comprehensive design of the curriculum by giving careful consideration to the three data sources.

With respect to experience, there were significant differences in teacher's perceptions of the use of the learner and society as data sources. Years of experience were specified as 0-2 years; 3-5 years; 6-10 years; 11-20 years; 20 and above years. There were no significant differences in the perceptions of teachers between groups 1 (0-2 years) and 2 (3-5 years) about the consideration of learner, society and subject matter as data sources. Both groups thus have the same views about the needs, wishes, and interests of the learner, and about the values, problems and needs of society. Both groups have fresh knowledge and more or less the same experience in their jobs, which may explain why their views are similar. The views of teachers in various age and experience groups are similar since they are formed by almost the same teachers. In other words, the 21-25 age group of teachers has the same members as the group with 0-5 years of experience. The teacher's perceptions of the consideration of the learner and society as data sources were significantly higher for group 1 teachers (0-2 years' of experience) than for group 3 (6-10 years), group 4 (11-20 years) and group 5 (20 and above) teachers. Since teachers in group 1 are new in the teaching profession, they are young, alert, creative, more patient and enthusiastic in their jobs. The perceptions of group 2 teachers (3-5 years) about the consideration of the learner and society as data sources, are no different from those of group 3 (6-10 years), group 4 (11-20 years), and group 5 teachers (20 years and above) teachers. In other words, all these groups of teachers have the same views about the consideration of the learner and society. They probably got used to the curriculum designed by the Ministry and thus might not question how it is prepared.

Being more experienced, they deal with the problems arising from the design of the elementary school curriculum.

In terms of the location of school, there were no significant differences in teacher's perception of the use of learner, society and subject matter as data sources, i.e., both town school teachers and village school teachers have similar ideas about the use of the three data sources.

As for school size, teacher's perceptions of the consideration of the three data sources yielded no significant difference between small and medium; small and large; small and very large; large and very large schools. On the other hand, there were significant differences between medium and large and between medium and very large schools. Teachers working in medium and large schools have different views about how curriculum is designed. Especially those in medium schools seemed to attach more importance to how the curriculum is designed and they believe that specialists should take the learner and society as data sources into consideration while designing a curriculum.

Sarıkaya (1998) conducted research on the perceptions of teachers about curriculum design, implementation and evaluation. The aim of the study is related to the present study, in that it also investigated how a curriculum should be. Sarıkaya (1998) believed that the Ministry of National Education of the Republic of Turkey should take into consideration Tyler's three data sources while designing a curriculum. He discovered that teachers have a negative influence on the curriculum, because they do not know how to implement it and do not follow the directions given in the curriculum.

The findings of the study are in contrast with Uçar's (2007) findings. In Uçar's study, teachers' perceptions of the use of new techniques in the mathematics curriculum were analyzed and he discovered that there was no significant difference in the perceptions of teachers with respect to years of experience and school size.

5.4 Conclusion and Discussion related to Research Question 3

Teachers gave almost the same responses about using Frances Klein's nine curricular elements while designing a curriculum, as the mean of the items was between 4 and 4.59, most teachers' responses being 'agree' or 'strongly agree'. Teachers believe that these nine curricular elements are very important components of a comprehensive curriculum.

This study and Erdoğan's (2005) study had common perspectives about curriculum. Erdoğan's research on the perceptions of teachers about the evaluation of the English curriculum in primary schools revealed that the content and objectives were not sufficient for teachers to implement the curriculum. Teachers believed that content should be detailed and objectives should be consistent with the content. It is clear that objectives and content are very important for developing and implementing a curriculum, similarly to the results of the present study.

According to Keleş (2009), materials, content, time and teaching activities should be considered while designing a curriculum. The findings of the present study are consistent with those of Keleş' study.

5.5 Conclusion and Discussion related to Research Question 4

Related to this research question, teachers' ratings about the consideration of Frances Klein's nine curricular elements while planning the curriculum were analyzed with respect to age, gender, school size, location of school and years of experience.

With respect to gender, the perceptions of teachers about the consideration of materials as an element while planning the curriculum, female teachers' ratings were significantly higher than male teachers' ratings. Hence, it can be concluded that female teachers believe that students learn more with the help of materials.

With respect to age groups, there was no significant difference in the perceptions of teachers about the consideration of the nine curricular elements while designing a curriculum.

With respect to years of experience, there was no significant difference in the perceptions of teachers about the consideration of nine curricular elements either. This means that no matter how experienced the teachers are, their views about the consideration of the nine curricular elements do not change.

With respect to the location of schools, the perceptions of teachers from town schools about 'grouping' are significantly higher than those of teachers from village schools. They think that students sharing ideas and knowledge and learning how to cooperate in school are very important for learning.

As for school size, there was a significant difference in the perceptions of teachers about the consideration of objectives, content, materials, learning activities,

evaluation, grouping and space while designing a curriculum. Pairwise comparison of school size revealed perceptions of teachers about the consideration of objectives, content, materials, grouping and time differed significantly between medium and large schools.

5.6 Conclusion and Discussion related to Research Question 5

Related to this research question, teachers' perceptions about the consideration of Frances Klein's nine curricular elements by the MNEYS while planning the curriculum were analyzed. The majority of the teachers (nearly 70%) gave similar responses and believed that these nine curricular elements are not taken into consideration by the Ministry. Only two items, namely, "goals and objectives are related to the subject area which is taught by the teachers" and "content of the lessons are provided as a list of topic headlines," were rated high by the teachers. This result may be explained by the teachers being unaware of how a curriculum is designed.

No study was found about using all nine curricular elements at once for designing a curriculum. The present study can be considered as the first study for investigating all nine curricular elements all together.

5.7 Conclusion and Discussion related to Research Question 6

Related to this research question, teachers' thoughts about the consideration of Frances Klein's nine curricular elements by the MNEYS while planning the curriculum were analyzed with respect to age, gender, experience, school size, and location of schools.

With respect to gender, the opinions of female teachers about the consideration of 'objectives' were significantly higher than those of male teachers. With respect to age, there were significant differences in the perceptions of teachers aged 21 to 25 and 26 to 35 about the consideration of objectives, materials, learning activities, teaching strategies, time and space. The other age groups showed no statistically significant difference in perceptions of the consideration of the nine curricular elements. With respect to experience, there was a significant difference in the perceptions of teachers with 0 to 2 years' experience about the consideration of objectives, materials and learning activities. These teachers believe that the MNEYS took into consideration objectives, materials and learning activities while designing the elementary school curriculum more than more experienced teachers do.

With respect to the location of schools, the perceptions of village school teachers about the consideration of objectives, content, learning activities and evaluation were significantly higher than those of town school teachers. In other words, teachers working in village schools believe that the MNEYS took into consideration objectives, content, learning activities and evaluation while designing a curriculum more than teachers from town schools. Village school teachers are more sensitive about what a curriculum should include than town school teachers.

The perceptions of teachers who taught in small and medium schools were significantly different from the perceptions of teachers who taught in large and very large schools about the consideration of nine curricular elements. Teachers who taught in small and medium schools believe that the MNEYS took into consideration the nine curricular elements while designing a curriculum more than teachers in large and very large schools do. The findings of the present study are contradictory with

Ulubay's (2007) findings. Ulubay's research was concerned with how teachers implement the new mathematics curriculum to the 6th grade and revealed no significant difference in the perceptions of teachers about the implementation of the new curriculum with respect to gender, experience, and school size.

5.8 Pedagogical Implications and Suggestions for Further Research

According to the results of this study, it can be said that teachers working in elementary schools are not aware of how the MNEYS designs the curriculum. They should therefore be informed about the importance of curriculum and how it is designed. According to the findings of this study, teachers aged between 21 and 25 and who have 0 to 2 years' experience have different views about curriculum from other teachers. More experienced and older teachers should be given in-service training by the Ministry about curriculum design. Teachers should be made aware of what kind of teaching strategies they should use, what materials are important for students, how they can use time more efficiently in class, and what kind of activities they can use in order to teach.

The specialists at the MNEYS should take into consideration Frances Klein's nine curricular elements and Tyler's three data sources while designing curricula. These elements are very important for developing a comprehensive curriculum. It is also necessary to point out these elements in the curriculum distributed to the elementary school teachers. In order to design better curricula and to provide quality education in North Cyprus, society, subject matter and the learner as data sources should be considered while designing a curriculum instead of bringing books and curricula from Turkey.

Further research is required for more compelling results. This can be achieved by triangulating the findings of the present research. For this purpose, one-to-one interviews and classroom observations can be made. Most importantly, specialists in the MNEYS who design the curriculum can also be interviewed to find out how they actually design the curriculum.

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APPENDICES

Appendix A: Schools in the sample and teacher numbers

	Famagusta District	**No. of teachers**
1	Alasya İlkokulu	8
2	Gazi İlkokulu	5
3	Karakol İlkokulu	3
4	Polatpaşa İlkokulu	5
5	Şht.Hüseyin Akil İlkokulu	3
6	Şht.Osman Ahmet İlkokulu	3
7	Şht.Mustafa Kurtuluş İlkokulu	7
8	Şht. Zeki Salih İlkokulu	9
9	Akdoğan İlkokulu	7
10	Akova-Yıldırım İlkokulu,	6
11	Çayönü-İncirli İlkokulu	4
12	Dörtyol İlkokulu,	5
13	Beyarmudu İlkokulu	3
14	Eşref Bitlis İlkokulu	7
15	Geçitkale İlkokulu	4
16	Güvercinlik R.R. Denktaş İlkokulu	4
1	İnönü İlkokulu	2
18	Mormenekşe İlkokulu	5
19	Pile Türk Okulu,	2
20	Serdarlı İlkokulu	3
21	Türkmenköy İlkokulu	4
22	Ulukışla İlkokulu	4
23	Vadili İlkokulu	7
24	Yeniboğaziçi İlkokulu	5
	Nicosia District	
25	Arabahmet İlkokulu	7
26	Atatürk İlkokulu	12
27	Çağlayan Cumhuriyet İlkokulu	1
28	Gelibolu İlkokulu	5
29	9 Eylül İlkokulu	6
30	Şht.Doğan Ahmet İlkokulu	8
31	Şht. Ertuğrul İlkokulu	12
32	Şht. Tuncer İlkokulu	10
33	Alayköy İlkokulu	2
34	Balıkesir-Meriç İlkokulu	3
35	Değirmenlik İlkokulu	8
36	Düzova - Cihangir İlkokulu	6
37	Hamitköy Dr. Fazıl Küçük İlkokulu	4
38	Gönyeli İlkokulu	13
39	Haspolat İlkokulu	7
	Kyrenia District	
40	23 Nisan İlkokulu	10
41	Alsancak İlkokulu	8

42	Çatalköy İlkokulu	7
43	Karaoğlanoğlu İlkokulu	5
	İskele District	
44	Şht.İlker Karter İlkokulu	6
45	Boğaziçi İlkokulu	1
46	Büyükkonuk İlkokulu	5
47	Çayırova İlkokulu	8
48	Kumyalı İlkokulu	4
49	Mehmetcik İlkokulu	10
	Morpho District	
50	Barış İlkokulu	7
51	Kurtuluş İlkokulu	9
52	Özgürlük İlkokulu	4
53	Bostancı Fikri Karayel İlkokulu	7
54	Erdal Abit-Gemikonağı İlkokulu	5
55	Serhatköy İlkokulu	5
56	Yeşilyurt İlkokulu	5
		Total: 325

Appendix B: Permission from the Ministry of National Education Youth and Sports

KUZEY KIBRIS TÜRK CUMHURİYETİ
MİLLİ EĞİTİM GENÇLİK VE SPOR BAKANLIĞI
İLKÖĞRETİM DAİRESİ MÜDÜRLÜĞÜ

Sayı: İÖD.0.00-35/2012/1B-309 . Lefkoşa, 20 Şubat 2012

Sn. Hasret Kaymakam KARAGİL
Özgürlük Sokak No: 11
Yeni İzmir / Gazimağusa

"Evaluation of the implementation of nine curricular elements in the elementary schools of the TRNC" konulu anketin soruları Talim ve Terbiye Dairesi Müdürlüğü tarafından incelenmiş ve **Müdürlüğümüze bağlı tüm ilkokul öğretmenlerine** uygulanmasında bir sakınca görülmemiştir.

Anketi uygulamadan önce okul müdürlükleri ile temas kurulması ve uygulama tamamlandıktan sonra da anket sonuçlarının Müdürlüğümüze ve Talim Terbiye Dairesi Müdürlüğü'ne iletilmesi hususunda bilgilerinizi saygı ile rica ederim.

M. Bumin PAŞA
Müdür

/ AA

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Appendix C: Anket

Değerli öğretmen arkadaşımız,

Bu araştırmanın amacı, ilkokul programı geliştirilirken kapsamlı bir programda bulunması gereken Frances Klein'ın önerdiği dokuz öğeye ne derece yer verildiğini ortaya çıkarmaktır. Toplanan veriler Doğu Akdeniz Üniversitesi Eğitim Bilimleri Bölümü'nde devam etmekte olan yüksek lisans tezimde kullanılacaktır. Vereceğiniz kişisel bilgiler kesinlikle gizli tutulacaktır. Eğer sorularınız varsa bana ve/veya tez danışmanıma ulaşabilirsiniz.

Yardımınız ve işbirliğiniz için şimdiden teşekkür ederiz.

Hasret Kaymakam Karagil
Yüksek Lisans öğrencisi
Eğitim Bilimleri Bölümü
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KİŞİSEL BİLGİLER

Aşağıda verilen seçeneklerden sizin için uygun olanı lütfen **CEVAP KAĞIDI** üzerine işaretleyiniz:

1. **Cinsiyetiniz:**
   (a) Kadın
   (b) Erkek

2. **Yaşınız:**
   (a) 21-25
   (b) 26-35
   (c) 36-45
   (d) 46 ve üzeri

3. **Öğretmen olarak görev süreniz:**
   (a) 0-2 yıl
   (b) 3-5 yıl
   (c) 6-10 yl
   (d) 11-20 yıl
   (e) 20 yıl ve üzeri

4. **Öğretmenlik yaptığınız alan:**
   (a) Sınıf öğretmeni
   (b) Sosyal Bilgiler öğretmeni
   (c) Matematik-Fen öğretmeni
   (d) Dil (İngilizce, Fransızca, vs.) öğretmeni
   (e) Branç öğretmeni (Beden E.- Müzik, vs.)

5. **Ders verdiğiniz sınıf** (Birden fazla sınıfta ders veriyorsanız, lütfen sadece en çok ders verdiğiniz sınıfı işaretleyiniz. Eğer en çok ders verdiğiniz sınıf sayısı birden fazla ise bunlardan sadece birini işaretleyiniz. ***Bölüm II'deki soruları aşağıdaki seçeneklerden işaretlediğiniz sınıfı göz önünde bulundurarak cevaplayınız.***)
   (a) 1. Sınıf
   (b) 2. Sınıf
   (c) 3. Sınıf
   (d) 4. Sınıf
   (e) 5.sınıf

6. **Görev yaptığınız okulun çeşidi:**
   (a) Özel okul
   (b) Devlet okulu

İLKOKUL PROGRAMI GELİŞTİRİLİRKEN UYGULANAN ÖĞELERİN DEĞERLENDİRİLMESİ ANKETİ

Aşağıda verilen ifadelere karşı tepkinizi (a)'dan (e)'ye kadar olan seçeneklerden yalnızca birini seçerek lütfen **CEVAP KAĞIDINA** işaretleyiniz.

Seçenekler:
(a) kesinlikle katılıyorum;
(b) katılıyorum;
(c) kararsızım;
(d) katılmıyorum;
(e) kesinlikle katılmıyorum.

Bu bölümdeki soruları cevaplarken lütfen 5. SORUDA İŞARETLEDİĞİNİZ sınıfı göz önünde bulundurarak cevaplayınız.

II. KAYNAKLAR	**Milli Eğitim Gençlik ve Spor Bakanlığı programları hazırlanırken aşağıdakilerin göz önünde bulundurulduğuna ne derece katılıyorsunuz?**	Kesinlikle Katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Kesinlikle Katılmıyorum
7	Öğrencilerin istekleri	(a)	(b)	(c)	(d)	(e)
8	Öğrencilerin yetenekleri	(a)	(b)	(c)	(d)	(e)
9	Öğrencilerin ilgi alanları	(a)	(b)	(c)	(d)	(e)
10	Öğrencilerin bilişsel gelişimi	(a)	(b)	(c)	(d)	(e)
11	Öğrencilerin kişisel gelişimi	(a)	(b)	(c)	(d)	(e)
12	Toplumun ihtiyaçları	(a)	(b)	(c)	(d)	(e)
13	Toplumun sorunları	(a)	(b)	(c)	(d)	(e)
14	Toplumun kültürel değerleri	(a)	(b)	(c)	(d)	(e)
15	Toplumun sosyal düzeni	(a)	(b)	(c)	(d)	(e)
16	Toplumun ilgi alanları	(a)	(b)	(c)	(d)	(e)
17	İnsanlığın sürekli gelişen bilgi birikimi	(a)	(b)	(c)	(d)	(e)
18	İnsanlığın kültürel mirasını içeren tüm konular	(a)	(b)	(c)	(d)	(e)

III. ÖĞELER	*Frances Klein' a göre müfredat hazırlanırken dokuz tane öğeye yer verilmektedir.* **Bu öğeler hakkındaki ifadelere ne derece katılıyorsunuz?** **** Çift sayılı soruların sadece (a) ve (b) seçenekleri vardır.***	Kesinlikle Katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Kesinlikle Katılmıyorum
I. 1	**AMAÇLAR VE HEDEFLER HAKKINDAKİ GÖRÜŞLERİNİZ:**					
19	Toplumun istek ve ihtiyaçlarını içeren genel amaçlar yazılmalıdır.	(a)	(b)	(c)	(d)	(e)
20	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduğu mu?**	(a)Evet		(b)Hayır		
21	Hedefler öğrenci düzeyi göz önünde bulundurularak yazılmalıdır.	(a)	(b)	(c)	(d)	(e)
22	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduğu mu?**	(a)Evet		(b)Hayır		
23	Hedefler işlenecek konularla bağlantılı olmalıdır.	(a)	(b)	(c)	(d)	(e)
24	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduğu mu?**	(a)Evet		(b)Hayır		
25	Hedefler öğrencinin ölçülebilir davranışlarını içermelidir.	(a)	(b)	(c)	(d)	(e)
26	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduğu mu?**	(a)Evet		(b)Hayır		
27	Hedef davranışlar değerlendirme yapmanıza yardımcı olmalıdır.	(a)	(b)	(c)	(d)	(e)
28	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduğu mu?**	(a)Evet		(b)Hayır		
I. 2	**İÇERİK**					
29	Derslerin içeriği konu başlıklarını içeren bir liste halinde verilmelidir.	(a)	(b)	(c)	(d)	(e)
30	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduğu mu?**	(a)Evet		(b)Hayır		
31	Derslerin içeriği belirlenen hedeflere varılmasını sağlayacak şekilde seçilmelidir.	(a)	(b)	(c)	(d)	(e)
32	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduğu mu?**	(a)Evet		(b)Hayır		
33	*İçeriğin dikey organizasyonu öğrencinin öğrenmesinde izlediği hiyerarşik yolu gösterir.* Müfredat içerisinde içeriğin dikey organizasyonu yeterli olmalıdır.	(a)	(b)	(c)	(d)	(e)
34	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduğu mu?**	(a)Evet		(b)Hayır		
35	*İçeriğin yatay organizasyonu öğrencinin öğrendiği bilginin anlamlı hale gelmesi, diğer derslerdeki konular ile bütünleşmesi ve zaman içerisinde bu bilgiyi uygulayabilmesi için yapılır. İçeriğin yatay organizasyonu uyum içerisinde işlenir.* İçeriğin yatay organizasyonu müfredat içerisinde yeterli olmalıdır.	(a)	(b)	(c)	(d)	(e)
36	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduğu mu?**	(a)Evet		(b)Hayır		
37	Konular ders kitabında yer aldığı için ek bir konu listesine ihtiyaç yoktur.	(a)	(b)	(c)	(d)	(e)

III. ÖĞELER	**Frances Klein' a göre müfredat hazırlanırken dokuz tane öğeye yer verilmektedir. Bu öğeler hakkındaki ifadelere ne derece katılıyorsunuz?** **Çift sayılı soruların sadece (a) ve (b) seçenekleri vardır.*	Kesinlikle Katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Kesinlikle Katılmıyorum
38	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
I. 3	MATERYAL VE ÖĞRETİM TEKNOLOJİSİ					
39	Ders kitabı, müfradat içerisinde belirtilmelidir.	(a)	(b)	(c)	(d)	(e)
40	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
41	Ders için önerilen materyaller dersin içeriği ile uyumlu olmalıdır.	(a)	(b)	(c)	(d)	(e)
42	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
43	Müfredatta öğretmenler tarafından hazırlanacak materyaller için bilgi verilmelidir.	(a)	(b)	(c)	(d)	(e)
44	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
45	Müfredatta, Milli Eğitim Gençlik ve Spor Bakanlığı tarafından hazırlanıp öğretmenlerin kullanımına sunulan materyaller yer almalıdır.	(a)	(b)	(c)	(d)	(e)
46	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
I. 4	ÖĞRENİM ETKİNLİKLERİ HAKKINDAKİ GÖRÜŞLERİNİZ:					
47	Etkinlikler öğrencilerin yeteneklerine göre hazırlanmalıdır.	(a)	(b)	(c)	(d)	(e)
48	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
49	Okuma, yazma ve dinleme gibi geleneksel olan etkinlikler sınıfta en çok uygulanan etkinlikler olmalıdır.	(a)	(b)	(c)	(d)	(e)
50	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
51	Sınıfta uygulanan etkinlikler öğrencilerin davranışlarını hedefler doğrultusunda değiştirecek şekilde planlanmalıdır.	(a)	(b)	(c)	(d)	(e)
52	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
53	Öğrencileri motive edecek öğrenim etkinlikleri seçilmelidir.	(a)	(b)	(c)	(d)	(e)
54	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
55	Öğrenim etkinlikleri program içerisinde belirtilmelidir.	(a)	(b)	(c)	(d)	(e)
56	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
57	Öğrenim etkinlikleri öğretmenler tarafından hazırlanmalıdır.	(a)	(b)	(c)	(d)	(e)
58	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
59	Öğrencilerin performanslarını ortaya çıkarmak için sınıf içi ödev verilmelidir.	(a)	(b)	(c)	(d)	(e)

III.ÖĞELER	**Frances Klein' a göre müfredat hazırlanırken dokuz tane öğeye yer verilmektedir. Bu öğeler hakkındaki ifadelere ne derece katılıyorsunuz?** ***Çift sayılı soruların sadece (a) ve (b) seçenekleri vardır.***	Kesinlikle Katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Kesinlikle Katılmıyorum
60	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
61	Öğrencilerin performanslarını ortaya çıkarmak için evde yapılmak üzere ödev verilmelidir.	(a)	(b)	(c)	(d)	(e)
62	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
I. 5	**ÖĞRETİM YÖNTEMLERİ**					
63	Derste kullanılacak olan yöntemler programda belirtilmelidir.	(a)	(b)	(c)	(d)	(e)
64	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
65	Yöntem seçimi öğretmenler tarafından yapılmalıdır.	(a)	(b)	(c)	(d)	(e)
66	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
67	Programda belirtilen hedeflere ulaşılmasını kolaylaştıracak öğretim yöntemleri seçilmelidir.	(a)	(b)	(c)	(d)	(e)
68	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
69	Öğrencilerin öğrenim stillerine uygun öğretim yöntemleri seçilmelidir.	(a)	(b)	(c)	(d)	(e)
70	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
71	Öğrencileri motive edecek öğretim yöntemleri seçilmelidir.	(a)	(b)	(c)	(d)	(e)
72	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
I. 6	**DEĞERLENDİRME İŞLEMLERİ**					
73	Tüm içeriği kapsayacak sınav türü programda örnek olarak verilmelidir.	(a)	(b)	(c)	(d)	(e)
74	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
75	Sınavı, ders öğretmeni hazırlamalıdır.	(a)	(b)	(c)	(d)	(e)
76	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
77	Sınavlar, Bakanlık tarafından merkezi olarak hazırlanmalıdır.	(a)	(b)	(c)	(d)	(e)
78	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
79	Sınavlar öğrencilerin düzeylerine uygun olarak hazırlanmalıdır.	(a)	(b)	(c)	(d)	(e)
80	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
81	Sınavlar programda belirlenen hedeflere uygun olarak hazırlanmalıdır.	(a)	(b)	(c)	(d)	(e)
82	**Bakanlığın hazırladığı programda bu madde göz önünde bulundurulduu mu?**	(a)Evet		(b)Hayır		
I.7	**SINIF İÇİ GRUPLAMA**					

III.ÖĞELER	**Frances Klein' a göre müfredat hazırlanırken dokuz tane öğeye yer verilmektedir. Bu öğeler hakkındaki ifadelere ne derece katılıyorsunuz?** ***Çift sayılı soruların sadece (a) ve (b) seçenekleri vardır.***	Kesinlikle Katılıyorum	Katılıyorum	Kararsızım	Katılmıyorum	Kesinlikle Katılmıyorum
83	Sınıf içi küçük gruplar oluşturulacaksa birbirleriyle olan etkilişimden yarar sağlayabilecek öğrenciler gruba dahil edilmelidir.	(a)	(b)	(c)	(d)	(e)
84	**Bakanlığın hazırladığı programda bu madde göz önünde bulunduruldu mu?**	(a)Evet		(b)Hayır		
85	Müfredatta her konuyla ilgili olarak ne tür gruplama yapılacağı belirtilmelidir.	(a)	(b)	(c)	(d)	(e)
86	**Bakanlığın hazırladığı programda bu madde göz önünde bulunduruldu mu?**	(a)Evet		(b)Hayır		
87	Öğrenme yeteneği ayni düzeyde olan öğrenciler grup haline getirilmelidir.	(a)	(b)	(c)	(d)	(e)
88	**Bakanlığın hazırladığı programda bu madde göz önünde bulunduruldu mu?**	(a)Evet		(b)Hayır		
89	Öğrenme yeteneği farklı düzeyde olan öğrenciler grup haline getirilmelidir (Böylece grupların ortalama düzeyi eşit olmuş olur).	(a)	(b)	(c)	(d)	(e)
90	**Bakanlığın hazırladığı programda bu madde göz önünde bulunduruldu mu?**	(a)Evet		(b)Hayır		
I. 8	**ÖĞRETİM SÜRESİ**					
91	Her konunun üzerinde ne kadar süreyle durulacağı programda belirtilmelidir.	(a)	(b)	(c)	(d)	(e)
92	**Bakanlığın hazırladığı programda bu madde göz önünde bulunduruldu mu?**	(a)Evet		(b)Hayır		
93	Ders içi zaman ayarlaması öğretmen tarafından yapılmalıdır.	(a)	(b)	(c)	(d)	(e)
94	**Bakanlığın hazırladığı programda bu madde göz önünde bulunduruldu mu?**	(a)Evet		(b)Hayır		
I. 9	**ÖĞRETİM-ÖĞRENİM MEKANI**					
95	Her konunun işleneceği mekan programda belirtilmelidir.	(a)	(b)	(c)	(d)	(e)
96	**Bakanlığın hazırladığı programda bu madde göz önünde bulunduruldu mu?**	(a)Evet		(b)Hayır		
97	Uygulamalı dersler (fen, müzik, ingilizce, beden eğitimi...vb) laboratuvar, kütüphane, salon, müzik odası veya spor sahası gibi yerlerde yapılmalıdır.	(a)	(b)	(c)	(d)	(e)
98	**Bakanlığın hazırladığı programda bu madde göz önünde bulunduruldu mu?**	(a)Evet		(b)Hayır		
99	Gözleme dayalı dersler orijinal mekanlarda gerçekleştirilmelidir.	(a)	(b)	(c)	(d)	(e)
100	**Bakanlığın hazırladığı programda bu madde göz önünde bulunduruldu mu?**	(a)Evet		(b)Hayır		

Appendix D: Questionnaire

Dear Teacher,

The objective of this survey is to find out how far is Frances Klein's nine elements in curriculum design are taken into consideration in elementary school curriculum design. Collected data will be used in my thesis of my on-going M.Ed. degree at the Department of Educational Sciences, Eastern Mediterranean University. Your personal information will be kept strictly confidential. If you have any questions, you can contact me and/or my supervisor.

Thank you for your help and co-operation.

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PERSONAL INFORMATION

Please mark your answers for the questions below on the **OPTIC ANSWER SHEET**:

1. **Gender:**
   (a) Female
   (b) Male

2. **Age:**
   (a) 21-25
   (b) 26-35
   (c) 36-45
   (d) 46 and above

3. **Years of experience:**
   (a) 0-2 year(s)
   (b) 3-5 years
   (c) 6-10 years
   (d) 11-20 years
   (e) 20 years and more

4. **Area of teaching:**
   (a) Class teacher
   (b) Social Sciences teacher
   (c) Maths-Science teacher
   (d) Language (English, French, etc.) teacher
   (e) Branch teacher (Physical Education, Music, etc.)

5. **Grade level** (If you are teaching in more than one class, please choose the one you are teaching the most. If the class you are teaching the most is more than one, please choose only one of them. (***Please answer the questions in Section II based on your choice of class in this question.***)
   (a) 1st Grade
   (b) 2nd Grade
   (c) 3rd Grade
   (d) 4th Grade
   (e) 5th Grade

6. **Type of school:**
   (a) Private School
   (b) Public School

EVALUATION OF THE ELEMENTS APPLIED TO ELEMENTARY SCHOOL CURRICULUM DEVELOPMENT QUESTIONNAIRE

Please choose options (a) - (e) to express your opinion on the following statements and mark your answers on the **OPTIC ANSWER SHEET.**

Options:
(a) Strongly agree;
(b) Agree;
(c) Not sure;
(d) Disagree;
(e) Strongly disagree.

Please answer the following questions based on the grade level you specified in the 5th QUESTION ABOVE.

II. RESOURCES	How far do you agree that the following factors are considered while the educational programs of the Ministry of National Education, Youth and Sports are prepared?	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
7	Wishes of the students	(a)	(b)	(c)	(d)	(e)
8	Competencies of the students	(a)	(b)	(c)	(d)	(e)
9	Areas of interest of the students	(a)	(b)	(c)	(d)	(e)
10	Cognitive development of the students	(a)	(b)	(c)	(d)	(e)
11	Personal development of the students	(a)	(b)	(c)	(d)	(e)
12	Needs of the society	(a)	(b)	(c)	(d)	(e)
13	Problems of the society	(a)	(b)	(c)	(d)	(e)
14	Cultural values of the society	(a)	(b)	(c)	(d)	(e)
15	Social order of the society	(a)	(b)	(c)	(d)	(e)
16	Areas of interest of the society	(a)	(b)	(c)	(d)	(e)
17	Ever-growing knowledge of humanity	(a)	(b)	(c)	(d)	(e)
18	All topics that include cultural heritage of humanity	(a)	(b)	(c)	(d)	(e)

III. ELEMENTS	*According to Frances Klein, nine elements are considered while preparing curriculum.* **How far do you agree with the statements about these elements?** **** Even-numbered questions only have (a) and (b) options.***	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
I. 1	**GOALS AND OBJECTIVES:**					
19	General goals and objectives that include society's needs and demands should be written.	(a)	(b)	(c)	(d)	(e)
20	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
21	Goals and objectives should be prepared considering the students' levels.	(a)	(b)	(c)	(d)	(e)
22	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
23	Goals and objectives should be related to the subject areas to be taught.	(a)	(b)	(c)	(d)	(e)
24	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
25	Goals and objectives should include learners' measurable behaviour.	(a)	(b)	(c)	(d)	(e)
26	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
27	Objective behaviours should help you to evaluate.	(a)	(b)	(c)	(d)	(e)
28	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
I. 2	**CONTENT**					
29	The content of the lessons should be provided as a list of topic headlines.	(a)	(b)	(c)	(d)	(e)
30	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
31	The content of the lessons should be chosen in a way that will lead to the specified goals and objectives.	(a)	(b)	(c)	(d)	(e)
32	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
33	*The vertical organization of the content shows the hierarchical process of learning.* The vertical organization should be satisfactory within the curriculum.	(a)	(b)	(c)	(d)	(e)
34	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
35	*The horizontal organization of the content is done in order to make the learner's knowledge more meaningful, integrate with other subject areas and apply the knowledge in the future. The horizontal organization of the content is processed consistently.* The horizontal organization of the content should be satisfactory within the curriculum.	(a)	(b)	(c)	(d)	(e)
36	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
37	There is no need for an additional subject list as the topics are in the course book.	(a)	(b)	(c)	(d)	(e)
38	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		

III. ELEMENTS	*According to Frances Klein, nine elements are considered while preparing curriculum.* **How far do you agree with the statements about these elements?** **** Even-numbered questions only have (a) and (b) options.***	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
39	Course book should be specified in the curriculum.	(a)	(b)	(c)	(d)	(e)
40	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
41	Materials suggested for the lesson should be consistent with the content of the lesson.	(a)	(b)	(c)	(d)	(e)
42	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
43	Information on the materials prepared by the teachers should be included in the curriculum.	(a)	(b)	(c)	(d)	(e)
44	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
45	The curriculum should include materials prepared and offered to the teachers' use by the Ministry of National Education and Sports.	(a)	(b)	(c)	(d)	(e)
46	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
I. 4	**LEARNING ACTIVITIES:**					
47	Activities should be planned based on the students' skills.	(a)	(b)	(c)	(d)	(e)
48	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
49	Traditional activities such as reading, writing and listening should be the most used activities in the classroom.	(a)	(b)	(c)	(d)	(e)
50	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
51	In-class activities should be planned with the aim of changing students' behaviour to meet the goals and objectives in the program.	(a)	(b)	(c)	(d)	(e)
52	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
53	Learning activities that will motivate the students should be chosen.	(a)	(b)	(c)	(d)	(e)
54	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
55	Learning activities should be specified in the program.	(a)	(b)	(c)	(d)	(e)
56	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
57	Learning activities should be prepared by the teachers.	(a)	(b)	(c)	(d)	(e)
58	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
59	In-class homework should be given to find out about students' performances.	(a)	(b)	(c)	(d)	(e)
60	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
61	Homework should be given to take home in order to find out about the students' performances.	(a)	(b)	(c)	(d)	(e)

III. ELEMENTS	*According to Frances Klein, nine elements are considered while preparing curriculum.* **How far do you agree with the statements about these elements?** **** Even-numbered questions only have (a) and (b) options.***	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
62	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
I. 5	**TEACHING STRATEGIES**					
63	The teaching strategies that will be used in the lessons should be specified in the program.	(a)	(b)	(c)	(d)	(e)
64	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
65	The choice of teaching strategies should be done by the teachers.	(a)	(b)	(c)	(d)	(e)
66	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
67	Teaching strategies that will help to reach the goals specified in the program should be chosen.	(a)	(b)	(c)	(d)	(e)
68	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
69	Teaching strategies should be chosen according to the learning styles of the students.	(a)	(b)	(c)	(d)	(e)
70	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
71	Teaching strategies that will motivate the students should be chosen.	(a)	(b)	(c)	(d)	(e)
72	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
I. 6	**EVALUATION PROCEDURES**					
73	A sample exam covering the whole content should be provided with the program.	(a)	(b)	(c)	(d)	(e)
74	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
75	Exams should be prepared by the subject teacher.	(a)	(b)	(c)	(d)	(e)
76	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
77	Exams should be prepared centrally, by the Ministry.	(a)	(b)	(c)	(d)	(e)
78	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
79	Exams should be prepared according to the level of the students.	(a)	(b)	(c)	(d)	(e)
80	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
81	Exams should be prepared based on the goals specified in the program.	(a)	(b)	(c)	(d)	(e)
82	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		82
I.7	**GROUPING**					
83	If small, in-class groups will be formed, students who will benefit from interaction with other should be included in the groups.	(a)	(b)	(c)	(d)	(e)
84	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
85	Curriculum should specify guidelines for grouping in each topic.	(a)	(b)	(c)	(d)	(e)

III. ELEMENTS	*According to Frances Klein, nine elements are considered while preparing curriculum.* **How far do you agree with the statements about these elements?** *** Even-numbered questions only have (a) and (b) options.**	Strongly agree	Agree	Not sure	Disagree	Strongly agree
86	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
87	Students with the same level of learning should be grouped together.	(a)	(b)	(c)	(d)	(e)
88	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
89	Students with different learning skills should be grouped separately. (Thus, the average level of groups will be equal.)	(a)	(b)	(c)	(d)	(e)
90	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
I. 8	**TIME**					
91	The expected time to be spent on each topic should be specified on the program.	(a)	(b)	(c)	(d)	(e)
92	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
93	Time management during lessons should be done by the teachers.	(a)	(b)	(c)	(d)	(e)
94	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
I. 9	**SPACE**					
95	The place for each topic should be specified on the program.	(a)	(b)	(c)	(d)	(e)
96	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
97	Applied subjects (e.g. science, music, English, physical education, etc.) should take place in a laboratory, library, hall, music room or field.	(a)	(b)	(c)	(d)	(e)
98	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		
99	Observation-based lessons should occur in original spaces.	(a)	(b)	(c)	(d)	(e)
100	**Was this factor considered in the Ministry's program?**	(a)Yes		(b)No		

Appendix E: Copy of List of Schools

Sıra	Okulun Adı	Öğrenci Sayısı			Şube	Müdür		Muavin		Öğretmen Sayısı			Öğrenci	Öğrenci	Tel No	Fax No	Okul
		E	K	T	Sayısı	E	B	E	B	E	B	T	Şube Ort.	Öğrt. Ort.			Statü
1	Şehit İlker Karter İlkokulu	198	195	393	16	1	0	1	2	15	12	27	24,6	14,6	3712512	3712999	İlkokul
2	İskele Maarif Anaokulu	53	34	87	3	0	0	0	0	0	3	3	29,0	29,0	--------	--------	Anaokul
3	Aygün Anaokulu	12	8	20	1	0	0	0	0	0	1	1	20,0	20,0	3712843	-------	Anaokul
4	Boğaziçi İlkokulu	10	15	25	2	0	0	0	0	0	2	2	12,5	12,5	3713130	3713130	İlkokul
5	Büyükkonuk İlkokulu	33	38	71	4	0	0	0	0	3	2	5	17,8	14,2	3832140	3832413	İlkokul
6	Çayırova İlkokulu	42	60	102	6	0	0	0	0	4	5	9	17,0	11,3	3832350	3832210	İlkokul
7	Dipkarpaz İlkokulu	119	113	232	13	0	0	0	0	6	12	18	17,8	12,9	0	0	İlkokul
8	Kaplıca İlkokulu	17	18	35	3	0	0	0	0	2	1	3	11,7	11,7	0	0	İlkokul
9	Kumyalı İlkokulu	39	32	71	4	0	0	0	0	1	3	4	17,8	17,8	0	0	İlkokul
10	Mehmetçik İlkokulu	103	92	195	10	0	1	1	0	3	10	13	19,5	15,0	0	0	İlkokul
11	Şehit Menteş Zorba İO.(Yeşilköy)	34	34	68	6	0	1	0	0	3	5	8	11,3	8,5	0	0	İlkokul
12	Yedikonuk İlkokulu	76	48	124	7	0	0	0	0	1	9	10	17,7	12,4	0	0	İlkokul
13	Yenierenköy İlkokulu	152	153	305	14	0	1	0	0	4	15	19	21,8	16,1	0	0	İlkokul
14	Ziyamet İlkokulu	163	108	271	13	0	0	1	0	10	11	21	20,8	12,9	3812309	3812684	İlkokul
15	Ötüken İlkokulu	13	11	24	1	0	0	0	0	0	1	1	24,0	24,0	0	0	Anaokul

İSKELE İLÇESİ TOPLAMI	**1064**	**959**	**2023**	**103**	**1**	**3**	**3**	**2**	**52**	**92**	**144**	**19,6**	**14,0**

Sıra	Okulun Adı	Öğrenci Sayısı			Şube	Müdür		Muavin		Öğretmen Sayısı			Öğrenci	Öğrenci	Tel No	Fax No	Okul
		E	K	T	Sayısı	E	B	E	B	E	B	T	Şube Ort.	Öğr. Ort.			Statü
1	Alasya İlkokulu	197	191	388	14	1	0	0	1	9	14	23	27,7	16,9	3661452	3660452	İlkokul
2	Canbulat İlkokulu	47	51	98	4	1	0	0	0	1	6	7	24,5	14,0	3665365	3665365	İlkokul
3	Gazi İlkokulu	66	80	146	8	1	0	1	0	5	9	14	18,3	10,4	3665376	3669376	İlkokul
4	Karakol İlkokulu	155	165	320	11	1	0	0	1	6	11	17	29,1	18,8	3650458	-------	İlkokul
5	Polatpaşa İlkokulu	193	213	406	16	1	0	0	2	7	16	23	25,4	17,7	3665854	3660310	İlkokul
6	Şehit Hüseyin Akil İlkokulu	147	139	286	10	1	0	1	0	2	12	14	28,6	20,4	3665852	3665852	İlkokul
7	Şehit Mustafa Kurtuluş İlkokulu	59	71	130	8	0	1	0	0	5	9	14	16,3	9,3	3665369	3665369	İlkokul
8	Şehit Osman Ahmet İlkokulu	177	166	343	15	0	0	1	0	9	14	23	22,9	14,9	3665851	3661432	İlkokul
9	Şehit Zeki Salih İlkokulu	132	140	272	12	1	0	0	1	3	16	19	22,7	14,3	3665853	3664853	İlkokul
10	Gazi Mağusa Maarif Anaokulu	17	17	34	2	0	0	0	0	0	2	2	17,0	17,0	3665361	-------	Anaokul
11	Alasya Vakıf Anaokulu	90	94	184	8	0	1	0	1	0	10	10	23,0	18,4	3652478	3652478	Anaokul
12	Gazimağusa Özel Eğitim Merkezi	34	17	51	4	0	0	0	0	3	4	7	12,8	7,3	3663470	-------	ÖEM.
13	Akdoğan Dr. Fazıl Küçük İlkokulu	165	132	297	16	1	0	2	0	6	16	22	18,6	13,5	3777335	3777335	İlkokul
14	Akova - Yıldırım İlkokulu	63	60	123	7	1	0	0	0	2	8	10	17,6	12,3	3733994	3734107	İlkokul
15	Alaniçi İlkokulu	61	37	98	7	0	1	0	0	2	8	10	14,0	9,8	3842287	3842287	İlkokul
16	Beyarmudu İlkokulu	34	45	79	7	1	0	0	0	2	7	9	11,3	8,8	3799368	3799368	İlkokul
17	Çayönü - İncirli İlkokulu	59	51	110	6	1	0	0	0	3	6	9	18,3	12,2	3862011	3862011	İlkokul
18	Dörtyol İlkokulu	100	75	175	9	0	1	1	0	4	8	12	19,4	14,6	3842811	3842216	İlkokul
19	Eşref Bitlis İlkokulu	147	140	287	14	1	0	0	1	8	13	21	20,5	13,7	2368182	2368191	İlkokul
20	Geçitkale İlkokulu	74	66	140	7	1	0	0	0	5	6	11	20,0	12,7	3733334	3733334	İlkokul
21	Güvercinlik Rauf Raif Denktaş İlkokulu	59	60	119	7	1	0	0	0	1	9	10	17,0	11,9	3862400	3862400	İlkokul
22	İnönü İlkokulu	36	44	80	6	0	1	0	0	2	6	8	13,3	10,0	3778209	3778209	İlkokul
23	Mormenekşe İlkokulu	63	59	122	7	1	0	0	0	4	6	10	17,4	12,2	3788410	3789410	İlkokul
24	Pile Türk Okulu	10	18	28	3	0	0	0	0	1	2	3	9,3	9,3	3799046	3799046	İlkokul
25	Serdarlı İlkokulu	50	75	125	7	1	0	0	0	1	9	10	17,9	12,5	3766107	3766698	İlkokul
26	Şehit Salih Terzi İlkokulu	59	54	113	7	0	1	0	0	4	7	11	16,1	10,3	3733824	3799046	İlkokul
27	Şehit Özdemir Anaokulu	16	22	38	2	0	0	0	0	0	2	2	19,0	19,0	3648016	3648016	Anaokul
28	Tatlısu İlkokulu	73	48	121	7	0	1	0	0	4	7	11	17,3	11,0	3892111	3892088	İlkokul
29	Türkmenköy İlkokulu	39	49	88	6	1	0	0	0	1	7	8	14,7	11,0	3778330	3778333	İlkokul
30	Ulukışla İlkokulu	55	43	98	7	1	0	0	0	3	7	10	14,0	9,8	3766330	3766330	İlkokul
31	Vadili İlkokulu	94	104	198	11	1	0	1	0	5	11	16	18,0	12,4	3977519	3977348	İlkokul
32	Yeniboğaziçi İlkokulu	122	93	215	11	1	0	0	1	4	12	16	19,5	13,4	3788148	3788282	İlkokul
GAZİMAĞUSA İLÇESİ TOPLAM		**2693**	**2619**	**5312**	**266**	**20**	**7**	**7**	**8**	**112**	**280**	**392**	**19,97**	**13,55**			

Sıra	Okulun Adı	Öğrenci Sayısı			Şube	Müdür		Muavin		Öğretmen Sayısı			Öğrenci	Öğrenci	Tel No	Fax No	Okul
		E	K	T	Sayısı	E	B	E	B	E	B	T	Şube Ort.	Öğrt. Ort.			Statü
1	23 Nisan İlkokulu	462	427	889	30	1	0	2	3	16	37	53	29,6	16,8	8152231	8152905	İlkokul
2	Girne Maarif Anaokulu	99	72	171	8	1	0	0	1	0	11	11	21,4	15,5	8153388	8152908	Anaokul
3	Şehit Hasan Cafer İlkokulu	206	174	380	14	1	0	1	1	5	17	22	27,1	17,3	8159596	8159978	İlkokul
4	Ağırdağ - Dağyolu İlkokulu	65	70	135	6	1	0	0	0	4	6	10	22,5	13,5	2346592	2346592	İlkokul
5	Alsancak İlkokulu	178	167	345	13	0	1	0	0	9	12	21	26,5	16,4	8218369	8218278	İlkokul
6	Çamlıbel Aysun İlkokulu	91	86	177	9	0	0	0	1	5	8	13	19,7	13,6	7213443	7213750	İlkokul
7	Çatalköy İlkokulu	131	149	280	12	1	0	0	1	7	10	17	23,3	16,5	8244079	8245203	İlkokul
8	Dikmen İlkokulu	117	111	228	11	0	1	1	0	6	11	17	20,7	13,4	2372064	2372895	İlkokul
9	Esentepe İlkokulu	92	102	194	9	1	0	1	0	4	9	13	21,6	14,9	8236313	8236323	İlkokul
10	Karakum Anaokulu	20	20	40	2	0	0	0	0	0	3	3	20,0	13,3	-------	-------	Anaokul
11	Karaoğlanoğlu İlkokulu	123	124	247	12	1	0	0	0	7	10	17	20,6	14,5	8222130	8223898	İlkokul
12	Karşıyaka Merkez İlkokulu	124	111	235	12	1	0	1	0	6	11	17	19,6	13,8	8252080	8252494	İlkokul
13	Lapta Anaokulu	71	67	138	6	1	0	0	0	0	6	6	23,0	23,0	8212275	8211944	Anaokul
14	Lapta İlkokulu	171	148	319	14	1	0	0	1	7	14	21	22,8	15,2	8218304	8218304	İlkokul
15	Mehmet Boransel İlkokulu (Kozan)	37	26	63	6	0	1	0	0	3	5	8	10,5	7,9	2442069	2442069	İlkokul
16	Osman Türkay Anaokulu (Ozanköy)	23	18	41	2	0	0	0	0	0	2	2	20,5	20,5	8158180	-------	Anaokul
17	Tepebaşı İlkokulu	62	55	117	7	1	0	0	0	4	6	10	16,7	11,7	7213183	7213183	İlkokul
18	Girne Özel Eğitim Merkezi	15	7	22	3	1	0	0	0	1	2	3	7,3	7,3	8153100	8152181	ÖEM.
GİRNE İLÇESİ TOPLAM		**2087**	**1934**	**4021**	**176**	**12**	**3**	**6**	**8**	**84**	**180**	**264**	**22,85**	**15,23**			

Sıra	Okulun Adı	Öğrenci Sayısı			Şube	Müdür		Muavin		Öğretmen Sayısı			Öğrenci	Öğrenci	Tel No	Fax No	Okul
		E	K	T	Sayısı	E	B	E	B	E	B	T	Şube Ort.	Öğrt. Ort.			Statü
1	Barış İlkokulu	99	99	198	8	0	1	0	1	1	11	12	24,8	16,5	7142015	7141015	İlkokul
2	Kurtuluş İlkokulu	155	164	319	15	0	1	0	2	10	15	25	21,3	12,8	7142077	7142248	İlkokul
3	Özgürlük İlkokulu	105	102	207	9	0	0	1	0	11	7	18	23,0	11,5	7142159	7147129	İlkokul
4	Atatürk Maarif Anaokulu	76	63	139	7	0	1	0	1	1	9	10	19,9	13,9	7142076	7141075	Anaokul
5	Akçay Anaokulu	18	21	39	2	0	0	0	0	1	2	3	19,5	13,0	7258431	-------	Anaokul
6	Aydınköy İlkokulu	84	65	149	9	0	1	1	0	3	11	14	16,6	10,6	7236916	7237658	İlkokul
7	Fikri Karayel İlkokulu	99	98	197	12	0	0	0	0	3	14	17	16,4	11,6	7142235	7146962	İlkokul
8	Doğancı İlkokulu	68	48	116	7	0	1	0	0	3	7	10	16,6	11,6	7236557	7237639	İlkokul
9	Gaziveren Anaokulu	22	45	67	4	0	0	0	0	0	5	5	16,8	13,4	7236370	-------	Anaokul
10	Gemikonağı İlkokulu	52	35	87	6	1	0	0	0	3	7	10	14,5	8,7	7277454	7277454	İlkokul
11	Kalkanlı Anaokulu	7	10	17	1	0	0	0	0	0	1	1	17,0	17,0	7146647	7287316	Anaokul
12	Lefke İstiklal İlkokulu	101	98	199	12	0	1	0	2	5	11	16	16,6	12,4	7288104	7287316	İlkokul
13	Serhatköy İlkokulu	36	36	72	6	0	1	0	0	3	6	9	12,0	8,0	7258138	7257488	İlkokul
14	Yayla Anaokulu	11	15	26	2	0	0	0	0	0	2	2	13,0	13,0	7146649	-------	Anaokul
15	Yedidalga İlkokulu	41	37	78	6	0	1	0	0	4	6	10	13,0	7,8	7277716	7278464	İlkokul
16	Yeşilyurt İlkokulu	95	58	153	7	1	0	0	0	1	9	10	21,9	15,3	7236070	7237410	İlkokul
17	Zümrütköy İlkokulu	39	34	73	6	0	1	0	0	3	6	9	12,2	8,1	7257339	7257490	İlkokul
18	Yeşilyurt Özel Eğitim Merkezi	3	9	12	2	0	0	0	0	0	2	2	6,0	6,0	7237476	7237476	ÖEM.

GÜZELYURT İLÇESİ TOPLAM	**1111**	**1037**	**2148**	**121**	**2**	**9**	**2**	**6**	**52**	**131**	**183**	**17,8**	**11,7**

Sıra	Okulun Adı	Öğrenci Sayısı			Şube	Müdür		Muavin		Öğretmen Sayısı			Öğrenci	Öğrenci	Tel No	Fax No	Okul
		E	K	T	Sayısı	E	B	E	B	E	B	T	Şube Ort.	Öğrt. Ort.			Statü
1	Arabahmet İlkokulu	92	80	172	9	0	0	0	1	5	9	14	19,1	12,3	0	0	İlkokul
2	Atatürk İlkokulu	136	182	318	15	0	1	1	1	16	11	27	21,2	11,8	2271280	2275623	İlkokul
3	Çağlayan Cumhuriyet İlkokulu	76	69	145	8	1	0	0	1	4	9	13	18,1	11,2	0	0	İlkokul
4	Gelibolu İlkokulu	70	55	125	7	1	0	1	0	2	9	11	17,9	11,4	0	0	İlkokul
5	Necati Taşkın İlkokulu	101	121	222	10	1	0	1	0	7	11	18	22,2	12,3	2255137	2256409	İlkokul
6	9 Eylül İlkokulu	266	262	528	20	1	0	2	1	12	19	31	26,4	17,0	2233950	2233949	İlkokul
7	Şehit Doğan Ahmet İlkokulu	164	157	321	13	1	0	1	1	8	14	22	24,7	14,6	2273867	2280567	İlkokul
8	Şehit Ertuğrul İlkokulu	355	321	676	25	0	1	2	2	20	22	42	27,0	16,1	2289980	2274745	İlkokul
9	Şehit Tuncer İlkokulu	196	168	364	20	1	0	3	1	16	20	36	18,2	10,1	2286757	2279940	İlkokul
10	Şehit Yalçın İlkokulu	66	60	126	5	0	1	0	0	1	7	8	25,2	15,8	0	0	İlkokul
11	Fazıl Plümer Anaokulu	81	71	152	6	0	1	0	0	0	8	8	25,3	19,0	0	0	Anaokul
12	Gülenyüzler Anaokulu	80	78	158	8	1	0	0	1	0	12	12	19,8	13,2	0	0	Anaokul
13	Lefkoşa Vakıf Anaokulu	97	88	185	9	0	1	0	1	0	12	12	20,6	15,4	0	0	Anaokul
14	Yeniyüzyıl Anaokulu	80	59	139	6	1	0	0	0	1	8	9	23,2	15,4	0	0	Anaokul
15	Yenicami Okul Öncesi Eğt Mrk.	55	45	100	5	1	0	0	0	1	5	6	20,0	16,7	0	0	Anaokul
16	Akıncılar İlkokulu	10	3	13	2	0	0	0	0	0	2	2	6,5	6,5	0	0	İlkokul
17	Alayköy İlkokulu	148	150	298	14	1	0	1	1	4	16	20	21,3	14,9	2357340	2357719	İlkokul
18	Balıkesir-Meriç İlkokulu	32	35	67	6	0	0	0	0	3	6	9	11,2	7,4	0	0	İlkokul
19	Cihangir - Düzova İlkokulu	98	89	187	7	0	1	0	0	2	9	11	26,7	17,0	0	0	İlkokul
20	Değirmenlik İlkokulu	100	94	194	10	1	0	1	0	4	10	14	19,4	13,9	0	0	İlkokul
21	Dilekkaya İlkokulu	16	18	34	3	0	0	0	0	0	3	3	11,3	11,3	0	0	İlkokul
22	Dr. Fazıl Küçük İlkokulu	65	71	136	6	1	0	0	0	4	5	9	22,7	15,1	0	0	İlkokul
23	Gaziköy Anaokulu	69	59	128	5	1	0	0	0	0	5	5	25,6	25,6	0	0	Anaokul
24	Gönyeli Fazıl Plümer Anaokulu	69	77	146	7	0	1	0	0	0	9	9	20,9	16,2	--------	--------	Anaokul
25	Gönyeli İlkokulu	276	249	525	21	1	0	2	1	15	19	34	25,0	15,4	2231787	2237930	İlkokul
26	Haspolat İlkokulu	97	96	193	10	1	0	1	0	4	11	15	19,3	12,9	0	0	İlkokul
27	Şehit Mehmet Eray İlkokulu	142	126	268	13	1	0	1	0	3	17	20	20,6	13,4	2323359	2324700	İlkokul
28	Lefkoşa Özel Eğitim Merkezi	21	12	33	6	0	0	0	0	1	7	8	5,5	4,1	0	0	ÖEM.
29	Lefkoşa Özel Eğitim ve İş Eğitim Merkezi	23	12	35	6	1	0	0	0	4	4	8	5,8	4,4	0	0	ÖEM.
30	R.R.Denktaş Görme Engelliler Özel Eğitim Okulu	11	0	11	2	0	0	0	0	0	2	2	5,5	5,5	0	0	ÖEM.
	LEFKOŞA İLÇESİ TOPLAM	3092	2907	5999	284	17	7	17	12	137	301	438	21,1	13,7			

Appendix F: Important SPSS Outputs

Research Question 1

Frequencies of responses to the Ralph Tyler's sources
Question 1

Datasource1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	56	17,2	17,2	17,2
	2	105	32,3	32,3	49,5
	3	55	16,9	16,9	66,5
	4	91	28,0	28,0	94,5
	5	18	5,5	5,5	100,0
	Total	325	100,0	100,0	

Question 2

Datasource2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	49	15,1	15,1	15,1
	2	108	33,2	33,2	48,3
	3	65	20,0	20,0	68,3
	4	85	26,2	26,2	94,5
	5	18	5,5	5,5	100,0
	Total	325	100,0	100,0	

Question 3

Datasource3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	51	15,7	15,7	15,7
	2	91	28,0	28,0	43,7
	3	88	27,1	27,1	70,8
	4	75	23,1	23,1	93,8
	5	20	6,2	6,2	100,0
	Total	325	100,0	100,0	

Question 4

Datasource4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	39	12,0	12,0	12,0
	2	68	20,9	20,9	32,9
	3	55	16,9	16,9	49,8
	4	129	39,7	39,7	89,5
	5	34	10,5	10,5	100,0
	Total	325	100,0	100,0	

Question 5

Datasource5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	45	13,8	13,8	13,8
	2	78	24,0	24,0	37,8
	3	82	25,2	25,2	63,1
	4	90	27,7	27,7	90,8
	5	30	9,2	9,2	100,0
	Total	325	100,0	100,0	

Question 6

Datasource6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	51	15,7	15,7	15,7
	2	94	28,9	28,9	44,6
	3	62	19,1	19,1	63,7
	4	99	30,5	30,5	94,2
	5	19	5,8	5,8	100,0
	Total	325	100,0	100,0	

Question 7

Datasource7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	55	16,9	16,9	16,9
	2	101	31,1	31,1	48,0
	3	67	20,6	20,6	68,6
	4	84	25,8	25,8	94,5
	5	18	5,5	5,5	100,0
	Total	325	100,0	100,0	

Question 8

Datasource8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	47	14,5	14,5	14,5
	2	68	20,9	20,9	35,4
	3	57	17,5	17,5	52,9
	4	130	40,0	40,0	92,9
	5	23	7,1	7,1	100,0
	Total	325	100,0	100,0	

Question 9

Datasource9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	54	16,6	16,6	16,6
	2	73	22,5	22,5	39,1
	3	80	24,6	24,6	63,7
	4	99	30,5	30,5	94,2
	5	19	5,8	5,8	100,0
	Total	325	100,0	100,0	

Question 10

Datasource10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	46	14,2	14,2	14,2
	2	80	24,6	24,6	38,8
	3	92	28,3	28,3	67,1
	4	92	28,3	28,3	95,4
	5	15	4,6	4,6	100,0
	Total	325	100,0	100,0	

Question 11

Datasource11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	42	12,9	12,9	12,9
	2	77	23,7	23,7	36,6
	3	83	25,5	25,5	62,2
	4	106	32,6	32,6	94,8
	5	17	5,2	5,2	100,0
	Total	325	100,0	100,0	

Question 12

Datasource12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	46	14,2	14,2	14,2
	2	74	22,8	22,8	36,9
	3	92	28,3	28,3	65,2
	4	83	25,5	25,5	90,8
	5	30	9,2	9,2	100,0
	Total	325	100,0	100,0	

T-TEST for Research Question 1

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Meanlearner	325	2,8646	1,05860	,05872

One-Sample Test

	Test Value = 2.9					
					95% Confidence Interval of the Difference	
	T	Df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Meanlearner	-,603	324	,547	-,03538	-,1509	,0801

T-TEST

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
meansociety	325	2,8585	1,03704	,05752

One-Sample Test

	Test Value = 2.9					
					95% Confidence Interval of the Difference	
	T	Df	Sig. (2-tailed)	Mean Difference	Lower	Upper
meansociety	-,722	324	,471	-,04154	-,1547	,0716

T-TEST

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
meansubjectmatter	325	2,9323	1,06213	,05892

One-Sample Test

	Test Value = 3					
					95% Confidence Interval of the Difference	
	T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Meansubjectmatter	-1,149	324	,251	-,06769	-,1836	,0482

Research Question 2

A) GENDER

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Learner	Equal variances assumed	1.680	.196	.682	323	.496	.08385	.12291	-.15795	.32565
	Equal variances not assumed			.663	215.864	.508	.08385	.12648	-.16544	.33315
Society	Equal variances assumed	8.630	.004	.908	323	.364	.10932	.12034	-.12743	.34606
	Equal variances not assumed			.861	201.157	.390	.10932	.12691	-.14093	.35957
SubjectMatter	Equal variances assumed	.057	.811	1.446	323	.149	.17785	.12301	-.06415	.41984
	Equal variances not assumed			1.423	224.201	.156	.17785	.12495	-.06837	.42407

B) AGE

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Learner	4.787	3	321	.003
Society	2.875	3	321	.036
SubjectMatter	1.656	3	321	.176

ONEWAY

ANOVA

SubjectMatter

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	4,548	3	1,516	1,348	,259
Within Groups	360,963	321	1,124		
Total	365,511	324			

Kruskal-Wallis test

Test Statistics(a,b)

	Learner	Society	SubjectMatter
Chi-Square	13.060	15.961	3.759
df	3	3	3
Asymp. Sig.	.005	.001	.289

a Kruskal Wallis Test
b Grouping Variable: Age

Mann-Whitney Test

Ranks

	Age	N	Mean Rank	Sum of Ranks
Meanlearner	1	50	92,18	4609,00
	2	109	74,41	8111,00
	Total	159		
Meansociety	1	50	85,41	4270,50
	2	109	77,52	8449,50
	Total	159		
meansubjectmatter	1	50	76,54	3827,00
	2	109	81,59	8893,00
	Total	159		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	2116,000	2454,500	2552,000
Wilcoxon W	8111,000	8449,500	3827,000
Z	-2,266	-1,008	-,650
Asymp. Sig. (2-tailed)	,023	,313	,516

a. Grouping Variable: Age

Mann-Whitney Test

Ranks

	Age	N	Mean Rank	Sum of Ranks
Meanlearner	1	50	105,42	5271,00
	3	122	78,75	9607,00
	Total	172		
Meansociety	1	50	105,73	5286,50
	3	122	78,62	9591,50
	Total	172		
meansubjectmatter	1	50	92,04	4602,00
	3	122	84,23	10276,00
	Total	172		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	2104,000	2088,500	2773,000
Wilcoxon W	9607,000	9591,500	10276,000
Z	-3,199	-3,253	-,944
Asymp. Sig. (2-tailed)	,001	,001	,345

a. Grouping Variable: Age

Mann-Whitney Test

Ranks

	Age	N	Mean Rank	Sum of Ranks
Meanlearner	1	50	54,07	2703,50
	4	44	40,03	1761,50
	Total	94		
Meansociety	1	50	54,33	2716,50
	4	44	39,74	1748,50
	Total	94		
meansubjectmatter	1	50	48,51	2425,50
	4	44	46,35	2039,50
	Total	94		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	771,500	758,500	1049,500
Wilcoxon W	1761,500	1748,500	2039,500
Z	-2,495	-2,595	-,387
Asymp. Sig. (2-tailed)	,013	,009	,698

a. Grouping Variable: Age

Mann-Whitney Test

Ranks

	Age	N	Mean Rank	Sum of Ranks
Meanlearner	2	109	124,79	13602,00
	3	122	108,15	13194,00
	Total	231		
Meansociety	2	109	129,60	14126,00
	3	122	103,85	12670,00
	Total	231		
meansubjectmatter	2	109	124,56	13577,50
	3	122	108,35	13218,50
	Total	231		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	5691,000	5167,000	5715,500
Wilcoxon W	13194,000	12670,000	13218,500
Z	-1,894	-2,932	-1,860
Asymp. Sig. (2-tailed)	,058	,003	,063

a. Grouping Variable: Age

Mann-Whitney Test

Ranks

	Age	N	Mean Rank	Sum of Ranks
Meanlearner	2	109	79,98	8717,50
	4	44	69,63	3063,50
	Total	153		
Meansociety	2	109	81,40	8872,50
	4	44	66,10	2908,50
	Total	153		
meansubjectmatter	2	109	79,28	8641,50
	4	44	71,35	3139,50
	Total	153		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	2073,500	1918,500	2149,500
Wilcoxon W	3063,500	2908,500	3139,500
Z	-1,312	-1,940	-1,013
Asymp. Sig. (2-tailed)	,190	,052	,311

a. Grouping Variable: Age

Mann-Whitney Test

Ranks

	Age	N	Mean Rank	Sum of Ranks
Meanlearner	3	122	82,94	10118,50
	4	44	85,06	3742,50
	Total	166		
Meansociety	3	122	83,29	10161,00
	4	44	84,09	3700,00
	Total	166		
meansubjectmatter	3	122	82,56	10072,50
	4	44	86,10	3788,50
	Total	166		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	2615,500	2658,000	2569,500
Wilcoxon W	10118,500	10161,000	10072,500
Z	-,251	-,095	-,423
Asymp. Sig. (2-tailed)	,802	,924	,672

a. Grouping Variable: Age

C) YEARS OF EXPERIENCE

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Learner	1.704	4	320	.149
Society	1.094	4	320	.360
SubjectMatter	.626	4	320	.644

Kruskal-Wallis test

Test Statistics(a,b)

	Learner	Society	SubjectMatter
Chi-Square	16.807	16.922	2.045
df	4	4	4
Asymp. Sig.	.002	.002	.727

a Kruskal Wallis Test
b Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
Meanlearner	1	35	45,04	1576,50
	2	44	35,99	1583,50
	Total	79		
Meansociety	1	35	44,69	1564,00
	2	44	36,27	1596,00
	Total	79		
Meansubjectmatter	1	35	42,16	1475,50
	2	44	38,28	1684,50
	Total	79		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	593,500	606,000	694,500
Wilcoxon W	1583,500	1596,000	1684,500
Z	-1,747	-1,625	-,755
Asymp. Sig. (2-tailed)	,081	,104	,450

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
Meanlearner	1	35	49,16	1720,50
	3	48	36,78	1765,50
	Total	83		
Meansociety	1	35	46,66	1633,00
	3	48	38,60	1853,00
	Total	83		
Meansubjectmatter	1	35	43,21	1512,50
	3	48	41,11	1973,50
	Total	83		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	589,500	677,000	797,500
Wilcoxon W	1765,500	1853,000	1973,500
Z	-2,320	-1,512	-,397
Asymp. Sig. (2-tailed)	,020	,131	,692

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
Meanlearner	1	35	107,06	3747,00
	4	127	74,46	9456,00
	Total	162		
Meansociety	1	35	103,20	3612,00
	4	127	75,52	9591,00
	Total	162		
Meansubjectmatter	1	35	87,63	3067,00
	4	127	79,81	10136,00
	Total	162		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	1328,000	1463,000	2008,000
Wilcoxon W	9456,000	9591,000	10136,000
Z	-3,651	-3,101	-,883
Asymp. Sig. (2-tailed)	,000	,002	,377

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
Meanlearner	1	35	68,19	2386,50
	5	71	46,26	3284,50
	Total	106		
Meansociety	1	35	69,27	2424,50
	5	71	45,73	3246,50
	Total	106		
Meansubjectmatter	1	35	59,03	2066,00
	5	71	50,77	3605,00
	Total	106		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	728,500	690,500	1049,000
Wilcoxon W	3284,500	3246,500	3605,000
Z	-3,463	-3,721	-1,314
Asymp. Sig. (2-tailed)	,001	,000	,189

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
Meanlearner	2	44	47,82	2104,00
	3	48	45,29	2174,00
	Total	92		
Meansociety	2	44	45,94	2021,50
	3	48	47,01	2256,50
	Total	92		
Meansubjectmatter	2	44	45,69	2010,50
	3	48	47,24	2267,50
	Total	92		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	998,000	1031,500	1020,500
Wilcoxon W	2174,000	2021,500	2010,500
Z	-,454	-,192	-,281
Asymp. Sig. (2-tailed)	,650	,848	,779

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
Meanlearner	2	44	95,70	4211,00
	4	127	82,64	10495,00
	Total	171		
Meansociety	2	44	93,63	4119,50
	4	127	83,36	10586,50
	Total	171		
Meansubjectmatter	2	44	86,10	3788,50
	4	127	85,96	10917,50
	Total	171		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	2367,000	2458,500	2789,500
Wilcoxon W	10495,000	10586,500	10917,500
Z	-1,512	-1,189	-,016
Asymp. Sig. (2-tailed)	,130	,234	,987

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
Meanlearner	2	44	65,10	2864,50
	5	71	53,60	3805,50
	Total	115		
Meansociety	2	44	66,41	2922,00
	5	71	52,79	3748,00
	Total	115		
Meansubjectmatter	2	44	60,51	2662,50
	5	71	56,44	4007,50
	Total	115		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	1249,500	1192,000	1451,500
Wilcoxon W	3805,500	3748,000	4007,500
Z	-1,803	-2,137	-,643
Asymp. Sig. (2-tailed)	,071	,033	,520

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
Meanlearner	3	48	94,43	4532,50
	4	127	85,57	10867,50
	Total	175		
Meansociety	3	48	96,63	4638,00
	4	127	84,74	10762,00
	Total	175		
meansubjectmatter	3	48	89,82	4311,50
	4	127	87,31	11088,50
	Total	175		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	2739,500	2634,000	2960,500
Wilcoxon W	10867,500	10762,000	11088,500
Z	-1,035	-1,389	-,296
Asymp. Sig. (2-tailed)	,301	,165	,767

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
Meanlearner	3	48	65,35	3137,00
	5	71	56,38	4003,00
	Total	119		
Meansociety	3	48	68,35	3281,00
	5	71	54,35	3859,00
	Total	119		
Meansubjectmatter	3	48	63,18	3032,50
	5	71	57,85	4107,50
	Total	119		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	1447,000	1303,000	1551,500
Wilcoxon W	4003,000	3859,000	4107,500
Z	-1,396	-2,180	-,835
Asymp. Sig. (2-tailed)	,163	,029	,404

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
Meanlearner	4	127	102,04	12958,50
	5	71	94,96	6742,50
	Total	198		
Meansociety	4	127	103,74	13175,00
	5	71	91,92	6526,00
	Total	198		
Meansubjectmatter	4	127	102,07	12963,00
	5	71	94,90	6738,00
	Total	198		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	4186,500	3970,000	4182,000
Wilcoxon W	6742,500	6526,000	6738,000
Z	-,835	-1,397	-,853
Asymp. Sig. (2-tailed)	,404	,163	,393

a. Grouping Variable: Years of Experience

D) LOCATION OF SCHOOL

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Learner	Equal variances assumed	2.830	.094	-1.798	323	.073	-.21592	.12011	-.45221	.02037
	Equal variances not assumed			-1.834	283.445	.068	-.21592	.11771	-.44762	.01578
Society	Equal variances assumed	2.586	.109	-1.944	323	.053	-.22856	.11756	-.45985	.00272
	Equal variances not assumed			-1.985	283.967	.048	-.22856	.11514	-.45521	-.00192
SubjectMatter	Equal variances assumed	.084	.772	-1.129	323	.260	-.13648	.12087	-.37427	.10132
	Equal variances not assumed			-1.124	261.990	.262	-.13648	.12143	-.37559	.10263

E) SCHOOL SIZE

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Learner	1.687	3	321	.170
Society	1.417	3	321	.238
SubjectMatter	.231	3	321	.875

Kruskal-Wallis test

Test Statistics(a,b)

	Learner	Society	SubjectMatter
Chi-Square	9.298	6.642	2.277
df	3	3	3
Asymp. Sig.	.026	.084	.517

a Kruskal Wallis Test
b Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
Meanlearner	Small School	94	98,79	9286,50
	Medium School	116	110,94	12868,50
	Total	210		
Meansociety	Small School	94	100,76	9471,00
	Medium School	116	109,34	12684,00
	Total	210		
Meansubjectmatter	Small School	94	102,44	9629,00
	Medium School	116	107,98	12526,00
	Total	210		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	4821,500	5006,000	5164,000
Wilcoxon W	9286,500	9471,000	9629,000
Z	-1,443	-1,022	-,665
Asymp. Sig. (2-tailed)	,149	,307	,506

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
Meanlearner	Small School	94	89,03	8369,00
	Large School	74	78,74	5827,00
	Total	168		
Meansociety	Small School	94	87,03	8181,00
	Large School	74	81,28	6015,00
	Total	168		
meansubjectmatter	Small School	94	86,30	8112,50
	Large School	74	82,21	6083,50
	Total	168		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	3052,000	3240,000	3308,500
Wilcoxon W	5827,000	6015,000	6083,500
Z	-1,365	-,763	-,548
Asymp. Sig. (2-tailed)	,172	,445	,584

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
Meanlearner	Small School	94	71,22	6694,50
	Very Large School	41	60,62	2485,50
	Total	135		
Meansociety	Small School	94	71,86	6755,00
	Very Large School	41	59,15	2425,00
	Total	135		
meansubjectmatter	Small School	94	69,65	6547,50
	Very Large School	41	64,21	2632,50
	Total	135		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	1624,500	1564,000	1771,500
Wilcoxon W	2485,500	2425,000	2632,500
Z	-1,451	-1,741	-,752
Asymp. Sig. (2-tailed)	,147	,082	,452

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
Meanlearner	Medium School	116	103,46	12001,00
	Large School	74	83,03	6144,00
	Total	190		
Meansociety	Medium School	116	100,69	11680,50
	Large School	74	87,36	6464,50
	Total	190		
meansubjectmatter	Medium School	116	99,20	11507,50
	Large School	74	89,70	6637,50
	Total	190		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	3369,000	3689,500	3862,500
Wilcoxon W	6144,000	6464,500	6637,500
Z	-2,503	-1,636	-1,175
Asymp. Sig. (2-tailed)	,012	,102	,240

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
Meanlearner	Medium School	116	83,85	9726,50
	Very Large School	41	65,28	2676,50
	Total	157		
Meansociety	Medium School	116	84,03	9747,50
	Very Large School	41	64,77	2655,50
	Total	157		
meansubjectmatter	Medium School	116	81,69	9475,50
	Very Large School	41	71,40	2927,50
	Total	157		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	1815,500	1794,500	2066,500
Wilcoxon W	2676,500	2655,500	2927,500
Z	-2,254	-2,338	-1,258
Asymp. Sig. (2-tailed)	,024	,019	,208

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
Meanlearner	Large School	74	58,33	4316,50
	Very Large School	41	57,40	2353,50
	Total	115		
Meansociety	Large School	74	59,76	4422,00
	Very Large School	41	54,83	2248,00
	Total	115		
meansubjectmatter	Large School	74	58,59	4336,00
	Very Large School	41	56,93	2334,00
	Total	115		

Test Statistics[a]

	meanlearner	meansociety	meansubjectmatter
Mann-Whitney U	1492,500	1387,000	1473,000
Wilcoxon W	2353,500	2248,000	2334,000
Z	-,144	-,762	-,260
Asymp. Sig. (2-tailed)	,886	,446	,795

a. Grouping Variable: SchoolSize

Research Question 3

Frequencies of responses to the Frances Klein's elements (odd numbers)

Objectıve1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	1,5	1,5	1,5
	2	8	2,5	2,5	4,0
	3	13	4,0	4,0	8,0
	4	138	42,5	42,5	50,5
	5	161	49,5	49,5	100,0
	Total	325	100,0	100,0	

Objective3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	,9	,9	,9
	2	8	2,5	2,5	3,4
	3	16	4,9	4,9	8,3
	4	98	30,2	30,2	38,5
	5	200	61,5	61,5	100,0
	Total	325	100,0	100,0	

Objective5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	,9	,9	,9
	2	5	1,5	1,5	2,5
	3	13	4,0	4,0	6,5
	4	86	26,5	26,5	32,9
	5	218	67,1	67,1	100,0
	Total	325	100,0	100,0	

Objective7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	,9	,9	,9
	2	9	2,8	2,8	3,7
	3	17	5,2	5,2	8,9
	4	119	36,6	36,6	45,5
	5	177	54,5	54,5	100,0
	Total	325	100,0	100,0	

Objective9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	,3	,3	,3
	2	4	1,2	1,2	1,5
	3	19	5,8	5,8	7,4
	4	110	33,8	33,8	41,2
	5	191	58,8	58,8	100,0
	Total	325	100,0	100,0	

Content1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	,9	,9	,9
	2	6	1,8	1,8	2,8
	3	18	5,5	5,5	8,3
	4	104	32,0	32,0	40,3
	5	194	59,7	59,7	100,0
	Total	325	100,0	100,0	

Content3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	,6	,6	,6
	2	6	1,8	1,8	2,5
	3	14	4,3	4,3	6,8
	4	103	31,7	31,7	38,5
	5	200	61,5	61,5	100,0
	Total	325	100,0	100,0	

Content5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	1,5	1,5	1,5
	2	14	4,3	4,3	5,8
	3	45	13,8	13,8	19,7
	4	108	33,2	33,2	52,9
	5	153	47,1	47,1	100,0
	Total	325	100,0	100,0	

Content7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	,3	,3	,3
	2	6	1,8	1,8	2,2
	3	33	10,2	10,2	12,3
	4	110	33,8	33,8	46,2
	5	175	53,8	53,8	100,0
	Total	325	100,0	100,0	

Content9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	72	22,2	22,2	22,2
	2	99	30,5	30,5	52,6
	3	47	14,5	14,5	67,1
	4	82	25,2	25,2	92,3
	5	25	7,7	7,7	100,0
	Total	325	100,0	100,0	

Material1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	2,2	2,2	2,2
	2	28	8,6	8,6	10,8
	3	32	9,8	9,8	20,6
	4	100	30,8	30,8	51,4
	5	158	48,6	48,6	100,0
	Total	325	100,0	100,0	

Material3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	1,5	1,5	1,5
	2	9	2,8	2,8	4,3
	3	16	4,9	4,9	9,2
	4	89	27,4	27,4	36,6
	5	206	63,4	63,4	100,0
	Total	325	100,0	100,0	

Material5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	,3	,3	,3
	2	11	3,4	3,4	3,7
	3	23	7,1	7,1	10,8
	4	111	34,2	34,2	44,9
	5	179	55,1	55,1	100,0
	Total	325	100,0	100,0	

Material7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	,6	,6	,6
	2	16	4,9	4,9	5,5
	3	23	7,1	7,1	12,6
	4	100	30,8	30,8	43,4
	5	184	56,6	56,6	100,0
	Total	325	100,0	100,0	

Learningact1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	,6	,6	,6
	2	5	1,5	1,5	2,2
	3	22	6,8	6,8	8,9
	4	92	28,3	28,3	37,2
	5	204	62,8	62,8	100,0
	Total	325	100,0	100,0	

Learningact3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	1,8	1,8	1,8
	2	44	13,5	13,5	15,4
	3	38	11,7	11,7	27,1
	4	93	28,6	28,6	55,7
	5	144	44,3	44,3	100,0
	Total	325	100,0	100,0	

Learningact5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	,3	,3	,3
	2	9	2,8	2,8	3,1
	3	19	5,8	5,8	8,9
	4	95	29,2	29,2	38,2
	5	201	61,8	61,8	100,0
	Total	325	100,0	100,0	

Learningact7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	,9	,9	,9
	2	8	2,5	2,5	3,4
	3	14	4,3	4,3	7,7
	4	72	22,2	22,2	29,8
	5	228	70,2	70,2	100,0
	Total	325	100,0	100,0	

Learningact9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	,9	,9	,9
	2	8	2,5	2,5	3,4
	3	20	6,2	6,2	9,5
	4	116	35,7	35,7	45,2
	5	178	54,8	54,8	100,0
	Total	325	100,0	100,0	

Learningact11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	1,2	1,2	1,2
	2	16	4,9	4,9	6,2
	3	44	13,5	13,5	19,7
	4	131	40,3	40,3	60,0
	5	130	40,0	40,0	100,0
	Total	325	100,0	100,0	

Learningact13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	1,2	1,2	1,2
	2	8	2,5	2,5	3,7
	3	18	5,5	5,5	9,2
	4	115	35,4	35,4	44,6
	5	180	55,4	55,4	100,0
	Total	325	100,0	100,0	

Learningact15

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	1,2	1,2	1,2
	2	17	5,2	5,2	6,5
	3	31	9,5	9,5	16,0
	4	96	29,5	29,5	45,5
	5	177	54,5	54,5	100,0
	Total	325	100,0	100,0	

Teachstrategy1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	,9	,9	,9
	2	18	5,5	5,5	6,5
	3	35	10,8	10,8	17,2
	4	119	36,6	36,6	53,8
	5	150	46,2	46,2	100,0
	Total	325	100,0	100,0	

Teachstrategy3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	,9	,9	,9
	2	6	1,8	1,8	2,8
	3	27	8,3	8,3	11,1
	4	125	38,5	38,5	49,5
	5	164	50,5	50,5	100,0
	Total	325	100,0	100,0	

Teachstrategy5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	,6	,6	,6
	2	5	1,5	1,5	2,2
	3	13	4,0	4,0	6,2
	4	99	30,5	30,5	36,6
	5	206	63,4	63,4	100,0
	Total	325	100,0	100,0	

Teachstrategy7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	1,5	1,5	1,5
	2	6	1,8	1,8	3,4
	3	15	4,6	4,6	8,0
	4	109	33,5	33,5	41,5
	5	190	58,5	58,5	100,0
	Total	325	100,0	100,0	

Teachstrategy9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	,9	,9	,9
	2	7	2,2	2,2	3,1
	3	14	4,3	4,3	7,4
	4	90	27,7	27,7	35,1
	5	211	64,9	64,9	100,0
	Total	325	100,0	100,0	

Evaluation1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	1,8	1,8	1,8
	2	16	4,9	4,9	6,8
	3	36	11,1	11,1	17,8
	4	118	36,3	36,3	54,2
	5	149	45,8	45,8	100,0
	Total	325	100,0	100,0	

Evaluation3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	,9	,9	,9
	2	6	1,8	1,8	2,8
	3	23	7,1	7,1	9,8
	4	110	33,8	33,8	43,7
	5	183	56,3	56,3	100,0
	Total	325	100,0	100,0	

Evaluation5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	64	19,7	19,7	19,7
	2	66	20,3	20,3	40,0
	3	71	21,8	21,8	61,8
	4	80	24,6	24,6	86,5
	5	44	13,5	13,5	100,0
	Total	325	100,0	100,0	

Evaluation7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	1,2	1,2	1,2
	2	5	1,5	1,5	2,8
	3	11	3,4	3,4	6,2
	4	80	24,6	24,6	30,8
	5	225	69,2	69,2	100,0
	Total	325	100,0	100,0	

Evaluation9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	,6	,6	,6
	2	9	2,8	2,8	3,4
	3	19	5,8	5,8	9,2
	4	87	26,8	26,8	36,0
	5	208	64,0	64,0	100,0
	Total	325	100,0	100,0	

Grouping1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	,9	,9	,9
	2	8	2,5	2,5	3,4
	3	19	5,8	5,8	9,2
	4	92	28,3	28,3	37,5
	5	203	62,5	62,5	100,0
	Total	325	100,0	100,0	

Grouping3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	1,8	1,8	1,8
	2	28	8,6	8,6	10,5
	3	60	18,5	18,5	28,9
	4	103	31,7	31,7	60,6
	5	128	39,4	39,4	100,0
	Total	325	100,0	100,0	

Grouping5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	14	4,3	4,3	4,3
	2	45	13,8	13,8	18,2
	3	64	19,7	19,7	37,8
	4	86	26,5	26,5	64,3
	5	116	35,7	35,7	100,0
	Total	325	100,0	100,0	

Grouping7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	,9	,9	,9
	2	20	6,2	6,2	7,1
	3	53	16,3	16,3	23,4
	4	115	35,4	35,4	58,8
	5	134	41,2	41,2	100,0
	Total	325	100,0	100,0	

Time1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	1,8	1,8	1,8
	2	33	10,2	10,2	12,0
	3	43	13,2	13,2	25,2
	4	121	37,2	37,2	62,5
	5	122	37,5	37,5	100,0
	Total	325	100,0	100,0	

Time3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	1,2	1,2	1,2
	2	2	,6	,6	1,8
	3	19	5,8	5,8	7,7
	4	100	30,8	30,8	38,5
	5	200	61,5	61,5	100,0
	Total	325	100,0	100,0	

Space1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	11	3,4	3,4	3,4
	2	53	16,3	16,3	19,7
	3	45	13,8	13,8	33,5
	4	93	28,6	28,6	62,2
	5	123	37,8	37,8	100,0
	Total	325	100,0	100,0	

Space3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	1,5	1,5	1,5
	2	3	,9	,9	2,5
	3	12	3,7	3,7	6,2
	4	83	25,5	25,5	31,7
	5	222	68,3	68,3	100,0
	Total	325	100,0	100,0	

Space5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	1,2	1,2	1,2
	2	3	,9	,9	2,2
	3	20	6,2	6,2	8,3
	4	90	27,7	27,7	36,0
	5	208	64,0	64,0	100,0
	Total	325	100,0	100,0	

Research Question 4

A) GENDER

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Objectives	Equal variances assumed	.337	.562	.748	323	.455	.04981	.06659	-.08119	.18082
	Equal variances not assumed			.774	258.475	.440	.04981	.06438	-.07697	.17659
Contents	Equal variances assumed	.001	.981	1.423	323	.156	.08600	.06044	-.03291	.20491

	Equal variances not assumed			1.428	237.039	.155	.08600	.06023	-.03266	.20466
Materials	Equal variances assumed	.006	.938	2.707	323	.007	.21454	.07926	.05862	.37047
	Equal variances not assumed			2.692	230.997	.008	.21454	.07968	.05754	.37155
Learningacts	Equal variances assumed	4.669	.031	1.758	323	.080	.11659	.06634	-.01392	.24710
	Equal variances not assumed			1.618	185.151	.107	.11659	.07207	-.02560	.25877
Teachingstrategies	Equal variances assumed	1.866	.173	1.143	323	.254	.07909	.06918	-.05701	.21519
	Equal variances not assumed			1.089	203.973	.277	.07909	.07260	-.06406	.22224
Evaluations	Equal variances assumed	.030	.863	1.187	323	.236	.07159	.06029	-.04702	.19021
	Equal variances not assumed			1.194	238.340	.234	.07159	.05997	-.04655	.18974
Groupings	Equal variances assumed	.191	.662	1.055	323	.292	.08463	.08021	-.07317	.24242
	Equal variances not assumed			1.052	232.409	.294	.08463	.08047	-.07393	.24318
Time	Equal variances assumed	.298	.586	.210	323	.834	.01760	.08398	-.14762	.18282
	Equal variances not assumed			.215	252.633	.830	.01760	.08186	-.14361	.17881
Space	Equal variances assumed	1.210	.272	1.505	323	.133	.11863	.07880	-.03639	.27366
	Equal variances not assumed			1.455	212.611	.147	.11863	.08152	-.04206	.27932

Independent Samples Test

B) AGE

Oneway ANOVA

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	**Sig.**
Objectives	.377	3	321	**.769**
Contents	.713	3	321	**.545**
Materials	3.114	3	321	**.026**
Learningacts	2.842	3	321	**.038**
teachingstrategies	4.935	3	321	**.002**
Evaluations	1.646	3	321	**.179**
Groupings	.287	3	321	**.835**
Time	2.257	3	321	**.082**
Space	2.978	3	321	**.032**

Kruskal-Wallis test

Test Statistics(a,b)

	objectives	contents	Materials	Learningacts	teachingstrategies	evaluations	groupings	time	space
Chi-Square	2.932	3.334	5.097	1.406	2.850	3.295	4.583	1.812	1.849
df	3	3	3	3	3	3	3	3	3
Asymp. Sig.	.402	.343	.165	.704	.415	.348	.205	.612	.604

a Kruskal Wallis Test
b Grouping Variable: Age

C) YEARS OF EXPERIENCE

Oneway ANOVA

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Objectives	,677	4	320	,609
Contents	1,669	4	320	,157
Materials	2,627	4	320	,035
Learningacts	2,680	4	320	,032
teachingstrategies	4,317	4	320	,002
Evaluations	1,139	4	320	,338
Groupings	,834	4	320	,505
Time	1,509	4	320	,199
Space	1,758	4	320	,137

Kruskal-Wallis test

Test Statistics(a,b)

	objectives	contents	Materials	Learningacts	Teaching strategies	evaluations	groupings	time	Space
Chi-Square	3.908	3.194	4.090	8.556	6.313	7.591	6.143	6.560	8.389
Df	4	4	4	4	4	4	4	4	4
Asymp. Sig.	.419	.526	.394	.073	.177	.108	.189	.161	.078

a Kruskal Wallis Test
b Grouping Variable: Years of Experience

D) LOCATION OF SCHOOLS

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
objectives	Equal variances assumed	3.830	.051	.281	323	.779	.01839	.06540	-.11027	.14706
	Equal variances not assumed			.288	287.079	.773	.01839	.06382	-.10721	.14400
contents	Equal variances assumed	5.527	.019	.376	323	.707	.02237	.05949	-.09467	.13940
	Equal variances not assumed			.392	300.603	.695	.02237	.05704	-.08989	.13462
materials	Equal variances assumed	1.885	.171	-.151	323	.880	-.01186	.07866	-.16661	.14288
	Equal variances not assumed			-.158	305.295	.874	-.01186	.07491	-.15927	.13554
Learningacts	Equal variances assumed	4.087	.044	-.034	323	.973	-.00224	.06541	-.13093	.12645
	Equal variances not assumed			-.037	317.890	.971	-.00224	.06086	-.12198	.11750

Teachingstrategies	Equal variances assumed	3.136	.078	-.588	323	.557	-.04000	.06799	-.17377	.09376
	Equal variances not assumed			-.629	315.840	.530	-.04000	.06356	-.16506	.08506
evaluations	Equal variances assumed	.055	.814	-.322	323	.748	-.01908	.05929	-.13573	.09757
	Equal variances not assumed			-.327	280.392	.744	-.01908	.05832	-.13388	.09572
groupings	Equal variances assumed	1.821	.178	2.056	323	.041	.16107	.07834	.00695	.31520
	Equal variances not assumed			2.015	248.493	.045	.16107	.07993	.00365	.31849
Time	Equal variances assumed	8.777	.003	-.706	323	.481	-.05813	.08236	-.22016	.10391
	Equal variances not assumed			-.740	304.513	.460	-.05813	.07853	-.21266	.09641
Space	Equal variances assumed	2.311	.129	-.472	323	.638	-.03659	.07758	-.18921	.11604
	Equal variances not assumed			-.486	290.782	.628	-.03659	.07535	-.18489	.11172

E) SCHOOL SIZES

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Objectives	5.166	3	321	.002
Contents	2.742	3	321	.043
Materials	7.641	3	321	.000
Learningacts	8.576	3	321	.000
Teachingstrategies	3.755	3	321	.011
Evaluations	.781	3	321	.505
Groupings	.782	3	321	.505
Time	2.448	3	321	.064
Space	.829	3	321	.479

Kruskal-Wallis test

Test Statistics (a,b)

	objectives	Contents	materials	Learningacts	Teaching strategies	evaluations	groupings	time	space
Chi-Square	7.832	19.146	21.937	12.802	6.470	13.298	22.393	9.844	3.022
df	3	3	3	3	3	3	3	3	3
Asymp. Sig.	.050	.000	.000	.005	.091	.004	.000	.020	.388

a Kruskal Wallis Test
b Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
Objectives	Small School	94	104,30	9804,50
	Medium School	116	106,47	12350,50
	Total	210		
Contents	Small School	94	97,49	9164,50
	Medium School	116	111,99	12990,50
	Total	210		
Materials	Small School	94	89,02	8367,50
	Medium School	116	118,86	13787,50
	Total	210		
Learningacts	Small School	94	91,28	8580,00
	Medium School	116	117,03	13575,00
	Total	210		
teachingstrategies	Small School	94	104,22	9796,50
	Medium School	116	106,54	12358,50
	Total	210		
Evaluations	Small School	94	109,17	10262,00
	Medium School	116	102,53	11893,00
	Total	210		
Groupings	Small School	94	85,23	8011,50
	Medium School	116	121,93	14143,50
	Total	210		
Time	Small School	94	94,69	8901,00
	Medium School	116	114,26	13254,00
	Total	210		
Space	Small School	94	99,71	9372,50
	Medium School	116	110,19	12782,50
	Total	210		

Test Statistics[a]

	objectives	contents	materials	learningacts	teachingstrategies	evaluations	groupings	time	space
Mann-Whitney U	5339,500	4699,500	3902,500	4115,000	5331,500	5107,000	3546,500	4436,000	4907,500
Wilcoxon W	9804,500	9164,500	8367,500	8580,000	9796,500	11893,000	8011,500	8901,000	9372,500
Z	-,261	-1,736	-3,604	-3,069	-,280	-,795	-4,384	-2,396	-1,268
Asymp. Sig. (2-tailed)	,794	,083	,000	,002	,779	,426	,000	,017	,205

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
Objectives	Small School	94	80,24	7543,00
	Large School	74	89,91	6653,00
	Total	168		
Contents	Small School	94	79,97	7517,00
	Large School	74	90,26	6679,00
	Total	168		
Materials	Small School	94	77,30	7266,50
	Large School	74	93,64	6929,50
	Total	168		
Learningacts	Small School	94	76,67	7207,00
	Large School	74	94,45	6989,00
	Total	168		
teachingstrategies	Small School	94	83,86	7883,00
	Large School	74	85,31	6313,00
	Total	168		
Evaluations	Small School	94	80,25	7543,50
	Large School	74	89,90	6652,50
	Total	168		
Groupings	Small School	94	73,05	6866,50
	Large School	74	99,05	7329,50
	Total	168		

Time	Small School	94	77,12	7249,00
	Large School	74	93,88	6947,00
	Total	168		
Space	Small School	94	79,08	7433,50
	Large School	74	91,39	6762,50
	Total	168		

Test Statistics[a]

	objectives	Contents	materials	learningacts	teachingstrategies	evaluations	groupings	time	space
Mann-Whitney U	3078,000	3052,000	2801,500	2742,000	3418,000	3078,500	2401,500	2784,000	2968,500
Wilcoxon W	7543,000	7517,000	7266,500	7207,000	7883,000	7543,500	6866,500	7249,000	7433,500
Z	-1,305	-1,381	-2,200	-2,363	-,195	-1,291	-3,466	-2,283	-1,665
Asymp. Sig. (2-tailed)	,192	,167	,028	,018	,845	,197	,001	,022	,096

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
Objectives	Small School	94	71,98	6766,00
	Very Large School	41	58,88	2414,00
	Total	135		
Contents	Small School	94	73,95	6951,00
	Very Large School	41	54,37	2229,00
	Total	135		
Materials	Small School	94	71,19	6692,00
	Very Large School	41	60,68	2488,00
	Total	135		
Learningacts	Small School	94	68,94	6480,00
	Very Large School	41	65,85	2700,00
	Total	135		
teachingstrategies	Small School	94	72,64	6828,50
	Very Large School	41	57,35	2351,50

	Total	135		
Evaluations	Small School	94	74,09	6964,50
	Very Large School	41	54,04	2215,50
	Total	135		
Groupings	Small School	94	64,02	6017,50
	Very Large School	41	77,13	3162,50
	Total	135		
Time	Small School	94	69,02	6487,50
	Very Large School	41	65,67	2692,50
	Total	135		
Space	Small School	94	66,67	6267,00
	Very Large School	41	71,05	2913,00
	Total	135		

Test Statistics[a]

	objectives	contents	materials	learningacts	teachingstrategies	evaluations	groupings	time	space
Mann-Whitney U	1553,000	1368,000	1627,000	1839,000	1490,500	1354,500	1552,500	1831,500	1802,000
Wilcoxon W	2414,000	2229,000	2488,000	2700,000	2351,500	2215,500	6017,500	2692,500	6267,000
Z	-1,812	-2,699	-1,451	-,423	-2,116	-2,767	-1,805	-,470	-,610
Asymp. Sig. (2-tailed)	,070	,007	,147	,673	,034	,006	,071	,639	,542

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
Objectives	Medium School	116	91,62	10628,00
	Large School	74	101,58	7517,00
	Total	190		
Contents	Medium School	116	96,86	11235,50
	Large School	74	93,37	6909,50
	Total	190		
Materials	Medium School	116	97,34	11291,50
	Large School	74	92,61	6853,50

	Total	190		
Learningacts	Medium School	116	96,94	11245,00
	Large School	74	93,24	6900,00
	Total	190		
teachingstrategies	Medium School	116	95,73	11105,00
	Large School	74	95,14	7040,00
	Total	190		
Evaluations	Medium School	116	89,49	10381,00
	Large School	74	104,92	7764,00
	Total	190		
Groupings	Medium School	116	96,18	11157,00
	Large School	74	94,43	6988,00
	Total	190		
Time	Medium School	116	94,32	10941,00
	Large School	74	97,35	7204,00
	Total	190		
Space	Medium School	116	93,69	10868,00
	Large School	74	98,34	7277,00
	Total	190		

Test Statistics[a]

	objectives	contents	materials	learningacts	teachingstrategies	evaluations	groupings	time	space
Mann-Whitney U	3842,000	4134,500	4078,500	4125,000	4265,000	3595,000	4213,000	4155,000	4082,000
Wilcoxon W	10628,000	6909,500	6853,500	6900,000	7040,000	10381,000	6988,000	10941,000	10868,000
Z	-1,242	-,432	-,596	-,455	-,074	-1,906	-,216	-,385	-,582
Asymp. Sig. (2-tailed)	,214	,666	,551	,649	,941	,057	,829	,700	,560

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
Objectives	Medium School	116	83,53	9689,00
	Very Large School	41	66,20	2714,00
	Total	157		
Contents	Medium School	116	87,65	10167,00
	Very Large School	41	54,54	2236,00
	Total	157		
Materials	Medium School	116	87,14	10108,00
	Very Large School	41	55,98	2295,00
	Total	157		
Learningacts	Medium School	116	83,83	9724,50
	Very Large School	41	65,33	2678,50
	Total	157		
teachingstrategies	Medium School	116	84,10	9756,00
	Very Large School	41	64,56	2647,00
	Total	157		
Evaluations	Medium School	116	83,81	9721,50
	Very Large School	41	65,40	2681,50
	Total	157		
Groupings	Medium School	116	82,92	9619,00
	Very Large School	41	67,90	2784,00
	Total	157		
Time	Medium School	116	83,27	9659,00
	Very Large School	41	66,93	2744,00
	Total	157		
Space	Medium School	116	79,55	9227,50
	Very Large School	41	77,45	3175,50
	Total	157		

Test Statistics[a]

	objectives	contents	materials	learningacts	teachingstrategies	evaluations	groupings	time	space
Mann-Whitney U	1853,000	1375,000	1434,000	1817,500	1786,000	1820,500	1923,000	1883,000	2314,500
Wilcoxon W	2714,000	2236,000	2295,000	2678,500	2647,000	2681,500	2784,000	2744,000	3175,500

Z	-2,126	-4,047	-3,850	-2,254	-2,399	-2,250	-1,836	-2,043	-,259
Asymp. Sig. (2-tailed)	,034	,000	,000	,024	,016	,024	,066	,041	,795

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
Objectives	Large School	74	63,97	4734,00
	Very Large School	41	47,22	1936,00
	Total	115		
Contents	Large School	74	66,66	4933,00
	Very Large School	41	42,37	1737,00
	Total	115		
Materials	Large School	74	64,43	4768,00
	Very Large School	41	46,39	1902,00
	Total	115		
Learningacts	Large School	74	62,27	4608,00
	Very Large School	41	50,29	2062,00
	Total	115		
teachingstrategies	Large School	74	63,01	4662,50
	Very Large School	41	48,96	2007,50
	Total	115		
Evaluations	Large School	74	65,94	4879,50
	Very Large School	41	43,67	1790,50
	Total	115		
Groupings	Large School	74	61,31	4537,00
	Very Large School	41	52,02	2133,00
	Total	115		
Time	Large School	74	62,26	4607,50
	Very Large School	41	50,30	2062,50
	Total	115		
Space	Large School	74	59,51	4403,50
	Very Large School	41	55,28	2266,50
	Total	115		

Test Statistics[a]

	objectives	Contents	materials	learningacts	teachingstrategies	evaluations	groupings	time	space
Mann-Whitney U	1075,000	876,000	1041,000	1201,000	1146,500	929,500	1272,000	1201,500	1405,500
Wilcoxon W	1936,000	1737,000	1902,000	2062,000	2007,500	1790,500	2133,000	2062,500	2266,500
Z	-2,637	-3,810	-2,833	-1,854	-2,190	-3,469	-1,445	-1,903	-,671
Asymp. Sig. (2-tailed)	,008	,000	,005	,064	,029	,001	,149	,057	,502

a. Grouping Variable: SchoolSize

Research Question 5

Frequencies of responses to the Frances Klein's elements (even numbers)

Objective2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	217	66,8	66,8	66,8
	1	108	33,2	33,2	100,0
	Total	325	100,0	100,0	

Objective4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	196	60,3	60,3	60,3
	1	129	39,7	39,7	100,0
	Total	325	100,0	100,0	

Objective6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	150	46,2	46,2	46,2
	1	175	53,8	53,8	100,0
	Total	325	100,0	100,0	

Objective8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	191	58,8	58,8	58,8
	1	134	41,2	41,2	100,0
	Total	325	100,0	100,0	

Objective10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	187	57,5	57,5	57,5
	1	138	42,5	42,5	100,0
	Total	325	100,0	100,0	

Content2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	163	50,2	50,2	50,2
	1	162	49,8	49,8	100,0
	Total	325	100,0	100,0	

Content4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	174	53,5	53,5	53,5
	1	151	46,5	46,5	100,0
	Total	325	100,0	100,0	

Content6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	220	67,7	67,7	67,7
	1	105	32,3	32,3	100,0
	Total	325	100,0	100,0	

Content8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	196	60,3	60,3	60,3
	1	129	39,7	39,7	100,0
	Total	325	100,0	100,0	

Content10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	206	63,4	63,4	63,4
	1	119	36,6	36,6	100,0
	Total	325	100,0	100,0	

Material2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	195	60,0	60,0	60,0
	1	130	40,0	40,0	100,0
	Total	325	100,0	100,0	

Material4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	185	56,9	56,9	56,9
	1	140	43,1	43,1	100,0
	Total	325	100,0	100,0	

Material6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	234	72,0	72,0	72,0
	1	91	28,0	28,0	100,0
	Total	325	100,0	100,0	

Material8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	231	71,1	71,1	71,1
	1	94	28,9	28,9	100,0
	Total	325	100,0	100,0	

Learningact2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	229	70,5	70,5	70,5
	1	96	29,5	29,5	100,0
	Total	325	100,0	100,0	

Learningact4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	191	58,8	58,8	58,8
	1	134	41,2	41,2	100,0
	Total	325	100,0	100,0	

Learningact6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	208	64,0	64,0	64,0
	1	117	36,0	36,0	100,0
	Total	325	100,0	100,0	

Learningact8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	213	65,5	65,5	65,5
	1	112	34,5	34,5	100,0
	Total	325	100,0	100,0	

Learningact10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	190	58,5	58,5	58,5
	1	135	41,5	41,5	100,0
	Total	325	100,0	100,0	

Learningact12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	192	59,1	59,1	59,1
	1	133	40,9	40,9	100,0
	Total	325	100,0	100,0	

Learningact14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	176	54,2	54,2	54,2
	1	149	45,8	45,8	100,0
	Total	325	100,0	100,0	

Learningact16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	181	55,7	55,7	55,7
	1	144	44,3	44,3	100,0
	Total	325	100,0	100,0	

Teachstrategy2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	204	62,8	62,8	62,8
	1	121	37,2	37,2	100,0
	Total	325	100,0	100,0	

Teachstrategy4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	182	56,0	56,0	56,0
	1	143	44,0	44,0	100,0
	Total	325	100,0	100,0	

Teachstrategy6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	196	60,3	60,3	60,3
	1	129	39,7	39,7	100,0
	Total	325	100,0	100,0	

Teachstrategy8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	230	70,8	70,8	70,8
	1	95	29,2	29,2	100,0
	Total	325	100,0	100,0	

Teachstrategy10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	232	71,4	71,4	71,4
	1	93	28,6	28,6	100,0
	Total	325	100,0	100,0	

Evaluation2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	247	76,0	76,0	76,0
	1	78	24,0	24,0	100,0
	Total	325	100,0	100,0	

Evaluation4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	181	55,7	55,7	55,7
	1	144	44,3	44,3	100,0
	Total	325	100,0	100,0	

Evaluation6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	232	71,4	71,4	71,4
	1	93	28,6	28,6	100,0
	Total	325	100,0	100,0	

Evaluation8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	209	64,3	64,3	64,3
	1	116	35,7	35,7	100,0
	Total	325	100,0	100,0	

Evaluation10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	197	60,6	60,6	60,6
	1	128	39,4	39,4	100,0
	Total	325	100,0	100,0	

Grouping2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	244	75,1	75,1	75,1
	1	81	24,9	24,9	100,0
	Total	325	100,0	100,0	

Grouping4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	263	80,9	80,9	80,9
	1	62	19,1	19,1	100,0
	Total	325	100,0	100,0	

Grouping6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	264	81,2	81,2	81,2
	1	61	18,8	18,8	100,0
	Total	325	100,0	100,0	

Grouping8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	242	74,5	74,5	74,5
	1	83	25,5	25,5	100,0
	Total	325	100,0	100,0	

Time2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	186	57,2	57,2	57,2
	1	139	42,8	42,8	100,0
	Total	325	100,0	100,0	

Time4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	200	61,5	61,5	61,5
	1	125	38,5	38,5	100,0
	Total	325	100,0	100,0	

Space2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	258	79,4	79,4	79,4
	1	67	20,6	20,6	100,0
	Total	325	100,0	100,0	

Space4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	257	79,1	79,1	79,1
	1	68	20,9	20,9	100,0
	Total	325	100,0	100,0	

Space6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	234	72,0	72,0	72,0
	1	91	28,0	28,0	100,0
	Total	325	100,0	100,0	

Research Question 6

A) GENDER

Mann-Whitney Test

Ranks

	Gender	N	Mean Rank	Sum of Ranks
obj2	0	210	175,30	36812,00
	1	115	140,55	16163,00
	Total	325		
cont2	0	210	166,66	34999,00
	1	115	156,31	17976,00
	Total	325		
mat2	0	210	165,64	34785,00
	1	115	158,17	18190,00
	Total	325		
learnact2	0	210	166,66	34998,00
	1	115	156,32	17977,00
	Total	325		
teachstrat2	0	210	167,59	35193,00
	1	115	154,63	17782,00
	Total	325		
eva2	0	210	167,33	35140,00
	1	115	155,09	17835,00
	Total	325		
grp2	0	210	169,26	35544,50
	1	115	151,57	17430,50
	Total	325		
tm2	0	210	165,07	34665,50
	1	115	159,21	18309,50
	Total	325		

spc2	0	210	165,11	34672,50
	1	115	159,15	18302,50
	Total	325		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	9493,000	11306,000	11520,000	11307,000	11112,000	11165,000	10760,500	11639,500	11632,500
Wilcoxon W	16163,000	17976,000	18190,000	17977,000	17782,000	17835,000	17430,500	18309,500	18302,500
Z	-3,260	-,967	-,709	-,957	-1,222	-1,151	-1,839	-,565	-,615
Asymp. Sig. (2-tailed)	,001	,334	,478	,338	,222	,250	,066	,572	,539

a. Grouping Variable: Gender

B) AGE

Kruskal-Wallis Test

Test Statistics[a,b]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Chi-Square	16,407	4,751	8,602	17,301	8,520	3,620	3,135	8,503	6,217
df	3	3	3	3	3	3	3	3	3
Asymp. Sig.	,001	,191	,035	,001	,036	,306	,371	,037	,102

a. Kruskal Wallis Test

b. Grouping Variable: Age

Mann-Whitney Test

Ranks

	Age	N	Mean Rank	Sum of Ranks
obj2	1	50	91,28	4564,00
	2	109	74,83	8156,00
	Total	159		
cont2	1	50	81,07	4053,50

	2	109	79,51	8666,50
	Total	159		
mat2	1	50	84,63	4231,50
	2	109	77,88	8488,50
	Total	159		
learnact2	1	50	83,60	4180,00
	2	109	78,35	8540,00
	Total	159		
teachstrat2	1	50	72,25	3612,50
	2	109	83,56	9107,50
	Total	159		
eva2	1	50	71,85	3592,50
	2	109	83,74	9127,50
	Total	159		
grp2	1	50	75,82	3791,00
	2	109	81,92	8929,00
	Total	159		
tm2	1	50	76,33	3816,50
	2	109	81,68	8903,50
	Total	159		
spc2	1	50	74,46	3723,00
	2	109	82,54	8997,00
	Total	159		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	2161,000	2671,500	2493,500	2545,000	2337,500	2317,500	2516,000	2541,500	2448,000
Wilcoxon W	8156,000	8666,500	8488,500	8540,000	3612,500	3592,500	3791,000	3816,500	3723,000
Z	-2,125	-,202	-,882	-,673	-1,464	-1,545	-,861	-,706	-1,119
Asymp. Sig. (2-tailed)	,034	,840	,378	,501	,143	,122	,389	,480	,263

a. Grouping Variable: Age

Mann-Whitney Test

Ranks

	Age	N	Mean Rank	Sum of Ranks
obj2	1	50	107,38	5369,00
	3	122	77,94	9509,00
	Total	172		
cont2	1	50	96,05	4802,50
	3	122	82,59	10075,50
	Total	172		
mat2	1	50	102,23	5111,50
	3	122	80,05	9766,50
	Total	172		
learnact2	1	50	106,37	5318,50
	3	122	78,36	9559,50
	Total	172		
teachstrat2	1	50	91,34	4567,00
	3	122	84,52	10311,00
	Total	172		
eva2	1	50	85,73	4286,50
	3	122	86,82	10591,50
	Total	172		
grp2	1	50	85,75	4287,50
	3	122	86,81	10590,50
	Total	172		
tm2	1	50	94,65	4732,50
	3	122	83,16	10145,50
	Total	172		
spc2	1	50	90,19	4509,50
	3	122	84,99	10368,50
	Total	172		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	2006,000	2572,500	2263,500	2056,500	2808,000	3011,500	3012,500	2642,500	2865,500
Wilcoxon W	9509,000	10075,500	9766,500	9559,500	10311,000	4286,500	4287,500	10145,500	10368,500
Z	-3,614	-1,643	-2,753	-3,395	-,851	-,134	-,144	-1,470	-,722

Asymp. Sig. (2-tailed)	,000	,100	,006	,001	,395	,893	,885	,142	,470

a. Grouping Variable: Age

Mann-Whitney Test

Ranks

	Age	N	Mean Rank	Sum of Ranks
obj2	1	50	55,51	2775,50
	4	44	38,40	1689,50
	Total	94		
cont2	1	50	50,24	2512,00
	4	44	44,39	1953,00
	Total	94		
mat2	1	50	51,44	2572,00
	4	44	43,02	1893,00
	Total	94		
learnact2	1	50	50,01	2500,50
	4	44	44,65	1964,50
	Total	94		
teachstrat2	1	50	47,61	2380,50
	4	44	47,38	2084,50
	Total	94		
eva2	1	50	46,40	2320,00
	4	44	48,75	2145,00
	Total	94		
grp2	1	50	49,27	2463,50
	4	44	45,49	2001,50
	Total	94		
tm2	1	50	50,13	2506,50
	4	44	44,51	1958,50
	Total	94		
spc2	1	50	48,70	2435,00
	4	44	46,14	2030,00
	Total	94		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	699,500	963,000	903,000	974,500	1094,500	1045,000	1011,500	968,500	1040,000
Wilcoxon W	1689,500	1953,000	1893,000	1964,500	2084,500	2320,000	2001,500	1958,500	2030,000
Z	-3,087	-1,056	-1,535	-,958	-,043	-,429	-,796	-1,043	-,523
Asymp. Sig. (2-tailed)	,002	,291	,125	,338	,966	,668	,426	,297	,601

a. Grouping Variable: Age

Mann-Whitney Test

Ranks

	Age	N	Mean Rank	Sum of Ranks
obj2	2	109	125,55	13684,50
	3	122	107,47	13111,50
	Total	231		
cont2	2	109	124,32	13550,50
	3	122	108,57	13245,50
	Total	231		
mat2	2	109	125,30	13657,50
	3	122	107,69	13138,50
	Total	231		
learnact2	2	109	132,28	14418,50
	3	122	101,45	12377,50
	Total	231		
teachstrat2	2	109	129,07	14068,50
	3	122	104,32	12727,50
	Total	231		
eva2	2	109	123,48	13459,00
	3	122	109,32	13337,00
	Total	231		
grp2	2	109	119,94	13073,00
	3	122	112,48	13723,00
	Total	231		
tm2	2	109	127,83	13933,00
	3	122	105,43	12863,00
	Total	231		
spc2	2	109	125,78	13710,00

	3	122	107,26	13086,00
	Total	231		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	5608,500	5742,500	5635,500	4874,500	5224,500	5834,000	6220,000	5360,000	5583,000
Wilcoxon W	13111,500	13245,500	13138,500	12377,500	12727,500	13337,000	13723,000	12863,000	13086,000
Z	-2,107	-1,824	-2,079	-3,541	-2,883	-1,645	-,945	-2,681	-2,347
Asymp. Sig. (2-tailed)	,035	,068	,038	,000	,004	,100	,345	,007	,019

a. Grouping Variable: Age

Mann-Whitney Test

Ranks

	Age	N	Mean Rank	Sum of Ranks
obj2	2	109	80,77	8803,50
	4	44	67,67	2977,50
	Total	153		
cont2	2	109	79,27	8640,50
	4	44	71,38	3140,50
	Total	153		
mat2	2	109	78,68	8576,00
	4	44	72,84	3205,00
	Total	153		
learnact2	2	109	78,19	8523,00
	4	44	74,05	3258,00
	Total	153		
teachstrat2	2	109	80,10	8731,00
	4	44	69,32	3050,00
	Total	153		
eva2	2	109	79,06	8617,00
	4	44	71,91	3164,00
	Total	153		
grp2	2	109	80,44	8767,50
	4	44	68,49	3013,50
	Total	153		

tm2	2	109	81,11	8840,50
	4	44	66,83	2940,50
	Total	153		
spc2	2	109	80,28	8751,00
	4	44	68,86	3030,00
	Total	153		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	1987,500	2150,500	2215,000	2268,000	2060,000	2174,000	2023,500	1950,500	2040,000
Wilcoxon W	2977,500	3140,500	3205,000	3258,000	3050,000	3164,000	3013,500	2940,500	3030,000
Z	-1,688	-1,015	-,761	-,528	-1,388	-,922	-1,698	-1,874	-1,581
Asymp. Sig. (2-tailed)	,091	,310	,447	,597	,165	,357	,090	,061	,114

a. Grouping Variable: Age

Mann-Whitney Test

Ranks

	Age	N	Mean Rank	Sum of Ranks
obj2	3	122	83,53	10190,50
	4	44	83,42	3670,50
	Total	166		
cont2	3	122	82,34	10045,00
	4	44	86,73	3816,00
	Total	166		
mat2	3	122	82,09	10014,50
	4	44	87,42	3846,50
	Total	166		
learnact2	3	122	79,42	9689,00
	4	44	94,82	4172,00
	Total	166		
teachstrat2	3	122	82,06	10011,50
	4	44	87,49	3849,50
	Total	166		
eva2	3	122	82,82	10104,50

	4	44	85,38	3756,50
	Total	166		
grp2	3	122	85,53	10434,50
	4	44	77,88	3426,50
	Total	166		
tm2	3	122	82,80	10101,00
	4	44	85,45	3760,00
	Total	166		
spc2	3	122	83,44	10179,50
	4	44	83,67	3681,50
	Total	166		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	2680,500	2542,000	2511,500	2186,000	2508,500	2601,500	2436,500	2598,000	2676,500
Wilcoxon W	3670,500	10045,000	10014,500	9689,000	10011,500	10104,500	3426,500	10101,000	10179,500
Z	-,013	-,531	-,665	-1,855	-,672	-,311	-1,051	-,339	-,032
Asymp. Sig. (2-tailed)	,989	,595	,506	,064	,502	,756	,293	,734	,974

a. Grouping Variable: Age

C) YEARS OF EXPERIENCE

Kruskal-Wallis Test

Test Statistics[a,b]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Chi-Square	12,809	4,013	20,794	11,747	4,435	1,803	2,733	4,029	2,964
df	4	4	4	4	4	4	4	4	4
Asymp. Sig.	,012	,404	,000	,019	,350	,772	,603	,402	,564

a. Kruskal Wallis Test

b. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
obj2	1	35	45,03	1576,00
	2	44	36,00	1584,00
	Total	79		
cont2	1	35	41,19	1441,50
	2	44	39,06	1718,50
	Total	79		
mat2	1	35	47,47	1661,50
	2	44	34,06	1498,50
	Total	79		
learnact2	1	35	44,24	1548,50
	2	44	36,63	1611,50
	Total	79		
teachstrat2	1	35	37,24	1303,50
	2	44	42,19	1856,50
	Total	79		
eva2	1	35	43,06	1507,00
	2	44	37,57	1653,00
	Total	79		
grp2	1	35	38,99	1364,50
	2	44	40,81	1795,50
	Total	79		
tm2	1	35	40,76	1426,50
	2	44	39,40	1733,50
	Total	79		
spc2	1	35	41,49	1452,00
	2	44	38,82	1708,00
	Total	79		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	594,000	728,500	508,500	621,500	673,500	663,000	734,500	743,500	718,000
Wilcoxon W	1584,000	1718,500	1498,500	1611,500	1303,500	1653,000	1364,500	1733,500	1708,000
Z	-1,768	-,416	-2,663	-1,479	-,970	-1,082	-,393	-,273	-,558

Asymp. Sig. (2-tailed)	,077	,677	,008	,139	,332	,279	,695	,785	,577

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
obj2	1	35	47,90	1676,50
	3	48	37,70	1809,50
	Total	83		
cont2	1	35	43,44	1520,50
	3	48	40,95	1965,50
	Total	83		
mat2	1	35	44,84	1569,50
	3	48	39,93	1916,50
	Total	83		
learnact2	1	35	46,67	1633,50
	3	48	38,59	1852,50
	Total	83		
teachstrat2	1	35	42,33	1481,50
	3	48	41,76	2004,50
	Total	83		
eva2	1	35	43,47	1521,50
	3	48	40,93	1964,50
	Total	83		
grp2	1	35	39,94	1398,00
	3	48	43,50	2088,00
	Total	83		
tm2	1	35	40,87	1430,50
	3	48	42,82	2055,50
	Total	83		
spc2	1	35	43,84	1534,50
	3	48	40,66	1951,50
	Total	83		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	633,500	789,500	740,500	676,500	828,500	788,500	768,000	800,500	775,500
Wilcoxon W	1809,500	1965,500	1916,500	1852,500	2004,500	1964,500	1398,000	1430,500	1951,500
Z	-1,933	-,474	-,937	-1,520	-,109	-,486	-,733	-,379	-,651
Asymp. Sig. (2-tailed)	,053	,635	,349	,129	,913	,627	,464	,705	,515

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
obj2	1	35	102,06	3572,00
	4	127	75,83	9631,00
	Total	162		
cont2	1	35	87,43	3060,00
	4	127	79,87	10143,00
	Total	162		
mat2	1	35	111,26	3894,00
	4	127	73,30	9309,00
	Total	162		
learnact2	1	35	102,99	3604,50
	4	127	75,58	9598,50
	Total	162		
teachstrat2	1	35	84,97	2974,00
	4	127	80,54	10229,00
	Total	162		
eva2	1	35	88,54	3099,00
	4	127	79,56	10104,00
	Total	162		
grp2	1	35	81,43	2850,00
	4	127	81,52	10353,00
	Total	162		
tm2	1	35	86,93	3042,50
	4	127	80,00	10160,50
	Total	162		

spc2	1	35	88,41	3094,50
	4	127	79,59	10108,50
	Total	162		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	1503,000	2015,000	1181,000	1470,500	2101,000	1976,000	2220,000	2032,500	1980,500
Wilcoxon W	9631,000	10143,000	9309,000	9598,500	10229,000	10104,000	2850,000	10160,500	10108,500
Z	-2,988	-,859	-4,406	-3,094	-,509	-1,029	-,012	-,819	-1,106
Asymp. Sig. (2-tailed)	,003	,390	,000	,002	,611	,304	,991	,413	,269

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
obj2	1	35	67,10	2348,50
	5	71	46,80	3322,50
	Total	106		
cont2	1	35	61,04	2136,50
	5	71	49,78	3534,50
	Total	106		
mat2	1	35	62,50	2187,50
	5	71	49,06	3483,50
	Total	106		
learnact2	1	35	62,46	2186,00
	5	71	49,08	3485,00
	Total	106		
teachstrat2	1	35	56,67	1983,50
	5	71	51,94	3687,50
	Total	106		
eva2	1	35	54,49	1907,00
	5	71	53,01	3764,00
	Total	106		

grp2	1	35	55,44	1940,50
	5	71	52,54	3730,50
	Total	106		
tm2	1	35	58,43	2045,00
	5	71	51,07	3626,00
	Total	106		
spc2	1	35	58,96	2063,50
	5	71	50,81	3607,50
	Total	106		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	766,500	978,500	927,500	929,000	1131,500	1208,000	1174,5	1070,0	1051,5
Wilcoxon W	3322,500	3534,500	3483,500	3485,000	3687,500	3764,000	3730,5	3626,0	3607,5
Z	-3,270	-1,813	-2,170	-2,123	-,773	-,237	-,538	-1,221	-1,479
Asymp. Sig. (2-tailed)	,001	,070	,030	,034	,440	,813	,590	,222	,139

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
obj2	2	44	47,39	2085,00
	3	48	45,69	2193,00
	Total	92		
cont2	2	44	46,85	2061,50
	3	48	46,18	2216,50
	Total	92		
mat2	2	44	43,06	1894,50
	3	48	49,66	2383,50
	Total	92		
learnact2	2	44	46,08	2027,50
	3	48	46,89	2250,50
	Total	92		
teachstrat2	2	44	49,56	2180,50

	3	48	43,70	2097,50
	Total	92		
eva2	2	44	44,56	1960,50
	3	48	48,28	2317,50
	Total	92		
grp2	2	44	45,56	2004,50
	3	48	47,36	2273,50
	Total	92		
tm2	2	44	44,56	1960,50
	3	48	48,28	2317,50
	Total	92		
spc2	2	44	47,08	2071,50
	3	48	45,97	2206,50
	Total	92		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	1017,000	1040,500	904,500	1037,500	921,500	970,500	1014,500	970,500	1030,500
Wilcoxon W	2193,000	2216,500	1894,500	2027,500	2097,500	1960,500	2004,500	1960,500	2206,500
Z	-,310	-,123	-1,218	-,146	-1,072	-,685	-,353	-,694	-,220
Asymp. Sig. (2-tailed)	,756	,902	,223	,884	,284	,493	,724	,487	,826

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
obj2	2	44	93,20	4101,00
	4	127	83,50	10605,00
	Total	171		
cont2	2	44	90,05	3962,00
	4	127	84,60	10744,00
	Total	171		
mat2	2	44	97,42	4286,50

	4	127	82,04	10419,50
	Total	171		
learnact2	2	44	98,63	4339,50
	4	127	81,63	10366,50
	Total	171		
teachstrat2	2	44	97,59	4294,00
	4	127	81,98	10412,00
	Total	171		
eva2	2	44	84,52	3719,00
	4	127	86,51	10987,00
	Total	171		
grp2	2	44	88,91	3912,00
	4	127	84,99	10794,00
	Total	171		
tm2	2	44	89,18	3924,00
	4	127	84,90	10782,00
	Total	171		
spc2	2	44	89,55	3940,00
	4	127	84,77	10766,00
	Total	171		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	2477,000	2616,000	2291,500	2238,500	2284,000	2729,000	2666,000	2654,000	2638,000
Wilcoxon W	10605,000	10744,000	10419,500	10366,500	10412,000	3719,000	10794,000	10782,000	10766,000
Z	-1,147	-,640	-1,861	-1,989	-1,846	-,236	-,511	-,525	-,618
Asymp. Sig. (2-tailed)	,251	,522	,063	,047	,065	,813	,609	,600	,537

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
obj2	2	44	64,40	2833,50
	5	71	54,04	3836,50

	Total	115		
cont2	2	44	63,74	2804,50
	5	71	54,44	3865,50
	Total	115		
mat2	2	44	58,13	2557,50
	5	71	57,92	4112,50
	Total	115		
learnact2	2	44	60,44	2659,50
	5	71	56,49	4010,50
	Total	115		
teachstrat2	2	44	65,43	2879,00
	5	71	53,39	3791,00
	Total	115		
eva2	2	44	54,65	2404,50
	5	71	60,08	4265,50
	Total	115		
grp2	2	44	61,97	2726,50
	5	71	55,54	3943,50
	Total	115		
tm2	2	44	61,66	2713,00
	5	71	55,73	3957,00
	Total	115		
spc2	2	44	61,94	2725,50
	5	71	55,56	3944,50
	Total	115		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	1280,500	1309,500	1556,500	1454,500	1235,000	1414,500	1387,500	1401,000	1388,500
Wilcoxon W	3836,500	3865,500	4112,500	4010,500	3791,000	2404,500	3943,500	3957,000	3944,500
Z	-1,667	-1,485	-,033	-,626	-1,934	-,872	-1,153	-,978	-1,142
Asymp. Sig. (2-tailed)	,095	,138	,974	,532	,053	,383	,249	,328	,253

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
obj2	3	48	92,56	4443,00
	4	127	86,28	10957,00
	Total	175		
cont2	3	48	89,81	4311,00
	4	127	87,31	11089,00
	Total	175		
mat2	3	48	104,08	4996,00
	4	127	81,92	10404,00
	Total	175		
learnact2	3	48	98,09	4708,50
	4	127	84,19	10691,50
	Total	175		
teachstrat2	3	48	90,39	4338,50
	4	127	87,10	11061,50
	Total	175		
eva2	3	48	91,69	4401,00
	4	127	86,61	10999,00
	Total	175		
grp2	3	48	93,49	4487,50
	4	127	85,93	10912,50
	Total	175		
tm2	3	48	96,44	4629,00
	4	127	84,81	10771,00
	Total	175		
spc2	3	48	90,54	4346,00
	4	127	87,04	11054,00
	Total	175		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	2829,000	2961,000	2276,000	2563,500	2933,500	2871,000	2784,500	2643,000	2926,000
Wilcoxon W	10957,000	11089,000	10404,000	10691,500	11061,500	10999,000	10912,500	10771,000	11054,000

Z	-,752	-,297	-2,701	-1,641	-,394	-,607	-,988	-1,425	-,459
Asymp. Sig. (2-tailed)	,452	,767	,007	,101	,693	,544	,323	,154	,647

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
obj2	3	48	64,99	3119,50
	5	71	56,63	4020,50
	Total	119		
cont2	3	48	64,86	3113,50
	5	71	56,71	4026,50
	Total	119		
mat2	3	48	63,51	3048,50
	5	71	57,63	4091,50
	Total	119		
learnact2	3	48	62,64	3006,50
	5	71	58,22	4133,50
	Total	119		
teachstrat2	3	48	62,77	3013,00
	5	71	58,13	4127,00
	Total	119		
eva2	3	48	59,34	2848,50
	5	71	60,44	4291,50
	Total	119		
grp2	3	48	65,35	3137,00
	5	71	56,38	4003,00
	Total	119		
tm2	3	48	66,76	3204,50
	5	71	55,43	3935,50
	Total	119		
spc2	3	48	63,54	3050,00
	5	71	57,61	4090,00
	Total	119		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	1464,500	1470,500	1535,500	1577,500	1571,000	1672,500	1447,000	1379,500	1534,000
Wilcoxon W	4020,500	4026,500	4091,500	4133,500	4127,000	2848,500	4003,000	3935,500	4090,000
Z	-1,341	-1,297	-,946	-,693	-,746	-,175	-1,576	-1,840	-1,057
Asymp. Sig. (2-tailed)	,180	,195	,344	,488	,456	,861	,115	,066	,290

a. Grouping Variable: Years of Experience

Mann-Whitney Test

Ranks

	Years of Experience	N	Mean Rank	Sum of Ranks
obj2	4	127	101,97	12950,00
	5	71	95,08	6751,00
	Total	198		
cont2	4	127	102,98	13079,00
	5	71	93,27	6622,00
	Total	198		
mat2	4	127	94,88	12050,00
	5	71	107,76	7651,00
	Total	198		
learnact2	4	127	96,55	12262,00
	5	71	104,77	7439,00
	Total	198		
teachstrat2	4	127	100,83	12805,50
	5	71	97,12	6895,50
	Total	198		
eva2	4	127	97,48	12380,00
	5	71	103,11	7321,00
	Total	198		
grp2	4	127	101,59	12902,00
	5	71	95,76	6799,00
	Total	198		
tm2	4	127	101,10	12839,50
	5	71	96,64	6861,50

	Total	198		
spc2	4	127	101,41	12879,00
	5	71	96,08	6822,00
	Total	198		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	4195,000	4066,000	3922,000	4134,000	4339,500	4252,000	4243,000	4305,500	4266,000
Wilcoxon W	6751,000	6622,000	12050,000	12262,000	6895,500	12380,000	6799,000	6861,500	6822,000
Z	-,839	-1,168	-1,594	-,983	-,452	-,682	-,796	-,560	-,726
Asymp. Sig. (2-tailed)	,402	,243	,111	,326	,651	,495	,426	,575	,468

a. Grouping Variable: Years of Experience

D) LOCATION OF SCHOOL

Mann-Whitney Test

Ranks

	Location of School	N	Mean Rank	Sum of Ranks
obj2	1,00	199	149,45	29740,50
	2,00	126	184,40	23234,50
	Total	325		
cont2	1,00	199	152,89	30424,50
	2,00	126	178,97	22550,50
	Total	325		
mat2	1,00	199	156,10	31064,50
	2,00	126	173,89	21910,50
	Total	325		
learnact2	1,00	199	153,71	30588,50

	2,00	126	177,67	22386,50
	Total	325		
teachstrat2	1,00	199	162,90	32418,00
	2,00	126	163,15	20557,00
	Total	325		
eva2	1,00	199	154,57	30759,00
	2,00	126	176,32	22216,00
	Total	325		
grp2	1,00	199	162,03	32243,50
	2,00	126	164,54	20731,50
	Total	325		
tm2	1,00	199	157,66	31374,00
	2,00	126	171,44	21601,00
	Total	325		
spc2	1,00	199	158,99	31640,00
	2,00	126	169,33	21335,00
	Total	325		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	9840,500	10524,500	11164,500	10688,500	12518,000	10859,000	12343,500	11474,000	11740,000
Wilcoxon W	29740,500	30424,500	31064,500	30588,500	32418,000	30759,000	32243,500	31374,000	31640,000
Z	-3,342	-2,483	-1,721	-2,262	-,024	-2,083	-,266	-1,354	-1,086
Asymp. Sig. (2-tailed)	,001	,013	,085	,024	,981	,037	,790	,176	,277

a. Grouping Variable: Location of School

E) SCHOOL SIZE

Kruskal-Wallis Test

Test Statistics[a,b]

	obj2	cont2	mat2	learnact2	teachstrat 2	eva2	grp2	tm2	spc2
Chi-Square	22,933	22,079	1,571	23,406	9,736	24,566	1,784	10,745	6,680
df	3	3	3	3	3	3	3	3	3
Asymp. Sig.	,000	,000	,666	,000	,021	,000	,618	,013	,083

a. Kruskal Wallis Test

b. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
obj2	Small School	94	109,91	10332,00
	Medium School	116	101,92	11823,00
	Total	210		
cont2	Small School	94	103,09	9690,50
	Medium School	116	107,45	12464,50
	Total	210		
mat2	Small School	94	109,97	10337,00
	Medium School	116	101,88	11818,00
	Total	210		
learnact2	Small School	94	105,44	9911,00
	Medium School	116	105,55	12244,00
	Total	210		
teachstrat2	Small School	94	111,05	10439,00
	Medium School	116	101,00	11716,00
	Total	210		
eva2	Small School	94	113,03	10624,50
	Medium School	116	99,40	11530,50
	Total	210		
grp2	Small School	94	105,40	9907,50
	Medium School	116	105,58	12247,50
	Total	210		
tm2	Small School	94	112,74	10597,50
	Medium School	116	99,63	11557,50

	Total	210		
spc2	Small School	94	104,52	9824,50
	Medium School	116	106,30	12330,50
	Total	210		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	5037,000	5225,500	5032,000	5446,000	4930,000	4744,500	5442,500	4771,500	5359,500
Wilcoxon W	11823,000	9690,500	11818,000	9911,000	11716,000	11530,500	9907,500	11557,500	9824,500
Z	-,964	-,525	-,990	-,014	-1,218	-1,647	-,025	-1,623	-,232
Asymp. Sig. (2-tailed)	,335	,599	,322	,989	,223	,100	,980	,105	,816

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
obj2	Small School	94	97,38	9153,50
	Large School	74	68,14	5042,50
	Total	168		
cont2	Small School	94	96,60	9080,00
	Large School	74	69,14	5116,00
	Total	168		
mat2	Small School	94	88,03	8274,50
	Large School	74	80,02	5921,50
	Total	168		
learnact2	Small School	94	98,38	9247,50
	Large School	74	66,87	4948,50
	Total	168		
teachstrat2	Small School	94	94,32	8866,50
	Large School	74	72,02	5329,50
	Total	168		
eva2	Small School	94	99,26	9330,00
	Large School	74	65,76	4866,00

	Total	168		
grp2	Small School	94	87,91	8264,00
	Large School	74	80,16	5932,00
	Total	168		
tm2	Small School	94	94,88	8918,50
	Large School	74	71,32	5277,50
	Total	168		
spc2	Small School	94	90,70	8526,00
	Large School	74	76,62	5670,00
	Total	168		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	2267,500	2341,000	3146,500	2173,500	2554,500	2091,000	3157,000	2502,500	2895,000
Wilcoxon W	5042,500	5116,000	5921,500	4948,500	5329,500	4866,000	5932,000	5277,500	5670,000
Z	-3,951	-3,727	-1,095	-4,220	-3,048	-4,569	-1,169	-3,262	-2,155
Asymp. Sig. (2-tailed)	,000	,000	,274	,000	,002	,000	,243	,001	,031

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
obj2	Small School	94	75,32	7080,50
	Very Large School	41	51,21	2099,50
	Total	135		
cont2	Small School	94	70,72	6648,00
	Very Large School	41	61,76	2532,00
	Total	135		
mat2	Small School	94	69,53	6535,50
	Very Large School	41	64,50	2644,50
	Total	135		
learnact2	Small School	94	72,14	6781,50

	Very Large School	41	58,50	2398,50
	Total	135		
teachstrat2	Small School	94	70,43	6620,00
	Very Large School	41	62,44	2560,00
	Total	135		
eva2	Small School	94	68,72	6459,50
	Very Large School	41	66,35	2720,50
	Total	135		
grp2	Small School	94	67,93	6385,50
	Very Large School	41	68,16	2794,50
	Total	135		
tm2	Small School	94	71,81	6750,00
	Very Large School	41	59,27	2430,00
	Total	135		
spc2	Small School	94	68,69	6456,50
	Very Large School	41	66,43	2723,50
	Total	135		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	1238,500	1671,000	1783,500	1537,500	1699,000	1859,500	1920,500	1569,000	1862,500
Wilcoxon W	2099,500	2532,000	2644,500	2398,500	2560,000	2720,500	6385,500	2430,000	2723,500
Z	-3,356	-1,247	-,709	-1,880	-1,116	-,329	-,035	-1,780	-,344
Asymp. Sig. (2-tailed)	,001	,212	,478	,060	,264	,742	,972	,075	,731

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
obj2	Medium School	116	105,42	12229,00
	Large School	74	79,95	5916,00
	Total	190		
cont2	Medium School	116	109,06	12651,00
	Large School	74	74,24	5494,00

	Total	190		
mat2	Medium School	116	96,78	11226,50
	Large School	74	93,49	6918,50
	Total	190		
learnact2	Medium School	116	108,62	12600,00
	Large School	74	74,93	5545,00
	Total	190		
teachstrat2	Medium School	116	102,02	11834,50
	Large School	74	85,28	6310,50
	Total	190		
eva2	Medium School	116	106,30	12331,00
	Large School	74	78,57	5814,00
	Total	190		
grp2	Medium School	116	98,63	11441,50
	Large School	74	90,59	6703,50
	Total	190		
tm2	Medium School	116	100,65	11675,00
	Large School	74	87,43	6470,00
	Total	190		
spc2	Medium School	116	102,47	11886,00
	Large School	74	84,58	6259,00
	Total	190		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	3141,000	2719,000	4143,500	2770,000	3535,500	3039,000	3928,500	3695,000	3484,000
Wilcoxon W	5916,000	5494,000	6918,500	5545,000	6310,500	5814,000	6703,500	6470,000	6259,000
Z	-3,201	-4,349	-,417	-4,171	-2,115	-3,513	-1,136	-1,720	-2,480
Asymp. Sig. (2-tailed)	,001	,000	,676	,000	,034	,000	,256	,085	,013

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

SchoolSize	N	Mean Rank	Sum of Ranks

obj2	Medium School	116	84,69	9824,00
	Very Large School	41	62,90	2579,00
	Total	157		
cont2	Medium School	116	83,03	9632,00
	Very Large School	41	67,59	2771,00
	Total	157		
mat2	Medium School	116	78,86	9148,00
	Very Large School	41	79,39	3255,00
	Total	157		
learnact2	Medium School	116	82,95	9622,00
	Very Large School	41	67,83	2781,00
	Total	157		
teachstrat2	Medium School	116	78,90	9152,00
	Very Large School	41	79,29	3251,00
	Total	157		
eva2	Medium School	116	76,82	8911,50
	Very Large School	41	85,16	3491,50
	Total	157		
grp2	Medium School	116	78,90	9152,50
	Very Large School	41	79,28	3250,50
	Total	157		
tm2	Medium School	116	80,28	9312,50
	Very Large School	41	75,38	3090,50
	Total	157		
spc2	Medium School	116	80,00	9280,00
	Very Large School	41	76,17	3123,00
	Total	157		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	1718,000	1910,000	2362,000	1920,000	2366,000	2125,500	2366,500	2229,500	2262,000
Wilcoxon W	2579,000	2771,000	9148,000	2781,000	9152,000	8911,500	9152,500	3090,500	3123,000
Z	-2,702	-1,899	-,066	-1,846	-,049	-1,030	-,052	-,629	-,510
Asymp. Sig. (2-tailed)	,007	,058	,947	,065	,961	,303	,959	,529	,610

a. Grouping Variable: SchoolSize

Mann-Whitney Test

Ranks

	SchoolSize	N	Mean Rank	Sum of Ranks
obj2	Large School	74	58,36	4318,50
	Very Large School	41	57,35	2351,50
	Total	115		
cont2	Large School	74	53,43	3953,50
	Very Large School	41	66,26	2716,50
	Total	115		
mat2	Large School	74	57,63	4264,50
	Very Large School	41	58,67	2405,50
	Total	115		
learnact2	Large School	74	54,20	4010,50
	Very Large School	41	64,87	2659,50
	Total	115		
teachstrat2	Large School	74	54,41	4026,50
	Very Large School	41	64,48	2643,50
	Total	115		
eva2	Large School	74	49,98	3698,50
	Very Large School	41	72,48	2971,50
	Total	115		
grp2	Large School	74	55,95	4140,50
	Very Large School	41	61,70	2529,50
	Total	115		
tm2	Large School	74	56,24	4161,50
	Very Large School	41	61,18	2508,50
	Total	115		
spc2	Large School	74	55,24	4087,50
	Very Large School	41	62,99	2582,50
	Total	115		

Test Statistics[a]

	obj2	cont2	mat2	learnact2	teachstrat2	eva2	grp2	tm2	spc2
Mann-Whitney U	1490,500	1178,500	1489,500	1235,500	1251,500	923,500	1365,500	1386,500	1312,500
Wilcoxon W	2351,500	3953,500	4264,500	4010,500	4026,500	3698,500	4140,500	4161,500	4087,500

Z	-,164	-2,057	-,167	-1,689	-1,624	-3,618	-1,011	-,823	-1,434
Asymp. Sig. (2-tailed)	,870	,040	,867	,091	,104	,000	,312	,411	,152

a. Grouping Variable: SchoolSize