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SOCIAL INEQUALITIES IN EDUCATION. THE CASE OF MATH WOMEN TEACHERS IN ISRAEL

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Introduction

Equal opportunities in education for both genders means the creation of an educational-cultural environment and an educational climate that guarantees, not only at the level of the statement but also in practice, equal access to diverse educational experiences and encouragement and promotion of male and female students according to their qualifications, skills and personal adjustment, in a matter-of-fact and non-stereotypical manner. This is a true egalitarian concept. This is a concept that also has behavioral expressions and not only declarative expressions. This is a concept that obliges all partners in the action to develop the personal potential of each male and female student, to be careful to provide compensation according to an objective index, a concept that guides the male and female students to check diverse options in education, in acquiring a profession and career, from an egalitarian approach - an approach disconnected from irrelevant expectations. Equal opportunity education is a commitment to creating equal opportunities for self-realization and personal achievements that match the students' abilities and aspirations (Ministry of Education, (2007)).

Observations have shown that teachers tend to show a different attitude towards boys and girls in the classroom (allocation of different time for boys and girls, different management of discourse, for example using more sensitive and forgiving expressions towards girls and more encouraging language towards boys, giving different feedback, etc.), in educational institutions in Israel and in other countries More boys study in realism majors and girls study in spiritual and social majors (the choice of subject in high school is known to have an effect on the choice of the field of higher studies and on integration into the labor market in the future), also in the textbooks various gender biases were found (gaps between the rate of appearance of male characters and the rate of appearance of female characters , stereotypical representation of women and men and more) (Oxenberg, S(2020)).

In recent years, the Ministry of Education, through the Unit for Gender and Gender Equality, has been working to inculcate the principles of gender equality in schools with the

aim of fostering in them an egalitarian learning environment that transmits egalitarian messages, fostering humanistic values devoid of gender stereotypes. The school is not cut off from the near and far social environment, from the community, and its effects on it. This creates many possibilities and challenges for the promotion of gender equality. A school is not only affected, but also influences its environment. To this end, the school must receive broad support in order to influence and influence the environment correctly (Ministry of Education, (2007)).

Gaps between women and men have existed since time immemorial in the entire world and in fact it is evident that no country in the world has closed the gender gap between women and men until its end. The daily reality of women shows that they are severely underrepresented in decision-making centers, they face barriers to equality in the family and at work, and they are exposed to discrimination, segregation and violence (including in the private and public sphere). The issue of gender inequality existed even before the current corona crisis in which we are to this day.

A time of crisis, both health and economic (corona crisis in the world), reflects the gender inequality that already exists in society and may even intensify it. Accordingly, there is a unique vulnerability for women, who make up half of the population, if not more (Oxenberg, S(2020)) .

In our world today, in 2023, when the period of the outbreak of the corona disease has been forgotten on the one hand and on the other hand there are reports from China that in the last month about 60,000 people died from the disease (and it is clear that the number is much larger) already started to warn about the gender consequences of the corona. Gender aspects must be included in the management of the current crisis**.**

In a reality where women are still responsible for the work of caring for the family and the home and because of this their status in the labor market is considered less (they earn less, work more in part-time jobs and in sectors lacking job security) women are the first to lose their jobs. At the same time, they carry an increased burden of child care , in adults and other supported persons when state institutions are closed or suffer cutbacks. Another

concern is the increase in gender and sexual violence against women in times of crisis. Various countries report an increase of over 25% in reports of gender and sexual violence (Ministry of labor, (2022)).

Data from around the world show that women make up 70% of the workers in the health and welfare professions and in the OECD countries 90% of the nursing workforce, which means that they are on the front line to deal with the health crisis and there is a serious concern about the ability to protect them and the ability to respond to their unique needs. In Israel - the situation is similar. Women constitute an absolute majority among the nursing workforce - up to 80% (World health, (2022)).

From previous economic crises that hit the world, it can be learned that the steps taken to balance society and the economy had a disproportionate effect on women compared to men, and accordingly, gender thinking should be incorporated already in the steps taken to deal with the crisis and the reconstruction plans after it.

It is important to note that the crisis has two sides (from the gender aspect) - the first is the potential for serious harm to women and the erosion of important achievements that have already been achieved to promote gender equality and the second is an opportunity to use gender equality to strengthen society as a whole. Assimilation of gender thinking does not mean protecting women only, this is not a policy designed solely to take care of women. Many studies done in recent years show the enormous importance that gender equality has for strengthening socio-economic resilience and prosperity. The optimal integration of women in the economic field has a direct effect on the promotion of education and health in society, on the business success of companies and on the growth of the national product. Maintaining the involvement of women and ensuring their advancement is critical to dealing with a crisis and especially to the process of rebuilding the country after it and preventing future crises (Oxenberg, S (2020)).

In the framework of my position, I encountered differences of attitudes of mathematics teachers to boys and to girls. Gender Equality is not only shared learning. I decided to examine whether the mathematics teachers arrive in the classroom with the prejudices that exist in society and whether their attitudes are accordingly and perhaps even contribute to the self-fulfilling prophecy. Mathematics teachers have different expectations from boys and girls and address them differently, according to their traditional opinions.

I decided to examine the attitudes of the women mathematics teachers to boys and to girls in the elementary school. A total of 40 mathematics teachers will participate in my research. I will interview them, in the attempt to learn about their approach. I will be careful to interview mathematics teachers, teachers from different schools, teachers who teach different age groups in the elementary school, teachers who specialize in different areas of knowledge – all to examine whether there is a difference in the attitude of the women mathematics teachers to boys and to girls, in the context of their abilities and predispositions to learn math. In addition to the personal interviews, I will pass on a questionnaire that deals with the teachers' expectations of boys and girls and how they relate to them in the lessons. The tools in the research are interviews and questionnaires. I will interview the teachers, give them a questionnaire and learn about their approach in combining the data I will receive.

The research questions will address to the opinions of women math teachers towards boys and girl's abilities and predispositions to learn math, as well as to the way that the teachers' attitudes are reflected in daily school life. In addition, the research seeks to discover the social-cultural contexts of the teachers attitudes towards boys and girls' abilities and predispositions to learn math.

I believe that if I discover that there is indeed a different attitude of the women mathematics teachers to boys and to girls, then I can understand its significance as a self-fulfilling prophecy and can propose an intervention program that will attempt to prevent or to reduce this behavior. If I do not discover a different attitude, then I can assume that if there are gender differences in knowledge and achievements, if there are gender different conducts and different choices, then they are not caused by the mathematics teacher's attitude.

In this work I will present the equality between the genders (starting with a historical overview, sex vs. gender, the differences between the genders - including the achievement gap and the social perception), I will continue with the presentation of gender in the schools (the education system as a social mirror, the gap between the genders, the gender construction, the social perception and factors that shape the gap gender), I will refer to the gendered teaching of mathematics in the elementary schools in Israel (the teaching of mathematics in Israel, the differences between boys and girls regarding the learning of mathematics, girls and mathematics, social models for the differences between the genders, gendered teaching of mathematics and the teaching of women who constitute the absolute majority among educators), I will deal In the gender issues in Israel (starting with gender equality in Israeli society, the education system in Israel, gender stereotypes in the education system in Israel and gender aspects in the education system), I will present the research methodology - the theory, the methods involved, the objectivity of the research, the research process, the subject of distance and the destination. Also, the research hypothesis, the research questions, the research population, the tools - the interviews and questionnaires, reliability, validity and methods of action, I will present the research result, discussion, analysis and conclusions, a proposal for further research and references and in the last step I will present the appendices to the work.

Chapter 1: Gender Equality

1.1 Looking at the Past – A Historical Review

The study of the differences between genders began many years ago. In the year 1883 research was published on the topic of the differences between genders, in which different physical and mental traits were examined. Galton (1883) was the first to investigate the differences between genders. However, as noted by Malach-Pines (1997), his attitudes and ideology contributed to the interpretation of his findings, which were not objective. The assumption that the psychological differences between genders are a natural outcome of the biological differences between them and that the differences between genders have an important role in the preservation of the human species and in its development, had existed from the middle of the 19th century (Malach-Pines, 1997).

Gender different behaviors developed through social learning. Gender different behavior is not biologically based. If we will look at the testosterone and the male propensity to violence: There is evidence from animals that castrated monkeys became less aggressive and evidence about female monkey given testosterone became more aggressive. Furthermore, between monkeys given opportunities to be dominate the testosterone level increased. Aggressive behavior increases the testosterone in both genders more than the testosterone increase the aggression (Giddens, 1993). There is evidence from humans about the effects of socialization: Babies raised like males developed male identity, male behavior and male attitude and babies grown to be female developed female identity, female attitude and female behavior (Giddens, 1993). According to giddens,1993 if there are biological influences on man's and women's different behaviors, they have not yet identified.

The research study on the topic advanced with the development of intelligence tests and ability tests. The prevailing perception was that there is no difference between the genders on the level of general intelligence. Already in the year 1941 the startling claim was made that a minority of women working as professionals constitutes a waste of abilities and the women surrender their professional aspirations and dedicate themselves to their husband, to the home, and to the children for reasons of motivation and limitations – and not lack of ability (Malach-Pines, 1997). In addition, the women liberation movement that acted in the 1960's contributed

to the discourse about women abilities and the questions of gender differences. As a result, changes regarding the public's perceptions of male and female roles started to happen (Connell, 1993).

In the past, many perceptions pertaining to differences between genders were not established (Maccoby & Jacklin, 1974). In the 1980s, meta-analysis was developed. This method enabled the researcher to integrate the findings of all the research studies, which were conducted on a certain topic, and to determine the meaning of all the findings together. This method contributed significantly to the study of the differences between genders and the refutation of prejudices that prevailed for a long time (Malach-Pines, 1997).

Later on, in the 1990s, many studies on gender differences were conducted, amongst ones that checked for differences in the educational system and specifically in mathematics and science achievement. Such reports stated that girls suffer from educational disadvantages. In addition, it was published that girls suffer from a psychological damage and educational neglect, findings that was related to higher percentages of eating disorders, depression, lower self-esteem, achievement gaps in math and science, and fewer positive comments from teachers. This led to school interventions that aimed to regulate these differences (Weaver-Hightower, 2003). Many years have passed since then and not much has changed. a social gap between boys and girls exists. The social gap between the genders is not narrowing (Giddens, 1993).

1.2 Sex vs. Gender – The Phenomenon of Sexism

The term sex notes the biological differences between male and female, while the term gender notes the cultural-social differences between men and women. The use of the term gender reflects the argument that inequality between male and female does not derive from biological differences and is not natural but is a product of social constructs that give them existence. The society is what shapes the boy and the girl towards their masculine or feminine roles. In educational sociology this process is called socialization for gender roles. This process begins in the period of childhood and lasts for years, during which abilities, traits, behaviors, and self-image are acquired according to the prevailing stereotypes (Lior & Man, 2001). It is important to emphasize that physical differences between boys and girls called sex and

psychological, social and cultural differences between them called gender and this is a fundamental distinction that focuses and sharpens whether the differences essence biological or social differences? (Giddens, 1993).

The concept of sex addresses the biological and physical differences alone and their relationship to the process of biological acculturation. The concept of gender represents a social-cultural-economic distinction that relies on the biological differences such as differences of behavior and personality, differences of occupations, differences of roles at work and in the family. According to the concept of gender, the source of the differences between male and female is social structures and not the biological nature and hence there is the recognition of the possibility of coping with the results of these differences (Shlasky, 2000). The use of the concept of gender is created from the need to draw a distinction between male and female, which indicates biological differences between male and female, and gender, which indicates social and cultural differences. In the past, there was reference to differences between male and female from a biological viewpoint. Over the years, this perception changed when the strengthening perception is that most of the behavioral differences are not innate. The concept of gender is used for social reference to the topic of masculinity and femininity (Shechter & Mimoni, 2002). Sex refers to physical differences of the body and gender refers to the psychological, social and culture differences. There is a gender learning before a child can call himself or herself a girl or a boy and it called gender awareness. A gender awareness means to know your gender, to know that the gender is not going to change and to know that everyone have a gender and the differences between boys and girls are anatomic based (Giddens, 1993).

Sexism means the differentiated attitude towards people on the basis of their sex. This word is like racism, and includes the meaning of an approach that discriminates between men and women on the background of their sex. Gender stereotypes are habitual, rigid, and comprehensive thinking patterns that attribute to the man or the woman typical characteristics and personal and behavioral traits of those of their biological sex (Shechter & Mimoni, 2002).

People do not constitute a homogenous group, but rather are a wide range of people who cope with a given gender social order. The concepts of ‘sex’ and ‘gender’ have different meaning.

‘Sex’ addresses the biological aspect, male or female, while ‘gender’ addresses the psychological, sociological, and cultural aspects and definitions that influence our insight regarding the meaning of being a man or a woman. More so, when exploring a research question, many studies tend to check for gender differences regarding the main results in order reach more accurate conclusions (Englar-Carlson, 2006). The last results that are found in studies are reflecting the society in which we live in, one that is influenced by people's beliefs. Perceptions and values of masculinity are beliefs and social conventions about the different roles, traits, and characteristics of boys, lads, and men, including the roles, traits, and characteristics from which they must distance themselves. These perceptions create images and expectations regarding what is called ‘masculine’ or ‘feminine’ and they exist in two dimensions: the first dimension pertains to roles while the second dimension pertains to traits and behaviors on the basis of which men and women need to act (Levy, 1990). These perceptions and values, which are an entire constellation of behaviors, obligations, and expectations, shape the gender roles attributed to men and women in a given society.

Furthermore, the gender roles are behavioral scripts for men and women, which are expressed in the attitude towards the other gender. The focus in the life of men is not on the fact that they are male in biological terms but rather on the fact that they must become men through the adoption of stereotypes and roles perceived as male in a given society. The gender is male, but the male identity develops in a complex process of interactions with the male culture (Kimmel & Messsner, 1998).

Connell (1995) coined the concept of ‘hegemonic masculinity’, which means masculinity that is preferred and esteemed by most men in Western society. This masculinity includes traits such as independence, risk-taking, aggressiveness, rationalism, and heterosexuality.

According to Eisler (1995), the internalization of the schema of the gender roles among men may influence their behavior and their sense of personal wellbeing. Men who rebel against the schema of the male gender roles tend to be hurt more than other men, and therefore the pressure of masculinity acts more brutally towards boys than towards girls who attempt to disrupt the existing gender order. Boys who attempt to cross the ‘gender lines’ will more frequently experience social, group, family, or interpersonal sanctions. These sanctions

include name-calling, such as ‘homo’ or ‘girl’, humiliations, and violence. This is one of the reasons for the prewritten behavioral scripts and in essence for the prevailing ‘hegemonic masculinity’. we saw the hegemonic masculinity in books and stories, in television, at schools and in the peer-group influence (Giddens,1993). In our study we will meet data that reflect how in 2021 - the situation has not changed enough and the ‘hegemonic masculinity’ is still exist is society and at school.

1.4 Masculine Ideology

The concept of ‘masculine ideology’ addresses the internalization of cultural beliefs and perceptions regarding masculinity and gender roles, the roots of which lie in the structure of the relations between the two genders. The ideology of masculinity glorifies the patriarchal perception, which sees men to be the dominant and aggressive as opposed to the women who are supposed to adopt other behaviors (Englar-Carlson, 2006).

The two most cited models regarding traditional masculine ideology are the model of Brannon (1976), called "Blueprint for Manhood", and the model of O’Neill (1982), called "the Masculine Mystique". Brannon (1976) identified four narratives that define the basic expectations of the masculine gender roles in Western society.

1. No sissy. The expectation that men will avoid any expression or stereotype related to behavior with a feminine connotation, including homosexual behavior and the expression of emotions and sensitivity.
2. Big wheel. The expectation that men will see to the economic security and wellbeing, that they will be esteemed and respected in their environment, and that they will evince knowledge and ability.
3. Sturdy Oak. The expectation that men will express mental, emotional, and physical rigidity and self-confidence, will depend only on themselves, and will fight for their principles to the very end. This expectation includes behavior devoid of emotions of weakness or vulnerability.
4. Give ‘em Hell. The expectation that men will take risks and will display violent behavior when necessary. This expectation includes the need to conquer, to defend, or to object, at any cost. One of the implications of this expectation is the multiplicity of destructive and hurtful

behaviors in which men are involved, both towards themselves and towards those around them.

According to Brannon (1976), most men cannot meet all the expectations of ideal masculinity, as presented by the culture. However, for the most part men want to be similar to it.

The Model of Masculine Mystique (O'Neill, 1982) defines masculine stereotypes that lead to pressure and lack of performance. According to O'Neill, men are raised for perceptions of independence and achievement, the avoidance of all perceived as feminine or homosexual, and the repression of emotions. In his opinion, rigid stereotypes regarding masculinity in Western culture encourage men to disconnect from their emotions and to aspire to achievements, status, and supremacy in interpersonal relations. The internalization of these values develops problems among men – problems of 'pressure of gender roles', as denoted by Pollak (1995). He asserts that anti-feminism is a main narrative that encourages boys not to express their emotions and to develop homophobia, which includes every type of intimate closeness among themselves and the fear to be considered or seen as homosexual. Even sensitive men frequently express rigidness, control, and heterosexual desires in the company of other men.

According to Connell (1995), gender is a social construct and not a reflection of human biology. Although this is a construct that addresses and is organized according to human reproduction, Connell maintains that under the seemingly boring cover of education there are strong and complicated dynamics at work of the excessively privileged. Her main research in the field addresses the topic of social justice. Connell showed how inequality in education operates and published a book on the topic (Connell, Ashenden, Kessler & Dowsett, 1982). In her opinion, the educational system itself is a massive and powerful social institution that is subject to constant changes. There are those with excess privileges and there are those with little ability. In the past, the perpetuation of inequality was undertaken openly and intentionally: the school systems were created according to status, gender, and race. Today this is covert, through the construction of curricula, through financing, and so on. She holds that schools construct masculinity through discipline, sports, and the curriculum. schools and peer groups are both influence gender differences (Giddens, 1993). Despite the progress over

the years and the many changes that the world has been going through, we are still in a similar place - the place where schools and peer groups dictate and influence the gender differences.

1.5 The Achievement Gap between genders

(Intellectual Gap (Spatial Ability, Mathematical Ability, Verbal Ability)

In the past arguments were voiced about intellectual differences between women and men. Many research studies were dedicated to the investigation of this issue. The research studies show that when standard tests are used to measure intelligence, there is no difference between the mean of scores achieved by the men and the mean of the scores achieved by the women (Malach-Pines, 1997).

Is the distribution of the scores of the men and the women in the intelligence tests different? An argument states that a greater number of men are found at the extremes of intelligence, while a greater number of women are found in the middle. This argument about the distribution exists until today. A sufficient number of research studies to answer this question have not been conducted (Malach-Pines, 1997).

Is the argument that women and men are different in their specific intellectual abilities correct? On the question of the differences in the specific intellectual abilities, it is necessary to separate and look at the spatial ability, the mathematical ability, and the verbal ability, where differences are found between men and women (Maccoby & Jacklin, 1974).

Spatial ability. Analysis of many research studies on the topic indicate that in most of the studies a difference between genders was not found and where a difference was found, the differences are minor. Moreover, the differences in the measures of the spatial ability steadily decreased between the years 1947 and 1980, thus indicating that the tendency of these differences to vanish (Feingold, 1988).

There are biological explanations of the differences in the spatial ability, and there are in parallel environmental influences on the development of this ability. The biological and environmental explanations are entwined in one another. There are number of factors in the

environment that may influence the acquisition of spatial skills, including previous interaction between children and parents (encouragement according to the child's gender), different games according to the child's gender, and adjustment of behavior at the age of the elementary school to behavior that is typical of members of this gender, when the pressure to behave increase during adolescence. The aspects of socialization of boys and girls influence the development of the differences between women and men in the spatial ability. These aspects of socialization do not negate the possibility that there are innate biological factors that also contribute to the differences.

Mathematical ability. The results of research studies indicated that there are factors that influence the difference between boys and girls in the mathematical achievements (Fennema & Sherman, 1977). The factors included teacher's attitudes, parent's attitudes, and informal mathematical experience influencing the boys higher achievements (Astin, 1974).

Male and female students who learn together in the same class reading and mathematics do not receive equal instruction from the teachers (Leinhardt, Seewald, & Engel, 1979). The teachers spend more time teaching mathematics to the boys and more time cultivating reading among the girls. In turn, the parent's beliefs of their child's mathematical ability are influences by the teacher's ratings of the child's math ability in addition to the influence of the child's previous performance. Furthermore, the beliefs of the parents and those of the child influence each other in a reciprocal manner. Studies show that girls hold more negative attitudes toward mathematics, which they develop in response to other's perceptions (Gunderson, Ramirez, Levine, & Beilock, 2012; Tiedemann, 2000). An analysis of the topic (Hyde & Lamon, 1990) found that the gap between the women's performances and the men's performances in mathematical tasks is slightly and negligibly advantageous for the women. The gap in the general mathematical ability steadily declined over the years. The differences between genders in mathematical performance are minimal.

In another meta-analysis study (Lindberg, Hyde, Petersen, & Linn, 2010) of gender differences in mathematics performance, data from 242 studies in the U.S. was analyzed. The findings supported the view that males and females perform similarly in mathematics. The

analysis showed that there were almost no gender differences in elementary and middle school, and small effects in favor of males in high school.

In Israel, too, the differences between the genders in cognitive abilities were examined (Kahan & Genor, 1993). It was found that the differences found in the past lessened over the past twenty years. Of the three abilities, verbal, spatial, and mathematical, a small gap was found only in the mathematical ability, in favor of the boys. The gap was explained in part by the researchers by the fact that girls take fewer risks in guessing when they do not know the response.

Verbal ability. In the past, the difference between genders in the verbal ability was considered a fact. There was general agreement that women are better than men in this field. Research found that there are no differences between men and women in the field of verbal ability, at least not in American culture, where the analysis was performed (Hyde & Lin, 1988).

The gaps between genders in the performance are steadily disappearing over the years, apparently because of changes that are occurring in the performances of genders.

In the field of the intellectual differences between the genders, there are two main approaches. According to the first approach, people are born with special abilities and each one of the genders is gifted biologically with functioning ability different from that of the other gender. According to the second approach, the main influences on intellectual functioning ability derive from environmental influences, when the parents and the teachers influence us. According to this approach, the social environmental influences are exerted on us differently if we are born male or female. In other words, the approach says that there are social-environmental influences exerted on us differently because of our gender.

To conclude, the assumption is that in the intellectual realm as in the other areas people are influenced both by heredity and by environment. The exact ratio between the two is still not known.

According to Brizendine (2008), “More than 99% of the genetic code of women and men is completely identical. In the human genome, there are thirty thousand genes, and the difference of less than one percent between genders is small, but this small difference influences each

and every cell of our body – from the nerves that receive pleasure and pain to the nerve cells that transmit perception, thoughts, emotions, and feelings" (p. 21).

Brizendine (2008) notes that the man's brain is not identical to the woman's brain. The man's brain is 9% larger than the woman's brain and this is the explanation why the scientists in the 19th century interpreted this fact as evidence of lower intellectual abilities among women. Women and men have an identical number of brain cells, namely, among women the cells are denser and closer in the smaller skull. The woman's brain and the man's brain operate in different ways. The operation systems of the female brain and the male brain will undertake identical performances but in different ways.

According to Brizendine (2008), the average level of intelligence of men and women is similar, but frequently an erroneous interpretation is given and the impression is created that in certain areas, such as mathematics and sciences, women are less talented than men are. The woman's brain is a sophisticated and accurate device. Women frequently make value-based decisions regarding their future behavior. They act differently from men not since they are not as talented as men are but since they made a decision about certain behavior, about the way in which they are interested in going, about a certain goal they are interested in achieving. Frequently women are not found in a certain role since they chose not to be there.

Furthermore, there is no brain suited to members of both genders. Girls are born when they are programmed to be girls, and boys are born when they are programmed to be boys. The brains are different from one another at the moment of birth, and they move the reality. In the past, we thought that our culture created gender. We were taught that the differences between people derive from the way in which the parents raised them, as boys or girls. Today, it is known that this perception is not accurate. In the beginning of development, the fetal brain is identical for members of both genders but already in the eighth week of fetal development a change begins (Brizendine, 2008).

According to Brizendine (2008), nature is the strongest factor in the determination of behaviors unique to the gender, but practical experience and reciprocal relations with others contribute to the change. We, as parents, respond to our child's preferences. The circle continues. Children learn in this way the characteristics of their gender. Moreover, the adult's

expectations about the behavior of boys and girls fill an important role in the shaping of the brain paths.

In conclusion, the first organizing principle of the brain is genes and hormones. The continuation of the shaping of the brain derives from our reciprocal relationships with other people and the environment, and therefore the child's development is a combined outcome of heredity and environment.

1.6 Attribution of Causes for Success and Failure

One of the most prominent differences in Western society is the gap between the achievements of the men and the achievements of the women in the fields of work and studies. The explanations given to the phenomenon (Malach-Pines, 1997):

1. Need of achievement
2. Fear of failure
3. Fear of success
4. Attribution of success and failure

The four explanations given to the phenomenon are very important since we encounter them daily in the classrooms. The *need of achievement* is the aspiration to achieve something of value or importance through the investment of effort and the meeting of standards of success. This motive has two main components. The first component is the aspiration to achieve success, and the second component is the aspiration to avoid failure. The need to succeed and the fear of failure are what determine the direction, intensity, and consistency of behavior. A strong tendency to avoid failure delays coping, while a strong tendency to succeed increases coping. The dominance of every component is different from one person to another person and changes in the person himself in different situations. The components of the aspiration to succeed and the fear of failure are also influenced by factors such as the evaluation of the chances of success or failure in the task of the evaluation of the rewards that are expected to follow (Malach-Pines, 1997).

A historical review of researches on the need of achievement reveals that the need of achievement of women is lower than that of men. In addition, a relation was not found between the motive of achievement of women and their achievements in the studies, as opposed to a relation that was found among men. A low need of achievement among women can explain the lower achievements of women in the workplace (Malach-Pines, 1997).

The differences between genders in the need of achievement depend on the situation and conditions in which it is measured (Hyde, 1991). The situations of competition and challenge awaken the need of achievement among men and repress it among women (Hoffman, 1972).

It is interesting to discover that the results of the research studies that summarize twenty years of research in the field of the differences between genders indicate that there is no real difference between genders in the need of achievement. Namely, the social changes that occurred had an influence on the need of achievement of women (Kahn & Yoder, 1989).

The fear of failure is the tendency to feel shame following failure in the achievement of the goal. It is considered a factor that inhibits people regarding the engagement in achievement activity (Malach-Pines, 1997).

The examination of the fear of failure found that the scores of girls and women were higher than those of boys and men and that the differences increase with age. Fear of failure is one of the factors of the low achievement of women (Maccobby & Jacklin, 1974). It is important to note that although the fear of the women of failure is higher than that of men, men pay a higher price for failure, since the esteem felt for a man who has failed is lower than that felt for a woman who has failed (Fogel & Paludi, 1984).

The fear of success, a completely illogical component, is the response of the certain system of the environment conditions. The fear expresses assessment of a situation in which the success can grow negative outcomes (Horner, 1972). According to Horner, not only failure but also the uncertain results of success awaken fear. The uncertain outcomes of success may result in fear, reluctance, and avoidance of achievement behavior. Women expect negative results of success more than do men.

Members of the two genders express fear of success when this is a role that deviates from the accepted and prevalent gender image in society (Malach-Pines, 1997).

Research studies that summarize twenty years of research in the field of the differences between the genders indicate that there is no real difference between the genders in the motive of achievement. Namely, the social changes that occurred had an impact on the women's motive of achievement (Kahn & Yoder, 1989). The fear of failure is considered a factor that inhibits people from engaging in achievement activity. Anxiety of failure is one of the factors of women's low achievement (Maccoby & Jacklin, 1974).

The attribution of reasons for success and failure means that the perception of people regarding the reasons that led to success or failure facilitates the prediction of achievement behavior, or in other words, influences the choice of the activities they will perform in the future (Deaux, White, & Farris, 1975).

Thus, the reasons, according to the causal attribution theory, can be summarized as follows:

The attribution of reasons for success and failure[1]

ternal causes of success	bility and effort
xternal causes of success	elp, luck, and difficulty of the role
able causes of success	bility
ariable causes of success	ffort or luck
auses under the individual's control	ffort
auses not under the individual's control	ifficulty of the task

According to the causal attribution theory (Deaux, White, & Farris, 1975).[1]

Men and women differ in the pattern of explanation that they attribute to their successes or failures. In general, men attribute to themselves the successes and blame outside factors for the failures (Mednick & Weissman, 1975; Witting, 1985).

Women explain differently. Women tend to explain successes with an outside cause. The women tend to explain failures with a stable cause. The difference between the genders in the prediction of the successes and explanations is a prominent finding and is not influenced by the degree of success in the task (Deaux, 1976; Frieze, Whitley, Hanuba, & Mchugh, 1982).

Women attribute their success to luck more than men, and men attribute their success to ability more than do women. Women see themselves as less skilled than do men and take on less personal responsibility for their achievements than for their failures. The difference between the genders in the prediction of successes and their explanations is a prominent finding and it is not influenced by the degree of success in the task.

According to Frieze et al. (1982), women explain differently. Women tend to explain successes with outside reason, for instance, good luck or an easy task and hold on to a changing reason, such as effort, and not a stable reason, such as ability or in essence in ability. According to Deaux and Emswiller (1974), the attribution of reasons for success and failure is identical when reasons for success and failure are examined among others. In this case, too, both men and women evaluate that men succeed because of ability and women succeed bcause of luck. The attribution of causes for success and failure is identical when causes of success and failure among others are examined (Deaux & Emswiller, 1974).

What about future expectations? In the examination of future expectations, men predict for themselves higher success than women predict for themselves. Since men have higher expectations than do women to succeed and greater self-confidence in the prediction of the future success, they may take more risks than women do so as to realize these expectations (Ryjin & Herrold, 1989; Vollmer, 1986).

The risk gives men greater experience and increases the chance that they will indeed achieve their goal. Women, in contrast, are not certain in their ability to succeed and therefore they may forego the effort ahead of time. In this way, they lose their chance to succeed and a

wonderful opportunity to undertake risks. These differences in the prediction of success influence the program of professional development.

It is interesting that although men predict for themselves greater success than women predict, a difference was not found between the real levels of achievement of members of both genders (Ryjin & Herrold, 1989; Wallace & Richardson, 1984).

It is also interesting that the higher esteem of the men succeeds in predicting the level of performance, while the lower esteem of the women does not succeed in predicting the level of performance, so that in essence the difference between genders is not the difference in performance but the reference to it.

The attitude of men to their achievement tends to be positive, while the attitude of women to their achievements tends to be negative (Block, 1984). The explanation lies in the cycle of low expectations. Women have low expectations. The success of women entails an expectation of different negative outcomes. Both the success and the failure do not result in them in expectations of higher outcomes in the future, since the explanation for success are unstable outside reasons, while the explanation for failure is stable internal reasons. Therefore, even when women experience success they have an expectation for negative outcomes. Among women, there is the fear that the success will be perceived by the men as a threat. There is the fear that the success will be accompanied by problems in dealing with the home or the family and with other additional conflicts.

The explanation lies in the circle of low expectations (Frieze et al., 1982). It was interesting to discover that women take into consideration the price of success, for instance, jealousy, hostility, and so on (Kipnis, 1974; Veroff, Mcclelland, & Ruhland, 1975).

In the world there are social norms. The social norms dictate rules of behavior. The rules of behavior for women differ from the rules of behavior for men (Frieze et al., 1982; Vaughter, Gubernick, Matassian, & Haslett, 1974). For instance, women hesitate to attribute success to their abilities following an existing social norm according to which women are supposed to lessen their achievement in contrast to another social norm that dictates that men should be proud of their achievements and feel confident in their ability. In addition to these norms,

there is also the male sexual functioning that emphasizes performance skills related to the self-perception of ability and self-confidence that adds pride and a feeling of increasing security.

The existing stereotypes are the ones that dictate expectations. The stereotype owner's expectations of himself and others regarding different behaviors and characteristics. What expectations of the stereotype holder from himself and others, lead the stereotype holder to adopt characteristics and behaviors that correspond to the content of the stereotype.

The stereotypical perceptions that people believe in are perceived as true in their eyes and accordingly the person or group develops expectations themselves and others to conduct themselves according to these perceptions, which eventually come true.

The internalization of stereotypes and behavioral norms is possible as a response to social pressure and through a self-fulfilling prophecy. The stereotypes are translated into a system of behavioral expectations, behavioral expectations which dictate different ways of management for women and men. The stereotypes mainly define normative behavior. This means that stereotypical behavior guarantees social acceptance as opposed to deviating from stereotypical behavior which risks the practice of social rejection. The people in society try to behave according to stereotypes due to the pressure they are under (Malach-Fines, 1997).

To summarize, the stereotypic perceptions regarding the ability and chances of women to succeed influence the tendency of women to expect lower success than men, to attribute the successes to unstable external factors, and to believe that their ability is lower than that of men and that their achievements will be unexpected achievements.

1.7 The Social Perception

There is a social inclination to prefer men in the prestigious professions on the basis of their gender and not on the basis of their individual abilities. Here the influence of the school education ends. However, and despite of this, educational activity on this topic is most important, so as to uproot explicit and implicit prejudice and stereotypes that men and women have in their role according to their gender and not according to their individual abilities.

How gender differences develop? parents' reactions to boys and girls are not the same. Even if parents think they react the same to boys and girls they do not treat them the same and not only parents, male and female treat boys and girls different (Giddens, 1993). Gender learning occurs every ware. The toys, picture books and television programs tend to emphasize differences between male and female character and conduct. In books and storys, in television programs male are dominate and they are the leading figures (Giddens, 1993). Children aware the difference between male and female, they know and understands the gender differences. Schools and peer groups, they both encourage different gender learning (Giddens, 1993).

According to Giddens, 1993 There are three theories about gender identity and sexuality. the first one is Freud's theory of gender development, it centered round the idea of the penis, who have penis and who have not and its symbolic to masculinity and femininity. The second theory is Chodorow's gender development theory that talk about the parent's attachment and the infant early experience and the importance of the mother and the third theory is self and morality carol Gilligan's theory. It based on the images men and women have about themselves and their achievements. The dominance of men is phenomenal. There isn't one society in which women is more powerful than men. Men are not superior physical strength and they don't have any special intellectual power. In the past, women were pregnant and continue carrying the infants and they had to depend on males and that is the reason they became the "second sex" as Simon de Beauvoir called it. Men have more power and influence than women (that give birth and nurse the children and continue caring and nurturing them). The nurturing role, sex role stereotyping brings the poorly women paid. That and farther more, there is the male perception that for female, work comes second to having children. Even in the same occupation, women have lower salaries.

According to the Report of the Association of Human Rights in Israel 2000 (Lior & Man, 2001), the representation of women in the centers of influence is very low, compared to their part in the population, and hence it is important to address the topic in the educational system. The first step in the reduction of social inequality will be to expose the personal attitudes and expectations in society, which are instilled from generation to generation in the educational system (Lior & Man, 2001).

In the examination of the Report of the Association for Civil Rights in Israel (ACRI, 2008), data shows that a change has not occurred. The collection of data for the International Woman's Day, published in March 2013, by the Central Bureau of Statistics (ACRI , 2013) notes that despite the progress that has occurred in the field in recent years there still are significant salary gaps between the genders in Israel.

The difficulty in causing significant changes in the field of education derives from the relation between society and education. Education is a product of the society in which it acts, and therefore it in essence is the first device for the perpetuation of the patterns existing in it. To transform education from a device for the perpetuation of what exists to a device for the shaping of a better future, it is necessary to examine first and foremost and in a critical manner ourselves (Golan Agnon, 2004).

Chapter 2: Gender in Elementary School Education

2.1 The Educational System as a Social Mirror of the Gap between Gender

In educational institutions there is a phenomenon of implicit sexism. Implicit messages are widespread, which convey sex-differentiated expectations. The erroneous assumption is that boys and girls undergo similar experiences in the educational system (Avrahami-Einat, 2001).

The teachers who are found in the system are a part of society, they are in the educational system, and they behave with an approach that discriminates between boys and girls according to their gender. Teachers, like all other people, can hold gender's attitudes and act according to stereotypes. (Avrahami-Einat, 2001).

During the interviews with the teachers, I encountered the phenomenon of implicit sexism. Common implicit messages, conveying sex-differentiating expectations. There is no doubt that the assumption that boys and girls go through similar experiences in the education system is a wrong assumption.

The teachers that mostly in primary school are female teachers, are part of society. They are in the educational system and they behave in an attitude that differentiates between boys and girls according to gender. Teachers, like all other people, can hold gender positions and act according to stereotypes. In the interviews I conducted with teachers, I heard many teachers who take a differentiated gender approach. The results of the questionnaires that I passed also indicate a gender differentiating approach.

To eliminate the phenomenon of implicit sexism from educational institutions, it is necessary to make a great change on three levels: to instill knowledge on the topic of gender and education, to increase the awareness of implicit discrimination and gender's messages, and to develop skill for educational intervention to ensure equality of opportunities (Avrahami-Einat, 2001).

Gaps and inequality of opportunities exist between boys and girls in the educational system. Research studies on the topic of gender indicate the inequality of opportunities and gaps that exist in the educational system. Boys and girls receive differentiated attitude from their teachers. Because of stereotypic perceptions, people tend to ascribe to members of the two genders typical personal and behavioral traits because of their gender, without examining them in the reality. Every educator must examine his attitudes and opinions before he begins to instill values of equality among his students (Gilad, 2003).

Undoubtedly, every educator should examine his views and opinions before he begins to instill values of equality among his students - it was interesting to hear from teachers I interviewed that this is the first time they are required to think and look at their conduct and that they are surprised by it. It is important to make observations of teachers, with each other, in order to detect such phenomena and eradicate them.

Teachers have considerable power in the perpetuation of gender stereotypes. The school is found in the second place in the list of the significant agents of socialization in the life of the individual. The difficulty in the coping with the topic derives from the fact that the topic is value-oriented and is perceived in the emotional aspect and then only rationally.

There are few cases of open differentiation. The main differentiation is implicit, and its survival and tremendous power lie in the absence of awareness of its existence, implications, difficulty identifying it, proving its existence, and lacking experience in ways to eliminate it (Avrahami-Einat, 1989).

As I have pointed out, without a doubt, every educator should examine his views and opinions before he begins to instill values of equality among his students. It was interesting to hear from teachers I interviewed, that this is the first time they are required to think and look at their conduct and that they are surprised by it. It is important to make observations of teachers, in order to detect such phenomena and eradicate it. Awareness of the phenomenon existence, will open ways to locate and eradiate it.

The stereotypic attitude may cause injustice to some children. The stereotypic perceptions bear a constellation of expectations that implement a mechanism of a self-fulling prophecy. This attitude is a big problem - injustice in education (Rich, 1996).

The educational system was perceived in the past as a main tool of society for the promotion of social equality and reduction of gaps between groups. Educational research reveals consistently the limitations of the educational system in the reduction of gaps between different population groups. The educational system reflects the gaps in broader society and contributes to their reinforcement. An increasing number of research studies have indicated that the educational system reflects and duplicates the inequality between the genders (Herzog, 1996).

The resources of society are concentrated primarily in the hands of men. The educational system reflects the structure of the power relations between genders in society, when the emerging trends do not herald a change in the future. The reversed gap in the hierarchy of roles (the inverted pyramid) that is known in all the social systems is known also in the educational system – the degree of the relationship between senior positions and gender increases with the rise in the level of the institution and the level of the role (Herzog, 1996).

The educational system does not operate in a void, but expresses the norms and values of the surrounding society. All the partners in the educational activity – the parents, the teachers, and others – are citizens and members of society. With the inspiration of society, their outlook is shaped and their educational work develops, on the background of its changing cultural platform. The educational system is found in processes of unending change, processes that parallel the changes that occur in Israeli society (Smilansky, 1981).

The role of the educational system is to shape the values of the generation of the future. Teachers, male and female, constitute a model of identification when their behavior in the classroom conveys explicitly and implicitly their world of values, the world of values they internalized in their childhood, and hence the teachers bear great responsibility on their shoulders since they can generate social change for the increase of the equality between genders (Shachar, 1999).

Equality of opportunities in education for members of both genders means the creation of an educational-cultural environment and an educational climate that ensures equal access to members of both genders for diverse educational experiences. Equality of this type will be expressed in the encouragement and promotion of students, boys and girls, according to their abilities, skills, and personal suitability, in a relevant and not stereotypic manner. The educators and all those who engage in the work are required to act out of commitment to the development of the personal potential of each and every student, boy and girl, to make certain to provide rewards according to a relevant measure, and to guide the students to examine different and diverse possibilities of education, social roles, and acquisition of a profession and employment. Activity must be from an approach disconnected from traditional and irrelevant expectations (Avrahami-Einat, 2001).

If teachers learn to look at their daily conduct, will learn to examine themselves through one-on-one observations, they will raise awareness of this unequal conduct and open a real door to equal opportunities in education for both genders, which means creating an educational-cultural environment, an equal educational climate, a door to equel educational experiences. Equality which will be expressed in the encouragement and promotion of students, boys and girls, according to their abilities, skills and personal adaptation, in a relevant and non-stereotypical way.

Education for the equality of opportunities includes commitment to improve the self-image of girls and women, to raise their level of expectations of themselves in the scholastic and occupational field, and to encourage independence of other wage-earners. These goals will be achieved primarily through the investment in the studies, investment that will allow choice of desirable professions in the field of science and technology. Equal education must also include change of socialization for boys, which today emphasizes competition, achievement orientation, and repression of emotional expression, when this socialization encourages directly and indirectly violence (Avrahami-Einat, 2001).

Lacking awareness of the variable of gender, implicit messages convey gender-differentiated expectations and different measures are widespread, according to which girls and boys are assessed in different areas, such as discipline, social behavior, achievements

in the studies, aesthetics, and mental-emotional maturity. This lack of awareness derives from the mistaken assumption that boys and girls undergo similar experiences in the educational system and it contributes to the perpetuation of this mistaken assumption. It is important to act to expose the implicit and diverse ways in which boys and girls are directed to separate tracks in education, since these tracks perpetuate the gaps that exist between genders in education, status, salary, management ranks, and representation in the centers of the decision making. The change of the educational perception needs to include a more flexible view of the gender roles. It is necessary to encourage different expectations regarding the distribution in education and employment. It is necessary to cause education to no longer be perceived as a profession suited for women, while the areas of sciences and technology must no longer be perceived as exclusively the province of men (Avrahami-Einat, 2001). It is necessary to uproot the stereotypic perceptions and the implicit phenomenon of sexism in the educational system. To be free of stereotypic perceptions, the work with educators can be done in three directions:

1. To inculcate knowledge in topics of gender and education.
2. To increase the awareness of the implicit discrimination and implicit gender's messages.
3. To develop skills of educational intervention to ensure equality of opportunities (Avrahami-Einat, 2001).

The behavior of educators can be changed. The target for change is the granting of instruments and strengths to members of both genders, instruments and strengths that will prepare them appropriately for the requirements of the world of technological employment today (Avrahami-Einat, 2001).

Awareness of the implicit sexism that exists in the educational system obligates seeing the many differences between boys and girls that derive from the construction of the gender roles. The many differences between the two genders are not explained by the physical differences; rather the explanation is the significant agents of socialization, which are the family, the educational institutions, and the media, which differentiate between genders.

Assuming that the educational system aspires to cultivate autonomous adults who recognize their abilities and are challenged to fulfill their abilities, the responsibility assigned to the educational environment is assurance of the growth conditions appropriate to members of both genders (Avrhami-Einat, 2001).

Research studies conducted in recent years emphasize the fact that boys and girls are not exposed to equal opportunities in the school and do not receive the same attitude and do not receive the same investment and esteem on the part of teachers, counselors, supervisors, and managers (Shachar, 1999). Reciprocal relations in the class are gender dependent (Avrahami-Einat, 1993) and the implicit messages are those that shape the low aspirations of the girls from themselves. The educational system in Israel is still captive of the stereotypic gender perceptions that reinforce the gaps between genders, and hence the path is set for the girls to find themselves at low levels of occupation that are not prestigious and that characterize most professions of women (Shachar, 1999).

The results of the interviews I conducted with the female teachers, testify to such conduct of the educational system in Israel which is still captive to the stereotypical gender perceptions that reinforce the gaps between different genders and hence the way girls find themselves in low non-prestigious occupational levels that characterize most women. The results of the questionnaires that I submitted indicate the same findings.

Examination of the explicit and implicit messages in the educational system found evidence of stereotypic attitude of teachers to both genders and a low level of expectations from the girls in comparison to expectations from the boys (Avrahami-Einat, 1993). Examination of the patterns of attribution of boys and girls of success or failure found that the patterns of attribution are opposite. Why does the educational system cultivate inequality? One of the responses is the stereotypic attitude of the teachers to girls and boys in the classroom. This attitude is characterized by gender attitudes of which generally the teachers are not aware, attitudes that characterize senior teachers and student teachers (Ben-Tzvi Meir, Hertz-Lazarovitz, & Sapir, 1990). The children, like the teachers, perceive the boys as more talented in most areas that were examined, when the picture of the situation steadily worsens with age (Sapir, Hertz-Lazarovitz, Ben Tzvi Meir, & Kofermintz, 1993).

The results of the interviews I conducted with the female teachers, testify to such conduct of the educational system in Israel which is still captive to the stereotypical gender perceptions that reinforce the gaps between different genders and hence the way girls find themselves in low non-prestigious occupational levels that characterize most women. The results of the questionnaires that I submitted indicate the same findings.

It can be hypothesized that the low expectations of girls becomes a self-fulfilling prophecy that cultivates low self-image and mistrust of abilities (Lior & Man, 2001). The process of socialization is a long process that is primarily implemented by women. The women duplicate themselves and their attitudes in a conscious and unconscious manner and create additional generations of boys and girls with gender perceptions (Shachar, 1999).

Girls' low expectations become a self-fulfilling prophecy that fosters low self-esteem and a lack of confidence in abilities (Lior & Man, 2001). The process of socialization is a long process implemented mainly by women. Women replicate themselves and their attitudes consciously and unconsciously and create additional generations of boys and girls with gender perceptions (Shahar, 1999).

I researched women teachers. I interviewed female teachers most of whom did not study extended mathematics and accordingly, with all the sorrow and great difficulty of believing (in the 21st century) - these female teachers are sure that boys are more successful than girls in mathematics, that boys have better mathematical vision, that boys have better mathematical understanding, that boys Are better than girls in math and in fact, these female teachers create self-fulfilling prophecy.

Research studies indicate a number of main problems in the educational system, as follows.

1. Boys and girls are subject to a distinct attitude on the part of the teachers. Girls are ‘caressed’, they do not undergo an experience of ‘rigid’ reference and require effort and hence are not ‘immunized’ for coping with the demanding requirements of career and achievement-oriented life. The boys, in contrast, are treated strictly by parents and teachers so as to strengthen them and prepare them for life. There is less concern about their sensitivity and vulnerability. The result is that girls do not

invest the efforts needed to achieve the fulfillment of their abilities and talents (Horgan, 1995).

The girls are not prepared to deal with the demanding demands of life (as opposed to the boys), the teachers talked about this in interviews I conducted - the teachers talked about the difference even in their way of treating boys and girls with the direct and immediate result that girls do not invest the necessary efforts to achieve their abilities and talents.

2. There are distinct patterns of attribution of boys and girls for success and failure. Many research studies indicate the difference between the genders in this field. The findings emphasize that girls regularly attribute their success and achievements to random and external factors, such as luck, an easy test, the teacher's help, while they ascribe their failure to personal lack of ability. Among the boys, the situation is opposite: their success they attribute to internal ability and talents and their failure to external factors such as luck, little preparation, and so on. These patterns of attribution deny the girls the feeling of trust in their abilities and prevent the motivation to choose difficult and challenging studies. The good scores the girls continue to attribute to outside factors and not their abilities (Amit & Moshovitz-Hadar, 1989). The internalization of distinct patterns of attribution begins at a very young age through the parents who believe generally that girls succeed since they invested considerable work and the boys succeed because of their ability. This stereotypic perception also characterizes the teachers although it has no basis in the research reality. The direct result is that girls finish school when they do not believe in their abilities and talent and are not exposed to challenging situations during their studies. The teacher's role is to encourage girls to rely on their personal ability and not on random external factors. The teacher's ability to influence may determine the girl's choices in the future (Lior & Man, 2001). The boys also lose from their patterns of attribution, since they attribute their failure to outside factors and thus refrain from examining their part in the failure, a fact that denies them the opportunity to learn from their mistakes (Horgan, 1995). Teachers must teach their students to interpret their success

and their failure in a constructive manner that will help them grow, develop, and believe in their abilities. The attribution of reasons for success and failure is a factor with considerable influence on the future motivation for success and influences girls in the choice of their future career (Shachar, 1999).

The different attribution patterns of boys and girls to success and failure begin at a very young age through parents and later through teachers who believe that girls are successful because they have put in a lot of work while boys are successful because of their ability. This stereotypical perception has no basis in research reality. The direct result is harm to girls who do not believe in their abilities and talents and are not exposed to challenging situations and also, in boys who attribute their failures to outsiders and thus avoid judging their part in failure, this fact basically deprives them of the opportunity to learn from their own mistakes. In interviews I conducted with the female teachers, the female teachers reinforced through this conduct which constitutes a stereotypical approach which does not promote the boys the girls and establishes gendered conduct.

3. Teachers have a different attitude towards boys. There is stereotypic negative thinking. The boys are expected not to like the school, not to like the requirements and the discipline, to behave with violence, insolence, and lack of consideration of other children. The boys find it difficult to behave in a nice and pleasant manner like the girls, and tension is created between the teachers and the boys in the class (Sadker et al., 1991). Research studies indicate that while girls receive higher grades, relative to the boys, because of their obedient behavior, the boys receive more attention in the class and more teaching time from the teachers. The special attitude from the teachers is explained by the teacher's obligation to see that the boys will not disrupt and will be more attentive in the lesson (Shachar, 1999). The teaching staffs must learn to create appropriate climate and behavior towards members of both genders and to create challenges and opportunities that will allow all students to realize their ability. The teachers must learn to allow all students to make their choices

without pressure and supervision that derive from the rules of behavior and from gender-biased stereotype. All children are their own worlds, and the child's gender is irrelevant. The aim is to reach the situation in which every child will receive the utmost possibilities of choice because on the child's abilities and regardless of gender.

Teachers have a different approach to boys and girls. The girls are praised for their obedient behavior, the boys get more attention in the classroom and more teaching time than the teachers due to the opposite behavior. In interviews I conducted with the teachers, the teachers explained their different attitudes towards boys and girls and the logic behind it. Teaching teams need to learn to behave similarly towards members of both genders and create challenges and opportunities that will allow all students to realize their ability. The gender of the child is irrelevant. Members of both genders should be treated in the same way - both academically and socially. The boys should not be treated more because they are noisy and / or disturbing and in fact require attention and accordingly the girls should not be treated less because they are usually conducted in a way that does not interfere with the classroom learning.

2.2 Gender Construction in the Education System

Processes of gender construction occur in the school. Processes of gender construction establish life in the school and the student's behavior therein and influence their lives in their future (Cockburn, 1987; Delamont, 1990). Research studies that examined interaction in the classroom discovered that boys take control of the discussions and conversations, insult the girls, and sexually harass them, when the girl's response is expressed in passiveness, low level of participation in discussions and activity in the class, and distancing from the source of aggression and harassment (Ribbell, 1992; Wolpe, 1988).

Studies that examined classroom interaction found that boys take over the discussions and conversations, insulting the girls (RIDDEL, 1992; Wolfe, 1988). They relate more to the boys because the boys erupt more in class, because the boys make more noise in class.

Teacher women relate more to boys both academically and emotionally and this is in order to be able to run the class. The girls for the most part do not interfere with the course of the lesson and are accustomed to paying more attention to the boys.

Research that examined interaction in the school, outside of the classroom, discovered that boys in the recess took a personal and group space at the expense of the girl's space. They take control over the playground and push the girls to the margins while making them into passive groups of observers (Maccoby, 1990; Thorne, 1993).

Out of class, boys at recess take personal and group space at the expense of childhood space. They take over the playground and push the girls to the margins and many female teachers testify to this - even during the women's shifts during the break the reference is much more to the boys.

Research studies that examined interaction between teachers and students indicate that teachers dedicate greater time to boys than to girls (Wolfe, 1991). Boys receive both greater criticism and greater praise for their learning than do girls. The boys also are asked questions on a high order of thinking according to the taxonomy of Blum and are evaluated on the basis of intellectual performances, while the girls are evaluated on the basis of order and proper behavior. It was found that teachers cultivate leadership and initiative among boys more than among girls. They encourage the boys to independent learning and expect of them high achievements in the studies, primarily in the technological and scientific subjects (Wolfe, 1991). Different rules of discipline are applied to boys than to girls (Stanley, 1993; Walkerdine, 1981). In these research studies patterns of differentiated gender interaction were discovered between teachers and girls and boys. In both research studies, the injury of the girls at the hands of the teachers and the boys was prominent (Bem, 1984; Chodorow, 1974; Keller, 1985). A separate perception of gender and the existence of two separate types of gender that are different from one another in the regular characteristics is another point of the aforementioned research studies. For instance, competition, achievement, initiative, objectivity, and rationalism are attributed to boys, while passiveness, sensitivity, subjectivity, submissiveness, and emphasis on interpersonal relationships are attributed to girls (Bem, 1984; Chodorow, 1974; Keller, 1985). These

research studies focused on the search for the social-cultural differences between genders and caused an exaggeration in the description of the difference, the ignoring of the similarity between them, and the difference that exists in every gender group. These research studies suffer from a partial blindness that is expressed in the lack of reference to the complexity and diversity in each gender group. This blindness reduces the ability to explain changing and diverse phenomena and social processes inside and outside of the school.

Women teachers I interviewed testified that they spend more time with boys than girls. Because they relate more to boys 'learning than girls'. The female teachers said that they value the boys on the basis of their intellectual performance while the girls on the basis of their order and behavior. The teachers I interviewed said that they foster leadership and initiative among boys more than among girls. Because they encourage the boys to learn independently and expect them to achieve high in school and that

Rules of discipline apply to boys rather than to girls.

The female teachers I interviewed testified that they notice gender differences and do not look for differences within any gender group. They see the difference between the genders and do not notice the diversity that exists in each and every gender.

The topic of gender in the school has not been investigated in Israel and especially not in the elementary school. After the parental home, the school is found in the second place in the list of significant agents of change in the child's life. The children are found a considerable amount of time in the educational system and their power and influence on their personal and professional future of members of both genders are clear. The role of the school is to educate for norms and values and to enable each one utmost fulfillment of the personal potential in parallel to the option for all children of equality of opportunities in this fulfillment (Lamdan, 1997). In the transmission of norms and values, there are both explicit and implicit messages. The stereotypic perceptions of gender create behavioral difference between members of both genders, and these influence during life the approaches, expectations, and preferences about career directions and roles. In actuality, there is inequality as well as injustice in the reference to the two genders, when the

inequality in the reference has prominent implications on the lack of the fulfillment of the personal potential of both boys and girls (Lamdan, 1997).

From the interviews with the female teachers that indicate a gendered treatment of the children, the understanding emerges that there is inequality and injustice in the treatment of members of both genders. The inability and desire shown by the women teachers, to see the diversity that exists in each gender, prevents the members of both genders from realizing the personal potential of each one and not just the realization of the personal potential of the girls.

According to the theory of social learning, the basis of behavior is primarily through observation. The observation provides many opportunities of learning, including learning gender behaviors. Not all the models observe influence identically. Children are influenced by models of power, as well as by a model that is more similar to them, and this is the reason that children tend to imitate models of the same gender, primarily if the model proves and displays power. The theory of social learning describes the development of gender behavior as a part of the behavior that children learn while observing modeling (Lamdan, 1997).

At the age of 5-6, there is reinforcement of the gender perceptions. The following question is asked. What is the role of educators in the shaping of these perceptions? The first factor in the strengthening of the gender bias in the educational system lies in the approach of the teachers and the workers. It is strange to think that in the modern, coeducational school, where there is a uniform curriculum, identical teachers teach everybody, and activities are undertaken together, there are very different messages for boys and for girls (Lamdan, 1997). Shachar (1999) found that boys and girls enter the first grade without differences in the level of intelligence, as indicated on IQ tests, but by the age of sixteen gaps of twelve points are opened in favor of the boys. The examination of the prominence of students in the opinion of teachers and student teachers found that when teachers think rapidly and spontaneously about children in their classes (ages four to twelve) they call to mind more boys than girls. It was found that in discipline problems the boys are more prominent. Even after the studies, the teachers think primarily about boys and not necessarily about the

violators of discipline. In the field of the scholastic help, differences were not found between boys and girls. Although the girls excel less in the studies, they do not need more learning help, according to the teachers. In the social activity, there is a difference that is not large but is significant in favor of the girls. In mathematics, there is a large and significant difference in favor of the boys. Kindergarten teachers think that boys are better than girls in mathematics already when the boys are four years old. In the Hebrew language, the girls are better, and regarding general potential both the kindergarten teachers and the teachers think that boys have greater general and creative potential than do the girls (Lamdan, 1997). In the second stage, they distributed similar questionnaires for children, and the results were that children think that boys are more prominent also in topics in which the teachers though that the girls are more prominent. The teachers were surprised with the findings. They are not aware of the messages and expectations that they convey. The students pick up the teacher's unequal messages, while it is possible the teachers are not aware at all of the problems (Shachar & Avrahami-Einat, 1994).

The attitude of teachers and school staff reinforces the gender bias. The female teachers I interviewed told of different behavior towards boys and girls. Students see and feel the messages that pass from the women teachers to the boys and girls, pick up those messages and internalize them.

To what extent do the girls internalize the expectations and meet these expectations in the reduction in development and loss of faith in their power? Avrahami-Einat (1989) examined the percentages of interaction of teachers towards their male and female students and found that two-thirds of the interactions in the classroom are held with boys (praise, encouragement, invitation to come to the blackboard, scolding, and punishment) and only one-third with girls. The girls are quieter, more mannered, and less trouble the teachers. It is known that the intensity of the teacher-student interaction greatly influences the quality of the learning, as does the relationship with the learning subjects, which is sometimes built through the relationship with the teacher. The teacher-student interaction influences the student’s degree of dominance in the class and the student’s taking an active part in the lesson. The silence of the girls and the silencing of the girls by the teachers, through the unconscious reduction of the intensity of the interactions, contribute to the girls becoming

more introverted, more passive, and less involved. Teachers exhibit better familiarity with the boys. Many girls receive reinforcement for areas attributed to girls traditionally and in essence general comments of this type tell them that they are suited to the known perception of gender and should continue to be like this.

The purpose of the report card is to provide a summary of the student's path and to offer advice for the future. The examination of report cards the teachers in the middle school gave their students showed that the teachers have more to say about the boys. Boys received comments couched in strong commanding language, while girls received emotional requests. Through the report cards the teachers conveyed to the students' different messages about their place in society. The message is that boys require more and receive more (Avrahami-Einat, 1989). Students in the Achua College (2017) examined the evaluation report cards that teachers gave students at the end of the first grade and found similar findings. Boys received more focused comments. The child knows exactly what he is required to do, and his parents know this. The focused remarks for the boys indicate the better familiarity with their content world. Boys demand more reference, and therefore the teachers have a closer familiarity with the boy's content world and personality. The teacher must learn how to keep the boy's attention, must know them well so as to survive teaching, when this is not necessary for girls, since they are quieter and more polite. According to the messages in the report cards, the teachers referred the children to different places in society through the report cards, and also clarified to them the degree to which they are important to the teacher (Lamdan, 2007).

The girls internalize the expectations in the reduction of development and the loss of confidence in their power. The amount of interaction of the female teachers I interviewed is greater with the boys. The amount and intensity of interaction with the girls leads them to internalize the "correct" conduct appropriate to the gender to which they belong. This kind of learning must rise to the mind and must be stopped immediately.

Messages were also transmitted through the use of language forms. In Hebrew, words have a masculine or a feminine form, and when a group includes both male and female members, historically the masculine form of the word was employed. Today in the field of the Hebrew

language there is a change. In the past, when the masculine form of the word ‘students’ was used, the intention was also the female students. Today in the Hebrew language the word is conjugated according to the majority. However, because of the force of habit, it is still hard to see results in the field. When the teacher writes in the worksheets “cut”, “draw”, “glue” in the masculine language, she is also referring to the girls. Here there is a social message regarding who is being asked and addressed and who needs to understand even if there is no direct appeal. This is a message conveyed by language, a message on the topic of dominance and reference. Gender messages arise from the literature provided for children, although in this field, too, recently there has been a change.

The hidden curriculum is a side effect of schooling. The Hidden curriculum often refers to knowledge gained in primary school. The hidden curriculum reinforces existing social inequalities by educating students according to their gender, their class and their social status. The hidden curriculum teaches children that in life, they have to know their place and to sit quiet in it (Giddens, 1993). According to Giddens, 1993 girls are better than boys in elementary school and in the early years of secondary education (despite the teacher's attitude and behaviour) but the boy's dominant in college and university (a man student dominant). The explain to the girl's relative success in primary school is that in primary school most of the teachers are women teachers, and in school they have order and conformity that feat girls. The formal curriculum is the same for girls and for boys but in spite of all they have gender differences in education for example in teacher's explanations, in the dress code, in the boy's and girl's stories and in some other things that are the hidden curriculum. The hidden curriculum does not allow the development of girls in spite of all the benefits Seemingly in elementary school. Because most teachers are women, because most teachers did not study extended mathematics or how to teach mathematics, because teachers live in the society, we all live in (a chauvinist society that sees the man at the center), women teachers are some of the characters who do not allow girl's success (which under all conditions should have been more successful). Teachers treat boys more, explain them differently, encourage them differently and although girls could have a big advantage in elementary school - it is gone.

To conclude, I will note that in Israeli society equality between the genders does not exist. Reasons for this inequality were described in this chapter. There are many factors that shape the gap between genders. The educational system serves as a social mirror for the gap between genders and does not lead to the desired change. Processes of gender construction occur in the school. The educational system has an important role in the design of the gender perceptions. The recruitment of the educational system to the activity is a most important part for the creation of education for gender equality.

It is not easy to mobilize the education system in the field of teaching mathematics in elementary schools in Israel. The teaching of mathematics in elementary schools in Israel supports the gender bias in the profession. This gender bias, in the teaching of mathematics in elementary schools, is carried out by all the factors of socialization present in society. The differences between boys and girls are mainly reflected in the teaching of mathematics in elementary schools in Israel. The social models that try to explain the phenomenon make it clear that we have succeeded in creating a worldwide economic problem (Detal & Tocker, 2011).

2.3 The Gender Perception in the Education System

(Stereotypic Perceptions of Teachers and Parents)

The first gender agent of socialization is the family. The school strengthens the gender images and makes them permanent. Gender stereotypes are determined in the school primarily by the teachers, who hold distinct behaviors of boys and girls, through the textbooks that attribute to the characters traits according to gender stereotypes and through the media that perpetuate the gender stereotypes (Lior & Man, 2001).

In recent years, both the topic of stereotypes in the textbooks and the topic of stereotypes in the media have reached the public agenda and many attempts have been made to eliminate the phenomena. It remains to continue these efforts and to begin to address the topic of the teachers.

Following the research studies in the past decade, awareness is increasing that in the schools there is discrimination (sometimes implicit and sometimes explicit). As a result of this discrimination, girls do not fulfill their latent potential and lag after the boys, both in their achievements and in the level of their self-esteem and belief in their abilities (Shachar & Avrhami-Einat, 1994).

The child's gender is a diffuse status characteristic. This characteristic bears a constellation of expectations regarding the fitness and other traits that are supposed to be relevant to a wide variety of tasks and situations. People use these labels so as to provide information about expected performances. These perceptions implement a mechanism of a self-fulfilling prophecy (Rich, 1996).

In interviews I conducted with teachers, I encountered the phenomenon of gender discrimination. Teachers convey messages that convey expectations that differentiate between the sexes. The assumption that boys and girls go through similar experiences in the education system is a wrong assumption. The teachers who are mostly in primary school are teachers, they are part of society, they are in the educational system and they behave in an attitude that differentiates between boys and girls according to gender, in a stereotypical approach. In interviews I conducted with women teachers, I came across many teachers who take a differentiated approach between boys and girls by gender. The results of the questionnaires I submitted also indicate a differentiating approach. This phenomenon must be uprooted - women teachers who teach and educate their children in school, contribute to the fixation of gender images and make them permanent.

2.4 Parent Expectations

Already from the kindergarten, the parent's expectations are culturally dependent and derive from the socialization that the parents themselves experienced and from the cultural customs they internalized. These expectations are conveyed to children implicitly and explicitly and have impact on the motivation and the achievements of members of both genders. Parents believe that boys are more talented and therefore they have good achievements while the girl's achievements derive from hard work. This stereotypic

thinking is internalized by the children and becomes the province of the entire public (Shachar, 1999). parents treat different boys and girls even if they absolutely sure they treat them all the same way (Giddens, 1993).

2.5 Media as Agents of Socialization

The media have a powerful influence on the patterns of life and outlooks of people. Children are exposed from an early age to the different media, which become a main agent of socialization in their lives. The prevailing contents are guided by the dominant social ideology and thus a desired outlook is created that dictates the rules of behavior of the young generation. Research studies clarify that the media channels boys and girls to gender roles. The message conveyed to them is that the roles of men are important and central, while the roles of women are secondary. Advertisement contributes considerably to the reinforcement of the negative stereotypes (Shachar, 1999). In television, in programs for children and in commercials, male are the leading figures, they are dominate (Giddens, 1993).

2.6 Influential Factors in Education Shaping the Gap between Genders

Different factors shape and preserve the gap between genders, as detailed in the following passages.

Differentiated attitude. Boys and girls receive a differentiated attitude on the part of the teachers. Girls are ‘caressed’, and do not undergo an experience of ‘rigid’ attitude and the demand of effort. Hence, girls are not ‘immunized’ to deal with the demanding requirements of career and an achievement-oriented life. In contrast, boys are treated strictly by parents and teachers so as to prepare them for life. There is less concern about the boy's sensitivity and vulnerability. The outcome is that girls do not put forth the required efforts so as to achieve the fulfillment of their abilities and talents (Horgan, 1995).

Teachers reinforce the expectations from boys and girls, the male and female stereotypes, they encourage gender different behavior (Giddens, 1993).

Causal attribution of success and failure. There are differentiated patterns of attitude of boys and girls to success and failure. Many research studies indicate the difference between genders in this field. The findings emphasize that girls regularly attribute their success and achievements to random and external factors, while their failure is attributed to the lack of personal ability. The situation is opposite among the boys: they attribute their success to internal ability and talent and their failure to external factors. These attribution patterns cause girls to lose confidence in their abilities and prevent the motivation to choose difficult and challenging studies. The girls continue to attribute her high scores to external factors and not to her abilities (Amit and Moshovitz-Hadar, 1989). The internalization of differentiated patterns of attribution begins at a very early age through the parents who believe generally that girls succeed since they invested considerable effort and the boys succeed because of their ability. This stereotypic perception also characterizes the teachers, although it does not have any basis in the research reality. The direct outcome is that girls finish school when they do not believe in their ability and skill and are not exposed to challenging situations during their studies. The teacher's role is to encourage girls to rely on their personal ability and not on outside and incidental factors. The teacher's ability to influence may determine the girl's choices in the future (Lior & Man, 2011). The boys also lose from their patterns of attribution, since they attribute their failure to outside factors and thus refrain from examining their part in the failure, a fact that denies them the opportunity to learn from their mistakes (Horgan, 1995). Teachers must teach their students to interpret their success and failure in a constructive way that will help them grow, develop, and believe in their powers. The attribution of reasons for success and failure is a factor with considerable influence on the future motivation for success, and it influences the girls in the choice of the future career (Shachar, 1999).

Different attitude towards the boys. Teachers have a different attitude towards the boys. There is a negative stereotypic thinking. The boys are expected not to like school, not to like the requirements and the discipline, to behave with violence, insolence, and lack of consideration of others. The boys find it difficult to behave nicely and pleasantly, unlike

the girls, and tension is created between the teachers and the boys in the class (Sadker, Sadker, & Klein, 1991). Research studies indicate that while girls receive higher grades, relative to the boys, because of their obedient behavior, the boys receive more attention in the class and more teaching time from the teachers. The special attitude from the teachers is explained by the teacher's obligation to see that the boys will not disrupt and will be more attentive in the lesson (Shachar, 1999). The teaching staffs must learn to create a climate and behavior towards members of both genders and to create challenges and opportunities that will allow all students to realize their ability. The teachers must learn to allow all students to make their choices without pressure and supervision that derive from the rules of behavior and from gender-biased stereotype. All children are their own worlds, and the child's gender is irrelevant. The goal is to reach the situation in which every child will receive the utmost possibilities of choice because of the child's abilities and regardless of gender.

The Hidden Curriculum. The Hidden Curriculum have a powerful influence on the education process (Meighan R & Siraj-Blatchford I 1997). The hidden curriculum first identified by john Dewey and it is all the things that children learns during school time. The official curriculum, and all the other things that learn in school. It is the extra learning at school: what to say or to do, how to behave, what is important, who is important and according to our subject that men are more important than women (Meighan R & Siraj-Blatchford I 1997). The hidden curriculum is the three R's of rules, routines and regulations that learned in school and the delay and the interruptions that became norm at school. It is all the things you learn at school, that help you to success (Meighan R & Siraj-Blatchford I 1997).

In conclusion, Different factors shape and preserve the gap between genders: The Differentiated attitude to boys and girls - boys and girls receive a differentiated attitude from their teachers, causal attribution of success and failure - girls regularly attribute their success and achievements to random and external factors while their failure is attributed to the lack of personal ability. The situation is opposite among the boys (Amit & Moshovitz-Hadar, 1989) and the hidden curriculum – the things we learn at school, In addition to the

curriculum, the other things that we learn – how to behave, what to say and who is the important one.

Chapter 3: Gendered Teaching of Mathematics in Elementary Schools in Israel

3.1 Teaching Mathematics in Israel

A document published by the Center of Research and Information of the *Knesset* in 2012 "Fit between the Field of Training and the Field of Teaching of Teachers - Picture of the Situation" (Veisblay, 2012) notes the following assumption. As the teacher is more an expert in the profession he teaches, his chances of succeeding in teaching it are greater. Teachers in elementary school education are required to have a teaching certificate in the field of knowledge and for specific age groups. Some teachers teaching in the system were hired in the past and do not meet these conditions. The results of the research I conducted indicate that not all teachers, who teach math, learn math or how to teach math and have a certificate that proves it. More than that, there are teachers who teach math, without proper education, and they are not in the training of math teachers where they can learn how to teach math. Teachers cannot be forced to study in such training. Despite the assumption that an expert teacher is more likely to succeed in teaching the subject, in the reality of our live at schools, things do not happen.

According to the data of the Central Bureau of Statistics, as presented in this document, only 39% of the mathematics teachers in the schools were suited to teach the subject according to the definition. According to an examination of the Ministry of Education, 35% of the mathematics teachers have the training to teach the subject. The Ministry of Education is interested in increasing the number of teachers with the appropriate training - there are funding programs to broaden the teacher's accreditation. Professional training and academic studies provide a great advantage for the teacher in the field he is teaching. Although the Ministry of Education wants to increase the number of teachers with appropriate training and has plans to expand teacher competency, and since there is no argument that professional training and academic studies offer a great advantage to a teacher, a teacher cannot be forced to learn if he or she does not want to. There are teacher's organizations that protect teachers and do not allow them to learn if they do not want to. Obviously, the principal does not have to the non-math teacher to teach math, but the

existing constraints cause the principal to give a non-math teacher to teach math. The principal must give the teachers the number of hours they have to teach and according to the teacher's report they teach math without any previous or present knowledge or training.

Today, the directives are that every teacher will have an academic degree and a teaching accreditation in a certain field and for a certain age. In previous years teaching licenses were also given without these requirements. As a result of the lack of teachers, the unsuitable teachers were placed into teaching and became over the years tenured teachers who cannot be replaced.

According to Rabbi Shai Piron, in the past the CEO of the Everything Is Education Movement and the Minister of Education, the country must invest its utmost resources in the improvement of the teaching. He maintains that most of the teachers do not engage in the areas that they learned. Most of the mathematics teachers took the mathematics' test in high school at the level of three units. The difference between three units of study and five units of study lies in the mathematical thinking. According to Rabbi Piron, a person who does not have mathematical thinking can not develop this in children. We see in the school teachers who teach math, teachers who did not come with a matriculation certificate of five units of mathematics (they have a certificate of three units of mathematics), teachers who did not learn math and did not learn how to teach math, teachers who do not understand that in elementary school, the learning process must be done by means of illustration, because students are at a stage where they need illustrations to understand the topics. Teachers who do not understand how to teach in this way can not successfully teach math. Bottom line, when teachers who did not learn how to teach math teach math - kids do not understand the topics being taught in the way they are supposed to understand.

The Center of Research and Information of the *Knesset* in its document “Teaching Mathematics in the Educational System - Picture of the Situation about the Teachers” (Vargan, 2008) noted that today full data on the level of education and mathematical training of mathematics teachers do not exist. The Ben-Tzvi Committee in 2002 recommended that the subject have to be accorded in the supreme national importance. The data addressing the knowledge and training of teachers and the area they teach are

concentrated in the Ministry of Education. The data collection should not be a problem. The Ministry of Education has all the data on the teachers employed in schools - on their education acquired when they got the job and education over the years. Someone have to decide that he wants the data and without any problem the data can be organized. The problem is that these data can raise questions and problems accordingly. In the past, teachers who teach mathematics were required to go professional, to learn the profession. It has been said that only a teacher who goes through the math training will be able to teach math and accordingly will be rewarded (I was also sent to study despite my bachelor's degree in mathematics teaching). Today, math in schools taught by teachers who have not studied the field and needless to say that the teachers who were sent for professionalization and even passed the graduation test have not been rewarded for their work as promised.

The years have passed and the changes did not bear fruit. Wilf (2014) in her article writes about unsuitable teachers and outdated curricula. The State Comptroller in his report in 2014 strongly criticized the learning situation and the teaching of mathematics. The Comptroller notes that the mathematics teachers did not study mathematics and in his report, he gives a failing grade to the educational system. The response of the Ministry of Education was that the Ministry has invested considerable efforts to promote the teaching in the field. The Ministry is working on another program intended to reinforce the profession and train the teachers. The Ministry has taken correct steps in the right direction, but it is a process and it takes time. I can report from the field that the teachers are not going to study and that no one can force them to study. When a teacher comes to work at school and the principal have to take care of his work hours, according to school needs, the teacher can find himself teach subjects that he did not learn and certainly did not learn how to teach as in our case, for example, mathematics.

3.2 Differences between Boys and Girls regarding the Learning of Mathematics

In societies and in educational systems around the world the prevailing perception is that boys are good in mathematics (Else-Quest, Hyde, & Linn, 2010). The topic can be

examined according to the results of the tests that are held in the educational system and that are supposed to represent the entire population of students. The gender gap in the achievement tests in mathematics is a most important topic, because the gap in the mathematical ability between boys and girls at school does not only reflect the current situation in the studies but also may predict the future professional development of boys and girls. The achievements of boys and girls can influence the choice of the future studies field and determine the field in which they will work in the future (Hyde, Fenemma, & Lamon, 1990). These choices of the boys and the girls have economic implications, since these choices influence the gaps between men and women on the level of the income and the chances of women to fill key positions in society. It has been shown that there is a low presence of women in mathematical courses in the university and in the engagement in the profession. These findings do not lie in differences between genders but in the way in which men and women perceive their mathematical ability, as well as in external factors, such as gender discrimination in education and in employment (Hyde & Lamon, 1990). During my work as a classroom educator and math teacher, I made sure to give the girls a stage in the classroom, empower their presence, make them believe in their abilities, and I definitely succeeded. In the lessons I taught math, we saw a process in which girls increased their attendance, girls participated more, dared, and their achievements increased. Teachers do not report similar work - this is a process that teachers need to believe in, this is a mission they must do.

As aforementioned, there are two classic approaches of heredity and environment, nature or nurture (Eagly & Wood, 2013). On one hand, there is the heredity approach, according to which boys tend naturally to be better than girls in mathematics, for reasons that have an innate biological basis, and their advantage is reflected already in the systemic and standardized tests in the school. On the other hand, according to the environmental approach, boys and girls are born with identical mathematical intellectual potential (Spelke, 2005) and the gaps are the product of social-cultural influences through different education, perceptions, expectations, and messages, which are conveyed by society (by the parents, the teachers, and others). According to contemporary research studies, the expectations that a certain society awakens in its girls and the encouragement to choose mathematical subjects and to succeed in them are related to the quality of opportunities between the

genders that exists in the country and/or the culture (Else-Quest et al., 2010; Nosek et al., 2009). In the classrooms that I educated and taught math, I made sure to talk to the kids about my expectations of them. My expectations of both genders were the same. I wanted the two genders to cooperate and learn, I wanted everyone to progress according to their abilities regardless of their gender. We all want to succeed and progress, learn and know! I gave everyone a chance to succeed and indeed the girls cooperated and we saw how they improve achievements, build self-confidence, strive to succeed and succeed. No doubt the idea is in the message that the teachers pass on to boys and girls and of course the personal example. If we convey a message that gender is not a party and that anyone can succeed we will reap the rewards. Many teachers fail to understand that their expectations of both genders should be the same and that is the beginning.

It is interesting to see how the teaching methods adopted in the classroom can contribute to the development of inter-gender differences in mathematics and can make them permanent in the consciousness and in reality. Differences in the manner of attitude to students of both genders derive from the deeply held stereotypes existing in society, which influence the studies and achievements of boys and girls in the school and perpetuate the gaps between them in mathematics, in what is like a self-fulfilling prophecy. As a result, girl's self-image does not allow them to see themselves in scientific professions. Even when girls do approach scientific subjects, they have a harder time identifying with the model of the scientist and adopting a scientific way of thinking (Stevanovic, 2014). As of today, the year 2020, people continue to think that boys are better than girls in mathematics, and the topic continues to trouble both the research literature and the media. The topic of who is better in mathematics is directly related to the topic of equality between the genders. The topic of equality between the genders is a sensitive topic that awakens considerable interest. Expression of this sensitivity can be found in Parbar (2006), in the incident of the resignation of the Harvard President, Lawrence Summers, in 2005, following his public statements that implied that he believes there is a biological basis of the gaps between the genders in the quantitative-scientific areas in favor of boys. Teaching practices in the classroom contribute to the development of gender differences in math. There is a difference in how teachers treat students of both genders, stemming from the deep stereotypes that exist in the society we live in. Men's run the State of Israel and they control

it. The differences in the attitude of boys and girls' teachers influence the learning and achievement of boys and girls in school. These differences perpetuate the gaps between boys and girls in math, a self-fulfilling prophecy.

Kane and Mertz (2012), who examined the gender gaps in achievements in mathematics in 86 countries, maintained that if the advantage of the boys had been biological in origin, then the gender gap would be consistent and similar in size. However, the fact that the size of the gender gaps in mathematics in different countries is varied indicates that this gap is culturally dependent. Also, the gender gap in mathematics increases with age. The differences in mathematical competence can be witnessed as early as elementary school, but later on, when the child enters middle school and high school, the gap widens. This contributes to the notion that those gender gaps are influenced by society (Tiedemann, 2000). The gap is culturally dependent. In my conversations with the women mathematics teachers, I heard many times the stereotypes that boys are better than girls in mathematics. The result of this Stereotyped learning is gender differences in achievement, in the desire to learn and in the belief in the ability to learn. The girl's self-esteem is damaged. This is undoubtedly a self-fulfilling prophecy. The topic of what gender is better in math is not an issue and should not be dealt with. It only indicates one thing - stereotypes in society.

3.3 Girls and Mathematics

The girls do not have a reason for why they do not choose the scientific and technological subjects. Here there is an economic problem that is steadily increasing (Detal & Tocker, 2011).

In terms of the understanding and the scores, the girls understand what is learned and obtain excellent grades, and nevertheless most of the girls avoid learning in scientific programs in the high school. The result is that this placement and the implications that derive from it harm the economy and women, who could have earned in the future far more than they earn in actuality (Detal & Tocker, 2011).

Detal and Tocker (2011) tell the story of Noa, who always liked and knew mathematics. It was clear to Noa that she would continue in the high school her studies in the field of mathematics, since she liked and was successful in this field, and indeed Noa chose to learn the field of mathematics. Noa claims that not long afterwards she had to leave this program since the feeling of inferiority in comparison to the boys always existed. She says that she learned in a class of thirty boys and eight girls. The attitude from the boys was wonderful, but the feeling of inferiority in comparison to the boys always existed. The interesting thing was that the emotions and feelings had no basis but rather the reverse, since in the tests the girl's scores were higher. However, it is not possible to argue with feelings and emotions, and Noa left the program of study. The years passed, and Noa, like most of her female peers, chose a profession considered a 'female profession'. Noa, today, works as an occupational therapist. Her dream and the field of hi-tech she left to her husband and the few girls who remained in the class. Today Noa maintains that what is important is that her own daughter will be happy and therefore she does not intend to push and encourage her rising first grader to learn scientific studies.

According to Detal and Tocker (2011), Noa's story is not only a personal story but also constitutes an example of the one of the areas in which the Israeli economy is missing out. Here, like the rest of the world, the inequality between women and men is expressed in the study class as well. In most subjects of science and technology, already in the schools there are far more boys than girls. These gaps remain in the universities and then in the workplace. The girls choose 'female' professions, while the boys choose 'male' professions. So, what is lost here? There is a tremendous economic loss since there are abilities that are not fulfilled. Society has created a worldwide economic problem (Detal & Tocker, 2011). An example of a profession that is considered a female profession is the teaching profession. Most of the workers in this profession are women. One of the explanations for this is the comfortable working hours, the number of days off, the low wages and the low admission level.

The data show that girls have higher ability to excel in scientific and technological subjects, as expressed in their scores. The girls do not fulfill their abilities. According to Detal and Tocker (2011), the story of Noa is an international misfortune. In the examination of the

composition of students in the scientific programs in the schools, it is apparent that the boys generally are an absolute majority, namely, we have succeeded in crated a global economic problem.

According to Becher (2012), girls less take the tests but when they do take tests then their score is like the boy's score and the girls even excel more than the boys. Looking at the mathematics test scores in the fifth grade, we see that according to the *Meitzav*[2] tests of 2010 for the fifth grade in mathematics the boy's achievements were 12 points higher than the girl's achievements while in the eighth grade the girl's achievements were 5 points higher than the boy's achievements. However, this datum does not influence the future. Examination of the gaps between boys and girls shows that the advantage of boys in the fifth grade is a unique advantage. All the other gaps are in favor of the girls.

Why is the gap in mathematics in the fifth grade so great? How does this gap impact the future choices of the girl students, if it does? According to Becher (2012), in the examination of the achievements in mathematical literacy according to gender the mean score of the girls in mathematical literacy is lower by 12 points than that of the boys. Here the advantage of the boys in the upper class is reinforced (although in the eighth grade there was a slight advantage to the girls). Is this the continuation of what occurs in the fifth grade? Is this the reason for the exclusion of the girls from this field?

The document *Gender Gaps in Mathematics and Sciences in the Elementary School, Evaluation of the Situation and Recommendations* (Ministry of Education, 2002a), notes that there are gaps between the boys and the girls. These gaps accompany the girls over the years. However, despite the low participation of girls in the scientific and technological subjects, their achievements in school are significantly higher than those of boys.

According to the document *Gender Gaps in Mathematics and Sciences in the Elementary School: Evaluation of the Situation and Recommendations* (Ministry of Education, 2002a), 48% of the students who took the five units of mathematics high school matriculation test were girls, while in physics the girls constituted only one-third of the test-takers and in

[2] The *Meitzav* tests are standardized examinations held in Israel by the Ministry of Education.

computer sciences only 30%. The document further notes that these gaps accompany the girls into the university, and although today more women than men study for the bachelor degree in institutions of higher education – 54.6%, there is clear division between genders. Women prefer to study the 'feminine professions and men the 'masculine professions. Thus, for example, in the year 2008 women constituted about 59% of the students in the humanities and about 80% of the students in education. In contrast, in the studies of law only 48% of the students for the bachelor degree were women, in business only 45%, and in engineering and architecture only 28%.

This document, *Gender Gaps in Mathematics and Sciences in the Elementary School: Evaluation of the Situation and Recommendations* (Ministry of Education, 2002a), shows that despite the low participation of girls in the scientific and technological subjects, their achievements in the schools are significantly higher than those of the boys. Hence, for example, in mathematics 61% of the girls completed the high school matriculation examination with a citation for excellence (a score greater than 85) as opposed to 59% of the boys, and in physics 58% of the girls excelled as opposed to 52% of the boys. In subjects where the percentage of the girls is significantly lower, their percentage of excellence is far higher. For instance, in electronics and computers, 77% of the girls excelled as opposed to 54% of the boys. When a girl chooses to study a profession that is considered masculine, she makes the decision after thinking about the subject, consulting with the appropriate factors and since she is excellent in the field and accordingly, the average scores of girls who choose male subjects are higher than the boys who study in the same field.

The above document (Ministry of Education, 2002a) states that, in contrast to the other problems in the Israeli educational system, this problem is a problem shared by many others. In the countries of the West, people are concerned about the situation and are attempting to find solutions and the topic has arisen in recent months in a special meeting of the United Nations and the OECD. According to the data of the OECD, in most of the countries of the West, girls choose less than do boys to study the scientific, technological, and engineering subjects. According to the report presented in the OECD, equality needs to begin already at a young age. The organization has also declared that this is one of its goals. The report states that providing more opportunities for women will help increase the

productivity in the economy, the employment of women will increase the revenues from taxes in countries, and their contribution to the economy will be expressed also in the promotion of innovation and competition in business.

According to Professor Hagit Masar Yaron (the President of the Open University), in the document *Gender Gaps in Mathematics and Sciences in the Elementary School, Evaluation of the Situation and Recommendations* (Ministry of Education, 2002a), this is an international phenomenon. She asserts that there is a trend of improvement in the topic of the gender gaps. However, it is necessary to be active and not to depend on evolution. She holds that it is necessary to do more to realize the greatest resource that we have, which is the brain. The outcome of the lack of contribution of women is that we can not develop as we might have developed if there had been more women in this field. If there are no women in these professions, then it is a problem of the professions – and not of the women. It is necessary to examine how to cause these subjects to be more significant in our life so that girls will take part in them.

Einat Zohar, of the School of Education of the Hebrew University, in the document *Gender Gaps in Mathematics and Sciences in the Elementary School, Evaluation of the Situation and Recommendations* (Ministry of Education, 2002a), maintains that in our society there are still gender stereotypes. The girls receive a variety of messages from different sources in society, according to which they are different from boys in all that pertains to the expectations of them. The messages today are more subtle, since we are more advanced and in essence more politically correct, but nevertheless these subtle messages, these gender stereotypes, still exist. According to the research studies, these messages come from the parents, from the grandparents, from the teachers, from the kindergarten teacher, from all the agents of socialization.

3.4 Social Models for Gender Differences in Mathematics

The hypothesis is that the gap in achievements between the boys and the girls derives from gender inequity, the gap due to the inequity hypothesis, which is often called the gender stratification hypothesis. The hypothesis links between the equality of opportunities of

women and men in society in general and the achievements of the students in mathematics. According to this model, the gap in mathematics to the detriment of the girls is expected to be smaller in countries where women are integrated in society and in the economy equally. The existence of the equality of opportunities between the genders in society influences indirectly the girl's achievements in mathematics, apparently because of the social perceptions and following the expectations conveyed to the girls in a more equal society. Indeed, it was found that when the equality is greater, the gap between the genders was smaller (Guiso, Monte, Sapienza, & Zingales, 2008). As a math coordinator, classroom educator, and math teacher, in classes where I educated and taught math, in elementary school, I was concerned about promoting gender equality and during the period the gaps between girls and boys narrowed. The girls participated, cooperated, their confidence in knowledge and their success increased and as a result the gap disappeared. The girls did not consider themselves any different or less good than the boys. In the lessons I made sure to convey the message that everyone can and gender has no meaning in terms of being able to succeed in math. Every teacher promotes gender equality - the problem is that teachers can recite the equality statements but do not act on them and thus do not advance the process.

To differentiate from the gender gap in mathematics, which was found diverse in size and direction, in different research studies, in different tests, at different ages, in different countries, and which was documented in some of the research studies as steadily reducing over the year, the research addressing the gender gap in the field of language indicates a consistent and stable gap in favor of the girls.

The inter-gender gaps were studied separately. The two subjects are learned by the same students in the same system, and thus it is important to examine the differences in the learning achievements in the two areas and in parallel to examine whether there is a relationship between the gaps in the two fields.

The data of the research studies on the topic indicated that the girl's achievements are higher on the average than the boy's achievements in reading literacy are, while in mathematics the picture is generally reversed – the achievements of the boys are higher than those of

the girls. As the gap in favor of the boys in mathematics was smaller, the gap in favor of the girls in language increased. The size of each of these two gaps is related, as Guiso et al. (2008) and Kane and Mertz (2012) showed, to the economic level of the countries and to the degree of equality between the genders therein.

It is necessary to differentiate between a general improvement in girl's achievements (in all the subjects) related to the economic level and the degree of equality in society and the question of the reduction of the gender gaps. According to Stoet and Geary (2013), the rise in the economic level of the country and/or greater equality in society are related to a general increase in the school achievements in all the subjects (in both gender groups). However, they may increase the gender gaps in favor of the boys in mathematics and reduce the gaps in favor of the girls in language. They show that this characterizes countries that lead in economic terms and in terms of equality between the genders, which area also characterized by high scholastic achievements, such as the countries of the OECD (Organization for Economic Co-operation and Development).

It can be concluded that in these countries the gender gaps in mathematics are greater than in the developing countries. The researches negated the conclusions according to which the rise in the economic level and/or adoption of an equal policy between the genders entails the reduction of the gaps (in favor of the boys) in mathematics.

Similar findings were found in the PISA 2012 research on mathematical literacy (OECD, 2013). It is important, on one hand, to note the differences between the two disciplines and on the other hand to adjust the investment of the countries in education according to the desired goal. One goal can be the improvement of achievements in general, while another goal can be the reduction of gender gaps in the upper part of the ability or reduction among students with difficulties (Stoet & Geary, 2013). The researchers agree that it is necessary to continue to research so as to understand in-depth the question of the correlation between the two areas, reading and mathematics, and the relation between the gender gaps in these two fields and the economic level and the level of equality between genders in the country (the two factors are found, as aforementioned, to correlate).

Summary of the variety of the research studies that concurrently address the two areas of knowledge indicates the following. First, there is a consistent correlation between the gender gaps in language (reading) and in mathematics. Second, there is a permanent ranking between these two areas of knowledge: the largest gap in favor of the girls is always in the field of language, while the largest gap in favor of the boys is in the field of mathematics.

3.5 Gendered Teaching of Mathematics: Student, Family, Teacher, Class, and School

Mathematics is gendered. We examine the reasons for the low number of girls in the field from three directions: the direction of the student, the direction of the family, and the direction of the teacher, the class, and the school (Ministry of Education, 2002a). In terms of the students, girls have a low self-image and there is a stereotype that sees the scientist to be a man. In addition, there is the attribution of reasons for success and failure: the girls attribute the success to others and the failure to themselves while the boys attribute the success to themselves and the failure to others. In terms of the family, from an early age the boys and girls receive a different attitude. In terms of the teacher, the class, and the school, the teacher's attitudes lead to the low expectations of girls and a different attitude towards the boys.

In terms of the atmosphere in the class, girls function better in the classes with a model of imitation and with greater representation of girls, when they receive constructive feedback for learning, when the class atmosphere is encouraging. The girls search for a personal relationship (Ministry of Education, 2002a). It is important that teachers be role models. It is necessary to create an atmosphere that encourages learning, an atmosphere that encourages asking questions, pleasant and full transparency, an atmosphere that can make girls collaborate, feel comfortable and succeed. With each student, a personal, constructive relationship must be established that can lead anyone to progress and succeed. Most teachers flow with the boys - it's very comfortable and less complicated, but it's just the way to increase gender gaps and not reduce them.

In terms of ways of teaching, girls succeed in collaborative work and in receiving personal reinforcements, while boys prefer individualized work. The boys are more competitive. In the mathematics lessons the emphasis is generally placed on competitive learning (Ministry of Education, 2002a). It is very important to diversify the ways of teaching and learning. The girls love to work in a groups, with collaborating while the boys like to work Independently, the boys love to be competitive. It is important that all teachers make sure to incorporate diverse learning methods that fit both genders. Many times teachers teach in the plenary, the whole class. They ask questions and wait for an answer - this is a competitive way that is not suitable for girls at all. This is exactly the way that continues to create gender gaps between girls and boys.

Perhaps it is preferable to study in single-sex schools? Here too the opinions are divided, when the proponents of study in the single sex classes show the effectiveness of the learning in this type of class, especially for girls who are specializing in mathematics and sciences. The opponents maintain that the school needs to reflect the society in which we live and thus co-educational schools will better prepare the students for real life, for functioning in a mixed society (Ministry of Education, 2002a). In everyday life we live in a mixed society, a society made up of men and women. The school should prepare the students for life and accordingly it is important that the classroom composition be involved. The composition of the class must reflect reality and only in such composition should the difficulties be addressed. Children must be taught to deal with the real world.

The document “Gender Gaps in Mathematics and in the Sciences in the Elementary School” (Ministry of Education, 2002a) notes applicative recommendations from the perspective of the student, the teacher, the teaching methods, and the family. For the student, it is necessary to raise the awareness and improve the self-image through workshops. For the teacher, it is necessary to support change of the teacher’s behavior. For this, it is necessary to cultivate agents that will take care of it (subject coordinators). From the perspective of the teaching methods, it is necessary to change and to improve: it is necessary to create cooperative work assignments in small groups, when each student will receive a role and will contribute to the activity. It is necessary to link what is learned to everyday life. From the perspective of the family, it is necessary to encourage the parents

for cultivation in the topic. These applicative recommendations are important. The recommendations for dealing with gender gaps relate to the student, the teacher, the ways of teaching and the family. Students should be addressed and raise awareness of the gender gaps; all student's self-image should be improved. Equal and non-gender behavior should be applied to boys and girls. It is important to teach in a variety of ways, to hear each student and student and connect learning to daily life. It is important to update the student's parents and request cooperation at home. Collaboration is important to the success of the equitable learning process and to reducing gaps. All of us, all social agents must work collaboratively and speak the same language. As of today, teachers and parents and all other social agents speak the same language, the problem is that the language spoken by teachers, parents and other social agents is unequal and does not reduce the gender gap but perpetuates it.

Becher (2012) comments that in the field of mathematics in Israel there are few girls. The explanations she suggests are:

- Teachers have low expectations from girls.
- Teachers positively favor the boys.
- Girls function better in the classroom with a personal example and high representation of girls.
- Girls succeed when the class atmosphere encourages the expression of opinions, when the teacher appreciates their abilities and when the feedback builds knowledge.
- The patterns of teaching that encourage competitions and algorithmic learning are more harmful to girls.

  Many teachers have low expectations of girls. Many teachers prefer boys and relate them more during the lessons. It is important to understand, to use illustrative means and not to teach algorithmic learning. Most teachers teach frontal algorithmic learning. This is very convenient for the teacher, but it is suitable for boys and not for girls.

  According to Becher (2012), in actuality the dialogue conducted with boys is

different - girls are accorded more emotional and forgiving expressions while boys are accorded encouraging and inspiring language. The feedback is forgiving for girls, while for boys it is aimed at solutions. The dialogue that teachers have with boys is different from the dialogue that teachers have with girls. Teachers tend to give girls more emotional and forgiving reinforcements. Teachers often give boys different reinforcements, they encourage and provide focused, learning-oriented feedback.

Although in recent years the gap in achievements in mathematics between boys and girls has lessened, the field remains a male one. Why? Is this the structure of the brain? Or is it society? Or is it the teachers? According to Becher (2012), education plays an important part in the shaping of the stereotypes of behaviors and choices. Becher remarks in her article that, according to Hazan (2010), there are no gender-based differences in abilities. The gender differences in achievements throughout the years of study and employment are a result of social constructs.

The teachers, male and female, provide different feedback for boys and girls. The differential treatment begins from the age of zero (Ministry of Education, 2002a). This differentiation of the treatment that is given to the children comes from gender stereotypes. Teachers hold beliefs about gender roles, which influence their expectations about male and female characteristics. This influenced behavior occurs more when the teachers do not know a child well (Cahill & Adams, 1997). Teachers give different feedback to boys and girls. The various feedback is given and influenced by the existing stereotypes in society and according to the different expectations of teachers from boys and girls.

Studies show that teacher's expectations in learning math are biased by student gender. It has been found that teachers of sixth-grade math classes believed that boys were more talented at math than girls, even though there were no differences between boys and girls in actual math scores (Tiedemann, 2000). Specifically, studies in elementary schools showed that teachers perceive the male students as being more logical, competitive, independent in math, and liking math more, than female students (Gunderson et al., 2012). Teacher's expectations in mathematics learning are biased by student gender. In my

research, teachers said they thought boys were more talented in math than girls because boys were more independent in math and they like math better and succeed more than girls.

In addition, both parents and teachers have math anxieties and they hold different beliefs about whether or not math ability is a stable trait. These are significant influences on the attitude of the child for learning mathematics. As a result, teachers with gender stereotypes regarding math ability are leading students to have the same stereotypes towards themselves. Studies have also shown that in classrooms where teachers had higher math anxiety, the girls in that class were more likely to adopt the stereotype that boys are better at math than girls. Those girls who developed math-gender stereotypes also reached lower scores than girls who did not adopt that way of thinking. This is also related to a mechanism named Modeling. Children copy behaviors and beliefs of adults. In addition, since most elementary school teachers are female, as will be addressed ahead (Zamir, 2010), then modeling is more influential for girls rather than boys (Gunderson et al., 2012). The math teachers serve as an example for girls who draw inspiration from them. Teachers who do not like math and / or are afraid of the profession convey the feeling to the girls. There are teachers who did not study the profession but teach it and accordingly convey their feelings, the insecurity and fear of the profession to the girls. Those girls grow up knowing that boys are better than girls in the math profession and that's innate.

Teacher's attitudes impact their behavior toward the students in their class. Teachers with higher expectations from boys than girls may give boys more challenging problems, believing that they have higher probability to solve those problems. This is a more implicit way for the effect of a gender bias towards math abilities. The more explicit influence of gender stereotypes in the classroom is that some teachers tend to give labels to children. Girls may get more criticized than boys when asking for help (Gunderson et al., 2012). Teacher attitudes influence their behavior towards students in the classroom. Teachers expect more from the boys than the girls, teachers think that boys understand and succeed in math and accordingly challenge them with more difficult and complex materials.

It is important that the schools will act to improve the regular classes so as not to reinforce the existing stereotypes. According to Becher (2012), it is necessary to teach in mixed

classes, to educate and hold an intelligent discussion to understand the significance and implications of the stereotype, from the desire to reduce its intensity. Becher thus supports the assertion of Hazan (2010) that it is necessary to correct the existing situation, since the fact that there are only a few women in the field causes losses. Becher's statements support what was stated in the chapter on the difference between genders. It is important not to reinforce existing stereotypes in society. At school it is important to teach in mixed classrooms where boys and girls are present, it is important to talk openly and transparently and educate to understand the meaning and implications of the existing stereotypes in society. This is the way to correct the existing situation. Teachers need to understand that this is their mission. I talked with some teachers that even if they understand the mission - they do not know how to deal with it.

3.6 Women Teaching

Teaching in the past, like today, is perceived as a profession suited more for women. This suitability of the teaching profession to women is generally explained first by the suitability of the work hours, which are convenient for women and facilitate the integration between the roles of the woman as a wife and mother and her employment. The second explanation is the abilities required of the teaching profession, the abilities required of the teacher, are feminine abilities, and therefore it is natural that women decide to become teachers (Tsellermeyer & Perry, 2002).

The cultural assumptions succeed in presenting to us the existing picture of the world as a picture of the situation that is obvious (Tsellermeyer & Perry, 2002). Is it obvious that the teaching profession suits women? Does the profession allow them to express their traits and abilities?

It is apparent that there are two spheres, the home sphere and the public sphere. The personal sphere is perceived as the woman's area of expertise, while the public sphere is considered the man's field of expertise. The biological differences between men and women enable the presentation of the gender division as a natural division. These assumptions create in parallel to the division of roles between genders different

expectations of men and women and also unequal division of power and prestige. This perception influences the perception of the women as secondary in the job market, as secondary earners.

It is important to remember that the teaching profession by nature is not a feminine or masculine profession. In the beginning, most practitioners of teaching were men. In contemporary Western society teaching has become a profession for women, a profession devoid of prestige and glory. The teaching profession, identified as a feminine profession, illustrates a vicious circle. The profession loses its prestige in the job market, causing a decline in the compensation it provides and in the attractiveness of the profession, which cause a decline in the quality of the people who turn to teaching, a decline that reinforces the deterioration of the profession. The price is paid by society, which loses the important instrument – education.

According to Tsellermeyer and Perry (2002), from the beginning of the 20th century most of the practitioners of the teaching profession in Israel have been women. These teachers convey from generation-to-generation implicit messages that perpetuate the unequal place of women.

This is the situation of women in society. On one hand, women live in an advanced society, while on the other hand women's voices are not always heard. Aloni, Donitza-Shmidt, and Simon (2010) write that developed countries are noted for a strong gender policy of equality between genders that ensures full equality for women in their rights and opportunities and an enlightened educational policy that invests considerably in the promotion of education through a quality and equal educational system. This document describes that the situation in Israel has worsened in recent years. According to the authors, the social, cultural, and political trends that bind the Israeli educational system and sometimes even causes it to regress must be addressed. According to the Global Gender Report (2009), the measure of the status of the woman and equality between genders (Aloni, Donitza-Shmidt, & Simon, 2010), which examined in 134 countries the level of equality between women and men in the areas of economy and employment, education, health, and politics, Israel is found in the 45th place in economy and in the 41st place in

employment, primarily because of the prominent inequality between women and men for the same work. In the developed countries the salary gaps on a gender basis have nearly completely disappeared. This gap is one of the reasons why the OECD refuses to admit Israel to its ranks, despites repeated requests.

According to Avrahami-Einat (2007), in Israel people have talked for years about the equality of opportunities in education. The Ministry of Education has declared its commitment to promote girls, but in the field, there is no evidence of a significant advancement. The educational institutions constitute an emissary of society and accordingly reflect its perceptions and values and thus the change that has occurred and is occurring is a limited change.

There is a gap between intention and activity. This gap is not surprising. In order to change the entrenched gender perceptions, it is necessary to undertake actions, which apparently cannot come from the field of education, which constitutes an emissary of society. The issue of the gender is perceived as a female problem and hence this issue is found at the margins of the social discourse (Avrahami-Einat, 2007).

A look at the teaching of mathematics in Israel, gender differences, the partners in the creation of this gender difference, the social models that explain it, girls and mathematics, and teaching of women - describe some of the components of the problem, and the educational system is not alone in the story. The educational system must have the partners who constitute the agents of socialization and society at large so as create change and succeed.

Chapter 4: Gender issues in contemporary Israeli society

4.1 Equality between genders in Israeli Society

Equality between people is one of the basic values extant. Equality between genders is a part of equality between people. The equality between genders is related to education in two aspects. The first aspect is the reflection of the difference between genders in the educational system in general and in educational activity in the school in particular, and the second aspect is the influence of the school in the structuring of the differences between genders and in its contribution to equal education.

Israeli society, from the day it was established, has proclaimed the idea of equality between genders. The Declaration of Independence of Israel emphasizes in its principles that "it will ensure complete equality of social and political rights to all its inhabitants irrespective of religion, race or sex". Equality between genders as a social value has existed throughout Zionist history but always as a marginal topic. Like the situation in other countries, in the State of Israel the principle of equality between genders is found at the basis of the democratic thought, when over the years additional laws were legislated, intended to establish the principle of equality between genders.

Israeli society has a main problem. Despite the advancement in the legislation, the enforcement of the laws is slow. In Israel there is a daily problem of the discrimination against women in all areas of life (Shachar, 1999). There are unequal attitudes among the shapers of Israeli society.

1. The cultural tradition anchored in the Jewish religion gives the man a central place in society, while the woman has her 'dignity inside'.
2. The centrality of the family, in which the responsibility for children is identified as the woman's main role and naturally every other role she assumes upon herself is secondary.

3. The mass immigration of the Jews from the countries of the Middle East and North Africa in the 1950s brought to Israel a large number of immigrants with traditional perceptions about the centrality of the woman's role in the family.
4. The absence of developed services of daycare centers and nurseries close to the workplaces that do not entail high fees prevents women from investing in their jobs.
5. The military and the security situation of the State. The military by its nature and goals is a male organization, forceful. The regular situation of security tension in Israel caused the development of a culture with a male orientation that emphasizes the role of the man as protector of the nation, the woman, and the children, while the woman has a passive feminine role and her area of responsibility is the home and the children.
6. The rise of the power of the religious parties.
7. The method of personal elections that is based on many resources and organizational power, which are two power bases women lack.

The combination of these factors gives the woman her appropriate and proper place. To create an equal and democratic society that can realize the vision of the Declaration of Independence, it is necessary to shatter this vicious circle (Shachar, 1999).

In the framework of the secondary studies, women tend to choose different areas of study than do men. Women choose subjects considered 'women's subjects. This document notes that a minority of women in the studies of mathematics, technology, and the sciences harms their ability to integrate in prestigious and profitable professions and their contribution to the State economy. To address the problem, it is necessary to examine where this situation comes from and to attempt to address it in the stages of its early formation, namely, in the elementary school (Ministry of Education, 2002a).

Erikson (1950) defined the period of the elementary school as a stage in which the productivity of children leads them to a feeling of success and supremacy or to a sense of failure and inferiority. When children experience productive and rewarding experiences, experiences accompanied by a feeling of success, then they will continue to direct their resources to positive experiences of this type, experiences that will create in them a feeling of relative superiority. When the children undergo the opposite experiences, experiences

accompanied by a feeling of failure, then they will feel inferior in these areas and will attempt to avoid them in the future. This is very logical, and therefore the experiences of learning mathematics at the age of the elementary school may influence the choices of the continuation studies and future occupations. Hence it is important to emphasize the rewarding experience, the positive and equal experience in this stage, the experience that will enable openness and ability to learn scientific and technological subjects in the future.

The Ministry of Education (2002a) addresses the gender gaps in mathematics and the science as expressed in the elementary school. This document proposes solutions intended to promote the girls and to reduce the gaps between the boys and the girls in elementary school education. One of the reasons for the gender gaps, as noted in this document, is that teachers, male and female, at all levels of education hold lower expectations in mathematics and the sciences of the girls and they discriminate against the girls in favor of the boys. This expectation is a self-fulfilling prophecy.

According to Zamir (2010), in recent years the gap in the achievements of mathematics of boys and girls has been reduced, but nevertheless the field of mathematics remained a significantly 'male' profession and subject and not a 'female' one. Moreover, according to Zamir (2010), recently a new research study, conducted by Professor Beilock of the Department of Psychology at the University of Chicago, maintains that the factor responsible for this situation, the empowerment of boys and not girls, is the women teachers of mathematics. The professor maintains that the anxiety that the women teachers themselves have about the subject are passed to their female students. This thinking is interesting, especially since most of the teachers, both in Israel and in the United States, are female teachers (for instance, in the United States 90% of the mathematics teachers are women).

Zamir (2010) notes that Professor Orit Chen, from the Department for the Instruction of Sciences and Technology at the Technion, Israel Institute of Technology, explains that:

> The results of the research emphasize the considerable importance of education in the shaping of stereotypes of behaviors and professional choices. Today it is known that gender differences do not exist in the mathematical and scientific abilities between

> boys and girls and that gender differences in the achievements of male and female students in these subjects, beginning in the elementary school, continuing through academic education, and ending with the job market, are the outcome of social constructs. If there are no gender differences in the abilities and in essence all the choices are the outcome of social constructs, then it is very important to address the conclusions with great caution. We must be careful not to strengthen these social constructs, which constitute a problem in the very direction to the choice that occurs. We must deal wisely with these constructs so as not to strengthen the stereotypes.

According to Zamir (2010), it is very important to avoid the creation of separate frameworks of learning for boys and girls. Separate learning frameworks will reinforce the existing stereotype regarding different abilities, although the abilities and gender abilities are equal.

The gender index is a powerful measurement tool that examines changes over time in the situation of men and women in Israel. The gender index presents a detailed picture of the inequality between men and women in various areas of life (employment, education, poverty, political power, economic power, culture, media, violence, etc.). New fields are added every year. The results of the index are published every year (this is the eighth year) and its data are a compass that guides decision makers and governmental and public bodies in Israel.

The index reveals a variety of points of inequality between women and men in Israel. Gender inequality is a stubborn cornerstone of Israeli society. The index published in 2020 sheds light on the gender, social and economic consequences of the Corona crisis. The trends of inequality found in the past have only increased and deepened following the Corona crisis. The corona epidemic has led to an increase in inequality between the genders and may in some ways harm the achievements of the last decades in the field of education, employment, the transparent division of jobs between women and men and the fight against violence against women. Main results of the 2020 Gender Index: There is a persistent gender gap in all areas of life. In most areas of life, a gender gap is maintained in favor of men. In some areas, not only is the gap not narrowing, but it is also increasing over time (Gender Index, Gender Inequality in Israel 2020).

4.2 The Educational System in Israel

The educational system in Israel is found in a process of change that has the goal of improving the quality of the students (Hadad, 2009). Education in Israel has failures that derive primarily from the lack of flexibility, the centralization, and the erosion of the status of the teacher and the principal. In addition, international pressures do not leave the system with a choice other than to adhere to the criteria of the OECD, which Israel seeks to join. The State of Israel still has a long way to go before it catches up with the developed countries, primarily in all that is related to the recompense of the teachers and to the teachers' status. It will take some time until it will be possible to see and to analyze the influence of the new reforms. In education we are talking about process and the results will be seen in the field only after time.

The State of Israel dedicates about 8% of its budget to education (Hadad, 2009), but nevertheless it is continuing to decline in the students' achievements in the comparative tests. The investment in education is a long-term investment, and its positive and negative outcomes are measured in the contribution of the students to society and through academic achievements, and both are achieved only over time.

In 2006 the mean salary of a teacher in the OECD was about 128% the GDP per capita, when in Israel teachers earned only about 68% of the GDP per capita (Hadad, 2009).

The mean class size is a datum that is a focus of considerable attention in the discussions on the quality of the educational system. The mean number of students in the class influences the output of the system. In the State of Israel, it is necessary to reduce the number of students in the class, since the average number of students in the class is high. It is important to understand that the reduction of the number of students in the class obligates the absorption of new teachers into the system, when the quality of the teachers is one of the most important factors in the success of the system (Hadad, 2009).

In the past years, educational systems in the world became an inseparable part of the social services that the state provides its citizens. Education is perceived as important and significant to the development of modern economy and as a tool that promotes democratic

values. The rapid development of science and the diverse social changes are challenging the educational system (Hadad, 2009).

The educational system assumes a main role in education for behavior in society. The schools are the main focuses of knowledge, and the schools also bear some of the responsibility for the increase in the desired and undesired behavior of the students. In addition to this educational challenge, the schools are forced to cope with changes in the learning methods, which adjust themselves to the increasing abilities of the students. In the modern era, the difficulty arises to challenge the student's ability and to present to him intellectual incentives that he finds abundantly outside of the educational system (Hadad, 2009).

One of the most important developments in the measurement of the successes in the educational systems is international comparison, as in the example of the TIMSS test (Trends in International Mathematics and Science Study), which examines international trends in the studies of sciences and mathematics, and the PISA test (Programme for International Student Assessment), which examines the student's achievements around the world in the areas of the sciences, reading, and mathematics. According to these two tests, Israel is ranked under the global mean, far from the cluster of the Western countries. Israel is ranked 39th out of 57 countries in the PISA and 24th out of 48 countries in the TIMSS. It should be noted that in the year 2003 Israel was ranked in the 32nd place in the PISA test and a trend of decline is apparent both in the sciences and in reading (Hadad, 2009).

Today, it is possible to notice a process with the goal of self-supervision of the quality and results of learning. The responsibility is given to the schools themselves. The granting of authorities to the schools, as presented in the framework of the Dovrat Committee of 2003 (IDI, 2005) and implemented in part in the New Horizon Reform[3], enables the schools to respond to specific problems that perhaps would not have received a response in the past.

[3] The New Horizon Program is an educational and professional reform program in elementary school education that was first proposed and presented on March 24, 2008. Its main goals are to improve the status and salary of teaching workers, to change the structure of the teaching position, with frontal teaching hours, individualized hours, and at-school hours, to improve the learning spaces of the students

In addition, today teachers and principals are compensated in a way that has the goal of ensuring a team with motivation, and with the increase of the salary of beginning teachers it can be expected that the teaching staff will be enriched with higher quality professionals. It should be noted that in 2005 the salary of teachers with experience of fifteen years of teaching was lower than the salary of teachers in the OECD countries by 88% and was only $14,716 a year in absolute terms (IDI, 2005).

The presentation of Israel as a possible candidate that will join the OECD broadened the ability of assessment of the educational system. The OECD since the year 2000 has operated an international assessment program for students aged fifteen from the developed countries. This assessment program includes tests in the subjects of reading, science, and mathematics. Israel is currently ranked under the OECD average and showed a decline of seven places in its ranking since the year 2003 (IDI, 2005).

Since September 2007 the Israeli educational system has begun to implement the steps of the New Horizon Reform, in light of the understanding that the efficiency of the educational system is critical to economic development. Since 2007, the educational system has been implementing the New Horizon Reform, with its goal of addressing the acute problems the Israeli educational system faces, including the lack of flexibility of a centralized system, lack of ability to provide a solution to local requirements, and the erosion of the status and authority of the teacher and the principal. A considerable part of this reform is linked to the international standardization that forces the Israeli educational system to align with it. Israel still has a long way to go to catch up to the OECD countries, primarily in all that pertains to the compensation and status of the teachers (IDI, 2005).

The State of Israel dedicates a high percentage of its budget, relatively, to education but still continues to decline in its student's achievements in comparative tests, such as the TIMMS and the PISA. The investment in education is investment for the long-term, and thus the positive and negative fruits are reaped only after considerable time. Therefore, it is must not be concluded that the solution to the problem is budgetary; rather, it is necessary

and the work environments of the teachers, and to ensure continuous professional development of the teaching staffs.

to find the ways to improve the quality outputs of the system. The State of Israel is facing many challenges for the improvement of its educational system and thus it has the obligation to continue with the reforms that it has initiated in the topic of education. The investment in education is one of the most important investments that a country can make to improve its future (IDI, 2005).

4.3 Schools in Israel

Formal education in Israel is the part of the educational system found under the responsibility of the Ministry of Education and based on the country's budget. The institutions of formal education include kindergartens, elementary schools, middle schools, and high schools. In Israel students must participate in the studies for thirteen years: from kindergarten through twelve years of schooling (Ministry of Education, 2002b).

All the compulsory studies are supposed to be without payment. In actuality, however, some payments are required of the parents in all the educational institutions. The Ministry of Education supervises the schools through supervisors and teachers in the roles of instruction. Formal education is a name for the form of education commonly found in the schools in Israel. In this form of education, the main figure responsible for the education of the students is the teacher. The accepted characteristics of formal education that exist in most of the schools are the considerable reference to the teacher's authority, maintenance of discipline and order, use of grades and formal methods of appraisal as a way to evaluate the students, and so on, as a part of the value-oriented education and in parallel as a tool that enables the entire process of education (Ministry of Education, 2002b).

The schools in Israel are large institutions that are active in the mornings and contain many classes, divided according to grade (age) level (in other words, a class generally includes children born in a certain year). A grade consists of classes of children born in the same year. There is a division into different schools, also according to the students' age: elementary school, middle school, and high school. In most schools in formal education, there are formal methods of evaluation, in which the students are found in a position in which they are required to complete tasks assigned to them by the teachers, who received

directives from the school principals. The attendance in the lesson and the fulfillment of the tasks are considered mandatory in most schools. These characteristics may sometimes create patterns similar to characteristics of a bureaucracy, for instance, the creation of practices that constitute regular patterns of action. The formal traits of the modern school bring it to use formal assessment and measurement so as to examine the level of the students in the understanding of the learned material. The assessment is for the most part given as numerical scores, given personally to every student, on the basis of the student's personal achievements (Ministry of Education, 2002b).

The scores are determined according to diverse methods of evaluation, when the main one is the test, which constitutes a questionnaire for the examination of knowledge. Obtaining a high score on a test is supposed to constitute an incentive for the student to invest in his studies, so as to achieve success and social benefit. Grades are also the main measure for the evaluation of the success of the school, and therefore school achievements are important achievements. At the same time it is important that test scores will not be the main goal oriented of learning and coming to school (Ministry of Education, 2002b).

The school also has a secondary aspiration – to hold additional educational activities, when the emphasis in them is not the study material (activities for enjoyment, workshops on topics related to culture and society, and so on). In addition, every school consciously shapes an educational perception that is special to the school (Ministry of Education, 2002b).

The education in the formal educational system is influenced by the values of modern society as a whole and influences them. The system that determines the grades, for example, is derived from the need of the free economy for the absolute, final, and quantifiable evaluation of abilities. The use of grades shapes awareness of social competition in the world of the students, in which the person is rewarded according to his objective achievements, an awareness that may increase the degree of individualism in society (Ministry of Education, 2002b).

The ability to choose the subjects of study is made possible primarily at the higher ages. The many subjects from which the student can choose derive from the social requirement

for professionalization (since the areas of engagement of society at large become more diverse and require higher skills). The school is influenced by this process and preserves it, by accustoming the student to thinking that focuses on a specific field of occupation (Ministry of Education, 2002b).

Although these characteristics are shared for the most part by modern schools, there are many types of schools that implement different methods of education (for instance, the democratic schools versus the regular school) and teach different subjects (for example, vocational education versus theoretical education). In the schools' diverse methods of education are applied, and the schools operate according to different principles for the motivation of the students, related to general behavior of society. The common principles of motivation in modern formal education are as follows (Ministry of Education, 2002b):

- To build the image of an authoritative teacher, through the emphasis of the age gap, the use of punishments, authoritative behavior, etc. This instrument reflects the values of society based on strong authority.
- Emphasis on the student's scores and the creation of a system of reward and punishment based on the student's aspiration for an increase in status relative to the other students. According to this approach, the student has the considerable ability to choose and each one of his actions has a 'price tag' that is expressed in the change in his scores. This approach expresses the individual and competitive values of society.
- Creation of a positive emotional attitude of the student towards his studies, the study material, and the school, through the creation of family characteristics, a system of trust with the teacher, enjoyable activities, and so on. This approach derives from the humanistic values of society.
- Involvement and participation of the students in the processes of education, through mechanisms such as the students' council, involvement in the design of the appearance of the school, and so on. This approach derives from the democratic and cooperative values of society.

  For the most part, use is made of a combination of the four approaches, all or in

part.

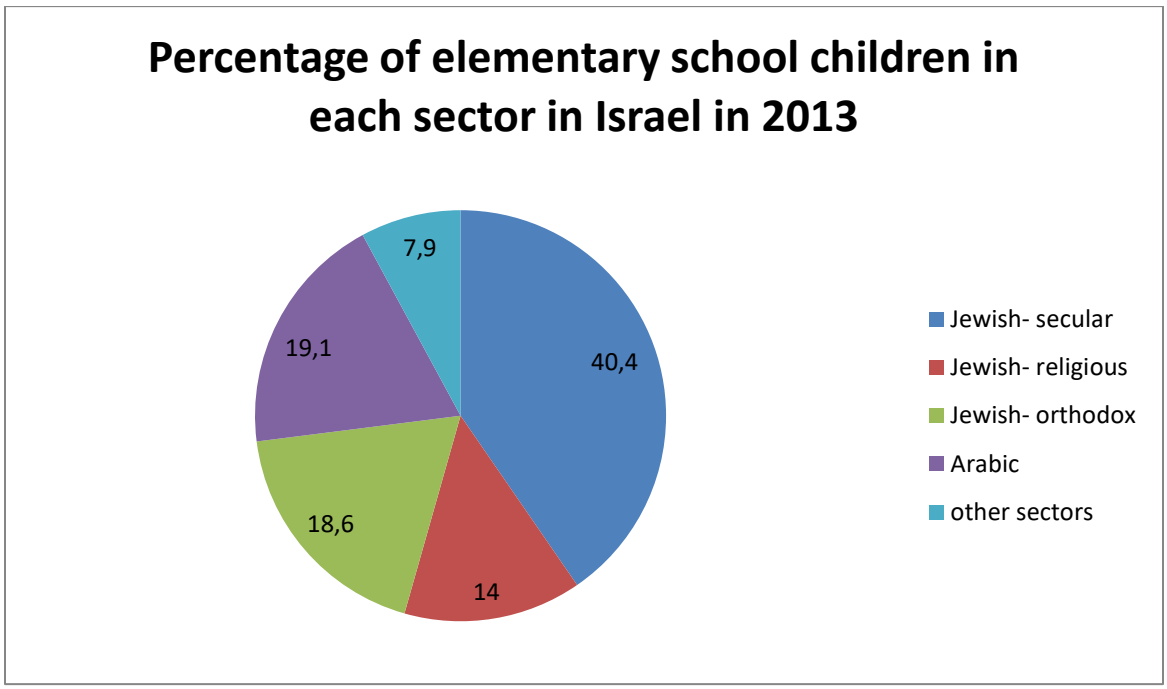
In the framework of formal education, the teacher engages in two intertwined processes: the shaping of the learning and the shaping of the experience of the next generation. In the field of the shaping of the learning, which is called teaching, the teacher engages in the transfer of information that the student needs so that he can function in the world: mathematics, history, science, religion, art, language, and so on. The learning methods change from culture to culture, but for the most part this is the direct transfer of the study material from the teacher to the student, through different instruments (for example, textbooks). In the field of the shaping of the experience, also called value-oriented education, the teacher attempts to shape the student's perceptions and awareness in a variety of ways, such as explanation of the manner of appropriate behaviors, punishment, and reward, setting the structure of the class and its physical design, personal example, and so on (Ministry of Education, 2002b).

The centrality of formal education in human society and its different traits led over the years to criticism on the part of many factors. There is criticism against the institution of formal education, for instance, some describe the school as a 'manufacturing line for students' or a 'factory for grades'. Another criticism describes the school as an institution that does not take into consideration the needs of the individual and the uniqueness of every student. Others criticize the efficiency of the method in its achievement of its internal goals. Further criticism describes the school as a dogmatic place, which attempts to place all the students into one cognitive template. As a result of this criticism, throughout Israel a number of 'open' institutions of education were established, as well as institutions for the training of teachers in this type of education. In these places emphasis is placed on the development of the students' independent learning through different means and on the elimination of tests as the measure of the student's ability. These schools are not many, and most schools in Israel are still found in the framework of regular formal education (Ministry of Education, 2002b).

4.4 Gender Stereotypes in the Education System in Israel

The Declaration of Independence of Israel emphasizes that "it will ensure complete equality of social and political rights to all its inhabitants irrespective of religion, race or sex" (Ministry of Education, 2002b).

The current structure of the Israel education system includes a division between different sectors, according to the main populations in society. First, there is a division between the Jewish and the Arabic sectors. More so, the Jewish sector is divided into religious schools and secular schools (Ministry of Education, 2002b). Forward is a pie chart describing the percentage of each sector in the educational system in Israel. Data is collected from the website of the Ministry of Education (2002b).



Researches of recent years have revealed the reality in which girls are discriminated against, receive less attention and reference from the teachers than do boys, and are subject to fewer expectations. Avrahami-Einat (1989) reinforces this argument, saying that in the educational system in Israel there are different expectations from girls and boys and explicit and implicit messages suited to these expectations are conveyed. Although the system is supposedly equal, the different programs of study are open equally for boys and girls, the classes are co-educational, and everybody is exposed to the same contents, it can be

hypothesized that the differences in the students' choice and in their degree of success derive also from the unconscious outlooks of the teachers regarding the roles of the different genders.

In the kindergartens, the use of gender stereotypes is prevalent. A research on the equality of opportunities in early childhood (Shachar & Zach, 2000) found that the attitude of the kindergarten teachers to boys is different from their attitude towards girls: when the same behavior appears in both genders, the kindergarten teachers will be stricter with the boys than with the girls. In addition, the general image of the boys according to the kindergarten teachers is less positive than the image of the girls (Shachar & Zach, 2000). The degree of interaction between the kindergarten teachers and the girls is different from that between the kindergarten teachers and the boys: girls receive more expressions of affection, which are expressed in body language, physical contact, and smiles. In contrast, there was no difference in the verbal use between boys and girls. It was found that the kindergarten children have sex-suitable preferences for the toys with which they play: girls play primarily with toys connected to language expression and taken from family life, while boys, in contrast, prefer construction games.

In the elementary school this conduct of the teachers continues the behavior of the kindergarten teachers and reinforces the situation.

4.5 Gender Aspects in the Educational System in Israel

(Expressions of Inequality between Genders in the Educational System)

The findings of research studies indicate a number of expressions of inequality between genders in the educational system and they are detailed in the following paragraphs.

4.5.1 Distribution of Human Resources

The concentration of women in education is steadily increasing, and the emerging trends do not indicate a change in the future. Although teaching is one of the prominent 'female' professions, men in teaching have a prominent relative advantage in the senior roles in the educational system. From data prepared for the Education Committee,

The culture and sports of the Knesset indicate that in 2020, 48% of teachers worked in the education system in the primary sector. The percentage of women teachers working in the education system is 82% in the primary sector. In examining the percentage of female principals compared to male principals, it was found that the percentage of female principals is 64%, while the rest are male principals (Avnei Rosha, 2012).

4.5.2 Different Attitudes of Teachers to Boys and Girls

The different and stereotypical attitude of the teachers to boys and girls in the classes constitutes a significant factor of the 'cultivation' of inequality and the increase of the gaps between genders (Ben Tzvi-Meir, Hertz-Lazarovitz, & Saphir, 1990). Many teachers convey messages of sex inequality among the students when they turn to them. In most cases, the teachers are not aware of these messages and frequently this derives from the teachers' replication of the stereotypic behavior's characteristics of the society in which they themselves were educated. The different attitude of the teachers to boys and girls is expressed in a number of main areas: the degree of the interaction, the evaluations on the report card, the nature of the interaction, and the handling of discipline problems.

Degree of Interaction between the Teachers and Boys and Girls. Teachers dedicate more attention to boys than to girls. Research findings (Avrahami-Einat, 2001) indicate that the rate of interaction of the teachers towards male students is higher than to female students. According to the findings, almost ten times the interactions that include praise, encouragement, invitation to the board, as well as scolding and punishment, refer to the boys. The girls are quieter, politer, and require of the teachers less. The strength of the interaction between the student and his teachers greatly influences the quality of the students' learning, their degree of dominance, and the strength they develop to ask, to share, to comment, and to take an active part in the lesson (Lamdan, 1997). The silence of the girls and their 'silencing' by teachers with the unconscious reduction of the intensity of the interaction contribute to making the girls more internalized, more passive, and less involved.

Evaluations on the Report Card. It was found that teachers through the report cards convey different messages to boys and to girls about their place in society. The findings (Avrahami-Einat, 2001) indicate that the verbal comments of the teachers in the report cards directed to boys are different from those directed to girls and indicate the nature of the relationship between them. Towards boys there is much more to say: the boys obtain directions for the future while the girls barely receive instructions. Boys receive concrete comments, in a strong language of command, such as "Improve your handwriting" and "Dedicate more to strengthening the topic", while the girls receive remarks that entail emotional appeal, such as "It is a pity that you did not try harder" and "I miss your active participation in the class". Many girls receive in the report card reinforcement of areas attributed to them traditionally, "Your notebooks are very orderly", "You are very polite", and "You behave maturely". When such general comments are directed towards girls, they are conveyed the message that they are suited to the familiar gender perceptions and they will continue to be polite and mature since in this way they are helping the teacher survive the teaching (Lamdan, 1997). The message to the boys is that they must put forth effort and improve.

Nature of the Interaction. The concrete remarks directed to the boys in the report card indicate the closer familiarity with them and the orientation on their content world. In addition, they give students clear milestones that enable them to correct and improve what is required. The teachers know more the personality of the boys since the boys require more reference from the teachers. They do not allow the teacher to ignore them, and therefore the teachers must know them well and learn how to keep their attention. The teachers operate in a class in which most of the noisy and disruptive students are boys. The girls are quieter and politer, and they demand and receive less, and therefore the teachers do not see the acquaintance with them to be an essential step so as to survive in the teaching system. Hence, the teachers put forth effort to ensure that the boys do not disrupt while the girls' discipline is assured, in their opinion. The findings indicate that the teachers tend to ask the boys questions on a high level of thinking, according to Blum's taxonomy, and evaluate them on the basis of intellectual performance, in contrast to the evaluations on the basis of order and behavior that they give the girls. The teachers encourage the boys to independent learning and expect of them high achievements in the studies. It was further found that the

teachers cultivate leadership and initiative among boys more than among girls. It was found that the way in which the teachers respond to difficulties of boys and girls is different. The boys are given help through guiding questions, encouragement to approach a problem from different directions, and encouragement to cope with the difficulty in alternative ways. The girls, in contrast, receive real help in the solution, sometimes directly, "Come and I will show you how" or "I will do it for you". Behind this attitude to the girls' difficulties is the assumption that they must be extracted from the difficulty and it is not possible to rely upon them to find the strength or the way to help themselves (Avrahami-Einat, 2001).

In addition, it was found that children, like their teachers, perceive the boys as more talented. This perception, which indicates the stereotypic attitude, steadily increases as the child gets older (Sapir et al., 1993). It is possible to hypothesize that the low expectations from the girls that derive from their perception as less talented than the boys cultivate among them a low self-image and lack of belief in their abilities, as in a self-fulfilling prophecy (Sadker & Sadker, 1994).

Handling discipline problems. The different attitude to boys and girls is generally expressed in sexist attitudes, of which the teachers themselves are not aware. These attitudes characterize both senior teachers and student teachers (Ben Tzvi-Meir, Hertz-Lazarovitz, & Sapir, 1990). Many teachers have a stereotypic pattern of thinking about how boys and girls should behave. This influences their response to events of discipline that occur in the class. Frequently the boys are expected not to like school, its requirements, and the discipline accepted in it. They are expected to behave violently, aggressively, and insolently (Sadker et al., 1991). In contrast, on the part of the girls there is no expectation like this but rather the reverse: it is expected that their behavior be characterized by obedience, diligence, scholarship, and concentration. Often they obtain positive reinforcements for this type of behavior. Girls receive a 'caressing' attitude on the part of the parents who generally treat them gently and sensitively. They do not undergo experiences of rigid attitude that requires effort and constitutes preparation and immunization for the coping with the demanding requirements and achievement-oriented life in modern society. In contrast, the boys are treated strictly by the teachers and parents and there is less concern for their sensitivity and vulnerability (Horgan, 1995).

4.5.3 Gender Bias in the Direction to Fields of Study

Boys and girls have distinct patterns of attribution of success or failure. It was found that girls attribute their success to random and external factors (an easy test, help from the teacher, etc.), while they attribute their failure to lack of personal ability (Shachar, 1999). The boys, to differentiate from the girls, attribute their success to inner ability and skills and their failures to outside factors such as luck, inadequate preparation, and so on. The attribution of the reasons for success or failure is a factor that influences the motivation of achievement of both genders. The internalization of distinct patterns of attribution begins at a very young age through the parents, who generally believe that girls succeed since they invested considerable effort and boys succeed because of their ability.

This stereotypic perception also characterizes the teachers (Shachar, 1999). Consequently, a situation is created in which girls complete their studies in the educational system while internalizing factors that impede their success in their future: they do not believe in their ability and are not exposed to challenging situations during their studies. These patterns of attribution cause girls to feel lack of belief in their internal strengths and prevent the motivation to choose difficult and challenging paths of study. These facts explain the low representation of girls in the advanced lessons in mathematics and sciences. In the schools there is the tendency, even if it is implicit, to guide boys to the sciences and girls to the humanities, from the assumption, both of the teachers and of the girl students, that the girls will have difficulties coping with the scientific and technological subjects. In recent years girls are turning to these subjects in increasing numbers, but their rate of participation is still prominently low in comparison to the boys (Shlasky, 2000).

The choice of the program of studies in the high school has influence on the choice of the field of higher studies and the integration in the job market. Women refrain from increased studies of mathematics and sciences in the high school and thus lessen their chances to specialize in these fields in the framework of their post-high school studies. The inability to develop a career in the fields of science and technology contributes to the placement of women in marginal and unrewarding positions in the job market (Ayalon, 2008). The tendency existing today leads to the integration of boys in the hi-tech professions and in

professions with considerable status and salary and to the integration of girls in the field of services, such as teaching, social work, and so on.

The important role of the teachers is to encourage girls to rely on their personal ability and not on outside factors. If the teachers act in this way, then they can influence the girls' choice in the future of a career that suits their abilities.

4.5.4 Curricula and Ways of Teaching Them

The development of equal attitudes among children obligates a painstaking examination both of the contents learned in the formal system and the contents not learned therein. Already at an early age, the learning activities strengthen skills that boys lack more and do not work on the skills that girls lack more. The focus on reading comprehension, reading, creative activities, and dramatic play develop more fields that the boys lack while the girls need more gross motor activities, inquiry activities, and experience, which constitute a part of the free play in the kindergarten and not as a part of the curriculum (Lamdan, 1997).

The curricula in the school also do not grant an appropriate place to the unique voice of women (Gilligan, 1995). This voice emphasizes reciprocity, an empathetic attitude, without social hierarchy and while respecting each and every one. It was found that teachers of history, sciences, and literature do not bother at all to mention women who contributed to culture, tradition, or science or women leaders. In addition, women are absent from the textbooks in all fields – nature, medicine, and art, and are not mentioned by the teachers as inventors, politicians, or engagers in influential fields (Shachar, 1999).

Curricula that do not present in a balanced manner the contribution of both genders cultivate a young generation with unequal perceptions. Therefore, it is necessary to focus on equal principles in the writing of curricula and to pay attention to the learned texts, the contents existing in them, and the implicit and explicit messages. Balance in the presentation of the figures will lead to the improvement of the girls' self-images and will allow them to identify with models of women who contributed to society. In addition, the boys will be educated in light of the image of leading and influential women of all generations (Shachar, 1999).

The way of teaching influences the realization of the potential innate in the girls. In frontal learning environments girls succeed less. In the class where there is use of diverse ways of teaching in addition to or alongside frontal instruction, the dominance of the boys in the classroom is broken and girls are given the opportunity for greater participation and greater prominence.

4.5.5 Textbooks

In the past, a committee was established for the examination of gender stereotypes in the textbooks in the educational system in Israel. The findings indicate that most textbooks examined were deficient, having an unequal gender attitude. The committee determined that most of the textbooks found today in the backpacks of Israel students do not meet the criteria required for approval in the field of equality between genders (96.4%) (Ministry of Education, 2002c).

A direct relation was found between the rise in the students' age and the use of gender stereotypes. This finding is especially serious since during adolescence, when the personal identity and gender identity are formed on the background on the beginning of the formation of a personal outlook, the students encounter textbooks that include many gender stereotypes (Ministry of Education, 2002c).

In addition, differences were found between books in the different study subjects that indicate that some subjects are more equal and some are less. A significant improvement was not found in the new books relative to the older books. The committee called on the Ministry of Education to pay especial attention to the topic and to undertake actions that will ensure results. The committee even noted that true equality would exist only following the profound internalization of new social structures (Ministry of Education, 2002c).

4.5.6 Feminist Pedagogy

We are addressing feminist pedagogy because according to Allport (2000) feminist pedagogy attempts to cope with the differences between the education of females and

males, which is based on stereotypic perceptions, with the perception of the teaching profession as having reduced value since most practitioners are women, with unequal power relations between men and women expressed in the repression of women and even violence towards them, and with the character of scientific knowledge and research that reflect male thinking and ignore female ways of thinking and opinion. According to Avrahami-Einat (2008), feminist pedagogy is the shaping of every pattern of action of an educational institution in a way that will affect a change in the perceptions and behaviors that define the male and female students.

According to Avrahami-Einat (2008), feminist education is education that enables every girl to realize the potential embodied in her, without social pressure that forces a stereotypic identity. In her opinion, the feminist revolution largely passed over education in Israel. The Ministry of Education proclaimed the importance of the equality of opportunities between genders and even invests in the topic, but in the field this is not the case. The process of education is fundamentally a process that acts to ensure cultural continuity. Education deals with the transfer of values accepted in society. The expectation that thinking that erodes the existing order will come from the educational institution is not realistic.

In conclusion, the main ideas presented in this review shows the importance and need of acquiring a deeper understanding of the way the attitudes that math teachers hold nowadays towards gender differences in learning math. Previous studies show great support to the notion that the main differences between boys and girls exists first and foremost in the perceptions of the teachers who teach them. Studies show that teachers tend to think that boys are better at math than girls. Also, boys are perceived as more logical, competitive, independent in math, and liking math more. Nevertheless, these perceived attitudes are not in accordance with most comparisons of math achievements.

This leads to the main research questions regarding the attitudes of women mathematics teachers towards students' abilities and predispositions to learn math. The current study wishes to explore if those attitudes are dependent on gender of the students. In order to fully understand the topic, the study will address the opinions, knowledge and expectations

of the teachers, as well as explore how these attitudes are represented in daily school life. In addition, the social and cultural contexts will be explored.

Chapter 5: Research Methodology

5.1 Methodological Theory – The mixed methods

The mixed methods called the third methodological movement or the new star in the social science sky. This is an intuitive way to do research that deal with our everyday life. The mixed methods bring together the quantitative and qualitative data to tell our story (Creswell, J. W. & Plano Clark, V. L, (2011)).

According to Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). mention in Creswell, J. W. & Plano Clark, V. L, (2011) book (p.4): "The mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the purposes of breadth and depth of understanding and corroboration". This definition refers the mixed methods as a combination of qualitative and quantitative research and not as method.

Mixed method can also be used for an approach to think. it has philosophical assumptions that guide us in the collection and analysis the data. It focuses on collecting, analyzing and mixing both quantitative and qualitative data, in combination to better understanding (Creswell, J. W. & Plano Clark, V. L, (2011)).

A mixed method has to include at least one quantitative method (we have to collect numbers) and one qualitative method (we have to collect words). Mixed methods research can offer us more comprehensive analysis, multiple viewpoints, a chance to explore the phenomenon we recognized, the phenomenon we decide to research. Mixed method research can be used in the social science when one data source may be insufficient or if there are results that need to be explained, or if we want to generalized. The researcher needs to know how to use quantitative and qualitative research, how to collect data and to analyze it in the two approaches. In addition, it is important to understand that a mixed method research needs more time because we have to collect and analyze two forms of data - According to the use of both quantitative and qualitative research this mixed method needs time (Creswell, J. W. & Plano Clark, V. L, (2011)).

It is important to use mixed method If one data source is insufficient or if we want to generalized. Qualitative data provide a detailed understanding of the problem while quantitative data provide more general understanding of it. I chose to interview 40 math teachers, I got a picture of the math teachers' opinions, thoughts and behavior towards boys and girls at school in general and during math lessons in particular. I received a lot of important data but I wanted to get it more general, I want to get a clear picture, numerical data, percentages of data, I wanted to check data combination and for that I used a questionnaire that I passed to those 40 math teachers. It was a combination of data collection, quality interview and quantitative questionnaire. with the combination of the quality interview and the quantitative questionnaire I was able to get a complete, high-quality, complete, clear picture that reflects a given situation.

In a mixed method the researchers can use all the tools of data collection available rather than being restricted to the tools typical to quantitative research or qualitative research. to provide more evidence for studying the research problem. the mixed research brings new insights that are beyond the insights of separate quantitative or qualitative research. This can be explained as a situation in which the whole is larger than the sum of its parts (or in a numerical example 1 + 1 = 3). The work in the mixed research, the use of the quantitative questionnaire data and the qualitative interview allowed me to get a complete, high-quality and clear picture. A sharp, clear and focused image that reflects a pattern of conduct. Without a doubt I got a whole big picture from the screen of its parts.

A legend tells that in a certain hospital over the course of a few weeks five patients who lay in the intensive care unit died. Each of the patients died in the same room, in the same bed, on the same day at the same time (Sunday at 11). The hospital's director general sought to conduct a study to examine the significance of the strange deaths. The best scholars gathered together with clerics and mystics to find a solution to the mystery. During the interrogation, the excitement was enormous. When Sunday arrived, at exactly 11 o'clock, the cleaner entered the room with a large vacuum cleaner in his hand. The cleaner removed the central socket of the resuscitation systems and began vacuuming .... (Kaniel, S. (2014)).

Collaboration between quality and quantitative researchers is not self-evident. The terms quantitative research and qualitative research in their meaning are opposites. The quantitative approach began with an attempt to emulate the exact sciences. The central principle was that one could research, find causal laws, connect the laws to other laws and get an overall picture. The language of the study was dry and cold and strived for objectivity. Unexplained findings did not appear in the studies and what was not measured did not exist .The quantitative approach created for itself a cohesive identity in academia and then the qualitative approach began to build its identity. The qualitative approach rebels against the quantitative approach to create its own identity. Qualitative researchers have argued that man and his environment are one whole, to understand man - to understand that he has free choice, that it is important to explore what man knows about himself and how this knowledge affects his behavior, feelings and thoughts, that man should be explored within the social context- Cultural-values and that in order to see the whole the researcher must stay with the research participant in uncontrolled conditions when the researcher is influenced by the process and influences it. There was a war between the approaches when the impression was that the gap between the qualitative approach and the quantitative approach could not be bridged (Alexander, H. A. (2006)). In recent years, the war between quantitative and qualitative approaches has faded, it has become clear that the common denominator between the approaches and that it is time for cooperation (Philipps, U. K.(2006)) . The understanding that studies are imperfect and that there are many biases in all studies has encouraged many researchers to combine the methods. Combine the methods in the same study in order to reduce the biases and to enjoy the benefits of each of the methods (Axinn, W. G. & Pearce, L. D. (2006), Tashakkori, A, & Teddlie, C. (Eds.). (2003a)).

The mixed approach is the mutual fertilization between the qualitative approach and the quantitative approach. Instead of a war between the qualitative and quantitative approach, there is mutual fertilization and the profit is great. According to Kaniel S., (2014), the price that this partnership charges from both approaches is lowering them from the level of approaches to the level of methods and tools and accordingly quantitative research refers to tools in which there is numerical representation and qualitative research represents the phenomena through words. The mixed approach is a dynamic, complex,

flexible and pragmatic approach. It is known that the person (interrogated) acts out of an internal logic that must be revealed and is therefore able to help researchers understand what is happening to him. The person being questioned becomes a key partner in understanding his or her conduct. The world we live in is a complex and dynamic world. The combination of methods brings us closer to the truth than each of the approaches individually (Yoshikawa et al., (2008)). The mixed approach attracts many researchers to use it. This method was called the Third Methodological Movement by Creswell, J.W. 2011b; Creswell, J.W. (2014); Plano Clark, V.L, (2010)) and a new star in the social sciences (Mayring, P. (2007)). This approach is highly praised because the method involved is an intuitive way of research, a way that is presented and used all the time in our daily lives. Doctors, financial advisors, politicians, broadcasters and many others regularly use a combination of quantitative and qualitative information to make diagnoses, advise or transfer information to us. Over the years, several definitions of mixed methods have emerged that combine elements different from the quantitative and qualitative method. One of the first definitions emphasized the mixing of methods and the dismantling of the paradigm which means that at least one quantitative method intended for collecting numbers and one qualitative method intended for collecting words should be included when no type of method is related to a particular paradigm (Greene, J.C, & Graham, W.F. (1989)). Later the mixed approach moved from mixing the two methods to combining all research processes, moved to a methodological orientation that includes worldview (philosophical positions) methods and interpretation of results. The study of the methods involved has developed to the point where there is a separate methodology for it with a worldview, vocabulary and techniques that characterize it (Tashakkori, A., & Teddlie, C. (Eds.). (2003a)).

Over the years, several definitions of mixed methods have emerged that combine elements different from the quantitative and qualitative method. One of the first definitions emphasized the mixing of methods and the dismantling of the paradigm means that at least one quantitative method intended for collecting numbers and one qualitative method intended for collecting words should be included when no type of method is related to a particular paradigm (Greene, J.C., Caracelli, V.J., & Graham, W.F., (1989)). Later the mixed approach moved from mixing the two methods to integrating all

research processes, that is moved to a methodological orientation that includes worldview (philosophical positions) methods and interpretation of results. The study of the mixed methods has developed to the point where there is a separate methodology for it with a worldview, vocabulary and techniques that characterize it (Tashakkori, A., & Teddlie, C. (Eds). (2003a)). Mixed research is research in which the researcher collects and analyzes data, integrates the findings and draws conclusions using qualitative and quantitative methods in a single study or research program. (Tashakkori, A., & Creswell, J. W. (2007b)). According to Greene, J. C. (2007) The definition is different. He provides a definition that illustrates the form of inquiry and characterizes it as a way of looking at the social world. He talks about many ways to see and hear, many ways to understand the social world and multiple positions on what is important to cherish and appreciate (Greene, J. C. (2007)). Defining the methods involved as multiple ways of seeing opens up many applications beyond using it as a research method only. This method becomes an approach to thinking (Creswell, J, W., Plano Clark, V. L, (2017)). In this book ("Designing and Conducting Mixed Methods Research, 3rd edition" by Creswell, J, W., Plano Clark, V. L, (2017)), in the first edition of the book in 2007 the definition provided spoke about both methods and methodological orientation, in the second edition in 2011 the emphasis was on the priority of quantitative or qualitative data in research while in the latest edition today they tend to emphasize research intent. The researcher using the methods involved must collect and analyze qualitative and quantitative data according to the research questions and hypotheses, the two forms of data must be combined, provide the logic and procedures to conduct the research and frame these procedures within theory and philosophy (Creswell, J. W. (2014)).

5.2 The choice in the mixed methods

I chose the mixed method because I wanted to get a complete and broad picture of the nature of the conduct of the women who teach mathematics. It was important for me to hear the teachers and understand their conduct in elementary school, during the school day and in general towards boys and girls and accordingly it was important for me to get an overall picture of this conduct, a picture that includes summary data about the nature

of the phenomenon. In order to get the overall picture, it was clear to me that I needed to combine the data, to combine quality data that was obtained from interviews that I conducted for teachers with quantitative data that was obtained from questionnaires that the teachers filled out. It was clear to me that one method would not give me a complete, broad and comprehensive picture of the nature of the phenomenon. It was important for me to combine both the qualitative method in order to hear and listen to the subjects and the quantitative method in order to obtain a supportive image of the data, an image that removes fear of misinterpretation by the researcher. I thought that combining the qualitative method with the quantitative method means as a combination of sight and hearing in order to understand the social world (Greene, J. C. (2007)). The involvement of the women teachers studied and their cooperation are the ones that have shed light on the phenomenon. My goal was to identify the problem and flood it in order to bring about change. The interviews with the teachers helped to identify the problem. The interviews with the teachers allowed me to understand the details of the existing problem. The questionnaires filled out by the teachers clarified to me the essence of the phenomenon and accordingly directed me to think of ways to eradicate the existing problem which has many consequences, social, political and economic consequences. My decision to choose the mixed method allowed me to deepen my knowledge in the field I was researching and to validate the findings I received.

Using research in the mixed method involves many challenges. The use of this method requires researchers to have the required skills, requires time and resources to collect and analyze the data and requires to be able of course to convey the message of the method involved (Creswell, J, W., Plano Clark, V. L, (2017)). I am skilled in using the quantitative method and the qualitative method. I chose to research in the mixed method. I took into account that this type of investigation would take longer and would require greater resources to collect the data. The research problem I was dealing with required the use of a mixed method and I, throughout the investigation and after the end, as a believer in the mixed method I chose - I marketed it everywhere. Research in the mixed method gives a broad and clear picture of what is happening in schools. This type of research can be published in a variety of ways. The subject of the research and the clear, comprehensive way of research are those who will be able to convey the message clearly

and unequivocally, to recruit supporters for the research and the solutions that will be offered later. According to Green, J.C., (2007) the mixed method involved a number of purposes. We use the mixed method to investigate the same phenomenon in order to strengthen the confidence in the conclusions we have drawn regarding the same phenomenon and in order to deepen the interpretations that we gave to the findings and indeed I did. The model I worked on is the use of a quality and quantitative method at the same time. By using the qualitative and quantitative method at the same time, I obtained confirmation of the existence of the problem that I located, I received a clear picture of the nature of the problem and I also received clear data on its scope. Every study has a philosophical basis. A philosophical assumption includes recognition of the worldview (paradigm) that forms the basis of research. It is important to describe the components of the worldview (paradigm) and address them throughout the study (Creswell, J, W., Plano Clark, V. L, (2017)). Researchers bring with them to their investigation their worldview consisting of beliefs and assumptions about the knowledge that sets their research apart (Guva, E.G., & Lincoln, Y.S. (2005)). Transformational worldview focuses on the need for social justice and the pursuit of human rights, female empowerment and economic vulnerability. A transformative worldview works to change the social world, so that people will not find themselves on the margins of society. The transformative researcher understands that there are many forms of reality built on the social and cultural attitudes of individuals (see gender example). In the transformative approach, the researcher cooperates with the respondents and builds trust with them (Creswell, J, W., Plano Clark, V. L, (2017)). The adoption of an explicit purpose for research serves to create a fairer and more democratic society. This kind of transformative framework includes a person's worldview, his values. Knowledge is not neutral but is influenced by interests and reflects the power and relationships within society. The goal is to improve society (Mertens, D.M, (2003)). Researchers have the flexibility to use the most appropriate worldview for the context of their research and more: a researcher may use more than one worldview in the study of the methods involved (and use a different worldview in another study). Transformational worldview (Creswell, J, W., Plano Clark, V. L, (2017)). I have always strived for social justice and human rights. I have always stood by my principles and sometimes also fought wars of others for the sake of achieving change. I am in favor of

female empowerment and do not at all see a difference between men and women in their abilities, conduct and salary. Each time it annoys me anew to hear or encounter differences arising from gendered conduct. Every person should be treated as a person and allowed to progress and develop according to his abilities and not according to his gender. I cooperated with the interrogees and built trust with them. It was important for me to listen to their statements and story because I located the problem and wanted to hear what its scope is and what its exact details are and all of course for the creation of a more democratic and just society as there can be no gender differences - this is a blatant violation of social justice. There is a problem in our society and the problem is difficult. When women math teachers enter the classroom and treat children according to their gender, they establish the gender attitude that exists in society and do not allow for change. We have the place to change and influence and we need to stretch our waists, plan moves well and make a change. Gender attitudes in Israeli society are a problem of social justice and human rights, since girls do not allow the development and progress, they deserve.

When using mixed research, the conduct of the research should be planned. Sometimes, while in motion, events occur that cause us to make a change that arises out of a need that arises (Creswell, J, W., Plano Clark, V. L, (2017)). In the same study I conducted the use of the mixed method was planned in advance. I first conducted interviews with 40 women teachers who teach math in elementary school. I listened to them and acquired knowledge. The picture became clear to me and I understood the conduct of women math teachers to boys and girls. I received reinforcement and indeed collected findings that support my research problem. At this point I was able to analyze the qualitative data and complete the study, but it was important for me to get a general quantitative picture of the extent of the phenomenon and at the same time strengthen the credibility of the female teachers' explanations. I planned in advance to research the women teachers of mathematics both qualitatively and quantitatively and to get a complete and clear picture, a real picture which is not obtained from a misinterpretation of the researcher. A picture which on the one hand presents the problem in the conduct of the teachers in the primary school to boys and girls and on the other hand a picture which shows the scope of the phenomenon.

5.3 Convergent research design

Convergent research design brings together the two types of data, compares them and combines them (Creswell, J, W., Plano Clark, V. L, (2017)). Convergent research design is the first thing that comes to mind when thinking about the mixed research approach. This is basically a triangular design because the researchers collect two data and get three because when collecting and analyzing the quantitative and qualitative data we get both qualitative data, both quantitative data and the combined data. (Please note that this is not really a triangulation as in the qualitative study) (Creswell, J, W., Plano Clark, V. L, (2017)). My research design was a convergent research design. It was important for me to bring together the qualitative and quantitative data so that I could compare and combine them. The intent of convergent planning is to "obtain different but complementary data on the same subject."(Morse, J. L., (1991) Page 122). I wanted to compare and combine the qualitative research results and the quantitative research results with the intention of gaining a fuller understanding of the problem I am describing and this is in order to prove the existence of the problem and look for ways to solve it. The choice of converging design is correct and useful when beyond the existing skills of the researcher to research in both ways (both qualitative and quantitative ways), there is limited time to collect data in the field on the one hand and on the other there is a great desire to obtain both quantitative and qualitative information from each participant (Creswell, J, W., Plano Clark, V. L, (2017)). I have the skills to research in both methods, I wanted to get from each participant the two types of data in order to get a complete picture that represents the data and their true meaning and at the same time the time motif in the study of 40 participants by a single researcher played meaning here. The procedures for implementing convergent planning are the collection of quantitative and qualitative data, a separate and independent analysis of each type of data, the merging of the data results and the interpretation of the relationship between the data in accordance with the purpose of the study. The combination means merging the quantitative and qualitative results when this can be done using a table, graph, paragraphs and more. A convergent design must include a discussion of the conclusions the researcher draws based on the combined results. (Creswell, J, W., Plano Clark, V. L, (2017)). It is important to note that the

integration included merging the qualitative and quantitative data to create a comparison and reach a broader understanding than we could obtain when using the qualitative or quantitative data results only. The converging design is a popular design. It is logical and intuitive. The two types of data are collected in one phase of the study, at about the same time or in parallel, each type of data can be collected and analyzed separately and using a semi-structured questionnaire a direct comparison can be made. It is important to remember that there are several challenges in using this design for example the size of the samples they merge must be taken into account, merging different data (numbers and texts) is a challenging merger and sometimes there is a problem when quantitative and qualitative data contradict each other (Creswell, J, W., Plano Clark, V. L, (2017)). According to the converging design procedures I collected qualitative and quantitative data, analyzed the qualitative data and the quantitative data in a separate and independent analysis and accordingly merged the data results and interpreted the relationship between the data and the purpose of the study. In the chapter on findings, I will present the qualitative and quantitative data analysis that I conducted, and accordingly I will present the merger between the various findings.

5.4 Objectivity of the study

Both quantitative and qualitative researchers strive to be objective. The researchers must convince that the conclusions from the study were drawn objectively and logically from the facts. To present maximum objectivity in the quantitative study the reconstruction was emphasized. Research is objective research when other researchers can replicate the research and arrive at the same results. The social sciences deal with people and therefore this principle cannot be applied and accordingly the requirement for reconstruction has been converted into a requirement for transparency. Studies should be transparent and reported in a way that others can also examine how to draw conclusions (Koro-Ljungberg, M., Yendol-Hoppey, D., Smith, J. J. & Hayes, S. B., (2009)). In addition, any reason that may deny the study the validity of its findings must be reported, as well as additional reasons that can explain the findings and list the variables that

were neutralized and that may question the interpretation of the findings (Feynman, R. (1995)). I will address the issue later and in detail according to each method, both quantitatively and qualitatively.

5.5 The research process

Each study begins with a question and continues with a process of gathering and organizing information that aims to answer the question. The research method is determined after the formulation of the research question and its reasoning. (Yoshikawa, H., Weisner, T. S., Kalil, A. & Way, N.(2008)) . The research method includes the population studied, the research tools, the fact-finding process and the method of analysis. It is important to use a mixed method if one data source is not enough or if we want to generalize. Qualitative data provide a detailed understanding of the problem while quantitative data provide a more general understanding of the problem and accordingly, I chose to interview 40 women math teachers, I got a picture of the opinions, thoughts and behavior of those women teachers towards boys and girls in school in general and math classes in particular. I got a lot of important data but I wanted to get it more general, I want to get a clear picture, numerical data, data percentages, I wanted to check data integration and for that I used a questionnaire that I passed to those 40 women math teachers. It was a combination of data collection, a quality interview and a quantitative questionnaire. With the combination of the qualitative interview and the quantitative questionnaire, I was able to get a complete, high-quality, complete and clear picture that reflects a given situation. In mixed methods researchers can use all the tools to collect existing data and not be limited to the tools typical of quantitative research or qualitative research. Provide more evidence to research the research problem. The research involved brings new insights that go beyond the insights of separate quantitative or qualitative research. This can be explained as a situation in which the whole is greater than the sum of its parts (or in a numerical example 1 + 1 = 3) (Creswell, J. W. & Plano Clark, V. L, (2011)), The work in the mixed research, the use of the quantitative questionnaire data and the quality interview allowed me to get a complete, high-quality

and clear picture. A sharp, clear and focused image that reflects a pattern of behavior. No doubt I got a completely large picture from the screen of its parts.

My research is a combined study. I combined quality interviews with quantitative questionnaires. This combination of tools could give me an overall picture of the nature of the phenomenon.

5.6 Research Subject and Aim

The research examines the women mathematic teachers' attitudes towards boys and girls. Women mathematic teachers expect and treat boys and girls differently according to gender rules. There is a gender-based differences in mathematics education in the elementary school in Israel and not just gender-based differences in mathematics. There is gender-based differences in the other lessons, in the classroom and at school. Teachers treat boys and girls differently, the expectations from boys and girls are different and the reference to boys and girls is different. Women Mathematic teachers have different expectations from boys and girls and they address them differently according to their traditional opinions. There is a link between the opinions of the mathematics teachers and the gender attitude towards the students.

The objective of the research study is to determine whether the women mathematics teachers hold different expectations from boys and girls and address them differently, according to their traditional opinions. In the research study, I will take a group of forty women mathematic teachers who teach in the elementary school in the Jewish sector. I will interview each one of the teachers regarding the conduct of the mathematics teaching staff in which they work, regarding they thoughts and opinions on the topic of the students, on the topic of the class they teach. I will ask about the students' behavior and conduct and the language the teachers adopt. I will receive a narrative description of considerable value that entails expectations, thoughts, opinions, and the conduct of all the forty teachers. All teacher constitutes one of a group of forty teachers I will interview, so as to obtain a comprehensive picture about the opinions, thoughts, expectations, and conduct of the

mathematics teachers in the elementary school in the Jewish sector in the country center. (The interview questions appear in the appendix).

Next, I will take those forty math teachers and give them a questionnaire that deals with the same topics. The purpose of the questionnaire is to find a distinction between the genders in the classroom, to examine the teachers 'opinions, the teachers' statements and the conduct of the teachers in the classrooms. Examine whether mathematic teachers have prejudices about the knowledge and success of different genders in mathematics and, accordingly, their behavior toward different genders in the classroom and at school. The purpose of the quantitative questionnaire was to obtain numerical data and reach generalization in order to obtain an overall picture, to understand and validate the qualitative data. The questionnaires filled out by the teachers will add data on the prejudices held by the teachers (gender stereotypes), on the teachers' expectations and the teacher's attitude towards the members of both genders, on the teacher's awareness of their opinions and on gaps between teachers' statements and behavior towards the two genders.

My research is mixed research. I combined interviews with a quantitative questionnaire. This combination of tools could give me an overall picture of the nature of the phenomenon.

5.7 Hypothesis & research questions

My hypothesis:

Women math teachers expect and treat boys and girls differently, depending on their gender opinions during the lessons, in class and at school. There is a connection between the opinions of women teachers in mathematics and the gendered attitude towards students.

Hypothesis: Women math teachers expect and treat boys and girls differently according to their gender opinions.

Research questions:

- Do mathematics women teachers have prejudices about the knowledge and success of boys and girls in mathematics and other subjects in school?
- Are women math teachers aware of their views on the knowledge and success of students of different genders?
- Are women math teachers' expectations are the same from boys and girls?
- Do women mathematics teachers treat boys and girls equally during the lessons, in class and at school?
- Are women math teachers aware of their treatment to boys and girls during the lessons, in class and at school?

Hypothesis: Women math teachers expect and treat boys and girls differently according to their gender opinions.

The problem: difficulty in identifying the opinions of women mathematic teachers and their expectations and attitudes towards students in the various lessons.

Population: 40 women math teachers who teach elementary school-age students from the center of the country.

5.8 The study population:

The population studied is the population of women math teaching in primary school, a group of 40 women teaching mathematics. 40 women math teachers who teach in primary school, teachers with diverse teaching experience, teachers who teach in different schools, teachers who teach different age groups, teachers of different ages, teachers who have different experience, teachers who studied and specialized in different

subjects and not necessarily mathematics. Note: I am dealing with the Jewish sector - not the religious Jewish sector and not the Arab sector or any other sector.

Every researcher wants his findings to be included so sample size is important. The aim is for a sample that is as large and representative as possible, but at the same time, it is important to pay attention to the covert effort bar that examines the degree of burden on the researcher and the respondents and accordingly it is important to pay attention to the researched population.

I chose a group of forty women math teachers, a respectable number of teachers. I remembered that I was researching on my own, that I was interested in interviewing each of the teachers personally and that at the same time I was interested in receiving more information, quantitative information, so I was interested in passing a questionnaire to each teacher. I did not want to exhaust either myself or the teachers, the interviews flowed, the atmosphere was nice, at the end of each interview the teachers took the time to answer the questionnaires and I took advantage of the time I made effective and focused use.

5.9 The tools:

personal interviews and structured questionnaires for teachers (details below).

I interviewed the teachers, each of the forty women math teachers, a personal interview and at the end of the personal interview I passed the questionnaires.

The Inquiry: I interviewed 40 women math teachers, handed them questionnaires and learned about their approach through data integration. I took care to talk to teachers who teach different age groups, teachers with different years of experience, teachers of different ages, teachers who have studied and specialized in diverse fields of knowledge (not just mathematics) in order to check if there is a difference in the teachers' attitude.

Expected Findings: The attitude of women math teachers towards boys and girls is different. There is a self-fulfilling prophecy - the women who teach mathematics are sure that the boys know and succeed more in the real lessons while the girls know and succeed

more in the humanities lessons, meaning boys know more and are more successful in math and accordingly it does happen. Teachers will have a hard time believing that this is their opinion and that this is the way they relate. Teachers advocate equality - equality is not just about shared learning...

5.9.1 Interviews:

The interview is a research method in which the researcher gathers information usually through a face-to-face conversation with the subjects. The purpose of the interview is to obtain information. Dialogue with the interrogees, a dialogue conducted by a colleague, in a relaxed, private manner without those present around allows for the acquisition of extensive and reliable information (Beyt-Marom, R. (1986)). There are three main forms of interview: an open ethnographic interview, a structured standard interview, and a guided and focused interview. The open ethnographic interview is similar to a friendly conversation. The researcher encourages the respondent to speak and produces the necessary information. This interview can take place in a group, it is friendly and informal - its advantages: reaching a deep understanding of opinions and attitudes. Disadvantages: It is very difficult to process and has a problem of validity and reliability due to the influence of the researcher-interviewer. Built-in standard interview - the wording of the questions, the structure and order of the allowed questions and explanations are determined in advance, the interviewer does not add anything. Guided and focused interview: The topics related to the purpose of the research are specified in advance, the wording of the questions and the order is not predetermined, the interviewee's freedom of response is wide, the researcher can comment on new points raised by the interviewee but does not raise new points on his own initiative. Advantages: Personal responses are received; time is well utilized and important points are addressed. Disadvantages: Encountering a problem of validity and reliability due to different responses (Sabar Ben Yehoshua, N. (1997)). I used a structured interview because I wanted to get personal responses, address the important points, take advantage of the time effectively and compare the answers of the interviewees.

A quality interview involves two processes: receiving information and developing a relationship of trust (Shakedi, A. (2003)). There is a relationship of trust between me and the interviewees. I conducted the interviews for the forty teachers I selected. The subject I examined is a sensitive subject, a subject in which there are usually differences between the statements of the interrogees and their behavior and way of thinking. In the interview I asked about topics from different points of view in order to find out what the interviewees actually think and do. I came up with interesting results - teachers thought about their treatment of boys and girls in the classroom and found that there was a gap between their statements and their behavior. Teachers said this is the first time they are thinking about this issue.

5.9.2 Questionnaires:

The questionnaire is the main means of collecting data on a particular phenomenon as it occurs in its natural environment. The data are the verbal answers of the interviewees. The data are reports of the subjects and not the behavior itself. The questionnaire focused on the specific problem and thus completed the interviews which I conducted. The questionnaire is divided into three types: structured, partially structured and unstructured. The structured questionnaire is most common in surveys because of its advantages which are uniform, extraction of the content world, repetition, depends minimally between the quality of the respondent's responses and the researcher's behavior or personality, requires relatively few time and money resources, its analysis is relatively simple and therefore fast. And his perceptions, it is easy to compare the answers of different interrogees (Beyt-Marom, R. (1986).) I built the questionnaire as an adaptation of the customer questionnaire from Avrahami-Einat, Y. (1989) because I could not find a questionnaire that suited me and I was interested in experimenting with building a questionnaire. The purpose of the questionnaire was to locate behaviors that express gender distinction in the classroom. The variables were behaviors that expressed a distinction between the genders. The questions were closed when the possible answers were on a numerical order scale. I chose an odd number of answers - 5 options. I did not think there were such thin distinctions to give a 10-point scale. I opened the questionnaire with an introduction that introduces me and the subject of my research, including presenting the value of the interviewee's contribution,

ensuring confidentiality and noting the approval that my research received. Questionnaire printing was spacious, questions were separated by spaces and dividing lines. There are four ways to send the questionnaire: by mail, by phone, by filling in the interviewer's presence and by filling in the person face to face. I passed the questionnaire to all the teachers I chose and got it back from all of them. The planning was self-fulfilling in the presence of the interviewer and so it was.

5.10 Reliability & Validity:

5.10.1 Reliability:

Reliability refers to learning in which further research can be used in the same methods and tools and obtain identical results and meanings. The researcher has a problem because he examines unique phenomena (Sabar Ben-Yehoshua, N. (1997)). The condition for credibility is that the researcher must show readers how the research was conducted and how the decisions were made so that the reader can examine the logic and reasonableness of the researcher's thoughts and actions (Shakedi, A. (2003)). We will distinguish between internal reliability and external reliability.

External reliability is a repetition of the way data is collected (in our study - personal interviews) through another researcher. When conducting interviews with a team of respondents it is not possible to repeat the interview and therefore external reliability is obtained through: providing accurate and broad information about the process, knowing the benefits and limitations of the tool and accurately describing the information providers and defining concepts, theories and their interpretation or by conducting another researcher's audit. I described the teachers I interviewed, I described the place where the interviews were conducted, I described the time of the interviews, I defined the concepts I dealt with, the theories and their interpretation and thus I achieved external reliability.

Internal reliability refers to the question of whether there is agreement among researchers regarding the manner in which the data is collected and as to their analysis. The way to achieve this is to use strategies for which there is agreement, accuracy in recording the data and drawing factual conclusions (Byte-Marom, R. (1986)). I used consensual strategies, accurately recorded the data, and drew factual conclusions. I wrote down the findings of the interviews - I separated the factual descriptions, comments and impressions and in this way, I achieved inner credibility.

In the quantitative method, reliability is the extent to which the tool will give consistent results in repeated measurements. Reliability should be tested as stability. The more reliable the test the higher the correlation between the measurements made in its two transfers and this method is called a repeat test (Bate-Merom, R. (1986)). I did not pass a repeat questionnaire as the teachers would not like it and the results would come out accordingly. Reliability as equivalence - two versions of the same test must be constructed. This method is difficult to perform because two formulas must be constructed for the same test when the questions have more or less identical statistical properties. Reliability as internal consistency - based on the assumption that a test is a sample of items that each and every one of them together are designed to measure the same variable meaning that high correlations between them should be expected. A more reliable test the higher the correlations between its various items. The advantage is that one test transfer can be satisfied and the disadvantage is that it is not sensitive to the variance of the error resulting from temporary effects. To calculate the internal consistency, a formula is used to calculate the reliability coefficient - the Alpha Cronbach formula. I tested the adapter and the Alpha Cronbach came out 0.701 - meaning extremely high reliability.

Reliability tests the tool and is a necessary condition for validity.

5.10.2 Validity:

Validity focuses on the question of whether researchers see what they think they see and whether it can be argued that a research claim is well-founded because it has strong

conceptual and empirical foundations (Shakedi, A. (2003)). The validity of the study is divided into internal validity that relates to the degree of correspondence between the data and the phenomenon. In order to achieve internal validity, the influence of the researcher or subjects, the selection processes and errors in determining the contexts of the phenomenon under investigation must be overcome. (Sabar Ben-Yehoshua, N. (1997)). In order to gain internal validity, I wrote down my data and checked myself constantly. I wrote all the data to check the fit between the data and the phenomenon and contexts I made. External validity refers to the extent to which the results and findings can be generalized to other populations. In our study, inclusion is problematic, so I planned in advance to pass questionnaires to the teachers I interviewed and, through the collection of quantitative data, to arrive at inclusion.

Validity is the extent to which the measurement measures what it is supposed to measure. There are three types of validity: Visible validity - Does the tool check what it is supposed to test? Content Validity - Did I really address all of the content on the topic? Criteria validity - refers to an external criterion. If there is a correlation between criteria a criterion is valid (Beyt-Marom, R. (1986)). The questionnaire I created exhausts the world of content I wanted to test; it locates behaviors that express gender distinction in the classroom. With the help of the questionnaire, I achieved the goal of the study, which was to identify behaviors that express a distinction between the genders. From the results I can tell which behaviors express a distinction between the genders and which do not and even rank them. My goal was pre-defined in a clear and unambiguous way, the questionnaire meets my goal, confirmed my hypothesis and is therefore valid.

5.11 Ways of action

Through the interviews I collected data. The data I received were behavioral patterns of teachers, accepted norms in school, verbal and non-verbal communication, interactions between teachers and their students, and data on physical background. I heard about differences in teachers' attitudes toward boys and girls in class. The differences were expressed in the amount of reference, the type of reference and the manner of reference. The amount of interaction of teachers with the boys was greater in all classrooms. It was

interesting to see that the teachers turned more to the boys on behavioral issues while to the girls on the learning issues. Even in the classroom where the teacher conducted affirmative action, she still failed to reduce the amount of interaction with the boys. Is it related to the teachers' thoughts about the behavior and abilities of both genders? During the interviews the teachers shared with me their feelings and thoughts. It was important for them to be involved. This issue is a sensitive issue and there is a difference between the teachers' statements and their actual behavior. It was interesting to hear the teachers' statements about gender equality and the growing understanding that it does not exist. I went to some of the teacher's home and did the weekend interview with them at home. The teachers felt comfortable, the busy week was behind them and a pleasant weekend was ahead of them. During the interview there were no external disturbances. I sat in front of the teachers with the laptop and quickly typed in their answers. The teachers were interested in sitting down and telling a colleague what they were going through during the work. Each interview took place on a different day. There was no time pressure or other various interruptions. All the interviews flowed through a successful collaboration. The documentation was reliable and fast in all cases. I posed questions that invited the teachers to express themselves freely and comfortably. Each teacher received the most attention. The interviews were very successful when I see it in the data I obtained, the teachers shared with me their thoughts and opinions about differences between the genders. If the teachers are sure that there are differences between the genders then it is clear that they will behave differently. I passed the questionnaires to all the teachers I interviewed, I explained to each teacher that it was important for me to get an answer to the questionnaire and I gave her the questionnaire. During the completion of the questionnaire, I was present when the teacher received the privacy she needed to complete. The motivation for filling out the questionnaire was, all returned and some requested an update on the findings. Five of the 25 questions were inverted. The questionnaire confirmed my hypothesis about the existence of behaviors that express differences between the genders in the classroom and I even received a rating of them. The transfer of the questionnaire was successful because it showed the existence of behaviors that express differences between the genders, further proof beyond the data I

collected in the teachers' reports during the questionnaires. The circle closed; I witnessed a different behavior of the teachers in the classroom.

The main role of researchers is to help people tell their stories, to help them be aware of the fact that they have stories and to help them reveal their story, clarify the story and present its meaning, both to themselves and to the researcher. Words are more than a means of communication; Words are a tool for building reality (Shakedi, A. (2003)),

There is no single way to conduct research (Sabar Ben Yehoshua, N. (2016)). Researchers engaged in integrated research are required to think differently and creatively and encounter diverse challenges from the research planning phase, through the data collection phase, the data analysis phase and their writing. The rationale behind the combination of methods is that using more than one method can neutralize or overcome the biases of another method and thus contribute to the validity of findings. Arguments for and against have arisen regarding the combination of quantitative and qualitative approaches. There are arguments against claiming that the theoretical basis differs in the two approaches and the basic research assumptions in the two approaches and it is also difficult to combine the methods - whether to combine a small and focused research or a large and mass research? Should we strive for generalization, prediction and finding legitimacy or seek the special? Arguments in favor of combining approaches indicate that combining qualitative and quantitative research methods provides a richer picture of the phenomenon which is a broad view of the field beyond the fact that there are areas where there must be quantitative evaluation and actually adding the qualitative component, we enrich the look. Undoubtedly the combination of the qualitative data with the quantitative data allowed us to understand the problem, the scope of the phenomenon and even think of ways to eradicate it. We got a general, high-quality look, a larger body of evidence for the complex problem we were investigating.

Integrated research is research in which the researcher uses qualitative and quantitative methods in a single study, for data collection and analysis, for combining findings and drawing conclusions (Tashakkori & Creswell, (2007b)). Such a form of inquiry is a way of looking at and understanding the social world. There are many ways to see, hear, and understand the social world. The combined study allowed me, after examining the results

of the interviews to obtain an overall and broad picture by combining the findings of the quantitative questionnaires (Green J., C. 2007). By combining the qualitative method and the quantitative method - a limitation of one method is offset by the other method (Bryman, A. (2006)). On the one hand I feared bias because of personal interpretation I may have made and also there is always in dealing with qualitative findings the difficulty of generalization, quantitative research answers these difficulties and on the other hand quantitative research does not make participants' voices and qualitative research voiced them. Research into the methods involved encourages the use of multiple worldviews. In paradigms that encompass both quantitative research and qualitative research.

The approach is a relatively new approach to inquiry and it requires openness (Creswell, J. W. & Plano Clark, V. L, (2011)).

5.12 Limitations of the study:

The sample included subjects from the central region of the country. It is possible that this sample does not represent the entire population in Israel.

The sample included math teachers from secular schools only. In this study the reference is to secular schools only.

The sample included only math women teachers. It is possible to make a sample that will also include men, in a small composition, depending on their composition in the teacher population in Israel. maybe it will yield different results.

The study did not include observations of the 40 teachers with whom the interviews were conducted and to whom the questionnaires were transferred. It is possible that making observations will strengthen the depth of the data we receive.

Chapter 6: RESULTS

6.1 Qualitative findings

The questionnaire consists of 35 question divided into 5 groups: Educational staff, Students, Class, Behavior, Language. A number of "twin" questions (addressing the same topic but from different points of view or using a different phrasing) were included to check the consistency of the responds. Below is the brief review of the responses to each question.

The aim of the first three questions of the interview questionnaire is to identify the extent to which the problem of providing the equal opportunities for boys and girls is discussed at school and being a part of the daily agenda.

Responses of the absolute majority of the interviewees indicate that the questions concerning providing the equal opportunities for both genders in tuition in general and in math teaching in particular are not discussed at all among the school staff. While some of the respondents mentioned that these issues do not raise because the equality of opportunities is obvious, the others just stated that these problems are not the part of the school agenda.

In response to the third question some teachers used a careful wording like "we are trying to provide the equal opportunities" or "the intention is to always give equal opportunities". Some answers demonstrate a somewhat prone to doubt the equality: "we provide the equal opportunities to everybody but not everybody uses them. Boys, however, more often take advantage of these opportunities than girls do".

Quote:

"*All of us give everyone a chance. There is no difference between boys and girls. Everyone gets opportunity but not everyone uses it. Boys often take advantage of more opportunities than girls."*

Answering the fourth question about the expectation from students' attitude towards the obedience and achievements in the studies most of the teachers admitted that the expectations from boys and girls are the same. However, part of the respondents mentioned that according to their experience boys are less successful in maintaining their notebooks and textbooks in good order and more often fail to obey the teachers' instructions but their achievement in studies are higher than those of girls.

Quotes:

"*My expectations and those of the team members from boys and girls are different. We expect from girls to keep order, to be obedient. From boys we expect to be more successful and to achieve more especially in mathematics*."

"*I do not know what are the team members' expectations, I only know what mine are. Girls are more orderly and better organized and boys are less, this is the reality. Girls are more obedient than boys are. Academic achievements in the sciences are higher among the boys. And among the girls - in the human sphere. Again, this is the reality and in accordance to it are the messages that transferred in the classroom.*"

Such remarks indicate that although the expectations are declared to be the same, in practice they are different.

The same result was obtained in examining the approaches to the level of discipline required from boys and girls in class and the accepted ways of punishment in case of the violation of these requirements. Although the requirements are equal for both genders, some teachers responded that for boys it is harder to comply with the requirements.

Quotes:

"*There are certain rules of behavior in the classroom. Everyone is supposed to comply with them. We demand discipline from everyone. Because it is "a little harder" for boys, we often cut corners. I give another chance, another warning and that works out*."

"*The level of discipline and punishment methods are the same for boys and girls. As previously stated, it is easier for girls to meet the requirements, while for boys it is harder. We try to deal in equal way with boys and girls despite the objective difficulties.*"

Most of the teachers avoided answering about the ways of punishment as the punishments are subject to the school regulations and concrete circumstances.

According to the teachers' answers students of 5th and 6th grades are familiar with the concept of stereotype and are aware of what it may cause to individuals.

Quote:

"*We have learned the concept. We talked about the injustice it may cause to individuals and gave some examples. We've been exposed to video clips on the subject. Teachers react when they hear sexist comments. Teachers refer to it, comment it, talk about equality. All this is done to cause the violator to understand that his comment is unacceptable*."

The younger students are not familiar with it as it may be hard for them to percept such a concept.

Quote:

"*The students did not learn the concept, they are too young.*"

Questions 7 and 8 are designed to examine teachers' coping with the challenge of sexism in class. Almost all the respondents admitted that they immediately react to any sexist remarks of the students and explain that boys and girls are equal. However some of them put it in a little bit different way emphasizing that they are equal at this age.

Quote:

"*Students can rely on me if they face sexism. I emphasize to them at every opportunity that at their age girls' and boys' abilities are similar.*"

All the teachers told that their students may rely on them and get their full support if they are facing any sexist behavior in class.

In primary school it is common to divide the class into a number of small working groups in order to focus on a specific problem to be solved or topic to be studied. This method allows students to participate in a lesson more actively, to help each other and gives the teacher an opportunity to closely value the ability of each student. Question 9 refers to the different methods used by the teachers to assign boys and girls to such groups. The respondents that teach in the lower grades (ages 6 to 8) replied that the assignment is usually done randomly, regardless the student's gender and / or knowledge level. The older students are assigned in accordance to their ability and knowledge level. Some of the teacher mentioned that in this case there might be a disproportional gender division as more girls are assigned to the advanced groups in order to promote and encourage them to study math. Also, girls are assigned more often to the reinforcement groups for students that experience difficulties with studying math.

Quote:

"*In the excellence study group of the computer science class there is a preference for girls. There are more girls than boys. The math reinforcement group in which we practice individual lessons also has more girls. The students are assigned to groups according to their abilities with positive discrimination in favor of the girls*."

In question 10 the interviewees were requested to describe some activities in which participate both boys and girls and to value the equality of opportunities of each gender to integrate in those activities. Not all the respondents were able to give any examples but most of them reported the opportunities for integration are equal. However, those who have recalled some activities, mentioned that there are some certain activities in which boys are more integrated and some others in which mainly girls participate. Moreover, a girl might refrain from participating in an activity if it is conducted by the group of boys and vice versa.

Quotes:

"*The opportunity to integrate is the same. The boys take up the gauntlet more often. They are more confident in their abilities.*"

"*The boys in my class participate in sports activities and in learning competitions, while the girls are integrated in other fields, for example in handcraft activities. The boys engage in a variety of physical activities and they enjoy contributing to the school. The girls also enjoy contributing to the school, but they mainly contribute their knowledge and experience. They prefer to help in the younger grades instead of raising up chairs and arranging the hall with the boys. There is a clear separation between the wills and the activities of boys and girls. It is so distinct that I am not sure that the opportunity for integration into the various activities is equal. I can hardly believe that any girl will come alone and take a part in some activity with a group of boys.*"

Question 11 asks the participants to measure the extent to which the teachers encourage boys and girls to work side by side and to help each other in different missions and to give some explanations on how is it done. The answers were somewhat contradictive to the responses to questions 9 and 10. While almost all of the respondents said that the assignments to groups is done regardless to students' gender and the teachers encourage common activities of boys and girls, at least half of the respondents reported that students pick the group to participate in by themselves, usually according to the gender, and teachers do not intervene in that process.

Quotes:

"*We encourage group work. We do not refer to group members gender.*"

"*The teachers allow group work according to students' individual choice. Usually the choice is gender based and teachers do not interfere*."

Contrary to that, other teachers were consistent with their answers to the previous questions and reported that they try to assign student to different group every time in order to provide equal opportunities to each.

Quote:

"*We encourage students to work together. We try to integrate students and each time assign them into other groups so that students can work together with different students each time, in order encourage them to make friends and to make the groups varied*."

Question 12 checks whether there are groups of students underperforming in math study and if so, are they gender-based. Many of the respondents reported that boys are usually better in math and thus in advanced groups boys are the majority. (r38,39,40) Among those whose achievements are lower than average there are both boys and girls, but there are more girls. This division is more distinct among the older students, but some teachers of the students aged 6 to 8 also reported about it.

Quote:

"*Boys succeed in math. Boys are talented in sports. Girls are talented in reading and writing. Boys are weak in writing.*"

In question 13 the teachers were asked to share some experiences of encouraging the students to better achievements in their study. Also, the respondents were inquired whether boys and girls are encouraged in the same way. All the respondents told that they do encourage their students to study more and to get better knowledge. Some reported that such encouragement is done individually and sets the personal goals for each student according to his abilities and achievements.

Quote:

"*I encourage everyone to progress. The encouragement is personal. Everyone progresses in relation to himself.*"

Others mentioned that they encourage boys for better achievements in sports and natural sciences and girls in social sciences.

Quotes:

"*I encourage them to achieve. Especially in the strong areas of each and every one. I encourage both boys and girls but in different areas.*"

"*I encourage everyone to achieve. I try to encourage and promote everyone. Naturally, I am more successful with the boys in the real sciences and with the girls in the social sciences, and I accept that*."

In question 14 the interviewees were asked to estimate the degree of attention that they pay to their students and the amount of time that they dedicate to them. As through all the questionnaire the difference of these parameters between boys and girls was measured. Part of the respondents mentioned that they ought to pay more attention to boys as they are more noisy and participate more actively in the lessons.

Quotes:

"*I pay more attention to the boys. They simply require more attention. They are more noisy, more talkative, more involved. I have no choice.*"

"*I dedicate to my students the amount of time as required, the amount of time they need. I often pay more attention to boys. They just need me more.*"

"*I pay more attention to the boys. At this age, even if I do not pay more attention to the boys, they will take it. They do not give up, so it works. They do not allow otherwise.*"

The next question referred to the reliability of the above evaluation. The teachers were asked whether they used colleagues' help for a reliable examination of the degree of their interaction with girls and boys or whether they rely only on their own feelings and estimations. None of the respondents was helped by a colleague to estimate the degree of their interaction with students. Almost all of them were sure that their estimation is correct as the thing is evident.

Quote:

"*I did not use a colleague to verify my level of communication with students. I relied only on my feelings, but my examination and feelings were reliable. This is very prominent in my class.*"

Question 16 included another self-assessment, at this time the gap between the teacher's intention to give the equal opportunities to both genders and the teacher's behavior in class. The majority of respondents answered that there is such a gap. Part of them mentioned that the reality enforces them to behave in a different way compared to their intention and nothing can be done with that. Others feel uncomfortable with existence of this gap and try to reduce it.

Quotes:

"*There is a gap between my intentions and my behavior. If I intend to give equal opportunity to everyone in the classroom and actually refer more to the boys then there is a problem here. I am complete with doing so because I am aware of the difficulty and try to give equal opportunity to everyone.*"

"*There is a gap between my intentions to ensure equal opportunity for everyone in class and my actual behavior. I very much want to pay equal attention to boys and girls, but boys simply do not let me do so. I keep trying, but in reality, there is a gap between my desires and my behavior. I am complete with doing so on the one hand because I do not give up and keep on trying, but on the other hand I am incomplete with that because there is a gap and I am not satisfied with it.*"

"*There is a gap between my intentions to ensure equal opportunity for everyone and my actual behavior because, as I told before, the boys in reality need me more, require more of my attention. I am not at peace with my doing because there is a gap between my plans and reality, a gap that does not depend on me and which I cannot remove.*"

However, there were teachers that do not see any gap between their intentions and behavior in class.

Quote:

"*There is no gap between my intentions and my behavior. I'm doing what I've planned. The students cooperate. They are still small. I manage to give everyone an equal opportunity. I am complete with my doing.*"

The objective of question 17 was to get a picture of seating arrangements in class and how they may influence the participation of students in the lesson. The most popular response was that boys and girls' seat together side by side. Some teachers used to ask students to change their places from time to time in order to give all the students the same opportunities to participate in the lesson and to interact with different classmates. They believe that such arrangement promotes the equality of opportunities.

Quote:

"*The children are sitting together: boys next to girls, girls next to boys. Every once in a while, I change places so that my students might try a number of places. In my opinion, these rearrangements enable the active participation of all students*."

"*The sitting arrangement is mixed. The idea is to ensure equal opportunities for both genders. From time to time, I arrange a total exchange of places so that no situation occurs when a student sits throughout the year in the same place*."

Question 18 refers to students' cooperation within learning and work groups and the ways that the teachers use to encourage this cooperation. The responses were consistent with those obtained for question 11. In some cases, the groups were assigned by the teachers and they were mixed. In other cases, especially in older classes, student arranged the groups by themselves and they were mostly gender based.

Quotes:

"*My students work together in mixed groups. I often assign students into mixed groups and they work accordingly*."

"*As I have already said, my students tend to work in groups with the students of the same gender. Students love to work with their friends. I cannot change this behavior unless I divide the class into groups and then if the work is done in the classroom and at school time they cooperate. If work is in the afternoon, then they do not cooperate*."

Question 19 deals with an atmosphere in class, whether there is mutual respect among the classmates of both genders and in particular if any sexist behavior occurs. The

respondents' answers were consistent with those to question 7. In most cases students respect each other and behave in accordance to it. Sometimes there are cases of inappropriate behavior especially among the younger students. In these cases, teachers intervene to prevent further escalation and explain to the students how they should behave. The younger classes' teachers emphasized that the concept of mutual respect is not evident to little children and it takes time to teach them it.

Quotes:

"*The students in the class respect each other. The class has a pleasant atmosphere. We do not relate to sexist comments in the classroom. If there is any I simply ask not to make such comments and this, is it*."

" *In my class there is mutual respect among the class members, but at the same time there is a sexist atmosphere in the class. It does not hurt, for example, a girl will not play soccer with the boys, they just will never allow it!*"

"*Yes, there is mutual respect. We talk about acceptable and unacceptable rules of conduct.*"

The next two questions ask about students' reaction to a sexist behavior of their classmates, do they condemn it and if so, is such a reaction encouraged by the teachers. Almost all the interviewees answered that in those rare cases of sexist behavior in class students remind to their mate that everybody are equal, and his behavior is unacceptable. However, there are certain fields of activities (e.g. soccer) that are perceived as "male-only" and the social rules there are different.

Quotes:

"*Students challenge the manifestations of sexism, except soccer where there is a silent agreement - only boys play!*"

"*As I have already said, there usually neither sexist expressions nor offensive behavior exists in my class. However, if by mistake it occurs, the students themselves respond that*

there is equality. One of the rare events that has occurred was the request of our staff member to send a group of boys for help. The boys and girls immediately reacted and told that in our class everyone is a partner and then we have sent him a group of girls only for help! A lesson for him ..."

In question 22 the respondents were asked to give some examples of behavior norms that are permitted and encouraged in class. In addition, they were asked if these norms are the same for boys and girls. The responses were quite different. While part of the respondents said that the norms and behavior are the same for both genders, the others mentioned that although the norms are the same for both genders, the behavior is different.

Quotes:

"*In our class, there are no sexist expressions. If such expressions are heard elsewhere, students challenge them and encourage equality*."

"*The same norms apply to both genders. The permitted behavior in the classroom is also identical for both genders*."

"*Any proper behavior is permitted in the classroom. Of course, both boys and girls are permitted to conduct any behavior, but already at this age one can see differences. At breaks boys like to play soccer and girls like to gossip*."

"*The types of behavior permitted in the classroom are similar. The behavioral norms are different. There is a difference between the behavior of a sixth grade boy and a girl. They do not behave the same way.*"

"*The class behavior norms are identical for both genders and in accordance with the rules. There is a difference between boys behavior and girls behavior. In fifth grade boys and girls behave differently.*"

Question 23 deals with informal class leaders who used to control a part of class area and time on the expense of other students. Most of the interviewees responded that boys are more often take the role of the informal leaders and draw the attention of other students.

Quotes:

"*The boys usually take control over the classroom space and time at the expense of the girls. They are noisy, they are loud, they demand attention and in many cases do not allow girls to make remarks. As I mentioned, the boys are taking over.*"

In the next question the participants were requested to tell about the tuition methods they use in class and whether these methods encourage all the students to participate in lesson. All the teachers told that part of the lesson is dedicated to presenting the topic in a lecture style and the rest of time students work in groups. The amount of time dedicated to lectures is different and is in range between 50 to 90 percent. This method suits boys better than girls as boys need less time to start participating in group and they prefer frontal tuition to interactive lesson.

Quotes:

"*Teaching methods are mostly frontal and at the rate of 90% more suitable for boys, less for girls*."

"*Teaching methods are varied, but 90% of time it is frontal lectures. In the frontal lessons, those who participate more are the boys, not the girls.*"

Question 25 checks whether teachers provide their students with equal chances to answer the questions during the frontal teaching. Most of the teachers answered that they give their students equal opportunities to answer their question during all types of teaching activities. However, some of them told that boys more often answer the questions due to their nature.

Quotes:

"*Even during the frontal teaching, I make sure that equality is maintained and that both genders are allowed to participate.*"

"*… The boys take over during the frontal teaching. They just burst out and that's it. They cannot wait at all.*"

The next question addresses the same issue in regard to the non-tuition class activities as decorating the classroom, moving furniture etc. Like in the previous question most of the teachers responded that both boys and girls have equal opportunities to take part in all class activities. In some cases, boys are requested to take part in some certain activities that are strongly associated with “men’s jobs”.

Quotes:

"*Sometimes members of the school staff call on the boys for physical help and the girls for help of a different kind. I often cooperate with this distinction, I do not argue, just do not want to waste the time.*"

"*We encourage equality in class. Both sexes have an equal opportunity to participate in various activities.*"

The purpose of question 27 was to investigate whether math teachers use a method of affirmative action or positive discrimination in order to improve girls' achievements in math as well as in scientific and technological fields of knowledge. More than two thirds of respondents do not use this approach stating that the opportunities have to be equal for both genders and there is no need to artificially change it. However, one third of the teachers try in different manners to promote girls in these fields of knowledge, stating that the current situation does not provide equal opportunities to boys and girls to succeed in math and other technological sciences. The most popular method is to integrate more girls in advanced study groups regardless to their achievements. In this way girls on one hand get more motivation to succeed and on the other hand become more confident regarding their abilities.

Quotes:

"*I do not practice positive discrimination. No, I do not take such an approach. The concept of discrimination has a negative connotation.*"

"*I also use a positive discrimination toward girls in scientific subjects. In this way I encourage as many girls as possible to participate in excellence math and computer groups, and thus to contribute to the group.*"

"*I try to encourage girls but it does not always work for me. I sometimes try to conduct individual teaching so that they can participate more actively in the class because they already know the material but that does not always work.*"

The next question checked the level of self-confidence among the girls in class in regard to their math abilities. The teachers were requested to evaluate this level and to answer whether they encourage girls to feel more confident. Many of the respondents replied that girls feel more confident when they are among girls, and this feeling descends when they work in mixed groups. Others admitted that although girls are confident enough regarding their math abilities, boys are even more confident.

Quotes:

"*The girls are confident about themselves and their skills as long as they are with girls. When the boys come their confidence goes down.*"

"*The girls in my class are confident about themselves and their skills. The boys are even more confident about themselves and their skills. This generation is self-confident, but I still see a difference between the self-confidence of the boys and the confidence of the girls.*'

Question 29 asks whether they boys in class are encouraged to express their feelings in ways that do not entail aggression. Most of the respondents answered that the behavior norms are the same for boys and girls and they treat equally all cases of aggression. Some of the teachers told that although they manage to prevent physical aggression in class, it is hard to prevent verbal aggression, especially among boys.

Quotes:

"*I encourage both genders to express their feelings in non-aggressive ways. The conduct with the boys and girls is the same. In my class we do not take violence of any kind.*"

"*We encourage everyone to express feelings in nonviolent ways. We are against both physical and verbal violence.*"

"*I encourage boys to express emotions in non-aggressive ways. I am against aggression. The problem is that the boys are not always willing to cooperate because such behavior seems feminine to them and they do not want to behave this way.*"

The next 3 questions refer to the behavior norms, discipline and obedience required from the students. Question 30 asks if there is a tendency to require a higher discipline level and more obedience from girls than from boys. Most of the participants did not notice any tendency of that kind, stating that the rules and requirements are the same for both genders. However part of them mentioned that to their opinion girls are more likely to comply with these rules and norms and it easier for them to do so.

Quotes:

"*I demand discipline and obedience from both boys and girls. There is no difference. Equality.*"

"*I do not require more discipline and obedience from girls. I demand the same thing as from boys. It is absolutely clear to me that it will be easier for girls to comply with the rules. The requirements are the same. Many times I cut the corners with boys.*"

Question 31 refers to discipline issues and asks if the disciplinary procedures are different in any way for boys and girls. All the respondents answered that the disciplinary procedures are the same for all students. Few participants admitted that in some certain cases there is a slight tendency to reduce the discipline requirements level for boys as it may be difficult for them to fully comply with those requirements.

Quotes:

"*The discipline procedures are the same but many times we cut the corners in boys' cases. It is clear to me that for boys it is more difficult to comply with disciplinary procedures. On second thought, the disciplinary procedures seem to be different.*"

"*The disciplinary procedures are the same for both boys and girls. There is no difference in requirements. Sometimes there is a difference in implementation and application, and*

accordingly, the disciplinary procedures may differ because rules are often more flexible for boys because it is clear to us that it is more difficult for them to comply with the discipline requirements."

Question 32 was intended to check if any gender-based discriminations exist in school regulations focusing on clothing and hairstyle regulations. Many of respondents replied that there is discrimination as requirements for girls' clothing and hairstyle are much stricter than those of boys.

Quotes:

"*There is gender-based discrimination. There are more requirements from girls' wear and hairstyles than from those of boys.*"

"*There is a more careful attention to the girls' clothing.*"

"*There is discrimination, there is more reference to the girls' abdominal shirts and hairstyle*."

Question 33 checks if the teachers address their students to express praise, evaluation, compliment or scolding in the same manner, regardless their gender. Most of the interviewees told that they make no gender-based distinction when addressing their students, they use the same expressions both for boys and girls. Few of the respondents mentioned that although they try to refer to their students equally, sometimes they use different approaches to boys and girls.

Quotes:

"*I try to address equally both boys and girls. In practice, as I mentioned, I refer more to the boys. The nature of the reference is also different. I praise girls for an appropriate behavior and look and the boys for their look and achievements. It is clear that here and there I praise similarly but there is a difference.*"

" *I address boys and girls equally. I praise, flatter or scold them as needed regardless their gender.*"

Question 34 deals with the textbooks used in class in regard to their clearness of stereotypic expressions. The teachers were asked if they have checked that in the books they use in class and whether they are careful in introducing the materials clear of such expressions. All the teachers responded that the textbooks are clear of stereotypes.

Quote:

"*There are no stereotypes in the textbooks. This issue has already been resolved in the past.*"

The last question is related to question 1 and asks if the staff members work as a group to raise the awareness of the need to clarify their attitudes towards sexist behavior of any kind. The answers were consistent with those to question 1, stating that no such work is done in school.

Quote:

"No, there is no group, no awareness, no reference."

I will summarize the qualitative findings obtained in 2022. Read and do not believe:

The qualitative findings obtained indicate that giving equal opportunities to members of both genders is clear on the one hand and since it is clear it is not part of the school agenda and on the other hand it does not exist if teachers claim the opportunities exist and boys take more advantage of them.

The prevailing opinion among teachers is that boys obey less ("it is more difficult for them to meet the requirements") and their academic achievements are higher and accordingly sometimes the rules for the boys are more flexible since "it is more difficult for them to meet the requirements".

Girls sometimes avoid working in a group of boys. There are reinforcement groups for girls and in addition the girls are placed in advanced groups in order to encourage them to

learn and make them successful ("positive discrimination"). Here, too, equality does not exist.

Boys are more confident in their abilities; they are usually better in math and in the group of students with lower-than-average achievements most students are girls.

The personal encouragement of the teachers takes place according to the ability and achievements of each student and in fact intensifies the differences.

The boys get more attention because they are actively participating in the lessons and in addition, they are noisy and require more attention. The boys do not allow otherwise - even if they do not get the attention from the teachers, they will take it.

Reality dictates behavior. Even if you want to behave differently, it just does not work. There is a gap between the intentions and desires for the conduct itself.

A rotating seating arrangement does not constitute equality.

Work in the afternoon groups is conducted in gender groups of the students' choice.

Some areas of activity such as the football field are still perceived as "male only".

Saying boys like to play football while girls like to gossip is a problem.

There is a difference between the behavior of boys and the behavior of girls.

Boys are usually the unofficial leaders of the class.

From a pedagogical point of view, the lecture rate is between 50% -90% and accordingly this method is more suitable for boys.

The participants in the classes are mostly boys.

Still in some cases the boys perform "masculine works" at school (e.g. moving furniture) as opposed to girls who are asked to decorate.

Affirmative action occurs in some classrooms and classes. Affirmative action does not constitute equal opportunities.

Boys are more confident about their mathematical ability.

Girls feel confident when they are around girls.

In terms of expressing emotions - it is difficult to prevent verbal aggression among boys.

There is gender discrimination in school regulations - the requirements for dress and the appearance of girls are stricter than those of boys.

Awareness raising on the subject is not carried out in the school.

Read and do not believe! From the words of the teachers who educate the next generation.

6.2 Quantitative findings and reliability test

I handed over 40 questionnaires to the teachers. The teachers answered all the questions.

To calculate the internal consistency, I used a formula to calculate the reliability coefficient, the Alpha Cronbach formula. An alpha Cronbach test in the spss software found that Alpha Cronbach is 0.701 which means the data is reliable. Reliability tests the tool and is a necessary condition for validity.

Reliability Statistics

Cronbach's Alpha	N of Items
.701	25

The data I received I will present in tables and diagrams later in the work and in some of the appendices.

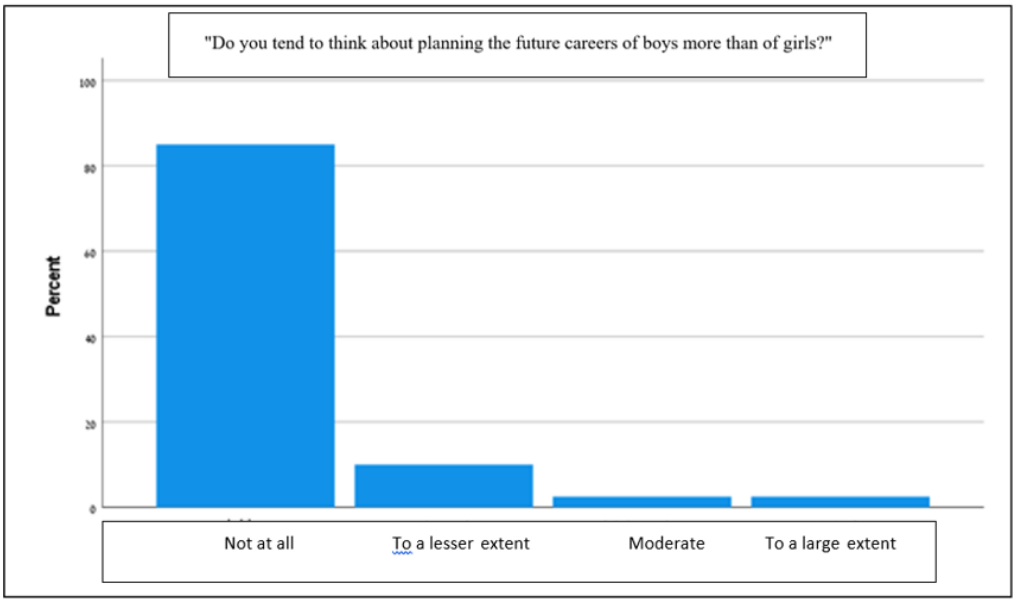
In presenting the quantitative findings, I will first present the issues in which according to the teachers answers the reference is mostly equal to boys and girls and later I will present the data in which equality between boys and girls is small and sexuality is present.

6.3 Equal (mostly) reference - without gender bias

6.3.1 Prejudices about boy's knowledge and success in certain professions:

On the question: "Do you tend to think about planning the future careers of boys more than of girls?" 85% of the teachers answered that they do not think about planning the future careers of the boys at all more than the girls, 10% think about it to a small extent while only five percent of the seasons, who constitute only two teachers think about it to a moderate or large extent. Most teachers who make up 95% do not at all or to a small extent think about planning a future career for boys.

Answer	Number of answers	Percentage
Not at all	34	85%
To a lesser extent	4	10%
Moderate	1	2.5%
To a large extent	1	2.5%

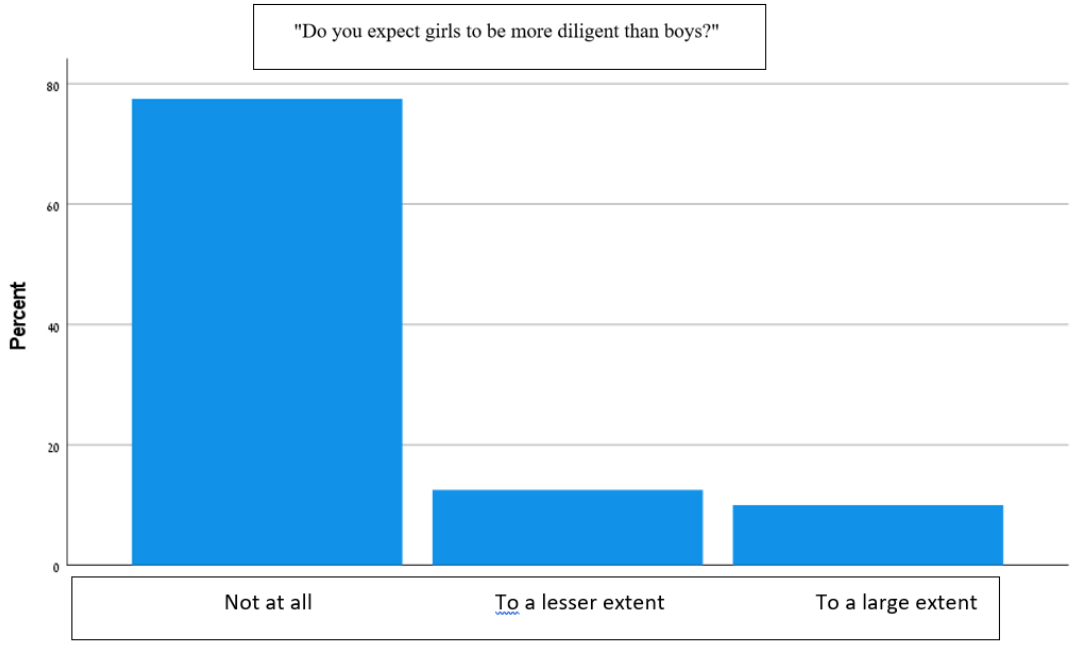


"Do you tend to think about planning the future careers of boys more than of girls?"

Different expectations from girls and boys:

On the question: "Do you expect girls to be more diligent than boys?" 90% of the teachers answered that they do not expect or expect to a lesser extent that girls will be more diligent than boys. Only 10% of the teachers answered that they largely expect girls to be more diligent than boys.

Answer	Number of answers	Percentage
Not at all	31	77.5%
To a lesser extent	5	12.5%
To a large extent	4	10%



"Do you expect girls to be more diligent than boys?"

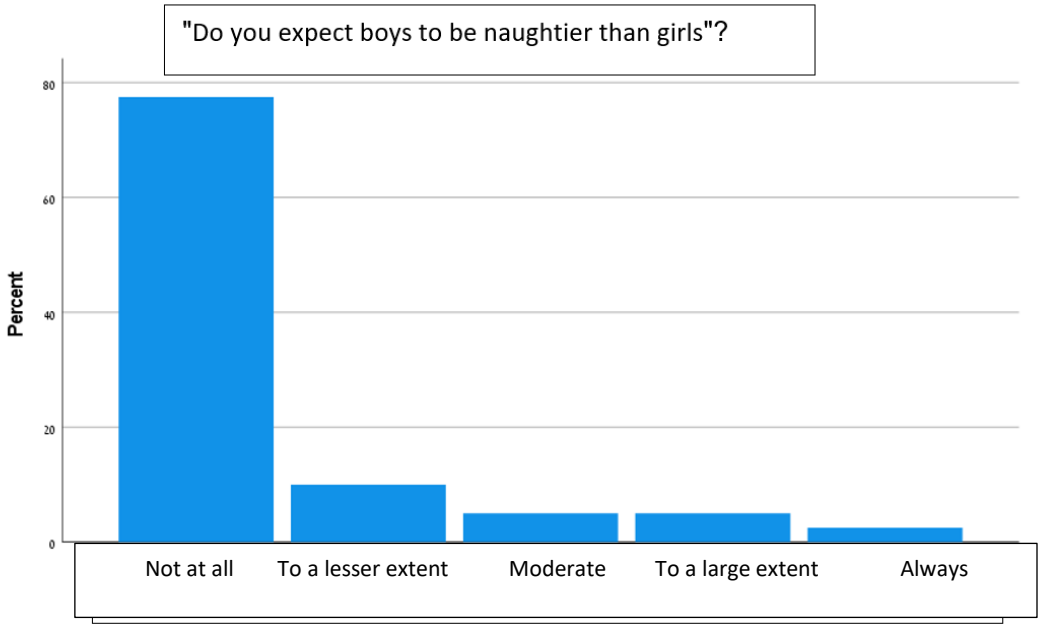
On the question: "Do you expect girls to be more orderly in their appearance and work than boys?" 87.5% of the teachers answered that they do not or do not expect girls to be more orderly in their appearance and work than girls. Only 2 teachers marked moderately and 3 teachers marked largely.

Answer	Number of answers	Percentage
Not at all	25	62.5%
To a lesser extent	10	25%
Moderately	2	5%
To a large extent	3	7.5%

"Do you expect girls to be more orderly in their appearance and work than boys?"

On the question: "Do you expect boys to be naughtier than girls?" 87.5% of the teachers answered that they do not expect or do not expect boys to be naughtier than girls, 5% of the teachers answered that they expect moderately while only 3 teachers expect it to a great extent or always.

Answer	Number of answers	Percentage
Not at all	31	77.5%
To a lesser extent	4	10%
Moderately	2	5%
To a large extent	2	5%
Always	1	2.5%



"Do you expect boys to be naughtier than girls?"

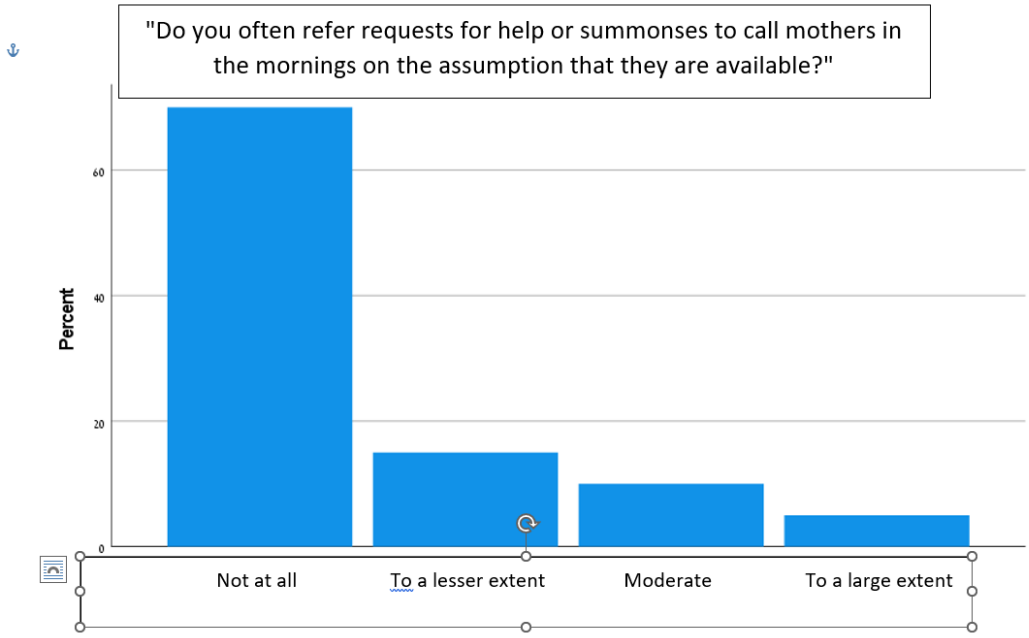
The thinking and expectations (according to the statement of most teachers) are equal thinking and expectations for members of both genders. The thinking about planning a future career of both genders is the same (no over-planning of a future career of boys) and regarding different expectations of both genders: no expectation of more diligent boys, no expectation of more orderly girls and no expectation that boys will be naughtier.

Great to hear these statements. Later we will understand that the data which came up were only statements. It is very pleasant to hear and play them, but they do not indicate the rule or the trend.

6.3.2 Equal (mostly) treatment to boys and girls - without gender bias:

To the question: "Do you often refer requests for help or summonses to call mothers in the mornings on the assumption that they are available?", 85% of the teachers answered not at all or to a small extent. For most teachers the reference to both parents is the same.

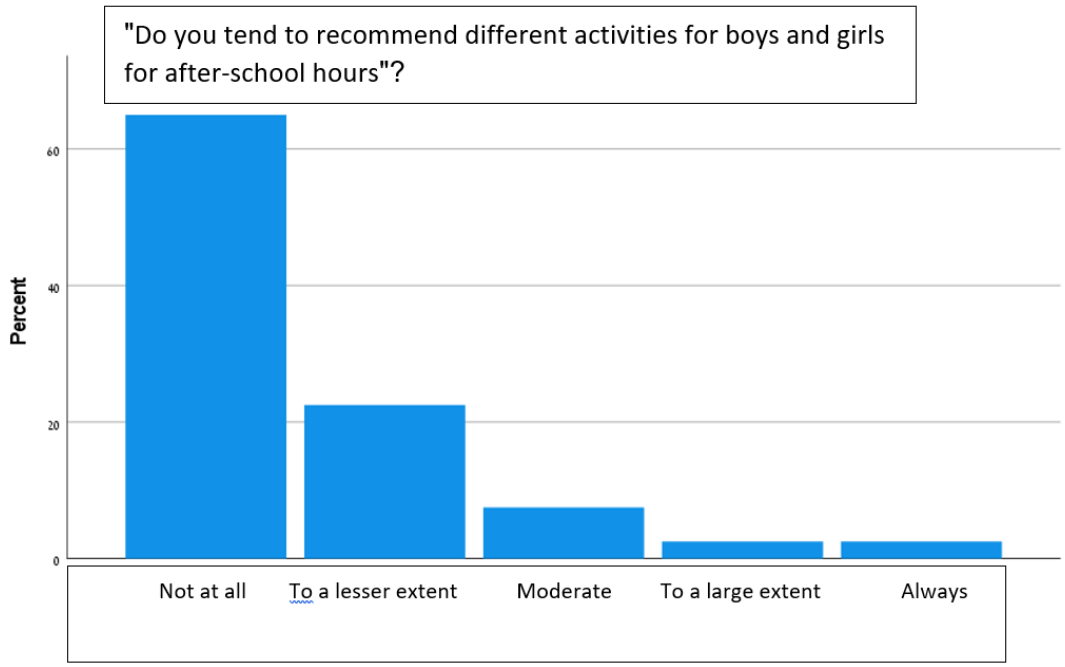
Answer	Number of answers	Percentage
Not at all	28	70%
To a lesser extent	6	15%
Moderately	4	10%
To a large extent	2	5%



"Do you often refer requests for help or summonses to call mothers in the mornings on the assumption that they are available?"

To the question: "Do you tend to recommend different activities for boys and girls for after-school hours?", 87.5% of the teachers answered not at all or to a small extent, 3 teachers do it moderately while only 2 teachers do it largely or always.

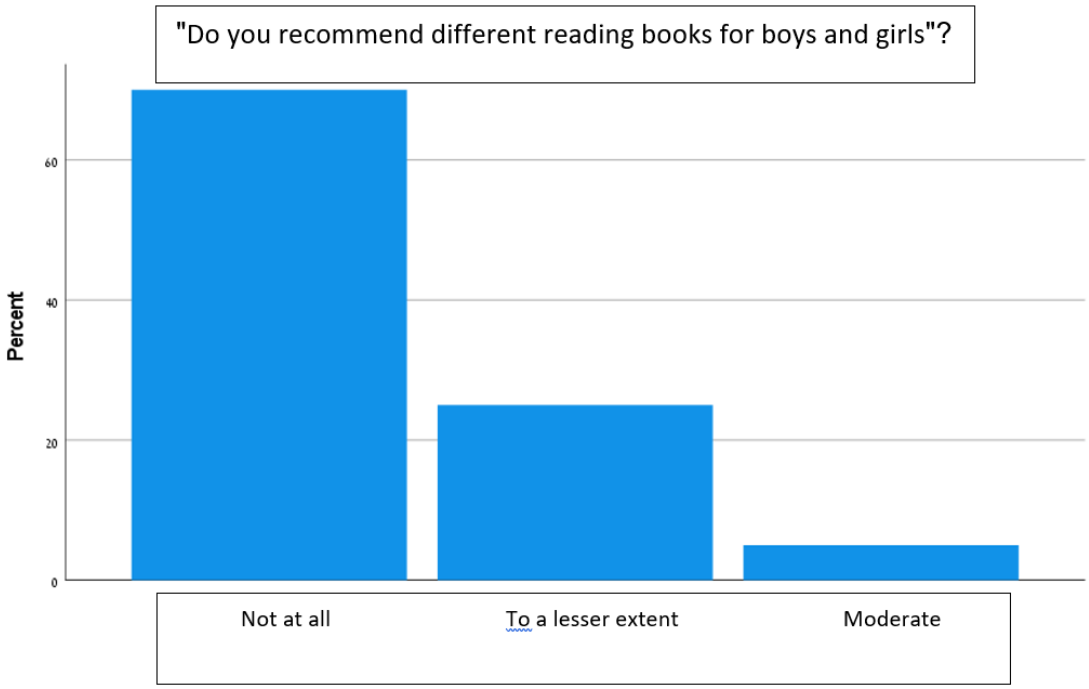
Answer	Number of answers	Percentage
Not at all	26	65%
To a lesser extent	9	22.5%
Moderately	3	7.5%
To a large extent	1	2.5%
Always	1	2.5%



"Do you tend to recommend different activities for boys and girls for after-school hours?"

To the question: "Do you recommend different reading books for boys and girls?", 95% of the teachers answered that they do not recommend different reading books for boys and girls at all or do so to a small extent, while only two teachers who make up 5% of all respondents claimed that they were distorted. This is moderate. Most teachers do not differentiate between members of both sexes in terms of reading book recommendations.

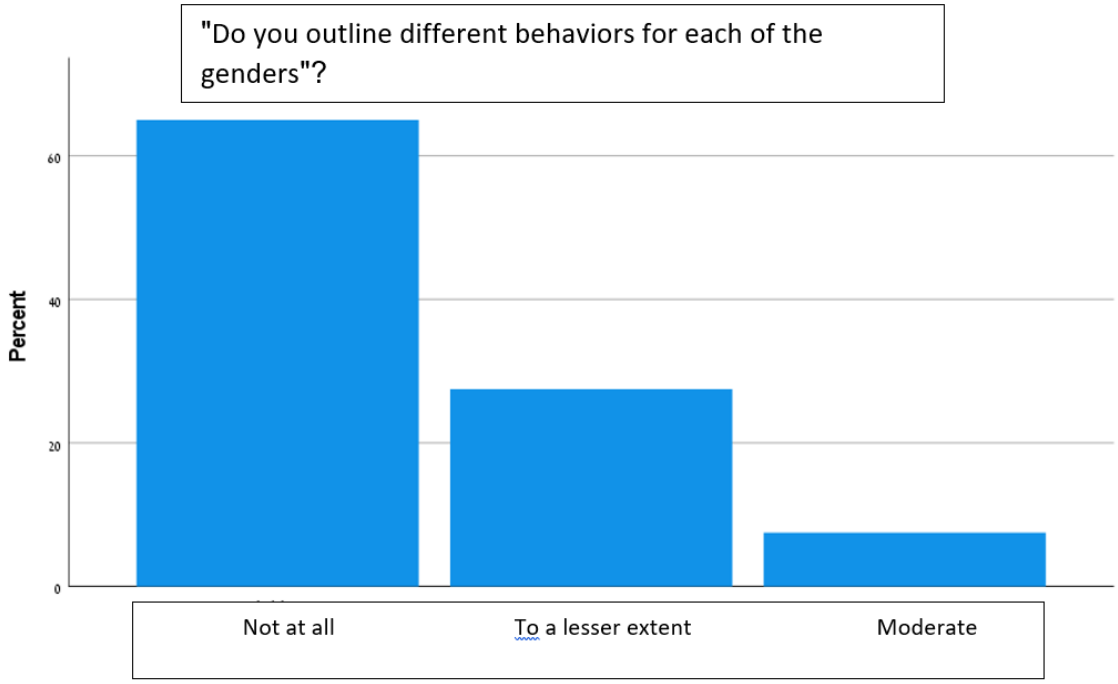
Answer	Number of answers	Percentage
Not at all	28	70%
To a lesser extent	10	25%
Moderately	2	5%



"Do you recommend different reading books for boys and girls?"

Also, regarding the labeling of different behaviors to boys and girls, most teachers do not outline different behaviors for each of the genders at all, 65% do not outline at all while 27.5% outline to a small extent. Only 3 teachers who make up 7.5% of all teachers claimed that they outline different behaviors to boys and girls to a moderate degree.

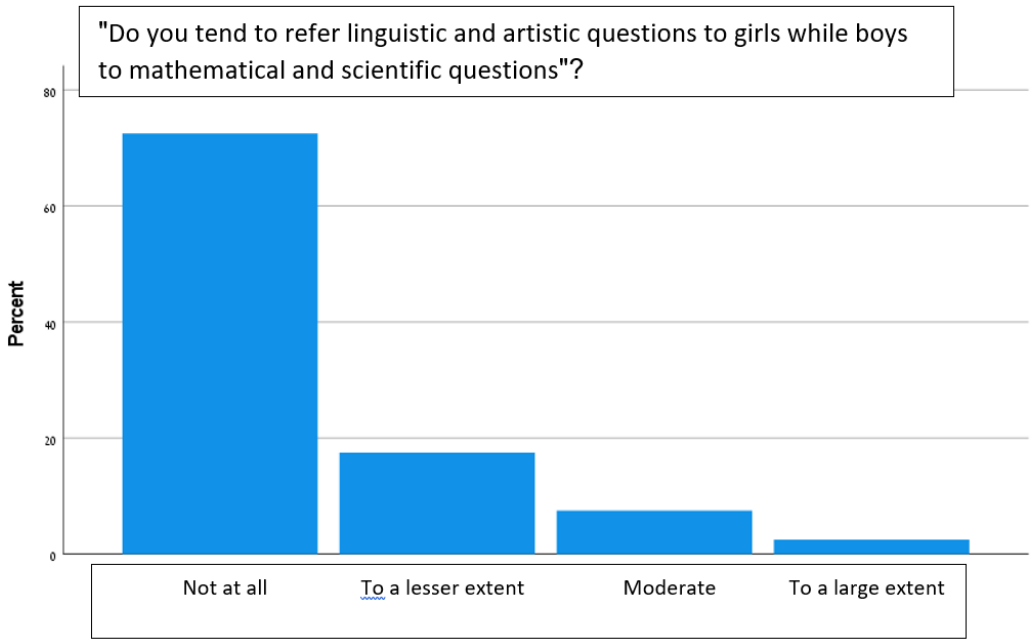
Answer	Number of answers	Percentage
Not at all	26	65%
To a lesser extent	11	27.5%
Moderately	3	7.5%



"Do you outline different behaviors for each of the genders?"

On the question: "Do you tend to refer linguistic and artistic questions to girls while boys to mathematical and scientific questions?" 90% of the teachers answered not at all or to a small extent, 3 teachers to a moderate extent and only one teacher to a large extent.

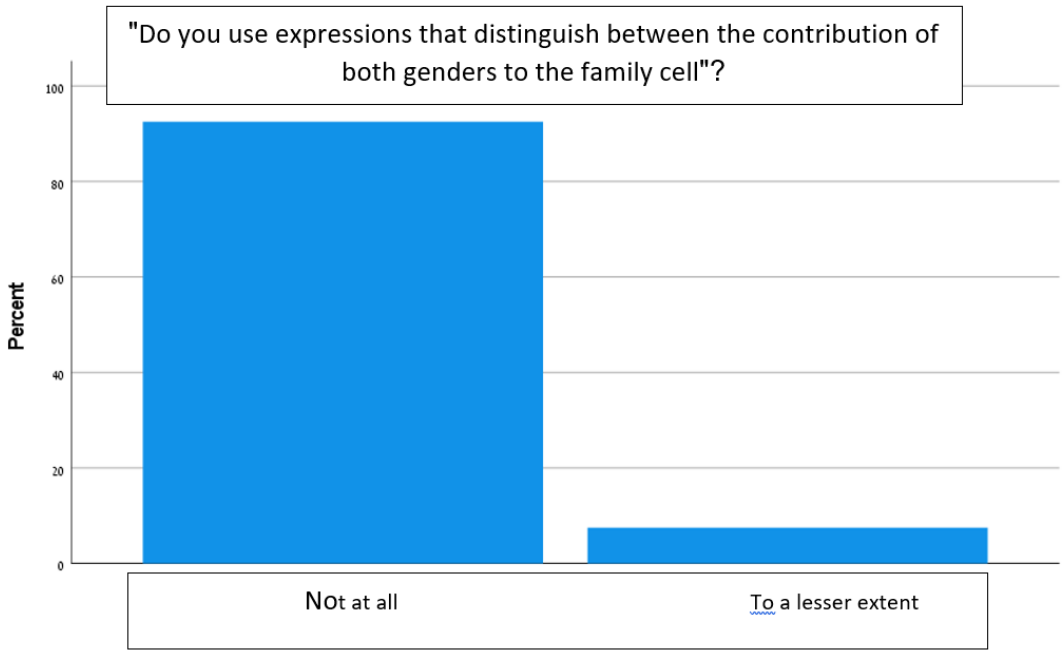
Answer	Number of answers	Percentage
Not at all	29	72.5%
To a lesser extent	7	17.5%
Moderately	3	7.5%
To a large extent	1	2.5%



"Do you tend to refer linguistic and artistic questions to girls while boys to mathematical and scientific questions?"

In examining teachers use of expressions that differentiate between the contributions of both genders and doing in the family unit, the answer obtained is that 92.5% of the teachers do not use such expressions at all, while 7.5% of the teachers use such expressions to a small extent.

Answer	Number of answers	Percentage
Not at all	37	92.5%
To a lesser extent	3	7.5%



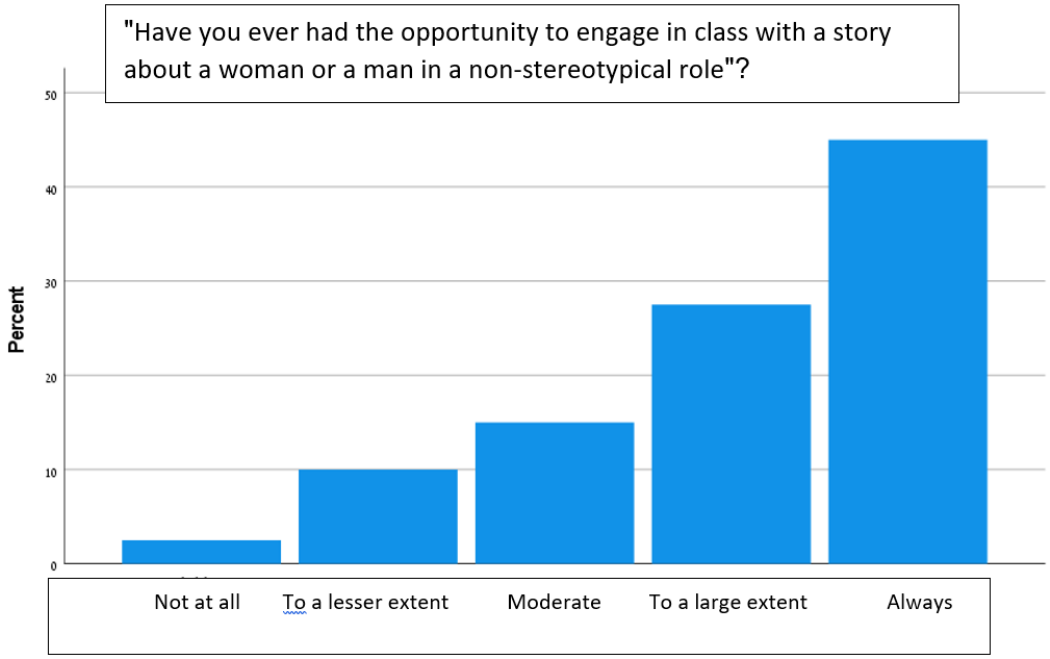
"Do you use expressions that distinguish between the contribution of both genders to the family cell?"

The data show that most teachers declare equal treatment for members of both genders. According to them, most teachers No longer turn to mothers in the mornings with varied requests assuming they are free, Do not recommend different activities for both genders in the afternoon (after school hours), Do not recommend different reading books for different genders, Do not outline different behaviors for boys and girls , Does not address different types of questions to members of different genders (linguistic and artistic questions to a girls and mathematical and scientific questions to boys) and does not use expressions that distinguish between the contribution of both genders to work in the family cell.

It is great to hear these statements. Later we will understand that the data which came up were only statements. It is very pleasant to hear and play them, but they do not indicate the conduct itself.

On the question: "Have you ever had the opportunity to engage in class with a story about a woman or a man in a non-stereotypical role?" 12.5% of the teachers answered at all or to a small extent, 15% answered moderately while 72.5% answered to a large extent or always.

Answer	Number of answers	Percentage
Not at all	1	2.5%
To a lesser extent	4	10%
Moderately	6	15%
To a large extent	11	27.5%
Always	18	45%



"Have you ever had the opportunity to engage in class with a story about a woman or a man in a non-stereotypical role?"

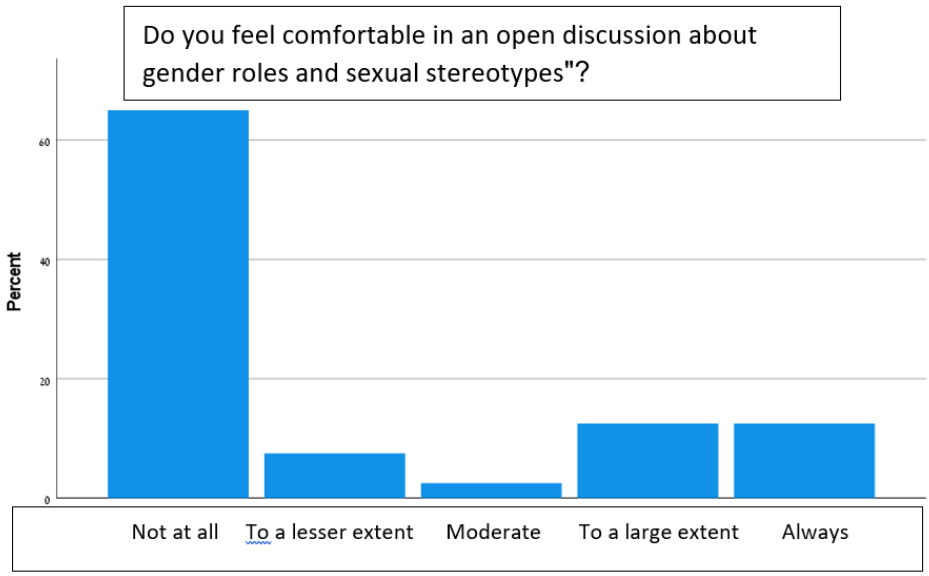
Most teachers dealt with the story of a man or a woman in a non-stereotypical role. These stories appear in the news and call for an up-to-date reference.

Equal treatment for boys and girls - without gender bias (still most teachers but only about 75% of teachers).

For the question: "Do you feel comfortable in an open discussion about gender roles and sexual stereotypes?", Most answers indicate an uncomfortable feeling in such a discourse.

65% of the teachers said that they do not feel comfortable at all in such a discourse, 7.5% of the teachers said that they feel slightly comfortable in such a discourse, only about a quarter of teachers (25%) said that they always feel or are very comfortable in this kind of discourse, and one teacher said that she feels mediocre in this kind of conversation. The findings indicate that 72.5% of the teachers do not feel comfortable in this type of discourse, a discourse that deals with gender roles and gender stereotypes.

Answer	Number of answers	Percentage
Not at all	26	65%
To a lesser extent	3	7.5%
Moderately	1	2.5%
To a large extent	5	12.5%
Always	5	12.5%



"Do you feel comfortable in an open discussion about gender roles and sexual stereotypes"?

An open discussion of gender roles and sexual stereotypes in most teachers does not feel comfortable. The issue is sensitive and still not addressed as required. Despite the teachers' statements about equal treatment, the teachers know and feel (the test of reality) that the issue is not yet properly addressed and accordingly uncomfortable to deal with.

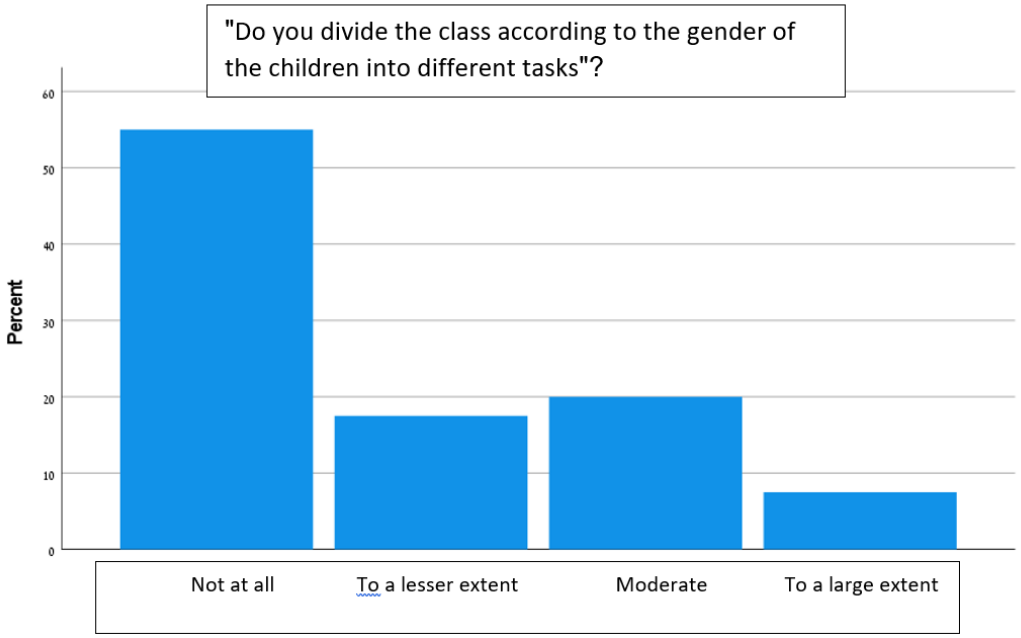
To the question: "Do you often comment and compliment on the girls clothing more than on the boys clothing?", 75% of the teachers answered that they do not comment or comment to a small extent at all.

Answer	Number of answers	Percentage
Not at all	22	55%
To a lesser extent	8	20%
Moderately	7	17.5%
To a large extent	3	7.5%

"Do you often comment and compliment on the girls' clothing more than on the boys clothing?"

On the question: "Do you divide the class according to the gender of the children into different tasks?". 72.5% of the teachers answered that they do not divide the class at all according to the gender of the children for different tasks or do so to a small extent. 8 teachers divide the class according to the gender of the children different tasks to a moderate extent while 3 teachers to a large extent.

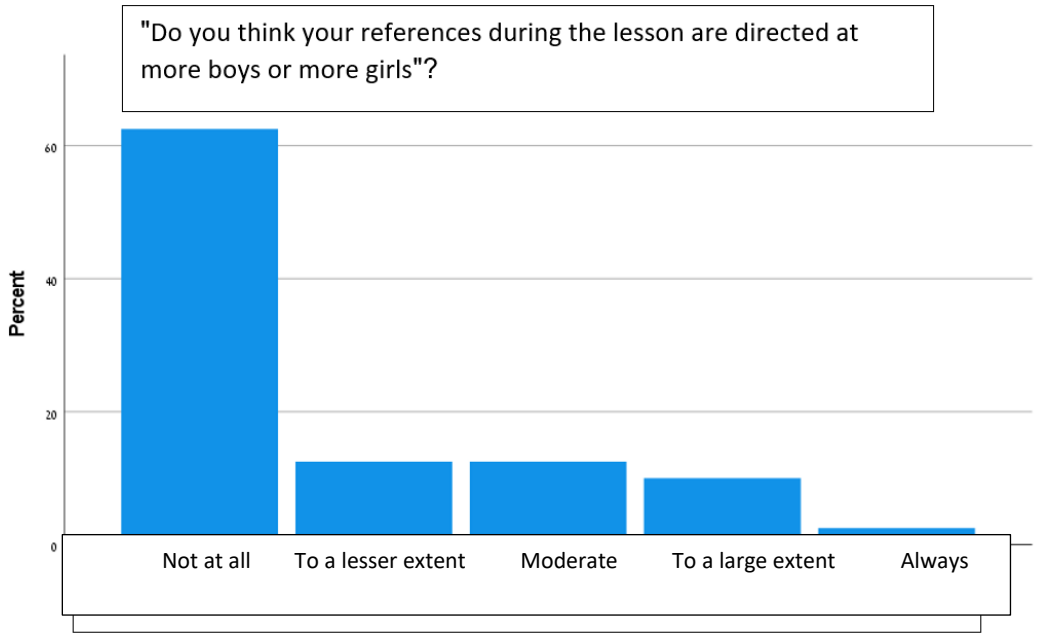
Answer	Number of answers	Percentage
Not at all	22	55%
To a lesser extent	7	17.5%
Moderately	8	20%
To a large extent	3	7.5%



"Do you divide the class according to the gender of the children into different tasks?"

On the question: "Do you think your references during the lesson are directed at more boys or more girls?" 62.5% of the teachers answer not at all, 12.5% of the teachers answered to a small extent, 12.5% to a moderate extent and 12.5% to a large extent or always. Of the teachers who answered to a small, moderate, large or permanent extent - all the teachers indicated that they were more likely to turn to boys.

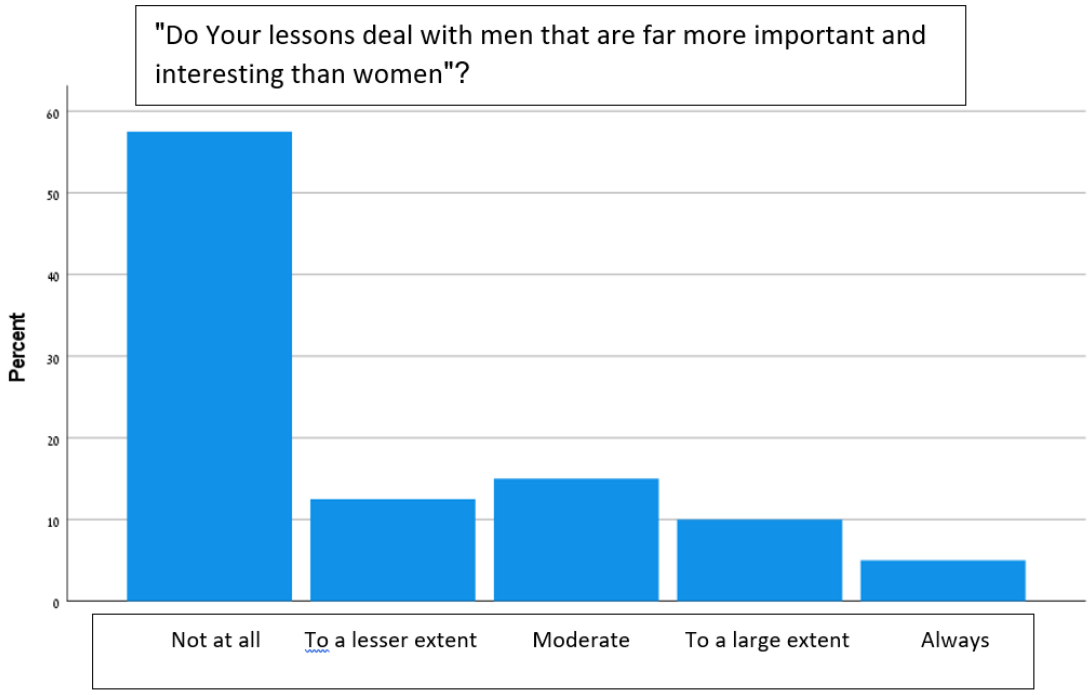
Answer	Number of answers	Percentage
Not at all	25	62.5%
To a lesser extent	5	12.5%
Moderately	5	12.5%
To a large extent	4	10%
Always	1	2.5%



"Do you think your references during the lesson are directed at more boys or more girls?"

On the question: "Do Your lessons deal with men that are far more important and interesting than women?" 57.5% of the teachers answer not at all, 12.5% answered to a small extent. That is, a total of 70% of the teachers answer not at all or to a small extent and this figure is important but not enough. The other teachers, 15% answered moderately, 10% largely while 5% always.

Answer	Number of answers	Percentage
Not at all	23	57.5%
To a lesser extent	5	12.5%
Moderately	6	15%
To a large extent	4	10%
Always	2	5%



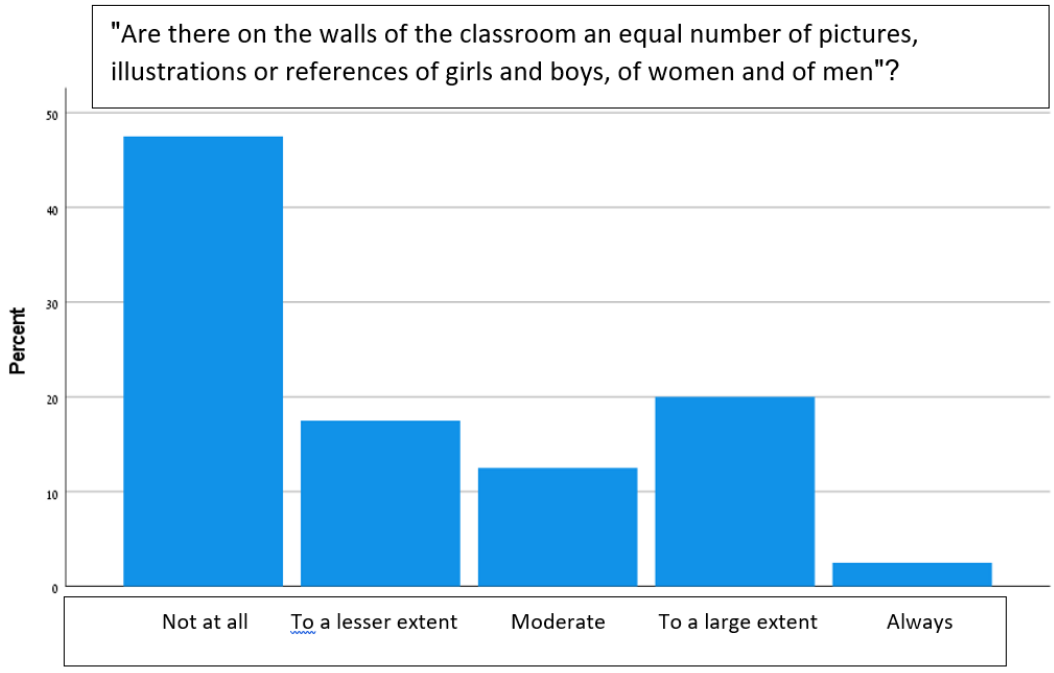
"Do Your lessons deal with men that are far more important and interesting than women?"

Most teachers do not comment on girls 'clothing more than on boys' clothing, Do not divide the class by gender in group work, Do not address more members of one gender during the class and their classes do not deal with men more important and interesting than women as if most teachers make up 75% Of all the teachers - that is, A quarter of the teachers still do. Still commenting more on the girls' outfit, still dividing the class by gender while working in groups, still turning more during class to one gender (according to the statement all teachers of this gender are the boys) and still dealing during class with men more important and interesting than women. Is this the education we designate for our children? Is this the education that is supposed to bring about change in 2023? This is a statistic that cannot be ignored.

6.3.3 Large and clear gender inequality:

On the question: "Are there on the walls of the classroom an equal number of pictures, illustrations or references of girls and boys, of women and of men?" 65% of the teachers answered not at all or to a small extent, 12.5% answered moderately while 22.5% answered to a large extent or always.

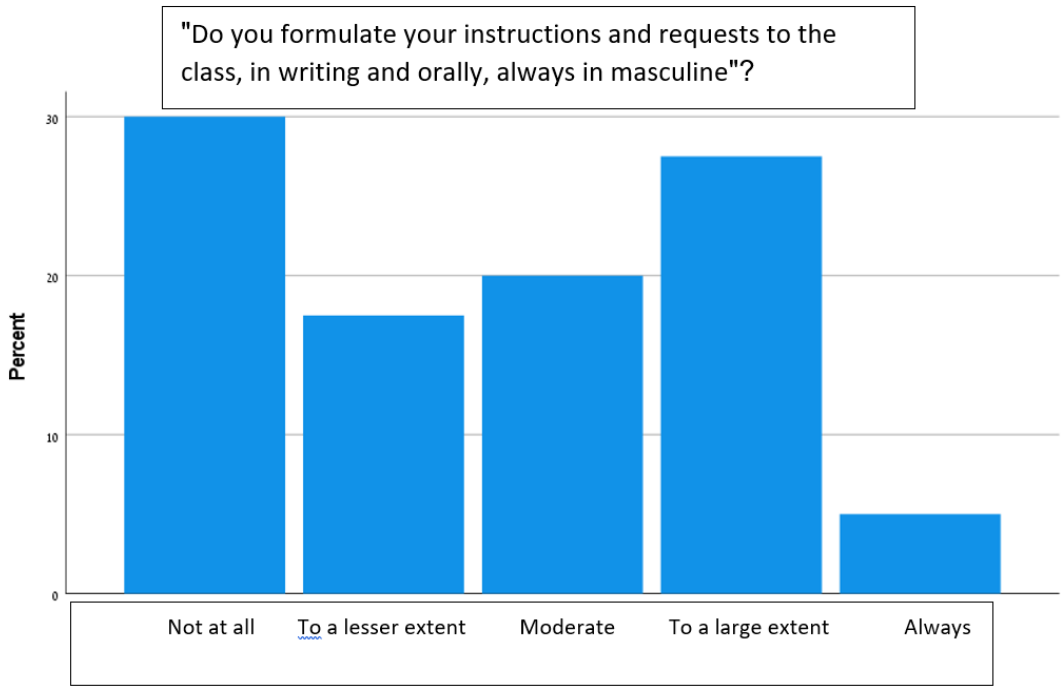
Answer	Number of answers	Percentage
Not at all	19	47.5%
To a lesser extent	7	17.5%
Moderately	5	12.5%
To a large extent	8	20%
Always	1	2.5%



"Are there on the walls of the classroom an equal number of pictures, illustrations or references of girls and boys, of women and of men?"

On the question: "Do you formulate your instructions and requests to the class, in writing and orally, always in masculine?", 20% answered moderately while 47.7% of the teachers answer not at all or to a small extent while the other teachers, 32.5% of teachers answered largely or always. Nearly 50% of the teachers do not formulate or almost do not formulate their references to the class in male language while the rest are divided.

Answer	Number of answers	Percentage
Not at all	12	30%
To a lesser extent	7	17.5%
Moderately	8	20%
To a large extent	11	27.5%
Always	2	5%

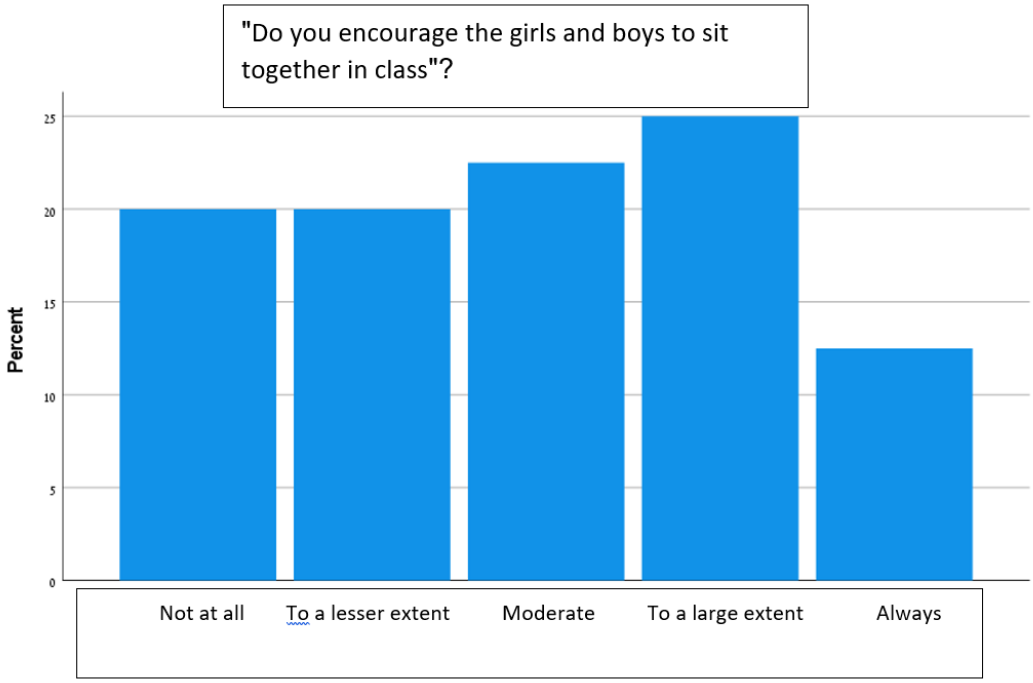


"Do you formulate your instructions and requests to the class, in writing and orally, always in masculine?"

On the question: "Do you encourage the girls and boys to sit together in class?"

22.5% of the teachers answered moderately while the rest 40% answered not at all or to a small extent while 37.5% answered to a large extent or always.

Answer	Number of answers	Percentage
Not at all	8	20%
To a lesser extent	8	20%
Moderately	9	22.5%
To a large extent	10	25%
Always	5	12.5%

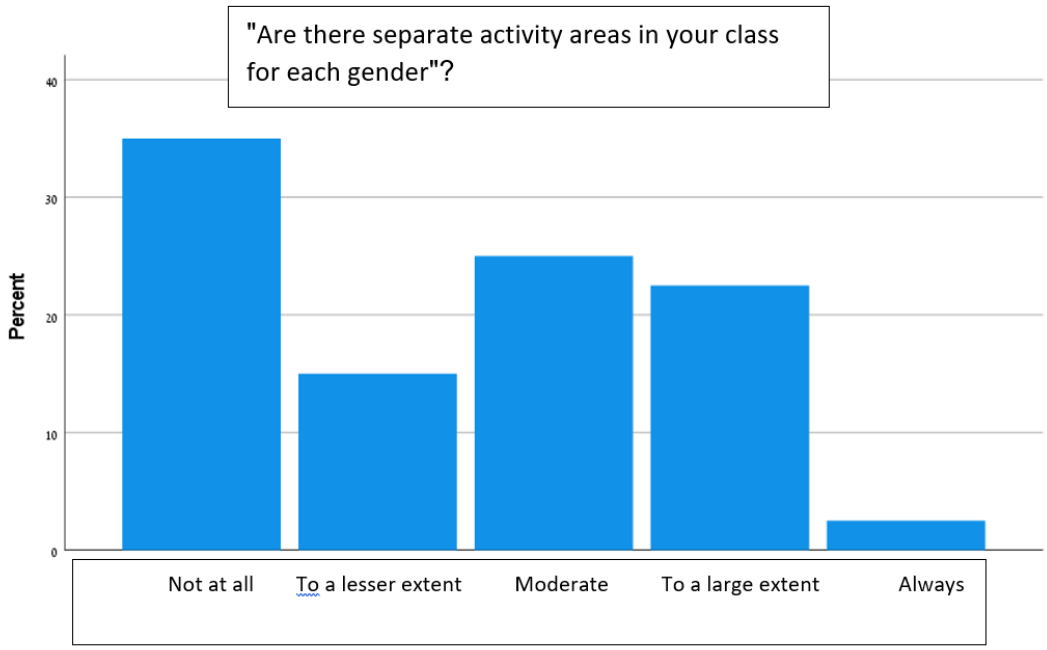


"Do you encourage the girls and boys to sit together in class?"

On the question: "Are there separate activity areas in your class for each gender?",

50% of the teachers claimed not at all or to a small extent, 25% claimed moderately while 25% claimed to a large extent or always.

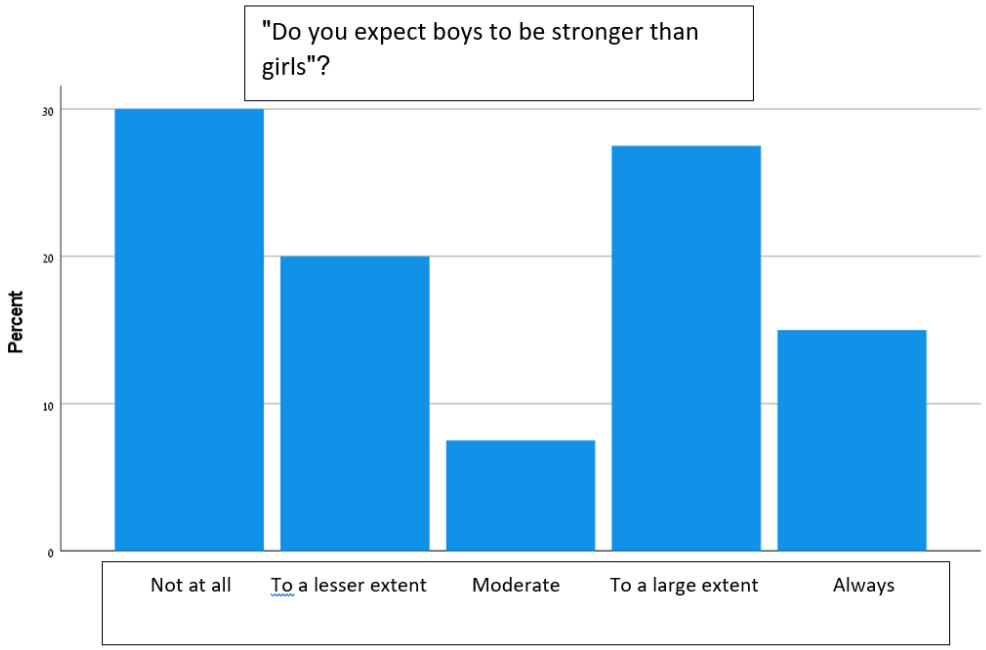
Answer	Number of answers	Percentage
Not at all	14	35%
To a lesser extent	6	15%
Moderately	10	25%
To a large extent	9	22.5%
Always	1	2.5%



"Are there separate activity areas in your class for each gender?"

On the question: "Do you expect boys to be stronger than girls?" 50% of the teachers answered not at all or to a small extent, 7.5% of the teachers answered moderately while 42.5% of the teachers answered to a large extent or always.

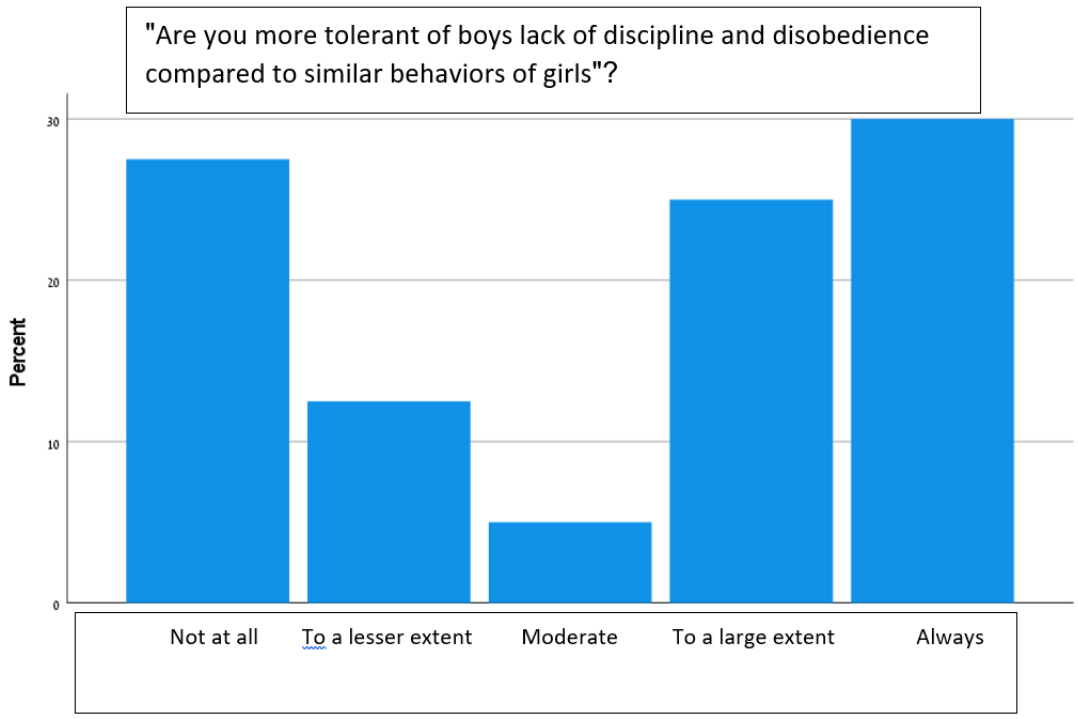
Answer	Number of answers	Percentage
Not at all	12	30%
To a lesser extent	8	20%
Moderately	3	7.5%
To a large extent	11	27.5%
Always	6	15%



"Do you expect boys to be stronger than girls?"

On the question: "Are you more tolerant of boys lack of discipline and disobedience compared to similar behaviors of girls?" 40% of the teachers answered not at all or to a small extent, 5% answered moderately while 55% of the teachers answered to a large extent or always.

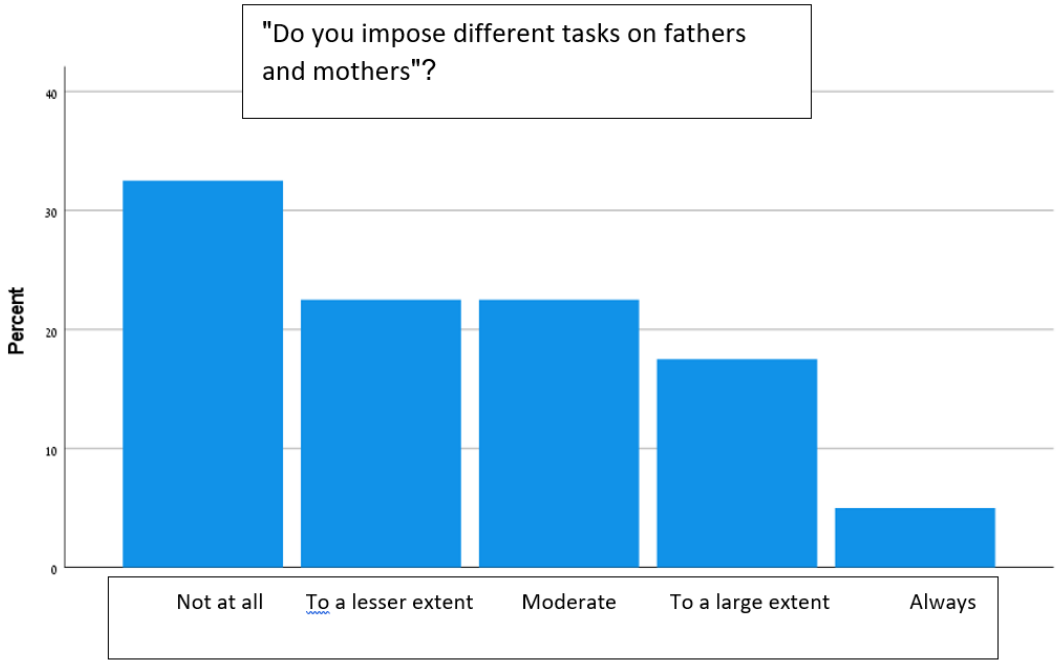
Answer	Number of answers	Percentage
Not at all	11	27.5%
To a lesser extent	5	12.5%
Moderately	2	5%
To a large extent	10	25%
Always	12	30%



"Are you more tolerant of boys lack of discipline and disobedience compared to similar behaviors of girls?"

On the question: "Do you impose different tasks on fathers and mothers?" 55% of the teachers answered not at all or to a small extent, 22.5% of the teachers answered moderately while 22.5% of the teachers answered to a large extent or always.

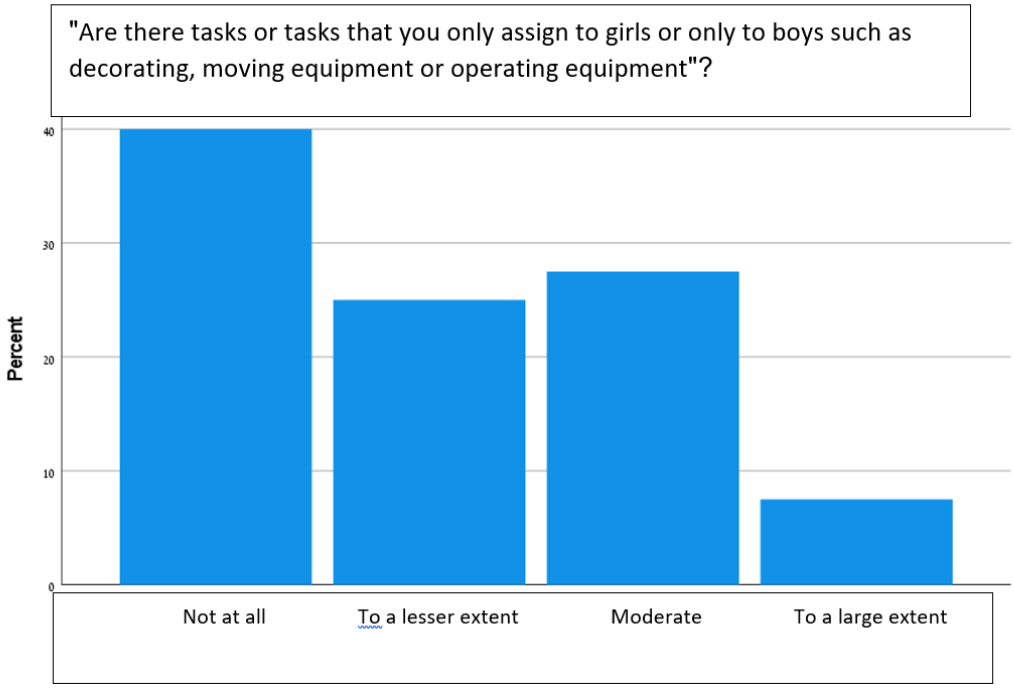
Answer	Number of answers	Percentage
Not at all	13	32.5%
To a lesser extent	9	22.5%
Moderately	9	22.5%
To a large extent	7	17.5%
Always	2	5%



"Do you impose different tasks on fathers and mothers?"

On the question: "Are there tasks or tasks that you only assign to girls or only to boys such as decorating, moving equipment or operating equipment?" 65% of the teachers answered not at all or to a small extent, 27.5% to a moderate extent and only 7.5% to a large extent.

Answer	Number of answers	Percentage
Not at all	16	40%
To a lesser extent	10	25%
Moderately	11	27.5%
To a large extent	3	7.5%



"Are there tasks or tasks that you only assign to girls or only to boys such as decorating, moving equipment or operating equipment?"

Gender inequality (according to teacher reports), We see in the status of the pictures, illustrations and mentions in the classroom. Nearly 50% of teacher women report inequality in this regard. Almost 50% of teachers report that they do not always formulate instructions and references to the classroom in masculine language, 40% of teachers do not encourage different genders to sit together, 50% of teachers do not have separate activity areas for members of different genders, 50% do not expect boys to be stronger than girls. 55% of teachers are more patient with boys' lack of discipline and disobedience compared to similar behaviors of girls, 55% of teachers do not impose different tasks on fathers and mothers, 65% of teachers do not impose tasks or tasks only on boys or girls. According to the data, inequality is still present in the classrooms and is present there in full force. The data are not as expected in 2023.

6.3.4 Maximum values:

It was interesting to see the maximum values obtained from the teachers answers in a number of questions, for example in a question: "Do you use expressions that distinguish between the contribution of both genders to the family cell, such as "mother helping father in family support" or "sons should think of a profession that will enable them to support a family with respect"? The maximum was 2 (92.5% answered 1 - not at all, and 7.5% answered 2 - to a small extent). There was no other answer!

As a result of the answer to the question: "Do you outline different behaviors for each of the genders in phrases like "girls should not be beaten", "don't cry like a girl", "boys will help girls" or "The girls are worried about food"?" The maximum was 3 (65% answered not at all, 27.5% answered to a small extent and 7.5% answered moderately).

In answer to the question: "Do you recommend different reading books for girls and boys?" The maximum was 3 (70% answered not at all, 25% answered to a small extent and 5% answered to a moderate extent).

In addition, there were a number of questions in which the answer “always” (5) was not recorded at all. There were eight questions like that (not including the previous three questions).

A look at the maximum values can be seen in the change that is taking place in society. No more statements as before. There are statements and behaviors that are inappropriate in 2022 and we see the proof - teachers do not say them (according to their report). No teacher reported that she uses expressions that differentiate between the contribution of both genders to doing in the family cell, no teacher reported that she regularly outlines different behaviors for each gender, no teacher reported that she regularly recommends different reading books for girls and boys. There were eight more questions in which teachers indicated that they do not take inequality regularly, that they do not take inequality always and here is the change.

Recall that when reserves do not take inequality regularly it does not mean that taking inequality does not exist - it does exist according to reports but less frequently. In addition, we will remember that there are gaps between statements and behaviors.

6.3.5 High sexuality:

In processing the results of the questionnaires, there were questions in which high sexuality increased, for example regarding the question: "Do the walls of the classroom have an equal number of pictures, illustrations or mentions of girls and boys, women and men?", 65% of the teachers answered that they did not have an equal number of pictures in the class or to a small extent (47.5% answered not at all and 17.5% of the teachers answered to a small extent). This answer indicates high sexuality.

To the question: "Do you think your references during a lesson are directed more to boys or girls?", 75% of the teachers answered not at all or to a small extent. The teachers who claimed to treat one gender more - one hundred percent of them indicated that they were the boys!

Regarding an open discussion about gender roles and gender stereotypes, 72.5% of teachers answered that they do not feel comfortable.

On the question: "Do you expect boys to be stronger then girls?" 42.5% of the teachers answered always or to a large extent.

For tolerance to discipline and disobedience of boys compared to similar behaviors of girls 55% of the teachers answered always or to a large extent.

In addition to these data, about a quarter of the teachers indicated high sexuality. A quarter of the teachers are still a finding that indicates inequality. In a question like: "Do you impose different tasks on fathers and mothers?".

Despite the desire to see equal treatment for both genders, despite the excitement to see that there is equal treatment for both genders, it is important to see the other side as well. There are issues where there is still a distinction between members of both genders. A distinction that should not exist. Still in classes a greater number of pictures or illustrations or mentions of men, still 75% of teachers refer to giving up members of one gender (everyone said if they were boys), still about three-quarters of teachers do not feel comfortable in open discussion of gender roles and gender stereotypes, still almost half

female Teachers expect boys to be stronger than girls, yet over half of teachers are more tolerant of boys' disobedience and lack of discipline than girls. Still.

6.3.6 Checking a combination of variables:

In testing a combination of two variables I found a high correlation between:

Teachers who formulate their instructions and requests to the classroom in writing and orally always in the masculine language (question number 1) and between teachers who address the lesson to boys (question number 5), between teachers who formulate their instructions and requests to the classroom in writing and orally always in the masculine language (question number 1) and between teachers who feel comfortable discussing gender roles and gender stereotypes (question number 8).

Subject & Question number	Pearson Correlation	Subject & Question number
Teachers who formulate their instructions and requests for the class in writing and orally always in masculine (question number 1)	0.475	Teachers referring the lesson to boys (question number 5)
Teachers who formulate their instructions and requests for the class in writing and orally always in masculine (question number 1)	0.482	Teachers who feel comfortable discussing gender roles and gender stereotypes (Question No. 8)

Between teachers who encourage the boys and girls to sit together in class (question number 2) and between teachers whose class has an equal number of pictures, illustrations and references of boys and girls of men and women (question number 4), between teachers who encourage boys and girls to sit together in class (question number 2) and among teachers who feel comfortable discussing gender roles and gender stereotypes (question number 8).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who encourage the boys and girls to sit together in class (question number 2)	0.575	teachers whose class has an equal number of pictures, illustrations and references of boys and girls of men and women (question number 4)

teachers who encourage the boys and girls to sit together in class (question number 2)	0.500	teachers who feel comfortable discussing gender roles and gender stereotypes (question number 8)

Between teachers that in they classroom there are separate activity areas for girls and boys (question number 3) and between those whose classes deal with important and interesting men more than women (question number 6).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers that in they classroom there are separate activity areas for girls and boys (question number 3)	0.470	whose classes deal with important and interesting men more than women (question number 6).

I found a high correlation between teachers who have an equal number of pictures of boys and girls, men and women on the walls in their classroom (question number 4) and among teachers who feel comfortable in the discourse on gender roles and gender stereotypes (question number 8).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who have an equal number of pictures of boys and girls, men and women on the walls in their classroom (question number 4)	0.650	teachers who feel comfortable in the discourse on gender roles and gender stereotypes (question number 8)

I found a high correlation between teachers who turn most of the time during the lesson to one gender, to the boys (question number 5) and to teachers who feel comfortable in an open discussion about gender roles and gender stereotypes (question number 8).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who turn most of the time during the lesson to one gender, to the boys (question number 5)	0.444	teachers who feel comfortable in an open discussion about gender roles and gender stereotypes (question number 8)

I found a high correlation between teachers who expect girls to be more diligent than boys (question number 10) and teachers whose references during the lesson are more focused on boys (question number 5), between teachers who expect girls to be more diligent than boys (question number 10) and teachers whose lessons deal with men Much more important and interesting than in women (question number 6), between teachers expect girls will be more diligent than boys (question number 10) and between teachers expect girls will be more orderly in their appearance and work than boys (question number 11), among teachers expect girls will be more diligent than Boys (question number 10) and among teachers who expect boys to be more naughty than girls (question number 12), Among teachers who expect girls to be more diligent than boys (question number 10) and among teachers who tend to think about planning the future careers of boys more than of girls (question number 14).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who expect girls to be more diligent than boys (question number 10)	0.681	teachers whose references during the lesson are more focused on boys (question number 5)
teachers who expect girls to be more diligent than boys (question number 10)	0.484	teachers whose lessons deal with men Much more important and interesting than in women (question number 6)
teachers who expect girls to be more diligent than boys (question number 10)	0.770	teachers expect girls will be more orderly in their appearance and work than boys (question number 11)
teachers who expect girls to be more diligent than boys (question number 10)	0.653	teachers who expect boys to be more naughty than girls (question number 12)
teachers who expect girls to be more diligent than boys (question number 10)	0.497	teachers who tend to think about planning the future careers of boys more than of girls (question number 14)

I found a high correlation between teachers who expect girls to be more orderly in their appearance and work than boys (question number 11) and teachers whose references during the lesson are more to boys (question number 5), teachers who expect girls to be more orderly in their appearance and work (question number 11) And between teachers whose

lessons deal with important and interesting men more than women (question number 6), between teachers who expect girls to be more orderly in their appearance and work (question number 11) and between teachers who expect boys to be more naughty than girls (question number 12), Among teachers who expect girls to be more orderly in their appearance and work than boys (question number 11) and among teachers who tend to think about planning a future career for boys rather than for girls (question number 14).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who expect girls to be more orderly in their appearance and work than boys (question number 11)	0.589	teachers whose references during the lesson are more to boys (question number 5)
teachers who expect girls to be more orderly in their appearance and work than boys (question number 11)	0.531	teachers whose lessons deal with important and interesting men more than women (question number 6)
teachers who expect girls to be more orderly in their appearance and work than boys (question number 11)	0.624	teachers who expect boys to be more naughty than girls (question number 12)
teachers who expect girls to be more orderly in their appearance and work than boys (question number 11)	0.405	teachers who tend to think about planning a future career for boys rather than for girls (question number 14)

I found a high correlation between teachers who expect boys to be more naughty than girls (question number 12) and teachers whose references during the lesson are directed more to boys (question number 5), between teachers who expect boys to be more naughty than girls (question number 12) and teachers that feel comfortable in an open discussion about gender roles and gender stereotypes (question number 8), between teachers who expect that boys will be more naughty than girls (question number 12) and among teachers who tend to think about planning a future career of boys more than of girls (question number 14).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who expect boys to be more naughty than girls (question number 12)	0.581	teachers whose references during the lesson are directed more to boys (question number 5)

teachers who expect boys to be more naughty than girls (question number 12)	0.813	teachers that feel comfortable in an open discussion about gender roles and gender stereotypes (question number 8)
teachers who expect boys to be more naughty than girls (question number 12)	0.502	teachers who tend to think about planning a future career of boys more than of girls (question number 14)

I found a high correlation between teachers who tend to think about planning a future career of boys rather than girls (question number 14) and teachers whose references during the lesson are more directed towards boys (question number 5), between teachers who tend to think about planning a future career of boys more than planning a future career of girls (question number 14) and among teachers whose lessons deal much more with important and interesting men than women (question number 6).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who tend to think about planning a future career of boys rather than girls (question number 14)	0.462	teachers whose references during the lesson are more directed towards boys (question number 5)
teachers who tend to think about planning a future career of boys rather than girls (question number 14)	0.576	teachers whose lessons deal much more with important and interesting men than women (question number 6)

I found a high correlation between teachers who were more tolerant of boys discipline and disobedience compared to similar behaviors of girls (question number 15) and teachers who dealt with the class in a story about a character in a non-stereotypical role (question number 7).

Subject & Question number	Pearson Correlation	Subject & Question number
between teachers who were more tolerant of boys discipline and disobedience compared to similar behaviors of girls (question number 15)	0.470	teachers who dealt with the class in a story about a character in a non-stereotypical role (question number 7)

I found a high correlation between teachers who impose different tasks on mothers and fathers (question number 17) and teachers who often comment and compliment on girls clothing more than boys clothing (question number 9).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who impose different tasks on mothers and fathers (question number 17)	0.461	teachers who often comment and compliment on girls clothing more than boys clothing (question number 9)

I found a high correlation between teachers who divide the class according to the gender of the children into different tasks (question number 18) and between teachers whose class has separate activity areas for each of the genders (question number 3).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who divide the class according to the gender of the children into different tasks (question number 18)	0.428	teachers whose class has separate activity areas for each of the genders (question number 3)

I found a high correlation between teachers recommending different reading books for boys and girls (question number 21) and teachers who outline different behaviors for each of the genders (question number 22).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers recommending different reading books for boys and girls (question number 21)	0.421	teachers who outline different behaviors for each of the genders (question number 22)

I found a high correlation between teachers who outline different behaviors for each of the genders (question number 22) and teachers who expect girls to be more diligent than boys (question number 10).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who outline different behaviors for each of the genders (question number 22)	0.423	teachers who expect girls to be more diligent than boys (question number 10)

I found a high correlation between teachers who think there are subjects that are more important to one gender than another (question number 23) and teachers whose classroom has separate activity areas for different genders (question number 3), between teachers who think there are subjects that are important more for one gender than for another (question number 23) and for teachers who dealt with the class in a non-stereotypical role (question number 7), between teachers who believe that there are subjects that are more important for one gender than for another (question number 23) and between teachers who are tolerant more for the lack of discipline and obedience of boys than of girls (question number 15).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who think there are subjects that are more important to one gender than another (question number 23)	0.475	teachers whose classroom has separate activity areas for different genders (question number 3)
teachers who think there are subjects that are more important to one gender than another (question number 23)	0.548	for teachers who dealt with the class in a non-stereotypical role (question number 7)
teachers who think there are subjects that are more important to one gender than another (question number 23)	0.458	teachers who are tolerant more for the lack of discipline and obedience of boys than of girls (question number 15)

I found a high correlation between teachers who tend to ask linguistic and artistic questions to girls while boys have math and science questions (question number 24) and teachers that in they classroom there are separate activity areas for girls and boys (question number 3), between teachers who tend to refer to girls linguistic and artistic questions and boys to math and science questions (question number 24) and between teachers who divide the class according to the gender of the children into different tasks (question number 18), between teachers who tend to refer linguistic and artistic questions to girls and to boys mathematical and scientific questions (question number 24) and between teachers who assign tasks or assignments to only members of one gender (Question No. 19), Between teachers who tend to refer to linguistic and artistic questions for girls while for boys mathematical and scientific questions (question number 24) and between teachers who use

expressions that distinguish between the contribution of both genders to work in the family cell (question number 25).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who tend to ask linguistic and artistic questions to girls while boys have math and science questions (question number 24)	0.471	teachers that in they classroom there are separate activity areas for girls and boys (question number 3)
teachers who tend to ask linguistic and artistic questions to girls while boys have math and science questions (question number 24)	0.548	between teachers who divide the class according to the gender of the children into different tasks (question number 18)
teachers who tend to ask linguistic and artistic questions to girls while boys have math and science questions (question number 24)	0.434	between teachers who assign tasks or assignments to only members of one gender (Question No. 19)
teachers who tend to ask linguistic and artistic questions to girls while boys have math and science questions (question number 24)	0.491	between teachers who use expressions that distinguish between the contribution of both genders to work in the family cell (question number 25)

The topics on which the biggest correlation was found were: teachers whose references during the lesson are more aimed at boys (question number 5), teachers whose lessons deal much more with important and interesting men than women (question number 6), teachers who feel comfortable discussing gender roles and gender stereotypes (question Number 8), teachers who expect girls to be more diligent than girls (question number 10), teachers who expect girls to be more orderly in appearance and work (question number 11), teachers who expect boys to be more naughty than girls (question number 12), teachers who tend to think about planning Boys' Future Careers More Than Planning Girls' Future Careers (Question No. 14). It is clear that these issues are strongly ingrained in the society in which we live, the teachers are aware of their existence but this fact does not change the existing daily conduct.

6.3.7 High negative correlation:

I found a high negative correlation between teachers whose classroom has activity areas for each of the genders (question number 3) and those whose classroom walls have an equal number of pictures of boys and girls, of women and men (question number 4), between teachers whose classroom has separate areas of activity for members of a different gender (question 3) and those who feel comfortable in an open discussion about gender roles and gender stereotypes (question 8).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers whose classroom has separate activity areas for different genders (question number 3)	-0.414	teachers whose classroom walls have an equal number of pictures of boys and girls, of women and men (question number 4)
teachers whose classroom has separate activity areas for different genders (question number 3)	-0.464	teachers that feel comfortable in an open discussion about gender roles and gender stereotypes (question 8)

I found a high negative correlation between teachers who have an equal number of pictures of boys and girls, men and women on the walls in their classroom (question number 4) and teachers who dealt with the class in a story about a character in a non-stereotypical role (question number 7).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers whose classroom walls have an equal number of pictures of boys and girls, of women and men (question number 4)	-0.572	teachers who dealt with the class in a story about a character in a non-stereotypical role (question number 7)

I found a high correlation between teachers who dealt in class with a story about a character in a non-stereotypical role (question number 7) and teachers who feel comfortable in an open discussion about gender roles and gender stereotypes (question number 8).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who dealt with the class in a story about a character in a non-stereotypical role (question number 7)	-0.551	teachers that feel comfortable in an open discussion about gender roles and gender stereotypes (question 8)

I found a high correlation between teachers who expect boys to be more naughty than girls (question number 12) and teachers who engage in class about a character in a non-stereotypical role (question number 7).

Subject & Question number	Pearson Correlation	Subject & Question number
between teachers who expect boys to be more naughty than girls (question number 12)	-0.428	teachers who dealt with the class in a story about a character in a non-stereotypical role (question number 7)

I found a high negative correlation between teachers who are more tolerant of boys lack of discipline and disobedience compared to similar behaviors of girls (question number 15) and teachers who have equal numbers of pictures of boys and girls, women and men on they class walls (question number 4), between teachers who are more tolerant of boys lack of discipline and disobedience compared to similar behaviors of girls (question number 15) and among teachers who are comfortably important in discussing gender roles and gender stereotypes (question number 8).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who are more tolerant of boys lack of discipline and disobedience compared to similar behaviors of girls (question number 15)	-0.483	teachers who have equal numbers of pictures of boys and girls, women and men on they class walls (question number 4)
teachers who are more tolerant of boys lack of discipline and disobedience compared to similar behaviors of girls (question number 15)	-0.476	teachers who are comfortably important in discussing gender roles and gender stereotypes (question number 8)

I found a high negative correlation between teachers who think there are subjects that are more important to one gender than another (question number 23) and teachers who encourage both genders to sit together in class (question number 2), between teachers who think there are subjects that are important more for one gender than for another (question number 23) and among teachers who have an equal pictures of members of both genders on the walls of their classroom (question number 4), between teachers who think there are subjects that are more important to one gender than another (question number 23) and between teachers who felt comfortable in an open discussion about gender roles and gender stereotypes (question number 8), between teachers who think there are subjects that are more important to one gender than another (question number 23) and between teachers who expect boys to be more naughty than girls (question number 12).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who think there are subjects that are more important to one gender than another (question number 23)	-0.589	teachers who encourage both genders to sit together in class (question number 2)
teachers who think there are subjects that are more important to one gender than another (question number 23)	-0.642	among teachers who have an equal pictures of members of both genders on the walls of their classroom (question number 4)
teachers who think there are subjects that are more important to one gender than another (question number 23)	-0.694	teachers who felt comfortable in an open discussion about gender roles and gender stereotypes (question number 8)
teachers who think there are subjects that are more important to one gender than another (question number 23)	-0.464	teachers who expect boys to be more naughty than girls (question number 12)

The subjects with the highest negative correlation are teachers who have an equal number of pictures of boys and girls, men and women on the walls in their classroom (question number 4), teachers dealing with a class in a non-stereotypical role (question number 7), teachers who felt comfortable in an open discussion On gender roles and gender stereotypes (question number 8) and among teachers who think there are professions that are more important to one gender than to another (question number 23). It is evident that these are the issues that are making

headlines in the reality of our lives, and accordingly teachers are required to address them even if their opinions and conduct are different.

6.3.8 Correlation:

I found a correlation between teachers whose classroom had separate activity areas for boys and girls (question number 3) and teachers who dealt with the class in a story about a man or woman in a non-stereotypical role (question 7).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers whose classroom had separate activity areas for boys and girls (question number 3)	0.338	teachers who dealt with the class in a story about a character in a non-stereotypical role (question number 7)

I found a correlation between teachers that on the walls of their classroom an equal number of pictures of boys and girls, of men and women (question number 4) and teachers who comment and compliment more on girls clothing than on boys clothing (question number 9).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers that on the walls of their classroom an equal number of pictures of boys and girls, of men and women (question number 4)	0.322	teachers who comment and compliment more on girls clothing than on boys clothing (question number 9)

I found a correlation between teachers who turn more during a lesson to one gender, to the boys (question number 5) and between teachers who often comment and compliment on the girls clothing more than on the boys clothing (question number 9).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who turn more during a lesson to one gender, to the boys (question number 5)	0.396	teachers who comment and compliment more on girls clothing than on boys clothing (question number 9)

I found a correlation between teachers who feel comfortable in the discourse on gender roles and gender stereotypes (question number 8) and teachers who often comment and compliment on girls clothing more than on boys clothing (question number 9).

Subject & Question number	Pearson Correlation	Subject & Question number
between teachers who feel comfortable in the discourse on gender roles and gender stereotypes (question number 8)	0.334	teachers who comment and compliment more on girls clothing than on boys clothing (question number 9)

I found a correlation between teachers who expect girls to be more diligent than boys (question number 10) and teachers who formulate their instructions and requests to the class always in masculine language (question number 1), between teachers who expect girls to be more diligent than boys (question number 10) and teachers who feel comfortable discussing on gender roles and gender stereotypes (question number 8), between teachers who expect girls to be more diligent than boys (question number 10) and teachers who expect boys to be stronger than girls (question number 13).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who expect girls to be more diligent than boys (question number 10)	0.331	teachers who formulate their instructions and requests to the class always in masculine language (question number 1)
teachers who expect girls to be more diligent than boys (question number 10)	0.395	teachers who feel comfortable discussing on gender roles and gender stereotypes (question number 8)
teachers who expect girls to be more diligent than boys (question number 10)	0.343	teachers who expect boys to be stronger than girls (question number 13)

I found a correlation between teachers who expect girls to be more orderly organized in their appearance and work than boys (question number 11) and between teachers who formulate their instructions and requests in class in writing and orally in masculine language (question number 1), between teachers who expect girls to be more organized in

their appearance and work (question number 11) and between teachers who feel comfortable in an open discussion on gender roles and gender stereotypes (question number 8), between teachers who expect girls to be more organized in their appearance and work (question number 11) and between teachers who expect boys to be stronger than girls (question number 13) , Between teachers who expect girls to be more organized in their appearance and work than boys (question number 11) and among teachers who often refer requests for help or call-ups to mothers in the mornings on the assumption that they are available (question number 16).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who expect girls to be more orderly organized in their appearance and work than boys (question number 11)	0.328	teachers who formulate their instructions and requests to the class always in masculine language (question number 1)
teachers who expect girls to be more orderly organized in their appearance and work than boys (question number 11)	0.388	between teachers who feel comfortable in an open discussion on gender roles and gender stereotypes (question number 8)
teachers who expect girls to be more orderly organized in their appearance and work than boys (question number 11)	0.323	teachers who expect boys to be stronger than girls (question number 13)
teachers who expect girls to be more orderly organized in their appearance and work than boys (question number 11)	0.372	teachers who often refer requests for help or call-ups to mothers in the mornings on the assumption that they are available (question number 16)

I found a correlation between teachers who expect boys to be more naughty than girls (question number 12) and teachers who formulate their instructions and requests to the class in writing and orally, always in masculine (question number 1), between teachers who expect boys to be more naughty than girls (question number 12)) and between teachers who encourage boys and girls to sit together in class (question number 2), between teachers who expect boys to be naughtier than girls (question number 12) and between teachers who have an equal number of pictures of boys and girls on the walls of their classroom (question number 4), between teachers who expect boys to be more naughty than girls (question number 12) and who tend to comment and compliment girls clothing more than boys

clothing (question number 9), between teachers who expect boys to be more naughty than girls (question number 12) and teachers who expect boys to be stronger than girls (question number 13).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who expect boys to be naughtier than girls (question number 12)	0.399	teachers who formulate their instructions and requests to the class always in masculine language (question number 1)
teachers who expect boys to be more naughty than girls (question number 12)	0.386	teachers who encourage boys and girls to sit together in class (question number 2)
teachers who expect boys to be naughtier than girls (question number 12)	0.380	between teachers who have an equal number of pictures of boys and girls on the walls of their classroom (question number 4)
teachers who expect boys to be naughtier than girls (question number 12)	0.314	Teachers who tend to comment and compliment girls clothing more than boys clothing (question number 9)
teachers who expect boys to be naughtier than girls (question number 12)	0.328	teachers who expect boys to be stronger than girls (question number 13)

I found a correlation between teachers who tend to think about planning a future career for boys rather than girls (question number 14) and between teachers who formulate their instructions and requests to the class in writing and orally always in masculine language (question number 1), between teachers who tend to think about planning future careers of boys rather than girls (question number 14) and between teachers who feel comfortable discussing gender roles and gender stereotypes (question number 8), among teachers who tend to think about planning a future career of boys rather than girls (question number 14) and between teachers who divide the class according to the gender of the children into different tasks (question number 18).

Subject & Question number	Pearson Correlation	Subject & Question number
between teachers who tend to think about planning a future career for boys rather than girls (question number 14)	0.396	teachers who formulate their instructions and requests to the class always in masculine language (question number 1)

between teachers who tend to think about planning a future career for boys rather than girls (question number 14)	0.323	teachers who feel comfortable discussing gender roles and gender stereotypes (question number 8)
between teachers who tend to think about planning a future career for boys rather than girls (question number 14)	0.334	between teachers who divide the class according to the gender of the children into different tasks (question number 18)

I found a correlation between teachers who often refer requests for help or summonses to call mothers in the morning on the assumption that they are available (question number 16) and teachers who encourage boys and girls to sit together (question number 2), between teachers who often refer requests for help or calls to mothers In the mornings on the assumption that they are available (question number 16) and between teachers whose lessons deal with much more important and interesting men than women (question number 6), between teachers who often refer requests for help or call for mothers in the mornings on the assumption that they are available (question number 16) and teachers who feel comfortable in an open discussion about gender roles and gender stereotypes (question number 8).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who often refer requests for help or summonses to call mothers in the morning on the assumption that they are available (question number 16)	0.328	teachers who encourage boys and girls to sit together (question number 2)
teachers who often refer requests for help or summonses to call mothers in the morning on the assumption that they are available (question number 16)	0.334	teachers whose lessons deal with much more important and interesting men than women (question number 6)
teachers who often refer requests for help or summonses to call mothers in the morning on the assumption that they are available (question number 16)	0.343	teachers who feel comfortable in an open discussion about gender roles and gender stereotypes (question number 8)

I found a correlation between teachers who assign different tasks on mothers and fathers (question number 17) and teachers who encourage boys and girls to sit together in class (question number 2), between teachers who assign different tasks on mothers and fathers (question number 17) and between teachers whose classroom has separate active areas for boys and girls (question number 3), between teachers who assign different tasks on mothers and fathers (question number 17) and between teachers whose lessons deals with much more important and interesting men than women (question number 6), between teachers who assign different tasks for mothers and fathers (question number 17) and between teachers who divide the class according to the gender of the children into different tasks (question number 18).

Subject & Question number	Pearson Correlation	Subject & Question number
between teachers who assign different tasks on mothers and fathers (question number 17)	0.315	teachers who encourage boys and girls to sit together (question number 2)
between teachers who assign different tasks on mothers and fathers (question number 17)	0.376	between teachers whose classroom has separate active areas for boys and girls (question number 3)
between teachers who assign different tasks on mothers and fathers (question number 17)	0.325	teachers whose lessons deal with much more important and interesting men than women (question number 6)
between teachers who assign different tasks on mothers and fathers (question number 17)	0.365	teachers who divide the class according to the gender of the children into different tasks (question number 18)

I found a correlation between teachers who divide the class according to the gender of the children for different tasks (question number 18) and between teachers whose references during the lesson are directed more to boys (question number 5), between teachers who divide the class according to the gender for different tasks (question number 18) and among teachers who have tasks or assignments that they assign only on members of one gender (question number 19).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who divide the class according to the gender of the children for different tasks (question number 18)	0.329	teachers whose references during the lesson are directed more to boys (question number 5)
teachers who divide the class according to the gender of the children for different tasks (question number 18)	0.317	teachers who have tasks or assignments that they assign only on members of one gender (question number 19)

I found a correlation between teachers who tend to recommend different activities for girls and boys for after-school hours (question number 20) and teachers who formulate their requests in class in writing and orally always in masculine (question number 1), between teachers who tend to recommend different activities for girls and boys for hours after school (question number 20) and among teachers who recommend different reading books for girls and boys (question number 21).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who tend to recommend different activities for girls and boys for after-school hours (question number 20)		teachers who formulate their requests in class in writing and orally always in masculine (question number 1)
teachers who tend to recommend different activities for girls and boys for after-school hours (question number 20)		teachers who recommend different reading books for girls and boys (question number 21)

I found a correlation between teachers who recommend different reading books for boys and girls (question number 21) and between teachers whose references during classes are directed more to boys (question number 5), between teachers who recommend different reading books for boys and girls (question number 21) and between teachers who tends to refer linguistic and artistic questions to girls while to boys mathematical and scientific questions (question number 24), between teachers who recommend different reading books for boys and girls (question number 21) and between teachers who use expressions that distinguish between the contribution of both genders to family cell (question number 25).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who recommend different reading books for girls and boys (question number 21)	0.385	teachers whose references during classes are directed more to boys (question number 5)
teachers who recommend different reading books for girls and boys (question number 21)	0.321	teachers who tends to refer linguistic and artistic questions to girls while to boys mathematical and scientific questions (question number 24)
teachers who recommend different reading books for girls and boys (question number 21)	0.323	teachers who use expressions that distinguish between the contribution of both genders to family cell (question number 25)

I found a correlation between teachers who outline different behaviors for each of the genders (question number 22) and teachers who formulate their instructions and requests in class always in masculine (question number 1), between teachers who outline different behaviors for each gender (question number 22) and teachers whose class has separate areas of activity for each gender (question number 3), between teachers who outline different behaviors for each gender (question number 22) and teachers whose referrals during the lesson are more intended for boys (question number 5), between teachers Which outline different behaviors for each of the genders (question number 22) and between teachers who tend to address linguistic and artistic questions to the girls while to the boys mathematical and scientific questions (question number 24).

Subject & Question number	Pearson Correlation	Subject & Question number
between teachers who outline different behaviors for each of the genders (question number 22)	0.392	teachers who formulate their instructions and requests in class always in masculine (question number 1)
between teachers who outline different behaviors for each of the genders (question number 22)	0.313	teachers whose class has separate areas of activity for each gender (question number 3)

between teachers who outline different behaviors for each of the genders (question number 22)	0.340	teachers whose references during classes are directed more to boys (question number 5)
between teachers who outline different behaviors for each of the genders (question number 22)	0.390	teachers who tends to refer linguistic and artistic questions to girls while to boys mathematical and scientific questions (question number 24)

I found a correlation between teachers who tend to ask linguistic and artistic questions to girls while to boys math and science questions (question number 24) and teachers who formulate their instructions and inquiries in class always in writing and orally in masculine language (question number 1), between teachers who tend to ask girls linguistic and artistic questions while to boys math and science questions (question number 24) and between teachers whose referrals during class are directed more to boys (question number 5), between teachers who tend to ask linguistic and artistic questions to girls while boys have math and science questions (question number 24) and between teachers who tend to think about planning the future careers of boys more than of girls (question 14).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who tend to ask linguistic and artistic questions to girls while boys have math and science questions (question number 24)	0.377	teachers who formulate their instructions and requests in class always in masculine (question number 1)
teachers who tend to ask linguistic and artistic questions to girls while boys have math and science questions (question number 24)	0.372	teachers whose references during classes are directed more to boys (question number 5)
teachers who tend to ask linguistic and artistic questions to girls while boys have math and science questions (question number 24)	0.356	teachers who tend to think about planning the future careers of boys more than of girls (question 14)

I found a correlation between teachers using expressions that distinguish between the contribution of both genders to doing in the family cell (question number 25) and between teachers that assign tasks only on one gender (question number 19).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers using expressions that distinguish between the contribution of both genders to doing in the family cell (question number 25)	0.377	teachers that assign tasks only on one gender (question number 19)

Other topics in which a correlation was found were teachers who formulate their instructions and interrogations in the classroom always in writing and orally in the masculine language (question number 1), teachers whose references during the lesson more to boys (question number 5), teachers who feel comfortable discussing gender roles and gender stereotypes (question Number 8), among teachers who tend to ask girls linguistic and artistic questions while boys ask math and science questions (question number 24), teachers who expect girls to be more organized in their appearance and work (question number 11), teachers who tend to think about planning future careers for boys rather than girls (Question number 14), teachers who assign different tasks to mothers and fathers (question number 17), teachers who divide the class according to the gender of the children to different tasks (question number 18), teachers who recommend different books for boys and girls (question number 21) and teachers who outline behaviors Different for each gender (question number 22). This adjustment is precisely the world in which we live, a world in which there is a clear distinction between the genders, a world in which the expected change has not yet taken place, the real world in which change is committed.

6.3.8 Negative correlation:

I found a negative correlation between teachers who expect boys to be more naughty than girls (question number 12) and between teachers whose classroom has separate activity areas for members of both genders (Question No. 3).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who expect boys to be naughtier than girls (question number 12)	-0.323	teachers whose classroom has separate activity areas for members of both genders (Question No. 3)

I found a negative correlation between teachers expecting boys to be stronger than girls (question number 13) and teachers whose classroom has separate activity areas for boys and girls (question number 3).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers expecting boys to be stronger than girls (question number 13)	-0.340	teachers whose classroom has separate activity areas for members of both genders (Question No. 3)

I found a negative correlation between teachers who are more tolerant of boys lack of discipline and disobedience compared to similar behaviors of girls (question number 15) and among teachers who frequently refer requests for help or summonses to call mothers in the mornings on the assumption that they are available (Question No. 16).

Subject & Question number	Pearson Correlation	Subject & Question number
between teachers who are more tolerant of boys lack of discipline and disobedience compared to similar behaviors of girls (question number 15)	-0.364	teachers who frequently refer requests for help or summonses to call mothers in the mornings on the assumption that they are available (Question No. 16)

I found a negative correlation between teachers who believe that there are subjects that are more important to one gender than another (question number 23) and teachers who formulate their instructions and requests in class in male language (question number 1), between teachers who think there are subjects that are more important to one gender than another (question number 23) and among teachers who often refer requests for help and summonses to call mothers in the morning on the assumption that they are available (question number 16).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who believe that there are subjects that are more important to one gender than another (question number 23)	-0.326	teachers who formulate their instructions and requests in class in male language (question number 1)
teachers who believe that there are subjects that are more important to one gender than another (question number 23)	-0.317	teachers who frequently refer requests for help or summonses to call mothers in the mornings on the assumption that they are available (Question No. 16)

I found a negative correlation between teachers who use expressions that distinguish between the contribution of both genders to activity in the family unit (question number 25) and between teachers who expect boys to be stronger than girls (question 13).

Subject & Question number	Pearson Correlation	Subject & Question number
teachers who use expressions that distinguish between the contribution of both genders to activity in the family unit (question number 25)	-0.339	teachers who expect boys to be stronger than girls (question 13)

Other issues where a negative correlation is found include teachers whose classroom has separate activity areas for boys and girls (question number 3) and teachers who expect boys to be stronger than girls (question number 13). Here, too, it is evident that these are the issues that are making headlines in the reality of our lives and accordingly teachers are required to address them in the conventional way even if their opinions and conduct are different.

Chapter 7: Discussion

An analysis of the findings that were collected reveals three main problems. The first problem is the existence of gender inequality in primary school, the second problem is lack of awareness of gender stereotypes and prejudices that exist among women math teachers and lack of awareness of the problem of inequality in primary school and the third problem is the gap between women math teacher's statements about gender equality in mathematics lessons and at school in general and between their conduct. In elementary schools in the State of Israel, there is inequality between genders. Inequality which begins with the women math teacher's opinions and ends with the inequality of those women math teachers at school, there is no awareness among the women math teachers of their opinions and their conduct and accordingly there is a gap between the women math teacher's statements and their conduct.

Examining the qualitative findings, I identified a gender inequality problem manifested in prejudices about boy's knowledge and success in certain professions, different boys and girl's expectations and different attitudes towards boys and girls, I identified a lack of awareness about opinions about gender knowledge and success and identified a gap between statements and behaviors, statements and conducts. The quantitative data findings, reinforce the qualitative data findings.

The society in which we live has undergone and is undergoing change. The pursuit is for gender equality and the absence of sexuality. It is important to remember that in providing answers to questionnaires many times the answer given by the respondents is the accepted answer, the answer is pleasant to hear and should be said. I expected a difference between the results of the interviews, which are done face to face, in the format of an intimate four-eye conversation, which invites a real and open conversation, and the results of the questionnaires, in which often the answers are pleasant to say, the answer you expect to hear. The quantitative data support the qualitative data and present a picture of inequality within the primary school, in mathematics lessons and in general, prejudices about knowledge, abilities and behavior of different genders, different expectations and treatment of members of different genders, lack of awareness about the

opinions and the gap between statements and conduct. Equal treatment of members of both genders is full equality treatment. Equality exists or does not exist and accordingly, there is no partial equality, since partial equality means that equality does not exist.

The results of the interviews show that out of 40 women math teachers in the sample 25 have demonstrated stereotypic and unequal approach to boys and girls, while all of them (40 women math teachers) declared that there is equality between the genders in their lessons and at school. In other words, over 62% of the women math teachers are inconsistent with their own declaration about the equal attitude to both genders.

Moreover, the crosscheck through all 35 questions shows that only 4 women math teachers (10%) demonstrated consistency between their behavior and declarations, answers of 31 (77.5%) women math teachers indicated gender stereotypes prevailing in their behavior, and 5 math women teachers exploit affirmative action or positive discrimination in order to promote girls in math lessons.

In regard to the awareness issue, 19 women math teachers (47.5%) were sure that there is no gap between their declarations and their actual behavior. In fact, only 11 women math teachers were consistent in their behavior to what they declare, while 29 women math teachers (72.5%) behave in class contradictory to their declarations. However, 21 respondents (52.5%) are aware of the existing gap.

The questionnaire data show that most women math teachers indicate an uncomfortable feeling in the discourse about gender roles and gender stereotypes. Most women math teachers do not feel comfortable in such a discourse because in the society in which we live there is sexuality, there is inequality. The findings indicate that 72.5% of women math teachers do not feel comfortable in this type of discourse, a discourse that deals with gender roles and gender stereotypes and hence it is clear that there is a problem. If there was no problem, then the women math teachers would have this kind of dialogue without any problem, they would feel comfortable having a conversation on the subject.

Large gender inequality or in fact high sexuality has risen on the issue of an equal number of pictures, illustrations or mentions of girls and boys, women and men on the walls of the classroom (65% of the women math teachers because they have no equal

number of pictures in the classroom or to a lesser extent), on the issue of prejudice that boys are stronger than girls (42.5% of women math teachers are always or to a large extent), on the issue of tolerance for boy's lack of discipline and disobedience compared to similar behaviors of girls (55% of women math teachers always or to a large extent), on the subject of sitting together in the classroom (40% of the women math teachers because they do not at all or to a small extent encourage it), on the subject of separate activity areas for both genders (25% of women math teachers claimed to exist to a great extent or always), on the subject of imposition Various tasks for fathers and mothers (22.5% of the women math teachers answered to a large extent or always) and on the subject of assigning different tasks to boys and girls (7.5% of the women math teachers to a large extent). We identify gender inequality which is subject dependent, there are issues where it exists more and there are issues where it exists less but undoubtedly it exists.

It was interesting to see that regarding the address directed to more members of one gender during the lessons, 75% of the women math teachers did not answer at all or to a small extent but all the women math teachers that claimed they refer more to members of one gender (13 women math teachers), 100% indicated that the gender are boys!

In a test of combining two variables to test relationships between them I found 9 women math teachers who think the boys are stronger and make a distinction between the tasks they give the children (22.5%), 18 women math teachers who think the boys are naughtier and intolerant of their indiscipline and obedience (45%) and 3 women math teachers think that girls are more diligent and orderly (7.5%), which means that the distinction between the genders exists.

Over the years, work has been done on the subject and there has been a noticeable change (if we compare the conduct towards members of both genders in ancient times), but without a doubt there is still a lot of work to be done. The change can be seen in the maximum values obtained, for example, regarding the distinction between the genders in the contribution to the family unit, the maximum was 2 (92.5% answered 1 - not at all, and 7.5% answered 2 - to a lesser extent), in the result of the answer regarding the labeling of different behaviors for each of the genders, the maximum was 3 (65% did not answer at all, 27.5% answered to a small extent and 7.5% answered to a moderate

extent), or on the recommendation of different reading books for members of both genders the maximum was 3 (70% answered no at all, 25% answered to a small extent and 5% Answered moderately). In addition, there were a number of questions in which the answer “always” (5) was not recorded at all. There were eight questions like that (not including the previous three questions). Here, too, I see progress.

The work that has been done we can see from two places, from the place of high equality or low sexuality and also from the place of low maximum values. The fact is that the results of the work that is done in the field warms the heart and leads to the idea that change can be brought, the work will not always be simple but with the right intervention, consistency and great patience, change will appear followed by success.

Low sexuality or attempt to lead gender equality We have seen in the following data, for example regarding the reference to future choice of profession (most women math teachers constitute 95% not at all or to a small extent), regarding the expectation that girls will be more diligent than boys (90% of women math teachers answered that they do not expect Or expecting less), on the issue of expecting girls to be more orderly in their appearance and work (87.5% of women math teachers answered that they do not or expect little), on the issue of expecting boys to be more naughty than girls (87.5% of women math teachers because they do not expect or expect little at all), On the subject of multiple requests for help or summonses to call mothers in the mornings on the assumption that they are available (85% of the women math teachers are not at all or to a small extent),

On the recommendation of different activities for boys and girls for after-school hours (87.5% of women math teachers do not tend or recommend at all), on the recommendation of different reading books for boys and girls (95% of women math teachers because they do not recommend or do so at all), on the subject of labeling Different modes of behavior for boys and girls (65% not at all and 27.5% to a lesser extent), regarding referring linguistic and artistic questions to girls and boys to mathematical and scientific questions (90% of women math teachers not at all or to a small extent), examining teacher's use of expressions The species to do in the family cell

I found that the teachers do not use these expressions (92.5% of the women math teachers do not use at all while 7.5% of the teachers use little).

The data present a picture of an attempt to lead equality among many women math teachers within the system on diverse issues. There are issues where the conduct is largely egalitarian but there is not yet full equality. According to these findings, it is evident that work has been done in the society in which we live and the conduct is trying to be egalitarian, but without a doubt there is still a lot of work in these areas as well.

We also see a change in the data of women math teachers who take care to engage the class in a story about a woman or man in a non-stereotypical role (72.5%), regarding giving more comments and compliments about girl's clothing than about boy's clothing (75% of teachers because they do not comment or comment slightly) , On the division of the class by gender into different tasks 72.5% (teachers do not divide the class according to gender of children to different tasks or do so to a small extent), on the subject of classes dealing with men are much more important and interesting than women (60% of teachers did not answer at all or little).

These findings support the research hypothesis that math teachers have different attitudes to boys and girls in the teaching process. These phenomena have a variety of possible explanations. These explanations relay on social, behavioral and pedagogical theories and it is important to understand the nature of the phenomena in order to cope with it.

The official declared policy of the Ministry of Education and Culture of Israel is to provide an equal educational opportunity for boys and girls (Director General's Circular No. 8). The results of the interviews with 40 women math teachers from elementary schools in the center of Israel and from the results of the questioners I gave these 40 women math teachers revealed that all the women math teachers, without any exception, noted that they and their staff members support the intention of giving equal opportunities to boys and girls .

These findings are not surprised because Israeli society has long since championed the idea of equality between the sexes. The Declaration of Independence (State of Israel, 1948) emphasizes in its principles that: "The State of Israel shall grant absolute equality

of social and political rights to all its citizens, regardless of religion, race or sex." It can be stated that gender equality is a social value that goes through all Zionist history. As in other countries, in the State of Israel the principle of equality between the sexes lays at the basis of democracy. Over the years, additional laws have been enacted to establish the principle of equality between the genders .

The education system does not operate in a vacuum, it expresses the norms and values of the society in which it operates (Smilansky, 1981), and accordingly, reflects the value of equal opportunities for boys and girls. Providing equal opportunities in education for both genders mean the creation of an educational and cultural environment and an educational climate that ensure equal access for both genders to diverse educational experiences, encouraging and promoting male and female students according to their skills, abilities, and personal adaptation in a practical and non-stereotypical manner. The target is developing the personal potential of each student, providing an evaluation based on the examining the various possibilities available to them, working out of an approach that is detached from traditional and irrelevant expectations. Equality in education also includes an obligation to improve the self-image of girls and women, raise their expectations and encourage economic independence, while changing socialization for boys, emphasizing competitiveness, achievement and suppression of emotional expressions that promote violence (Avrahami-Einat, 2001).

According to Prof. Orit Hazan (2010), it is now known that there are no gender differences between boys and girls in the mathematical and scientific skills and that the gender differences in the achievements of students in these subjects, from elementary school through academic education to the employment market, are the result of the existing social structures. Thus, if there are no gender differences in skills and in fact the inequality is the result of the social structures, it is important to be careful not to strengthen these social structures, which are a problem in their very orientation to the inequality that occurs. We must cope wisely with these structures in order not to reinforce the existing stereotypes.

It is a well-known fact that the existing social tendency is to prefer men in prestigious professions based on their gender rather than on their abilities. There are prejudices in the society based on the stereotypes, some of which are overt, and others hidden, that place men and women in roles according to their gender rather than their individual abilities. In the report of the Association for Civil Rights in Israel in 2000 it was noted that the representation of women in centers of influence is very low compared with their proportion in the population. An examination of the report of the Association for Human Rights in Israel (December 2008) shows that there has been no change in recent years and that the position of women in the labor market in Israel is inferior to that of men. Women in the State of Israel are among the lowest wage earners, concentrated at the bottom of the salary scale in almost all industries and professions. A small minority are employed as managers while most of women work in a narrow range of "female" professions where wages are low and opportunities for promotion are limited (Human Rights in Israel, 2008). According to the report of the Association for Human Rights in Israel in 2013, there are still significant wage gaps between the genders in Israel, despite the progress made in the field in recent years. According to a press release issued by the Central Bureau of Statistics, 48.6% of the employed women have academic education, 30.8% of managers are women, and in the last two decades, 41% of the women were employed in six occupations traditionally perceived as "women's job" which are social workers, secretaries, salespersons and models, clerks, cleaning workers, and teachers. In most of these occupations, women constitute 70% or more of the employed personnel.

There is a difficulty in bringing a significant change in education which stems from the connection between the society and education. On one hand, education is only a product of the society in which it operates, and on the other hand it is the first device to change the existing patterns in society. Thus, the main goal should be converting the changing role of the education to one that prevails over its conservative role. It is important to address the issue in the education system, to educate youth in a different way starting from young age, throughout all the school years and in all existing frameworks. One of the suggested ways is to work with complete transparency and to expose the personal attitudes and expectations within the society that are handed down from generation to

generation in the education system. Such exposure will be the first step in reducing social inequality (Leor & Man, 2001).

The initial provider of gender inequality is the family. Stereotypes and behavioral patterns set within the family are hard to overcome. From kindergarten age the parent's expectations depend on cultural environment and are based on the socialization that the parents themselves have undergone and the cultural practices they have internalized. Parents who come from a modern, democratic and egalitarian background expect similar achievements from both sexes. Parents who come from traditional backgrounds are more cautious in their expectations from the girls. These expectations are transmitted to children in both covert and explicit manner and have an impact on the motivation and achievement of both sexes. This stereotypical thinking is adopted by the children and becomes a public domain. In order to persuade students, parents and teachers to free themselves from stereotypes, it is desirable to reveal some numbers and facts to them (Shahar 1999, Laor and Man, 2001). It is important to present numerical data and facts from the real life that can undoubtedly help to eliminate this phenomenon. It is difficult and sometimes even impossible to argue with numerical facts .

In the State of Israel men have the predominant roles. Even in the 21st century Israeli society has not yet overcome that problem. Despite the progress in legislation, law enforcement procedures are slow, and in Israel there is a daily reality of discrimination against women in all spheres of life (Shahar 1999, Leor and Man, 2001).

In Israeli society there is a cultural tradition anchored in the Jewish religion, which gives men a central place in the society, while responsibility for children is identified as the central role of women. Any other role of a woman might be only a secondary role, especially for Jews of Asian-African origin. Due to these traditional perceptions of the role of women in the family, there is a lack of developed services for nurseries and kindergartens adjacent to workplaces. Jewish culture emphasizes the role of men as defenders of the nation, women and children. In addition, the power of the religious parties, that see the man as the center of the family, consistently rises during the last years. The combination of these factors does not give the woman her rightful place in the society. In order to create an egalitarian and democratic society capable of realizing the

vision of the Declaration of Independence, this vicious circle must be broken (Shahar 1999, Leor and Man, 2001) .

Breaking this vicious circle will be very difficult and I will give a topical example from the last month: A married couple in the State of Israel, a couple who are both Jews and marry in a religious marriage, can only divorce if both parties are interested in dissolving the marriage and agree to divorce. When one of the parties does not agree to divorce (give the divorce) it depends on gender. Example: A man demanded a divorce from his wife (demanded a divorce). The woman did not agree to give the man a divorce (for 6 years the woman refused) and accordingly the man could not remarry another woman but because he is a man, signed a special permit 100 rabbis and saw it as a miracle: the man received a special permit to marry a second wife. Conversely, if the man is unwilling to divorce his wife (give her a divorce), the woman cannot remarry even if she obtains a million signatures from rabbis (Adv. Nitzan Caspi Shiloni, 2021). In the Jewish religion, a man in special circumstances can marry a second woman, but for no reason is it possible for a woman to marry another man. Why the injustice? Why is this possible for men but not for women? We live in 2021 why there is discrimination in the State of Israel in the field of marriage and divorce (and this is just one example). There are many women in Israel whose husbands are unwilling to divorce them, some were married to violent and abusive husbands, some were married to pedophiles (some of whom are even in prison) but they live without the possibility of getting married and rebuilding their lives. sad! (Li Naim, 2021).

The school reinforces and sets the gender images that exist in society. Gender stereotypes are determined in school primarily by teachers who encourage distinct behaviors of boys and girls, supported by textbooks that attribute character traits to gender stereotypes and the media that perpetuate gender stereotypes (Leor and Man, 2001). In recent years, there has been a change in use of stereotypes in textbooks and in the media as a result of many efforts to eradicate phenomena, and indeed the desired change took place. What remains to be done now is to start addressing the issue of teacher's stereotypes. As a result of studies conducted over the past decade, there is a growing awareness that gender discrimination, sometimes latent and sometimes overt, takes place in schools on the daily

basis. As a result of this discrimination girls do not realize their latent potential and they lag behind the boys in achievement. In addition, their level of self-esteem and belief in their skills is significantly decreased (Shachar and Avrahami et Einat, 1994). People use the child's gender to evaluate their expected performance and perceptions that trigger a mechanism of self-fulfilling prophecy. Such perceptions reflect a social problem of justice. Stereotypical treatment of boys and girls causes injustice to some children since the gender of the child cannot provide information about his future performance, a stereotypical attitude affects their studies as well as their school status. Stereotypical treatment of both genders affects the entire community (Rich, 1996).

The data from the interviews and from the questioners raise the problem of prejudice and gender stereotypes about the knowledge and success of boys in certain subjects. According to the teachers, boys are physically stronger than girls, boys are mischievous compared to girls, boys are more talented and creative than girls. Teachers assign different tasks to boys and girls depending on the abilities they attribute to both genders. Gaps and inequality exist between boys and girls in the education system, boys and girls are treated differently by their teachers. Because of stereotypical perceptions, people tend to associate both genders with typical traits due to their biological gender (Gilad, 2003). Teachers have a great power in perpetuating gender stereotypes because school is the second most important socialization agent in the life of the individual (Avrahami et Einat, 1989) .

The role of the school is to teach norms and values and to enable everyone to maximize the potential of the individual while providing equal opportunity for this achievement (Lamdan, 1997). In passing the norms and values there are overt and covert messages. Stereotypical perceptions produce behavioral differences between members of both genders that further influence self-fulfilling prophecy, attitudes, expectations, and preferences for careers and roles. In practice, there is inequality and injustice in the treatment of both genders, and the lack of equality in the attitude leads to the lack of personal potential of both boys and girls (Lamdan, 1997). Most of the distinctions are covert, only few of them are overt. The main distinction is covert, and its existence and its immense strength lie in the lack of awareness of its existence, its consequences, its

difficulty in locating it, barely proving its existence, and in lack of experience in stimulating ways (Avrahami et Einat, 1989) .

It was interesting to find that the teachers were surprised by the findings. Teachers are not aware of the messages and expectations they convey to students. Sometimes the students notice the teacher's message of inequality while teachers themselves are not aware of the message they are conveying. They are not aware of the problem at all (Shachar and Avrahami et Einat, 1994). In examining the teacher's conduct, the results of the study point to only 4 teachers who reported that their conduct is egalitarian because they relate equally to boys and girls as they see no difference in abilities, motivation, or achievements of both genders .

In 1979, 41 years ago, a study was conducted in which male and female students studying in the same classes for reading and math, were not given equal guidance from teachers. Teachers spend more time studying mathematics with boys and more time in fostering reading instruction for girls (Leinhardt et al., 1979).

According to our findings, in 2022, similar results were found. Teachers are confident that boys are more successful in mathematics and girls are more successful in language studies. Has there been no development and no change within 43 years ?

Twenty-nine years ago, differences between the genders in cognitive abilities were examined in Israel. It was found that the differences that were found in the past have decreased over the last twenty years. Of the three abilities: verbal, spatial, and mathematical, there is only a small gap in mathematics in favor of boys. The gap was partly explained by the fact that girls are less likely to guess when they do not know the answer (Kahn and Ganor, 1993). The gap in overall mathematical ability has decreased over the years, so that the differences between the genders in mathematical function are minimal nowadays. The explanation for the under presence of girls in mathematical courses at the university and in professions related to math is not gender based differences in abilities, but the way men and women perceive their mathematical abilities as well as external factors such as gender discrimination in education and employment (Kahn and Ganor, 1993).

It can be stated that gender differences in professional functioning are gradually disappearing over the years, apparently due to changes in gender roles. Accordingly, there must be a change in the attitude of teachers to boys and girls. It is inconceivable that many teachers make stereotypical statements, and it is not possible that a large proportion of the teachers behave sometimes in a stereotypical manner. Such statements and practices have no place in the modern reality. If teachers believe in equality and behave in accordance, they will also succeed in communicating the message to the students .

A matter of particular interest is examining the statements and behavior of those teachers who conduct affirmative action or positive discrimination in favor of women's empowerment. The behavior of these teachers was not consistent with their declarations, as they were stating that they treat equally boys and girls. However, their intuitive conduct of positive discrimination must be addressed in this discussion. In order to reach the desired result, the equality between the genders, one must sometimes act in accordance with the existing reality. In the present reality the girls have less opportunities in studying math than the boys. In order to allow girls to be in the same position as the boys, sometimes it is needed to take discriminatory actions and all this in order to advance the girls and reach the desired equality.

Affirmative action is a policy that is designed to promote social groups in a situation of inequality as a result of discrimination. A policy that provides an opportunity for the disadvantaged group over other groups and thus essentially creates an opportunity for future equality of opportunity and to reduce social disparities. We have to remember that affirmative action is discriminatory (in our case the boys), it perpetuates existing stereotypes (girls were accepted not because they are talented but because they are girls), it encourages hatred towards the disadvantaged group for which affirmative action is taken and on the other hand there are those who claim that this is not discrimination since it comes in order to do justice. If corrective action is taken, it should be done with full awareness, setting clear goals and setting an understandable action plan. The results of the study show that teachers who practice affirmative action are unaware of the fact that this is a manifestly discriminatory act which is taken to correct the previous discrimination in favor of boys. This is basically covert discrimination. Awareness of the

existence of covert discrimination must be raised, teachers must learn to recognize it and develop skills for educational interventions aimed at eradicating it.

The teachers grew up in Israeli society where perceptions are stereotyped. Stereotypical perceptions are also limiting. In order to free themselves from these perceptions, we must work with educators to impart knowledge about gender and education, by increasing awareness of hidden discrimination and hidden gender messages, and by developing skills for educational interventions to ensure equal opportunities (Avrahami et Einat, 2001).

Intervention programs to promote gender equality in the education system have gained increasing momentum in the Western world in recent times (Shahar 1999, Leor and Man, 2001). These programs include developing teacher's awareness of their attitudes, expectations and behavior in the classroom, and providing tools that will allow them to examine themselves in the course of daily educational work, while designing strategies and intervention programs to strengthen equality and fairness between the gender in classrooms. The intervention programs must include the various environments in which the children grow, live and spend their time. The relationship between the different systems must be taken into account and the issue of equality should be grasped in a comprehensive and comprehensive manner .

The ultimate goal is to bring about a complete change. that includes all the teaching staff in the school, including the various socialization agents to which the child is exposed - textbooks, media and curricula. These programs should also work with parents, develop their awareness of the subject, and provide them with tools to deal with stereotypical thinking and behavior (Shahar, 1999).

The transmitted messages are usually hidden. A hidden message perpetuates an existing situation and delays the direct confrontation with it. Various intervention programs exist and have been successfully tried in the field but have not been backed up and resources have been extended over time (Shahar and Avrahami et Einat, 1994). There is no doubt that the education system must and can bear the banner of social change. A change in the educational attitude of both genders will eventually lead to more egalitarian perceptions

of society as a whole. The change will grow from the educational base to the top of the social pyramid. The change needs to receive a support from the Ministry of Education, Ministers, Knesset as well as an appropriate budget. Gender studies are very important in teacher training since they are essential for building the personal and professional identity of students who are intended to be future educators. Gender studies enable the development of awareness of the various values accepted by society from a gender perspective. Students come to the learning environment with their experience, which includes values, dreams, beliefs, etc. It was found that as a result of learning and intervention programs, the attitudes of students changed. When it comes to changes in personal attitudes and stereotypical perceptions, the process of change is difficult, slow and complex but possible (Baretz and Gilad, 2007).

The data showed that there is a different attitude of teachers towards boys and girls, because teachers have prejudices and according to the teachers with different expectations from different genders, the teachers treat the different genders differently and according to the results (self-fulfilling prophecy). In addition, there is a lack of awareness of the issue that causes the empowerment of the described. The gap between the teachers' statements and their conduct indicates the desired and proper conduct, politically correct and from this it can be concluded that there is hope and that with the right action we can advance the issue in the right and desired direction.

We will mention again the results of the gender index. An index that reveals a variety of points of inequality between women and men in Israel in a way that indicates that gender inequality is a stubborn cornerstone of Israeli society. According to data from the gender Index (2020), inequality trends have only intensified and deepened in the wake of the corona crisis. The corona plague has led to an increase in gender inequality. In most areas of life the gender gap is maintained in favor of men and in some areas the gap even grows with time. There is no area where the gap is in favor of women. Take for example the employment rates which in 2018 stood at 59.8% for women and 68.2% for men when the average salary of a woman was NIS 8,546 per month and that of a man at NIS 12,498 per month (with young female teachers earning less). In the State of Israel, recently, following the Corona crisis, many people have left work and gone on unpaid leave as

among women educators, many teachers want to leave the system because wages are not high, difficulties and problems in the parent and student population have intensified and demands have become endless. Because they continue to work at home non-stop and because they have no time for family life). It is important to remember with which population we work, with a population that constitutes in the State of Israel a population that experiences inequality. It is important to remember this fact since we want to make this population lead to change.

Chapter 8: **Analysis and conclusions**

This thesis examines the attitude of teachers towards Gender-Based Differences in Mathematics Education in Elementary Schools in Israel - **Social inequalities in education**. As find above girls suffer from educational disadvantages. In addition, it was published that girls suffer from a psychological damage and educational neglect, findings that was related to higher percentages of eating disorders, depression, lower self-esteem, achievement gaps in math and science, and fewer positive comments from teachers (Weaver-Hightower, 2003). There are number of factors in the environment that may influence the acquisition of spatial skills, including previous interaction between children and parents (encouragement according to the child's gender), different games according to the child's gender, and adjustment of behavior at the age of the elementary school to behavior that is typical of members of this gender, when the pressure to behave increase during adolescence. The teachers spend more time teaching mathematics to the boys and more time cultivating reading among the girls. In turn, the parent's beliefs of their child's mathematical ability are influences by the teacher's ratings of the child's math ability in addition to the influence of the child's previous performance. Furthermore, the beliefs of the parents and those of the child influence each other in a reciprocal manner

Relying on the results of the interviews and the questioners the following conclusions may be made. Concerning the awareness of the teaching staff to the need of providing equal opportunities to both genders in studying math we see that although at the declarative level all the teachers are aware of such a need, in practice little or nothing is done to increase this awareness. The issue is not a part of the daily school agenda and not discussed among the teachers. Furthermore, part of the interviewed teachers still has prejudice about the abilities of boys and girls in math. In different ways they expressed their belief that boys are prone for better achievements in math than girls are. Some of them told that directly, Others mentioned in their answers that they use an approach of positive discrimination to provide better opportunities to girls, which indirectly indicates that they believe that girls are weaker in math and they need a push to succeed.

In addition, teachers unequally treat boys and girls in terms of student's discipline and obedience. As girls are perceived to comply easier with the discipline requirements, the teacher's expectations from girls are higher than from boys, causing inequality that is expressed in more lenient approach to boy's behavior, clothing and hairstyle. Moreover, according to the teacher's reports, although the physical violence in school is strictly forbidden and everything is done to prevent it, sometimes teachers give up facing the boy's verbal violence .

Examining the qualitative findings, I identified a problem of gender inequality manifested in prejudices regarding the knowledge and success of boys and girls in certain professions, different expectations of boys and girls and different attitudes towards boys and girls, I identified a lack of awareness regarding opinions regarding gender knowledge and success. I recognized a gap between statements and behaviors. The findings of the quantitative data reinforce the findings of the qualitative data.

I will present examples of statements that represent inequality:

- In the statement: "We provide the equal opportunities for everyone but not everyone uses them. Boys, on the other hand, take advantage of these opportunities more often than girls" There is no place in the 21st century in 2023 since the equal opportunity is not provided if it is not taken advantage of. If the boys take advantage of an equal opportunity more than girls then the opportunity is not equal.

- By saying that the expectations of boys and girls are the same and in the same breath mentioning that according to experience, boys are less successful in maintaining the integrity of notebooks and textbooks and more often do not obey the teachers' instructions, but their achievements in studies are higher than the girls means a statement and a contradiction and this is exactly similar to the issue of the level of discipline required of boys and girls in the classroom and the accepted methods of punishment in case of violation of these requirements. To say that the requirements are the same for both genders and in the same breath that it is more difficult for male students to meet the requirements emphasizes the problematic nature of the issue.

- The division of the class into work groups is usually done randomly, regardless of the student's gender and/or knowledge level - some teachers mentioned that in this case there could be a disproportionate gender division because more girls will be assigned to the advanced groups in order to promote and encourage them to learn mathematics and at the same time girls are sometimes assigned Closer to reinforcement groups for students who experience difficulties in learning mathematics. There is no equality here.

- The teachers do not encourage boys and girls to work side by side and help each other in different tasks since the students themselves choose the group they want to work with, this choice is usually a gender choice and the teachers do not interfere in this process. There is no equality here either.

- On the topic of encouraging students to achieve better academic results. The encouragement is done individually and sets personal goals for each student according to his abilities and achievements. The encouragement is for boys for better achievements in sports and natural sciences and for girls in social sciences - this is not equality.

Examining the manner and amount of treatment towards the members of both genders in the class during the lesson, describes paying more attention to the boys because they are louder and participate more actively in the lessons. This report highlights inequality and it doesn't matter what the cause is.

- Failure to use the help of colleagues for a reliable examination of the degree of interaction with girls and boys during the lesson and in general. None of the respondents was helped by a colleague to assess the degree of his interaction with the students. Almost everyone was sure that their assessment was correct as it was obvious. Everyone talks and behaves equally, it's a shame that talk is separate and actions are separate and we did hear about the actions.

- Informal class leaders who tend to control part of the classroom space and time at the expense of other students are the boys who more often take the role of informal leaders and attract the attention of other students. There is no equality here either.

- In the self-assessment that deals with the gap between the teacher's intention to give equal opportunities to both genders and the teacher's behavior in the classroom - most of the respondents answered that there is such a gap. Some of them stated that reality forces them to behave differently compared to their intention and nothing can be done about it. Others feel uncomfortable with the existence of this gap and try to reduce it. There is no dispute that the gap exists and it is actually inequality.

- The study methods used in the classroom are more suitable for boys than for girls since boys are competitive and prefer face-to-face study over group studies compared to girls who need study in a small group, for experiences, for interactive study. There is no equality. On the one hand, the teachers provide their students with equal chances to answer the questions during face-to-face teaching, but the report is that boys answer the questions more often due to their nature (or actually because this way of teaching suits them better) and accordingly equality does not exist.

- Performing other activities such as decorating the classroom, moving furniture, etc. Boys and girls have equal opportunities to take part in all class activities, but boys ask to help in masculine activities such as carrying and moving, while girls in feminine activities such as arranging, organizing and decorating.... there is no equality here either.

- The level of self-confidence of the girls in the class in relation to their math abilities - Girls feel more confident when they are among girls and this feeling decreases when they work in mixed groups. Although girls are confident enough about their math abilities, boys are even more confident. There is no equality.

- On the subject of encouraging the boys in the class to express their feelings in ways that do not involve aggression - the norms of behavior are the same for boys and girls. The reference is equal to all cases of aggression. Physical aggression in the classroom can be prevented, but it is difficult to prevent verbal aggression, especially among boys. If boys attack more verbally then there is no equality.

- Adherence to the rules of discipline and compliance with the procedures is the same for the two different genders, however girls are more inclined to obey the rules and norms

and it is easy for them to do so. The rules are the same, but listening to them is not the same - where is the equality?!

- Compliance with the disciplinary rules is the same for boys and girls. In some cases there is a slight tendency to reduce the level of disciplinary requirements for boys, as it may be difficult for them to fully meet these requirements. This is not equality.

- There is discrimination based on gender in the school regulations that focus on dress and hairstyle regulations. The requirements for girls' clothing and hairstyle are much stricter than those for boys. There is no equality.

- Teachers turn to students to say praise, appreciation, compliments or scolding in the same way, regardless of their gender, but some of them sometimes use a different style of speech or a different attitude towards boys and girls. This is not equality.

Looking at the same problem from the student's point of view we can also see the inequality. In younger classes it is seen only in some certain activities, e.g. soccer is perceived as a "boys only" game and thus girls are completely not allowed playing. In older classes this distinction becomes clearer and is expressed in more activities, e.g. forming gender-based work groups in class etc.

There may be several possible explanations of this phenomena. First, students bring these prejudices from home and school does not do enough to change their state of mind. Second, teachers themselves support these prejudices and stereotypes by applying their own views to the students. Some interviewees told that they believe that boys are stronger in natural sciences and thus they encourage them to study math, while girls are supposed to be better at arts, music, history etc., and they do not need to invest much effort in math. Third, the environment in which students exist pushes them to adopt the gender stereotypes.

When checking the quantitative data, the situation is the same. The inequality exists in different percentages in different subjects, but without a doubt it exists!

I will present examples of data that represent inequality:

- Planning the future career of boys more than girls - 15% think about it

- Different expectations from girls and boys - 10% of the teachers answered that they largely expect girls to be more diligent than boys.

- 12.5% of mothers think that girls are more organized in appearance and at work than boys

- 12.5% of bumps expect boys to be naughtier than girls.

- Thinking about the future career planning of both genders is the same (without over-planning the future career of boys) , it was exciting to hear the statements regarding the career planning of the different genders. For a moment it occurred to me that boys are not expected to be more diligent, girls are not expected to be more orderly and boys are not expected to be more mischievous, but it was only for a moment because later on I realized that the data that came up were just statements. It is very pleasant to hear and play them, but they do not indicate the rule or the trend.

- 35% of all female teachers prescribe different behaviors for boys and girls

- 10% of bumps ask girls linguistic and artistic questions, while boys ask mathematical and scientific questions

- Teachers' use of expressions that differentiate between the contributions of both genders and the actions in the family unit, still 7.5% of the teachers use such expressions to a small extent.

The data shows that the majority of teachers declare equal treatment for members of the different genders. The problem is that it starts and ends with a statement!

It's great to hear these statements. I later realized that the figures that came up were just statements. It is very pleasant to hear and play them, but they do not indicate the conduct itself.

- An opportunity to engage the class in a story about a woman or a man in a non-stereotypical role - 27.5% of the teachers answered that they do not engage at all to a

little. How is that possible?! These stories appear in the news and require up-to-date reference.

- Feeling comfortable in an open discussion about gender roles and gender stereotypes - most of the answers indicate an uncomfortable feeling in such a discourse. The findings indicate that 72.5% of teachers do not feel comfortable in this type of discourse, a discourse that deals with gender roles and gender stereotypes. An open discussion about gender roles and gender stereotypes is not comfortable for most teachers. The issue is sensitive and has not yet been addressed as required. Despite the teachers' statements about equal treatment, the teachers know and feel (from the reality test) that the issue has not yet been properly addressed and accordingly is not comfortable to deal with.

- Reactions and compliments on the girls' clothing more than on the boys' clothing - 25% of the teachers responded with varying degrees of approval - an amazing result in reference to the year in which we live.

- Dividing the class according to the gender of the children for different tasks - 45% of the teachers answered that they divide the class according to the gender of the children for different tasks.

- The teacher's inquiries during the lesson are addressed to more than one gender - 62.5% of the teachers reported yes to varying degrees. Of the teachers who answered - all teachers stated that they are more inclined to appeal to boys.

- Dealing with men who are much more important and interesting than women - 32.5% of teachers yes in one way or another. This figure is important but not enough.

Most teachers do not comment on girls' clothing more than on boys' clothing, do not divide the children by gender in group work, do not address children of one gender more during class and their classes do not deal with men who are more important and interesting than women. Most teachers are still not all. About a quarter of the teachers still do this - they still comment more on the girls' outfits, still divide the class by gender while working in groups, still turn more during the lesson to one gender (according to the statement, all the teachers of this gender are the boys) and still engage during the lesson

with men more importantly and interesting from women. Is this the education we aim for our children? Is it education that should make a difference in 2023? This is a fact that cannot be ignored.

- On the walls of the classroom an equal number of pictures, illustrations or references of girls and boys, of women and of men - 65% of the teachers answered not at all or to a small extent.

- Drafting instructions and requests for the class, in writing and orally, always in the masculine voice - 52.5% of the teachers answered positively to varying degrees. Over 50% of the teachers formulate their reference to the class in the masculine language.

- Encouraging the girls and boys to sit together in class - 62.5% of the teachers answered no to varying degrees while only 37.5% answered to a great extent or always.

-Separate activity areas in your classroom for each gender - 65% of the teachers claimed that there are separate activity areas.

- Expectation that boys will be stronger than girls - 70% of the teachers answered yes to varying degrees.

- Tolerance towards indiscipline and disobedience of boys compared to similar behaviors of girls - 72.5% of the teachers answered yes to varying degrees.

- Assigning different tasks to fathers and mothers - only 32.5% of the teachers answered no at all, while the rest, this means 67.5% of the teachers assign different tasks, some more and some less.

- Assigning tasks only to girls or only to boys such as decorating, moving equipment or operating equipment - 40% of the teachers answered not at all, while the rest - 60% do this to one degree or another.

According to the data, inequality still exists in the classrooms and it exists there in full force. The data is not as expected in 2023.

This study has shown that although the stereotypes of the previous centuries, when women were hardly considered to be able to provide any good in any field except housekeeping, are far behind us, there is still a lot of room for improving. As any treatment, it should start from acknowledging of the existing problem. Thus, increasing the awareness of the teaching staff about the gender-based inequality seems to be the best first step in overcoming the problem. Encouraging of the discussion of this inequality at all levels may help to enlighten the hidden roots of the problem as well as to provide a wider range of the possible solutions .

My hypothesis was that women math teachers expect and treat boys and girls differently, depending on their gender opinions during the lessons, in class and at school. There is a connection between the opinions of women teachers in mathematics and the gendered attitude towards students. The hypothesis that women math teachers expect and treat boys and girls differently according to their gender opinions. The hypothesis was confirmed. The data show that there is a different attitude of female teachers towards boys and girls, that there are prejudices of female teachers and that accordingly the female teachers treat boys and girls differently and their expectations are gender based (a self-fulfilling prophecy).

8.1 The research questions:

- Do mathematics women teachers have prejudices about the knowledge and success of boys and girls in mathematics and other subjects in school? The answer to that question was yes, according to the findings. Women mathematics teachers have prejudice. We have to work with the women teachers about their prejudice. We have today a lot of researches that can proof that the gender is No relevant, that boys and girls are different because who they are and not because of their gender.

- Are women math teachers aware of their views on the knowledge and success of students of different genders? The answer to that question was No. The women math teachers do not aware of their views on knowledge of students of different genders. The fact is that the women math teachers do not aware of their view on the knowledge and success of students of different gender. We have to teach the women math teachers to check them themselves.

- Are women math teachers' expectations the same from boys and girls? The answer is No. The women math teachers' expectations have to be the same and they are not. The gender is irrelevant here - skills, abilities, motivation and others are relevant here.

- Do women math teachers treat boys and girls equally during the lessons, in class and at school? The answers were No. There is a different treatment to boys and girls.

- Are women math teachers aware of their treatment to boys and girls during the lessons, in class and at school? The answer is No. The women teachers are not aware of their treatment during the lessons.

The hypothesis was that Women math teachers expect and treat boys and girls differently according to their gender opinions. The findings show that.

The problem was difficulty in identifying the opinions of women mathematic teachers and their expectations and attitudes towards students. In our research we succeeded to identify the gender opinions of the math teachers and now we have to focus how to change the situation.

The findings of the study show that in primary schools in the State of Israel, there is gender inequality. Inequality which begins with the teacher's opinions and ends with the inequality of those teachers, there is no awareness among the teachers of their opinions and their conduct and accordingly there is a gap between the teacher's statements and their conduct.

With findings we cannot argued. Dealing with such problems requires first imparting knowledge to teachers and students, regarding the non-existence of gender differences. Next, ongoing check that will take place in full transparency, checking teacher's opinions and their conduct in the lessons, checking that will bring to mind what is happening within the walls of the classroom and in the school. Raising the existing to the mind will make it possible to deal with the problem. I believe that imparting knowledge on the subject combined with examining opinions and conduct will make it possible to deal with the problem and will gradually reduce the existing gap between teacher's statements and their conduct. The various media must be combined in order to convey the message with full openness and transparency to the entire population.

The society in which we live in has undergone and is undergoing change. The pursuit is for equality and for the absence of gender differences. It is important to remember that in providing answers to questionnaires many times the answer given by the respondent is the accepted answer, the answer is pleasant to hear and should be said. I observed a difference between the results of the interviews, which are done face to face, in the format of an intimate four-eye conversation, which invites a real and open conversation, and the results of the questionnaires, in which often the answers are pleasant to hear and strive for.

I introduced the data that was received. The quantitative data support the qualitative data and present a picture of inequality within the primary school, in mathematics classes and in general, prejudices about knowledge, abilities and behavior of different genders, different expectations and treatment of members of different genders, lack of awareness about which opinions and gap between statements and conduct. In order to achieve equality between different genders in primary schools, we must eradicate the prejudices and gender stereotypes that exist among teachers, by acquiring knowledge on the subject, in addition we must raise the issue and examine the conduct of teaching staff to understand and address existing views among teachers. The teaching public in Israel can and should lead the change in schools and in society as a whole.

Acquiring knowledge on the subject will lead to the understanding that there are no gaps at all between members of a different gender and accordingly will lead to equal expectations and treatment. A courageous and constant examination of teacher's opinions and conduct will lead to adherence to egalitarian conduct which will lead to change which can permeate society. In the past, in Israel, wildflowers were not protected. People who went for a walk in the great outdoors carelessly picked flowers and endangered the wildflowers. The treatment of the subject was through the schools where the children learned that it is possible to go out into the landscape but it is important to remember not to pick! The slogan "Go for a view but do not pick!" Which came out of the schools and continued through the media to the whole society led to a great change in the whole society. Today no one dares to pick a wild flower.

Another example is a common practice that used to be with many families, driving a car without wearing a seat belt. Here, too, the message came from the schools, from the children, through the media to society as a whole. The slogan: "Must be belted in front and behind!" Managed to lead the long-awaited change and today everyone is recruiting. No one is not wearing a seat belt, neither front nor rear. The two successful examples I mentioned led to a change in society, a change that the schools led through the children by combining the various media. I believe that even in our case, it is important to share the children and invite them to a discussion on the subject, enlist them for the desired change through learning the subject, using numerical facts and recruiting them to eradicate the phenomenon. The children as in the previous examples will convey the message to society as a whole.

Students will acquire knowledge through which they will help lead change not only in schools but later in Israeli society as a whole. A change in which the various media will be integrated which will lead to success as described in the cases. It is important to note that the cases described incorporate municipal supervision and enacted laws that have helped to reach the desired destination quickly and efficiently. In the case of gender equality there are laws in the country. The time has come for the State of Israel to fulfill the basic promise experienced on the Declaration of Independence and there will be complete social and political equality of rights for all its citizens, without distinction of religion, race or gender.

We are at a time when there has been a welcome revival in the discourse on women's rights and gender equality. The "Me To" campaign, which caused a great deal of controversy around the world, marked a turning point in raising awareness of sexual harassment and the decision made by women, a decision that holds that the norms that were practiced until now are a thing of the past. We are still far from narrowing gaps, promoting gender equality and shattering barriers that prevent women from advancing. Women in Israel suffer from severe discrimination in the workplace and unjustified and illegal wage disparities. There is a glass ceiling in which women are often given positions that do not allow promotion, which are characterized by a lack of power and authority, receive a low salary. The labor market is made up of two separate classes economically,

the class of women and the class of men. Discrimination against women, which is reflected in lower wages than men and under-representation in senior positions, undermines social justice and causes economic damage.

Recent data from the Central Bureau of Statistics (Central Bureau of Statistics 15/03/2022) indicate that the number of teaching staff leaving the education system has increased by 23%, while the number of new teachers has decreased by 12% compared to last year. The data come against the background of warnings from the Teachers' Union of a severe shortage of teaching staff.

According to the report, the volume of recruitment of teaching staff is on a declining trend in the entire education system, from 7.6% to 5.4% in the current year. As of 2019/20, the average salary per teacher is NIS 12,097. The average salary of men in the system is 13,491, and of women 11,788.

Recently, the secretary general of the Teachers' Union, Yaffa Ben-David, warned that "there is a tangible danger that there will be a problem with the opening of the school year because there will be a shortage of teachers and kindergarten teachers." Education and Finance. "I expect a wave of departures and not just of young teachers. This is a shortage at the system level that will cause entire classes and dozens of kindergartens not to open," she added.

Unfortunately, even in 2023, teachers' salaries are very low, the profession is not considered a sought-after profession. The few men in the system earn more than the women in the same system (16.9% men in the system versus 83.1% women in it). Due to the low salary, the profession is female, the admission conditions are not high and there are no teachers in the system.

Will a female teacher who has chosen this unpopular profession and earns a low and unrewarding salary lead to change? hard to believe.

Although and perhaps because of everything, undoubtedly this is the time when we all need to join hands and eradicate the phenomenon. Exploiting the capabilities inherent in female human capital is in the interest of society as a whole.

The period in which we live, the period "after" the corona is very significant. If in the past, awareness of gender inequality began and an attempt to mobilize for change, the empowerment of women and the promotion of gender equality began, then the Corona period has set us back many years.

Equal opportunities in education for both genders means the creation of an educational-cultural environment and an educational climate that guarantees, not only at the level of the statement but also in practice, equal access to diverse educational experiences and encouragement and promotion of male and female students according to their qualifications, skills and personal adjustment, in a matter-of-fact and non-stereotypical manner.

Gaps between women and men have existed since time immemorial in the entire world and in fact it is evident that no country in the world has closed the gender gap between women and men until its end. The daily reality of women in 2023 shows that the issue of gender inequality existed even before the current corona crisis we are in and that the corona has set us back many years.

Chapter 9: Suggestion for further research

Future research could sample schools from all over the country in order to get a broader and more reflective picture.

Future research could sample other kinds of schools, for example from ultra-Orthodox schools and the Arab sector, in order to get a broader picture of all schools in Israel.

A future sample could include teachers of different genders, depending on their composition in the teacher population in order to obtain more reflective results.

It is important to incorporate observations in the lesson in the teachers from the sample, in order to receive reinforcements for their behavior. It is important in the future to check the amount of reference, the type of reference and how to treat boys and girls. From the teacher's communication experience with the boys is greater in all classes. Teachers turn more to boys on behavioral issues and to girls on academic issues. Even in a class where a teacher conducts affirmative action, the teacher still fails to reduce the amount of communication with the boys but rather increases the amount of communication with the girls. The observational data will reinforce the data we receive.

Another direction of study can be implemented by interviews to the principals to examine their point of view.

More important than conducting the research is, in my opinion, writing the recommendations for changes to be made immediately in the education system, changes that include, among other things, the transfer of knowledge to teachers, the transfer of tools and ways to change behavior and examination of the situation following the intervention. I personally am now interested in devoting time to writing a book that recommends and accurately teaches teachers how to conduct themselves in the classroom, later I want to pass on the information I have to teachers around the country through lectures and workshops.

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Appendix: Research Interview

Interview Questions

Mathematical Educational Staff

1. To what extent did you discuss together the question of the need to provide an equal opportunity for boys and girls?
2. Did the staff members engage in the increase of the awareness of their approaches to sex roles? Describe the conversation.
3. The declared policy of the Ministry of Education and Culture is to provide an equal educational opportunity for boys and girls. (For instance, General Circular 47/8 – Work with Young Children). How does the behavior of your staff members fit with this policy? Explain.
4. Which messages do the members of the staff convey to the different male and female students about their expectations in different areas such as maintaining order in the notebooks, obedience, and achievement in the studies? Is there a difference in the messages conveyed to the members of both sexes? Explain.
5. What are the approaches of the teachers to mathematics about the level of discipline required of boys and girls and what are the accepted ways of punishment?

Students

6. Did the students learn the meaning of the concept of 'stereotype'? Did they focus on the burden that it causes individuals? Describe.
7. How do the teachers address the sexist comments voiced before the students?
8. Can the students depend on your support if they challenge sexism in any field? Give an example.
9. How are male and female students assigned different study groups or for other actions in the field of mathematics?
10. Describe the integration of male and female students in different activities. Are the opportunities for the integration in the different activities equal?
11. To what extent do the teachers encourage male and female students to work side by side in group, social, and scholastic assignments in an equal manner? Tell how this is done.

12. Are there groups of students whose achievements are lower than those of other groups and if so, were the groups and areas of study identified and are these sex-based groups?
13. Tell how you encourage the students to reach achievements. Do male and female students receive the same encouragement to obtain achievements?

Class

14. Tell about the degree of attention and amount of time that you dedicate to your students. Did you examine the degree of attention and amount of time you devote to the girls and the boys? Is there a difference?
15. Were you helped by a colleague for a reliable examination of the degree of your interaction with girls and boy students or did you rely only on your feelings? Reflect your feelings regarding the reliability of the examination.
16. Do you feel that there is a gap between your intentions to ensure an equal opportunity in the class and your behavior in actuality in the class? How do you explain this? Are you content with your activity?
17. Tell about the seating arrangement in the class. Does this seating arrangement ensure active participation of all the students?
18. Do your students cooperate in the learning groups or in the mixed work groups? Do you encourage this? How?
19. Is there in your class an atmosphere of non-sexist behavior and mutual respect among the students of the class? Do you encourage this and how?
20. Do your students challenge sexist expressions of their friends? Do you encourage this and how?
21. In your class is it customary not to ignore insulting sexist expressions and harmful behaviors? Do you encourage this? Tell about an example from the class life.
22. Tell about the permitted types of behaviors that receive encouragement in the class. Regarding members of both sexes, are they seen as the norm?
23. Do some of the students control the area of time of the class at the expense of others, and if so, who are they generally?

24. Tell about the methods of teaching customary in your class. Do the teaching methods encourage all the students to participate in the work in the class or in any activity in the school?
25. During the frontal teaching, are members of both sexes ensured the equal opportunity to answer questions and address the teacher's statements? Describe.
26. To what extent are male and female students given the equal opportunity to take part in some of the activities, such as the use of electric equipment, moving of furniture, decoration of the class, or preparation of foods?
27. The approach of positive discrimination is adopted so as to ensure the chances of more girls to attain achievements in scientific or technological professions. Do you implement this approach? Describe.
28. Do the girls in your class trust themselves and their abilities and do you encourage this?
29. Do you encourage the boys to express their feelings in ways that do not entail aggression? Give an example.

Behavior

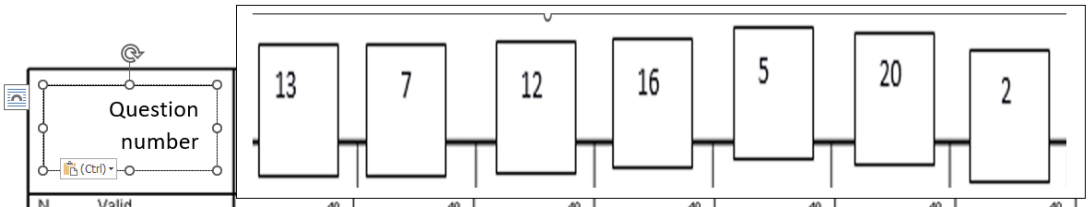
30. Do you have a tendency to demand more discipline and obedience from girls? How do you explain this?
31. Are the disciplinary procedures different in any way for boys and girls? In your opinion, why?
32. Is there any sex discrimination in the school regulations, for instance, in the clothing or hairstyles? Tell about this discrimination.

Language

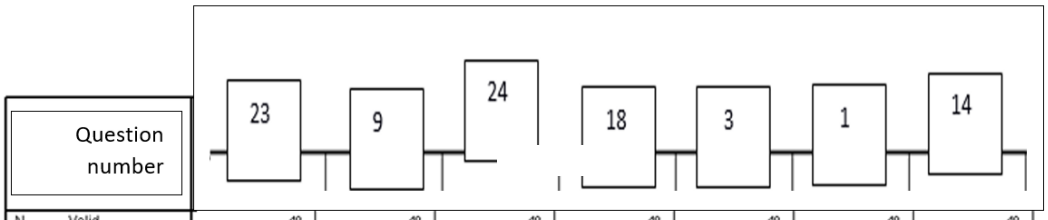
33. Do you make sure there is equal verbal reference to the male and female students, in expressions of praise, evaluation, compliment, or scolding? Give an example of your reference.

34. Have you examined the textbooks you use and found that they are clear of stereotypic expressions? Are you careful to introduce materials clean of such expressions in the class (for example, word problems)?
35. Do the staff members work as a group to raise the awareness of the need to clarify their attitudes and sexist behavior? How do they do this?

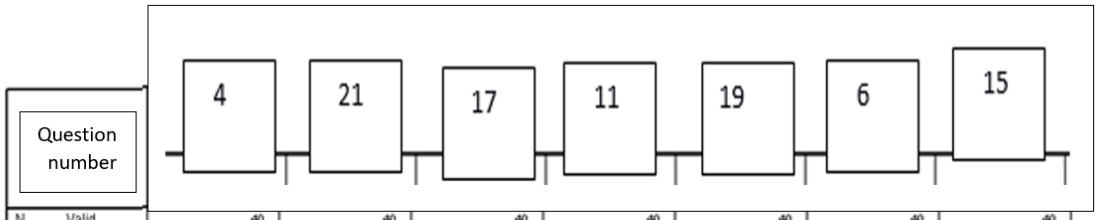
Questionnaire data – Gene



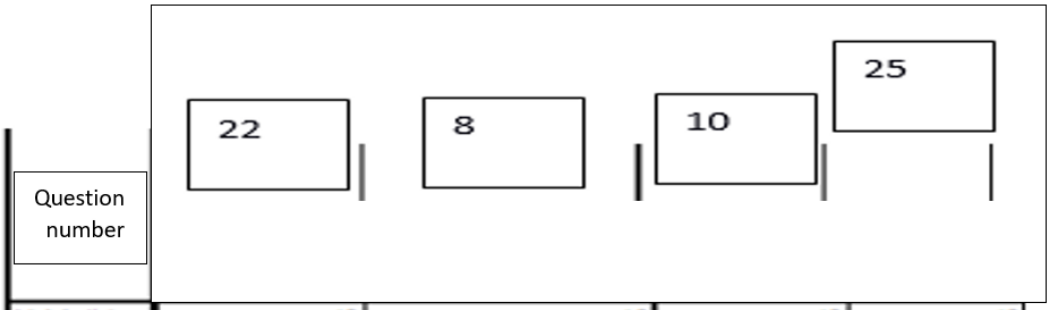
		13	7	12	16	5	20	2
N	Valid	40	40	40	40	40	40	40
	Missing	0	0	0	0	0	0	0
Mean		2.60	3.10	2.43	2.18	1.78	1.93	1.98
Std. Error of Mean		.208	.211	.199	.205	.184	.201	.177
Median		3.00	3.00	2.50	2.00	1.00	1.00	2.00
Mode		1	2	1	1	1	1	1
Std. Deviation		1.317	1.336	1.259	1.299	1.165	1.269	1.121
Variance		1.733	1.785	1.584	1.687	1.358	1.610	1.256
Range		4	4	4	4	4	4	4
Minimum		1	1	1	1	1	1	1
Maximum		5	5	5	5	5	5	5
Sum		104	124	97	87	71	77	79



		23	9	24	18	3	1	14
N	Valid	40	40	40	40	40	40	40
	Missing	0	0	0	0	0	0	0
Mean		2.03	1.80	1.43	1.58	1.45	2.78	1.23
Std. Error of Mean		.241	.157	.147	.143	.156	.239	.098
Median		1.00	1.00	1.00	1.00	1.00	2.50	1.00
Mode		1	1	1	1	1	1	1
Std. Deviation		1.527	.992	.931	.903	.986	1.510	.620
Variance		2.333	.985	.866	.815	.972	2.281	.384
Range		4	3	3	3	4	4	3
Minimum		1	1	1	1	1	1	1
Maximum		5	4	4	4	5	5	4
Sum		81	72	57	63	58	111	49



Question number								
N	Valid	40	40	40	40	40	40	40
	Missing	0	0	0	0	0	0	0
Mean		2.83	1.53	2.40	1.80	2.03	1.55	1.35
Std. Error of Mean		.260	.143	.199	.161	.158	.147	.092
Median		2.00	1.00	2.00	1.00	2.00	1.00	1.00
Mode		1	1	1	1	1	1	1
Std. Deviation		1.647	.905	1.257	1.018	1.000	.932	.580
Variance		2.712	.820	1.579	1.036	.999	.869	.336
Range		4	3	4	3	3	4	2
Minimum		1	1	1	1	1	1	1
Maximum		5	4	5	4	4	5	3
Sum		113	61	96	72	81	62	54



Question number				
N	Valid	40	40	40	40
	Missing	0	0	0	0
Mean		1.43	2.63	1.40	1.08
Std. Error of Mean		.101	.255	.118	.042
Median		1.00	2.00	1.00	1.00
Mode		1	1	1	1
Std. Deviation		.636	1.612	.744	.267
Variance		.404	2.599	.554	.071
Range		2	4	3	1
Minimum		1	1	1	1
Maximum		3	5	4	2
Sum		57	105	56	43

Questionnaire data - by item

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	12	30.0	30.0	30.0
	2	7	17.5	17.5	47.5
	3	8	20.0	20.0	67.5
	4	11	27.5	27.5	95.0
	5	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

Do you expect boys to be stronger than girls?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	12.5	12.5	12.5
	2	10	25.0	25.0	37.5
	3	9	22.5	22.5	60.0
	4	8	20.0	20.0	80.0
	5	8	20.0	20.0	100.0
	Total	40	100.0	100.0	

Have you ever had the opportunity to engage with the class in a story about a woman or a man in a non-stereotypical role?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	14	35.0	35.0	35.0
	2	6	15.0	15.0	50.0
	3	10	25.0	25.0	75.0
	4	9	22.5	22.5	97.5
	5	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

Do you expect boys to be naughtier than girls?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	17	42.5	42.5	42.5
	2	10	25.0	25.0	67.5
	3	4	10.0	10.0	77.5
	4	7	17.5	17.5	95.0
	5	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

Do you often refer help requests or calls to moms in the mornings on the assumption that they are available?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	25	62.5	62.5	62.5
	2	5	12.5	12.5	75.0
	3	5	12.5	12.5	87.5
	4	4	10.0	10.0	97.5
	5	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

In your opinion, are your references during class addressed more to boys or more to girls?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	23	57.5	57.5	57.5
	2	5	12.5	12.5	70.0
	3	6	15.0	15.0	85.0
	4	4	10.0	10.0	95.0
	5	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

Do you tend to recommend different activities for girls and boys for post-school hours?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	18	45.0	45.0	45.0
	2	11	27.5	27.5	72.5
	3	6	15.0	15.0	87.5
	4	4	10.0	10.0	97.5
	5	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

Do you encourage girls and boys to sit in class together?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	25	62.5	62.5	62.5
	2	4	10.0	10.0	72.5
	3	1	2.5	2.5	75.0
	4	5	12.5	12.5	87.5
	5	5	12.5	12.5	100.0
	Total	40	100.0	100.0	

Do you think that there are study subjects that are more important to one gender than the other?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	21	52.5	52.5	52.5
	2	9	22.5	22.5	75.0
	3	7	17.5	17.5	92.5
	4	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

Do you often comment and compliment the girls 'attire more than the boys' attire?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	31	77.5	77.5	77.5
	2	5	12.5	12.5	90.0
	4	4	10.0	10.0	100.0
	Total	40	100.0	100.0	

Do you tend to refer linguistic and artistic questions to girls while to boys to mathematical and scientific questions?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	25	62.5	62.5	62.5
	2	10	25.0	25.0	87.5
	3	2	5.0	5.0	92.5
	4	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

Do you divide the class according to the gender of the children for different tasks?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	31	77.5	77.5	77.5
	2	4	10.0	10.0	87.5
	3	2	5.0	5.0	92.5
	4	2	5.0	5.0	97.5
	5	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

Do you have separate activity areas in your classroom for each of the genders?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	12	30.0	30.0	30.0
	2	8	20.0	20.0	50.0
	3	3	7.5	7.5	57.5
	4	11	27.5	27.5	85.0
	5	6	15.0	15.0	100.0
	Total	40	100.0	100.0	

Do you always formulate your instructions and your address to the class, in writing and orally, always in the male language?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	34	85.0	85.0	85.0
	2	4	10.0	10.0	95.0
	3	1	2.5	2.5	97.5
	4	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

Do you tend to think about the planning of the boys' future career more than the girls?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	12	30.0	30.0	30.0
	2	10	25.0	25.0	55.0
	3	2	5.0	5.0	60.0
	4	5	12.5	12.5	72.5
	5	11	27.5	27.5	100.0
	Total	40	100.0	100.0	

Do the walls of the classroom have an equal number of pictures, illustrations or mentions of girls and boys, women and men?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	28	70.0	70.0	70.0
	2	5	12.5	12.5	82.5
	3	5	12.5	12.5	95.0
	4	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

Do you recommend reading different reading books for girls and boys?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	13	32.5	32.5	32.5
	2	9	22.5	22.5	55.0
	3	9	22.5	22.5	77.5
	4	7	17.5	17.5	95.0
	5	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

Do you do different tasks on fathers and mothers? For example, do you want mothers to make cakes or make curtains when dads are asked to install accessories or operate electrical equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	22	55.0	55.0	55.0
	2	7	17.5	17.5	72.5
	3	8	20.0	20.0	92.5
	4	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

Do you expect girls to be more organized in appearance and work than boys?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	16	40.0	40.0	40.0
	2	10	25.0	25.0	65.0
	3	11	27.5	27.5	92.5
	4	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

Are there any tasks that you only do on girls or only on boys, such as decorating, moving equipment or operating equipment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	26	65.0	65.0	65.0
	2	9	22.5	22.5	87.5
	3	3	7.5	7.5	95.0
	4	1	2.5	2.5	97.5
	5	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

Do your lessons deal with important and interesting men's characters much more than they are engaged in women's characters?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	28	70.0	70.0	70.0
	2	10	25.0	25.0	95.0
	3	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

Are you more tolerant of the lack of discipline and disobedience of boys versus similar behaviors of girls?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	26	65.0	65.0	65.0
	2	11	27.5	27.5	92.5
	3	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

Do you outline different behaviors for each of the sexes in phrases like "girls should not be beaten", "don't cry like a girl" or "boys will help girls"?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	13	32.5	32.5	32.5
	2	11	27.5	27.5	60.0
	3	5	12.5	12.5	72.5
	5	11	27.5	27.5	100.0
	Total	40	100.0	100.0	

Do you feel comfortable in an open discussion about gender roles and sexual stereotypes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	29	72.5	72.5	72.5
	2	7	17.5	17.5	90.0
	3	3	7.5	7.5	97.5
	4	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

Do you expect girls to be more diligent than boys?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	37	92.5	92.5	92.5
	2	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

Do you use expressions that distinguish between the contribution of both genders to the family cell, such as "mother helping father in family support" or "sons should think of a profession that will enable them to support a family with respect"?

Questionnaire data - Interim summary

Case Processing Summary

		N	%
Cases	Valid	40	100.0
	Excluded[a]	0	.0
	Total	40	100.0

a. Listwise deletion based on all variables in the procedure.

Questionnaire data - Alpha Cronbach

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.768	.804	25

Questionnaire data - mean and standard deviation

Item Statistics

	Mean	Std. Deviation	N
Do you expect boys to be stronger than girls?	2.60	1.317	40
Have you ever had the opportunity to engage with the class in a story about a woman or a man in a non-stereotypical role?	3.10	1.336	40
Do you expect boys to be naughtier than girls?	2.43	1.259	40
Do you often refer help requests or calls to moms in the mornings on the assumption that they are available?	2.18	1.299	40
In your opinion, are your referrals more likely to be addressed to boys or more to girls?	1.78	1.165	40
Do you tend to recommend different activities for girls	1.93	1.269	40
Do you encourage girls and boys to sit in class together?	1.98	1.121	40
Do you think that there are study subjects that are more important to one gender than the other?	2.03	1.527	40
Do you often comment and compliment the girls 'attire more than the boys' attire?	1.80	.992	40
Do you tend to refer linguistic and artistic questions to girls while to boys to mathematical and scientific questions?	1.43	.931	40
Do you divide the class according to the gender of the children for different tasks?	1.58	.903	40
Do you have separate activity areas in your classroom for each of the genders?	1.45	.986	40
Do you always formulate your instructions and your address to the class, in writing and orally, always in the male language?	2.78	1.510	40

Do you tend to think about the planning of the boys' future career more than the girls?	1.23	.620	40
Do the walls of the classroom have an equal number of pictures ,illustrations or mentions of girls and boys, women and men?	2.83	1.647	40
Do you recommend reading different reading books for girls and boys?	1.53	.905	40
Do you do different tasks on fathers and mothers?	2.40	1.257	40
Do you expect girls to be more organized in appearance and work than boys?	1.80	1.018	40
Are there any tasks that you only do on girls or only on boys?	2.03	1.000	40
Do your lessons deal with important and interesting men's characters much more than they are engaged in women's characters?	1.55	.932	40
Are you more tolerant of the lack of discipline and disobedience of boys versus similar behaviors of girls?	1.35	.580	40
Do you outline different behaviors for each of the genders?	1.43	.636	40
Do you feel comfortable in an open discussion about gender roles and sexual stereotypes?	2.63	1.612	40
Do you expect girls to be more diligent than boys?	1.40	.744	40
Do you use expressions that distinguish between the contribution of both genders to the family cell?	1.08	.267	40

Questionnaire data - general

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	1.930	1.075	3.100	2.025	2.884	.310	25

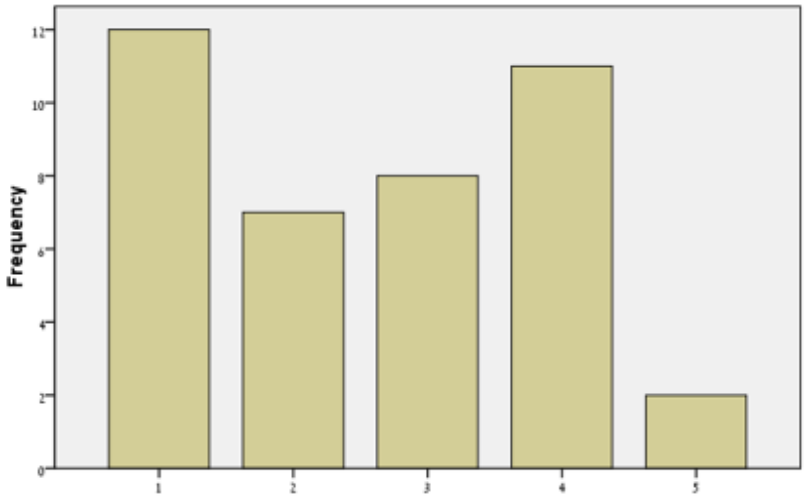
Questionnaire data - Alpha Kronbach by item

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Do you expect boys to be stronger than girls?	45.65	102.079	.623	.757	.738
Have you ever had the opportunity to engage with the class in a story about a woman or a man in a non-stereotypical role?	45.15	132.490	-.451	.720	.808
Do you expect boys to be naughtier than girls?	45.82	119.789	-.035	.785	.782
Do you often refer help requests or calls to moms in the mornings on the assumption that they are available?	46.07	112.071	.241	.862	.765
In your opinion, are your referrals more likely to be addressed to boys or more to girls?	46.47	103.384	.661	.844	.738
Do you tend to recommend different activities for girls	46.32	108.994	.370	.897	.756
Do you encourage girls and boys to sit in class together?	46.27	109.179	.425	.708	.753
Do you think that there are study subjects that are more important to one gender than the other?	46.22	99.871	.596	.932	.737
Do you often comment and compliment the girls 'attire more than the boys' attire?	46.45	109.946	.455	.676	.753
Do you tend to refer linguistic and artistic questions to girls while to boys to mathematical and scientific questions?	46.82	107.430	.627	.856	.745
Do you divide the class according to the gender of the children for different tasks?	46.67	108.994	.562	.874	.748
Do you have separate activity areas in your classroom for each of the genders?	46.80	106.728	.623	.906	.744

Do you always formulate your instructions and your address to the class, in writing and orally, always in the male language?	45.47	117.230	.027	.669	.782
Do you tend to think about the planning of the boys' future career more than the girls?	47.02	113.769	.472	.824	.757
Do the walls of the classroom have an equal number of pictures ,illustrations or mentions of girls and boys, women and men?	45.42	109.122	.249	.686	.767
Do you recommend reading different reading books for girls and boys?	46.72	112.820	.351	.720	.759
Do you do different tasks on fathers and mothers?	45.85	113.003	.218	.733	.766
Do you expect girls to be more organized in appearance and work than boys?	46.45	112.921	.298	.710	.761
Are there any tasks that you only do on girls or only on boys?	46.22	114.435	.232	.498	.764
Do your lessons deal with important and interesting men's characters much more than they are engaged in women's characters?	46.70	112.985	.330	.699	.759
Are you more tolerant of the lack of discipline and disobedience of boys versus similar behaviors of girls?	46.90	115.374	.376	.773	.760
Do you outline different behaviors for each of the genders?	46.82	116.558	.250	.726	.764
Do you feel comfortable in an open discussion about gender roles and sexual stereotypes?	45.62	107.215	.317	.750	.761
Do you expect girls to be more diligent than boys?	46.85	115.054	.300	.704	.762
Do you use expressions that distinguish between the contribution of both genders to the family cell?	47.17	119.328	.171	.593	.768

Questionnaire data – diagrams



Do you expect boys to be stronger than girls?

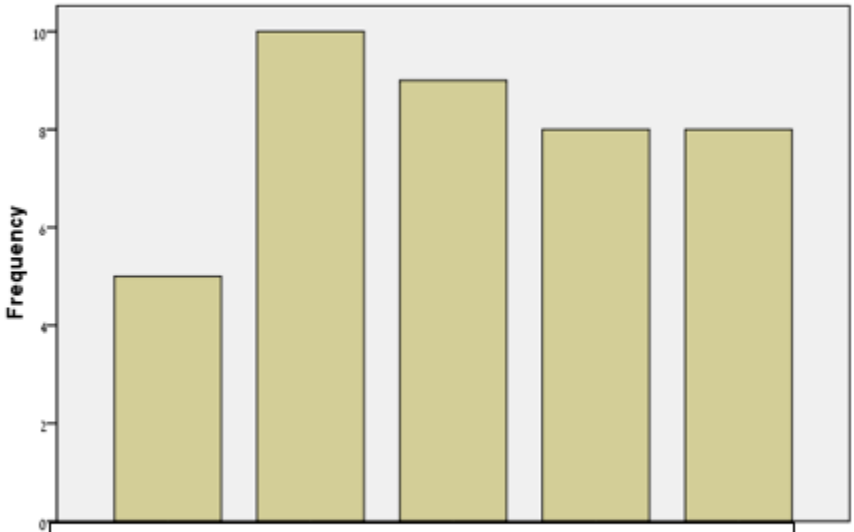
1 Not at all

2 To a lesser extent

3 Moderately

4 To a large extent

5 Always



Have you ever had the opportunity to engage with the class in a story about a woman or a man in a non-stereotypical role?

1 Not at all

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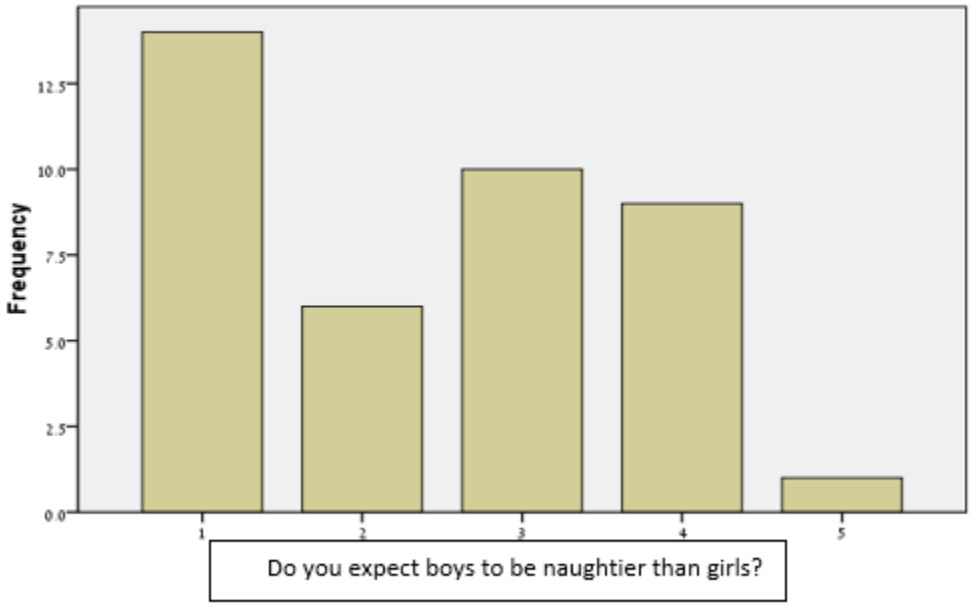

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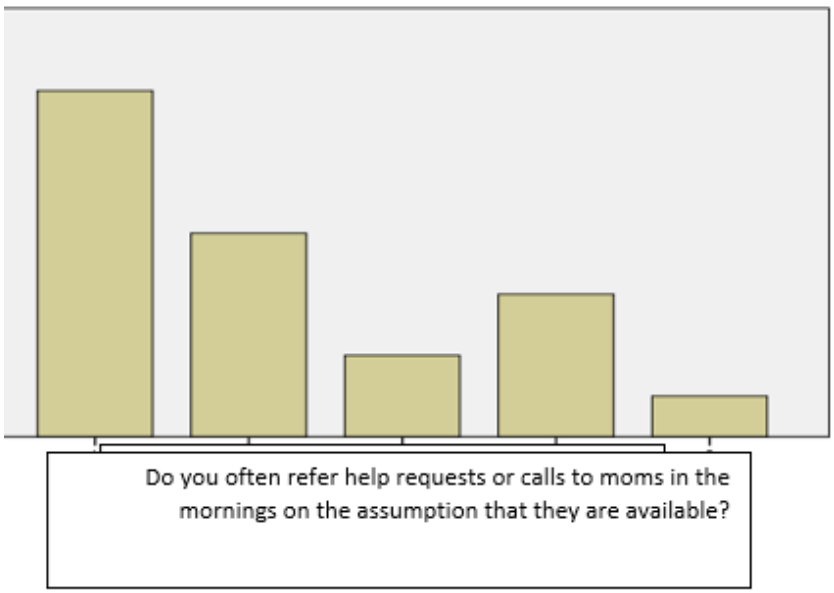

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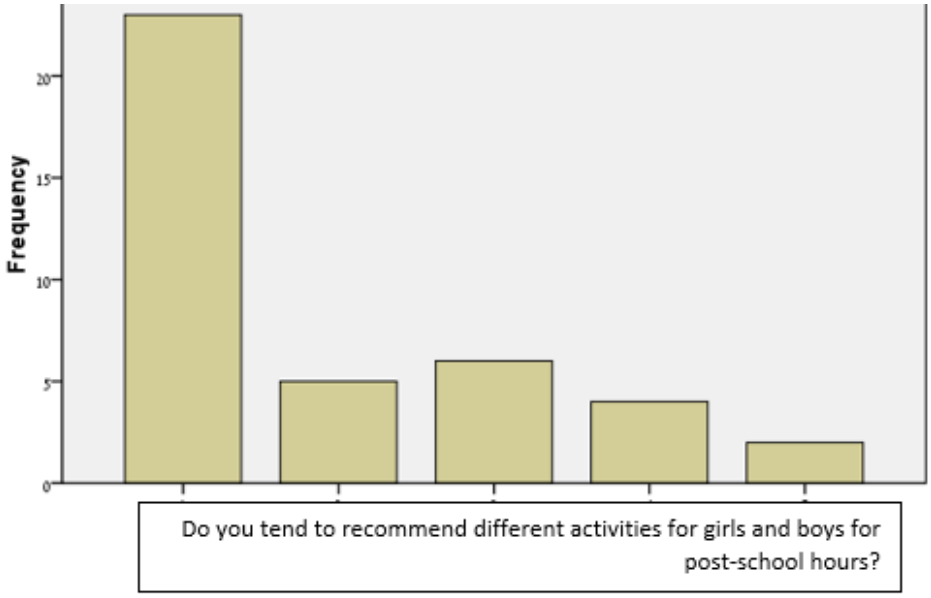

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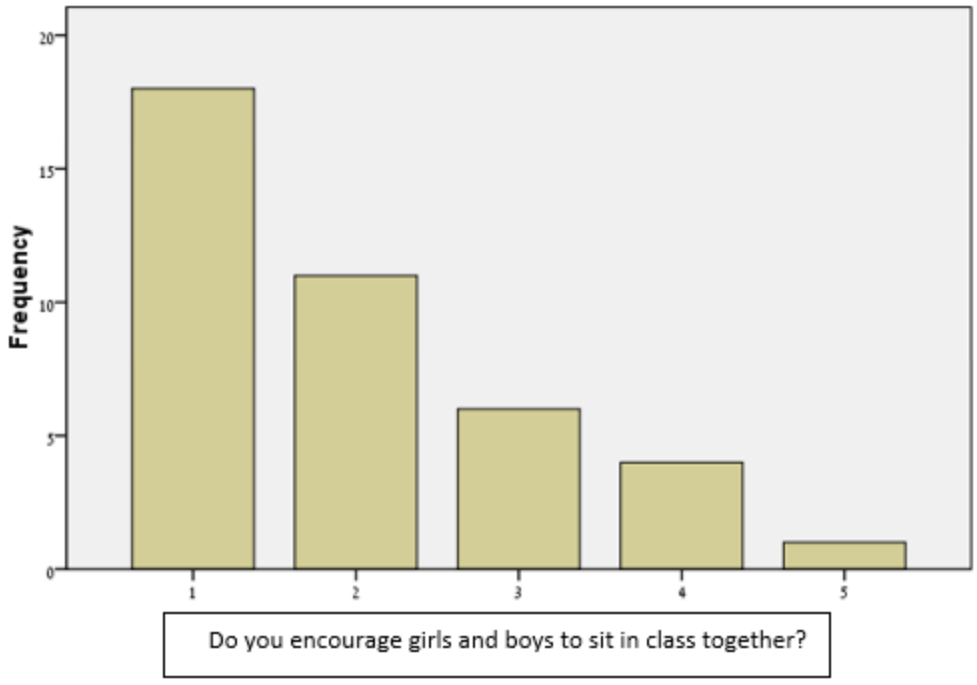

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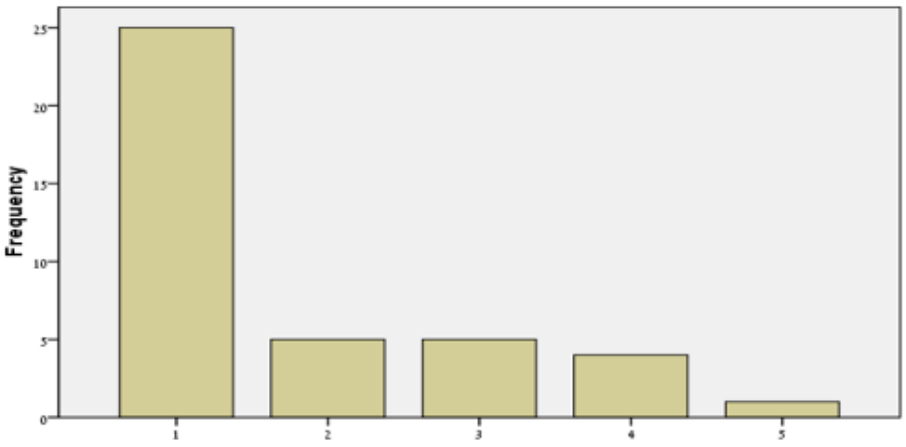

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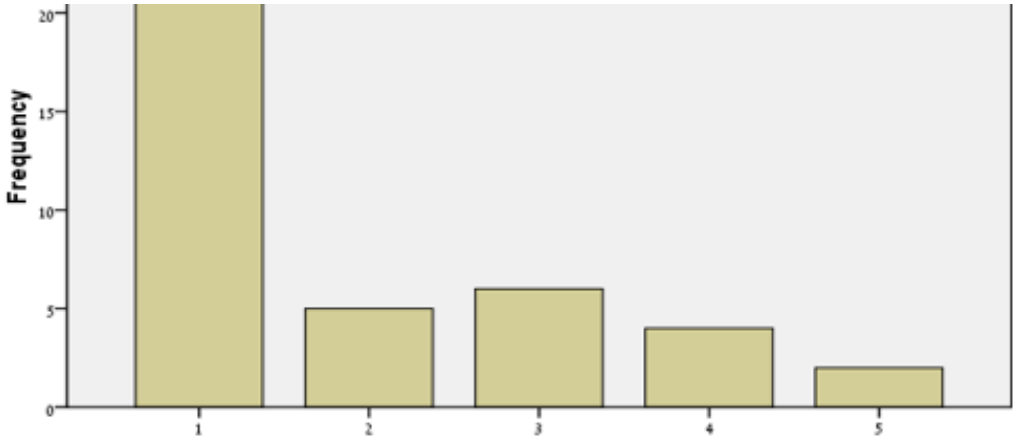

Do you tend to recommend different activities for girls and boys for post-school hours?

1 Not at all

2 To a lesser extent

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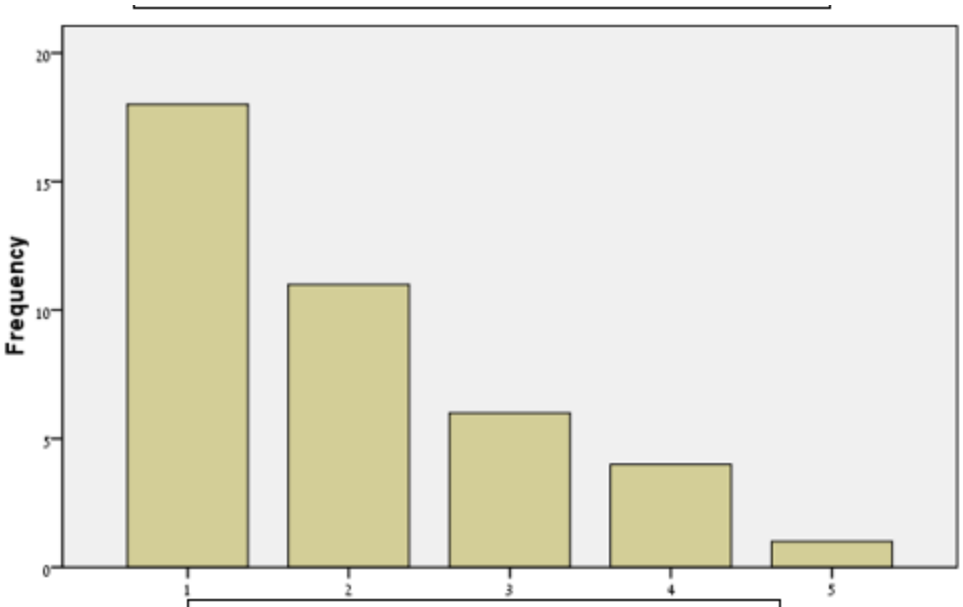
5 Always



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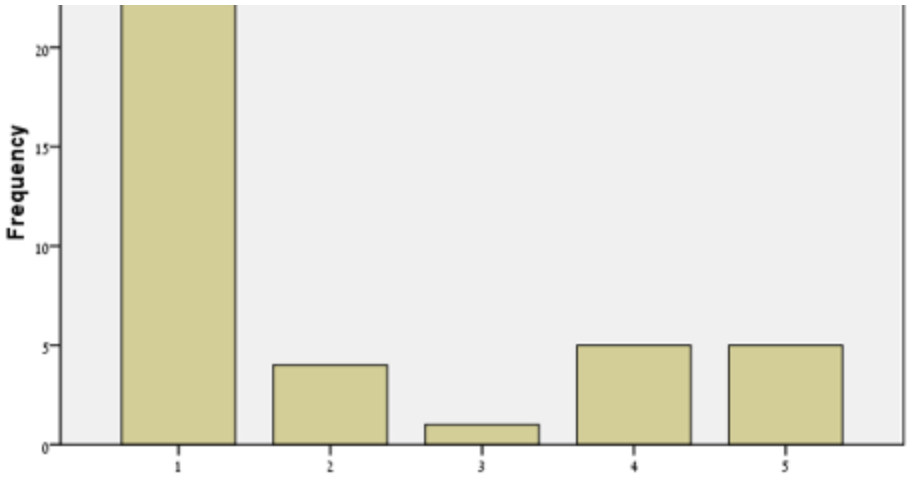

Do you think that there are study subjects that are more important to one gender than the other?

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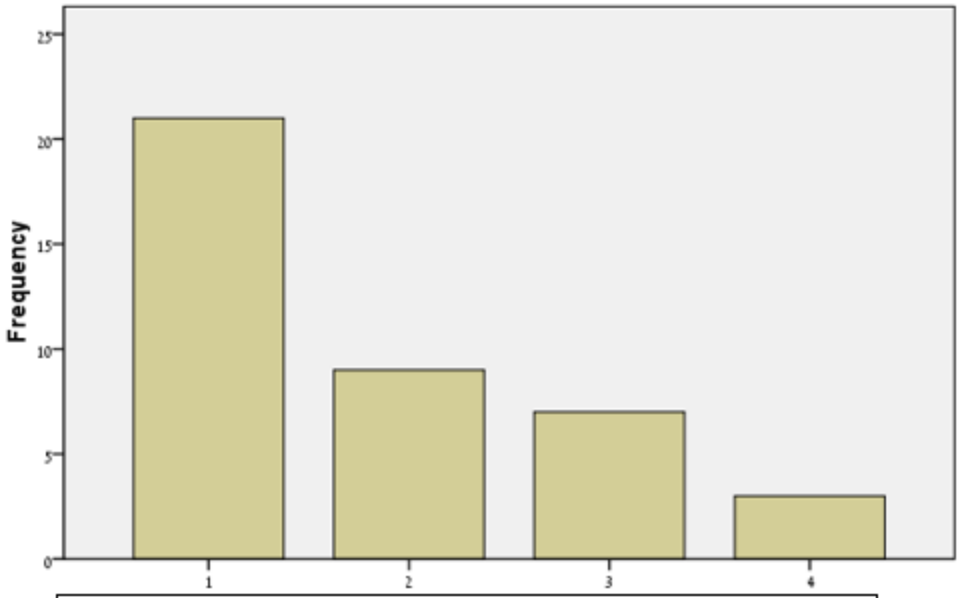

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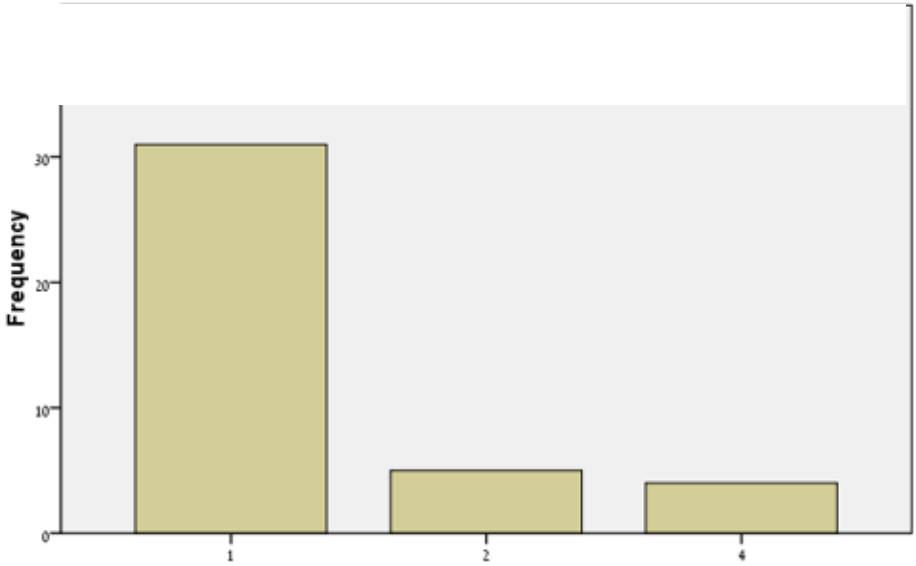
Do you often comment and compliment the girls 'attire more than the boys' attire?



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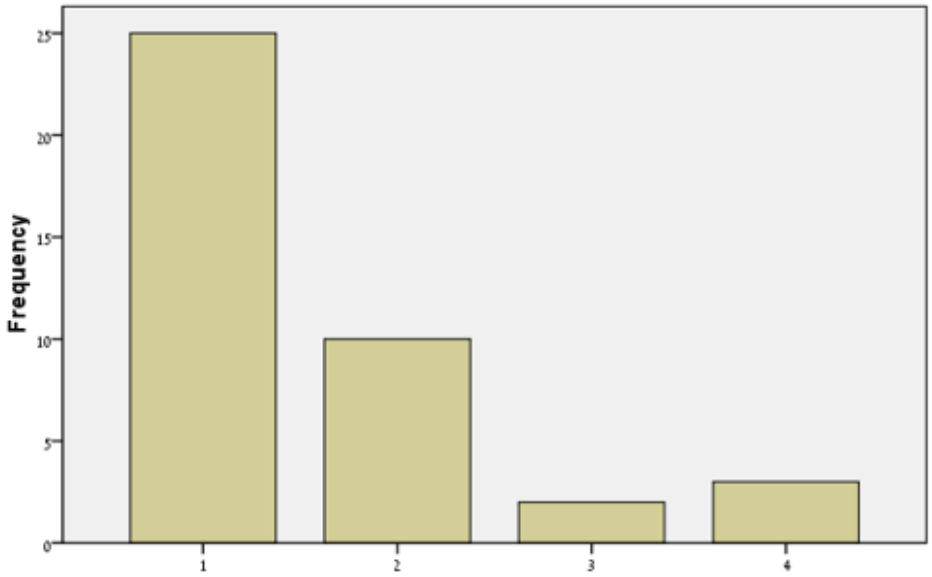

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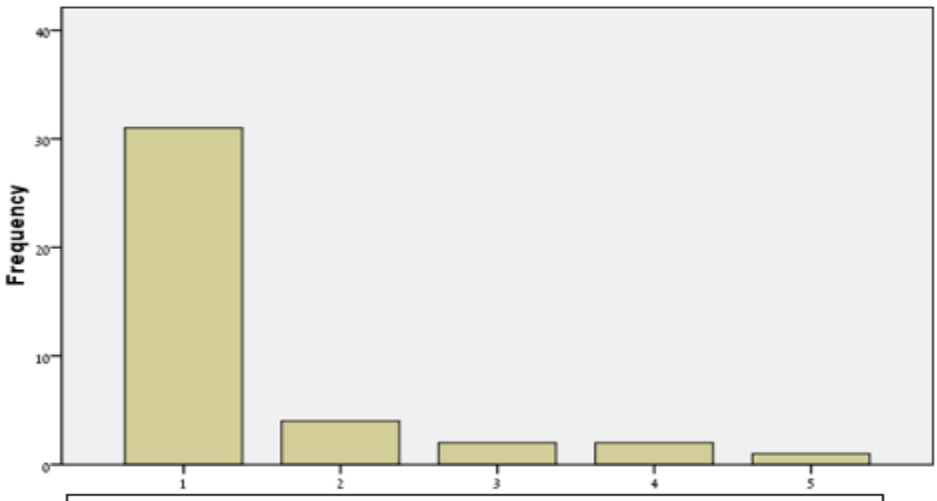

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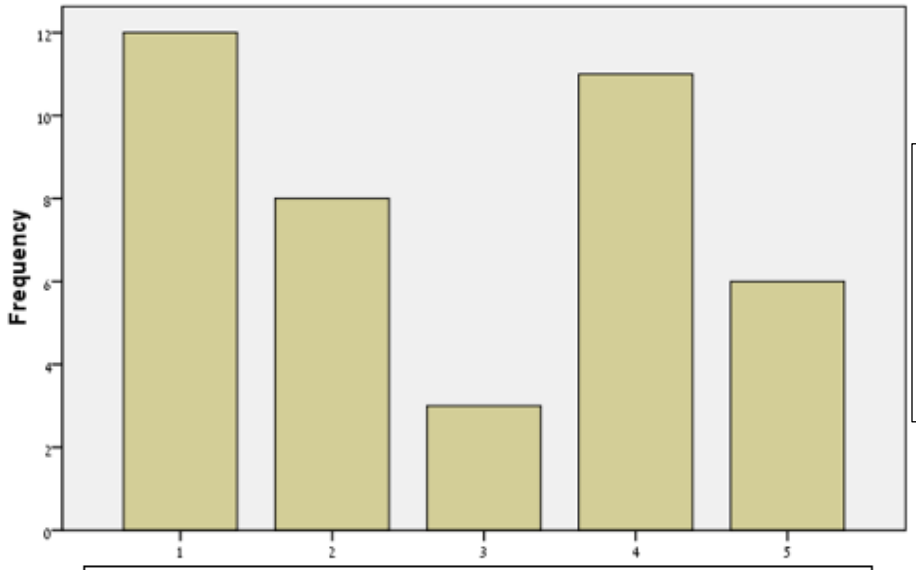
Do you have separate activity areas in your classroom for each of the genders?



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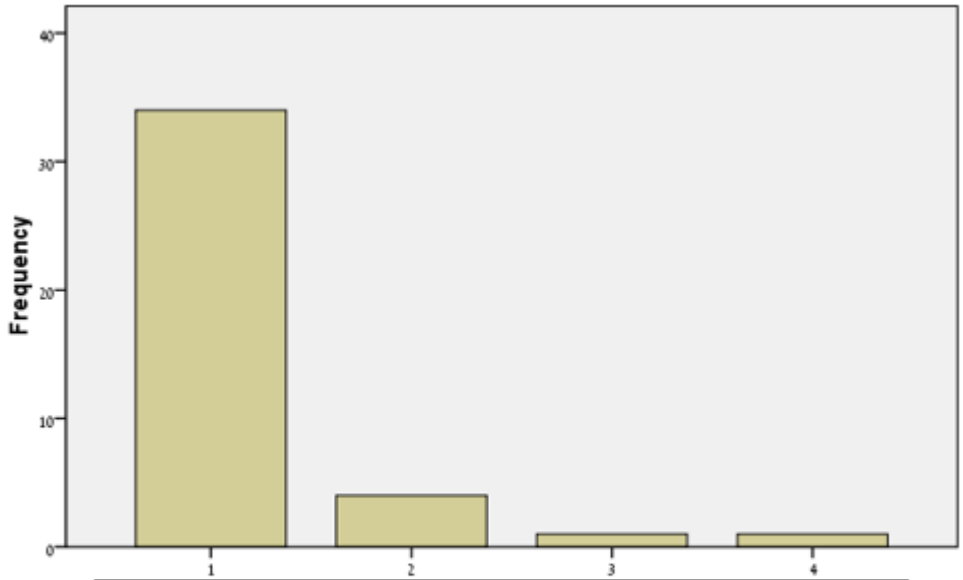

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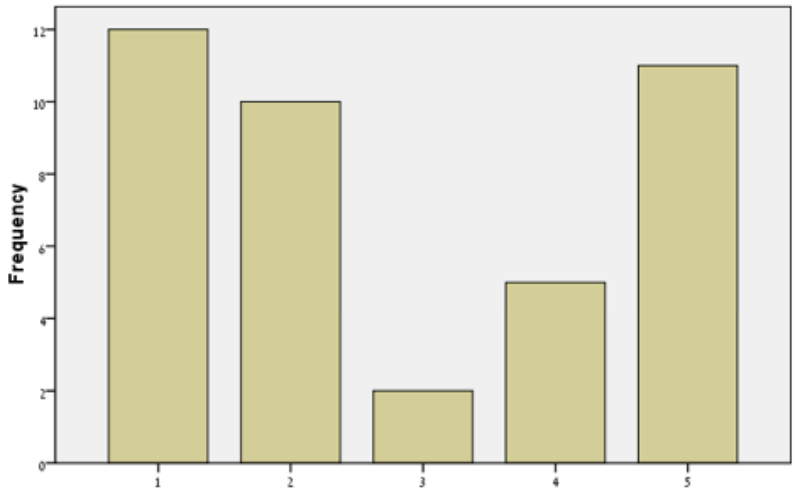

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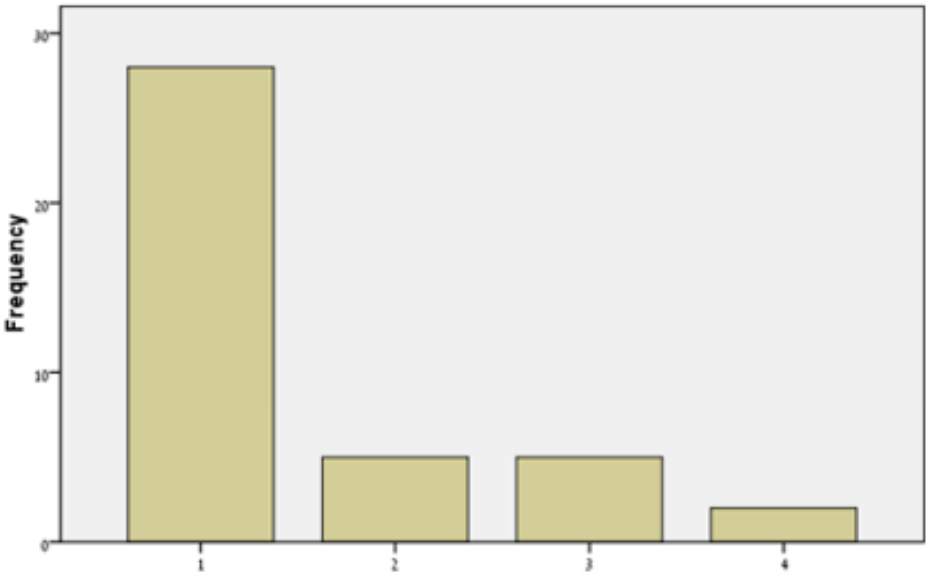

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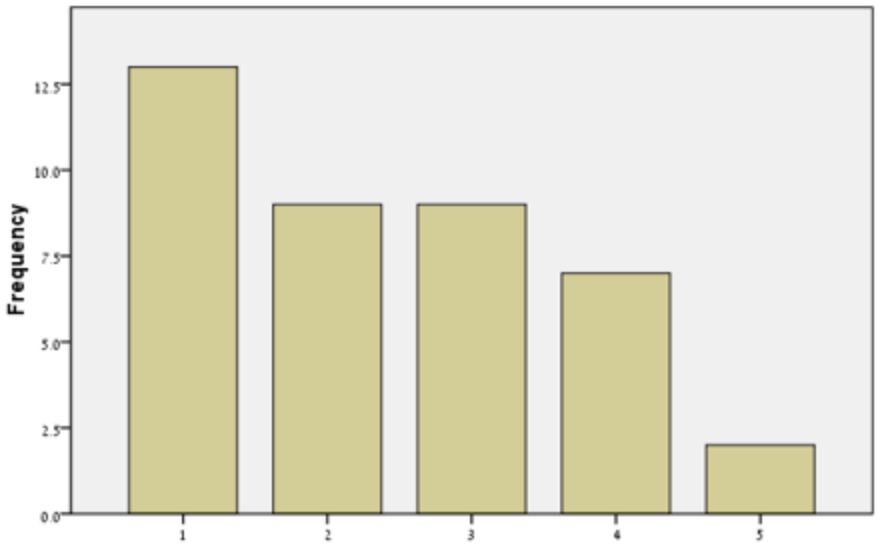

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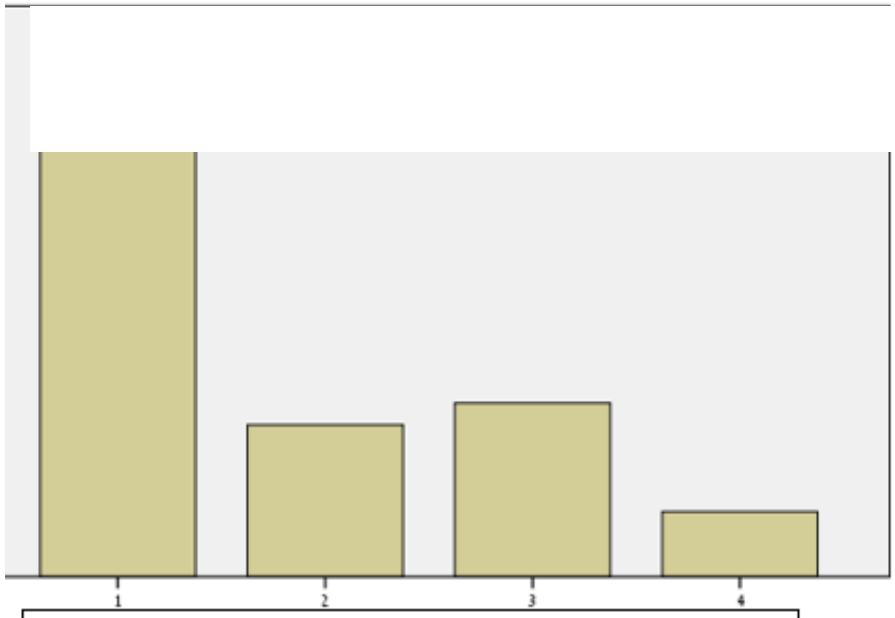

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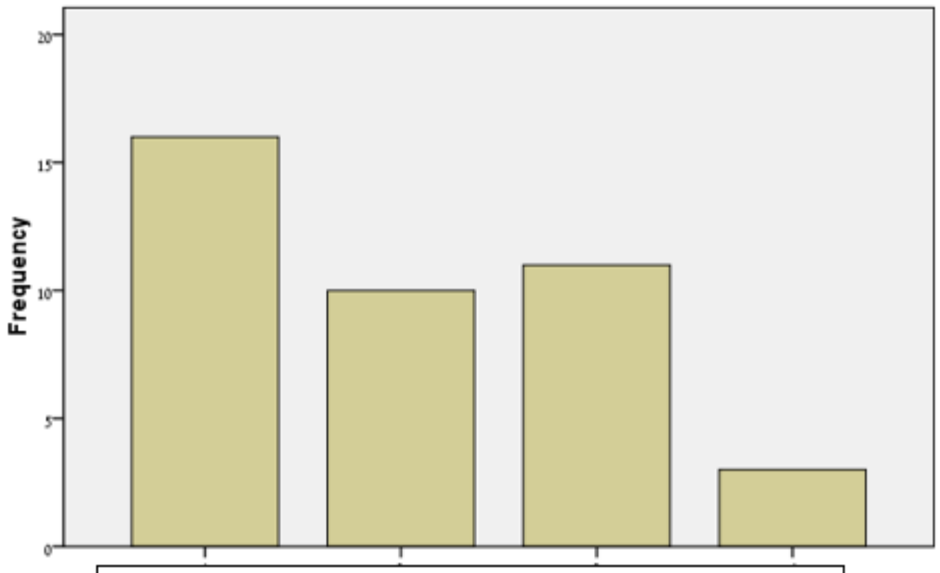

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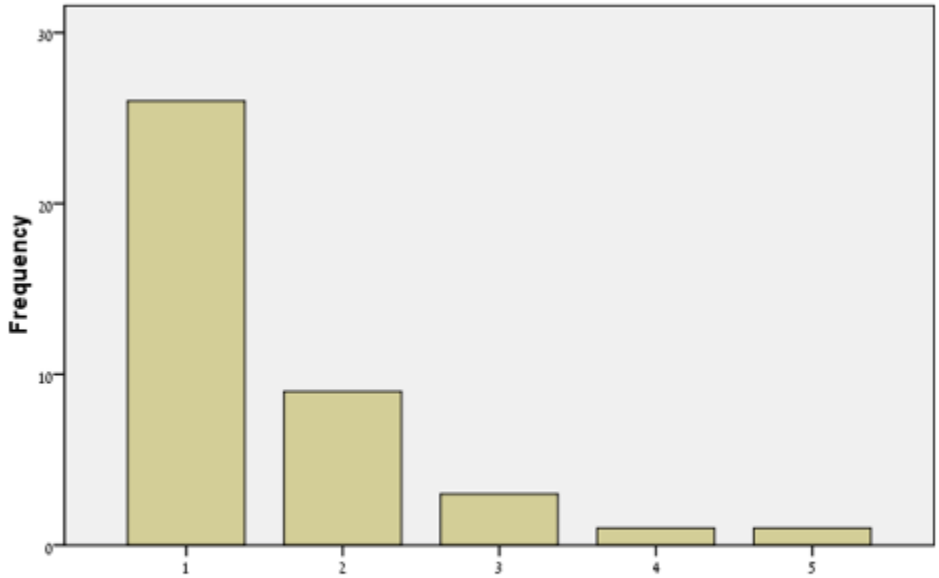

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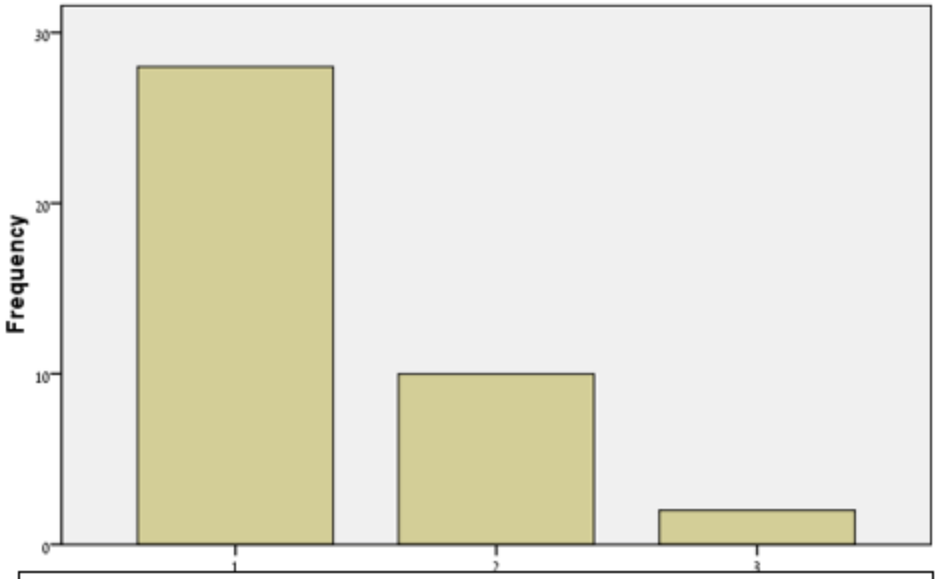
Do your lessons deal with important and interesting men's characters much more than they are engaged in women's characters?



Are you more tolerant of the lack of discipline and disobedience of boys versus similar behaviors of girls?

1 Not at all

2 To a lesser extent

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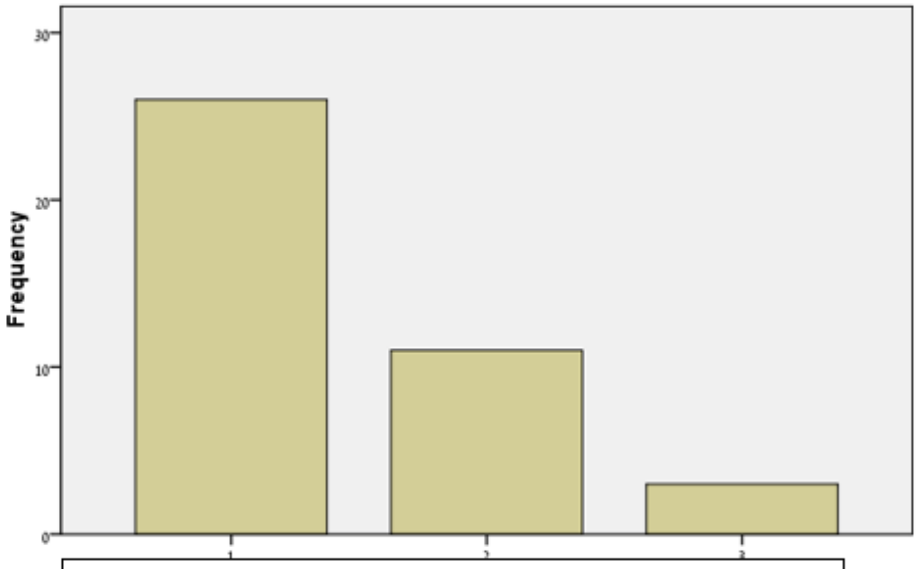
4 To a large extent

5 Always



Do you outline different behaviors for each of the genders in phrases like "girls should not be beaten", "don't cry like a girl" or "boys will help girls" ?

1 Not at all

2 To a lesser extent

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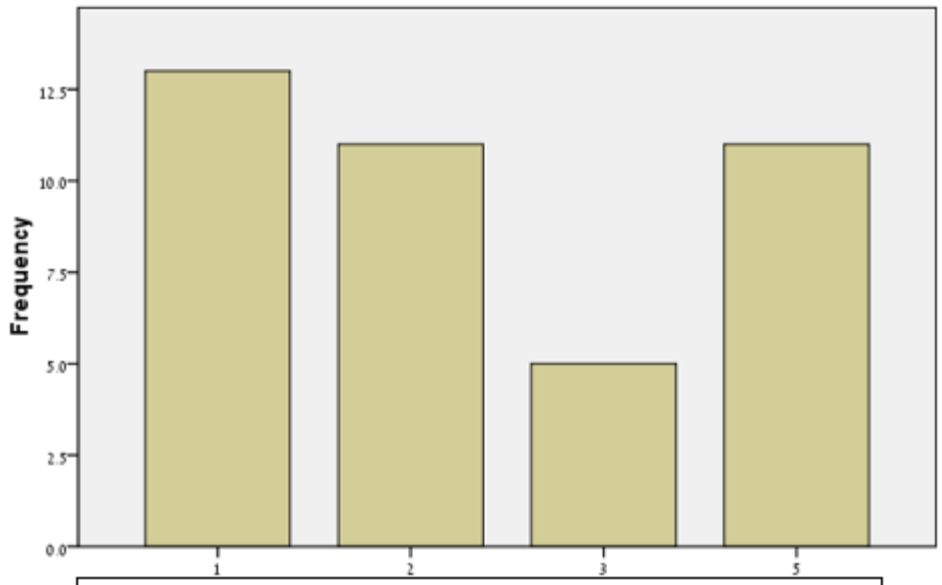
5 Always



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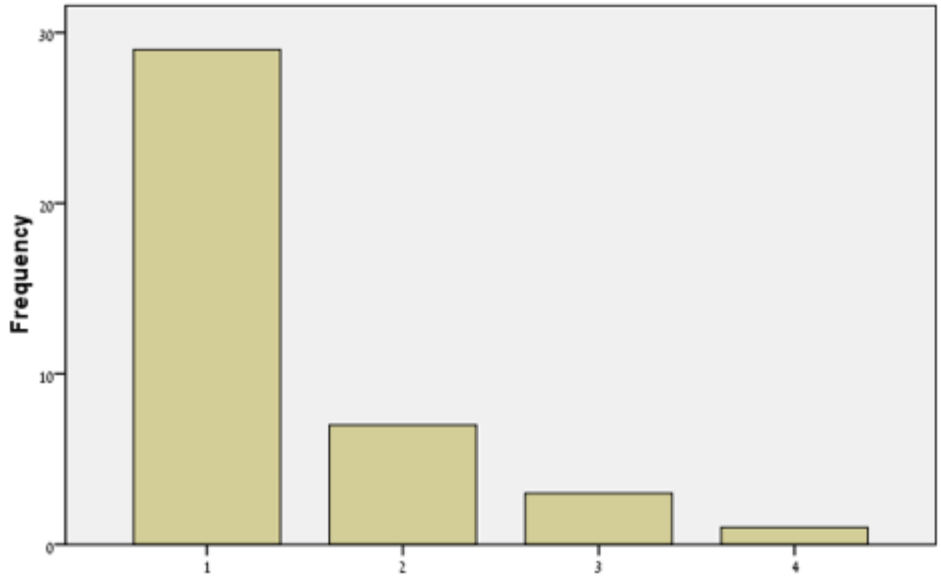
Do you feel comfortable in an open discussion about gender roles and sexual stereotypes?



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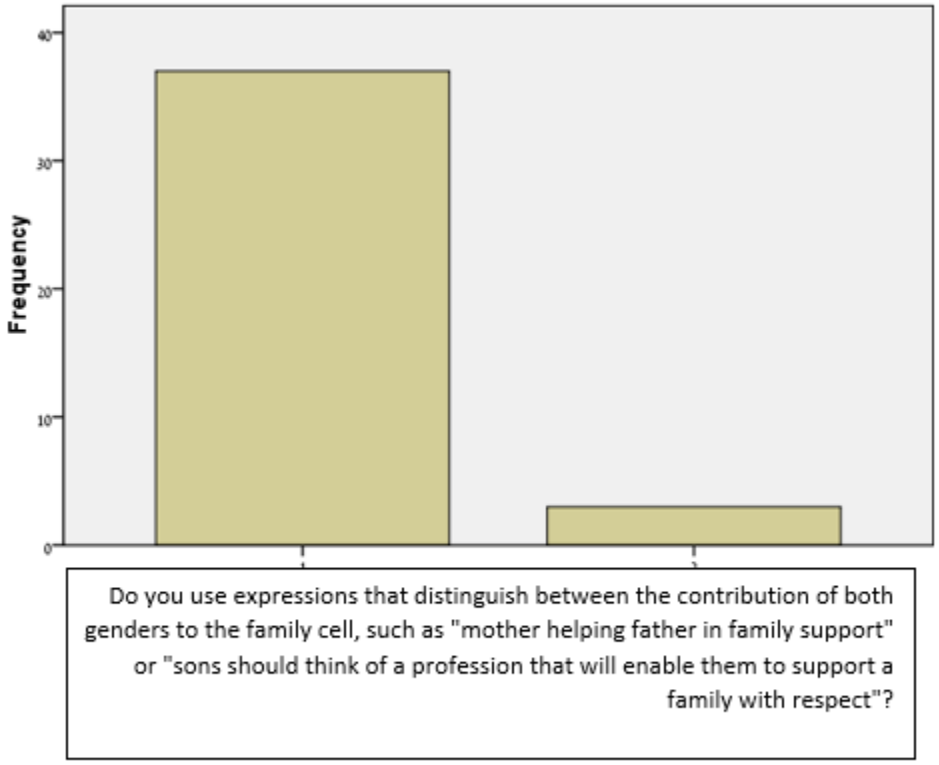
Do you expect girls to be more diligent than boys?


Frequency
40
30
20
10
0
Do you use expressions that distinguish between the contribution of both genders to the family cell, such as "mother helping father in family support" or "sons should think of a profession that will enable them to support a family with respect"?
1 Not at all
2 To a lesser extent
3 Moderately
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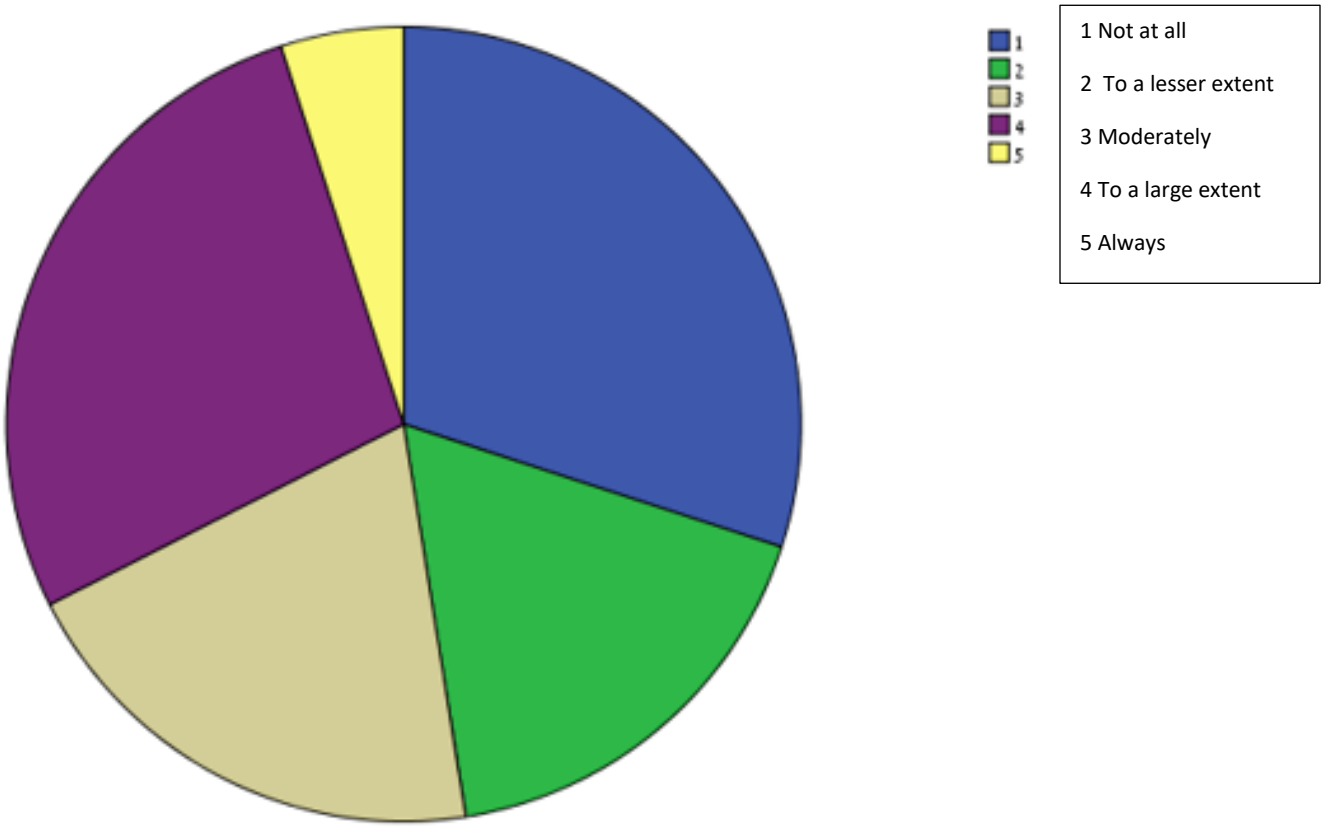
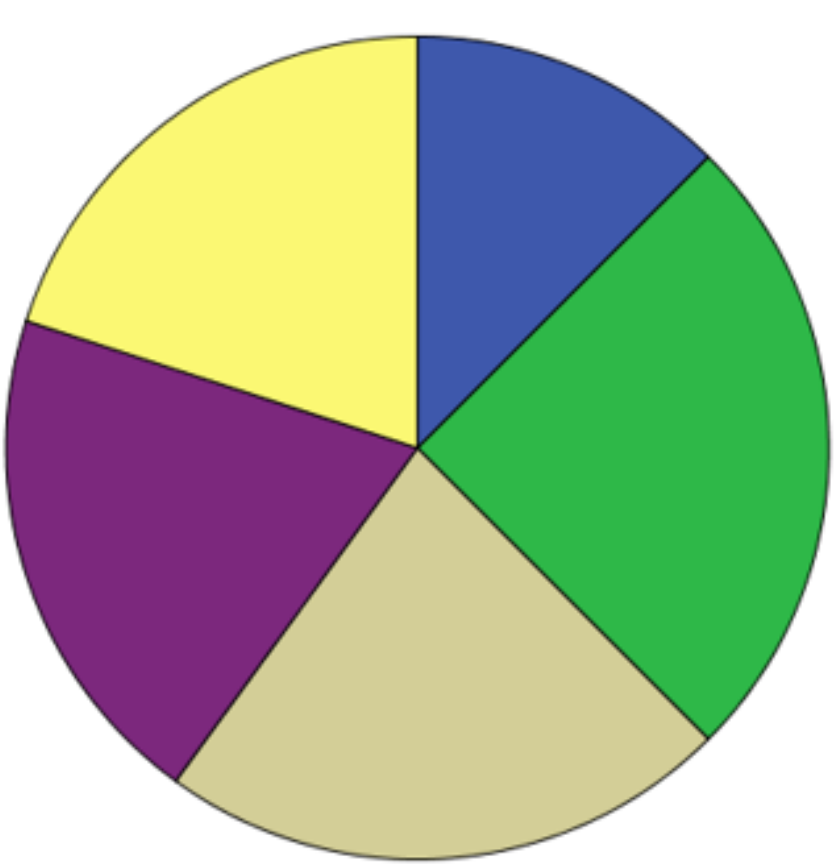
5 Always

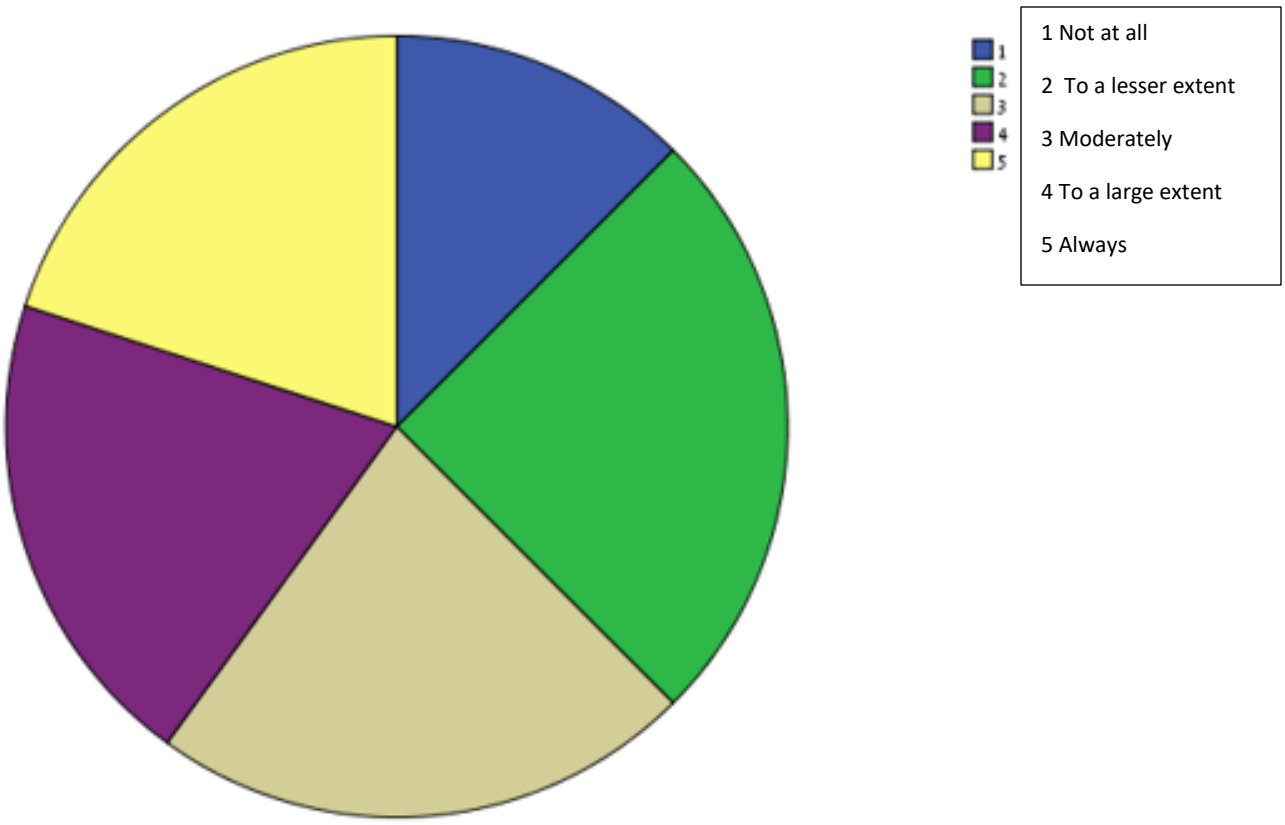
Questionnaire data - diagrams



Do you expect boys to be stronger than girls?



Have you ever had the opportunity to engage with the class in a story about a woman or a man in a non-stereotypical role?



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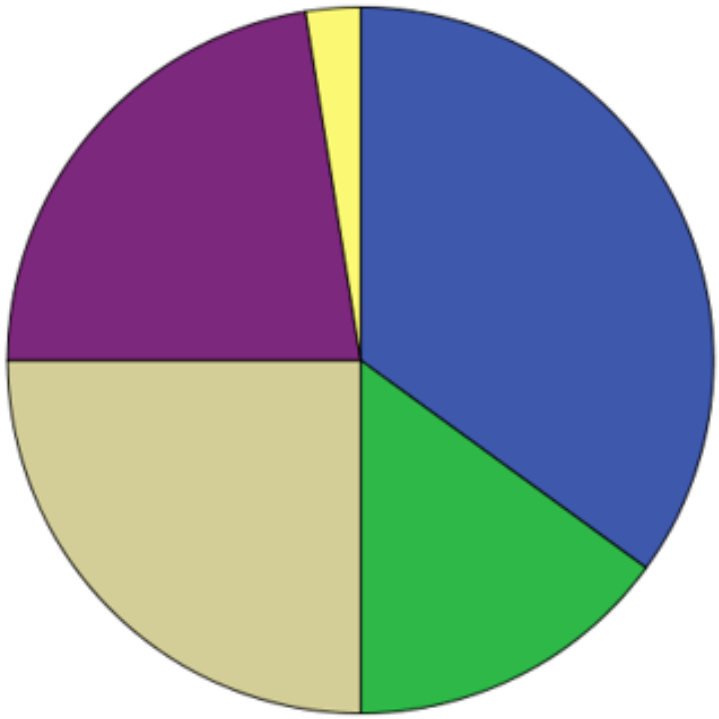

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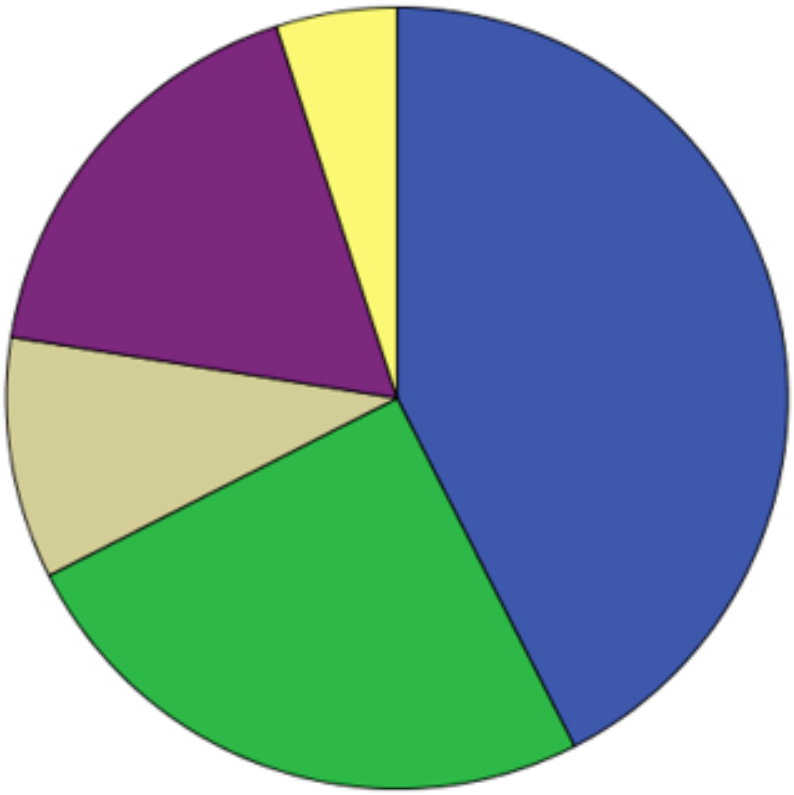
Do you expect boys to be naughtier than girls?



1 Not at all

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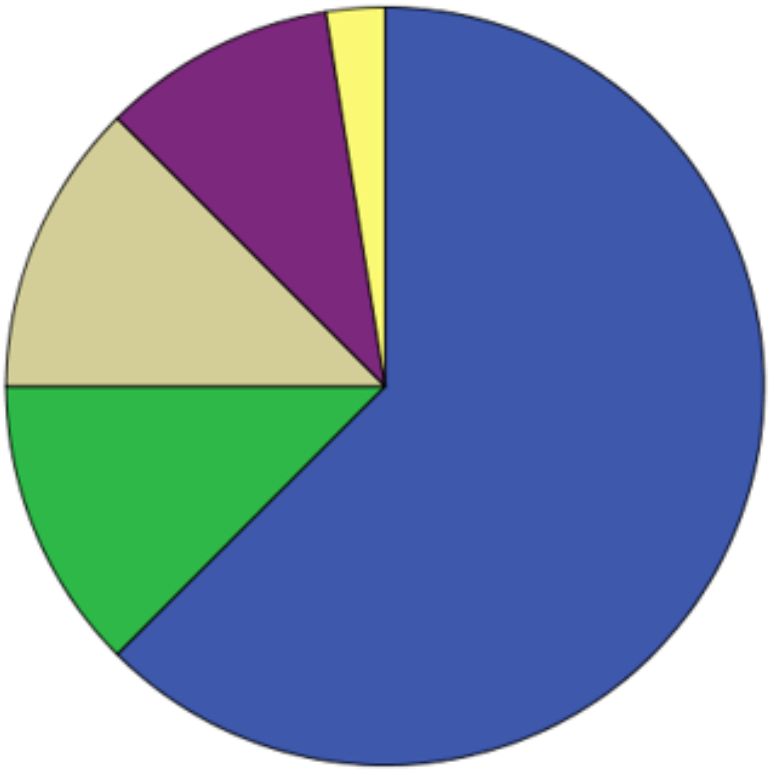
5 Always

Do you often refer help requests or calls to moms in the mornings on the assumption that they are available?



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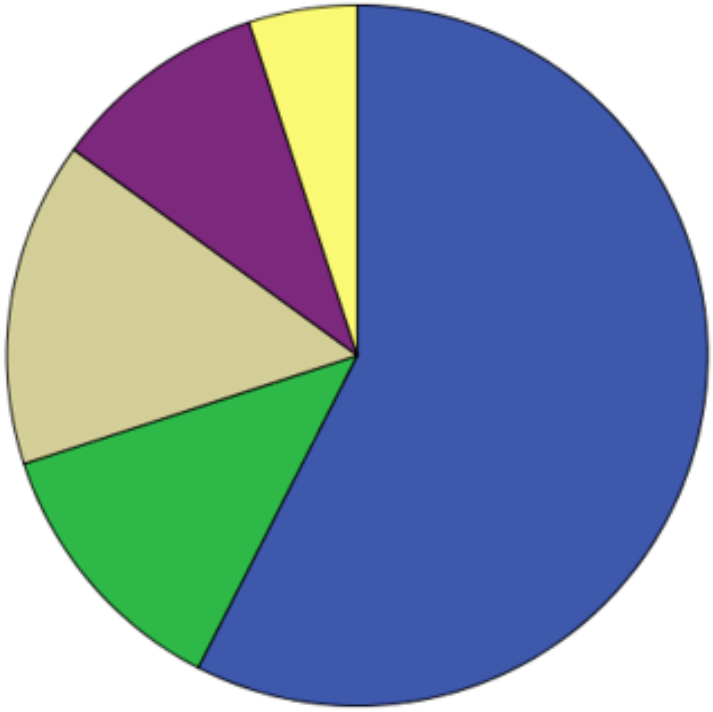

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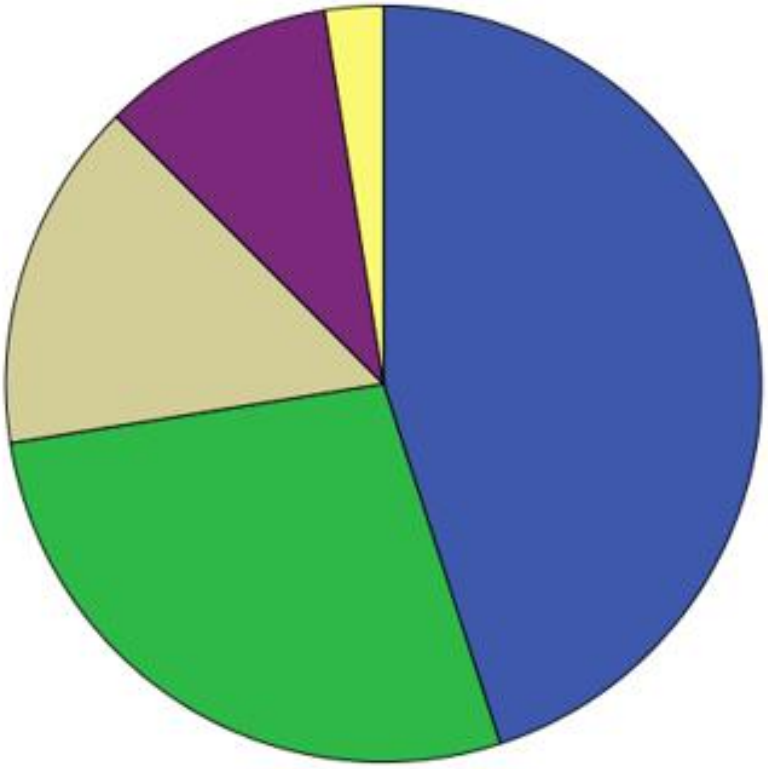

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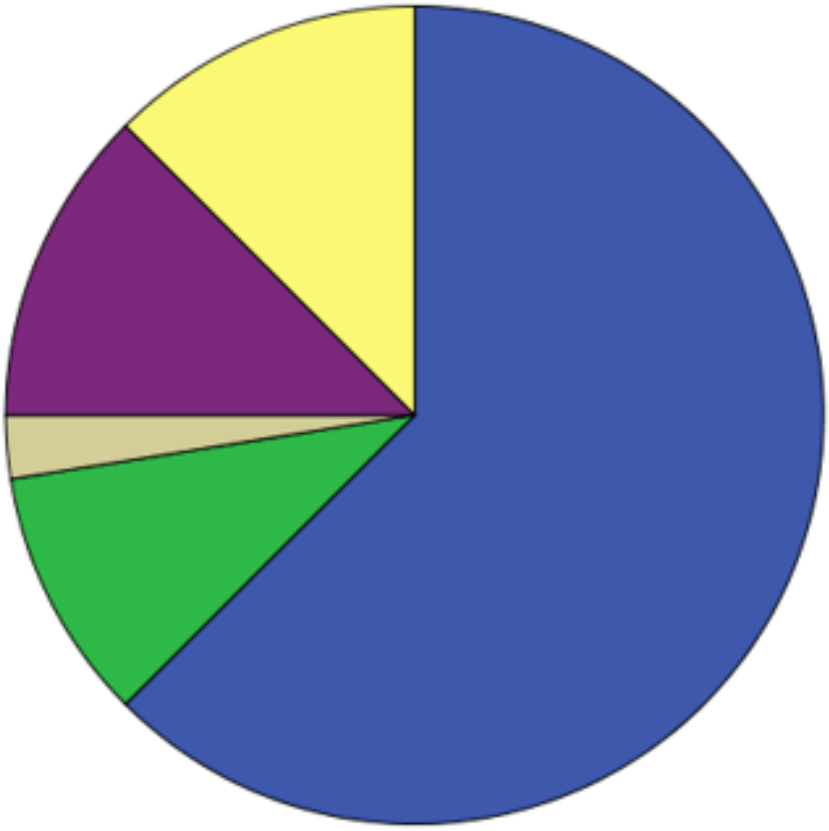

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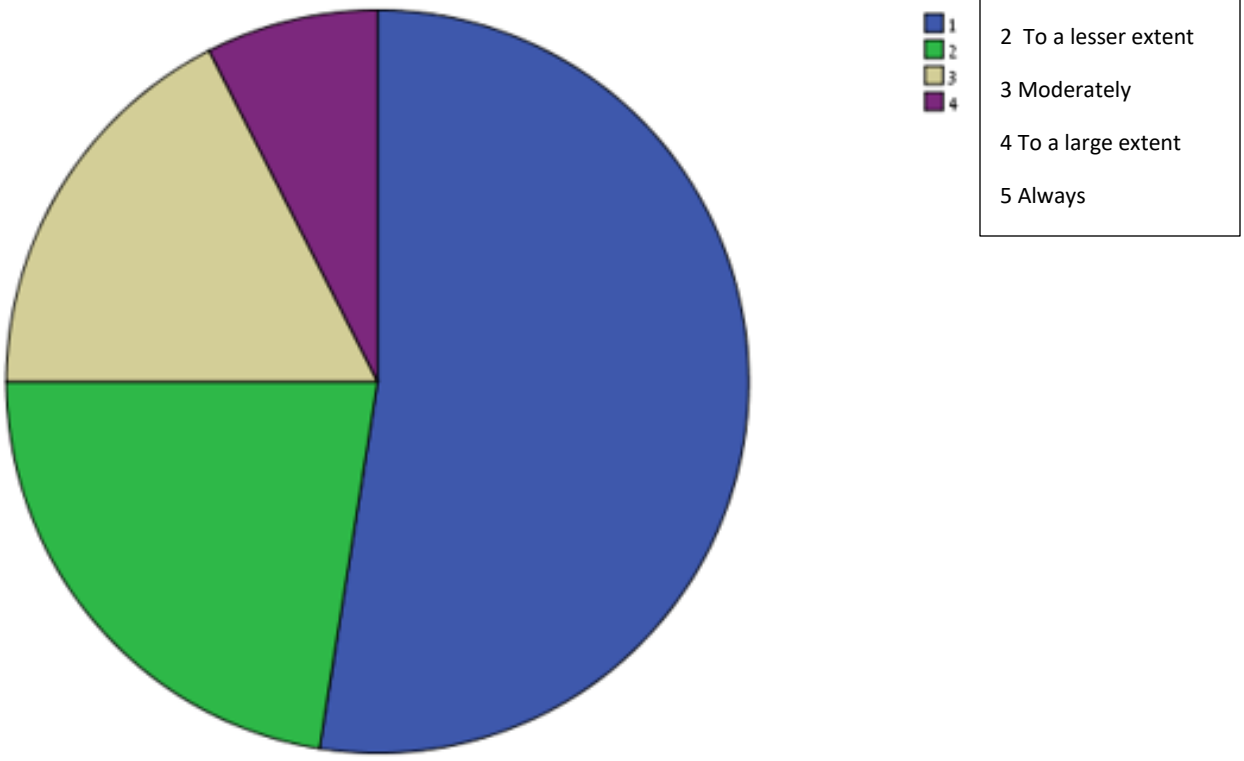

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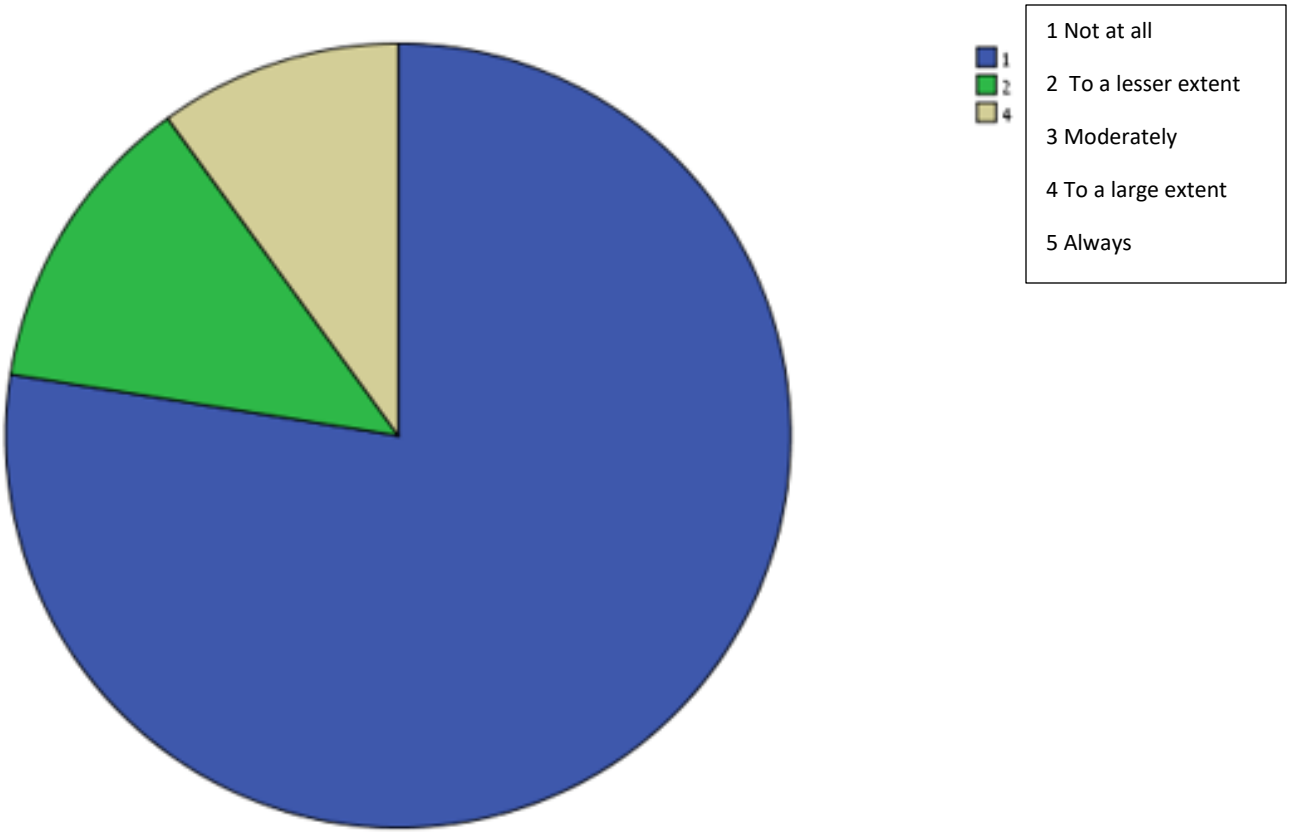

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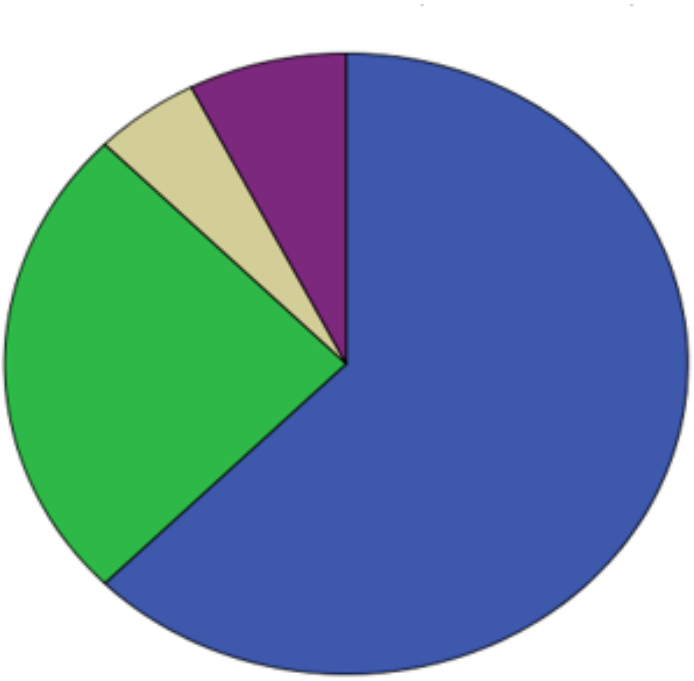

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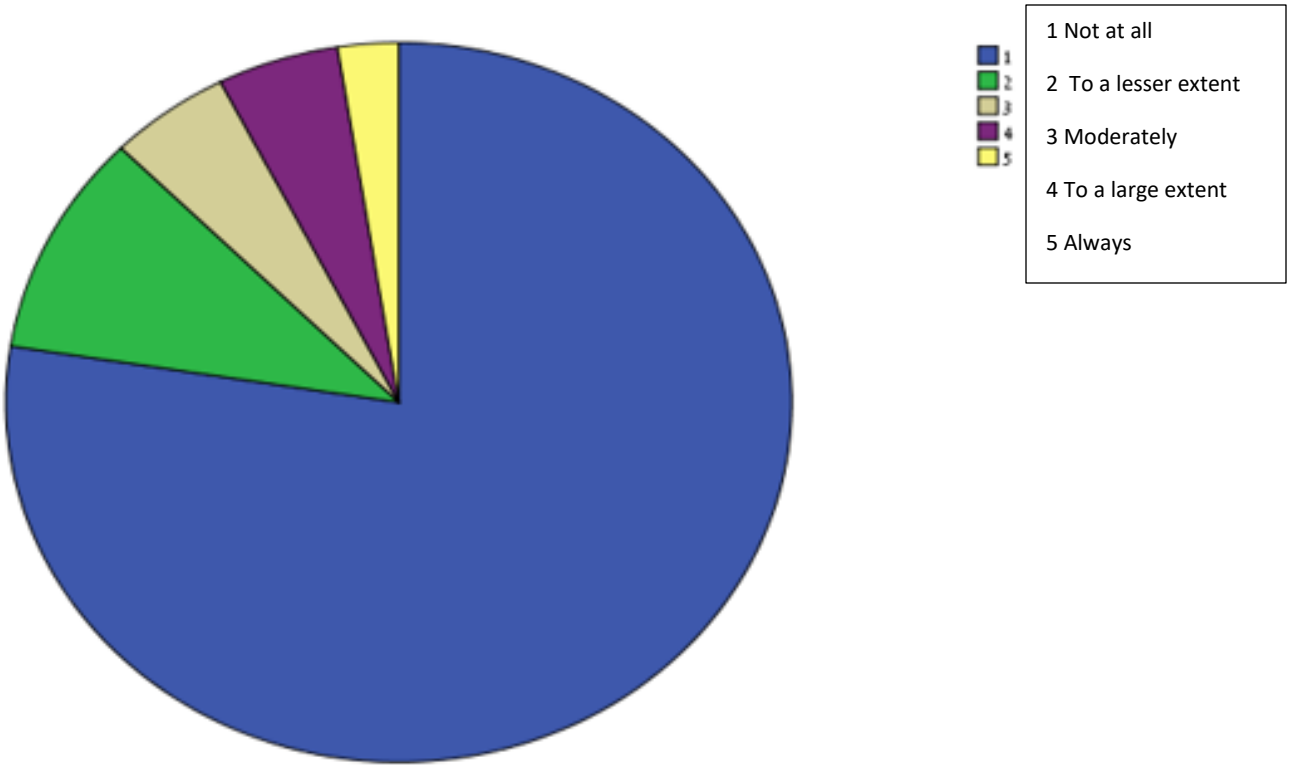
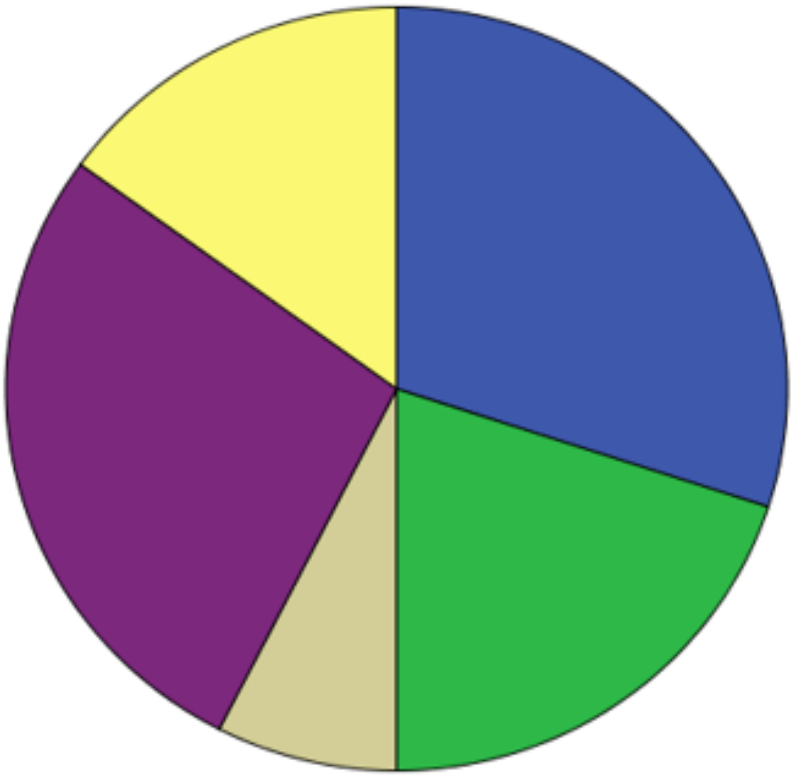


Do you have separate activity areas in your classroom for each of the genders?



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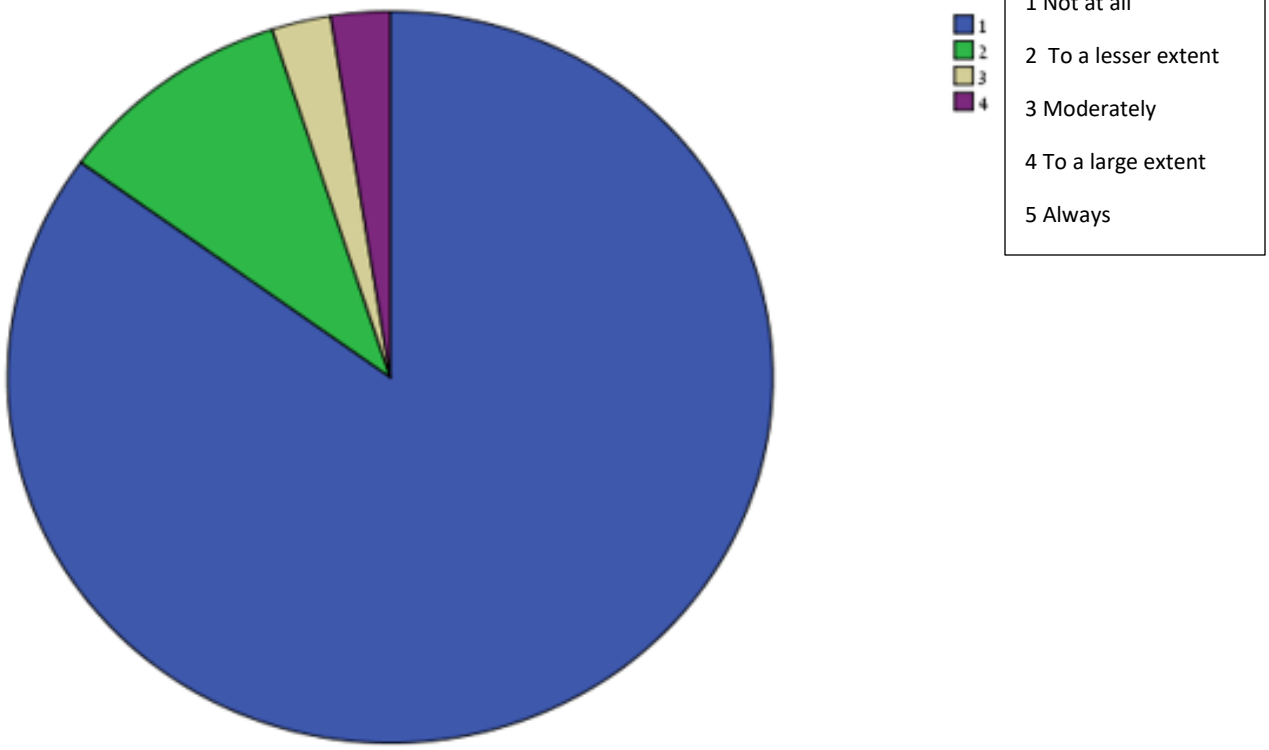
Do you always formulate your instructions and your address to the class, in writing and orally, always in the male language?



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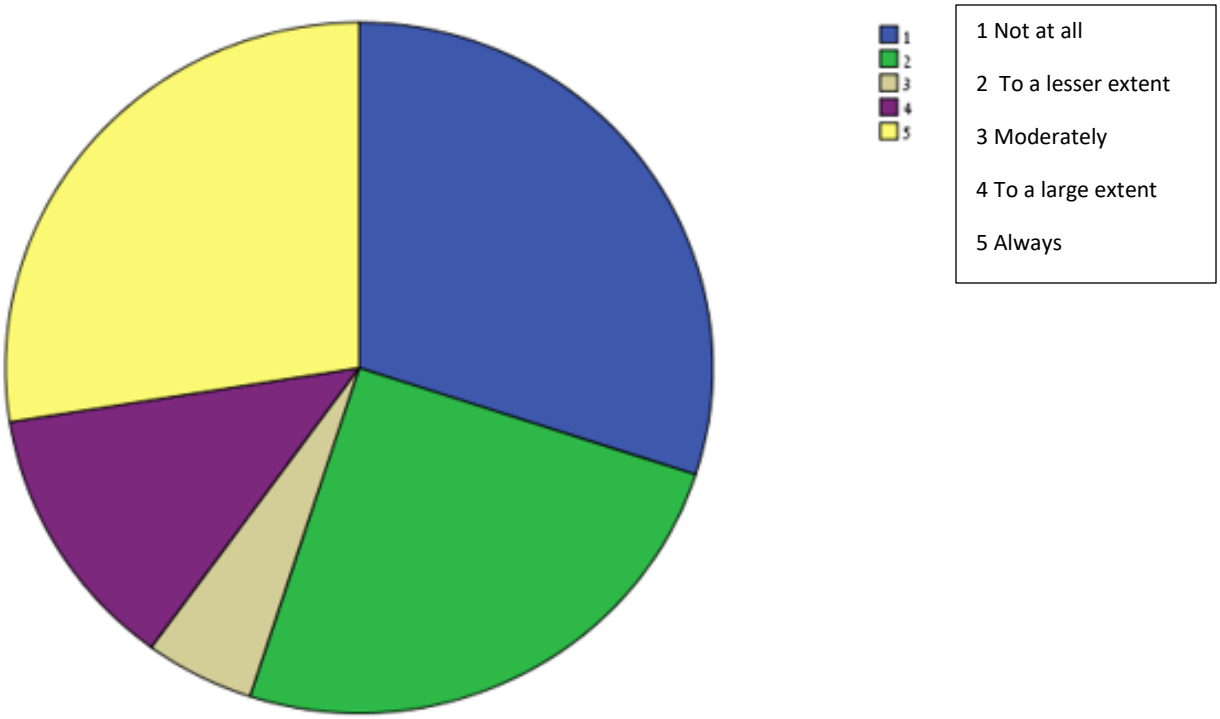
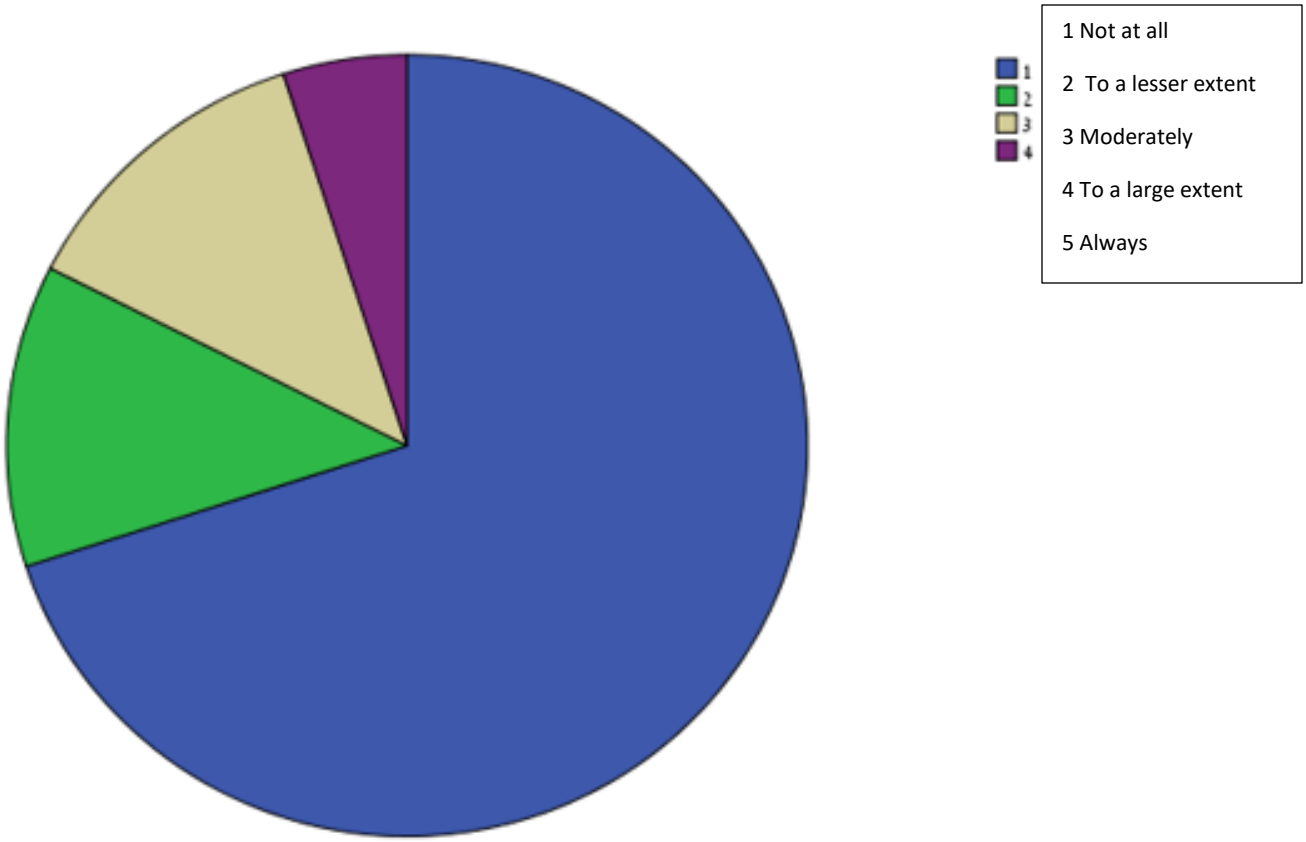
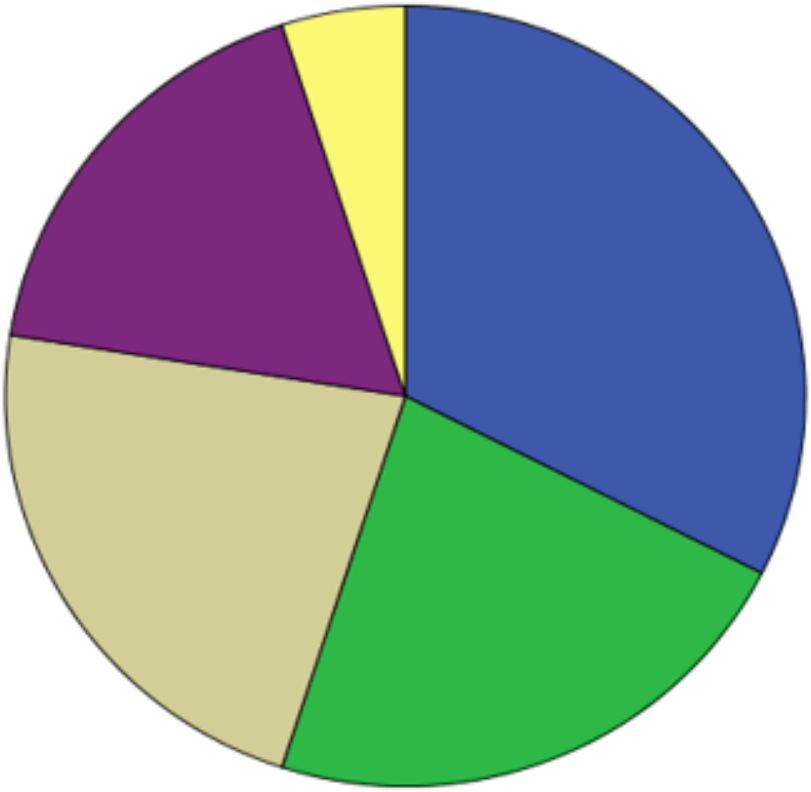


Do the walls of the classroom have an equal number of pictures, illustrations or mentions of girls and boys, women and men?



Do you recommend reading different reading books for girls and boys?



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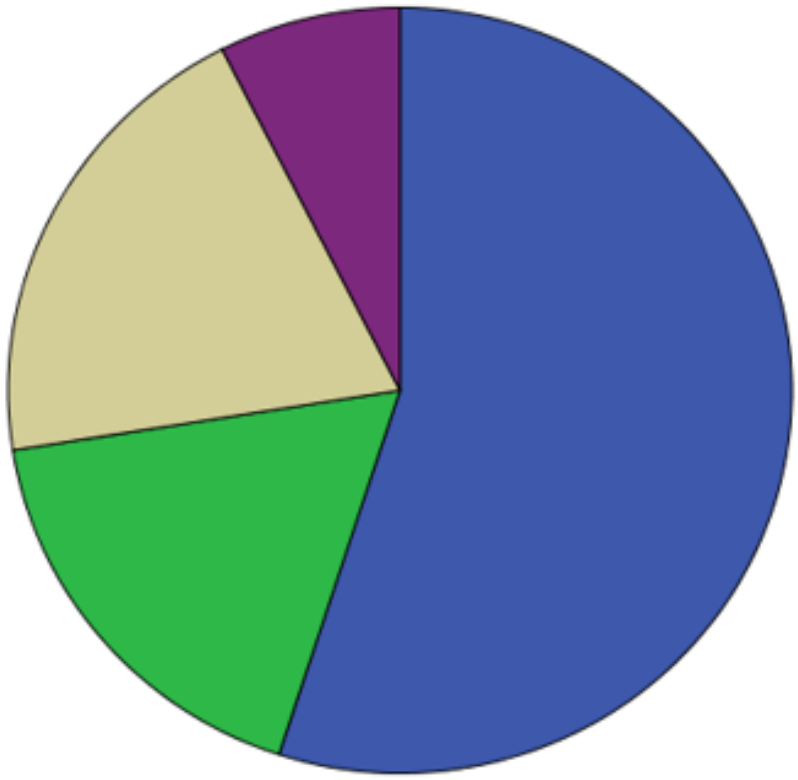

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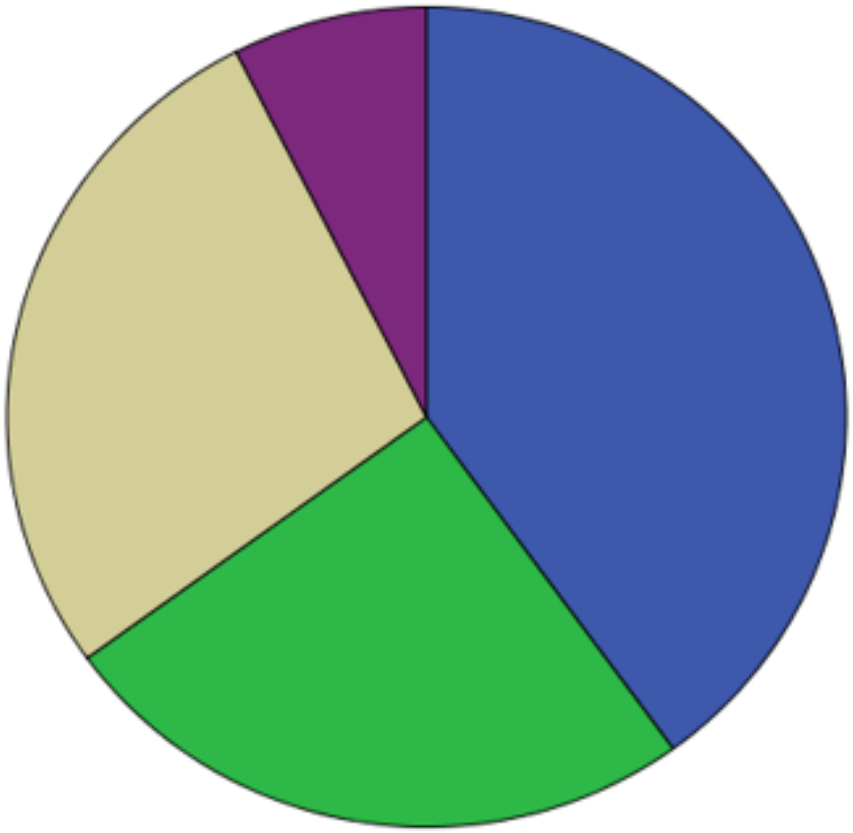

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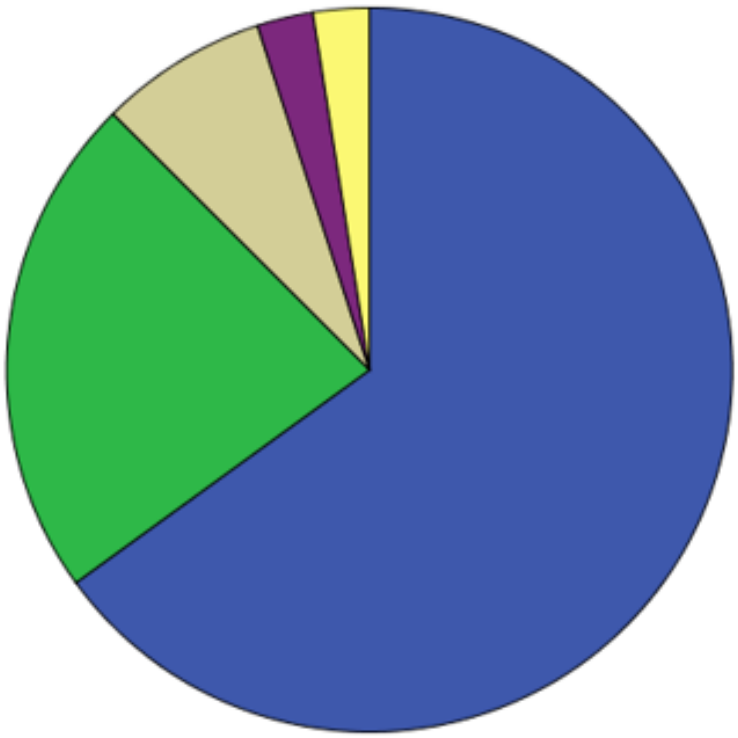

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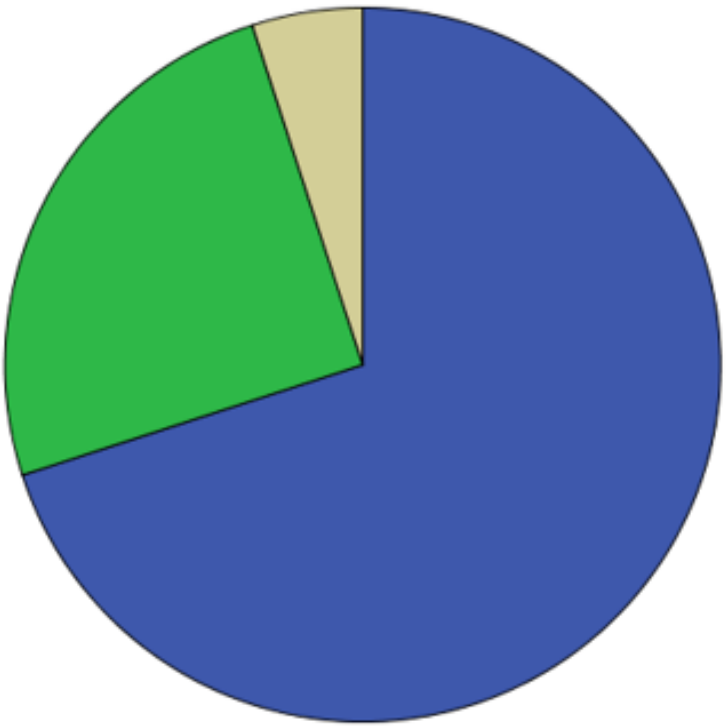
5 Always

Do your lessons deal with important and interesting men's characters much more than they are engaged in women's characters?



1 Not at all

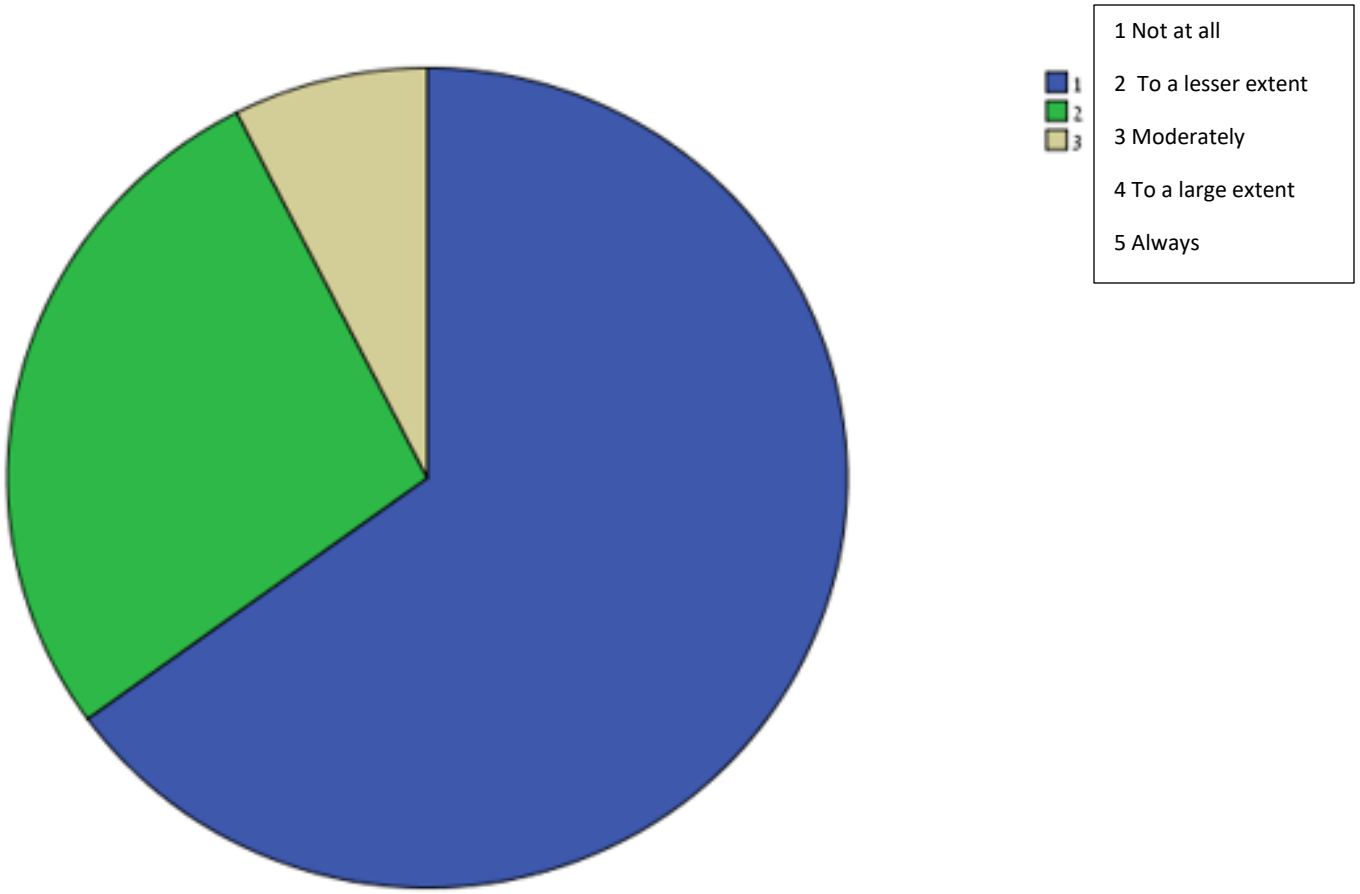
2 To a lesser extent

3 Moderately

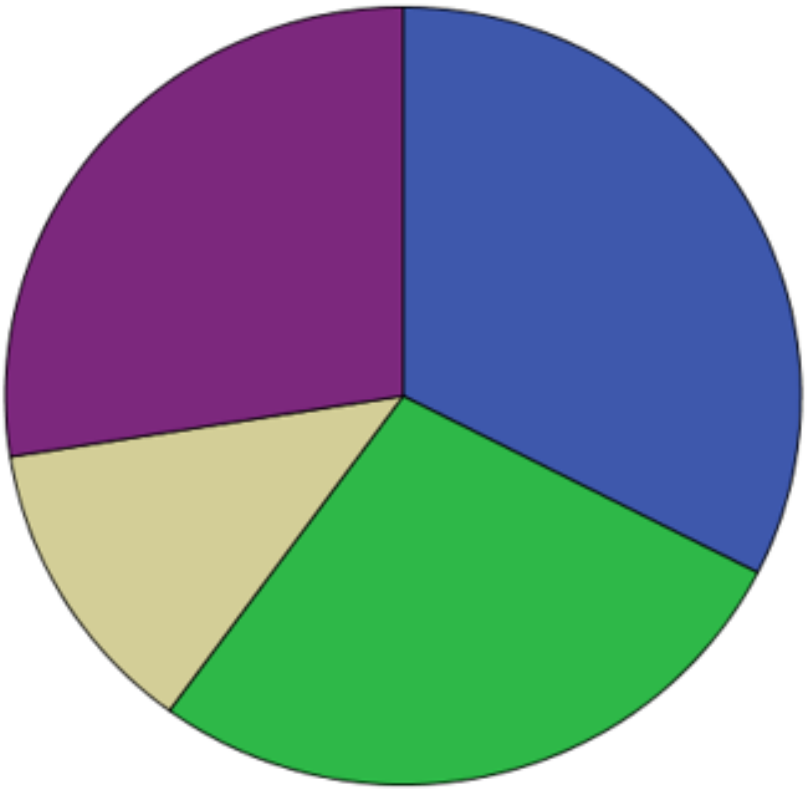
4 To a large extent

5 Always

Are you more tolerant of the lack of discipline and disobedience of ?boys versus similar behaviors of girls



Do you outline different behaviors for each of the sexes in phrases like "girls should not be beaten", "don't cry like a girl" or "boys will help girls" ?



1 Not at all

2 To a lesser extent

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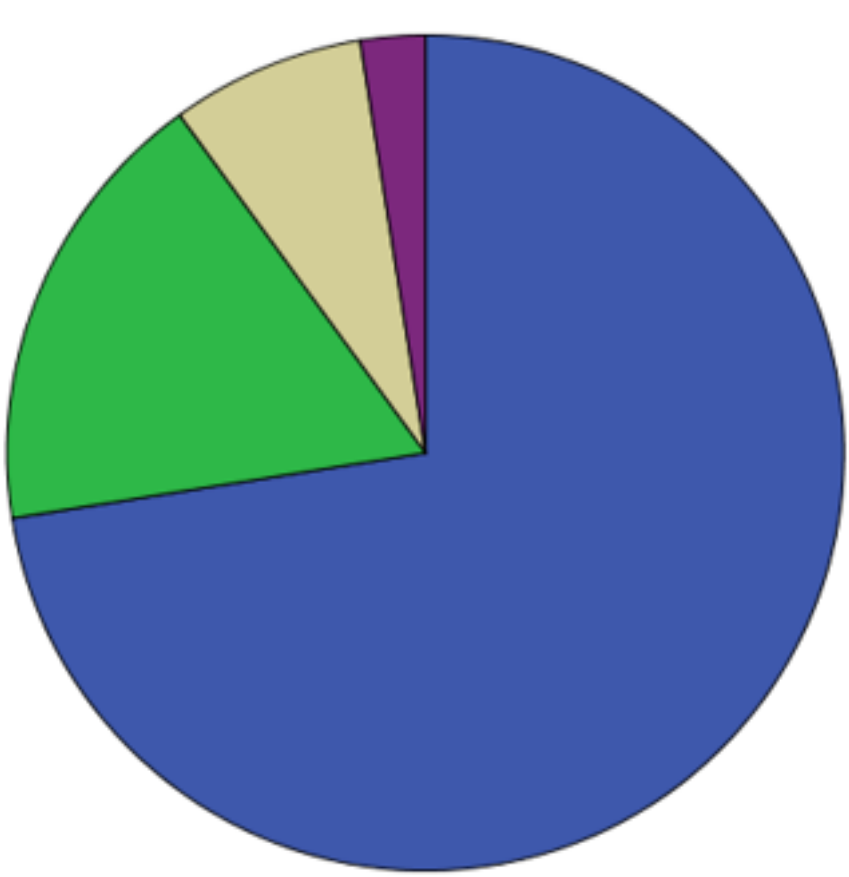
4 To a large extent

5 Always

Do you feel comfortable in an open discussion about gender roles and sexual stereotypes?



1 Not at all

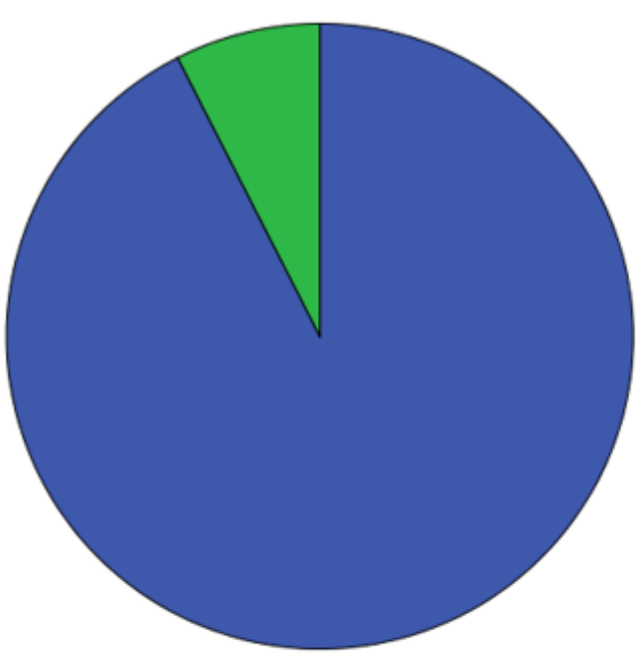
2 To a lesser extent

3 Moderately

4 To a large extent

5 Always

Do you expect girls to be more diligent than boys?



1 Not at all

2 To a lesser extent

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4 To a large extent

5 Always

Do you use expressions that distinguish between the contribution of both genders to the family cell, such as "mother helping father in family support" or "sons should think of a profession that will enable them to support a family with respect"?

Correlations: