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**Investigating the Impact of Gender Differentiation
on Pupils' Performance**
**Case Study: Fourth Grade Middle School Learners at Belahcen
Belahcen and Aïss Lakhdar Middle Schools of Tiaret.**

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Abstract

The purpose of this study is to measure the impact of gender differentiation on middle school pupil's academic performance. We suppose that many factors contributed to affect pupil's achievement at school. Therefore, this fact-finding work valued the influences of gender and other variables on 4th year middle school learners in the classroom. The main goal of this research study was to explore the factors that affect 4th year middle school student's performance, and to make a link between pupil's social background with the distinction that is happening in the classroom. The magnitude of this study is to make teachers, parents, and pupils aware of the reasons behind the gap of performance that is relevant between both genders. To dive deeper through this case, we designed two questionnaires, one for the teachers, and another for the pupils, in addition to an observation. In order to collect more data, we have dealt with different middle schools in Tiaret- Algeria. The results revealed that there are some other hidden factors that are affecting pupil's academic achievement in addition to gender, such as; brain, society, the surrounding (teachers& parents) and gender stereotypes. According to these findings, we recommend that the ministry of national education rethink of single-sex education, and about changing the whole program of education. We also suggest training teachers about how to deal with the learners at the classroom, in order to avoid creating an atmosphere of gender stereotypes since the beginning of the pupil's academic trip.

Key words: gender stereotypes, academic performance, pupil's achievement, single-sex education, gender differentiation.

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Dedication:

We dedicate this work to our beloved
people, our parents ZOUGARI Labadi
and SEGHIER

ABD El djabar, our mothers
OUAHRANI Fatiha and BOUSSAHA
Halima, for their support
and encouragement during our path, we
also would love to mention our siblings,
our dear friends, and all the rest
of our family.

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General Introduction

General Introduction

As children, there are no boundaries to what we believe we could become in the future, but as males and females, we are lead in distinct paths growing up. Only because of the traditional ideas we have been raised on, of what a girl/boy can do, or basically should do. This starts from an early age, in the toy store, where girls are supposed to buy dolls, and boys are supposed to go for the trucks, and tough games. This is going to follow us to schools. For instance, girls are expected to be good at arts and literature, while boys are led towards maths, science, and physics.

After dealing with this again and again, it started feeling natural, and it is going to shape our preferences and career choices. For example, females are going to be teachers, most of the time. While, males will go to better occupations such in; science, technology, engineering, and mathematics.

Realizing that these stereotypes are not natural, nor normal, is the first step towards change, so we build our lives based on our choices and dreams. That's why we have chosen schools to begin from, as a humble step, because these gender differentiations are the reason behind not choosing what we really want, starting with it's impact on our performance at class, because encouragement is needed in this case, it is actually the key to a better future, a new future. When you tell a kid that he is free to adopt the field he/she wants, this will upgrade his/her capacities, and confidence as well. A perfect performance in return.

The focal point of this dissertation is to detect the reasons behind this gap, and then to try to find solutions. Five research questions are raised to investigate this issue. They are as follow: First, what could be possibly the hidden factors that might affect the pupil's performance, out of the school building?

Second, because of female's hard work that lead to high grades, male are excluded unintentionally, and their self-esteem became less, who's fault is that supposedly?

Third, how could we help male pupils to keep up with the females?

Fourth, what are the possible procedures to fix this gap?

Fifth, would our solutions be useful in fixing this gap in the coming future? In order to answer the questions, five hypotheses are suggested:

First, society, parents, and the pupil him/her -self could affect his/her performance. Second, females outperformance over males is associated with the feminization of education, contradictory to the past years. Third, gender-bias is an ongoing issue in the classroom. Fourth, single-sex education is going to be the first key to success probably. Last, due to time change, old solutions are useless to our current gaps. Therefore, even our results will need to be updated in the future.

Two schools in the region of Tiaret were selected, Aïs Lakhdar middle school, and Belahcen Belahcen middle school for conducting our research study. To collect data, two distinct questionnaires were designed for teachers and learners, and a class observation.

This dissertation is divided into three chapters. The first chapter provides basic theories and approaches that already tackled the issue. The second chapter deals with research methodology and data analysis in which data is collected from the research tools that have been mentioned before, and then analysed. The last chapter revolves around the discussion of the findings and results, besides the suggested solutions and recommendations.

Chapter one:

Theoretical aspects.

Chapter one:

Theoretical aspects of measuring the effect of gender differences on fourth-year middle school students

- 1.1. Introduction
- 1.2. The effects of gender differences on students
- 1.3. Gender equality and equity in education
- 1.4. The influence of the brain on gender
- 1.5. The Impact of Culture on Gender Roles
- 1.6. Teacher role in increasing the gender gap
- 1.7. Gender stereotypes and bias
- 1.8. Conclusion

1.1. Introduction

In every speech community, we have got many social varieties that make each human special in his/her way, whether it comes to age, race, ethnicity, education or gender. These factors allow the person to create his /her own identity that differs him/her from others.

However, our main interest is going to be about gender and how it influences education especially. Gender can affect a human's educational system, during and after the intended scholarship trip or experience. Males are more likely to be literate on a global average, although higher literacy scores for females are prevalent in many countries.

However, men received more education than women in the past, the gender gap in education has reversed in the 20th century. As a result, girls have been increasingly likely to attend school and college. Our main objectives of this research work are to investigate to what extent gender differences have an impact on the students. Therefore, we have chosen middle schools to be the setting of our study.

Working on 4th-year students, because they are older enough to cooperate, yet spontaneous as well to provide concrete answers. Further, this chapter deals with the theoretical part concerning the pre-selected context. As it intends first to indicate how gender differences effect the student's performance, with mentioning the key concepts; gender equality and equity, the influence of the brain, gender roles, the teacher role, and lastly the gender stereotypes and gender bias.

1.2. The Effect of Gender Differences on Students

Gender differences in the educational sector is a subject that has been tackled years ago, it has been such a controversial topic which motivate many people to study it, claiming that gender plays a huge part in increasing the gap in performance between boys and girls. (Becker, 1986) each gender outperforms the other in some disciplines and domains due to the differences between them.

However, at first, this issue was in favor of boys since in the past the research found that girls are more affected by this because it was difficult for them to attain their education and boys tended to receive more education than girls (Bavel, Schwartz, R, Esteve.2018). Likewise, at that time it was notable that boys dominated most of the highlighted subjects such as Math, Science, and Physics, while girls were more interested in language arts and literature, they grew up believing that they are not good at Math and Science, so both genders tend to choose courses or subjects conventionally associated with their gender—math and science for boys, in particular, and literature and the arts for girls, which shows how discrimination in education has influenced the subject choices students made, it even influenced their plan intentions for the future.

Nevertheless, the case has changed in recent years and boys became exposed to this issue as well where several recent studies have found that girls lately started to obtain more education than boys and they even surpassed them, but this change does not mean that the wage of the gender gap is over, it just reversed it and they called it "the reverse gender gap"(Kadaba.2013), that was due to the increase in girls education rate and researchers found that girls get better grades than boys do at all ages, including in Math and Science, besides this they are in general more successful in school than boys (Hartley and Sutton,2013), but that it is not because girls are smarter.

A study noted that while boys score slightly higher in math tests and girls score slightly higher in reading tests, overall, the cognitive abilities of boys and girls are very similar. The difference in grades lies in effort and engagement. On average, girls are more likely than boys to report that they like school and that good grades are very important to them. Girls also spend more time studying than boys (Thomas ,2013).

Unfortunately, this changing situation in education has been also accompanied by major shifts in what these young boys and girls expect in the future, PISA has asked 15-years old students about what they expect for their future education and occupation, their report suggests that girls hold more ambitious and expectations than boys, additionally boys are more

likely to expect that their formal education will end after earning an upper secondary degree, even if they perform as good as girls.

Moreover, gender roles are as well part of the reasons for gender discrimination in schools, they are patterns of behavior, attitudes and expectations associated with particular sex and they are related to social roles, physiology and anatomy which affect how each gender behave at school and in class. For instance, it is known that generally, boys are more hyper and energetic than girls and it is the same in school, where many recent studies stated that boys dominate the classroom with their energy.

Even though the number of females is dominant in the classroom, the classrooms are maximum male-dominated as they are more likely to speak up during a class discussion - sometimes even if not called on, or even if they do not know as much about the topic as others in the class (Sadker, 2002) also teachers interact with them more, whether it is to verbally reprimand them, answer questions, elaborate on their comments, or help them with schoolwork (Masucci, 1995).

However, teachers are not doing it intentionally, but just because boys interact more, they are not afraid nor shy to express their thoughts and feelings like girls do. Also, when it comes to discipline boys and girls are disciplined differently in the classroom. Boys are punished more severely than girls-their names are always on the list of those with behavior problems (Matthews, Binkley, Crisp, & Gregg, 1998) mostly because boys find school out of sync with their interests and preferences and as a result, they often feel disaffected and not motivated to work in a school so they create troubles instead, while girls are disciplined more for talking and calling out answers, events that are much more accepted when exhibited by males students.

Also, since boys tend to be more active, they are more restless if they have to sit for long periods, they are also more prone than girls to rely on physical aggression if they are frustrated (Espelage & Swearer, 2004). Which this latter is inconsistent with the usual demands of classroom life, it makes it somehow difficult for boys, even for those who never actually get in trouble for being restless or aggressive.

Although the gender gap seems to be declining over the last few years, many countries are still far from achieving gender equality in classrooms and Algeria is no exception as this issue is not only an adolescent problem but according to several psychologists and researchers, it begins in early childhood when boys and girls are beginning to form perceptions about their identities and gender roles in the society and the gender-differentiated childhood cultures become the basis for gender-differentiated adolescent cultures, which are important influences on how children view school, whether they take school seriously, and how hard they work as students (Steinberg et al., 1997).

However, the profound effects of gender discrimination occur in middle school, a stage of development in which children generally experience vulnerability and many life transitions (Slater, 2003).

1.3. Gender Equality and Equity in Education

The gender gap in unequal access to opportunities which maintains inequality between the sexes. As In most societies, being a man or a woman is not simply a matter of different biological and physical characteristics. Men and women face different expectations about how they should dress, behave or work, this gender gap can be found in several different fields and education is one of them. Where it is noticeable that gender discrimination is still occurring in schools, boys and girls get treated differently which most of the time affects not only their performance in the classroom but also their confidence and self-esteem, that is why it is important to raise awareness about gender equality and equity in order for this issue to be controlled.

" Education is the key to opportunity in our society, and the equality of educational opportunity must be a birthright of every citizen" Lyndon B. Johnson

Equality of Educational Opportunity" refers to the concept that educational services ought to be accessible to every child regardless of their abilities, genders, and interests. According to Sahin (2013), while educational gender equity means fairness of treatment for both male and female students, according to their respective needs. This may include equal treatment or

treatment that is different, but which is considered equivalent in terms of rights, benefits, obligations, and opportunities.

However, when school administrations attempt to promote gender equality, most of their efforts center on addressing gender equality partly, where they tend to focus on girls more than anything because they see that girls are more affected by the gender gap, while the whole school system is what they need to focus on and improve. Schools generally affect gender differentiation via 2 primary sources: teachers and peers.

Teachers and peers directly influence gender differentiation by providing boys and girls with different learning opportunities and feedback. Because due to the amount of time that students spend in school, teachers are influential role models for many aspects of their educational experience including gender since they may present curricular materials that contain gender stereotypic behavior, and peers may exhibit gender stereotypic attitudes and behavior, which these behavior and attitudes turn into message and these messages stick with the students and become as a guide to their own preferences and behaviour.

“A gender-equal society would be the one where the word “gender” doesn’t exist; where everyone can be themselves.” Gloria Steinethwt

So, gender equality and equity need to be a central part of the development of the school curriculum and ways of teaching. Children will want to come to school and will enjoy the experience of learning if schools implement good-quality gender-equality curricula, and ways of teaching. Governments have a responsibility to develop gender-equitable education policies for children’s learning, as well as for their long-term well-being.

1.4. The Influence of the Brain on Gender

As science developed, and new techniques have shown up, we became able to reserve that females and males do not process information in similar ways, because their actions are influenced by the brain, it is mainly crucial to know that the differences are present very early (Giedd, Blumenthal, Jeffries, Castellanos, at all.,1999), (Connellan, Baron-cohen, wheelwright,

Batki, & Ahluwalia,2000). Indicating the early influence of biology, the human brain is divided into two hemispheres; further, lateralization refers to the specialization in the functioning of the hemisphere: the left hemisphere controls verbal abilities and the right hemisphere controls spatial perception (Hansan,1981), recent clinical and experimental research shows that the two hemispheres are more symmetrically organized in female and specialized in males (Everhart et at., 2001; Sacier & Elias, 2001).

Researchers show that both genders exhibit differences in brain activation in terms of regions, patterns, and magnitudes during mathematical tasks, even when both sexes performed equally well (Keller and Menon, 2009).

For tasks involving exact calculations, females exhibited additional activation for the right inferior frontal, bilateral temporal, and primary motor areas of the brain, indicating that they were using cognitive strategies that involved greater use of brain areas typically meant for verbal and spatial working memory even though they were working on a numerical problem (Kucian et al.,2005).

On the other hand, both Bahana (2009) and Eder (1981) suggested that because of the biological make-up of males, all males share the same portion of these types of disruptive and demanding behavior of their core, and it is connected to their masculinity. This means that boys would be ashamed if they behave well, and get good grades, because it is in their minds, they are raised with the principle that they should be taught, and might even find it hard to listen to the teacher while s/he is explaining the lesson because according to them that would be considered as obedience, which is against the masculine society they have been raised at.

Thanks to science, we can see our ADN structures, what we have inherited physically, and psychologically. However, teachers still ignore the fact that students differ from each other in terms of genes, principles, race and mind. Therefore, teachers need to diversify their techniques to include both genders in the classroom (Belaid and Sarnou, 2020). New positron emission tomography (PET) and MRI technologies enable us to look inside the brains of boys and girls, where we find structural and functional differences that profoundly affect human

learning, that is why teachers need to pay attention to the way they interact with both genders, to not affect them negatively, or maybe make them feel less.

Culture indeed affects gender roles, gender costumes, and gender nuances. In Italy, for example, men cry more than they do in England, but the role, costume, and nuance only affect some aspects of the learning brain of the child. New brain imaging technologies confirm that genetically template brain patterning by gender plays a far larger role than we realized. Research into gender and education reveals a mismatch between many of our boys and girls learning brains and the institutions empowered to teach our children

1.3. The Impact of Culture on Gender Roles

Witt, (1997). *Adolescence*, 32(126), 233-259 presents an overview of the impact of parental influence on gender role development in children. Children internalize parental messages regardless of their gender at an early age, with the awareness of sex-role differences being found in 2yr-old children.

Often parents send subtle messages regarding gender and what is acceptable for each gender. These messages are internalized by the developing child, leading to sex-role stereotypes. Messages about what is appropriate based on gender may be so strong that even when children are exposed to different attitudes and experiences, they will revert to stereotypes choices, while there may be some benefits to adhering to strict gender roles stereotypes, there are also cost involved. Whose parents have strong egalitarian values tend to be more knowledgeable about the non-sex-typed objects and occupations than other children.

Families with one or more androgynous have been found to score highest in parental warmth and it is argued that parents who wish to be gender-fair and encourage the best in both their sons and daughters would do well to adopt androgynous gender roles orientation and encourage the same in children (PsycINFO Database Record (c) 2016).

Fortin, Oreopoulos, and Phipps (2013), Figure A1. Evans (1998), have fewer educated_parents, more working mothers, and more fathers not living in the same household (see Dahl and Mortti

2008). These last two gender gap in the family characteristics are increasing over time, family issues such as divorce, financial strife, and siblings bullying, have potential to negatively impact those directly involved as well as distant relatives. Kids, however, are widespread victims left rolling from a family struggle.

These young individuals do not have the means or the mental capacity to properly overcome stress, and it shows in multiple capacities, one being their performance at school to expand the knowledge of parental involvement in secondary education, effects on high school academic success, Catsambis analyzed data from the parents and student's components of the national educational longitudinal study of 1988 to investigate family involvement in secondary education. It examines whether parental involvement influences the educational achievement of high school seniors, by utilizing multiple involvement indicators for the 8th and 12th grades, the study confirms the importance of considering the multidimensional nature of parental involvement in student's education.

The effects of parental involvement on 12th-grade achievement depend on the type of family practices. General conclusions based on these findings support the existence of positive effects of parental involvement on 12th-grade academic achievements. the effects are stronger for course credits and curricular placement than for test scores. High levels of education, expectations, consistent encouragement and that enhance the learning opportunities of students are the major ways by which families positively influence the educational achievement of their teens.

Regardless of socioeconomic or race /ethnic background, families with high educational expectations have the most positive effects on senior achievements. These effects present when parental expectations are measured in the middle grades or high school. Three appendixes present a table of base year parental involvement, factors analysis results on parental involvement, and descriptive statistics about study variables, (contains 9tables and 19 references). (Author/SLD)

1.4. Teacher Role in Increasing the Gender Gap

As Gender discrimination is still thriving in today's classrooms (Sadker & Sadker, 1994). Teacher's attitude and teaching strategies have been identified to contribute to increase this issue, where students are eager to learn in a safe and opportunistic atmosphere, most teachers are seeking to provide learners with this sort of environment.

However, not all teachers can provide to students the environment they want because teaching is influenced by many variables in a way or another and "gender" is one of them.

Teachers are almost always completely unaware that they may be treating girls and boys differently and they have different expectations for each gender but according to a three-year study by Sadker, Sadker, & Stulberg (1993), interactions between teacher-male students and teacher-female students, these researchers found that teachers actually interact more with male students, in this regard educators have assumed that boys are often more demanding, shouting out answers even if it is wrong in a manner that is difficult to ignore.

The boys in this particular study were eight times more likely to call out during a discussion -and teacher tend to accept this behaviour while when female students behaved similarly the observed teachers repeatedly discouraged and corrected their behaviour, advising them to "remember the rule" and raise their hands, so they remain largely passive and "invisible" in class and teachers have been found to downgrade their achievements (Stanworth, 2003).

Despite the fact that most teacher's intention is to be fair to all students, it turns out that they sometimes distribute praise and criticism differently to boys and girls where boys seem to get specific, meaningful praise while girls are given vague, neutral reactions. Even when asking questions, they ask boys higher-order question, give them more extensive feedback, and use longer wait-time with boys than girls.

These studies suggest that such negative interaction in the classroom between boys and girls affect girl's self-esteem and confidence. In addition, there seem to be different expectations for boys and girls in different academic subjects.

Girls generally receive little encouragement from teachers in math and science, on the other hand, teachers are four to five times more likely to encourage boys than girls to go on with advanced math (Brodkin, 1991). And although the poll commissioned by the AAUW in 1992 found that in general all students' enthusiasm for math and science was greatest in the elementary and middle school years and dropped as they got older. The failure rates of females exceed that of male students.

It is also commonly believed that teachers' gender affects their classroom management, content knowledge, teaching styles, the instructional effectiveness of teacher-student interaction including miscommunication, being fair toward male or female pupils, their motivation in the class and eventually their overall performance at school (1992, pp307-332), as a study was conducted by Thomas Dee, where he stated that gender matters when it comes to learning. Specifically, as he describes it, having a teacher of the opposite sex hurts a student's academic development where the teacher's gender differentially impacts the teacher's relationship with male and female students, as well as their treatments to their students which also systematically vary by gender.

This researcher found that having a female teacher instead of a male teacher raised the achievement of girls and lowered that of boys in science, social studies and English but when a man led the class, boys did better and girls did worse. Additionally, male and female teachers may not perceive their pupils similarly as they may otherwise behave in the classroom, so students may also interact differently with the behaviors of their teachers-with a female teacher, boys were more likely to be seen as disruptive and girls were less likely to be considered inattentive or disorderly while in a class taught by a man, girls were more likely to say that the subject was not useful for their future.

They were less likely to look forward to the class or to ask questions. And though adverse gender effects have an impact on both boys and girls, that effect falls heavily on the male half of the population in middle school, simply because most middle school teachers are females (Dee, 2006). However, this does not mean that girls are safer from this impact, O'Neil and Lujan

(2009) identity an assumption which is that many teachers use the excuse of "boys will be boys" when they act out, so they tend to overlook the misbehavior of the boys and consider it as normal and not significant whereas they blame the girls on the same mistakes.

Nonetheless, it is believed that most teachers do not discriminate between boys and girls intentionally, it is an unconscious process. since societies normalized this gender gap until it became a daily decision to people and most importantly to teachers, also teachers have little time to reflect on and analyse their interactions with girls and boys in the classroom (Marshall & Reinhartz, 1997).

Teachers also tend to talk to boys from a greater distance than girls, they believe that they should communicate with girls in a more nurturing way and more business-like with boys. Because the entire classroom can often hear a teacher's conversation with boys while the conversation with girls is more like a private discussion, which make girls reserve their comments and questions for private conversations, as with the lack of publicity in teachers' conversations with girls, this makes knowledge provided by girls less visible. From this, an expectation arises that boys' knowledge is more highly valued than that of girls, which can convince girls that they are less competent than boys.

Unfortunately, the effect of gender discrimination can have lasting consequences, biased interaction with teachers has a profound impact on children self-esteem, academic interest, and ability to become independent assertive thinkers (Sadker, Sadker, & Stulberg, 1993). Because even though teachers do not believe that gender inequality would be a problem in their classroom, even some of them believe that boys and girls should be treated differently according to their gender differences and that teaching is generally a group activity they cannot teach each one alone.

It is also generally believed in our society that there is a proper way to act in a classroom situation for both boys and girls where they expect each gender to behave and react in a certain way. And they assume that boys have right and females don't have to do anything and women are portrayed as less confidential.

However, learning is very individual and effective so teachers need to be sensitive to these differences and take action to provide an optimal learning experience for each student, where school administrators, parents and students themselves support the notion that teacher quality is vital to student's achievement and this gender stereotype can be crushed by the teachers by treating both boys and girls equally and making a situation and environment without having the essence of gender stereotype.

1.5. Gender Stereotypes and Bias

Gender stereotype is a widely held belief or generalization about the behavior and characteristics attributed to women and men. Females are often portrayed as being emotional, caring and in need of protection and males are often characterized as being rational, career driving and strong. These gender stereotypes can be a negative impact.

In school environment, they can affect a young person's classroom experience, academic performance, subject choice and well-being, beside it can also result in students being treated differently or offered different opportunities based on their gender, or in other words it results gender bias.

In an educational setting, the gender bias has far reaching effect. Where these biases regarding gender are in fact the result of gender stereotype that exist in the society.

However, this issue has been overlooked as an important one, since many teachers generally be unaware of reinforcing gender stereotypes and pushing gender bias toward their male and female students, many studies as Sunderland's (1996) found that teachers prefer male students rather than girls and this occur through their interactions, feedback praise, discipline and punishments, where they are more likely to interact with boys diminishing the attention to girls in the classroom.

This phenomenon can be conscious and unconscious, but mostly it happens unconsciously where it occurs in term of stereotypes that teachers hold about their students and it produce stereotypical expectations for student's education, as well as student-teacher relationship.

As Klein mentioned (1985) that gender bias is also occurred and taught implicitly in classroom environment; this latter is created by either schools' curriculum or teachers and administrators within stereotypes' reinforcement of gender roles.

Unfortunately, the gender bias also sometimes restricts people in achieving their dreams because as per societal norms certain positions are not appropriate for every gender. It is unfair that certain individuals are restricted from education because of the gender biases shared in the society, for example, females had very less participation in STEM field as these fields were handled predominantly by males (Sanders, 2005).

The STEM field was considered a high-status profession where females were not encouraged to aspire while males were forced to aspire (Beed et al. 2011). Even parents, family members, teachers, peers and the society encourage males to choose STEM field and females to choose arts and nursing (Gunderson et al. 2012).

As a result, students tend to think that science is a masculine field. Therefore, females show less interest towards science and males become more passionate towards science field (Archer, DeWitt, Osborne, Dillon, Willis & Wong, 2010).

Nonetheless, not only girls are victims of this stereotypical thinking, boys are damaged by it too, now everyone expect the best grades and performance from the girls, stating the saying of "boys will be boys" an attitude that plays into a narrative that says boys produce more testosterone, and that is why they fight and punch, that is why they don't sit quietly in lessons, that is why they're harder to control, and that is why we have different expectations about what they can do. Ultimately this gender stereotypes can be harmful for both boys and girls.

As it effects the most important part of their life, their educational experience, that is why it is important to train parents and mostly teachers to pass on less of their stereotypical expectations to students and to not let them guide their evaluations.

This in no way contradicts thinking about which teaching forms and materials correspond to the average preferences and characteristics of boys and girls and expanding the repertoire accordingly.

1.8. Conclusion

The gender factor is considered as a perfect variable in comparative studies when dealing with students. And from what has been said before, we come to a conclusion in which we can say that gender differences do have an impact on student's performance in the classroom, however, this impact is hidden and covered by the excuse of gender roles that the speech community made. Our first chapter dealt with how gender affected the student's performance and then explained both the bar in and parents' role in this issue, and we concluded the chapter by mentioning the teacher's in increasing the effects of gender discrimination. In the next chapter, we will deal with the practical part and detect the extent to which there is differentiation in the pre-selected context.

Chapter two:

**Research methodology
and data analysis.**

Chapter two:

Research methodology and data analysis:

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2.1. Introduction

This chapter focuses on the methodological part in which we present the sample population, the aim of this study, research design, and instruments. To achieve the purpose of this study, the data collection is based on quantitative and qualitative research methods. For the quantitative part of the study, we have developed a questionnaire for the students. Whereas, the qualitative method depends on individual interviews for the teachers.

2.2. Aim

First and foremost, this study aims at measuring the effect of gender differentiation in fourth-year middle school students. The main objective is to find out how the gender differences are affecting learners and what factors are contributing to increase this issue. Needless to say, the findings of this study hopefully will be used to raise awareness about this gender gap in education, and try to reduce/control it.

2.3. Research Design

We are going to use mixed methods in order to collect data for our research study, but depending more on qualitative data, in which we are going to explore ideas and experiences, using two distinct questionnaires, and an observation.

2.4. Sampling

The entire population of this research study encompasses fourth-year middle school students and teachers that were randomly selected from different middle schools during the year (2021/2022).

2.5. Data Collection Instruments

In this study, we have used two research instruments: Two questionnaires were designed to fourth-year middle school learners, and also a survey for the teachers. Second, an observation. We used two research tools to have a variety of data resources and to get more valid information.

2.6.1. Data Analysis of the Student's Questionnaire

Question 01: - what is your gender?

Options	Distribution by gender
Males	42%
Females	58%
Total	100%

2.1. Gender distribution

➤ As expected, females are dominating, 58% represents females, while 42% is for the males. This is considered as a slight difference comparing to the last years, hoping to reach equality in the near future.

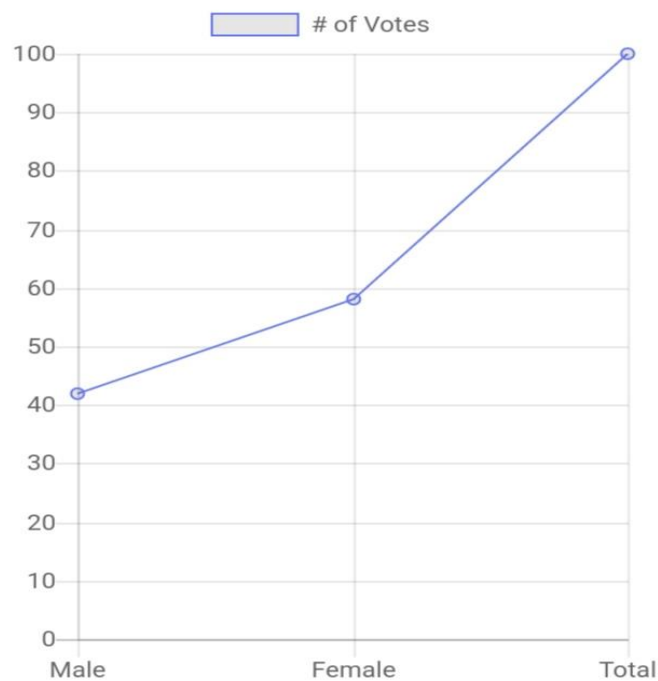


Figure 1: Gender distribution

Question 02: A- Investigating who better treats female students:

Options	Number	Percentage
Male teachers	9	11%
Female teachers	23	28%
Both	15	19%
Total	47	58%

2.2. Learner/ Teacher interaction

- It is commonly known that female teachers interact more with male learners. However, according to our collected data, there is an improvement, in which 28% went for the female teachers, which means that female teachers are actually interacting with female learners too.

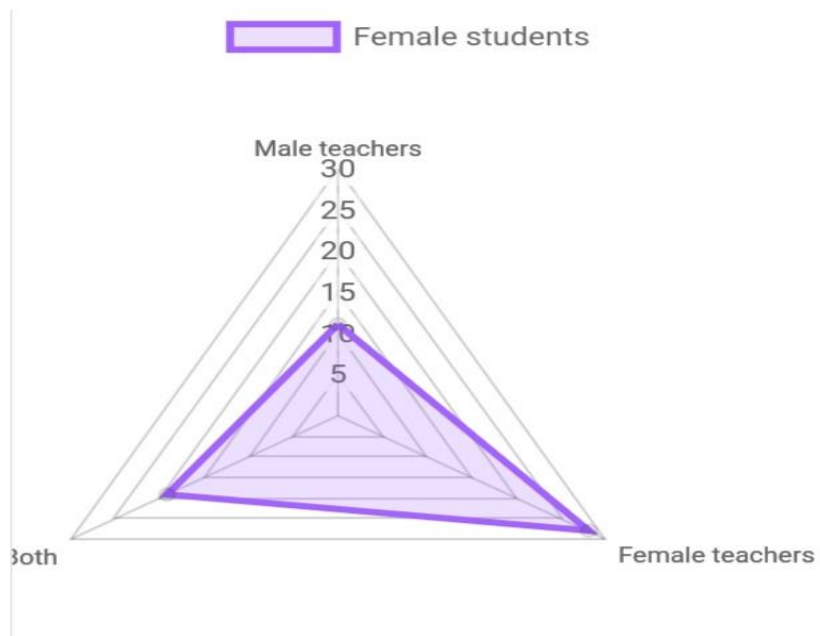


Figure 2: Teacher/female students interaction

Question 02: B- Investigating who better treats male students:

Options	Number	Percentage
Female teachers	21	26%
Male teachers	8	10%
Both	2	2%
Neutral	3	4%
Total	34	42%

2.3. Learner/ Teacher interaction

➤ From 42%, 26% of male pupils voted for female teachers that they treat them better, which actually proves previous theories right. Surprisingly, 10% of male learners voted that male teachers are the ones who treat them better, though we have not expected any voted for them .

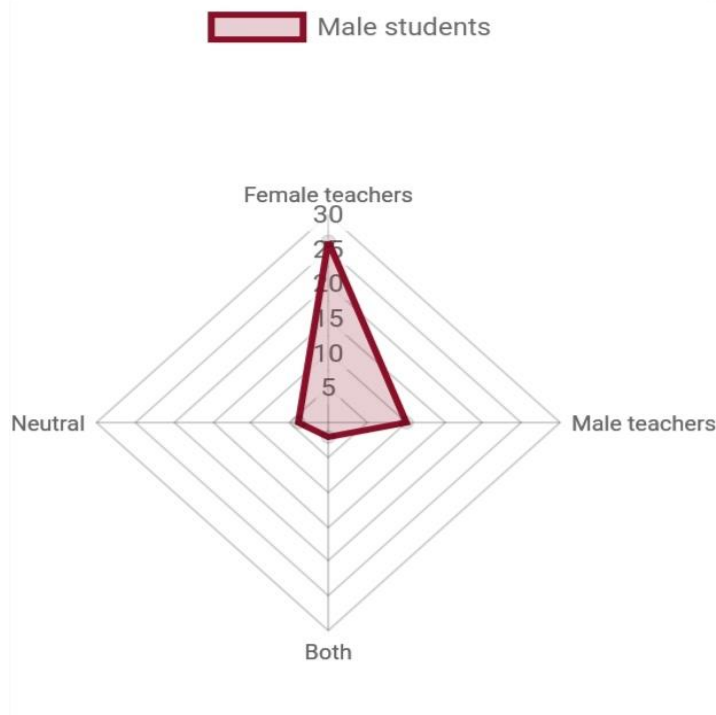


Figure 3: Teacher/ male student's interaction

Question 03: - Do you feel equal at the classroom?

Options	Yes	Percentage	No	Percentage	Number	Percentage
Males	31	38%	3	4%	34	42%
Females	32	39%	15	17%	47	58%

2.4. Equality at classroom

➤ From 42%, 38% of males feel equal, and only 4% who do not. While, from 58% of females, 39% feel equal, but 17% do not feel so, which means that females still face stereotypes inside the classroom, or they might even be annoyed by males, as mentioned by some girls in their reports.

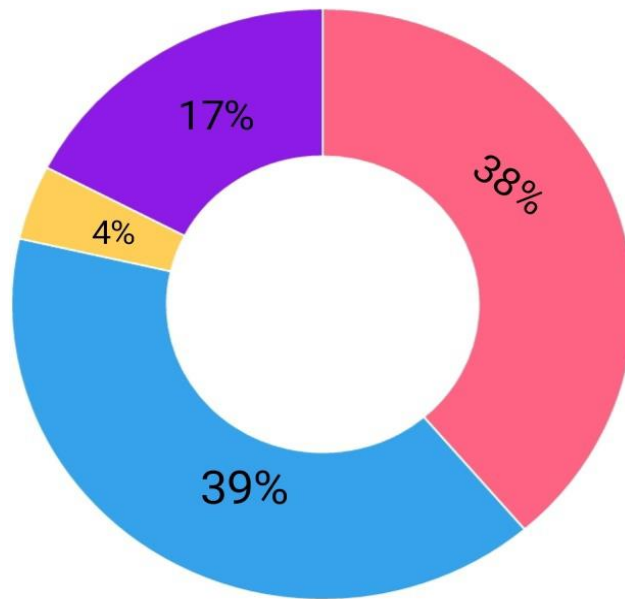


Figure 4: Equality at classroom

Question 04: - How do you consider your environment/surrounding? (A positive factor or a negative one)

Options	Positively	Percentage	Negatively	Percentage	Total	Percentage
Males	29	36%	5	6%	34	42%
Females	39	48%	8	10%	47	58%

2.5. Serounding's effect

- Although, the environment is an important factor that's affecting pupil's performance, but they are not aware of that since they are too young, that's why 36% of males and 48% of females, believe that it is affecting them in a positive way, which is wrong according to the situation we are living in nowadays.

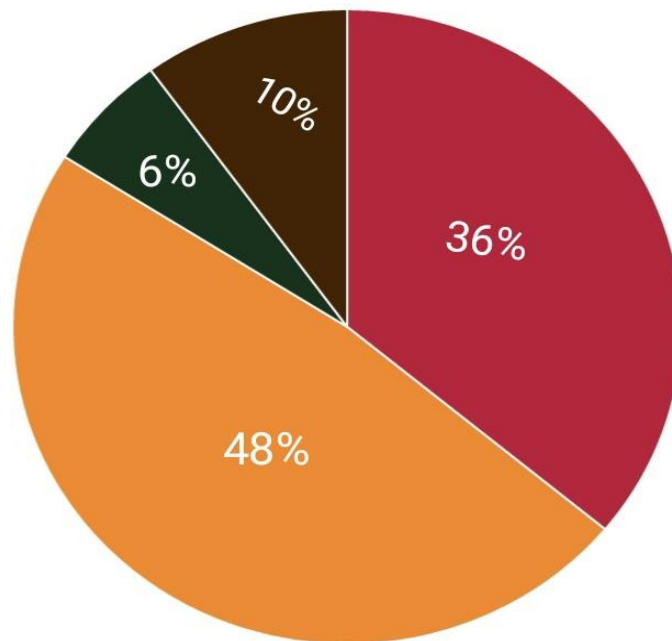


Figure 5: Surrounding's effect

Question05: Do you agree to study in single-sex schools?

Options	Yes	Percentage	No	Percentage	Total	Percentage
Males	12	15%	22	27%	34	42%
Females	10	12%	37	46%	47	58%

2.5. Single-sex Vs Mixed-sex Education

- Most of learners prefer to study in mixed-sex schools, because they believe that the other gender is not affecting their performance in a bad way at all, in which 27% of males and 46% of females refused, while only a small number agreed, it is actually one of the results of living in an eastern society that can not change its traditions and principles, actually would not even try.

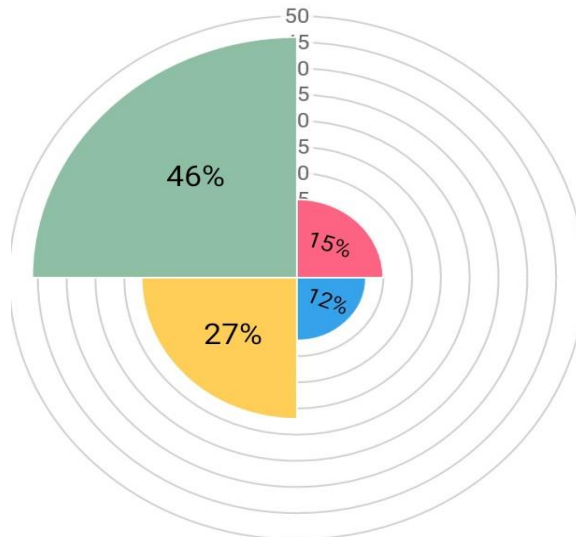


Figure 6: Single-sex education

Question 06: - Do you think that your gender is affecting your performance at class?

Options	Yes	Percentage	No	Percentage	Total	Percentage
Males	2	2%	32	40%	34	42%
Females	4	5%	43	53%	47	58%

2.6. Gender Influence

- Most of the learners have voted for "No", 40% of males and 53% of females, which means that they are confident enough and they assume that they are capable of having good grades, and dealing with hard exams, no matter what their gender is, or their abilities.

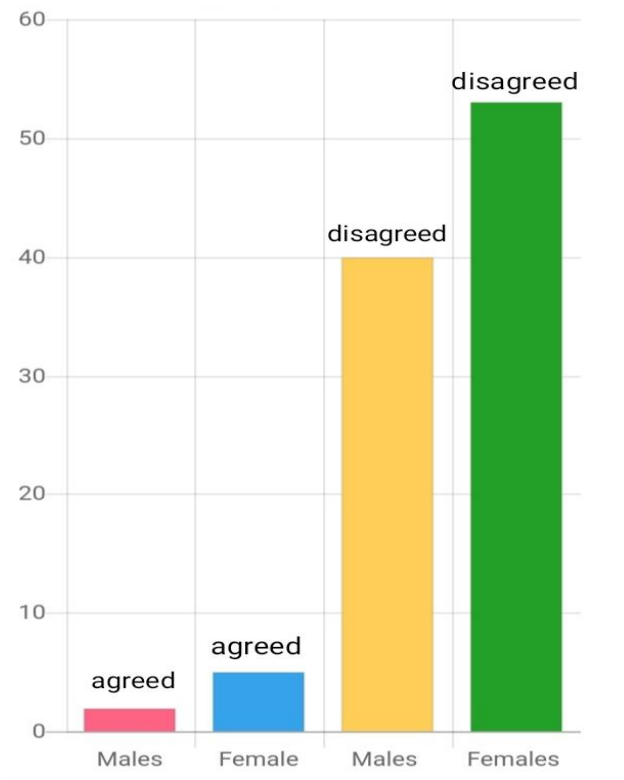


Figure 7: Gender impact on performance

Question 07: What is your favorite subject?

Options	Males	Percentage	Females	Percentage
English	2	2%	4	5%
French	00	00%	4	5%
Science	5	6%	2	2%
Physics	00	00%	3	4%
Arabic	3	4%	10	12%
Sport	8	10%	2	2%
Math	10	12%	9	11%
Civilization	1	1%	1	1%
Social studies	3	4%	12	15%
Islamic science	1	1%	00	00%
Neutral	1	1%	00	00%
Options	Total	42%	Total	58%

2.7. Learner's Preferences

- According to the findings below, it is remarkable that males are attached to scientific streams more than literary ones, for instance, 12% of male learners prefer mathematics, while only 4% has voted for Arabic. On the other hand, we have got females, 12% has voted for Arabic. As it is known, females are more interested in literature and art. However, there is an improvement, 2% of girls has voted for science and 4% for physics, while males have not even mentioned physics.

- Scientific streams (males)
- Scientific streams (females)
- Literary streams (males)
- Literary streams (females)

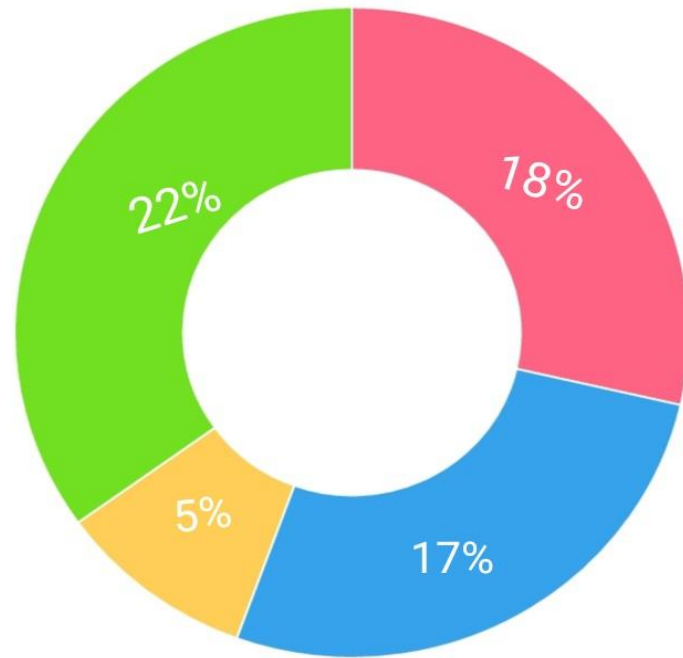


Figure 8: Pupil's favorite subject

2.6.2. Data analysis of the teacher's questionnaire:

Question 01: what is your gender?

Options	Number	Percentage
Males	3	23%
Females	10	77%
Total	13	100%

2.1. Gender distribution

➤ As remarkable before with the scholars, females are also dominating in the occupations, which is considered as a future outcome for the inequality within the number of learners. Actually, females are dominating in almost all the schools, in every corner, in every office, and everywhere.

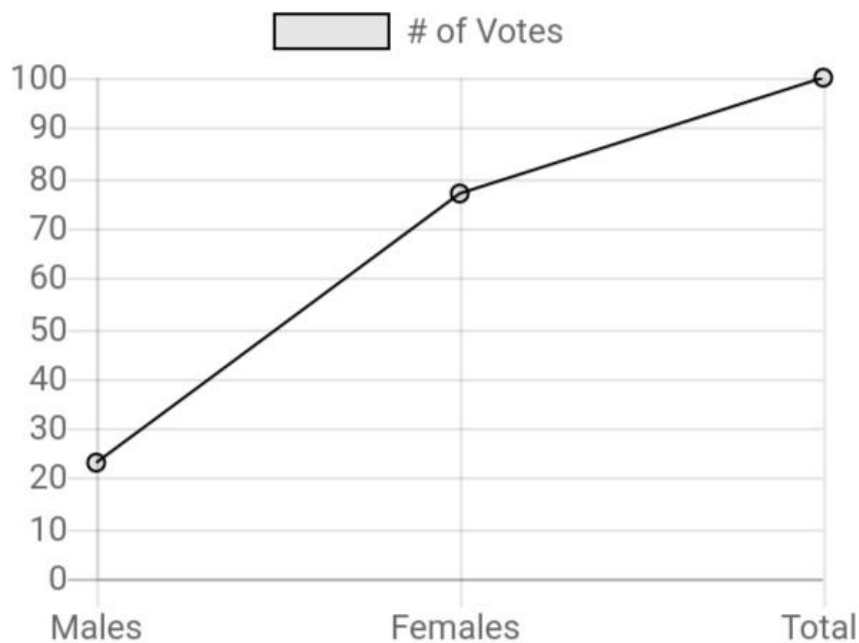


Figure 9: Gender distribution

Question 02: Have you ever dealt with our topic before?

Options	Yes	Percentage	No	Percentage	Total	Percentage
Males	3	23%	00	00%	3	23%
Females	3	23%	7	54%	10	77%

2.2. Theme acknowledgement

➤ 23% of males have tackled with our topic previously, while 54% of 77% of female are not really familiar with the concept, which means that they are not aware of this issue.

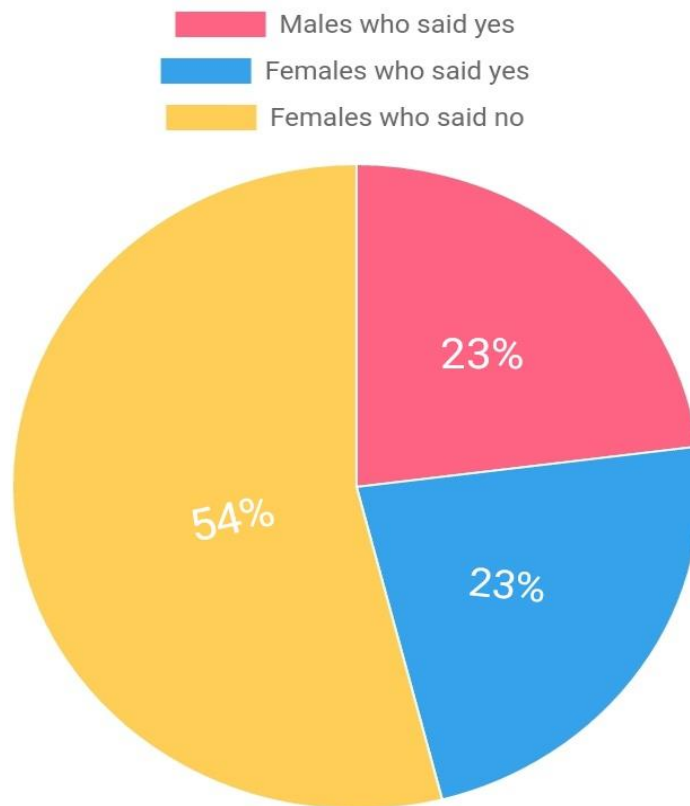


Figure 10: Theme acknowledgement

Question 03: According to you, who interacts more during the session, who's less shy?

Options	Female students	Percentage	Male students	Percentage	Both genders (students)	Percentage	Total (teachers)	Percentage
Male teachers	2	15%	00	00%	1	8%	3	23%
Female teachers	8	61%	1	8%	1	8%	10	77%

2.3. Students/ teacher interaction

➤ As a response to female student's efforts, both of male teachers and female teachers interact back with them, while male pupils do not interact as mentioned above. As unexpected, 61% of female teachers voted that female learners interact more, although it is commonly known that female teachers usually go along more with male learners.

Question 04: According to you, who works harder?

Options	Female teachers	Percentage	Male teachers	Percentage	Total	Percentage
Male teachers	2	15%	1	8%	3	23%
Female teachers	10	77%	00	00%	10	77%

2.4. Teacher's point of view

- This question was kind of a trick because what matters to us, is to know how teachers are seeing the pupils from their perspective because obviously, they'll interact back with whom is reacting more, which makes a difference, and leave the other gender back (males in this case.)

Question 05: Do you prefer single-sex schools?

Options	Yes	Percentage	No	Percentage	Total	Percentage
Male teachers	2	15%	1	8%	3	23%
Female teachers	6	46%	4	31%	10	77%

2.5. Single-sex education

- It seems like both of the teachers and pupils agree on this point because our eastern thoughts still prevent us from adopting the idea of single-sex schools, contradictory to Westerners who are already used to it

Question 06: Are you familiar with a good method of educating?

Options	Yes	Percentage	No	Percentage	Total	Percentage
Male teachers	1	8%	2	15%	3	23%
Female teachers	3	23%	7	54%	10	77%

2.6. Suggested solutions from the teachers

- One of the methods that were recommended by teachers who said " yes" is: private schools for each gender when it comes to learners, and private schools for each gender when it comes to teachers as well. For instance, a school that is made for females only (female students, female teachers, female headmaster and all the rest of the working team).

Question 07: Do you think that you are treating your students equally?

Options	Yes	Percentage	No	Percentage	Total	Percentage
Male teachers	2	15%	1	8%	3	23%
Female teachers	10	77%	00	00%	10	77%

2.7. Equality at class

- Most of the teachers believe that they're being fair enough when dealing with both genders, 15% of males has voted for yes, and 77% of females votes for yes as well, which is the total number of females, none of them admitted that they might split sometimes.

Question 08: Do you think that the gender of the pupil could affect his/her performance at school?

Options	Yes	Percentage	No	Percentage	Total	Percentage
Male teachers	2	15%	1	8%	3	23%
Female teachers	4	31%	6	46%	10	77%

2.8. Gender impact on education

➤ When pupils were asked whether they think that their gender affects their performance or not, most of them have voted for "no". However, when it comes to teacher's points of view about this, it's different, and it varies according to the teacher's gender. 15% of males agreed, while 46% of females disagreed, and they believe that the gender of the learner would not stand in his academic path.

Observation

Observation is the active acquisition of information from a primary source. In living beings, observation employs the senses. In science, observation can also involve the perception and recording of data via the use of scientific instruments. The term may also refer to any data collected during the scientific activity. It is also a systematic data collection approach. Researchers use all of their senses to examine people in natural settings or naturally occurring situations.

Some researchers draw a distinction between participant observation and observation. This distinction is murky. Participant observation "*combines participation in the lives of the people being studied with maintenance of a professional distance that allows adequate observation and recording data.*" (Fetterman, 1998, pp. 34-35). Which is going to be our approach in collecting data in this step.

Observation 01: (fourth year middle school students/ female teacher)

Observations	Thoughts
The female teacher asked female students to read the activity.	It is commonly known that female teachers interact with males more. However, this is considered as a slight change.
Three male pupils wanted to participate. they haven't raised their hands, they only kept calling the teacher's name, which was kind of noisy.	As unexpected, male students already knew the answer, which is odd. Because it is known that males do not really care about their study. Meanwhile, females were a bit noisy.
The teacher asked a male pupil to answer, this learner didn't raise his hand before, I've not expected such an act from the teacher, she was courageous. However, the male was rude and was not serious while answering,	I've thought that they would be affected by the "observer's paradox", but surprisingly! They were not that perfect, they actually acted natural. And the female teacher was fair enough to all of them.

so she kicked him out of the class.	
The female teacher was strict.	Pupils think that females are emotional, and could never be serious or strict. Well, that was a good reaction from her.
Male students are noisy out load.	They are not afraid of the teacher.
Female students are whispering .	They do respect the teacher, although she is a female.
Males are doing their best to cover their uniforms, while females were proud showing them.	Society expects from males to be " bad boys", otherwise, he's feminine that's why a male would feel ashamed if he acts good and studies well, unfortunately.
More male students were kicked out of the class, because of bad behaviour.	Manly society made male pupils feel like they are superior than females, therefore they're finding a difficulty in respecting female teachers and obeying the school orders.
The total number of students, was 16 female, and 13 male, almost 4 females knew the answer of the questions, and only 2 males could reach the answer.	The effort was kind of equal. However, females still on the top.
The female teacher is nice with the female girls, even them, they were really respectful and trying to benefit from the teacher's tips concerning the activities.	female teachers were accused of being too nice to male students only.
A smart boy who seems to be a vertical	The learner was shy, and trying to act cool like

learner, and I've heard him talking about the right answers. He did not prefer to answer though.	his other mates, hiding his uniform and brilliance as well, because of what the society is expecting from him, and from males generally, to be tough and "cool".
A female student has replaced the male student whom was kicked out at the first, she's writing down the right answers, and following the instructions of the teacher as well.	Female students were more polite and organized.

Observation 02: (With a male teacher):

Observations	Thoughts
A very strict and serious teacher.	However, male students were not afraid again, or even respectful.
" Observer's paradox" made male students act more noisy, as a reaction for our presence, they actually wanted our attention. Meanwhile, female students were really calm, trying to focus with the explanation of the teacher.	Female students were aware of the fact that the lesson is more important than us, though they were in a strange situation, they kept focusing, while male students did not know how important the lesson is.
The teacher is using many helpful methods that make it easy for the student to get involved in the class, he's using ways such as; finishing the line of the teacher.	The teacher was successful to make all the class involved in his session, even male students.

<p>Male students started participating, though most of their answers were wrong, they were not ashamed of saying them out loud.</p> <p>The teacher also gave a good reaction, as an encouragement to their effort, he avoided saying "No" or "your answer is wrong", instead he said " I need another answer"" you are close, yet not enough ""Try to find the answer, and you shall have an extra mark".</p>	<p>Male student only needed a push up to give what they have, an encouragement, someone who knows how to deal with them, in this case, that someone was the male teacher, which leads us to remember one of the teacher's reviews, when answering to our questionnaires, she recommends having private schools, in which female teachers teach the female students, and the male teachers teach the male students.</p>
<p>I've seen some calm boys, who were sitting at the back of the class, they actually seemed older, they were really focusing with the teacher, like they really know how important this is to their future.</p>	<p>Males aren't all wild, once they grow older they start thinking well, they stop being annoying and noisy, they actually become more respectful.</p>

Conclusion

In this chapter, we have counted upon two instruments to collect data, the two questionnaires that were headed to both teachers and learners. And then the observation. In which we have collected notes and then analyzed them in form of tables. Both instruments were really useful for our research study, they actually have changed our first perspective, and made us more curious to know what's really effecting fourth year middle school student's performance, whether it's their gender or other intervening variables factors.

Chapter three:

**Results, suggestions,
and recommendations.**

Chapter three:

Results, suggestions, and recommendations

3.1. Introduction

3.2. Discussion of the findings

3.3. Suggestions and recommendations

3.1. Recommendations for the parents

3.2. Recommendations for the teachers

3.3. Recommendations for the school staff

3.4. Recommendations for the students

3.4. Conclusion

3.1. Introduction

This chapter is considered as the bottom line of our research study. In fact, we will be discussing the outcomes briefly while making our own interpretations. Further, we will try to provide some recommendations and suggestions to the parents, teachers, school staff, and the students as well. Because, each factor of them has an important role in affecting the student's performance, whether on purpose or not.

3.2. Discussing our Findings

3.1. Student's Questionnaire

First, we are going to discuss the findings of the first questionnaire, which is directed to the students. From 81 informants, we have got 58% of female learners, and 42% of male learners, as expected. Aged from 14 to 18 years old, and their mother tongue is Arabic.

3.2.1. Gender-bias in the classroom

A number of educational researchers have shown that in mixed-sex classrooms, boys take more part in discussions and receive more attention from the teachers than girls in the same class, although the extent of this male predominance varies considerably in different studies. However, male teachers increase the attention paid to girls when the pupils get older, while female teachers always give more attention to boys, which is obvious in our results as well, 61.77% of male students believe that female teachers treat them better. Meanwhile, surprisingly our collected data have proved the opposite when it comes to female students, a slight progress has been remarked. 48.94% of female students reported that female teachers are the ones who treat them better at the class. On the other hand, only 19.14% of female learners went for the male teachers.

3.2.2. Educational Equity

Educational equity is the study and achievement of fairness, justice, and impartiality (equality) in education. The term equity means accommodating and meeting the specific needs of specific individuals. This means ensuring that everyone's learning needs are met. Educational equity is based on the principles of fairness in distributing resources, opportunities, treatment, and success for every student. True equity means that differences in educational outcomes are not the result of differences in wealth, income, power or possessions. Furthermore, this means that a child's social, racial or geographic background is irrelevant to the education they should receive. That's why our questionnaire included the term of equality. 91% of male students feel equal at the classroom, which means most of the males cannot remark any inequalities, and 68% of female students also agreed with 91% of male students. However, 32% of female students do not feel equal at the classroom, in which they mentioned the social class. One of their suggestions to avoid this inequality, was wearing united uniforms, since it is going to be really helpful in covering imperfections. Poor students would no longer feel excluded because they were not wearing name brand clothing like the richer kids, and they should be in one colour to avoid gender stereotypes, no pink for females, neither blue for males.

3.2.3. Learning Environments

According to Hasan et al. (2017), academic performance is the capacity of students to attain the courses expectations in which they are enrolled and is usually evaluated by GPA (grade point average). However, a study by Gilavand (2016), has established several factors in the learning environment that significantly affect student's learning outcomes, such as open space and noise in classrooms, inadequate light, unsatisfactory temperature, overcrowded classes, improper classroom layout and misplaced boards. In addition, Katherine et al. (2012) was of the opinion that numerous factors affect students academically, including the personal factors of the students, their interactions with others such as parents, teachers and administrators and, last but not least, the largest systems surrounding them; for instance, school districts,

neighborhood, local economy and multicultural relations and political policy. However, it seems like our informants are not aware of the fact that their environment might affect them negatively, since we are living in Africa. Unfortunately, our circumstances are beyond control, we are considered as a third world country. 85% of male students, and 83% of females believe that their environment is leaving a positive impact behind. While, only 15% of males and 17% of females were kind of convinced that their surrounding is affecting them in a negative manner.

3.2.4. Single-sex Education Vs. Coeducation

Mixed-sex education, also known as mixed-gender education, co-education, or Coeducation (abbreviated to co-ed or coed) is a system of education where males and females are educated together. Whereas, single-sex education was more common up to the 19th century, mixed-sex education has since become standard in many cultures, particularly in western countries. Single-sex education, however, remains prevalent in many Muslim countries. The relative merits of both systems have been the subject of debate. As an eastern society, it's not a surprise that both of genders were against this idea, 27% of males from 42%, and 46% of females from 58% as total.

3.2.5. Gender Bias

For a long time, we have been told that girls like pink, and boys like blue. In the playground, many believe that girls like dolls, while boys like trucks, opinions like these are repeated and reinforced as undeniable facts. But it is these sorts of traditional social norms and stereotypes. That can lead to gender discrimination in education. How we view gender has a direct impact on learning opportunities and future career prospects. Persistent stereotypes around the relative ability of girls and boys in school have a direct impact on the type of subjects that students pursue. Research shows that when a teacher create bias in their own literacy experiences. However, a US study on gender stereotypes found that common stereotypes associate high level intellectual ability (brilliance, genius) with men more than women, which is also shown in our

results, when we asked the students about their favorite subject at school, 12% of males prefer Mathematics.

These typecasts discourage young girls from pursuing certain subjects and fields, and eventually influence their career choices. In other words, girls grown up believing they are not good at Math and science, and boys also would be ashamed of getting near to literature or art, because these are typically made for the soft females, that's why only 4% has voted for Arabic. In addition to that, most of the learners have voted for "no" when asked whether they think that their gender could affect their performance, 40% from 42% of males, and 53% from 58% of females, which means that they are confident enough of their own abilities, and they believe that they can make it in any field, that's why 2% of females favor science, and 4% go for physics, which is considered as an improvement, especially because males have not even mentioned physics in their reports. Finally, these pupils only need to get rid of these gender stereotypes and borders.

3.2. Teacher's Questionnaire

This questionnaire has involved a total of 13 teachers from different secondary schools in Tiaret-Algeria. Their ages deviate from twenty-eight to forty years old and their experience from four years to seventeen years. In this work, the percentage of females teachers is 77% while 23% of male teachers. The purpose of this work is to investigate the influence of teachers on student's performance.

3.2.1. Dealing with the Topic

First, one of the first steps to dispute the impact of gender differences on the student's performance in the classroom is to know about it. So, the students must be aware of this issue in the first place, as this problem is not typically mentioned as much in the schools or the speech community in general, so we asked the teachers whether they have dealt with our topic before or not. A 23% of male teachers stated that they have dealt with the topic of gender

discrimination with their students before while there were no male teachers who did not, however, we believe that these results are deficient due to the lack of male teachers participants. Meanwhile, females teachers answers were more accurate, as 23% of them claimed that they did mention this topic in the classroom, whereas 54% stated that they did not. These results clarify that the majority of our sample did not address this subject in their classrooms before, which result in most of the students being unaware of the issue of gender discrimination, especially in the educational context.

3.2.2. The student-Teacher Relationship

The student-teacher relationship is an “academic” interaction between student and teacher, it is also an important key that increases the academic and the emotional developments of the students; Pianta and Hamre mentioned that the student-teacher relationship “provides a unique entry point for educators working to improve the social and learning environments of schools and classrooms”, regardless, a number of researchers have identified that boys are more likely to be active by talking more and asking more questions, they also tend to dominate the class discussion, leading them to have more interactions with the teachers and to have a more close relationship with their teachers, unlike the girls who tend to be quiet, shy and talk only when they are asked to, causing them to stay behind unnoticed. However, our data unexpectedly have shown the opposite, as the male teachers reported that 15% of girls and only 8% of boys interact with them in the classroom, whereas females teachers stated that 77%of girls interact in the classroom and that there is no boys interaction. We also added a tricky question asking they whom they think works harder females or male students, our purpose from this question was to confirm the answers of the previous one because obviously, they will choose who interacts more to answer this question. And the answers were nearly the same, this outcome shows that the gender gap indeed has reversed in recent years as we are seeing more females interactions than males.

3.2.3. Single-sex Education

Third, the topic of single-sex education is controversial. Several studies argue that it helps student outcomes such as test scores, graduation rates, and solutions to behavioral difficulties. As researchers indicate that there are persistent gender differences in how boys and girls learn and behave in educational settings, which requires the concept of teaching each gender separately to avoid any negative impact from both genders on each other. Thus, by this questionnaire, we investigated whether teachers believe in handing the information to each learner according to their gender, we also asked them if they are familiar with any good approaches to teaching genders separately. 15% of male teachers claimed that they do believe in single-sex education and only 8% did not, in the other hand, 46% of female teachers were on board with this idea whereas, 31% did not agree. Although the majority of the teachers stated that they believe in educating each gender separately when we asked them about good methods to do it, 69% of both female and male teachers were not able to provide any good ones, and 31% mentioned one or two of them. These results show that teachers are not willing to make any changes regarding this issue because although they are aware that single-sex education might be a solution to decrease gender inequality in the classroom a low per cent dug deeper into this subject.

3.2.4. Gender Bias in Teacher's Interactions

Fourth, in education, many researchers, such as Sadker and Sadker (1986), investigated gender bias in the classroom. Their research suggested that gender bias was alive and well in the classroom, they revealed that female and male students had interactions with teachers that were quite different, where male students received more attention from teachers and were given more time to talk, also precise feedback such as praise, criticism or help/correction was mostly with male students, while there was less interaction with females, only if needed. So we asked the teachers whether they are treating the students equally or not. Most of the teachers believe that they're being fair enough when dealing with both genders, as 15% of male teachers said yes and only 8% said no, while unexpectedly all-female teachers participants claimed that

they are treating all the students equally. These results indicate that females are more equal than male teachers.

3.2.5. Gender Differences in Education

Fifth, Gender differences in education are a type of sex discrimination in the education system that affects both males and females students during and after their educational experience, these differences are creating struggles for boys and girls affecting their performance in the classroom negatively. As young males are significantly more likely than females to have low levels of skills and poor academic achievements, meanwhile, females are under-represented in many fields such as mathematics, physical science and computing (Osborne et al.,2003; Charles and Grusky,2004). Therefore, we asked our sample whether they think that these elements could affect the student's performance, 15% of male teachers answered with yes whereas 8% said no, while 31% of female teachers reported that gender differences do have an impact on the students and 46% indicated the opposite. Although 54% of teachers do not believe that gender differences have an impact on the student's performance, still 46% do agree on that.

3.3 Recommendations and Suggestions

3.3.1. Recommendations for Parents

Parents are the first teachers and best source of information for a child. They guide their children to adapt with their environment (Ceka & Murati 2016). Gender appropriate information from parents help children learn gender appropriate behaviors. However, parents are mostly unaware of the signals they are sending to their children from an early age, according to Tiedemann (2000) parent's gender stereotypes and expectations for their children affect children's understanding of themselves, where they teach their kids that boys should be tough, unemotional, competitive, powerful while girls should be weak, always well-behaved, emotional and not competitive. Growing up with these concepts impacted on how they act in

the school, finding themselves following those gender stereotypes unconsciously. That's why teaching gender equality from an early age is a vital part of breaking the stereotype and ensuring equal opportunities for both male and female.

Some Steps for Parents to Teach Gender Equality

- Avoid teaching gender stereotypes in the first place for example toys and activities, parents should offer a variety of toys and activities for their kids, even if they are typically for just girls or just boys.
- Teach equal opportunities, makes children understand that there is no specific job for males or a specific job for females.
- Positive role model, let the children read books about both influential males and females so they can emulate them as their models.
- Encouraging emotions, parents should not limit emotions just to girls by using expressions like "big boys don't cry" or "you are acting like a girl, which reinforces the gender stereotype.
- Choosing words and expressions carefully, parents unconsciously tend to use expressions such as "boys are stronger than girls" or "don't be weak as a girl", because these expressions get stuck in their mind and shape their thinking as they grow up.

3.2. Recommendations for the Teachers

Being a teacher means having a lot of responsibilities and duties as the teaching process requires much attention in every aspect especially gender because teachers work daily with many students who might face or already have trouble understanding their own or other students gender. However, most teachers are affected by gender stereotypes so most of the times they are unaware of the gender inequality issue and that their gender-stereotyped behavior, attitudes, and instructional practices are influencing student's motivation and performance substantially. But teachers are certainly not the primary cause of gender role differences, as they can be an essential tool to make a great change in this matter and as it, said

"A strong teacher is the one who treats their students fairly and creates an environment where students feel equally able to take part", that is why teachers have to increase their knowledge about gender inequality and try to promote gender equality in the classroom so students have a safe environment and opportunistic atmosphere.

Steps for Teachers to promote Gender Equality in the Classroom

- Select teaching materials that reinforce the notion of equality.
- Find ways to incorporate gender equality and inequality in your curriculum
- Increasing students' knowledge about the emergence of gender differences and improving their perception of diversity fairness in class.
- Teachers should use gender-neutral pronouns whenever possible.
- Using their body language carefully because teachers may not realize that their body language with female students might be different from what it is with male students.
- It is important that both male and female students are given the same discipline for the same actions.
- Research shows that both male and female teachers often call on male students to speak in class more often than female students. Teachers need to call on or talk to both female and male students in a balanced way.
- Avoid asking students to speak on behalf of their gender.
- It's common for boys and girls to segregate when choosing friends and seating arrangements. That's why teachers should create a dynamic seating chart, you can break up boys- or girls-only cliques and encourage both groups to engage with each other.
- If you hear students using phrases like 'you play like a girl' or 'man up,' it's important to point out the social implications of these statements rather than simply admonishing the use of this kind of phrasing.
- Ask them to do projects that explore concepts in and around gender and cultural equity.

- Challenge expectations of professions typically associated with a particular gender, for example, include a female construction worker or soldier and a male secretary or nurse.
- Make families aware of the importance of continuing at home the gender equality education given at school.

3.3. Recommendations to decrease Gender Inequality in the School System

School is a place where all children get trained, educated, taught and disciplined. where students spend large amounts of time in it, taking a lot from its environment into creating their personalities. which is good but like everything else it also has a bad side because schools are a major context for gender discrimination as they can magnify and diminish gender differences. however, schools have enormous potential to effect change in gender relations, views and practices vise-a-vise gender, and create a gender-sensitive and gender-equal generation of men and women. And in order to achieve this schools administrators should start by eliminating gender inequality in the curricula and review the educational policies, textbooks and drawing recommendations if they contain any messages that promote gender inequality. they should also conduct sessions on gender equality from time to time to bring awareness in the society about this issue .and try to develop tools to make the educational system sensitive to gender inequality, it is also important to expand secondary school teachers' current action repertoire by providing them with the knowledge necessary to change their teaching according to the principles of reflective coeducation. Advancing gender equality is critical to all areas and countries. However, schools and education should be the start point to achieve an equal society in all aspects.

3.4. Some Recommendations for the Students

Over the past decades, gender disparity has been experienced numerous times by learners, as persistent gender stereotypes around their ability in schools have a direct impact on them which make them feel discriminated and stand as an obstacle in front of their performance and achievements, it also oriented them towards subjects that are conventionally associated with, and expected of their gender limiting their future plans and dreams. Parents,

teachers, and schools are an influential agent in this matter, they have the responsibility to model, teach and create conditions in which each learner's gender diversity is accepted and nourished. However, students must also battle this phenomenon on their own, they ought to have confidence in themselves and their ability to achieve anything even if those dreams are not related or associated to their gender, they also should attempt to make searches about their gender and learn how to accept their differences and use them in their favor. Lastly, they should not follow the concept of gender stereotype and gender roles regarding their desired future jobs and just follow what they hope to accomplish in the future.

Conclusion

The present chapter was devoted to discussing the findings regarding the effect of gender differences on the pupils with mentioning several variables that contribute in increasing this impact, as well as we mentioned some suggestions and recommendations to the parents, teachers and the school's system .as each one of them can make a great change in this context.

General
conclusion

General Conclusion

This research work elucidates the gender variable in an educational setting, it is an undertake to measure the impact of gender differences on fourth-year middle school students. As we investigated further, we found out that the gender gap which was favoring boys over girls have reversed, as female students became better and outperformed the male students in many subjects. It also caught our attention the vital part that the teacher is playing in this context, where the teacher's expectations in relation to the gender of the students are affecting the learner's academic achievements and their performance in the classroom, where boys are expected to be trouble makers, outgoing, unemotional while girls are expected to be clean, calm, organized and emotional.

As well as, the gender of the teacher was a worth mentioning element as it was clear that the female teachers outnumbered the male teacher in schools not only that, most of the students preferred female teachers over males .Our results have shown that, first, the teacher gender is somehow a critical factor in the classroom, both female and male students would rather be studying with the female teachers over male teachers, as has been clarified in our research data, as female teachers are seen more caring and more helpful in clarifying content. Second, most students do not see gender as a barrier that affects their performance or achievements especially girls, we noticed that girls were more confident about their answers and going up to the classroom board while boys were fooling around most of the time. Third, the environment of the school also has a role in affecting the students, as it can enhance and reduce their academic performance. The environment of both schools we went to, appeared acceptable and quite comfortable and most of the students were satisfied with it, as it is shown on our data. Fourth, although we presented to the students, single-sex education as a solution to the effects of gender on them, most of the students did not approve of it, as a matter of fact, we remarked that female and males students were comfortable and even helpful to each other, we also wanted to take the interpretation of the teachers on this topic, the majority of them

did agree on this idea, however, they were not knowledgeable about any good methods to hand information to each gender separately.

Furthermore, the teacher plays an essential role in educating and explaining the topic of gender differences and its impact to the students, as learners should be mindful of it. However, fewer teachers dealt with this subject in their classrooms where they are unaware of creating gender bias within their classrooms, denying the differences between the students, claiming that they are natural responses for each gender which result in the majority of the students being unaware that gender can be an issue or an obstacle in their educational journey. Historically, females had very limited participation in subjects such as Math and Science, as they were mostly handled by males, and females were expected to select subjects in the literature field. Our data results also confirmed this statement.

However, when we attended a math session, we noticed that girls were participating in the class more than boys though some boys knew the answers, apparently, these boys are affected by the gender role society made since they think that being a good student is not "cool" and contradict the expectations that are attributed to them. Ultimately, although this research work focuses on the impact of the gender gap on fourth-year middle school pupils, this gap could also happen in other grades in the secondary schools, as well as in the elementary school, as the lack of awareness concerning this issue is resulting in expanding it across all levels and grades.

Regardless of gender, each individual has different characteristics that differ him /her from others, these differences should not be taken as an obstacle rather it should be seen as an advantage that makes each person unique, educators in this case are able to make an enormous change and create a gender-sensitive and gender-equal generation of men and women.

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Appendices

APPENDIX 01: Pupil's Questionnaire

You are kindly invited to participate in our research questionnaire, this research was conducted to measure the impact of gender differentiation on the performance of fourth-year middle school pupils. We will be so thankful if you spare a moment of your time to answer our questions. Your responses are completely anonymous.

- Choose the right answer by putting (X) in the box

Part one: personal information

1-Gender: Male Female

2-Age: Years old

3- Spoken language:

Arabic English French

Part two: Detailed information

1-What is your favorite subject?

-

2-Who treats you better?

Female teachers Male teachers

3-Do you feel equal at the classroom?

Yes No

4-If no, what gender do you feel unequal with, and why?

.....
.....
.....
.....

5- How do you consider the impact of your environment on your performance?

Positive Negative

6-Do you agree to study in single-sex schools?

Yes No

7-If yes, does that mean that the other gender affects your performance at school?

Yes No

How?

.....

.....

.....

.....

8-Do you think that your gender affects your performance?

Yes No

9-If yes, what do you suggest as a solution?

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Appendix 02: Teacher's Questionnaire

You are kindly invited to participate in our research questionnaire, this research was conducted to measure the impact of gender differentiation on the performance of fourth-year middle school pupils. We will be so thankful if you spare a moment of your time to answer our questions. Your responses are completely anonymous.

- Choose the right answer by putting (X) in the box

Part one: personal information

1-Gender: Male Female

2-Age: years old

3-How long have you been teaching?

-

Part two: Detailed information

1-Have you ever mentioned or dealt with this topic before?

Yes. No

2-In your opinion, who interacts more in classroom?

Boys Girls

3-Who works harder?

Boys Girls

4-Do you think that each gender requires a different method of teaching?

Yes. No

5- Are you familiar with any suitable teaching methods for each gender?

Yes No

- If yes, mention one:

.....
.....
.....
.....

6-Do you think that you are being equal to your pupils at the classroom?

Yes No

7-Do you think that gender differentiation affects the performance of the student?

Yes No

8- If yes, what do you suggest as a solution?

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Abstract:

The goal of this study is to measure the impact of gender differentiation on middle school students' academic performance. In which, a bunch of factors are highlighted at cooperating in doing that. As a result, the effects of gender and other variables on fourth-year middle school students in the classroom were valued in this fact-finding project. We aim to investigate the elements that influence 4th-year middle school students' performance in order to aware the teachers, parents, and students on the factors that contribute to the gender disparity at performance. For instance, we have created two questionnaires. The first was designed for teachers, while on the other hand, we have created another for learners as well. We also added an observation, in which we attended two sessions of fourth-year middle school with both female and male teachers in order to provide a variety of information, and also to compare between the reactions and interactions of both genders with the pupils, further, we attended the sessions without informing them in advance so we can obtain more valid and real data. During our experience, we have been collecting notes, that were organized into analyzed data in the second chapter. Needless to say, thanks to Aïs Lakhdar middle school, and Belahcen Belahcen middle school in Tiaret-Algeria which collaborated with us to complete our research. The findings demonstrated that in addition to gender, there are other factors to consider, such as the brain, society, the environment.... etc, based on these facts, we urge the Ministry of National Education to consider revamping the entire educational curriculum. We also recommend that teachers receive training on how to interact with students in the classroom in order to avoid creating a hostile environment for the students.

Résumé :

L'objectif de cette recherche est de mesurer l'impact des différences de genre sur les performances scolaires des collégiens. Parmi eux, une série de facteurs ont été mis en évidence en termes de coopération. Par conséquent, dans ce projet d'établissement des faits, l'impact du genre et d'autres variables sur les élèves du secondaire de quatrième année en classe est pris au sérieux. Nous visons à étudier les facteurs qui affectent les performances des élèves de 4e année intermédiaire, afin que les enseignants, les parents et les élèves puissent comprendre les facteurs qui causent les différences de performances entre les sexes. Par exemple, nous avons créé deux questionnaires. Le premier a été conçu pour les enseignants, et d'autre part, nous en avons également créé un autre pour les apprenants. Nous avons également ajouté une observation dans laquelle nous avons participé à deux cours de collège de quatrième année pour les enseignantes et les enseignants pour fournir diverses informations et comparer les réactions et les interactions entre les sexes et les élèves. De plus, nous avons participé à la réunion sans les avertir à l'avance, afin que nous puissions obtenir des données plus valides et vraies. D'après notre expérience, nous avons collecté des notes, qui sont organisées en données d'analyse au chapitre 2. Inutile de dire que je tiens à remercier le collège Aïs Lakhdar et le collège Belahcen Belahcen à Tiaret-Algérie, pour avoir coopéré avec nous pour mener à bien nos recherches. Les résultats de l'enquête montrent qu'en plus du genre, d'autres facteurs doivent être pris en compte, tels que le cerveau, la société, l'environnement, etc. Sur la base de ces faits, nous exhortons le ministère de l'Éducation à envisager de réformer l'ensemble du système éducatif. Cours. Nous recommandons également que les enseignants reçoivent une formation sur la façon d'interagir avec les élèves en classe afin d'éviter de créer un environnement hostile pour les élèves.

المخلص

الهدف من هذا البحث هو قياس تأثير الفروقات بين الجنسين في الأداء الأكاديمي للطلاب. بحيث تم تسليط الضوء على سلسلة من العوامل التي ساهمت في ذلك. نتيجة لذلك، تم تقييم تأثير الجنس والعوامل الأخرى التي تؤثر على طلاب الصف الرابعة متوسط. في هذه الدراسة نحن نهدف إلى التحقيق في العناصر التي تؤثر على أداء طلاب السنة الرابعة الإعدادية من أجل توعية المعلمين وأولياء الأمور والطلاب بالعوامل التي تساهم في التفاوت بين الجنسين في الأداء، على سبيل المثال، قمنا بإنشاء استبيانين. الأول مصمم للمعلمين، ومن ناحية أخرى، أنشأنا أيضاً واحداً للتلاميذ. أضفنا أيضاً ملاحظة حيث شاركنا في حصتين من صفوف الصف الرابعة متوسط، مع كل من أستاذ وأستاذة من أجل توفير مجموعة متنوعة من المعلومات، وكذلك للمقارنة بين ردود الفعل والتفاعلات بين كلا الجنسين مع التلاميذ. علاوة على ذلك، حضرنا الحصص بدون إبلاغ الأستاذة أو التلاميذ مسبقاً حتى تتمكن من الحصول على المزيد من البيانات الصحيحة والحقيقية. وخلال تجربتنا، قمنا أيضاً بجمع الملاحظات، والتي تم تنظيمها في بيانات ثم تحليلها في الفصل الثاني. وفي غنى عن القول، نود شكر المدرسة الإعدادية «العايس لخضر»، والمدرسة الإعدادية «بلحسن بلحسن» في ولاية تيارت بالجزائر اللذان تعاونوا معنا لاستكمال بحثنا. تظهر نتائج الاستطلاع أنه بالإضافة إلى الجنس، يجب أخذ عوامل أخرى في الاعتبار، مثل الدماغ، والمجتمع، والبيئة، وما إلى ذلك. بناءً على هذه الحقائق، نحث وزارة التربية والتعليم على النظر في إصلاح نظام التعليم بأكمله. نوصي أيضاً بأن يتلقى المعلمون تدريباً على كيفية التفاعل مع الطلاب في الفصل الدراسي لتجنب خلق بيئة معادية للطلاب.