# Gender Matters in Education

Noor

Michigan Islamic Academy

Abstract

In a world filled with gender stereotypes, it is often forgotten that men and women share an equal level of intelligence; however, gender does play a key role in the learning process of a person due to social constructs, biology, and the senses of hearing and sight. This paper examines different views regarding how and why gender differences in education are formed, and what can be done to solve the problem. Today, classrooms tailor subjects to suit only one gender. To create the most effective learning environment, educators should remove the gender bias. Islam also holds education to high standard, making educational tailoring vital in the teaching of Muslim youth.

# Gender Matters in Education

People's day-to-day lives are influenced by the social constraints imposed on them due to their gender. These constraints, also known as stereotypes, are classified as either: physical, mental, or emotional. Although there can be differences between the genders, these differences can also vary from person to person, and none of these differences support that one gender is superior over the other in any field (Sax, 2019). From the multitudes of common misconceptions in society, people tend to believe that gender determines the subjects a student will enjoy and succeed in. Dr. Leonard Sax (2017), a physician, psychologist, and author, presents these ideas in his book, *Why Gender Matters*, and explains that these claims are false, and how there are many variables that affect each person's educational preferences. However, there are other authors and journalists who disagree with Dr. Leonard Sax's ideas. Yet, no matter how gender differences form, these differences exist and they need to be addressed in order to help students succeed academically by teaching them using specific methods that are suitable to their gender. In a world filled with gender stereotypes, it is often forgotten that men and women share an equal level of intelligence; however, gender does play a key role in the learning process of a person due to social constructs, biology, and the senses of hearing and sight.

## Biology vs. Social Constructs

There is continuing debate as to whether or not gender differences in learning and toy preferences are due to biological factors or social constructs. As early as three years old, children have already identified their own genders and have formed an idea of what their gender should or should not do (Sax, 2017). For example, they have already learned that dolls and the color pink

are for females, and that the color blue and toy cars are for males. Many people raise their children using these types of social constructs. Although it is society that forms the idea that boys should play with “boy toys” and girls should play with “girl toys”, according to Sax (2017), it does not entirely affect the childrens’ own preferences. In an experiment (Wallen, Hassett, & Siebert, 2008), “masculine” toys and “feminine” toys were given to male and female rhesus monkeys. Their preferences in toys were compared with the data of a similar experiment whose subjects were children. The results show that male rhesus monkeys and boys have a much higher likelihood of choosing the “masculine” toys than choosing the “feminine toys”, while female rhesus monkeys and girls tended to have a higher likelihood of choosing the “feminine” toys, though it was very close to the prevalence of them choosing the “masculine” toys. According to this, children are only slightly affected by social construct in a general perspective. Most males prefer “masculine” toys, and although girls on average do not seem to have a very defined preference, the majority prefer “feminine” toys. Given these findings, it is concluded that male brains and female brains function differently. Boys and girls learn and express themselves in education the same way they do with toys. Boys prefer more action, while girls prefer more detail.

However, Caryl Rivers, journalist and author of *The Truth about Girls and Boys: Challenging Toxic Stereotypes About Our Children*, disagrees with Sax. In an interview with *Boston University Today*, Rivers addresses questions about the differences between boys and girls. Seligson, the reporter, describes a scenario to Rivers of behaviors noticed at a particular child's birthday party; the boys would hit each other with bats while the girls were having a tea party, and Seligson believes that it is difficult to not see these behaviors as natural (Seligson,

2011). River responds, “Well, kids very early on get an idea of what’s appropriate for their play. In one study there was a tea set and blocks, and when there weren’t parents around, particularly fathers, the boys played with the tea set as much as the girls. It’s astonishing how early on—very, very early—kids get ideas about what type of play is appropriate” (Seligson, 2011). Rivers believes that both gender differences in learning and toy preferences are the products of the children’s environment (Seligson, 2011). Dr. Sax and Rivers’ opinions suggest there is a lack of consensus in the development of gender behaviors; however, both authors agree that gender superiority does not exist concerning a humans education.

## Senses

Biological sex-based cognitive differences can also help account for gaping between the sex in learning. Human sensory details, such as sight and hearing cause distinct variations between sexes. In regards to hearing, females are far more sensitive than males; Sax (2017) gives an example concerning a boy in the second grade. The boy was seated at the back of the class as the teacher spoke in a voice that was loud for her, but too soft for the boy that sat far away. As a result, he had trouble paying attention and the teacher assumed the child had a deficit in attention. Sax, on the other hand, identified the problem. The solution for this would be to either have the teacher raise her voice or place the boy at the front of the classroom, “For the average boy to hear you as well as the average girl, you have to speak about eight decibels more loudly” (Sax, 2017, p.19). Furthermore, in a study by the American Music Therapy Association, an experiment was conducted with newborns measuring the interaction between genders across frequencies. This study found that females are more sensitive to sound than males; as the

frequency levels increased, so did the differences between the two genders' responses (Cassidy & Ditty, 2001). At the highest frequency, 4.0 kHz, the differences between the genders were about 2.32 decibels. This information, supports that males are more drawn to loud noises (which are linked to actions and movement) than females are, because it takes more to get them involved.

On the other hand, gender differences in sight may be mirrored with the difference in hearing range, yet, what is implied is the differences between what the genders visually process (Sax, 2017). As mentioned earlier, it is believed that there are gender differences in preferences of toys. Males tend to choose a moving object, such as a car, to play with because what they are drawn to is the object's movement (Sax, 2017). Whereas girls typically choose to play with plushies or dolls because girls notice texture, color, and numerous amount of details (Sax, 2017). Both genders can see both characteristics, however, according to Sax (2017), their choices in toys depend on what attracts them. Boys are more drawn to movement, while girls pay attention to detail. For example, when drawing pictures, it is typical for a boy to draw a colorless picture with cars and guns (Sax, 2017). The typical drawing of a girl is a colorful picture filled with the standard "happy" elements: the sun, family, friends, a dog, green grass, and flowers (Sax, 2017). These drawings display the interests of the children or their fantasies, how they view life, and their ideas of how it should be. The drawings are the children's descriptions of fun, excitement, and beauty. Such varied interests are mimicked in their writing styles as well; girls and boys both tend to write in styles similar to what they draw (Sax, 2017).

Nevertheless, as was mentioned before, there are still contradictions regarding these beliefs. James (2015) states :

> "Additionally, differences between genders can be magnified in a school setting. Stereotyping, peer pressure, social expectations, and environmental influences from families, peers and teachers, as well as the media and entertainment industry, all work together to intensify the importance placed on gender differences." (p. 4)

Regardless, whether these differences are caused by biology or society, they exist and must be addressed in aims to optimize learning environments and help set students up for success.

## Implications for Teaching Boys

As mentioned before, males are naturally less sensitive to sound than females. In order to help boys pay better attention in class, it is recommended for a teacher to raise his/her voice louder so that the male students' attentions are grasped and so that they may hear better. Additionally, it would be beneficial to place the boys at the front of the class if possible, which can help them hear the teacher better and be more focused.

Boys tend to associate art and literature with femininity and treat these subjects with indifference as they are discouraged from enjoying them. According to Sax (2017), girls usually draw the standard "pretty" and life-like drawings while boys usually draw action-based scenes. In response to these drawings, teachers become alarmed and disapprove of the boys' drawings. The teacher will normally compare the drawings to those of the girls and try to encourage the boys to draw like them, "Look at what Maria is drawing! Isn't it pretty? Why don't you try to draw something like that?" This discourages the boys, making them feel that to be a "good drawer" they need to draw like girls, forming the misconception that art is "girly". This also appears in writing. When teachers read a somewhat "violent" piece of writing, they discourage

the boys. Instead, teachers should make an effort in helping boys make their creations better such as suggesting to add detail or color. Violence in writing is permissible as long as the work does not represent the boy himself or anyone else. For example, he can write/draw about a famous war in history, he cannot, however, write/draw a fight between him and his peers (Sax, 2019). These pieces of work must not be threatening to anyone.

## Implications for Teaching Girls

In the 19th century, science, math, and astronomy were subjects for young women, because they were seen as a way of understanding God and his creations, therefore, they were pious and befitting for young women (Sax, 2017). Presently, adult women are being told that they do not belong in classrooms that teach these subjects, and that they are too unintelligent to succeed in such fields (Sax, 2019). Ivie & Ray (2005) found, "The number of minorities earning physics and astronomy degrees continues to be very low, and the number of female minorities is dismally small" (p. 21). The reason as to why women are not excelling in these subjects has nothing to do with intelligence, as cited by Geist & King (2008):

> "Girls have made significant gains, and since [...] 1978, they are taking the same levels of math as boys and achieving on the same level. Research shows that even though girls are largely keeping pace with boys, there are significant differences in their experiences in learning mathematics"

The difference between girls and boys choosing to study math, science, and astronomy lies within the approach the girls and boys take in studying the content. Females are more likely to make inquiries and question the validity and process of a certain concept rather than to simply

accept the piece of information as it is presented (Sax, 2019), with questions such as, “Why do the planets all rotate around the sun? How can that be possible? What is the purpose of this?”. Unfortunately, most traditional text-books do not present the information this way and most teachers are more focused on just giving the information with a “that is just how it is” approach (Sax, 2017). Furthermore, math and science topics use analogies and scenarios that are tailored to be most relatable to males (Sax, 2017). For example, questions provided by text-books and teachers often use storylines that involve baseball players or the idea of blowing up a car. Some females may relate to these, but most do not, and using such ideas contribute to females losing interest in such subjects. The best method to teaching math and science to both sexes, is to use examples that are not gender biased.

## All Different

Moving beyond gender distinction, humans vary with individuality; not all girls fit within a certain criteria and not all boys fit within another criteria. Sometimes people overlap, a girl’s behavior similar to a boy’s and a boy’s similar to a girl’s. With that, it is important to be aware that some students may not be like the other students of their gender. To accomplish this, gender biases must be discarded, and new practices must be adopted as mentioned by Teaching Tolerance (1997): Do not use language that denies a gender of participation (i.e. “he” or “she” only, “work*men*”). Inspect book for gender-biased content. Do not ridicule nor allow students to ridicule each other based on gender and encourage inclusion of both sexes in all activities.

## Islamic Perspective

Education is a very important topic within the Islamic religion. When the angel Jibreel (AS) came down to the Prophet Muhammad (SAW) for the first time, Jibreel (AS) revealed the first verses of the Quran:

> “Read. Read in the name of thy Lord who created; [He] created the human being from blood clot. Read in the name of thy Lord who taught by the pen: [He] taught the human being what he did not know.” (96: 1-5)

Additionally, Allah (SWT) has stressed that knowledge makes a large difference between those who seek it and those who do not, as stated in the Quran, "Are those who have knowledge equal to those who do not have knowledge?!”(39:9). From this, God has shown the importance of education, His prophet displays this as well through his sunnah. As recorded in Sunan ibn Majah:

> Anas ibn Malik (RA) narrated that the Prophet (SAW) said:
>
> "Seeking knowledge is a duty upon every Muslim” (Yazīd, Za’ī, Khattab, Khattab, & Khalīl, 2007, 224)

Here the Prophet Muhammad (SAW) makes it evident that Muslims should pursue education no matter what, implying that education is an obligation on a person regardless of gender. He (SAW) also has taught Muslims through his actions that knowledge should be available to all and to never discriminate, as recorded in Sahih Al-Bukhari:

> Abu Said Al-Khudri narrated:

> "Some women requested the Prophet to fix a day for them as the men were taking all his time. On that he promised them one day for religious lessons and commandments." (Al-Bukhari, Al-Almany, & Khan, 2009, p. 38)

By study, it has been proven that boys and girls on a general basis learn differently, and by that, it is a duty for Muslim communities to accommodate these differences to help each person fulfill the commands of Allah (SWT) and His Prophet.

## Conclusion

Gender differences in human development is a controversial topic , as psychologists, scientists, and journalists have and continue to present their own experiments and explanations. What has been shown, on the other hand, is that males and females differ in particular sensory details. Classrooms today are gender biased as they generally favor females' perspectives in art and literature and males' in math and science. Instead, schools must accept the difference of both genders and learn to accommodate them. Furthermore, not all girls are the same, and not all boys are the same. Because of human individuality, it is the duty of teachers to not label their students but to provide variety, as well as freedom, for their students to choose and learn in the ways that suit them ideally. In the religion of Islam, education is of great importance and is obligatory on each individual regardless of sex. With education being very crucial, it is the duty of Muslims to advocate for less biased teaching methods so that education is non-discriminatory and all Muslims can gain the knowledge they seek.

# References

Al-Bukhari. (2009). *Sahih Bukhari*. (M. M. Khan, Trans., M. Al-Almany, Ed.) (1st ed., Vol. 1). Retrieved from https://d1.islamhouse.com/data/en/ih_books/single/en_Sahih_Al-Bukhari.pdf

Cassidy, J. W., & Ditty, K. M. (2001). Gender Differences Among Newborns on a Transient Otoacoustic Emissions Test for Hearing. *Journal of Music Therapy*, *38*(1), 28 -35. doi: American Music Therapy Association

Geist, E. A., & King, M. (n.d.). Different, Not Better: Gender Differences in Mathematics Learning and Achievement. *Journal of Instructional Psychology*, *35*(1), 43–50. doi: George Uhlig Publisher

Ivie, R., & Ray, K. N. (2005, February). *Women in Physics and Astronomy*. PDF. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.561.7175&rep=rep1&type=pdf

James, A. N. (2015). *Teaching the Male Brain: How boys feel, think, and learn in school*. PDF. Thousand Oaks. Retrieved from https://books.google.com/books?hl=en&lr=&id=fXhZDwAAQBAJ&oi=fnd&pg=PT10&dq=how+to+teach+boys+differently&ots=e0rcda8ZAs&sig=-NSFwBrBwoaiAfBvNK0zOFdL4gM#v=onepage&q&f=false.

Sax, Leonard, M. D., Ph. D. (2019). *Why Gender Matters: What Parents and Teachers Need to Know About the Emerging Science of Sex Differences*. Talk presented at Michigan Islamic Academy, Ann Arbor, US.

Sax, Leonard, M. D., Ph. D. (2017). *Why Gender Matters: What Parents and Teachers Need to Know About the Emerging Science of Sex Differences*. Random House Inc.

Seligson, S. (2011, October 6). Debunking Myth That Girls and Boys Learn Differently: BU Today. Retrieved from http://www.bu.edu/articles/2011/debunking-myth-that-girls-and-boys-learn-differently/.

Teaching Tolerance (1997). *Starting Small: Teaching Tolerance in Preschool and the Early Grades.* PDF. Southern Poverty Law Center. Retrieved from http://www.tolerance.org/sites/default/files/kits/Teachers_Study_Guide.pdf

Wallen, K., Hassett, J. M., & Siebert, E. R. (2008, August). PDF.

Yazīd Ibn Mājah Muḥammad ibn, Za'ī Abū Ṭāhir Zubayr ʿAlī., Khattab, N., Khattab, H., & Khalīl Abū. (2007). *English translation of Sunan Ibn Mâjah* (Vol. 1). Riyadh: Darussalam.