



Implementation of Gender-Responsive Teaching Methods among Secondary School Teaching Staff in Mafia District, Tanzania

Thabiti Hassan Thabiti ^{a*}, Baraka Mwandilawa ^a
and January Basela ^b

^a *Institute of Development Studies, University of Dodoma, Tanzania.*

^b *Department of Psychology and Curriculum Development, University of Dodoma, Tanzania.*

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/ACRI/2023/v23i7599

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/105454>

Original Research Article

Received: 24/06/2023

Accepted: 27/08/2023

Published: 05/09/2023

ABSTRACT

In regard to teaching career, there have been gender disparities in extent using of teaching methods and strategies among teaching staff in schools which ultimately constrain academic performance of students. The use of gender responsive teaching methods became among the strategies that can enhance the performance of students. The study aimed at assessing the extent use of gender responsive teaching methods (GRTM) among teaching staff in secondary schools in Mafia district, in Tanzania. The study was guided by the following research questions, the first research question was, to what extent do teachers use gender responsive teaching methods among teaching staff in secondary schools?, while second research question was, is there any relationship between students academic performance and gender responsive teaching methods

*Corresponding author: Email: thabit.husein@gmail.com;

used in the classroom?. The study adopted cross sectional research design using a sample of 249 respondents including 184 students and 65 teachers who were selected randomly. Data were collected through survey, interviews and focus group discussions. Qualitative data were analyzed using thematic analysis and quantitative data were analyzed by descriptive statistics analysis and inferential statistics (Chi-Square). The study found that, some of secondary teachers had moderate awareness on the use of GRTM in secondary schools particularly in class use of gender sensitive language with regard to what is taught, how teaching takes places, how and what is learned in the context of male and female students was high (Mean=6.08±1.833) and use of gender sensitive language used in a class was also high (Mean=4.98±1.833).The study also found that, there is significant association between students academic performance and the extent teachers ensuring that, working groups were mixed comprising male and female students was statistically significant at 5% with a chi square value of 14.48 and P= 0.025.Further, the study found that, there is positive significant association between students academic performance and teachers in encouraging both male and female students to present results in a group work had a chi square of 9.434 and P=0.151 It is concluded that, GRTM had significant influence on students' academic performance in secondary schools in Tanzania. The study recommends that, education policy makers, curriculum planners, teachers, gender practitioners, NGO's and CBO's should provide pre-services and in-services teachers training on GRTM in order to increase uses so as to improve students' teaching methods.

Keywords: Academic performance; gender; teaching methods; gender responsive teaching methods.

1. INTRODUCTION

In the realm of education, teachers play a crucial role in delivering knowledge and shaping the academic performance of schools. They are responsible for setting the tone of the classroom, nurturing students, creating a conducive learning environment, and serving as role models [1]. To achieve the goals of teaching and learning in the classroom, teachers employ various methods and strategies, such as small group activities, lectures, case studies, skits, and hands-on learning activities. However, there has been limited focus among scholars on the extent to which teachers in secondary schools in Tanzania utilize gender-responsive teaching methods. The use of gender-responsive teaching methods by teachers can lead to differing outcomes in learning participation and students' academic performance. The dominance of female students in terms of academic performance raises questions about the underlying causes of this disparity, which remains the subject of debate among researchers, curriculum developers, policymakers, and academics.

Understanding and implementing gender-responsive teaching methods among teachers are crucial for designing educational development policies, improving teaching and learning, and enhancing academic performance, thereby mitigating gender differences in schools [2,3]. Furthermore, studies have shown that female teachers can positively influence female

students' self-assessment of their learning, whereas male teachers may inadvertently contribute to female students feeling more discouraged compared to their male counterparts. Although female students tend to outperform males academically, they may lack confidence in their own abilities. Tanzania has made efforts to create a gender-responsive environment in education by introducing gender-responsive teaching methods in schools [3]. Therefore, unequal participation among male and female students in teaching and learning in the class is regarded as key problem in education institution faces these days (Botella et al., 2019).

The implementation of a gender-responsive teaching model involves training teachers to design and utilize teaching methods that promote gender equity, leading to improved retention and performance of girls, increased participation of girls in the classroom, and enhanced gender relations within schools [3,2]. However, many teachers in Tanzania are still influenced by traditional gender norms prevalent in their communities, resulting in the use of teaching methods that do not provide equal opportunities for both boys and girls [3]. Despite the government's efforts to improve gender-responsive teaching methods in schools, there is only moderate awareness and utilization of these methods among teaching staff in secondary schools in Tanzania. This study aims to assess the extent to which gender-responsive teaching

methods are used among teaching staff in secondary schools in Tanzania.

1.2 Statement of the Problem

Despite the government's and development partners' efforts to enhance teaching careers and improve teaching methods and strategies through comprehensive pre-service and in-service teacher training, there remains a lack of awareness and effective utilization of gender-responsive teaching methods among teaching staff in Tanzanian secondary schools. Teaching is widely recognized as a profession that involves challenges, rewards, commitment, support, and care for learners in order to help them achieve their goals, as suggested by Zengel and Alemayehu [4] that the implementation of gender responsive teaching methods among teaching staff in secondary schools facilitate teaching and learning. However, there is limited information available regarding the extent to which gender-responsive teaching methods are being employed by teaching staff in Tanzanian secondary schools. The lack of information had an impact on teaching careers and teaching methods, ultimately influencing students in learning process and academic performance in secondary schools. Therefore, this study aims to address this knowledge gap by assessing the level of utilization of gender-responsive teaching methods among teaching staff in Tanzanian secondary schools.

1.3 Objectives of the Study

The general objective of the study was to assess the extent use of gender responsive teaching methods among teaching staff in secondary schools in Tanzania.

1.3.1 Specific objectives

The study was guided by the following specific objectives: -

- i). To determine the extent use of gender responsive teaching methods among teaching staff in secondary schools.
- ii). To analyses the relationship between students academic performance and gender responsive teaching methods in secondary schools.

1.4 Research Question

The study was guided by the following research questions: -

- i). To what extent do gender responsive teaching methods used among teaching staff in secondary schools?
- ii). Is there any relationship between students academic and gender responsive teaching methods used in classroom?

2. LITERATURE REVIEW

2.1 Uses of Gender Responsive Teaching Methods in Schools

The purpose of this study is to examine the implementation of teaching methods that are responsive to gender in Tanzanian classrooms. Gender-responsive schools are essential in creating an environment that benefits both male and female students, providing them with equal opportunities for motivation, learning, and academic progress [3]. To achieve this, teachers need to ensure that resources and activities are equally accessible to both genders. This encompasses various aspects, such as lesson planning, use of teaching materials, language usage, classroom arrangement, and interactions between students and teachers. Teachers' mindset and awareness regarding gender equality and education play a crucial role in promoting gender parity in schools and empowering girls. However, teachers often have mixed perceptions when it comes to teaching and organizing classrooms for male and female students. For instance, a study conducted by Terry and Thapa [5] in Nepal revealed that many schools were influenced by societal gender norms, resulting in discrimination against female students both at home and in the educational environment.

This discrimination can manifest in different ways, such as the perception that math subjects are primarily for male students. Such biases negatively impact both male and female students, as gender-biased language in the classroom can undermine their confidence and hinder their full participation in learning, leading to disparities in academic performance. Research conducted by Arif, Hubeis, Ginting, Pumaningsih, and Saleh [6] in Indonesia shed light on the emotional impact of teachers' use of negative, positive, and humiliating language on the academic performance of both male and female students. Similarly, gender-responsive comments towards students can influence their learning, social interactions, and academic achievements. Supportive teachers play a crucial role in fostering student engagement in the

classroom. Gender-responsive language in the classroom refers to the use of language that treats both male and female students equally, avoiding and correcting gender biases in schools. By employing such language, teachers can create an inclusive learning environment that enhances academic performance.

The European Institute of Gender Equality (EIGE) [7] emphasizes the importance of gender-sensitive language, as it shapes how male and female students are treated and represented. It is crucial to avoid the use of exclusionary terms and stereotypes that perpetuate sexist thoughts and attitudes. In conclusion, this study aims to evaluate the extent to which gender-responsive teaching methods are being implemented in Tanzanian classrooms. The objective is to promote equal opportunities and academic improvement for all students by fostering an inclusive learning environment.

2.2 Relationship between Students Academic Performance and Gender Responsive Teaching Methods in Schools

Prior research has shown a connection between students' academic performance and gender-responsive teaching methods in the classroom, impacting learning participation and academic performance. Studies indicate that more than half of the students participate infrequently, with female students avoiding group discussions more than male students (Caspi, Chajut, Saporta, & Beyth-Marón, 2005). Moreover, during classroom lessons, female students tend to speak less frequently, and teachers often interact more with male students, as asserted by Monsefi and Yaser [8] that, male teachers ask more questions and jokes students in the class while female teachers ask more questions in the class which influencing their academic performance in class.

Zapata and Ramirez [9] reported that teachers in schools often pay more attention to male students, which can influence learning and academic performance. For example, in a German study by Abril et al. [10] on gender segregation through role play, both male and female students tended to play in separate groups until the teacher emphasized the importance of playing together irrespective of gender. Additionally, Botella et al (2019) found that there is unequal participation among male and female students in the classroom which is a

great problem in achieving education goals because female teachers tended to organize and participate more in activities preferred by female students, such as dramatization, storytelling, role play, and drawings.

Various studies have attributed the existing differences to factors such as female students being interrupted more than male students and lacking the desire to compete for air time in the classroom. Tatum, Schwartz, Schimmoeller, and Perry [11] reported that in classes where males outnumber females, female students' willingness to participate decreased, while the number of female students in the classroom did not impact the male students' willingness to participate.

Furthermore, a comparison of male and female students' academic performance and interaction in physical classroom settings versus practical activities revealed that male students communicated more frequently face to face in the classroom (Caspi, Chajut, Saporta, & Beyth-Marón, 2006). There are several factors that influence the type and volume of learning participation by male and female students during class time and the dynamics between male and female students and teachers in the classroom. This study intended to analyze the relationship between students' academic performance and gender-responsive teaching methods in secondary schools within the context of Tanzania.

3. METHODOLOGY

3.1 Research Design

The study utilized a cross-sectional research design, which involved collecting information from respondents at a single point in time (Bisung & Elliot, 2018). This design was chosen as it enabled the researchers to gather relevant information from the participants through various methods such as questionnaires, interviews, and focus group discussions.

3.2 Population and Sampling Procedure

The study consisted of 249 respondents, including 184 randomly selected male and female students and 65 male and female teachers from six secondary schools. The sample size for the teachers was determined using published tables, considering a population size of 175, a precision level of 10%, a confidence level of 95%, and $P=0.5$ [12].

Additionally, the study involved District Secondary Education Officers, eight Headmasters/mistresses, and four Ward Education Officers to provide information related to the influence of gender-responsive teaching methods on academic performance in secondary schools.

Both probability and non-probability sampling methods were employed to obtain the respondents. For the teachers, a multistage sampling approach was used, starting with stratified random sampling to select 65 representative teachers from various secondary schools whose populations were known. This ensured that the proportion of each school's teachers in the calculated sample size was adequately represented. On the other hand, simple random sampling was used to select the 184 secondary school students.

Key informants, such as the head of schools, ward education officers, District Secondary Education Officers (DSEO's), and District Academic Secondary Education Officers (DASEO's), were purposively selected to provide specific insights into implementation of gender-responsive teaching methods among teaching staff in secondary schools in Mafia district.

3.3 Instrumentations

The study utilized questionnaires to collect data from 184 students and 65 teachers. The questionnaires consisted of closed-ended questions, including Likert scale items, where respondents were asked to rate their agreement on the extent of the use of gender-responsive teaching methods among the teaching staff in secondary schools, ranging from "strongly agree" to "disagree". Therefore, each participant was provided a checklist as a survey form to collect related data professionally and respectfully with considering participants time constraints and preferences.

In addition to the questionnaires, the study conducted focus group discussions with students and key informant semi-structure interviews with head of schools, ward and district education officers. These methods aimed to gather information related to the extent of the use of gender-responsive teaching methods among teaching staff and to explore the relationship between students' academic performance and gender-responsive teaching methods in secondary schools. During the interview, the researcher ensured participants to express their

opinion freely. Data were collected in six secondary schools in Mafia district from September 2022 to December 2022

3.4 Data Analysis Plan

In addressing the research questions, the study employed both descriptive statistics for quantitative analysis and inferential statistics (specifically Chi-square) for research question two.

For the quantitative analysis, descriptive statistics were used to explore and summarize the data related to research question one. This allowed the researchers to understand the frequency, distribution, and central tendencies of the responses from the questionnaires.

On the other hand, inferential statistics, specifically Chi-square analysis, were applied to investigate research question two. This statistical method helped in examining the relationship between variables and determining whether there were significant differences between groups in terms of the extent of using gender-responsive teaching methods among the teaching staff in secondary schools.

For the qualitative analysis, thematic analysis was chosen to analyze the data obtained from interviews and focus group discussions. This approach allowed the researchers to identify and interpret patterns, themes, and trends in the qualitative data, providing valuable insights into the perceptions and experiences of the participants regarding gender-responsive teaching methods.

4. PRIOR RESEARCH INDICATES THAT THERE ARE GENDER DIFFERENCES IN CLASSROOM PARTICIPATION, RESULTS

4.1 Research Question 1

To what extent do gender responsive teaching methods used among teaching staff in secondary schools?

The primary research objective of the study was to assess the degree to which gender-responsive teaching methods were being utilized by teaching staff in secondary schools. To accomplish this, the study employed a mixed-methods approach, gathering data through questionnaires administered to secondary school teachers,

conducting interviews with heads of schools, ward education officers, and district secondary education officers, and facilitating focus group discussions with students. A total of 65 secondary school teachers participated in the data collection process.

Subsequently, the data collected from the teachers were analyzed using descriptive statistics and thematic analysis. This allowed the researchers to gain insights into the extent of gender-responsive teaching methods being implemented by the teaching staff in the secondary schools. The results revealed that, there were moderate extent of use of gender responsive teaching methods among teaching staff as shown in Table 1.

Based on the data presented in Table 1 regarding the extent of using gender-responsive teaching methods among teaching staff, the mean scores and standard deviations were calculated for each response from the teachers. The findings revealed that male teachers demonstrated the highest mean score of 6.08 with a standard deviation of 1.833.. This suggests that teachers, especially male teachers, have shown a higher adoption of gender-responsive teaching methods relative to their female counterparts. The higher mean score implies a positive trend in the use and awareness of gender-responsive teaching methods among teaching staff in secondary schools in Tanzania.

Regarding the equal chances for male and female students to answer questions, the mean response was 5.31 with a standard deviation of 1.811. Teachers play a significant role in students' learning and academic performance by administering exercises in the classroom. Therefore, it is suggested that teachers should provide tests, quizzes, and take-home assignments to keep students engaged daily, enabling them to evaluate and improve their academic performance.

The mean score for teachers extending reinforcement to both male and female students was 4.74 with a standard deviation of 1.68. In the classroom setting, providing positive reinforcement has been found to improve learning and academic performance, On the contrary, using negative reinforcement has been observed to demoralize students' learning and academic performance.

Moreover, the mean score for teachers allowing sufficient time for all students, especially the shy or hesitant ones, to answer questions was 5.35 with a standard deviation of 1.727. The study also highlighted the significance of wait time in student engagement. However, it was observed that male students received more questions than female students and were given less time to respond, which may affect their participation and performance.

Table 1. Use of gender responsive teaching Methods among teaching staff

| Use of Gender Responsive Teaching Methods | Mean | Std. dev |
|---|-------------|-----------------|
| Teachers are given equal chance to male and female student to answer questions | 5.31 | 1.811 |
| Teachers extend reinforcement to both male and female students | 4.74 | 1.680 |
| Teachers allow sufficient time to answer question equally especially for students who may be shy or afraid to express themselves. | 5.35 | 1.727 |
| Teachers assigning exercise that encourage students to speak out. | 4.69 | 1.489 |
| Teachers ensure that working group are mixed (Both males and Females students) | 5.88 | 1.463 |
| Teachers ensure that, there is equal opportunity for male and female students to be a group leader. | 6.08 | 1.350 |
| Teachers ensure that both male and female students are equally encouraged to present results from group. | 5.89 | 1.382 |
| Teachers use gender sensitive-languages in teaching students | 4.98 | 1.833 |

Source: Field Data 2023

Regarding teachers' exercises given to male and female students that encourage speaking out, the mean score was 4.69 with a standard deviation of 1.489. The study emphasized that class participation enhances students' cognitive abilities and, consequently, their academic performance. The strategies employed by teachers to encourage participation mainly focused on reducing male and female students' anxiety when engaging in oral questions.

Overall, the extent of using gender-responsive teaching methods in the classroom was found to be moderate. This suggests a need to increase teachers' awareness and understanding of gender-responsive teaching methods in secondary schools in Tanzania to enhance students' learning and academic performance.

The mean score for teachers ensuring that working groups consisted of both male and female students in the class was 5.88, with a standard deviation of 1.463. Moreover, the mean response for teachers ensuring equal opportunities for both male and female students to be group leaders was 6.08, with a standard deviation of 1.35. Additionally, the mean score for teachers selecting male and female students equally to present results in a group was 5.89, with a standard deviation of 1.382.

Furthermore, the mean score for teachers using gender-responsive language in the classroom was 4.98, with a standard deviation of 1.833. This awareness significantly influences students' academic performance in secondary schools, with 60 (41.1%) teachers having the highest language use, 82 (56.2%) with moderate language use, and 4 (2.7%) using it minimally.

The results from the Focus Group Discussions with students and interviews with heads of schools and ward education officers revealed that although they were aware of gender-responsive teaching methods and applied them in the classroom, the term "gender responsive" was relatively new to them. This implies that there is a need for policymakers and curriculum planners to provide orientation to teachers regarding new terms and concepts intended for classroom teaching. The participants agreed that the improvement in using gender-responsive teaching methods in the classroom contributed to eliminating gender bias and stereotypes, resulting in improved students' learning and academic performance. The adoption of gender-

responsive teaching methods also empowered teachers to be more proactive in the classroom, significantly enhancing students' academic achievements in secondary schools in Tanzania.

Despite some teachers demonstrating only moderate awareness of using gender-responsive teaching methods, it is crucial to prioritize gender-sensitive language and involve female teachers and students in leadership roles during instructional activities.

4.2 Research Question 2

Is there any relationship between students' academic performance and gender-responsive teaching methods used in classroom?

The second research question of this study aimed to examine the relationship between students' academic performance and gender-responsive teaching methods in secondary schools. Data were collected through questionnaires administered to both teachers and students. Additionally, interviews were conducted with the heads of schools and education officers, while focus group discussions were held with students from selected secondary schools in Mafia district. The collected data were analyzed using inferential statistics, specifically chi-square tests, to determine if there was a relationship between students' academic performance and the implementation of gender-responsive teaching methods in schools. The results of the analysis revealed that students' academic performance had a significant association with gender-responsive teaching methods in the classroom, which had a positive impact on their learning and academic performance. The study concluded that when teachers provided and implemented mixed group discussions in the classroom, it greatly motivated students and led to improved learning participation and academic performance in Tanzanian secondary schools. The findings are summarized in Table 2.

The findings from Table 2 indicated that there was no significant association between students' learning participation and teachers giving equal chances to answer questions (chi-square = 7.129, $p = 0.309$). This suggests that teachers were providing equal opportunities for both male and female students to participate in classroom discussions.

Table 2. Relationship between students' academic performance and gender responsive teaching methods

| Gender responsive Teaching Methods | X² | P Value |
|---|----------------------|----------------|
| Equal Chances of answering question between male and female Students. | 7.129 | 0.309 |
| Teachers extend positive reinforcement to both male and female Students. | 1.256 | 0.974 |
| Teachers allow sufficient time for students to answer questions Who may be shy or afraid to express themselves. | 6.897 | 0.330 |
| Teachers assigning exercises that encourage male and female Students to speak out. | 5.734 | 0.454 |
| Teachers ensure that working group is mixed by comprising Both male and female students. | 14.48* | 0.025 |
| There is equal opportunity for male and female students to be a group leader. | 7.117 | 0.310 |
| Male and female students are encouraged to present results of group work. | 9.434 | 0.151 |
| Teachers use languages in teaching which is friendly to both male and female students to take different roles in the society. | 7.099 | 0.312 |

Significant at P<0.05

Source: Field Data 2023

Similarly, no statistically significant association was observed between students academic performance and the extent to which teachers gave positive reinforcement (chi-square = 1.256, p = 0.974). The results showed that there were no differences in the provision of positive reinforcement between male and female students in the classroom.

Regarding to teachers assigning exercises that encourage students to speak out, there was no statistically significant association with students academic performance in the classroom (chi-square = 6.897, p = 0.330).

Similarly, the relationship between students academic performance and teachers assigning exercises to encourage speaking out in group work showed no statistically significant difference (chi-square = 5.734, p = 0.454). This suggesting that teachers who given exercise in the class that encourage both male and female students to speak out especially in a group has not influence their performance in class during learning.

However, there was a statistically significant association (at the 5% level) between students learning participation and teachers ensuring that working groups consisted of both male and female students (chi-square = 14.48, p = 0.025). This implies that teachers who promoted mixed-gender working groups in the classroom enhanced learning participation and students' academic performance.

The relationship between students academic performance and teachers encouraging both genders to be group leaders during presentations was not statistically significant (chi-square = 7.117, p = 0.310). Nevertheless, teachers' encouragement for both male and female students to take leadership roles during group work positively impacted learning participation and students' academic performance in the classroom.

Similarly, the relationship between students learning participation and teachers encouraging them to present results in group work in the classroom was not statistically significant (chi-square = 9.434, p = 0.151). However, there was a positive association, indicating that when female students presented as group leaders, it increased students' attention and facilitated subject understanding.

Lastly, the relationship between students academic performance and teachers using friendly language to encourage them to take different roles in society was not statistically significant (chi-square = 7.099, p = 0.312). Nevertheless, using friendly language in the classroom can foster good relationships between male and female students and teachers, thereby facilitating the learning process. Conversely, the use of harsh or abusive language negatively influences not only learning but also the academic performance of both male and female students in schools.

5. DISCUSSION

In the first and second research questions referring to the implementation of gender responsive teaching methods among teaching staff and relationship between students' academic performance and gender responsive teaching methods in secondary schools in Tanzania. The application of teaching reinforcement, provision of equal chance of answering questions in the classroom, providing exercise that encourage male and female students participation, teachers ensuring working group, equal opportunities for both male and female students to be group leader and uses of gender sensitive languages in the class.

The data of the first research questions were in line with the data presented regarding the extent of using gender-responsive teaching methods among teaching staff, the mean scores and standard deviations were calculated for each response from the teachers. Similar results were reported by Ananga (2021) in Ghana, indicating a significant increase (68.9%) in the use of gender-responsive pedagogy in their teaching over time. This suggests that teachers, especially male teachers, have shown a higher adoption of gender-responsive teaching methods relative to their female counterparts. The higher mean score implies a positive trend in the use and awareness of gender-responsive teaching methods among teaching staff in secondary schools in Tanzania.

Based on the findings regarding to teachers provide the equal chances to male and female students to answer questions in the class, Teachers play a significant role in students' learning and academic performance by administering exercises in the classroom. Therefore, it is suggested that teachers should provide tests, quizzes, and take-home assignments to keep students engaged daily, enabling them to evaluate and improve their academic performance. The results were aligned by Molokomphale and Mavis (2014) who were emphasized that not scoring exercises given to students may signify a lack of commitment to duty and make it difficult for teachers to assess students' mastery of skills.

On the findings for the teachers extending reinforcement to male and female students in the classroom has been found to improve learning and academic performance, as supported by the study conducted by Igwilo, Okwelle, and Deebom

[13]. On the contrary, using negative reinforcement has been observed to demoralize students' learning and academic performance. These findings align with the study by Igwilo et al. [13], which indicated that negative words used by teachers discouraged students, while positive words such as praise were effective in encouraging learning.

Moreover, on the findings for the teachers allowing sufficient time for all students, especially the shy or hesitant ones, to answer questions reflected the study by Opatye [14], which revealed that giving students enough time to respond positively influenced learning and academic performance. The study also highlighted the significance of wait time in student engagement. However, it was observed that male students received more questions than female students and were given less time to respond, which may affect their participation and performance.

Regarding on the findings for the teachers provide exercises that encourage both male and female students to speak out were similar with findings reported by Nyborg et al. [15], that teachers were sensitive to how shyness hindered male and female students' engagement in oral contributions. The study emphasized that class participation in learning enhances students' cognitive abilities and, consequently, influence their learning and academic performance. The strategies employed by teachers to encourage participation mainly focused on reducing male and female students' anxiety when engaging in oral questions.

Overall, the extent of using gender-responsive teaching methods in the classroom was found to be moderate. This finding is consistent with Ananga's (2021) study, where only 3.6% of tutors employed gender-responsive pedagogy in their teaching. This suggests that there is need to increase teachers' awareness and understanding of gender-responsive teaching methods in secondary schools in Tanzania to enhance students' learning and academic performance.

The findings based on the teachers ensuring that working groups consisted of both male and female students in the class was 5.88 mean score, with a standard deviation of 1.463.

Moreover, the results on the response for the teachers ensuring equal opportunities provided equally for both male and female students to be

a group leader were in aligned with findings of Kirschener, Paas and Kirschener [16] who suggested that guided group work in the classroom increase learning capacity among students. Similarly, Tilahun [17] claimed that, teachers grouped students based on their abilities, thus male students whose good performers had their own group relative to female students had their own in which significantly influencing students academic performance in schools.

Furthermore, the mean score for teachers using gender-responsive language in the classroom, the findings were consistent with those reported by Mhewa (2020), where it was observed that the majority of teachers were aware of and used gender-responsive language in the classroom to promote equitable participation in learning. This awareness significantly influences students' academic performance in secondary schools, with 60 (41.1%) teachers having the highest language use, 82 (56.2%) with moderate language use, and 4 (2.7%) using it minimally. Besides, Amani and Birjandi (2012) asserted that, when students in the classroom especially female students discriminated by language use in the class significantly influence learning and their performance.

The results from the Focus Group Discussions with students and interviews with heads of schools and ward education officers revealed that although they were aware of gender-responsive teaching methods and applied them in the classroom, the term "gender responsive" was relatively new to them. This implies that there is a need for policymakers and curriculum planners to provide orientation to teachers regarding new terms and concepts intended for classroom teaching. The participants agreed that the improvement in using gender-responsive teaching methods in the classroom contributed to eliminating gender bias and stereotypes, resulting in improved students' learning and academic performance. The adoption of gender-responsive teaching methods also empowered teachers to be more proactive in the classroom, significantly enhancing students' academic achievements in secondary schools in Tanzania.

Despite some teachers demonstrating only moderate awareness of using gender-responsive teaching methods, it is crucial to prioritize gender-sensitive language and involve female teachers and students in leadership roles during instructional activities. Kahamba et al. [18] also

emphasized that gender-responsive pedagogy approaches create an inclusive instructional environment that ensures both girls and boys feel involved and treated fairly during the learning process.

Data related to the second research question indicated that, there was no significant association between students' academic performance and teachers giving equal chances to answer questions. This suggests that teachers were providing equal opportunities for both male and female students to participate in classroom discussions. This finding aligns with the research by Webb & Barrett [19], which highlighted how student engagement and active participation can be fostered by such practices.

Similarly, no statistically significant association was observed between students' academic performance and the extent to which teachers gave positive reinforcement. The results showed that there were no differences in the provision of positive reinforcement between male and female students in the classroom. This finding was supported by Akbasli, Kosece and Ucan (2018) that, physical classroom conditions have an effect on the students learning motivation and academically success in schools, therefore, teachers would be equally effective in inspiring both male and female students in the classroom.

Regarding on findings based on teachers assigning exercises that encourage students to speak out revealed that, there was no statistically significant association with gender. Several studies have demonstrated the positive influence of exercises and homework given to students in learning and academic performance (Hagger, Sultan, Hardcastle, Chatizsarantis, 2015).

Similarly, the relationship between students' academic performance and teachers assigning exercises to encourage speaking out in group work showed no statistically significant difference. This finding aligns with the study conducted by Nunez, Suarez, Rosario, Vellejo, Cerezo, and Valle [20], which reported an indirect relationship between homework feedback and students' learning participation in the classroom.

However, there was a statistically significant association (at the 5% level) between students' academic performance and teachers ensuring that working groups consisted of both male and female students. This implies that teachers who promoted mixed-gender working groups in the

classroom enhanced learning participation and students' academic performance. Gillies [21] also supported these findings, by stating that students working together in mixed groups were more motivated to achieve than those working individually, thereby enhancing academic knowledge and interpersonal skills among male and female students.

The relationship between students learning participation and teachers encouraging both genders to be group leaders during presentations was not statistically significant. Nevertheless, teachers' encouragement for both male and female students to take leadership roles during group work positively impacted learning participation and students' academic performance in the classroom.

Similarly, the findings on the relationship between students academic performance and teachers encouraging them to present results in group work in the classroom was not statistically significant. However, there was a positive association, indicating that when female students presented as group leaders, it increased students' attention and facilitated subject understanding.

Lastly, based on the findings of the relationship between students academic performance and teachers using friendly language to encourage them to take different roles in society was not statistically significant. Nevertheless, using friendly language in the classroom can foster good relationships between male and female students and teachers, thereby facilitating the learning process. Conversely, the use of harsh or abusive language negatively influences not only learning but also the academic performance of both male and female students in schools.

According to O'Connor Dearing & Collins [22], a positive relationship between male and female students and teachers in the classroom plays a crucial role in promoting and enhancing learning and improved students' academic performance. When there is a positive bond between learners and their teachers, the classroom becomes more supportive, leading to increased engagement in social and productive activities. This highlights the significance of fostering closeness and positivity between male and female teachers and students in schools.

The study codifying that results of the present results, therefore the implementation of gender

responsive teaching methods among teaching staff in secondary schools effectively improved teaching and learning competence, participations and students academic performance [23-25].

6. SUMMARY OF FINDINGS

The study aimed to investigate the awareness and extent of gender-responsive practices among teaching staff in secondary schools, specifically focusing on the use of teaching and learning facilities, effectiveness of subject teachers, language use in the classroom, reinforcement strategies, and equal opportunities for male and female students to participate and answer questions. Additionally, the study explored the relationship between male and female students and the implementation of gender-responsive teaching methods in secondary schools.

The research adopted a cross-sectional study design, utilizing various data collection methods such as questionnaires, interviews, focus group discussions, and documentary reviews to gather both primary and secondary data. Descriptive and inferential statistics, particularly the chi-square test, were employed to summarize the information obtained from the respondents.

The study's findings revealed that teaching staff had a moderate level of knowledge regarding gender-responsive teaching methods in secondary schools. This moderate knowledge was found to have an influence on learning and academic performance. However, a significant difference was observed between schools located in urban areas (e.g., Kilindoni, Kitomondo, and Micheni secondary schools) where female students underperformed relative to male students, and those in rural areas (e.g., Baleni, Kirongwe, and Bweni), where this discrepancy was less pronounced.

Regarding teachers' responses to preparing teaching and learning materials with consideration for the needs of male and female students, 56.9% of participants agreed, 32.3% were neutral, and 10.8% strongly disagreed.

In terms of gender-responsive teaching methods concerning what is taught, how teaching takes place, and how male and female students learn, 64.6% of participants agreed, 26.2% were neutral, and 9.2% strongly disagreed with the statement.

When it came to teachers using gender-sensitive language in the classroom, 89.2% of participants agreed, 7.7% were neutral, and 3.1% strongly disagreed with the statement.

Regarding the extent of using gender-responsive teaching methods among teaching staff in secondary schools, the highest mean score (6.08) and standard deviation (1.833) were recorded with a sample size (n) of 65 teachers. On the other hand, the lowest mean score was (4.69) with a standard deviation of (1.489).

7. CONCLUSIONS AND RECOMMENDATIONS

Based on the study findings, the following conclusions can be drawn:

- i) The teaching staff demonstrated a moderate level of knowledge regarding gender-responsive teaching methods, and the extent to which these methods were utilized had an impact on students' learning and academic performance.
- ii) Developing learning materials that take into account the specific needs of both male and female students had a positive effect on students' academic performance.
- iii) Furthermore, the increased implementation of gender-responsive language significantly improved the learning process and positively influenced students' academic performance.
- iv) Some schools and teachers would benefit from additional training on gender-responsive teaching approaches.

Therefore, the study recommends the following:

- The government, in collaboration with the Mafia District council, parents, and other education stakeholders such as community-based organizations (CBOs) and non-governmental organizations (NGOs), should establish in-service teacher training programs, forums, and debates focused on gender-responsive teaching methods in secondary schools. These initiatives aim to enhance teachers' knowledge and provide them with the necessary tools.
- The government, through quality assurance mechanisms, should ensure that teaching staff incorporate gender-responsive approaches into their daily teaching and learning processes.
- The Inspectorate department should conduct regular school inspections to

monitor the application of gender-responsive teaching methods and their impact on students' academic performance.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Ababa A. Study on situation of out school children (OOSC) in Ethiopia. Ethiopia Ministry of Education and UNICE, Ethiopia Country Office; 2012.
2. Forum for African Women Educationist (FAWE). Gender-Responsive Pedagogy; 2018. Available: http://www.fawe.org/activities/interventions/GRP_index.php?lang=2&lang=1
3. UNESCO. Preparation of a Comprehensive Gender Responsive Pedagogy (GRP); 2017.
4. Zengel AG, Alemayuh B. The status of secondary schools science laboratory activities for quality education in case of Wolaita zone, Southern Ethiopia. Journal of Education and Practice. 2016;7(31):1-11.
5. The Journal Terry G, Thapa N. Gender audit of Nepal school sector reform programme. Cambridge DFID Human Development Resources Center. of Higher Education. 2012;84(6):745-768
6. Arif A, Hubies B, Ginting N, Purnaningsih N, Salehe A. Gender Responsive in Class: Study of Communication Behaviour Teacher in Elementary School. International Journal of Humanities and Social Science. 2014; 4(9):266-273.
7. Europe Institute for Gender Equality (EIGE). Gender Awareness Raising. Luxembourg: Author Field A. (2018). Discovering Statistics. Using IBM SPSS Statistics: SAGE; 2018.
8. Monsefi M, Yaser H. Male and female EFL teachers' politeness strategies in oral discourse and their effect on the learning process and teachers-students interaction. International Journal on Studies in English Language and Literature. 2015;3(2):1-13 (IJSELL).

9. Zapata GM, Ramirez RR. Policies for Social Inclusion and Equity in Higher Education in Europe, Mitigating Inequality higher education research policy and Practice in an Era of Stratification (Advance in Education in Diverse communities. Emerald Group Publishing Limited. Bingley. 2015;11:311-336. Available:<http://doi.org/10.1108/51479-35820150000011019>
10. Abril P, Cremers M, Duncan N, Golubevaite L, Krabel J, Lilaite A, Nordfjell OB, Raudonyte J, Romero A. Gender loops: Toolbox for gender conscious and equitable early childhood centres. Hinklsteinstein Sozialistische GmbH, Berlin, German; 2008.
11. Tatum HE, Schwartz BM, Schimmoeller PA, Perry N. Classroom participation and students faculty interactions: Does gender matter?; 2013.
12. Glenn D. Sampling the evidence of extension program impact: Program evaluation and organizational Development. Florida: University of Florida; 1992.
13. Igwilo Q, Okwelle Pc, Deebom MT. Percieved influence of reinforcement of students academic perfromance in motor vehicle mechanic in technical college in rivers state. International Journal of Latest Research in Humanities and Social Science.2020;03(08). (IJLRHS)
14. Opatye J. Effectiveness classroom questioning wait time on senior secondary schools students performance and reflective reason in chemestry. Nigeria Journal of Educational Research and Evaluation. 2020;18(2):59-73.
15. Nyborg GL, Heidi Mjelve, Anne Arnesen W, Ray Crozier, Gunnar Bjornebakk, Robert J. Cpplan: Teachers strategies for managing shy students anxiety at schoo, Nordic Psychology; 2022. DOI: 10.1080/19012276.2022.2058072
16. kirschener F, Paas F, Kirschener PA. A cognitive load approach to collaborative learning:United brains for complex tasks. Educational Psychology Review. 2009; 21:31-42.
17. Tilahun Y. Factors affecting academic participation of female students in harar senior secondary school. Eastern Ethiopia (Doctoral dissertation, St.Marys University; 2013.
18. Kahamba JS, Massawe FA, Kara ES. Awareness and practice of gender responsive pedagogy in higher learning institutions: The case of sokoine university of agriculture, Tanzania. Journal of Education, Humanities and Science. 2017;6(2):1-16.
19. Webb NG, Barrett LO. Students view of instructor. Students rapport in the college classroom. Journal of Scholarship of Teaching & Learning. 2014;14(2):15-28. DOI:10.14434/josotl.v14i.4259
20. Nunez JC, Suarez N, Rosario P, Vallejo G, Cerezo R, Valle A. Teachers feedback on home related behaviour and academci achievement. J. Educ. Res. 2014;108:204-216. DOI:10.108/002200671.2013.8782298.
21. Gillies RM. Cooperative Learning.Review of Reseaerch and Practice. Australian Journal of Teacher Education. 2016;4(3). Available:<http://dx.doi.org/10.14221/ajte.2016v41n3.3>
22. O'Connor EE, Dearing E, Collins BA. Teacher-child relationship and behavior problem trajectories in elementary school. American Educational Research Journal. 2011;48(1):120-162.
23. Amini M, Birjandi P. Gender bias in the Iranian School, EFL textbooks. English Language Teaching. 2012;5(2):134-147.
24. The United Republic of Tanzania. Education sector performance report 2017/2018, Tanzania mainland draft for distribution. Dar es Saalam: Government Printer; 2018.
25. United Nations Educational Scientific and Cultural Organization. Building peace in the mind of men and women sustainable development goals 4 and its targets; 2019. Available:[https://en.unesco.org/education2030.sdg4/targets%](https://en.unesco.org/education2030.sdg4/targets%20)

© 2023 Thabiti et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<https://www.sdiarticle5.com/review-history/105454>