Teachers' Mindset on Gender Responsive Pedagogy (GRP) in Mathematics Classroom

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Abstract

The purpose of this study was to analyze mathematics teachers' mindset regarding GRP practices in their classroom set up, and classroom activity at secondary school level. The respondents were 120 mathematics teachers (106 male, 14 female), who were teaching mathematics at grade IX and X and were selected randomly. The participants were from three districts: Kathmandu, Sindhuli, and Chitwan of Province Three of Nepal. Cross-sectional Survey design was employed for this study. Selfdeveloped questionnaire was considered as the data collection tool. The collected data were analyzed using descriptive statistics (Mean and Standard Deviation) and inferential statistics (One Sample t-test). The result of the study indicated that secondary level mathematics teachers are practicing GRP on classroom set up and classroom activity. However, they did not give more time and effort for girls in learning mathematics, and low practice of group work for cooperative learning, which is important for reducing gender bias and empower girls in learning mathematics. The Government of Nepal should provide teachers' GRP awareness training about how to practice GRP in classroom through policy and changing concept in school curriculum and promote positive mindset towards GRP practice.

Key Words: Teachers' mindset, Classroom set up, Classroom activity, Gender responsive

Introduction

The main component of a quality education is to manage gender responsive pedagogy in teaching. It is necessary for teachers to develop gender responsive teaching methods, classroom set up, and create new ways of classroom activity that enable both girls and boys to equally participate in learning mathematics. The teachers' mindset and its practices in classroom activity affect how boys and girls learn mathematics. Their mindset play vital role in shaping classroom activity gender friendly. Students' participation in classroom discussion is regulated by the teachers' behavior because of their mindset toward students. Mathematics is a critical enabling course; it is necessary subject for both boys and girls. So, Gender Responsive Pedagogy (GRP) needs to be a central part in the ways of teaching

process. Hence, it is important for the teachers to know about gender responsive pedagogy and do practice in the classroom for the gender responsiveness.

Dweck (2007) expresses that mindset can be measured between fixed and growth spectrum. The teachers who had growth mindset, they provided increased support to students but the teachers who had fixed mindset, they thought that student's intelligence was fixed and provided them less support (C Anne Gutshall, 2014). In teaching and learning process, "when the teachers hold a growth mindset, many students who start out lower in the class blossom during the year and join the higher achievers" (Dweck, 2007, p. 10). The teachers who has growth mindset, can changed their teaching strategies through gender responsive pedagogy rather than conventional teaching approach.

Gender refers to the roles and responsibilities of boys and girls, that are created in our societies, cultures, and families (Wedege, 2007). Gender roles are different from community to community, and culture to culture, and are changed and vary from time to time. On the other hand, Pedagogy refers to the instructional techniques and strategies, which facilitate teaching and learning process (Wall, Litjens, & Taguma, 2015). Likewise, pedagogy relates about what is taught and how, that incorporates both the implications for teachers and for teaching (Warin & Adriany, 2017).

Gender Responsive Pedagogy (GPR) as a model developed by Forum of African Women Educationalist (FAWE) and intervention by the year 2005 taking aims to create a gender responsive environment that enhances and facilitates equal participation of both boys and girls. GRP is a teaching and learning process that pay attention to specific learning needs of both boys and girls (Mlama et al., 2005). GRP encourages teachers to consider gender approach at the time of planning lesson, managing classroom activity and assessment aspects. This approach also helps teachers and students to replace their negative attitude and gender stereotypes into by the positive attitudes and by gender responsive in the classroom to eradicate gender stereotype. In order to manage effective teaching practice teachers need to be

Trained and supported in the use of flexible teaching styles, incorporating a combination of whole class, group and pair work, as well as diverse learning materials beyond the textbook. The students then have opportunities to discuss, ask questions and work collaboratively with their peers, as well as the teacher. (UNESCO, 2017, p. 12)

Likewise, the teacher who are gender aware rather than gender blind, can be practiced gender responsive teaching (Warin & Adriany, 2017) in mathematics classroom. Warin and Adriny state that if they want to eliminate rigid gender discourse, they must provide students different alternatives and change their own gender practice and negative mindset regarding classroom activity and classroom setup in teaching mathematics. Teachers

can make the classroom more gender friendly and responsive, if teachers can practice to give boys and girls opportunities to participate, manage democratic discussion, and share relevant values and beliefs.

Teachers' experiences play vital role for developing gender equalities, quality education, and girls' empowerment. Teachers have fixed mindset in their teaching methods and classroom arrangement regarding gender. Whereas, Terry and Thapa (2012) reported that in the context of Nepal, schools are gendered institutions, based on wider society, that produce gender relations. Girls face discrimination through home and society due to their rooted mindset as mathematics as a male dominated subject that expands up to school. Researchers argue that one major hindrance to participation of girls in STEM is the lack of gender responsiveness in the pedagogy applied in schools (Forum for African Women Educationalists [FAWE], 2008). In addition, Terry and Thapa noted in Nepalese classroom, there is a problem with students of poor reading skills, outdated teaching methods, and limited use of child centered pedagogy. Teacher's interaction and communication with students makes a powerful influence on student's performance and achievement. Moreover, "teacher-student interactional behavior is assumed to be of crucial importance to student learning in the classroom" (Goh & Fraser, 1998, p. 200). On the other hand, dark and noisy classroom due to high teacher student ratio increase gender inequalities and reduce girls empowerment in learning process. Gender limits boys and girls lives and possibilities and also their behavior, their competencies, are valued differently (Karlson & Simonsson, 2011).

Sitting arrangement also play prominent role for increasing girls' involvement and participation in mathematics classroom equally as boys. The subject teachers should plan sitting arrangement for both boys and girls that gives them equal opportunities for class participation and interaction with other peers and teachers (Kahamba, Massawe, & Kira, 2017). The traditional seating arrangement may not encourage student centered learning, cooperative learning, and active participation of students specially girls (Dorji, 2020). But, still Nepalese classroom had been seen in traditional way, teachers managed their classroom through their fixed mindset traditional way row-column setting. After observing the classroom, gender audit of Nepal found that every girls are seated in the back rows in the classroom (Terry & Thapa, 2012). When they sit at the back of the class "they are less likely to participate unless the teacher makes a special effort to involve them" (Mlama et al., 2005, p. 7). To do such activity, teachers must manage their classroom by understanding each student's specific learning needs. However, in the context of Nepal teachers are not aware about gender specific needs of both boys and girls (Paudal, n.d.). Then teachers have to increase neutral mindset and to decrease fixed mindset (C Anne Gutshall, 2013) regarding gender in mathematics classroom.

To motivate students in learning and for their active participation, teacher should use variety of student centered teaching method except teacher centered lecture method. But in the context of Nepal teacher's mindset in traditional lecture method, they use traditional pedagogy such as lecture method and transmission approach in mathematics classroom, hence each students didn't get equal opportunity (Panthi & Belbase, 2017). Similarly another study also reported that most of the teachers are used traditional teacher centered methods such as dictation and rote note taking rather than student centered approaches such as group discussions, class discussions, and debates for participating and encouraging both boys and girls (Nabbuye, 2018). In Nepal, in teachers' professional development include less gender issues for gender sensitization Hence in practice, trainers tend to use outdated approaches and methods rather than child centered pedagogy (Terry & Thapa, 2012). Some teaching methodologies such as "group work, group discussions, role play, debates, case studies, explorations and practical" (Mlama et al., 2005, p. 9) are very effective for students. This condition shows, teachers are less aware towards GRP and its use in their teaching process.

Teachers' belief and attitude play vital role for shaping classroom practices (Bolhuis* & Voeten, 2004). How they teach, behave, belief and interact with students are more vital in classroom or in teaching process rather than what they teach (Odiri, 2011). Teachers do discriminate behavior inside and outside the classroom, gives less attention and support to girls rather than boys (Kedar Bhakta Mathema, 2007; K. B. Mathema & Bista, 2006). In this manner, most of the teachers in Nepal perceive girl students as incompetent, lazy, submissive and less intelligent than boys (Kedar Bhakta Mathema, 2007). They made more assumptions about girls' performance, and noted girls as shy, afraid to give answers, and having low self-esteem (Nabbuye, 2018). People had fixed mindset that mathematics is a male dominated subject (Sarouphim & Chartouny, 2017), so they can't do mathematics (Bulut, Gür, & Sriraman, 2010). Then accordingly, teachers set their classroom in traditional way and do discriminating classroom activity while teaching mathematics.

Teachers' had also gender biased mindset and attributed boys' success mostly to high ability and their intrinsic motivation and girls' success is due to effort and help received from the teacher (Sarouphim & Chartouny, 2017). Likewise, the girls' failure was attributed to low ability and the boys' failure to lack of effort and intrinsic motivation (Samuelsson & Samuelsson, 2016). Due to these gender discriminating belief or mindset, they conduct their classroom activity like as questioning, interaction, discussion in a traditional way without valuing students' specific learning needs. Most of the teachers thought that the students who had fixed intelligence, they got less support and encouragement to find the solutions themselves where as those students whose intelligence is modifiable, they become more supportive and teachers taught them more explicitly how to solve problem (C Anne Gutshall, 2013). Likewise, teachers create different assumptions about girl's ability like as girls are shy, afraid to give answers, and having low self-esteem and disempowered

(Nabbuye, 2018). Accordingly, they may set up their classroom and conduct the classroom activity. GRP helps them to escape through these bad perceptions in their teaching process.

Some researchers conducted research studies on the basis of GRP awareness and practices from African countries and Bhutan. Kahamba et al. (2017) conducted a research with 83 academic staff at higher learning institutions based on survey to assess the level of awareness and practice about GRP methods in teaching. The study found they had partial awareness towards GRP and had low GRP practice. Similarly, in mathematics instruction, GRP usage were decreases (Obasi, 2017).

Moreover, Seifu, Dagnew, and Abraha (2019) examined the implementation status of general secondary science teachers' GRP and found that teachers uses GRP properly in science classroom. But, they were ineffective to prepare gender responsive lesson plan, teaching materials, and to have gender responsive management of sexual maturation in classroom. In a similar manner, in some extent preschool teachers are gender sensitive and have knowledge about the use of gender responsive pedagogy in teaching in classroom between boys and girls (Muasya & Kazungu, 2018). Similarly, in the case of GRP practices and awareness, another researcher Dorji (2020) conducted a research in Bhutan using mixed research design and found that teachers did not aware and they did not know anything about gender and GRP. In addition, they paid less attention on language use, classroom set up, classroom interactions and use of textbooks in teaching process.

Research Questions of the Study

This study aims to analyze mathematics teacher's mindset in classroom set up and classroom activities regarding GRP. All the teachers who were teaching mathematics subject at Grade IX and X in secondary schools were included in this study from Province Three of Nepal. Specifically, the questions addressed in this study were as follows:

- What types of mindset do mathematics teachers have in classroom regarding GRP?
- How do teachers set up classroom for gender responsiveness?
- Do the teachers' classroom activity gender responsive?
- How do teachers improve their GRP practices in mathematics classroom?

Methodology

In this study cross-sectional survey design was used because the information which was gathered represents what was going on at only one point in time (Olsen & St George, 2004). The target population of the study consists of mathematics teachers who were teaching mathematics at grade IX and X at government secondary schools in Province Three of Nepal. The respondents of this study were 120 mathematics teachers who were

teaching mathematics at grade IX and X. The respondents were chosen from three districts of Province Three of Nepal. Sindhuli district was chosen from Hilly region, Chitwan was chosen from Terai region and Kathmandu was chosen from Valley from province Three. Among 120 mathematics teachers' 35 teachers were from Sinduli, 38 teachers were from Chitwan, and 47 teachers were chosen from Kathmandu using simple random sampling method. Altogether, there were 106 male teachers and 14 were female teachers as total 120 teachers.

In accordance with the aim of the study, self-developed questionnaire for mathematics teachers to analyze their mindset in classroom setup and classroom activity practices regarding GRP were used. The scale consisted 21 items and was constructed by considering agreement five point Likert scales type. Among 21 items regarding teachers' mindset in classroom practices based on GRP, 6 items were related to classroom set up and remaining 15 items were related to their classroom activity regarding GRP in mathematics. The agreement Likert scale ranges from strongly agree to strongly disagree as Strongly Agree= 5, Agree= 4, Neutral= 3, Disagree= 2, and Strongly Disagree= 1 and was used to analyze teachers' mindset in practicing GRP in mathematics classroom. For negative statements reverse value as Strongly Agree= 1 to Strongly Disagree= 5was given in this study.

The participants were informed that the aim of the study was to analyze their mindset in the classroom activity regarding GRP in mathematics. Then the questionnaires were distributed to the teacher respondents on paper. The teachers were given approximately 30 minutes time to complete the questionnaire. Then I had made personally distribution and collection of the questionnaire from teachers.

The collected survey data through teachers were analyzed quantitatively. The data that was collected with the help of questionnaire were analyzed quantitatively: descriptive statistics (Mean and Standard Deviation) and inferential statistics (one sample t-test at 0.05 level of significance). The statistical program SPSS 23.0 was used for the data analyze accurately.

Results and Discussion

The aim of this study was to analyze teachers' mindset in mathematics classroom regarding GRP. The data were collected with the help of 21 statements related to GRP practices on the basis of classroom set up and teachers' classroom activities. There were 6 statements related to classroom set up whereas remaining 15 statements were related to classroom activities. Each statement of both variables were analyzed with the help of Mean and Std. Deviation then overall values of each variables (classroom set up and classroom activities) were analyzed by using one sample t-test. For the positive statements, the rating ranged from 5 (Strongly Agree) to 1 (Strongly Disagree), based on five point Likert scale. On the other hand for negative statements, ratings ranged from 1 (Strongly Agree) to 5 (Strongly

Disagree). The average value 3 was taken test value for interpretation of data. Therefore, the collected data were presented and analyzed in two different headings as follows.

Teachers' Classroom Set up Regarding GRP in Mathematics

The data analysis was carried out in this topic to determine teachers' classroom set up regarding GRP. Teachers' mindset determines how they set up classroom in teaching learning process. The data was collected through 6 statements, whereas 1 statement was taken as negative statement and 5 statements were positive. The descriptive statistics related to classroom set up are depicted in Table 1, shows the mean score and std. deviations score of each statements based on classroom set up.

Table 1 Descriptive Statistics of Teachers' Classroom Set Up Regarding GRP

S.N.	Statements	N	Min.	Max.	Mean	Std. Deviation
1.	I take initiatives to establish					
	groups by students themself to	120	1	5	4.23	.761
2.	ensure gender representation. I use mix seating arrangements					
	of both boys and girls in	120	1	5	3.56	1.067
3.	mathematics classroom. I set up classroom that mixes					
	girls and boys to enhance	120	2	5	3.91	.926
4.	participation of both. I arrange the desks that					
	encourage girls to speak out	120	2	5	4.10	.738
	and overcome their shyness and	120	2	3	7.10	.730
	hesitation.					
5.	I ensure the mix groups in					
	classroom on which boys get	120	1	5	3.37	1.243
	more opportunity to talk and to					
	lead the discussion.					
6.	I enhance group dynamics by					
	composing of group members	120	1	5	4.07	.847
	heterogeneously by ability,					
	motivation, sex, etc.					

The result from the table 1 shows that the mean of all five positive statements are greater than three and one negative statements is also greater than three. The mean scores of the statement first (4.23), fourth (4.10), and sixth (4.07), which represents the rating between "Agree"

and "Strongly Agree". The higher mean value indicates that most of the teachers are taking initiatives for making groups by students themselves, arrange desks for encouraging girls, and they enhance group dynamics in conducting teaching learning process. Likewise, the mean scores of two statement second (3.56) and third (3.91), represents the rating between "Neutral" and "Agree". These mean values represents that large number of teachers using mixed seating arrangements for both boys and girls for their high participation in their teaching practices in mathematics classroom. But, teachers are not agree in statement five (3.37), it is negative statement, that teachers do not give more values for boys in developing groups in their teaching learning process. That means teachers did not discriminate girls at the time of group formation and group discussion. Girls got equal opportunity in classroom discussion in mathematics classroom. The overall mean score of the variable classroom set up is given in table 2 below.

Table 2 One-Sample Statistics for Teachers' Classroom Set Up Regarding GRP

	N	Mean	Std. Deviation	Std. Error Mean
Classroom set up	120	3.8708	.49056	.04478

From the Table 2, one can see that the overall mean score of teachers' classroom set up is 3.8708 with standard deviation 0.4905, which represent rating lies between 'Neutral' and "Agree". The mean value more than three indicates that teachers set up their classroom gender responsive way in their teaching practices.

Furthermore, one sample t-test was carried out in order to compare sample mean to test value 3 to identify teachers' classroom set up was gender responsive or not. The p-value \Box 0.05 indicates high significant differences between test value and sample mean. Table 3 shows one- sample t-test results of teachers' classroom set up regarding GRP.

Table 3 T-test Results of Teachers' Classroom Set up

$\underline{\text{Test Value}} = 3$								
						ce Interval		
			Sig.	Mean	of the Differen	<u>nce</u>		
	T	Df	(2-tailed)	Difference	Lower	Upper		
Classroom Set Up	19.446	119	.000	.87083	.7822	.9595		

The table 3 indicates the result of one- sample t-test, the p-value of classroom set up is .000 which is much lower than 0.05. This result indicates high significant difference between the test value (3) and observed mean (3.8708). Moreover, positive upper and lower confidence

interval differences confirm the observed mean is greater than test value 3. This leads to show that secondary mathematics teachers were practicing GRP in classroom set up.

The above results indicated that secondary level mathematics teachers expressed that they were practicing GRP in classroom set up. They set up classroom in favor of both boys and girls by knowing their specific learning needs. Teachers' growth mindset regarding GRP helps them to use GRP in Classroom set up. This result was supported by Seifu et al. (2019), science teachers' were practicing classroom set up properly in Ethiopia. But reverse results found by Dorji (2020) that teachers have less attention to classroom set up regarding GRP in teaching process. In the context of Nepal, the opposite results expressed by Terry & Thapa (2012) by observing the classroom that every girl was seated in the back rows in the classroom. These findings indicated that mathematics teachers have growth mindset and were practicing gender responsive classroom set up in their teaching process. The perceptions of teacher's shows that the pedagogical shift from conventional row- column approach to mixed sitting arrangement.

Teachers' Classroom Activity Regarding GRP

Teachers' classroom set up depends upon their mindset that is fixed mindset or growth mindset. If teachers have traditional fixed mindset regarding GRP they obviously do classroom activity in traditional way but if they have growth mindset regarding GRP they do their classroom activity in gender responsive way giving equal chance for both gender. In this variable, there were 15 statements related to classroom activity conducting by mathematics teachers regarding GRP in classroom. Among them 13 statements were positive and only two statements were negative. Negative statements were ranking in reverse order. The descriptive statistics related to classroom activities are presented in Table 4 as follows.

Table 4: Descriptive Statistics of Teachers' Classroom Activities Regarding GRP

	Statement	N	Min	Max	Mean	Std. Deviation
1.	I do not divide students in different					
	groups for cooperative learning by	120	1	5	2.79	1.222
	equal gender representation in my	120	1	3	2.19	1.222
2.	classroom activity. I usually give girls an opportunity					
	to relate volume to capacity through	120	2	5	3.80	.922
3.	questions and answer technique. I highly include boys in classroom					
	discussion related to mathematical	120	1	5	3.89	.951
	problems rather than girls.					

4.	I distribute questions to whole class					
	and ensure that each student participate	120	1	5	4.18	.923
5.	equally. I initiate girls to become group leader					
	equally as boys in the group work in	120	1	5	4.28	.799
6.	classroom. I encourage both girls and boys to					
	solve mathematical problems and	120	2	5	4.37	.621
	to present the results they found in	120	2	3	4.37	.021
7.	classroom. I follow strategies to make passive					
	students participate and active more in	120	2	5	4.35	.589
	the group activities by allocating and	120	4	3	4. 33	.507
8.	rotating specific roles in a group. I apply different teaching methods like					
	as group work, group discussions, role	120	2	5	4.25	.569
	plays, debates, pair work, explorations	120	2		7.23	.507
9.	and practical conduct in classroom. I provide sufficient time for female					
	students or those students lacking	120	2	5	4.19	.555
	in speaking ability to develop their	120	4	5	4.19	.555
10.	responses. There is cooperative interaction					
	between boys and girls in the	120	1	5	4.19	.665
11.	classroom. I encourage both girls and boys to	120	2	5	4.42	.602
12.	carry out the same activities. I try to discourage gender stereotyped	120	1	5	4.22	.724
13.	behavior in my classes. I give more effort and time for girls to	120	1	J	T. 22	. / ∠¬
	learn mathematics in classroom than	120	1	5	2.94	1.183
14.	boys. I let chance for girls to solve	120	1	5	3.97	.819
15.	mathematical problems by themselves. I assign exercises of mathematics that					
	encourage girls to speak out	120	1	5	3.96	.824

From the table 4, it was obtained that among 13 positive statements the mean score of 12 statements is found greater than average score three whereas only one statement has mean score less than three. It means that majority of teachers do practicing gender friendly question answer technique, given equally chance to become group leader, solving mathematical

problems in cooperative way in classroom. Likewise, the mean score of statement 8 is 4.25 that indicates majority of teachers were practicing to use different teaching methods such as group work, group discussion, role play, discussion etc. while solving problems related to mathematics. But the mean score of statement 13 is 2.94 that indicates large number of teachers did not give more time and effort to girls in mathematics classroom than boys. The perceptions of teachers show that they were practicing gender equality in classroom activity, there were lack of gender equity practicing in mathematics classroom by giving girl's specific learning needs.

Between two negative statements, the mean score of first statement is 2.79, it means that the majority of teachers are agree as they did not divide students in different groups for cooperative learning by equal gender representation. That means majority of teachers did not divide students in different groups while doing classroom activity for gender inclusion. Whereas, the mean score of negative statement 3 is 3.89, it means that majority of teachers were disagree as they did not highly include only boys in classroom discussion in solving problems. This result noted that teachers had equally involved both boys and girls in classroom discussion while solving mathematical problems. The results shows that teachers give opportunity to girls for classroom discussion but they did not divide students in different groups for discussion. Furthermore, the overall mean score of the variable classroom activities are depicted in Table 5 as follows.

Table 5 Descriptive Statistics of Teachers' Classroom Activities Regarding GRP

	N	Mean	Std. Deviation	Std. Error Mean
Class room activities	120	3.9856	.32753	.02990

Table 5 shows that the overall mean score of teachers' classroom activities is 3.9856, that represents rating lies between "Neutral" and "Agree". The results indicated that majority of teachers reported they conduct their classroom activities gender responsive way in mathematics classroom.

Furthermore, one sample t-test was conducted in this variable to compare sample mean to test value 3 to analyze teachers' classroom activity is gender responsive or not. One sample t-test results is shown in Table 6 as follows.

Table 6 T-test Results of Teachers Classroom Activity

			Test Value = 3					
				e Interval of the				
			Sig.	Mean	<u>Difference</u>			
	t	df	(2-tailed)	Difference	Lower Upper			
Classroom activity	32.962	119	.000	.98556	.9264	1.0448		

The table 6 shows the p-value o classroom activity is .000 which is lower than 0.05. According to the result, one can interpret that there is significant difference between samples mean (3.9856) and test value 3. Whereas, positive upper and lower confidence interval differences also confirm the sample mean is greater than test value 3. The results concluded that secondary level mathematics teachers were practicing GRP in classroom activity in teaching process at classroom.

The overall results related to teachers classroom activity concluded that majority of teachers expressed they were practicing GRP in their classroom activity in classroom. But teachers were less aware about GRP they did not do practice to give more time and effort for girl students while teaching mathematics. They have fixed mindset only about equality, they were not aware about equity and gender responsiveness. Similarly, majority of teachers expressed, they do group work, mixed seating arrangement while solving mathematical problems but in another statement they expressed for cooperative learning, they did not formulate different groups for equal gender representation. Hence, from overall findings about classroom activities, it was concluded that secondary level mathematics teachers were trying to practice gender responsive classroom activity but still less aware in perfect practicing GRP in their classroom activities in Nepal. This finding is consistent with a previous finding by Kahamba et al. (2017) and Dorji (2020) as teachers have low GRP practices in classroom. But inverse result found in Ethopia by Seifu et al. (2019) that science teachers were practicing GRP properly.

Conclusion

The results of the study indicate that secondary level mathematics teachers are practicing GRP on their classroom set up and classroom activity. They have increasing growth mindset towards GRP practicing while set up classroom in teaching process. However, the practical part of applying classroom activity in gender responsive way to be very low. Since, they have low practice to divide students in different group for cooperative learning and to pay attention towards specific learning needs of girls, which is important to empower girls in learning mathematics and reducing gender bias in teaching. They are still less aware and have less knowledge and skill about GRP practicing in their day to

day classroom activity. They always to be sensitive about specific learning needs of both gender specifically of girls in teaching mathematics. To overcome through misconception as mathematics as a male dominated subject, teachers should become gender responsive while teaching and pay attention towards girls. A good teacher must aware about GRP and practice gender responsive pedagogy in teaching mathematics. The GRP practices may encourage and motivate students, increase their interest towards mathematics, and their active participation in mathematics classroom. This study recommends the Government of Nepal, Ministry of Education to conduct teacher's gender responsive awareness training on how to apply gender responsive pedagogy in their classroom set up and classroom activity through gender policy and changing concept in school curriculum. Also the Ministry of Education and school's stakeholders should promote and enable teachers to incorporate gender responsive knowledge and skills in their day to day classroom practices and to promote positive mindset towards GRP.

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