Effectiveness of Group Work in the Colleges of Royal University of Bhutan

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Abstract

Group work has become an essential assessment practice to enhance students' learning and develop social skills in all higher education institutions. The study was undertaken to find out the effectiveness of group work. A mixed method sequential explanatory design was adopted with 181 tutors and 1241 students of nine constituent colleges of Royal University of Bhutan. The findings revealed that the students prefer group work and were aware of its benefits. However, the individual and group accountability were lacking leading to the presence of free riders. Further, awarding the same grade on a task irrespective of individuals' contribution has led to increased free riders resulting in preference of individual tasks. Unless documentation is used for fair assessment, giving the same grade is seen as not a viable option in the current practice. Also, group work lacked interdependence due to division of work among members leading to limited opportunities for students to collaborate and enhance their social skills. Some of the recommendations are: to pay attention to group work design to promote interdependence in enhancing learning and social skills; to use documentation as evidence for group work assessment to minimize free riders; and to conduct a study to find out whether use of documentation in group work assignments leads to individual accountability.

Keywords: *Group work, collaboration, assessment, interdependence, free riders*

Background

The Royal University of Bhutan (RUB) with nine constituent colleges offer various programmes. Each programme offers numerous modules assessed through written examination and continuous assessment (CA). CA usually consists of written assignments, presentations, seminars, project works, unit tests, and practical works which are carried out by students either individually or in a group.

The teaching and learning practices in the colleges of RUB are undergoing a major shift from teacher centered to learner centered to enhance students' learning. As a result, collaborative learning in the form of group work is becoming

one of the major pedagogical practices. Group work is defined as one where two or more students work towards a common goal. It caters to developing deeper understanding of subject knowledge and enhancing social skills. It can be used as a collaborative classroom activity or an assessment task. In this study, group work is understood as an assessment task in the form of assignment. The effectiveness of group work refers to its positive impact on enhancing students' academic learning and social skills.

Several studies reported that group work enhanced learning due to active involvement of the students in the learning process. However, assessment of it is a concern (Burke, 2011; Hassanien, 2003). For assessment to be effective, Burke (2011) emphasized that division of group members, forming appropriate group size and monitoring are critical.

Table 1: *Group work allocation in programmes offered in one of the colleges*

College	Programme	Total number of modules offered*	Number of modules with at least one group work	Number of modules without group work	Remarks
01	Undergraduate level (one programme)	30	23	3	In 4 modules, details on individually or group work is missing
02	Undergraduate level (one programme)	35	22	-	In 13 modules, details on individually or group work is missing
01	Postgraduate level (one programme)	7	6	1	

The preliminary review of three programmes currently offered in two colleges of RUB showed that in most of the modules offered, at least one group work is assigned as shown in Table 1

* Excluding field practicum, seminar, project/research. Other colleges verbally communicated giving at least one group work in most of the modules offered.

With increasing use of group work, the question of its effectiveness and

the validity of assessment is a concern. As of now, the group work assessment modalities seem to be missing and left to the concerned tutor's ingenuity. Further, Pineda et al. (2009) were not sure whether the education institutions prepared students to become effective team members and suggested the University educators to reconsider and reform pedagogical approaches. Hence, this research intends to study the effectiveness of the group work practiced across the colleges of RUB, in enhancing students' learning. Since the study is a first of its kind in RUB, the knowledge gained will provide evidence-based information related to group work. Further, it will help the colleges to gain a clear understanding of group work practices that are limiting students' learning and develop modalities to increase its effectiveness.

Literature Review

Group work is the way of learning in which two or more students work together towards a common goal (Bennett, 2015). The members brainstorm, share information, discuss, interact and learn from each other (Hassanien, 2006). If used effectively, it is an efficient way of dealing with the increased growth in student numbers in higher education, especially in reducing the time taken in assignment marking (Davies, 2009).

Various studies have suggested different ways of group formation. For some, it was based on friendship as friends work together cooperatively instead of competitively (Hendry et al., 2005). For others, it was based on ability ranking as when clever students are grouped with weaker ones, it allows the latter to watch and learn from them, which will eventually improve their performance (Miller et al., 2012; Nihalani et al., 2010; Slavin, 2010). The group formation could also be based on random or self-selection (Hassanien, 2007). However, Slavin (2010) pointed out that if all weak students are in one group, their academic achievement will be affected. Further, members may be assigned by a tutor or students themselves. But, Felder & Brent (2001) found that members assigned by tutors tend to perform better than self-select. Also, Csernica (2002) suggested a group size of three to four members for effective group work.

Group work has numerous benefits. It enhances students' academic performance (Al-Sheedi, 2009; Gomleksize, 2007; Tanner et al., 2005), communication skills and reduces free riders (Brooks &Ammons, 2003), and more learning occurs (Webb, 2009). Nihalani et al. (2010) observed that weak students watched and learned from high achievers leading to improvement in their performance. Smialek and Boburka (2006) also observed that students discuss, argue, explain and negotiate in group work. Further, it reduces students' level of anxiety and stress (Daemmrich, 2010; Hanshaw, 2012). According to Daemmrich

(2010), group work reduces stress by allowing students to have a second chance to redraft the written product and getting a new grade. It made the students active and confident (Texas et al., 2007) and shy students to feel comfortable (Badache,2011). On the contrary, if it is not assigned judiciously, it has a negative impact on students' learning. Brown and Thomas (2017) said there will be social conflict and lack of cohesion whereas Seric and Pranicevic (2018) listed problems such as free-riding. Swan et al (2006) shared that negotiation of ideas is one of the difficulties faced during group work.

Researchers reported that students enjoyed and benefited from group work (Taqi & Al-Nouh, 2014). Nihalani et al. (2010) found that groups perform better when members cooperate. Similarly, Taqi and Al-Nouh (2014) found that when high performing students were grouped together, they maintained quality of work. In group work, usually group members receive the same grade. Alden (2011) and Almond (2009) justified that the purpose of giving the same grade was to reward them as a group. Murray and Boyd (2015) found out that a majority of students preferred an individual assessment over group assessment. Singe-Freeman, et al. (2016) recommended using rubrics to assess students' group work as validity, reliability, and fairness of grading would be maintained (McMillan, 2014). Rubric is a scoring tool to evaluate students' performance based on a list of criteria describing the characteristics of products or performances at varying levels of accomplishment (Wolf & Steven, 2007).

Methodology

A sequential explanatory mixed method was adopted for the study. There were two reasons for selecting this approach. First, this method consists of its two-phase structures where the second phase can be designed as a result of the outcome of the first phase (Creswel, 2019). Second, the researchers are working as tutors in one of the colleges of RUB, and implemented group work in their classes. These may lead to research biases. The sequential explanatory mixed method will minimise the biases as the interview will be based on the analysis of quantitative data only.

The quantitative data were collected by administering surveys. Survey consisted of 47 items and was pilot tested in one of the colleges. The value of Cronbach alpha was 0.810 which is greater than 0.70, indicating that the items were reliable. The survey was administered to the various cohorts (or programme) of students and tutors of all nine constituent colleges of RUB. A total of 181 tutors and 1241 students participated in the survey.

The qualitative data were gathered through focus group interviews and descriptive qualitative responses. A purposive sampling was used to select the colleges. Five colleges were selected based on the types of programmes being

offered: Business, Engineering, General Social Science and Education. Participants were selected based on a voluntary basis. Due to Covid-19 situation, focus group interviews were conducted via zoom in four colleges. In one college, due to internet connectivity, students participated in descriptive qualitative writing. A total of 29 students and 19 tutors participated in the interviews and descriptive qualitative responses.

Data Analysis

The quantitative data was analysed by using various features of SPSS. The Likert scale interpretation and distribution of values was adopted from Alston and Miller (2002). The ranking of the mean range is as reflected in Table 2.

Table 2: *Likert scale interpretation and distribution of values*

Sl. No	Mean Range	Rank
1	1.0 -1.49	Strongly disagree
2	1.5-2.49	Disagree
3	2.5-3.49	Not sure
4	3.5-4.49	Agree
5	4.5-5.00	Strongly agree

Adopted from Alston & Miller (2002)

Since this study is first of its kind in RUB colleges, there was no basis to generate the themes. Hence in-depth literature study was undertaken to understand the principles, characteristics and components of group work. Based on the review, six themes were determined and used for developing survey items. The themes are Preference; Learning achievement; Collaboration; Time; Assessment practice; and Group formation. To maintain anonymity, the following codes were used: C for college, FG for focus groups, D for descriptive qualitative writing, S for students, and L for tutors. Numbers 01,02,03... were assigned to represent colleges and 1,2,3... for the participants.

Result

Each of the themes are discussed in detail in the following sections.

Preference

Preference refers to students' enjoyment, comfort level, and convenience in working with others.

Table 3: *Participants' responses on the theme Preference*

Sl. No	Items	Tutors (m)	Students (m)	Average (M)
01	Students enjoy working in a group	3.96	3.81	3.89
02	Students are more comfortable working in a group	3.69	3.70	3.70
03	Students can speak naturally and spontaneously in a group	3.75	3.90	3.83
04	Group work is convenient	3.90	3.64	3.77
05	Students prefer group work over an individual work	3.77	3.57	3.67
06	Group work is effective	3.44	3.68	3.56
	Average (M)	3.75	3.72	3.74

Table 3 revealed that participants rated all the items under theme *preference* in the Agree category (M=3.74) indicating that students prefer group work. However, item 06 was rated by the tutor in the Not sure category (m=3.44) showing tutors doubt on the effectiveness of group work.

The qualitative data analysis supported the quantitative findings. Some of the reasons cited by the participants were use of language, comfort level, convenience, learning in a social setting, and sharing of knowledge. All the students shared that in group work, they can speak naturally in a language they are comfortable. This leads to less communication barrier and higher comfort level to share ideas openly. Further, most students expressed that group work was convenient as the work was shared by members (FG01S4, FG06S, D07L6, D03S1). It provided opportunity to learn in a social setting (D07S, FG06S, FG01L4, D07L6, FG01L2), and share knowledge (FG01S5, FG02S, D07L1, D07L4, D07S2, FG01S3, D07L2). However, many felt that group work was not effective as individual accountability was lacking (FG01S1, D07S3, D07S4, D03S, FG01L, FG03L1). Some free riders depended on others to complete the task. For example, a tutor said, "Some like it because they know others do the work for them" (FG03L1). Similarly, a student said, "Most of the time, I end up doing all the work. So, I guess I prefer just working alone because this

happens a lot" (D07S4). That was cited as one reason for high achievers to prefer individual work.

Learning achievement

Learning achievement refers to a student's success in learning the subject matter in a group.

Table 4: *Mean of the participants responses on theme learning achievement*

Sl. No	Items	Tutors (m)	Students (m)	Average (M)
01	Students discuss many ideas in group work	4.02	4.02	4.02
02	Students learn from their friends in group work	4.05	4.04	4.05
03	Group work helps to understand the difficult concepts	3.93	4.00	3.97
04	Group work motivates students to learn	3.61	3.68	3.65
05	Group work results in increased academic performance	3.48	3.59	3.54
	Average(M)	3.82	3.87	3.85

As shown in Table 4, the average mean 3.85 for the theme *Learning achievement* is in the Agree category indicating that group work enhances students' learning achievement.

Similarly, the qualitative data analysis showed that many tutors (FG07L4, FG07L5, FG07S1, FG02L3, FG01L4, FG01L2, FG03S1) and students (FG01S5, FG02S4, FG07S4, FG07S6, FG07S7, FG07S8, FG07S2, FG07S3, FG03S4, FG03S1) felt that group work leads to improved academic performance. However, it was mentioned that it depends on group members' commitment (FG01S5, FG07S1, FG01L1, FG01L4, FG03S1), potential of group leader (FG02S1, FG01L1), team spirit (FG07S4), attitude (FG07S4) and design of group work (FG01L1, FG01L3, FG02L2).

Collaboration skills

Collaboration skills refers to students cooperating, listening to each other and supporting team members in a group work.

Table 5: *Means for participants response on the theme collaboration skill*

Sl. No	Items	Tutors (m)	Students (m)	Average (M)
01	Students cooperate in group work	3.42	4.38	3.90
02	In group work, students attend all the team meetings	3.16	3.22	3.19
03	In group work, students do not dominate one another	2.99	3.54	3.27
04	In group work, students get equal opportunity to speak and contribute their ideas	3.39	4.04	3.72
05	Group members support each other in group work	3.80	3.87	3.84
	Average(M)	3.35	3.81	3.58

Table 5 shows that tutors and students have mixed views on collaboration skills. The tutors were not sure (m=3.35) whether students collaborate whereas students perceive that they collaborate (m=3.81). The qualitative data analysis revealed that students lack collaboration. Most tutors were of the opinion that students do not collaborate (FG01L3, FG02L1, FG02L2, FG02L3, FG02L4, FG02L5, FG03L). In line, students said that it was either the sincere ones (FG02S2, FG01S1, D07S3, D07S8, FG03S1, FG01S4, FG01S2) or the group leaders (FG02S, D07S5, FG01S4) who did most of the work. The lack of cooperation was cited as a reason for some students developing a negative attitude towards group work. This was evident from a quote:

There are a couple of us who are against this concept of group work. We have always hated this concept, especially because there are some people in the groups who are most of the time unwilling to work. They lack cooperation. ... And ultimately, what happens is that when you are in a group, and if you have done academically well, then they will just say you be the Group Captain as you are doing better. (FG02S2)

Students also expressed feelings of frustration due to the existence of free riders (FG01S1, FG03S3, FG03S1, FG06S, FG02S4) but forgave them easily because friendship mattered. Very few students resorted to either reminding the free riders or reporting the matter to the tutors (FG02S4, D07S5). Some were in a dilemma as to whether to give priority to friendship or marks. Also, in most cases, reporting to the tutor did not lead to any improvement in those students (FG02S3). All tutors were aware of these free riders. When the issue was reported to some tutors by the students, they either asked for an explanation or resorted to changing

the group membership of free riders if it was due to personal issues. However, they did not mention whether it was effective. Few tutors suggested regular monitoring (FG01L2), choosing tasks that required collaboration (FG01L4) and use of evidence (FG01L1, FG02L3) to curb it. However, they do not practice due to time constraints. But a strategy whereby tutors randomly pick up presenters was found to be effective (FG01L1). However, this was only in cases where group work entailed presentation.

Students dominating other members during the group work was not an issue. The participants said that they get the opportunities to speak and contribute their ideas. If there were controversies, they thoroughly discussed and came to an agreement (FG01, FG06, FG03). At times when they could not reach a consensus, they sought tutors' intervention (FG01S4). However, when these items were discussed in interviews, the students revealed that this happened during in-class group activity only and not with group work assignments.

Item 02 in Table 5 showed that participants were not sure whether students attended all the team meetings (M=3.19). This was supported by the qualitative data analysis. The group work was divided among members which did not require them to meet. For instance, a student said, "If you divide the topics among group members then it is very difficult to meet. They feel that they don't have to meet again because they have taken their share" (FG01S1). But, when team meetings did occur, 62.01 percent of students said not all members turn up. Students expressed frustration. For instance, FG01S2 said, "When my friends are not able to turn up, I sometimes feel that instead of this group work, why not, tutors give individual assignments? That type of feeling comes up.". Another student (FG02S3) said, "… I feel very low and I also feel like not continuing the work". A lone student said that they maintain a journal recording for all team meetings which was later used by a tutor in the assessment process (FG02S3).

How the group work was actually carried out was not asked in the survey. However, in the qualitative data analysis, most of the students pointed out that when the tutors give group work, they divided the task and worked on it individually. The team meetings happened only when they did not compile or prepare for presentation. Many students opined that when a task is divided, they get to learn only on their own task (D07S8, FG03S4, FG06S). The tutors were aware of such practices and agreed that such practices did not lead to meaningful learning (FG01L, FG02L, FG03L).

Time

Table 6: *The participants' response on the theme 'Time'*

Sl No.	Items	Tutors (m)	Students (m)	Average (M)
01	Group work is less time consuming than individual work	3.47	3.51	3.49
02	Students often request time extension for submission of group work	3.22	3.86	3.54
03	Group work reduces students' stress	3.87	3.80	3.84
04	Students have to work less in group work	3.61	3.20	3.41
05	Students have required resources to perform group work	4.07	3.77	3.92
	Average(M)	3.65	3.63	3.64

Table 6 showed that participants rated most of the items under the Agree category indicating that they do not face challenges in time management. However, students were not sure whether group work took less time than individual work (M=3.49). But the qualitative data analysis revealed that group work consumed lesser time as the task was shared by group members (FGS03S1, FG03S3, FG06S1, FG06S2, FG06S3, FG06S4, FG06S5, FG06S6).

The individual mean of the participants showed that students required time extension (m= 3.86) whereas tutors were not sure (M=3.22) on it. Most tutors said students were able to complete the group work on time as marks were allotted for timely submission (FG06, FG03, D07L4, D07L5, D07L1). Yet, a few students often required additional time as some members, especially free riders, took longer time (FG01S3, D07S4). In such cases, time extension was usually not granted and resulted in marks deduction (FG01S3, D07S4). If students were not able to submit due to genuine reason, tutors granted time extension without marks deduction (FG01S).

Furthermore, most participants agreed that group work reduced stress except for two tutors (FG07L4, FG07L5) and two students (FG07S4, FG02S6). Some of the reasons leading to reduced stress were: decreased workload due to work sharing (FG07S5, FG01S2, FG02L2, FG01L3, FG07S7, FG03S1, FG07S5,); opportunities to interact with diverse people and socialize (FG07S6, FG01L1); more time to do less amount of work (FG07S8, FG03S1); and learning becomes fun (FG07L1, FG01L2). Also, availability of resources helped students to complete tasks on time reducing stress. Most participants said resources were available

and adequate (D07S7, D07S2, D07S3, FG03S, FG02S, FG01S, FG01L, D07L4, D07L1). Some tutors even gave the resources and or informed students where to look for (FG01L, FG02L, FG03L1). Only two students said the resources were not adequate (D07S5, FG06S).

Assessment practice

Table 7: *Students' response on theme assessment practice*

Sl. No.	Items	Tutors (m)	Students (m)	Average (M)
01	Students are happy with the grade they receive on group work	3.49	3.61	3.55
02	Tutors provide feedback when students' work in a group work	4.29	4.15	4.22
03	Students do peer assessment in group work	3.30	3.51	3.41
04	Tutors use rubrics to assess students in group work	4.30	4.29	4.30
05	Tutors explain rubrics in the beginning of group work	4.29	4.21	4.25
06	Tutors give clear instruction before the of start group work	4.46	4.26	4.36
	Average(M)	4.02	4.01	4.02

The survey data analysis revealed that assessment practices were carried out effectively (M=4.02). However, participants were not sure on peer assessment practices (M=3.41).

The analysis of qualitative data showed a mixed opinion on grades awarded on a group work. Many tutors award equal grades and provide feedback to all members. But some students (FG07S4, FG07S6, FG02S5, FG07S1, FG02S5) were not happy with it because it was not fair. They were of the opinion that effort should be counted in grading. For instance, FG07S4 asserted, "Grading should depend on the input of our effort, that is if we have invested a huge amount of time and effort, and the result is not up to our expectation. ...then I am not satisfied". On receiving feedback, some students (Fg07S7, FG07S1, FG07S2, FG03S1) shared that it was timely and useful though at times it was humiliating.

Further, rubrics were used for fair assessment. It was communicated that in one college, use of rubrics were mandatory (FG02L3). The instruction for task along with rubrics were given before the start of the group work (D07S6, D07S7, D07S8, D07S2, D07S3, FG03S, D07S1) as well as uploaded on virtual learning environment (D07S7, D07S3).

Group formation

Table 8: *The participant response on the theme Group Formation*

Sl. No.	Items	Tutors (m)	Students (m)	Average (M)
01	Tutor decide and assign the members for a group	3.48	3.68	3.58
02	Students like working in a group when the members are chosen by tutors	3.27	3.46	3.37
03	Members of the group are assigned based on students' academic performance	2.97	2.73	2.85
04	Group leader is appointed in a group	3.86	3.77	3.82
	Average(M)	3.40	3.41	3.41

Table 8 showed that participants were not sure about the group formation (M=3.41) but they agreed that the group leader was always appointed in a group (m=3.82).

The qualitative data analysis revealed that either tutors select or students self-select the group members (FG01S, FG02S2, FG03S, FG06S, D07S4, D07S5, D07S6). However, almost all students expressed that they preferred tutors selecting the members as it was found to be fair. They shared that when they self-select the members, some students who were academically weak or not hard working, would not be selected by any groups (FG01S4, FG01S1, FG06S) or there would be unequal distribution of work with some landing up doing more than others (D07S7). When students were left without any groups, it was usually the tutors who placed them in different groups (FG02S). Some tutors agreed that students asked them to divide the group members (D07L1, FG06L1, FG03L, FG02L4, FG02L3, FG01L4). However, in doing so, if the group happened to get a member who was academically weak or said to be not hardworking, they complained about getting low marks.

In self-select, students either chose high performers as marks were important for them (FG01S4, FG02S4), or chose friends as friendship mattered (FG02S1, FG02S2, D07S3). At times group members were also selected based

on students' convenience. For example, all day scholars would form one group (FG01S1). When tutors selected the members, they randomly divided the group members. This practice was sometimes found unsuitable for the students. For example, a student said, "I don't like this practice because it is quite hard to fix a timing to meet the group members, especially when it's a mix of both sexes as the timing and working styles always cause a collaboration problem" (D07S4). However, few tutors sometimes formed the group based on students' academic performance (D07L5, FG06L3, FG 01L2, FG01L1).

All the students in the qualitative data analysis revealed that the group consisted of usually 3 to 10 members. They mentioned that idle group size would be 4 to 6 for effective group work (FG01S, FG02S, D07S6). But few preferred large group sizes as they get less work to do (D07S4, D07S1).

The qualitative analysis also revealed that the group leader was appointed either by the tutors or students themselves. Students appoint group leader based on consensus (D07S3, FG06S, FG01S2), or highest vote (D07S5) or high academic performer (D07S1, FG02S3) or chose sincere and hardworking students (FG06S, FG01S1). When tutors appoint the group leaders, they selected either randomly (FG01L1, FG06L2) or one having leadership quality (FG01L3, FG02L3), or academically high achiever (FG02L4) or a hardworking student (FG02L3). In principle, participants were aware that the group leader's mandate is to coordinate, motivate, represent and push forward the group. But, in practice, the group leader was one who had to do maximum work (D07S1, D07S2, D07S3, D07S4, D07S5, D07S6, D07S7, D07S8).

Discussion

In this section, the findings were compared to the existing literature and interpreted.

Preference: Increasingly group work is used in colleges to enhance students' learning through collaboration. The findings of the study showed that students prefer group work as they get to collaborate and converse in their preferred language. This was in line with the various studies (Taqi & Al-Nouh, 2014; Badache, 2011; Wichadee, 2007; Payne & Monk-Turner, 2006). For instance, Badache (2011) found that shy students were more comfortable working in groups because they gained more confidence in their ability to learn in a group. Further, Yazedjian and Kolkhorst (2007) also found that students became more active and confident in a group.

Though students were aware about the benefits of group work, many preferred individual work due to the presence of free riders. A similar finding was reported by Brown and Thomas (2017). They reported that this practice can result in production of "Frankenstein products" that are a conglomeration of individual

student efforts without integration and synthesis of ideas. Further, according to Laal et al. (2013), individual accountability where each student is accountable for his/her learning and actions is required in a group work to prevent free riders in a group work. But the individual accountability was missing in the present study.

*Learning Achievement***:** The finding on group work enhancing students' learning achievement was supported by Al-Sheedi (2009). Webb (2009) said that more learning occurs in a group because an expert adult helps a less expert one through conversation. Similarly, Gomleksize (2007) found that the group work techniques help students to learn better and improve their achievement. According to Swan et al (2006), some of the factors that improved students' learning achievement were group leader, team spirit, commitment and attitude of group members. The present study's finding was in line with it.

The study found that group work provided opportunities to students to discuss many ideas and understand difficult concepts which will ultimately lead to improved learning achievement. This was supported by Smialek and Boburka (2006) and Hassanien (2006). They observed that students discuss, argue, explain and negotiate in group work and become more responsible for learning. Similarly, Nihalani et al, (2010) observed that weak students watched and learned from high achievers which would eventually improve their performance.

Collaboration skills: The participants were aware that group work required students to collaborate, learn from one another and work towards a common goal. But in practice, mostly the sincere students or the group leaders did most of the work. This led to some students developing a negative attitude towards group work. Wilson et al. (2018) said that lack of proper planning and preparation may result in students being negligent of their individual role and responsibilities within the group. This makes students develop a negative attitude towards group work, which if executed judiciously and meticulously could have promoted positive learning outcomes. The lack of collaboration was also due to absence of individual accountability. The study pointed out that there is existence of free riders which was in line with the study conducted by Šeric & Praničević (2018). They mentioned the existence of free riders as the major perceived risk of group work. The present study suggested some strategies like regular monitoring, choosing tasks that required the group to work together and asking individuals to submit evidence of their contribution as a possible solution though time is a concern. This is in line with the suggestions made by Šeric & Praničević (2018) and Davis (2009).

The effectiveness of group work depends on the way the task was designed. The study's findings revealed that group work may not have served its purpose as it was carried out like any other individual task lacking interdependence. This

trend defeated the importance of group work as individuals got to learn only on their chosen task. This had an implication on team meetings. Team meetings did not usually happen and when it did, some students did not turn up. Some were frustrated but many were indifferent. This would encourage more free riders. Gillies (2013) suggested assigning specific roles to students and having interdependence will lead to fruitful learning.

Time: In general, there was no issue in time management. However, few students had difficulty in submitting the completed assignment on time. This usually happened due to free riders. This contradicted the study by McGraw & Tidwell (2001) where many teachers opined that group work was time consuming. Literature also says that group work reduces stress by allowing students to have a second chance to redraft the written product and getting a new grade (Daemmrich, 2010). Whereas the present study findings revealed that stress was reduced as work was shared and each member did a small part. There was no mention about reworking on the draft and getting a new grade.

*Assessment practice***:** Assessment plays an important role in making group work effective. The study revealed that students were given the same grade on a task irrespective of their contribution. This is one reason for the existence of free riders and students preferring individual tasks. However, Alden (2011) and Almond (2009) justified that the purpose of giving the same grade to students in a group is that it emulates situations in real life where group members are often rewarded as a group. Forsell et al. (2019) also explained that group work assessment was meant for getting students to focus on group work skills such as the ability to work in groups rather than emphasizing on grades. But without some intervention, giving the same grade is at present seen as not a viable option. However, Alden (2011) suggested documentation in the form of review and portfolio as valid methods for group work assessment.

The rubrics were used to assess students' group work. Rubrics were found to be valid, reliable and fair for the quality assessment (Tshering & Somchanok Phu-ampai, 2019; McMillan, 2014) and Singe-Freeman et al. (2016) recommended using rubric to assess group work. Further, the tutors provided feedback to students. However, some were not happy as the feedback was more humiliating than constructive. Similar findings were reported by Utha et al. (2018). They said if feedback is not provided as per the guidelines, it would affect students' learning.

Group formation: The study revealed that sometimes students self-selected and other times tutors formed the group. However, tutors forming the group were preferred by students as biases were not there. Students select groups based on

academic performance, friendship and convenience. This is in line with the findings of various studies (Taqi & Al-Nouh, 2014; Miller et al., 2012; Nihalani et al., 2010; Slavin, 2010 & Hendry et al., 2005). They emphasized that a high standard will be maintained when high performers are grouped together and group formation among friends ease the work. Tutors mostly select group members randomly and only a few of them select students based on academic performance. The study conducted by Felder and Brent (2001) found that groups assigned by tutors tend to perform better than self-selected groups. Further, the finding revealed that the group size varied from 3-10 members. Csernica (2002) suggested that 3-4 members are appropriate for effective group work.

Conclusion

Group work is increasingly used in many higher education institutions. Studies have reported that group work not only enhances learning in students but develops skills like collaboration, communication and problem solving.

The students prefer group work as it provides opportunities for collaboration, understanding difficult concepts and reduces stress. However, the individual accountability was lacking. The existence of free riders led to some students developing a negative attitude towards group work as usually the group leaders or hard-working students ended up doing maximum work. This had an implication on the said students as the same grade was allotted to all group members. The free riders seemed to benefit without putting in effort. Some strategies like regular monitoring, choosing tasks that required a group to work together and asking individuals to submit evidence of their contribution were said to be effective but the practice was minimal as it required more time. However, when the group work culminated with presentation, it minimized free riders as individuals were accountable.

The success of the group work depended on its design which seemed to have received minimal attention. The interdependence of group members was lacking because of less attention paid on design. This has made the group work to be like any other individual task limiting opportunity for students to interact, collaborate, learn from one another, and enhance their learning. Hence, the very purpose of group work is defeated.

Students preferred tutors to form the group to avoid unfair practices. Also, for the smooth conduct of group work, group size is important. Literature suggested group size of 3 to 4 but the study showed that group size at times were as high as 10. This will have a negative impact on students' learning especially if the group work is divided among members.

Some of the good practices are appointment of group leader for any group work; awarding of marks for timely submission of work; use of explicit rubrics to

assess work; and adequate resources. Also, tutors were found to provide timely and useful feedback to students on group work though some lectures did not focus on giving effective feedback.

Recommendation

Based on the study findings, the following recommendations are proposed:

- The group work assignment needs to be designed to encourage interdependence of group members to promote learning and social skills development. The tutors need to pay close attention to it.
- All the colleges of RUB need to revisit the reliability of current group work assessment practices as the use of documentation for individual or group accountability is almost non-existent. A professional development programme for the tutors is recommended.
- Since group size plays an important role in making group work effective, the colleges need to implement effective group size as recommended by literature.
- A study may be conducted to find out whether use of documentation in group work leads to improved individual and group accountability.

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