Teachers and Students Perception on the Impact of Kagan Cooperative Learning Structures at Higher Secondary School

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Abstract

Introduction of Kagan Cooperative Learning Structures as a pedagogy in the Bhutanese Education system has become a key motivation to overcome classroom management problems and enhancing the learning experiences of students. Research shows its positive impact on student's learning ability and classroom engagement. Research also indicates challenges associated with the practical implementation of Kagan Cooperative Learning Structures in classroom situations. However, studies on the perceptions of teachers and students on the effectiveness of Kagan Cooperative Learning Structures at Higher Secondary Schools in Bhutan is limited. This study aimed to explore the impact of Kagan Cooperative Learning Structures in teaching and learning processes. This study also intended to generate the baseline empirical data of Kagan Cooperative Learning Structures in Bhutanese context. The study employed a quantitative research approach with survey research design to 614 grade 11 & 12 students and 36 teachers from 6 Higher Secondary Schools from 3 western districts. The descriptive statistics found that several impending factors that prevented the implementation of the Kagan Cooperative Learning Structure in teaching and learning processes at Bhutanese Higher Secondary Schools. The findings provide new insights to relevant stakeholders in Bhutan about how the Kagan Cooperative Learning Structures is perceived at Higher Secondary Schools. Implications of the findings and recommendations are also discussed.

Keywords: *Cooperative Learning, Kagan Cooperative Learning Structure, Transformative Pedagogy, Teaching and Learning Process, Perception*

Introduction

The introduction of modern education system started in 1961 in Bhutan. It is indicated that several modern schools were established and curricula were borrowed from India. (Dolma, 2016; 2017; Kinley, 2015; Sherab, 2013; Tshewang, 2015). Since then, Bhutan strives to provide free basic education to all Bhutanese children which even today remains as a priority among all its socio-economic developmental activities. The borrowed curricula in Bhutan underwent implausible changes since the inception of modern education system. To make the curriculum more contextualized to Bhutan's natural and social environment, series of curriculum reforms were taken by Royal Education Council (REC) and Ministry of Education (MoE). At present, Bhutan has its own curriculum much more relevant to our social and culture.

Despite having Bhutan's own curriculum and standard in place, the concerns for the quality of education have been most imperative in the society for the last few decades. Most importantly, there was a plethora of discussions that the Bhutanese education system including the curricula and teachers were not progressing our education system on par with the changing society in Bhutan (Dorji et al., 2018). On the contrary, Lham (2008) have indicated that there was an overall decline in the quality of education in Bhutan as Bhutanese graduates are not competent in numeracy and literacy. In addition, several studies have shown that the decline in quality of education is due to the classroom teaching pedagogy in schools (Ministry of Education [MoE], 2014; Namgyel, 2013; Sherab & Dorji, 2013; Sherab, 2008) which is a critical attribute in achieving quality of education. To address this issue, MoE provided professional development programmes to all the teachers of Bhutan. More than 9000 Bhutanese teachers were provided with a 5-days training on transformative pedagogy (MoE, 2016; Wangdi, 2016) The core of Transformative Pedagogy was the principles, beliefs, procedures, and the habits of contemporary psycho-social pedagogies such as Active Learning Strategies and Kagan Cooperative Learning Structures (KCLS) (MoE, 2016).

According to Kagan (1994, pp. 115), KCLS is a structural approach consisting of contemporary psycho-social behaviours with social interaction sequences which can transform teaching. The basic idea of the structural approach is content-free with stepwise approaches to interactions in the classroom that can have a profound effect on social, cognitive, and academic developments of the learners. Therefore, this contemporary psycho-social teaching pedagogy was adopted by the REC in collaboration with the MoE. As expected, many teachers across schools in Bhutan have started to pervade KCLS in their daily teaching practices in all grades after attending the 5-days workshop. In addition, several classroom management tools of KCLS such as Rally Robin, Round Robin, Mix Pair Share, Inside-Outside Circle, Numbered Head Together were put into practice.

Interestingly, within a short time frame after attending the professional development programme, Namgyal (2016) reported about the potentialities of enhancing the students' academic achievement and critical thinking, empowering students' active participation and engagement in a classroom setting. Similarly, there were several claims that the KCLS brings both cognitive and non-cognitive development in the students as this pedagogy enhances conceptual change and improves social skills in student's life (Gurung, 2016; Sherig Bhutan, 2016; Subba, 2017). On the other hand, there was a concern among many teachers teaching at HSS on how KCLS will affect their teaching -learning processes given the content laden syllabus and larger class sizes in Bhutanese schools (Bhandari, 2017; Lhadon, 2016; Tshering, 2016). In fact, few of the teachers have stated that adolescent learners in HSS levels are reluctant to adhere to KCLS (Lhadon, 2016). In addition, there are substantial similar studies concerning the difficulties in teaching in Bhutanese schools due to large class size, heavy workload and limited infrastructures (Dorji, et al., 2018; Namgyel, 2013; Sherab, 2008; Sinchuri, 2013). Furthermore, sudden adoption of KCLS may overlook other factors such as

learning pace of the students, competency of teachers, workload of teachers, inadequacy of learning materials, crowded classes and the content laden syllabus (Kuensel, 2016). Although many people within the circle of education started to express that KCLS is overtly another cornerstone in modern education, its application at HSS classroom remains a challenge (Dorji et al., 2018). Moreover, the study on relevancy and effectiveness of KCLS as a transformative pedagogy in teaching and learning at HSS has yet to be undertaken. Several studies in the past have shown that the popularity of cooperative learning structures has overshadowed its associated weaknesses such as extra preparation time needed for teachers, fear of incompletion of the rigid syllabus, and overcrowded classes (Baloche & Brody, 2017; Jolliffe, 2005; Effandi & Iksan, 2007). Therefore, it can be argued that there is a need to conduct a study and establish baseline evidence by generating empirical data to evaluate the impact of KCLS at the HSS level.

This study is focused on the perceptions of teachers and students at the Higher Secondary School level on the impact of KCLS as a transformative pedagogy. This study particularly explored how teaching and learning at HSS level has induced a change after the implementation of KCLS into the Bhutanese education system. This study also explores the understanding of the issues and challenges associated with KCLS by providing empirical data to relevant stakeholders, school teachers, and school managements.

Research Objectives

This study addressed the following objectives:

i. To evaluate the teachers' perception towards KCLS on teaching and learning processes at HSS.
ii. To evaluate the students' perception towards KCLS on teaching and learning processes at HSS.
iii. To identify the benefits and challenges associated with KCLS as a transformative pedagogy in teaching and learning at HSS.

Literature Review

Several studies which explored cooperative learning (CL) indicated that the CL was established before 1980s after finding group learning more effective than individual learning (Johnson, Johnson, & Smith, 1998). However, CL became a common form of active pedagogy in 1980s and it continues to be a viable tool for learning in academic institutions today (Tsay & Brady, 2010). Numerous researchers discussed that CL is one of the most widespread areas of theory, research, and practice used in educational settings (Johnson & Johnson, 1999; Kagan, 1994; Kagan & Kagan, 2009) since CL is learner centred.

Kagan's structural approach to cooperative learning is modified CL into revolutionised instructional strategies catering the need of 21st century learners with modalities of students working together to achieve a common goal in the classroom. According to Kagan (1990), Kagan's structural approach to CL is grounded on the creation, analysis, and systematic application of structures and ways of organising social interaction in the classroom. Additionally, KCLS is simple, step-by-step instructional strategies that describe how the teachers and students interact with the curriculum (Kagan, 1994). Further, KCLS is designed to increase student engagement and cooperation in the classroom setting. Likewise, Kagan and Kagan (2009) also posit that KCLS is content free and can be used at all grade levels with all curriculums creating new learning experiences.

Worldwide, CL and KCLS both has its place as reputed pedagogies. It has been shown to have a positive effect on student's achievement, motivation for learning, developing positive social skills, developing creative and critical thinking skills, and problem-solving skills (Baloche & Brody, 2017). In addition, several studies have indicated that learners can socially and academically benefit from working in small cooperative groups (Amedu & Gudi, 2017; Baloche & Brody, 2017; Farmer, 2017; Hinson, 2015). Analysis on the effectiveness of the KCLS approach from teachers and students' perspectives is explored here.

Teachers' Perceptions on Kagan Cooperative Learning Structures

Several scholars have carried out studies on the KCLS along with conventional CL methods in education. The study by Soleimani and Khosravi (2018) in Iran using Kagan's CL approach have indicated a significant positive effect in terms of skill acquisition in participants. Similarly, a study in the USA has described that there is considerably more engagement and academic test score while KCLS is used as an instructional strategy (Farmer, 2017). Further, several other studies have revealed that there is an increase in terms of academic test score, higher order thinking, social behaviours, and wide range of positive impacts in basic skills from implementation of KCLS in classroom situation (Chatila & Husseiny, 2017; Hinson, 2015; Kocabas & Erbil, 2017; Mohammad Davoudi & Mahinpo, 2012; Scager et al., 2016). These literatures suggest that teachers who use KCLS as instructional strategy posits a positive impression in terms of learning and engagement of the students.

With regard to Bhutan, KCLS is a new pedagogy, and no substantial literature is available, while on the other hand, teachers are conscious that CL is learner centred teaching strategy. A study conducted by Rabgay (2018) on 'The Effect of Using Cooperative Learning Method on Tenth Grade Students' Learning Achievement and Attitude towards Biology' indicated an increased level of understanding on the various biological concepts in Secondary School. The study also showed that the use of CL methods in classroom teaching brings a positive impact on students in achieving the intended learning goals. However, the study was in line with the CL method proposed by Johnson and Johnson (1999) and does not include the KCLS. Namgyel (2013) highlighted that teacher-centred classroom situation impedes meaningful learning and Bhutanese teachers must make a shift in their pedagogical practices parallel to emerging trends in education. Some teachers using KCLS in Bhutan have indicated the positive impact of the statements in terms of learning and engagement (Gurung, 2016; Sherig Bhutan, 2016; Subba, 2017).

Although both CL methods of instructions and KCLS have shown notable positive impact for students in terms of academic achievement and social skills, there are substantial challenges associated with these two pedagogies. In fact, the CL approach has become so popular in education that it overshadows the drawbacks (Randall, 1999). According to Ghaith (2018), there is always a challenge in the implementation of CL due to complex interplay of several factors such as curriculum alignment, crowded classroom, and teacher's knowledge of its procedures. Similarly, it has been mentioned that most of the curricula are content specific and teachers have limited time to explore the CL as they must teach the content (Baloche & Brody, 2017). Several similar studies argued that CL has never been implemented successfully besides its tremendous academic and social benefits for students due to extra time required to prepare CL lesson and fear of not being able to cover the required syllabus (Effandi & Iksan, 2007), lack of desire to work with others by matured students (Robinson, 1990), lack of increased achievement for high achieving students (Kohn, 1992; Mills & Durden, 1992), and class size that accompany this teaching pedagogy (Gillies & Boyle, 2010). Few of the Bhutanese teachers who have been using KCLS have also shared concerns about the resistance by the HSS students and officiousness of KCLS in relation to Bhutanese classrooms due to a greater number of students in the class and rigid syllabus (Lhadon, 2016; Tshering, 2016). Therefore, it is also imperative to note as per the researcher's view that these

confirmed weaknesses may be congruent in the Bhutanese context given the similar contextual environment in terms of curriculum and standard, time, and class space.

Students' Perceptions on Kagan Cooperative Learning Structures

Researchers have shown that the use of KCLS in the classroom engages students and prepare them for a better future due to the emphasis on positive interdependence, individual accountability, equal participation, and simultaneous interaction (PIES) in learning processes (Farzaneh & Nejadansari, 2014; Hinson, 2015; Johnson & Johnson, 1994; Kagan, 2012; Scager et al., 2016). Similarly, Amedu and Gudi (2017) asserts that when KCLS is implemented in the classroom, students develop positive attitudes towards learning in science. It is paramount that students feel engaged, and learning is happening when KCLS is implemented in a classroom setting in the learning processes. Unfortunately, the empirical data that are available in Bhutanese context about the perceptions of students towards KCLS is limited. This is because there has been no research conducted on the effectiveness of KCLS after implementation in schools since July 2016. A few studies have indicated that students enjoy the learning and develop positive attitudes towards the subject when student-centred teaching approach is practised in the classroom (Namgyel, 2013; Rabgay, 2018). Hence, it is inferred that the implementation of KCL has a positive effect on diverse ability students.

However, studies have also indicated that there are students who develop negative attitudes towards learning while they are engaged in a cooperative learning team due to learning differences. For example, Kaminski (2017) argues that teachers fail to realise the learning differences amongst the students who develop a negative attitude towards the subject while implementing the KCLS. Similarly, the quality of learning outcome declines while working in a team due to competitions as the students feel superior when they finish the assigned task first in the class (Spencer, 2008). Thus, it can be concluded that there are setbacks and challenges in terms of benefits as some students prefer working individually due to their different learning abilities.

Benefits and Challenges Associated with the Kagan Cooperative Learning Structures

There have been several benefits in using KCLS in the classroom. For examples, students become academically competent, psychologically viable and socially resilient in the cooperative learning class which have a long-term positive impact on learning. However, successful implementation of KCLS in real teaching and learning processes is challenging extra preparation time for teachers, learning differences amongst students, fear of incompletion of syllabus, personal preferred teaching styles by teachers, lack of increased achievement for gifted learners, and classroom size and the class strength (Amedu & Gudi, 2017; Hinson, 2015; Kohn, 1992; Randall, 1999; Saborit et al., 2016; Yayo, 2013). According to Nur Salimah et al., (2018); Effandi and Iksan (2007), successful implementation of cooperative learning strategies demands extra preparation time from teachers. As stated by Hinson (2015), teachers already have limited time in planning to meet instructional demands daily. This extra preparation time needed to prepare and create these materials for cooperative lesson consumes actual instructional time thereby attributing to the syllabus coverage implication (Robinson, 2012). Furthermore, Effandi and Iksan (2007) asserted that teachers feel the time is being wasted when cooperative learning strategies are used in the classroom thereby losing teaching and learning time with its implementation. Randall (1999) explained similar views that loss of instructional time to account for full syllabus coverage that has been designed by the examination board. Consequently, many teachers tend to avoid the implementation of CL strategies in the classroom due to the fear that content may not be covered which will be assessed by the examination board at the year-end (Hinson, 2015).

While some students prefer to learn together in a team, some students learn better individually, complete task independently and prefer not to take part in group activities. This

learning difference is a critical indicator for teachers to respect student's individual differences which will have effect in the lifelong learning (Effandi et al., 2013, pp.100; Hinson, 2015; Randall, 1999). Similarly, some students oppose cooperative learning because of its non-competitive structure while other students simply find satisfaction with the traditional, teacher-centred method of instruction (Robinson, 2012). Robinson further asserts that students with a competitive spirit cannot be challenged using a non-competitive learning strategy such as cooperative learning. In addition, Robinson (1990) indicated that there is a lack of increased achievement for gifted learners while cooperative learning strategies are used in the classroom as an instructional tool.

Further, it is indicated that the successful implementation of CL in the classroom is impeded by confirmed factors such as curriculum organisation, personal commitment from teachers, inadequate professional development training on the pedagogy for teachers and physical classroom size (Adeyemi, 2008; Cohen, 1994; Cohen et al., 1999; Gillies & Boyle, 2010; Hertz-Lazarowitz, 2008; Kohn,1992). Kohn strongly argued that any form of CL does not comply with conventional curriculum design with vast syllabus content. Likewise, Kohn also claimed that to implement the CL, physical classroom should be spacious enough than the ordinary classroom. Similarly, Hertz-Lazarowitz (2008) reasoned that if CL is to be used successfully in classrooms, the context in which it is to be introduced needs to be prepared, arguing that both students and teachers need to be trained with appropriate interaction skills. Further, Gillies and Boyle (2010) and Cohen (1994) confirmed that implementation of CL demands personal commitment from the teachers to be a successful instructional tool which many of the teachers are not able to sacrifices more personal time.

Research Method

The ontological and epistemological aspect of the study to explore the teachers and students' perceptions on the impact of at HSS level was addressed using the quantitative method using survey research design. The cross-sectional survey research design was employed to explore teachers and student's perceptions regarding their classroom environment after the implementation of KCLS.

Population and Sample

The source of data for the for this study was students and teachers from six HSS under three western districts. The sample was selected from the target population using simple random sampling technique (Creswell, 2014). Altogether, 614 students and 36 teachers totalling up to 650 participants took part in this study (Table 1).

Table 1

Selected Sample for the Study from Three Western Districts

Sl. No	District	School	Total Students	Total Teachers
1	Chhukha	School 1	105	5
		School 2	65	4
2	Thimphu	School 3	116	6
		School 4	148	9
4	Paro	School 5	77	6
		School 6	103	6
Total selected samples			**614**	**36**

Research Instruments

In this study, five-pointed Likert scale type items survey questionnaires for both teachers and students were designed. The questionnaires were sectioned into three parts, the first was demographic data of the participants, while the second part explored the perceptions on implementing KCLS. The third part of the survey focused on the factors they believe that impact the use of KCLS in their classroom situation. The challenges associated with KCLS are labelled as factors in the questionnaires. The items were adapted from the study conducted by Hinson (2015) and each of the 21 items for the students and 22 items for the teacher in the questionnaires was rated on 5-pointed Likert type scale that ranged from "Strongly Agree" to "Strongly Disagree" (Table 2). These 21 items of students and 22 items of teachers were broadly bifurcated into two themes of perceptions towards KCLS such as perceptions towards KCLS in terms of teaching and learning processes and perceptions towards the factors which impacts KCLS (Table 3).

Table 2

Scale for Interpreting the Mean Values of Perception Levels

Scale	Mean Score	Level of Perceptions
1	1-1.80	Lowest
2	1.81-2.60	Lowest
3	2.61-3.40	Moderate
4	3.41-4.20	High
5	4.21-5.0	Highest

Table 3

Division of 43 Items into Three Components of Perceptions towards KCLS

	Description of the Themes	Item No.
Students	Students' perceptions towards KCLS on teaching and learning processes.	1, 2,3,4,5,7,8,9,10,11, 14, 15, 16,19
	Students' perceptions on Factors Affecting KCLS.	12,13,17,18,20,21
Teachers	Teachers' perceptions towards KCLS on teaching and learning processes.	1-5, 6-11, 12, 17,19, 22,
	Teachers' perceptions on Factors Affecting KCLS	9,13,14,15,16,18,20,21

One open-ended questions for students and two open-ended questions for teachers was employed with the survey questionnaires to find the solutions for the challenges that they may suggest.

Data Collection Procedure

The formal approval from the relevant agencies such as MoE, District Education Officers (DEO) and school Principals was sought prior to administration of the questionnaires. The participants were then briefed on the purpose of research, and their right to withdraw from participating in the study. Consents were taken from all the participants.

Data Analysis Procedure

Quantitative data were analysed using Statistical Packages for Social Sciences (SPSS version 22). Descriptive statistics was used to analyse personal data on the perception towards KCLS by participants. While, the responses to two open ended questions were analysed collectively for each respondent and themes that emerged from the content analysis were identified and triangulated with the quantitative data.

Findings

Demographic Information of the Participants

The 650 participants who took part in the study constitute both students and teachers. With regards to students, male constituted 45.3% while female made up 54.7%. of the total students' population. As for teachers, 58.3% of those who took part in this study were male (n=36) participants, and 41.7% were female participants.

Descriptive Analysis of Teachers and Students' Perceptions of KCLS

Means and standard deviations for each theme were calculated to examine the perceptions of teachers and students towards KCLS as an effective transformative pedagogy in teaching and learning processes. Theme-wise responses based on survey questionnaires of the teachers and students' perceptions towards KCLS were analysed to compare the mean difference and level of perceptions based on each item. Analysis based on theme one on teachers and students' perception of KCLS towards teaching and learning processes particularly drawn from survey questionnaires indicated an average mean value of 3.23, SD 0.10 for the teachers and an average mean value of 2.96, SD 0.14 for students with 'Moderate' level of perceptions. However, for theme two on teachers and students' perceptions on factors affecting KCLS indicated an average mean value of 2.0, SD 0.12 for teachers and an average mean value of 2.30, SD 0.17 for students with 'Low' level of perceptions.

Table 4

Overall Perception of KCLS by Teachers

Themes	Mean value	SD	Level of Perceptions
Theme one: Perception towards KCLS teaching and learning processes.	3.23	0.10	Moderate
Theme two: Factors affecting KCLS	2.00	0.12	Low

Table 5

Overall Perceptions of KCLS by Students

Themes	Mean	SD	Level of Perceptions
Theme one: Perception towards KCLS in teaching and learning processes.	2.96	0.14	Moderate
Theme two: Factors affecting KCLS	2.30	0.17	Low

Note. 1-1.80= Lowest, 1.81-2.60= Low, 2.61-3.40=Moderate, 3.41-4.20=High, 4.21-5.0=Highest (Best & Kahn, 1998; Brown, 2010).

Analysis of Extended Response Questions

For the teacher participants, 36 have responded accounting to a 100% response rate of the sample. Several themes emerged from the responses on content analysis in relation to the use of KCLS as an effective transformative pedagogy (Table 6). The result indicated that 52.8% of participants expressed that a high number of students and small classroom space were the limiting factors for effective implementation of KCLS in the school settings. Similarly, 41.7% of the teacher participants showed that the current curriculum structure in grade 11 & 12 need to be revised for effective implementation of KCLS as this approach consumes a substantial amount of time. Furthermore, 5.6% of the participants expressed that KCLS is not a holistic approach as students showed their reluctance to participate in the way KCLS arranges the classroom setting.

Table 6

Themes from Content Analysis of Open-ended Questions of Teachers

Themes	Number of Response	Relative Percentage (%)
1. Larger Class size and small class space.	19	52.8
2. The current curriculum needs to realign with KCLS as KCLS is time-consuming.	15	41.7
3. Students are not willing to participate in a team.	2	5.6
Total	36	100

For the students' open-ended response questions, 611 out of 614 student participants have responded accounting to 99.5% response rate of the sample. The content analysis result indicated that 51.9% of participants least favoured the KCLS approach due to the large class size with small classroom space. Similarly, 22.6% of the participants have expressed KCLS will be effective only if the present syllabus of grade 11 & 12 is reduced as KCLS consumes time. Further, 16.5% have expressed that there is dominance by the high achiever in the teamwork and 9% have indicated that their school have not practised the implemented KCLS (Table 7).

Table 7

Themes from Content Analysis of Open-Ended Question of Students

Theme	Number of Response	Percentage (%)
1. More number of students in the class with small classroom size leads to a noisy environment.	317	51.9
2. Syllabus needs to reduce because of KCLS consumes time.	138	22.6
3. Dominance by High achiever during teamwork.	101	16.5
4. KCLS not practised.	55	9
Total	611	100

Factors Affecting Implementation of KCLS in Bhutanese Classroom Situation

Content analysis of the open-ended questions found that 52.8% of the teacher participants feel that larger class strength with a small class space makes it challenging to practice KCLS in a classroom teaching. Similar views have been expressed by 51.9% of student participants. Additionally, another prominent factor that emerged is the voluminous content laden syllabus at HSS level that makes it difficult to practice KCLS as it consumes time. This concern was raised by 41.7% (15 out of 36) teacher participants and 22.6% (138 out of 611) student participants.

Further, 16.5% (101 out of 611) of the student participants have expressed that while working in teams to complete assigned task, bright teammates tend to dominate the team task while on the other hand, 9% (55 out of 611) of the student participants have reported that KCLS is not practised in their schools. Very few, 5.6% (2 out of 36) teacher participants have expressed that those students in higher classes were not cooperative to practice KCLS.

In brief, larger class strength, a vastness syllabus, dominance by high achieving students, and resistance by grade 11 & 12 students to KCLS emerged as prominent factors that affect the successful implementation of KCLS as effective transformative pedagogy in Bhutanese classroom setting.

Discussion

Teachers' Perceptions on Kagan Cooperative Learning Structures

The present findings confirmed that teachers hold 'Moderate' level of perception towards KCLS as teaching pedagogy which is indication that the KCLS in teaching and learning processes engages students meaningfully in classroom situations. This finding is consistent with several other studies that reported the use of KCLS significantly increases the students' academic achievements and social skills (Chatila & Husseiny, 2017; Farmer, 2017; Hinson, 2015; Kocabas & Erbil, 2017; Scager et.al, 2016; Soleimani & Khosravi, 2018). Such a positive impression of the teachers on this pedagogy is mainly attributed to a transformative pedagogy workshop provided to all teachers on KCLS conducted by MoE in July 2016. The finding also confirms the views and opinions expressed by several teachers on the benefits of KCLS as transformative pedagogy (Gurung, 2016; Sherig Bhutan, 2016; Subba, 2017).

On the contrary, the present study also confirms that there were challenges and issues associated when it comes to the practical implementation of the KCLS in Bhutanese classroom settings. For example, data indicated the 'Low' level of perceptions on factors affecting KCLS from survey questionnaires at HSS levels. This low perception level is attributed to several contributing factors such as larger class size, demanding time during implementation, and vastness of syllabus. These are consistent with several other findings relative to Bhutanese context (Dorji, et.al., 2018; Namgyel, 2013; Sherab, 2008; Sinchuri, 2013).

Students' Perceptions on Kagan Cooperative Learning Structures

The descriptive statistics showed that students of grade 11 & 12 hold positive strength and likeness towards KCSL with 'Moderate' level of perceptions. Such positive aspects of KCLS placed by the students corresponds to several other studies that claimed the use of KCLS in the classroom engages students and improves their learning abilities (Farzaneh & Nejadansari, 2014; Hinson, 2015; Johnson & Johnson, 1994; Kagan, 2012; Scager et al., 2016). In addition, the positive impression towards KCSL by students was consistent with the finding of teachers' positive perceptions in terms of learning and engagement. This positive relationship between the perceptions of teachers and students shows a good impression

towards KCLS as transformative pedagogy in teaching and learning at the higher secondary school level.

Nevertheless, the findings also indicated challenges associated with the implementation of KCLS in the Bhutanese context. For example, the 'Low' level of perceptions from survey towards KCLS with regards to factors shows that there are challenges concerning the practical implementation. This trend was an indication of a negative impression towards KCLS by the students at HSS levels. Moreover, this finding is associated with the learning differences amongst the students where some students prefer to learn and complete their task independently. The finding corresponds the argument of Kaminski (2017) and Spencer (2008) that teachers fail to realise the learning differences amongst the students which entails the development of a negative attitude towards the subject while implementing KCLS.

In addition, the ‘Low’ level perception can be also related to the inadequate social skills of the students to participate in the phyco-social contemporary teaching approaches such as KCLS. For example, KCLS is stepwise sequences of structures which demands skills on how students can be cooperative while working as a team in their learning processes. In addition, there were also traits in the result that KCLS is not at all practised in some of the schools after the implementation, especially in the higher grades. This could be due to teachers’ concern over the syllabus coverage as mandated by the policy. Moreover, Bhutanese teachers and students are deeply rooted in the culture of teacher-centred instructions. This finding builds a case to argue that students are still inclined towards traditional pedagogical approaches of learning. Moreover, the finding also shows that students were more concerned over the content learning through traditional way than the classroom teaching processes through flexible and democratic ways given the nature of assessment in a Bhutanese education setting (e.g., Home and Board Examinations). The finding in this study corroborates the claims by Hinson (2015) and Randall (1999) which stated that implementation of KCLS derails instructional time which is required to teach the content that is ultimately measured by the final examination.

Factors Associated with the Kagan Cooperative Learning Structures

The understanding of the negative perceptions is important as it affects the implementation of the KCLS at the higher secondary school levels in Bhutan. Based on the result of this study, particularly drawn from the teachers and students' perceptions, factors such as large class size, vastness of syllabus, resistance of students to participate in teamwork, and prevalence of dominance by high achieving students were some of the most prominent factors that affect the implementation of KCLS as effective transformative pedagogy in the Bhutanese Higher Secondary Schools. This finding validates the concerns raised by some of the Bhutanese teachers over the practical challenges they face while implementing KCLS in a classroom situation (Lhadon, 2016; Tshering, 2016). More importantly, the current finding is consistent with several other similar studies (Adeyemi, 2008; Almulla , 2017; Amedu & Gudi, 2017; Cohen, 1994; Cohen et al., 1999; Gillies & Boyle, 2010; Hertz-Lazarowitz, 2008; Kohn,1992; Randall, 1999; Robinson, 2012; Effandi & Iksan, 2007) that stated challenges such as small classroom space, issues of timely syllabus coverage, limited time for preparation, redundancy of the high achieving students, individual learning difference amongst the students, and preference over personal teaching style for teachers were some of the most prominent factors associated with CL. Interestingly, the result showed that three of the previous research findings have been replicated in this study by both teacher participants and student participants such as larger class strength and small classroom space, difficulties to cover the syllabus prescribed by MoE, and learning differences amongst students (refer Table 6 and Table 7). The four prominent factors which influence effective implementation of KCLS in teaching and learning at the higher secondary schools are discussed in the following subheadings.

Larger Class Size

The study revealed that KCLS is not appropriate with a greater number of students in the Bhutanese classroom setting. As shown in comments by the participants, KCLS may not be effective in teaching and learning process for large class strength with smaller classroom space. For example, teacher 5 said "due to large numbers of students in the class and lack of required infrastructures, KCLS is not at all possible to implement in the school". Further, student 477 stated "KCLS works only when the number of students is at minimal level". Similar views have been shared by MacAulay (1990) that classroom environment has an important role in influencing cognitive and affective outcomes of the learner and if the classroom is not conducive for learning, students develop negative attitudes towards lifelong learning. This finding was also comparable to the study by Ghaith (2018, pp. 390) who also found that smaller classrooms, crowded curricula, and limited instructional time are interplaying factors in implementing the CL.

Issues of Syllabus Coverage

The study indicated that another factor influencing the successful implementation of KCLS is the nature of syllabus at grades 11 & 12. Some of the participants have emphasised that it is difficult to cover the syllabus established by MoE, which is expected to be fully covered during the school term while KCLS is implemented as transformative pedagogy. For example, teacher 35 shared that " KCLS may have advantage but practically I am not able to implement in my class because syllabus is too vast to be covered in time". The majority of student participants shared similar views. For instance, student 5, 108, and 247 shared that voluminous content laden syllabus of grade 11 & 12 is worrisome for them as their result is determined by the examination marks. This is due to the fact that present curriculum contains a substantial volume of information and content, which in participant's opinion requires to change their teaching style for delivering the vast curriculum due to the time factor. This finding resonates the other similar studies which stated that teachers are concerned about the loss of time while preparing materials for incorporating CL into their lesson (Effandi & Iksan, 2007; Robinson, 2012). Additionally, participants have also indicated that preparing lesson plans and activities with KCLS requires more time, which is in line with the results of Gillies and Boyle (2010).

Reluctance of the Students

The other factor confirmed in the study by teacher participants is the willingness of the HSS students to participate in teamwork. The resistance from the students to take part in teamwork during the learning processes is associated with learning differences amongst the students which are a critical factor for teachers to respect student's individual difference. For example, student number 210 said that "I prefer to learn alone". This finding is consistent with several arguments and studies that if the individual learning differences are not taken care of, it will have a negative impact on lifelong learning by the students (Hinson, 2015; Kaminski, 2017; Kohn, 1992; Randall; 1999; Effandi et al., 2013, pp. 100).

Dominance by the High Achievers

The fourth factor found in this study is the prevalence of supremacy while learning in a team using KCLS. For instance, student number 454 shared that "some students do not really get the opportunity to take part during the teamwork". Similarly, student number 514 also shared that "the person who knows better in the team take the chance and other members remain idle". This is an indication that high achievers in the team dominate low achievers in the learning processes. The finding is parallel to the study by Almulla (2017) that extrovert and high achievers in the team dominate their teammates while learning in CL class. Furthermore, Effandi et al. (2013, pp. 100) and Randall (1999) argue that CL does not take care of learning differences amongst the students in the team, resulting in either dominance by the high

achieving students or redundancy for the high achiever in the team. This finding also contradicts the principle of equal participation claimed by Kagan (1994) to overcome the situation where one-member dominate the other while working in team.

Conclusion

The focus of this study was to explore the perceptions of teachers and students towards Kagan Cooperative Learning Structures in teaching and learning at HSS levels. In order to answer research questions, data were collected and analysed based on two themes. Theme 1 was perceptions towards KCLS in teaching and learning processes by students and teachers while theme 2 was based on the perceptions on factors affecting the implementation of KCLS by students and teachers. The findings showed that teachers and students in the field hold good impression towards KCLS in terms of teaching and learning experiences in the classroom situations. However, given the educational settings in Bhutanese HSS, there seems to be a situation where the practice of KCLS in teaching and learning process is saddled by several contextualised impeding factors such as greater number of students in the class, the rigidity of curriculum syllabi, the reluctance of students to take part in teamwork, and dominance by the high achievers during the teamwork. This implies that there is a need to create enabling classroom condition for effective practice of KCLS as transformative teaching pedagogy. In addition, it implies that the realignment of the existing syllabus is crucial to overcome this challenge. Further, curriculum specialists, curriculum planners and curriculum implementers may need to be more aware of the practical requirements of KCLS as transformative pedagogy and make the necessary recommendations to policy makers and administrators.

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