



National Institute of Development Administration (NIDA)

CaseStudies
on Development Administration

NIDA International Conference for Case Studies
on Development Administration 2017
NIDA-ICCS

September 8, 2017

At Chira Boonmark Hall, 3rd floor, Sayamboromrajakumari Building,
National Institute of Development Administration (NIDA),
Serithai Road, Bangkok, THAILAND

Organized by

National Institute of Development Administration (NIDA)
Bangkok , THAILAND



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Editors

Associate Professor Dr. Wisakha Phoochiada

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**National Institute of Development Administration
Bangkok, THAILAND**

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Preface

The Seventh NIDA International Conference for Case Studies (NIDA-ICCS) will be held in Bangkok Thailand, September 8, 2017, at NIDA's Bangkok campus. The conference brings together scholars and experts from a wide range of development administration fields to discuss practical and research issues related to teaching case studies.

NIDA proudly invites scholars and experts to send their teaching case studies in various fields of development administration.

The keynote speaker will be Dr. Siriwan Chutikamoltham Senior Lecturer and Academic Director (NF MBA) Nanyang Technological University

Conference Theme and Sub-themes

Main Theme: Teaching Case Studies on Development Administration

Sub-themes in various fields of development administration include:

- Public Administration
- Economics
- Business Administration
- Social Development
- Environmental Management
- Law, Legal Studies
- Human Resource Development
- Language and Communication
- Applied Statistics
- Decision Technology
- Actuarial Science and Risk Management
- Population and Development,
- Information System Management and Computer Science
- Tourism Management
- Sustainability
- Corporate Social Responsibility and Ethics

About NIDA

National Institute of Development Administration (NIDA), is established in 1966, is a unique higher education institute in Thailand that offer exclusively graduate degree programs. NIDA was originally established to support national development in Thailand; this objective has now been expanded to encompass regional development in countries outside of Thailand, with the aim of producing advanced degree graduates who can serve in the public, business, and nonprofit sectors. NIDA holds its academic conferences and publish at least two journals regularly—NIDA Development Journal (in both English and Thai) quarterly, and NIDA Case Research Journal (in English) annually. For more information please visit our website: <http://www.nida.ac.th>.

Foreword

It is our great pleasure to present the proceedings of the 7th NIDA Case Studies on Development Administration 2017 (NIDA-ICCS 2017). We have compiled the latest quality teaching case studies from scholars in the region and around the world.

After blind review process, a total of 28 case studies were accepted for presentation in several parallel sessions of the conference to be held at National Institute of Development Administration Bangkok, Thailand between September 8, 2017.

The case studies are resourceful and contribute a great deal to the academicians and practitioners in the field relating to development administration. The organizing committee wishes to express our special thanks to the authors of the cases, the reviewers, and all those who have contributed to the conference. We would like to express our gratitude to all those individuals and institutions who had supported this conference professionally and enthusiastically in order to make this conference happen.

Research Center
National Institute of Development Administration

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THE EFFECTS OF USING SIMULATED ROLE PLAY IN TEACHING HISTORY TO SECONDARY STUDENTS IN BHUTAN

Lhatu¹ and Somchanok Phu-ampai²

Abstract

This paper presents mixed method case study of investigating the learning achievement of grade 9 Bhutanese students and to check opinions of students towards simulated role play technique in teaching and learning history. Out of six sections (180 grade 9 students), 30 were selected using cluster random sampling technique. Data were collected using multiple methods that included questionnaire, students' reflective journal and achievement test (pretest and posttest). The study was designed for a period of 4 weeks. The data obtained were analyzed to calculate mean, standard deviation, and percentages. Results of the data analysis revealed that there were significant difference in the mean scores of the students after the treatment. It was evident that the learning achievement of the students increased after the integration of simulated role play technique. Another finding of the study revealed that the students had positive opinion towards simulated role play technique as it brought positive difference in their learning achievement. Therefore, it is recommended for all the teachers to incorporate simulated role play technique in the classroom to see immediate and gradual improvement in students' learning achievement.

Keywords: Learning achievement, Opinion, Simulated role play, Bhutanese

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1. Introduction

History is the study of the past to bring the realization to the present. Carr (1961) states history as an unending dialogue between the past and the present. It is a description of past actions and events happened among the mankind which affected the social and political condition of the human race. It is the witness that appears to the passing of time, illuminates reality and brings us the zest to study the olden days. The study of history provide a foundation of insightful knowledge, grounded in the humanities and in the social sciences, that is useful for professional lives. Bourgoin, Churchill, Carolan, Fanjoy, Hayden and Leblance (2001) explain that without a strong foundation of social studies education, the ability of the citizen to participate and contribute to their culture and society declines and there is a danger of losing one's social identity. Our identity is our pride and self-esteem; we lose our identity when we are too much into material development. Ura, Alkire, Zangmo and Wangdi (2012) described that identity encompass cultures, traditions and belief in spiritual values like compassion, peace, and sense of connectedness. Therefore, to keep our society balanced with material development and spiritual continuity, it is essential for its people to know and respect the history of the country. History education is one major form to keep identity preserved and valued.

Barton and Levstik (2004) emphasize the role of history in helping citizens engage in collaboration towards a common good. Moreover, the subject provides an opportunity for students to understand and appreciate the inevitability of change and the need to develop historical empathy. It's of paramount importance in the society that history as a subject was then implemented by the Bhutanese government and was taught in three themes; Bhutan History, Civics and world/Indian History. Bhutan history and civics are intended to increase the students' knowledge on country's history and political situation. The integration of world/Indian history in the Bhutanese curriculum is to educate students on some of the major world events and its significance. Although it is essential to know and study one's own history yet our students find it difficult and a boring subject to study and cannot score high marks in the examination. Over the years history subject in a school curriculum has constantly suffered from negative perceptions regardless of the emphasis placed by the Ministry of Education on the shift in teaching methods. History classes were often found to be taught with age old lecturing and with the use of merely the text which was not revised for years at end. In order to investigate the pedagogical approach in classroom teaching and its effectiveness, Centre for Educational Research and Development (2009) conducted an educational research which revealed that about 89% of teachers are still using lecture method as the means of communication while teaching in the classroom with no practical use of teaching aids.

As per the pupil performance report 2017 and a press release from Department of School Education, MOE, Bhutan (2017), the performance of Bhutanese students in history was not up to satisfaction, students could not perform well regardless of history being one of the comfortable subjects to study. The PUPIL PERFORMANCE REPORT-2017, (SUBJECT-WISE MARK RANGE) students' performances in history reads; only 4.74% of students could score marks in the ranges of 81 to 100 whereas, in the ranges; 8.89% of students scored in major subjects like Economics, 5.61% in mathematics, 38.48 in computer application and 11.37% in environmental science. Likewise the press release from Department of School Education, MOE, Bhutan (2017) on BCSE (X) Examination held in December 2016, the overall mean marks were; Dzongkha 66.99%, Economics 64.70%, Math 64.33%, HCG 62.76%, Science 70.85%, Computer Applications 76.56% and Environmental Science 66.08%. Students lack the understanding of historical concepts because of the teacher centered teaching where teachers act as the source of knowledge and students as the recipients of the knowledge. Students were made to memorize the entire texts; syllabus coverage was given more consideration than students' learning. As a result, students are not competent and confident for their examination. Therefore, this study was designed to investigate the effectiveness of simulated role play technique in teaching history because simulated role play is an active learning technique that motivates learning; enhance students' interest towards studying history through its unique mechanisms and the experiences that every individual will acquire after attending the history lesson.

2. Research objectives

- 2.1 To examine the learning achievement of grade 9 students using simulated role play to teach history.
- 2.2 To find out the opinion of the students towards simulated role play in teaching history.

3. Materials and methods

3.1 Research design

This study was a mixed method style research a combination of ideas from qualitative and quantitative approaches. The researcher chose to follow the mixed method approaches because this approach covers every aspects of the research study. Through this approach the researcher would have enough evidences to prove that the study is authentic and reliable for the information. Cameron (2011); Caruth (2013) identify that it is an approach that is gaining more popularity among the researchers as it has the potential to offer more robust research, is an alternative to either of the qualitative and quantitative research design. Unlike the utilizing of one research design, mixed method research has always brought limitless information though undergoing such research would be challenging and complex. Barnes (2012) supported the gaining popularity of mixed method research in social science and according to his findings, it is stated that mixed method research is unique form of social enquiry with its own set of philosophical, methodological and practical guidelines. Following the recommendation from aforementioned researchers, the researcher felt the importance of mixed method

research in education and showed interest in examining the effectiveness of simulated role play in teaching history to grade 9 Bhutanese students in the middle secondary school in Bhutan

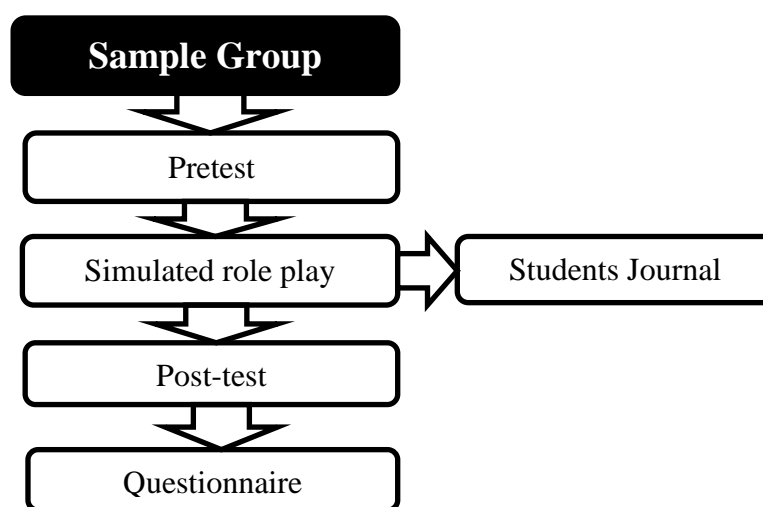


Figure 1 Research design

3.2 Sampling

The targeted population of the study was 6 sections of grade 9 students (90 boys and 100 girls) in one of the central schools in Southern Bhutan however 1 section (30 students) were selected using cluster random sampling technique as this study was designed for one sample pretest posttest design.

3.3 Research Instrument

The researcher used four instruments to collect data for the study namely (i) Lesson plans (i) Achievement test (iii) Opinion questionnaire and (iv) Students reflective journal

3.3.1 Lesson plan (Intervention instrument)

The researcher designed 8 lesson plans of 90 minutes each from Bhutan civics (election and formation of political parties) grade 9. The classroom teaching took place in alternative days to provide preparation time and presentation time for students so that the characters in the play get enough time.

3.3.2 Achievement test

The researcher developed 40 multiple choice questions from two chapters of Bhutan civics grade 9 which were validated by three experts. 20 best items were selected for the achievement test based on experts' recommendation. Pretest and posttest were administered to compare the differences in learning achievement of the participants before and after the lesson intervention.

3.3.3 Opinion Questionnaires

In order to collect the opinion of the student on simulated role play 20 items questionnaire were designed and students were asked to indicate the extent of their agreement with each statement on a five-point likert scale from strongly agree to strongly disagree. The questionnaire was divided into two parts. Part 1 of the questionnaire was aimed to collect demographic details of the participants while part 2 was to collect students' opinion on use of simulated role play in learning history. It was further divided into four areas: a) Interest in learning history with simulated role play, b) motivation in learning history with simulated role play, c) learning satisfaction with the use of simulated role play and d) easiness in learning history with the use of simulated role play.

3.3.4 Students' Journal

The research participants were asked to write 4 journals to reflect their opinion on simulated Role play. They wrote the strengths and limitations of the simulated role play technique in teaching history, how to improve and go about making this approach applicable to teach history subject. The participants wrote reflective journals when simulated role play teaching was administered.

3.4 Data collection Procedure

3.4.1 Ethical Considerations

To conduct research in schools of Bhutan, an approval letter from the Director General, Ministry of Education was obtained. With the approval letter from ministry of education, it was delivered to the district education office for further approval to the concerned principal of the school to allow the preferred research study. The researcher sought permission from principal and grade IX history teacher upon getting office order from the district education office. The participants were informed about the research study and the anonymity and confidentiality of the participants were maintained at all times.

3.4.2 Conduct Achievement test

After an approval and class arrangements, the researcher administered pretest to the sample group. The researcher deployed 8 lessons out of which 4 lessons were incorporated simulated role play and other 4 lessons were meant for discussion and to familiarize the topic. At the end of the intervention, a posttest with the same question as the pretest was administered. This was done mainly to examine the achievement level of the students before and after the treatment.

3.4.3 Administer opinion questionnaire

The opinion questionnaire of 20 items were developed and validated by three experts. The research participants were asked to indicate the extent of their agreement with each statement on five point Likert scale ranging from strongly agree to strongly disagree. The opinion questionnaire was administered at the end of the study to find out the opinion of the students towards simulated role play in teaching history.

3.4.4 Students' reflective journal

The participants of the study were asked to write 4 reflective journals to reflect their feelings and opinion on the use of simulated role play in teaching and learning history. The students were provided 10 minutes to write their reflection when simulated role play technique was administered.

3.5 Data Analysis

The collected data were analyzed in three areas namely i) Test score analysis to study the effect of Simulated Role Play on learning achievement, ii) Survey Questionnaire on student's opinion towards learning history through Simulated Role Play and iii) analyze the data collected from students reflective journal using coding system.

3.5.1 Test score analysis

The mean and standard deviation of pretest and posttest of the sample group were computed and comparative statistical analysis was done within the group using one sample t-test. The value of the 2-tailed significance (p-value) was referred to determine the significant difference between the means.

3.5.2 Questionnaire

The mean and standard deviation was calculated for all four components in the questionnaire on student's opinion towards learning history through simulated role play.

3.5.3 Reflective journal analysis

Data from student's reflective journals were collected, compiled and analyzed through open coding, axial coding and selective coding system based on the Grounded Theory of Strauss and Corbin, (1998).

4. Results

4.1 Test score Analysis

The first objective of the study was to examine the learning achievement of grade 9 students in history using simulated role play. For this objective a comparative statistical analysis was done using mean and standard deviation. The comparison was done 'within the group' by comparing the pretest and posttest of the group.

4.2 Pretest-posttest comparison

The pretest and posttest scores of the group were computed and compared using mean and standard deviation. Tables and figures below showed the results of the pretest and posttest comparison in terms of mean and standard deviation.

Table 1 Pretest and posttest comparison

Sample group		
	Pretest	Posttest
Mean	10.13	13.73
Mean difference		13.73-10.13=3.6
Standard Deviation	2.52	2.59

The result from the Table 1 showed that the mean in the pretest was 10.13 and the standard deviation was 2.52. In the posttest the mean increased to 13.73 with standard deviation 2.59. The mean difference between pretest and posttest was 3.6. From this comparison it was evident that there was an increase in the mean of the posttest after the intervention. It was also clear that the mean difference in the group after the intervention was significantly higher than before the intervention. This was further illustrated by figure 1 below.

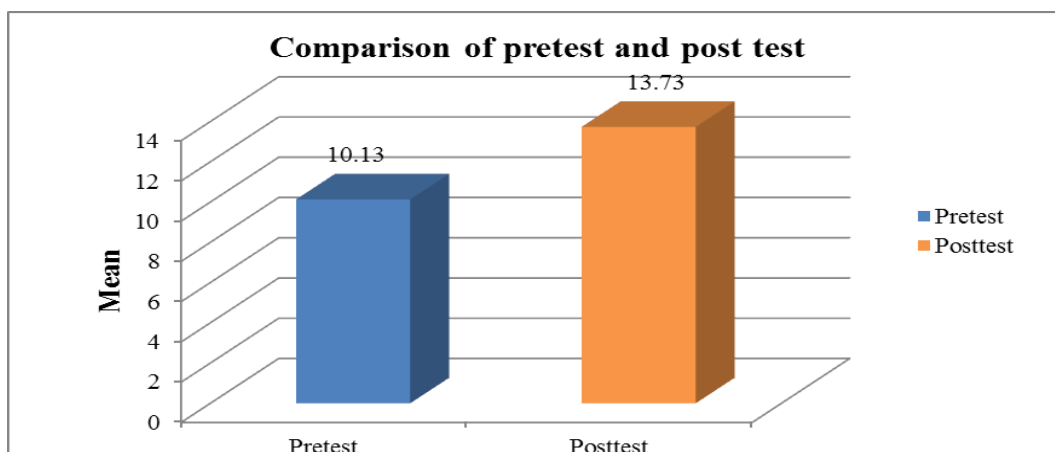


Figure 2 Pretest and posttest comparison

Individual Students' Performance Analysis

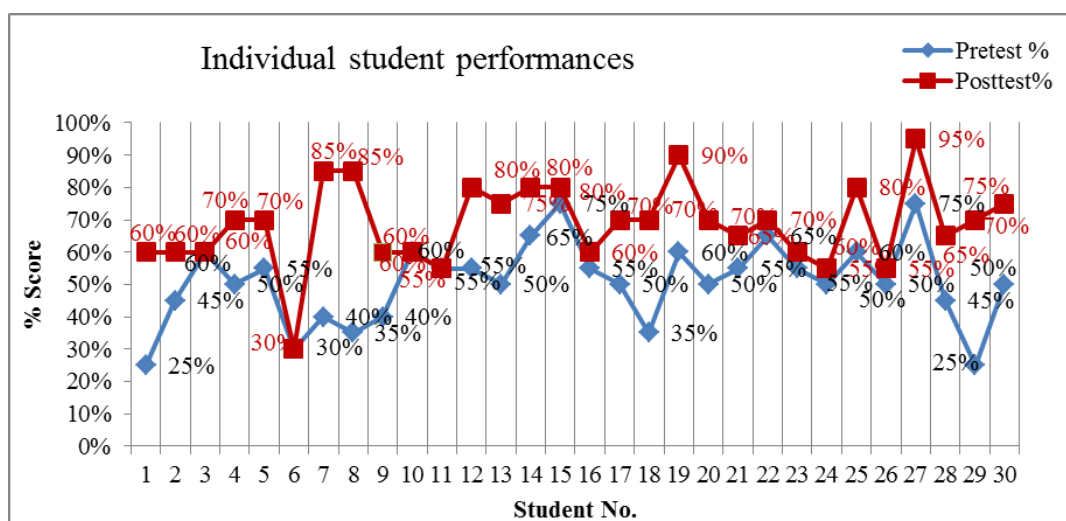


Figure 3 Individual students performances in the pretest-posttest

Figure 3 showed the level of achievement of each student in the pretest and posttest. The figure clearly illustrates the differences in the performances of each student in their pretest and posttest. Student no. 3, 6, 10 and 11 did not show any improvement in posttest while student no. 7,8 and 29 made significant differences in their scores in posttest compared to pretest.

Table 2 Number of students in each score difference

Score	Same	+1	+2	+3	+4	+5	+6	+7	+9	+10	Total
No. of students	4	6	1	3	7	3	1	2	2	1	30
% of student	14%	20%	3%	10%	23%	10%	3%	7%	7%	3%	100%

Table 2 showed the score differences of students. Out of 30 students 4 (14%) student's score remained same even after the intervention. There were 6 (20%) students whose mark increased by 1 score in the posttest, 1 (3%) student whose mark increased by 2 score, 3 (10%) students whose mark increased by 3 score, 7 (23%) students whose mark increased by 4 score, 3 (10%) students whose mark increased by 5 score, 1 (3%) students whose mark increased by 6 score, 2 (7%) students whose mark increased by 7 score, 2 (7%) students whose mark increased by 9 score and 1 (3%) student whose mark increased by 10 score.

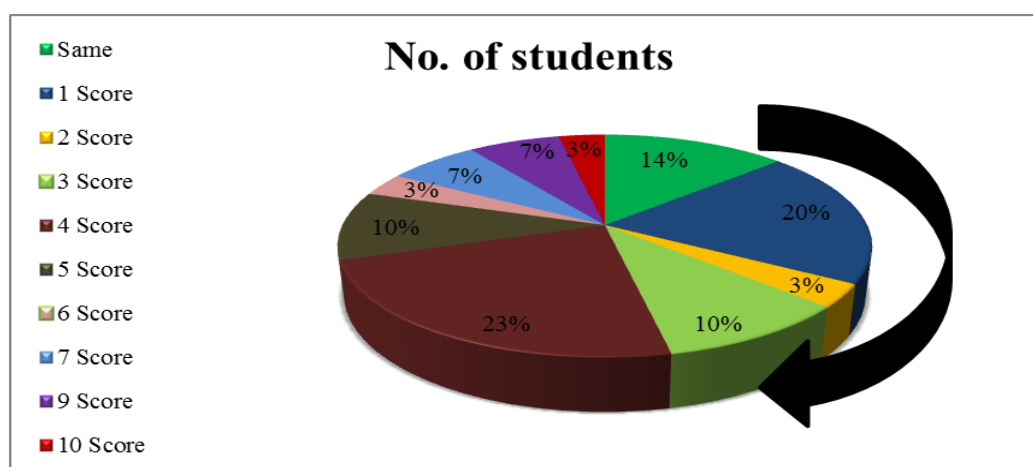


Figure 4 Number of students in each score differences

Figure 4 presented the pie-chart illustration of the percentage (%) of the students in each score differences. Maximum number (23%) of students achieved in 4 score difference followed by (20%) of students in 1 score difference. (14%) of students did not show any improvement after intervention while (10%) of students in 3 score and (10%) of students in 5 score made positive differences. (7%) of students made difference in 7 score and another (7%) of students in 9 score. To the least (3%) of students made difference in 2 score, (3%) in 6 score and (3%) in 10 score respectively.

4.3 Opinion questionnaire analysis

The second objective of the study was to find out the opinion of the students towards simulated role play technique in teaching history. Data were collected using opinion questionnaire from students. The questionnaire was administered at the end of the study period. The questionnaire comprised of four parts: (1) Interest in studying history with simulated role play technique (2) simulated role play technique motivate learning (3) satisfaction after integration of simulated role play technique (4) easiness in learning history with the use of simulated role play technique. Each part contained 5 statements which were rated by the participants to the extent of their agreement with strongly agree to strongly disagree on a five-point Likert scale. The data were then computed to calculate mean and standard deviation using SPSS programme. The mean for each statement were calculated and further divided into one decimal point for perfect interpretation. (0-1.4 strongly disagrees, 1.5-2.4 disagree, 2.5-3.4 neutral, 3.5-4.4 agree and 4.5-5 strongly agree.)

Table 3 shows the mean and standard deviation of the opinion questionnaire

Part I. Opinion on interest after integration of simulated role play in studying history

Sl. No	Statements	Number	Mean	S.D	Extend of agreement
1	I like studying History through the integration of simulated role play	30	4.3	0.7	Agree
2	I have a positive attitude towards studying History when taught with simulated role play	30	4.0	0.6	Agree
3	I enjoy simulating the role of the real character in the role play	30	4.6	0.6	Strongly agree
4	History subject is fun and interesting when taught using role play	30	4.9	0.3	Strongly agree
5	I prefer to work in group than becoming passive listener	30	4.5	0.6	Strongly agree
		Total	4.5	0.6	

Part II. Opinions on motivation after the integration of simulated role play technique

Sl. No	Statements	Number	Mean	S.D	Extend of agreement
1	Teaching history through role play simulation motivated me to like subject.	30	4.5	0.5	Strongly agree
2	Learning history through simulated role play has more impact in understanding	30	4.3	0.6	Agree
3	I understand history better with simulated role play technique	30	4.4	0.7	Agree
4	It has brought positive impact on me to develop interest in learning history	30	4.6	0.6	Strongly agree
5	I am satisfied with my performance in the test after attending the history lesson.	30	4.1	0.5	Agree
		Total	4.4	0.6	

Part III. Opinion on satisfaction after studying history through simulated role play

Sl. No.	Statements	Number	Mean	S.D.	Extent of agreement
1	I am satisfied with what I learn in history lesson	30	4.2	0.8	Agree
2	Participating in role play makes me feel great.	30	4.4	0.6	Agree
	I have learned a lot from role play simulation in history class.	30	4.5	0.6	Strongly Agree
4	Learning history from role play simulation promotes hands-on experience.	30	4.3	0.7	Agree
5	I feel confident and do better when I learn lesson with role play and simulation.	30	4.6	0.5	Strongly agree
		Total	4.4	0.6	

Part IV. Opinions on easiness after the integration of simulated role play technique

Sl. No.	Statements	Number	Mean	S.D.	Extent of agreement
1	I like studying history with the integration of simulated role play.	30	4.8	0.7	Strongly agree
2	I find History very easy after the integration of simulated role play	30	4.6	0.2	Strongly agree
3	I am sure to get good score in history	30	4.5	0.4	Strongly agree
4	I am interested to increase my history knowledge with simulated role play.	30	4.4	0.3	Agree
5	I love to do my History homework	30	4.5	0.6	Strongly agree
		Total	4.5	0.6	

Graphical representation of students' opinion on simulated role play

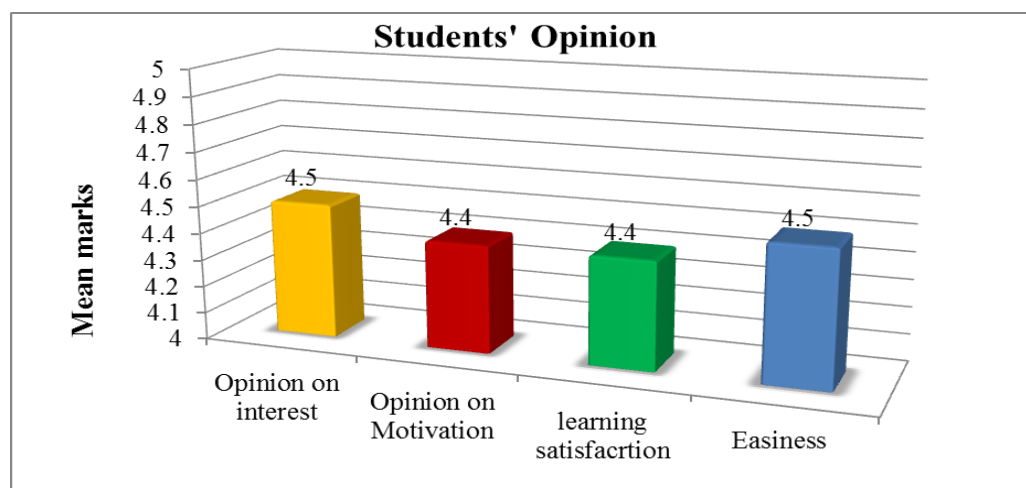


Figure 5 Students opinion towards simulated role play

Table 3 showed the mean, standard deviation and extent of agreement on each statement by the students. In the part I (opinion on interest after integration of simulated role play technique) the overall mean rating was 4.5 out of 5 on the Likert scale which clearly indicated that integration of simulated role play technique drives the interest of students in studying history.

In part II (Opinions on motivation after the integration of simulated role play technique) the overall mean rating was 4.4 out of 5 on the Likert scale which fall in good on the level of agreement. It was evident from the mean score that students were motivated to study history with the integration of simulated role play technique.

In part III (Opinion on satisfaction after studying history with the integration of simulated role play technique) the overall mean rating was 4.4 out of 5 on the Likert scale. Here also the mean score of 4.4 was clear indication that students were extremely satisfied for what they have learned in history lesson after the integration of simulated role play technique.

Lastly, in part IV (Opinions on easiness in studying history after the integration of simulated role play technique) the mean rating was 4.5 out of 5 on the Likert scale. The mean 4.5 clearly revealed that students' found comfortable to study history with the integration of simulated role play technique.

The overall mean score was 4.45 out of 5 on the Likert scale and standard deviation was 0.6 which was an indication that students' had a positive opinion towards simulated role play technique. Therefore, the researcher concluded that when simulated role play technique was applied in teaching history, students exhibited positive opinion towards learning history and their achievement level also improved.

4.4 Students' reflective journal analysis

Student's reflective journal was another instrument used by the researcher to collect data for the second objective of the research which was aimed to study the opinion of students' towards the use of simulated role play in teaching and learning history. The researcher maintained four reflective journals when simulated role play technique was administered. The reflective journals were maintained to check students' opinion towards simulated role play

The data from the student's reflective journal was analyzed using grounded theory proposed by Strauss and Corbin (1998). The coding process included three levels of analysis; open coding, axial coding and selective coding. The data collected from student's reflective journal were organized systemically in open coding, identified and categorized in each theme in axial coding and categorized data were interpreted in the selective coding. The identified themes were: (1) learning by doing for better understanding, (2) fun and interesting, (3) build team spirit, (4) engaging, (5) motivated learning and (6) gained confidence.

1. Learning by doing for better understanding

The main motive of this study was to check the effectiveness of the simulated role play technique in teaching and learning history through providing hands on experience. Since most of the history lessons are associated with traditional approaches, learning by doing was not taking place. The data from the student's reflective journal revealed that they understood the content more as well as they got the opportunity to explore more on the topics learnt. It was also revealed that the simulated role play provided them empathy of the real situation.

"I learned more than I expected because I did it instead of listening about it". (LBDJ-S15)

"I am happy to learn history with simulated role play as it gives us opportunity to learn by doing". (LBDJ-S1)

“History learning through simulated role play makes us understand better on historical perspectives. We get chance to see the reality”. (LBDJ-S2)

“By doing role play and simulation we become very active as a result we learn more. It is better than sitting and listening to what teacher teaches”. (LBDJ-S23)

The students participated in the simulated role play so; they are the experts about the scene that they created. According to their reflective journal it was stated that they found the real meaning of learning by doing as they learned from what they prepared.

“Role play and simulation technique is interesting where we exchange our ideas with friends and involve ourselves in simulating the role play. The learnt lesson will remain for longer time”. (LBDJ-S26)

“I think role play and simulation is better than reading and explaining the history concepts”. (LBDJ-S13)

Based on the data collected from students, it was evident that they learned more by participating in the simulated role play. This technique not only helped them learn the content and improve their learning achievement but also helped them increase their knowledge beyond the books.

2. Fun and interesting

The simulated role play technique demands oneself to be in others role so students acted the role of assigned character which was challenging and interesting as well. Since the technique required large space and relevant environment, the class took place in multipurpose hall with video simulation on the public campaign, candidate debates and the election procedure. The students found going outside and studying as fun moreover it was worth learning as per their reflection.

“I feel fun and interesting to simulate role play because we have to act differently but we learn while acting”. (FIJ-S10)

Students felt different when they act the role of the real character in the beginning but once they are into action it seemed realistic.

“Going out of the classroom and learning in the environment related to the topics is fun and knowledgeable. It is very interesting to work in a group and simulate the role play”. (FIJ-S3)

Students felt bored studying in the classroom all the time. Sometimes change in the classroom atmosphere motivated them to learn effectively, particularly taking students to the sites related to the topics can create difference in the learning achievement of the students.

“I enjoy learning history through simulated role play because we learn more when we act if not we often sleep learning from the text”. (FIJ-S4)

“It is exciting to learn history through simulated role play because we get new knowledge and ideas from friends”. (FIJ-S8)

The reflection from the students' journal revealed that the simulated role play technique was fun, interesting and the lesson learned integrating simulated role play were enjoyable. With the use of this strategy students developed the habit of learning because every new topic carries different sites and settings. So to conclude, students enjoyed and had positive opinion towards simulated role play in teaching.

3. Built team spirit

Collaboration and cooperation are the fundamental components of the simulated role play technique. Without the enthusiastic support from the team mates the target or the objectives cannot be achieved. To achieve the set objectives everybody should come to the common understanding and work towards common goal. The feeling of unity among team members will foster the team spirit.

“Role play and simulation is all to do with cooperation. If we do not work in a group we fail to reach our objectives. So every member in a group cooperates to come up with successful simulated role play”. (BTSJ-S14)

“We worked in the group and individual responses are respected and valued. Discussions are made in group that encourages us to communicate and know each other”. (BTSJ-S6)

The success and the failure of the group depended on the performance of the individual member. Everyone should work for the common interest which required cooperation, otherwise it would be failure. According to the data collected from student's reflective journal, it was clear that everybody's presence was valued and respected. Therefore simulated role play technique fostered cooperation among the students and within the team mates for the common goal.

4. Engaging

Simulated role play is a part of active learning. Engaging students with the materials and collaborate with each other are essential elements of active learning. Engaging students in the learning process increases their attention and focus, motivates them to practice higher-level critical thinking skills and promotes meaningful learning experiences.

“While working in a group to simulate role play we come to common understanding and exchange our views and ideas to present to the class”. (EJ-S5)

“I often sleep in the history class but I didn't this time because I am fully engaged in discussion with group member for the role play. If all the topics are taught in this way we will learn more and perform better in examination”. (EJ-S22)

Students prefer active learning strategies like simulated role play in learning history because they learnt through hands on experience. Teachers are facilitators and provide guidance. Student explored themselves to construct the knowledge through experience.

“To perform simulated role play everybody is actively involved so it is not one man’s show. Every individual gets equal opportunities as a result we learn better than listening to lecture”. (EJ-S29)

It was mentioned in the student’s reflective journal that they came to common understanding, shared their ideas and views to actively participate for the common goal. Since they were engaged in the group activity they did not feel bored or either did not have time to sleep in the class. Considering the fact that simulated role play technique was not one man’s show, students reflected that they learnt better and wishes for such techniques to be integrated while teaching every topic in history.

5. Motivated learning

Motivation was one of the themes that emerged from the student’s reflective journal. In order to have active participation from students, teacher can play a vital role. Recognizing students’ work and inspiring them to do better can motivate the learners. Praising students for their work and offering incentives can also generate interest and motivation.

“We are motivated to participate in the simulated role play because our works are recognized and valued. I see all my friends put equal effort in their work as they want to get the reward from the teacher”. (MLJ-S7)

“Awarding of prizes to the best performing group motivate us to perform better in the next lesson. We motivate our self and work collaboratively so that our group can get the reward prepared by the teacher. MLJ-S18

“Role play and simulation encourages us to explore more and we learn different ideas apart from books”. (MLJ-S24)

“By simulating a role play it motivate us to participate in the class because we learn more things if we participate than remaining silent”. (MLJ-S12)

The journal entries from the students revealed that simulated role play technique brought a significant change in their attitude towards history lesson. They reflected that such techniques can do away with the drawbacks of the traditional approaches and help them give their best interest towards the subjects. They also mentioned that simulated role play technique helped them demonstrate a process, analyze an argument, or apply a concept to a real-world situation. From the statement, it was clear that simulated role play technique not only brought change in learning style but also encouraged students to participate actively in every lesson. Thus, it can be concluded that integration of simulated role play technique is suitable for teaching and learning history.

6. Gained confidence.

Integration of simulated role play technique in the teaching and learning history can increase the level of confidence of the student. It was seen that most of the time only those bright students dominant the class as a result those students who were silent do not get opportunity to speak though they wish to. Most student lack confidence and they feel that they were neglected. The integration of simulated role play technique in teaching history required every individual to participate and give their best effort for the collective goal. As a result they gained confidence and could manage to speak to the crowd with errors and blues

“By simulating a role play we gain confidence to speak in the crowd. Through role play and simulation we do not forget what we learn”. (GCJ-S9)

“Participating in the role play and simulation makes me feel confident. Now I can speak confidently though I make mistakes”. (GCJ-S30)

Simulated role play technique provided equal opportunity to every student resulting in the development of confidence to those introverted and low self-esteem students.

“I think role play and simulation is giving me an opportunity to become confident person in future because I get chance to act and speak in the class”. (GCJ-S28)

“Participating in the simulated role play, we get new information and gain experience”. (GCJ-S18)

Integration of simulated role play technique in the teaching and learning history enhanced the learning achievement of the students; it also helped students to develop the art of public speaking. The journal entry from the students pointed out that student had better experience with simulated role play. They also wrote that they were able to apply the learnt lesson in different situation as the knowledge and experience they acquired remained with them for longer time. Hence, it was concluded that simulated role play technique was the best strategy that helped students develop confidence and gain experience

5. Discussion

This study presents two major findings. The first finding was that integration of simulated role play technique in teaching history enhanced the learning achievement grade 9 students. There was a positive difference in the learning achievement of the students as shown in Table 1. The second finding was that students had positive opinion towards simulated role play technique in studying history. The data from questionnaire and students' reflective journal proved that students enjoyed studying history with the use of simulated role play technique. This technique not only helped them increase their interest and motivation to study history but were also satisfied with their achievement in their result.

Schaap (2005) states that simulated role playing is more likely to promote active learning. It is a part of active learning where students have to explore themselves to find the answers or to construct the meaning. The teacher will act as the facilitator or the guide, monitor the students for their involvement in the group discussion and encourage or motivate them to learn through experience. The learning happened during the simulated role play is purely based on the ideas of constructivism as Bruner (1996) emphasizes that constructivism is the act of constructing new knowledge based on prior experience by the students. In 21st century student prefer learning by doing. They believe that without the involvement of body and mind together in learning one becomes ineffective to educate oneself.

The lesson they learned might not be important for the immediate use but the experience they gained through involving or participating in the discussion may be useful in the future. As Silvia (2012) described that students, after the simulated role play found that the activity did not seem realistic, while the experience certainly seemed worthwhile

5.1 Objective 1

To examine the learning achievement of grade 9 students with the use of simulated role play technique in teaching history. The data from achievement test was evident to prove the change in the learning achievement of the students after the integration of simulated role play. The first finding of the study revealed that integration of simulated role play technique in teaching history enhanced the learning achievement of grade 9 students. The mean scores of the students in pretest were just 10.13 but after the simulated role play technique was applied, the mean score of students in the posttest increased to 13.73 which answered the first objective to enhance learning achievement of students. Further, out of 30 participants, 7 students (23%) increased their points by 4 marks in posttest. It was followed by 6 students (20%) whose scores increased by 1 mark, 4 students (14%) whose scores remained unchanged even after the treatment, 3 students (10%) whose scores increased by 3 marks, another 3 students (10%) whose scores increased by 5 marks, 2 students (7%) whose scores increased by 7 marks, 2 students (7%) whose scores increased by 9 marks, 1 student (3%) whose score increased by 2 marks, 1 student (3%) whose score increased by 6 marks and finally 1 student (3%) whose score increased by 10 marks in the posttest.

The positive difference in the learning achievement of the students supported Islam and Islam's (2013) finding that students enthusiastically accepted simulated role play technique as it challenges their creativity and ability to think critically, which enables them to speak more logically and confidently in the classroom. Similar finding was revealed by Bhattacharjee (2014) that simulated role play technique foster students to demonstrate improved learning outcome and broader perspective on the attitude towards the profession. It also offers students an active learning environment that balances theory and practical and also encourages students to develop critical thinking and logical reasoning skills.

The study by Brummel, Gunsalus, Anderson and Loui (2010) to investigate the effectiveness of simulated role play as an active learning pedagogy over traditional approaches in achieving significant learning outcomes found out that lesson learned with the integration of simulated role play was worthwhile as it is engaging. The study also revealed that student's attentions are captured towards the assigned work; as a result they valued realistic learning experience. Graves (2008) study which was aimed at checking the effectiveness of the simulated role play as a teaching method came up with the similar result like Brummel, Gunsalus, Anderson and Loui (2010). The results of the study read studying through integration of simulated role play were enjoyable and engaging. It further read simulated role play made their learning meaningful because they were able to put themselves in someone else's place.

Integration of simulated role play technique in teaching can happen anywhere. It is not necessary to study in a classroom. The typical classroom may not be conducive to help students develop and act out their roles in the simulation. Students may be prone to recreating their roles in the class, with some speaking more and some less or using the tone and tenor of more common classroom discussion. Going to a new space relevant to the topics or having field trips can recreate some of the real tension that exists when participants come to an unfamiliar place to discuss. In a study conducted jointly by Kerr, Troth and Pickering (2003) highlighted that integration of simulated role play in teaching as a teaching method can offer a friendlier and fun environment for students to participate and learn. The researcher further stated that simulated role play technique not only helped them understand the content better but also enhanced their learning ability and students were comfortable with the technique.

5.2 Objective 2

The second objective of the study was to find out the opinion of the students towards simulated role play. The findings from the questionnaire and students' reflective journal revealed that simulated role play technique increased students' content knowledge. The nature of the technique made students promote cooperation and interact among themselves which resulted in acquisition of knowledge knowingly or unknowingly. Normally students perceive history lesson as boring and passive but with the integration of simulated role play technique in teaching and learning history, the opinion of the students changed. They found studying history very interesting like other experimental subjects like science and mathematics. They were made to work in a group and everybody's participation is must for the common goal which inspired the introvert students to come forward and gain confidence. The video simulation on formation of political parties, public campaign and election generated student's interest towards political studies.

The second finding from this study was in line with the findings of Wiskin, Roberts, and Roalfe (2011) who studied about the impact of discussing a sexual history in role-play simulation teaching on pre-clinical student attitudes towards people who submit for STI testing. This study brought the change in number of students who had medical examination for STI. At first the students were reluctant for the medical examination; it was British white students who came for the checkup followed by others. So the students view simulated role play as the technique that had the ability to convince people about the cause and effect. The study also revealed that the patients who visited the clinic had positive perception towards simulated role play as they were made to go through the series of simulated role play presented by nursing students for general sensitization. The participants who participated in the simulated role play mentioned that through such programmes it opens the mindset of the general public to have medical examination for their well-being.

Similarly Schnurr, De Santo, Green and Taylor (2015) conducted a study Investigating Student Perceptions of Knowledge Acquisition within a Role-Play Simulation of the Convention on Biological Diversity. In order to evaluate whether and in what ways role-play simulation enhances the transmission of knowledge, the researchers devised mechanisms for measuring student self-perceptions of learning. As per the findings it was mentioned that after participating in the simulation, students mean ratings of their knowledge of classroom topics were significantly higher than initial ratings in both Year 1 and Year 2 of the project. It was revealed that the students felt they significantly improved their knowledge on all of the main topics addressed in the simulation. This suggests that, on average, students felt that simulated role play improved their understanding of course and they are in opinion that simulated role play created positive difference in knowledge acquisition.

The interactive and engaging nature of the simulated role play helped students to spur their learning Schnurr et al. (2015). It encouraged students to learn more about the topic discussed and further motivated them to find more information. Students appreciated the real-world application of concepts previously encountered in other parts of the course. One student expressed in the reflective journal that “the simulated role play gave me a hands-on interaction into the material we were learning which resulted in the improvement of my content knowledge on the subject matter,” while another reflected, “it helped me to understand more clearly about the formation of political parties and its process”. The students found studying history through the integration of simulated role play as fun but worth being a participant in the study because they find it engaging and inspiring. In their reflection some of them wrote “visiting to place suitable for the topic make difference in the understanding of the concept”. They also expressed that simulated role play is a technique that brings lecture into action which creates memory and experience.

Many studies were conducted to examine the effectiveness of simulated role play and students opinion towards the technique. For instance, both Chasek (2005) and Frederking (2005) showed that final exam scores improved as a result of their role-play simulation. Similarly, (Baranowski 2006 and Krain and Lantis 2006) conducted study consisting of control and experimental group where the experimental group proved the effectiveness of simulated role play by creating significant difference in the scores. Moreover, students were able to develop and practice interpersonal and relational skills as part of the simulated role play. Therefore, it can be concluded that simulated role play is an active learning technique that not only creates difference in the learning achievement of the student but also develop positive experience and gain confidence.

6. Conclusion

6.1 Test score analysis conclusion

In order to check the difference in the learning achievement of the students after the integration of simulated role play technique, the pretest and posttest were administered and the scores received by students were recorded. The scores from pretest and posttest were then analyzed using SPSS programme and interpreted. The mean score in the pretest was 10.13 where as in the post test the mean score of the same students increased to 13.73 (Table 2) which indicated that integration of simulated role play technique in teaching history have the ability to create positive difference in the learning achievement of the students. Thus, the study concluded that there was significant improvement of the students' score in the posttest as a result of integrating simulated role play technique in teaching history.

6.2 Opinion questionnaire conclusion

To find out the students opinion towards simulated role play technique in teaching history, the data were collected through questionnaire and students reflective journal. The questionnaire had four parts comprising of 5 statements each. The participants were made to rate each statement in Likert scale of 1 to 5 that reads from strongly disagrees, disagree, neutral, agree and strongly agree. The mean of their ratings was analyzed, calculated and represented in the extent of agreement; 0-1.4 strongly disagrees, 1.5-2.4 disagree, 2.5-3.4 neutral, 3.5-4.4 agree and 4.5-5 strongly agree as shown in the table 3. Out of 5 statements in part I, 3 statements was rated under strongly agree and 2 statements under agree. Likewise in part II, 2 statements was rated under strongly agree and 3 statements under agree. In part III, 1 statement was rated under strongly agree and 4 statements under agree. Finally, in part IV students rated 4 statements under strongly agree and 1 statement agree.

The overall mean in part I reads 4.5 out of 5 on the Likert scale which revealed that students' strongly agreed simulated role play as an interest driven technique that allows them to change their perception towards the subject. In the part II the overall mean reads 4.4 out of 5 on the Likert scale which falls under agree in the extent of agreement. In part III the overall mean reads 4.4 out of 5 on the Likert scale which is another agree (very good) in the extent of agreement. Lastly, in part IV the overall mean reads 4.5 which fall under strongly agree in extend of agreement. The overall mean reads 4.45 out of 5 on the Likert scale. 4.45 falls

under agree in the extent of agreement. Thus, the data from the questionnaire was evident to prove that the simulated role play technique brought change in the opinion of the students towards the studying history.

6.3 Reflective Journal conclusion.

The data from the students' reflective journal revealed that simulated role play technique brought a significant change in the attitudes of the students to study history. From the students reflective journal based on opinion of students' towards simulated role play, 6 core themes are identified and analyzed. The identified themes are: (1) learning by doing for better understanding, (2) fun and interesting, (3) build team spirit, (4) engaging, (5) motivate learning and (6) gain confidence. The students in their reflective journal wrote that simulated role play technique was helpful strategy that helped them increase their content knowledge and brought a positive change in the learning style. They added that such strategy can engage every individual in the classroom to become active learners. Learning history with such strategies can get away with boredom and promote cooperation. Hence, the data from questionnaire and student's reflective journal revealed that students had greater experience learning and had positive opinion towards simulated role play technique.

7. Recommendation

7.1 Recommendations for practice

Based on the proven results of this study, it is highly recommended for teachers globally to incorporate simulated role play technique in classroom to have immediate and gradual improvement of students' learning achievement. This strategy isn't a new approach to the system yet teachers hardly use such active learning technique in their classroom. Therefore, this study provides insightful tips on the effectiveness of integrating simulated role play technique in teaching to enhance the learning achievement of the students.

Simulated role play, an active technique can be applicable in teaching most of the subjects in school curriculum. It provides opportunity for students to become active learners. Especially, it is recommended for social science teacher to incorporate simulated role play in the classroom as it best suits with social science subjects like history, geography and social studies.

It is also recommended for the education ministry and curriculum framers to initiate necessary arrangements for the possibility of integrating simulated role play in teaching, having outdoor classes will change the attitude of students.

7.2 Recommendation for future research

Considering some of the limitations of the study, the researcher presents the following recommendations for the future research:

1. Investigating the effectiveness of simulated role play technique in teaching literature; especially when teaching prose and poetry is highly recommended for future research.
2. In-depth research on effectiveness of simulated role play is needed to investigate the learning achievement of the individual students.

8. About Author

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EFFECTS OF USING RUBRICS ON THE LEARNING ACHIEVEMENT IN EDUCATIONAL ASSESSMENT AND EVALUATION OF STUDENTS IN BHUTANESE UNIVERSITY

Tshering¹ and Somchanok Phu-ampai²

Abstract

The study was designed to examine the learning achievement and the opinions of first year students towards rubric usage in Educational Assessment and Evaluation. A mixed method of quantitative research and qualitative research was used in this study. The study was an experimental research and used two groups pretest-posttest design. The study was carried out in one of the colleges under Royal University of Bhutan. The population of the study comprised of 120 students from 4 sections of first year students in one of colleges under Royal University of Bhutan. Through cluster random sampling, 2 sections of students for the control group and the experimental group were selected out of 4 sections. Each section had 30 students. The students in the experimental group was taught using rubrics and the students in the control group was taught using a traditional method. Instruments such as achievement test, survey questionnaire and student reflective journal were used to collect data. The quantitative data collected from the achievement test and questionnaire were analyzed and interpreted using inferential statistics t-test with $p < 0.05$ level of significance, mean and standard deviation. The qualitative data collected from students' reflective journal were analyzed using coding system. The data analysis of test scores revealed that the overall mean for the posttest for the control group was 19.67 and for the experimental group was 25.4 which indicated that the learning achievement of the students who were taught using rubrics was higher than the students who were taught using a traditional method. The overall mean for survey questionnaire was 4.76 out of 5 which showed that students in the experimental group had positive opinions towards the rubric usage in Educational Assessment and Evaluation. The result of the study showed that rubrics enhanced students' learning achievement and students had positive opinions towards rubric usage in Educational Assessment and Evaluation.

Keywords: Effects, Rubrics, Educational Assessment and Evaluation

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1. Introduction

A rubrics are scoring tool that explicitly represent the performance expectation for an assignment or a piece of work. A rubrics divide the assigned work into component parts and provides clear description of characteristics of work associated with each component, at varying levels of mastery. Wolf and steven (2007) define rubrics as a scoring tool used to evaluate a performance in a given outcome area based on a list of criteria describing the characteristics of products or performances at varying levels of accomplishment. According to Renjit, Geroge, Renu, and Souza (2015), the word rubrics came from the Latin word “Rubber”, which means “Red”. During the medieval period, rubric was a set of instructions attached to the law and was written in red. Thus rubrics referred to something that were used to authoritatively guide people. According to Turgut and Kayaoglu (2015), the ultimate goal of using rubrics as an instructional tool is to empower students by awakening sense of appreciation for what makes good writing or effective learning. Students are, in turn, expected to be able to develop their own learning skills in the long run. Johnson et al. (2012) found out that rubrics communicated the instructors’ expectations, clarified how to write course assignment, explained grade and point deduction, and, in general, made course expectations clear. If carefully developed, rubrics will be a useful tool for advancing students’ learning. When used by students as part of a formative assessment of their work in progress, rubrics can teach as well as evaluate (Uddin, 2014). Apart from being considered as an effective tool for measuring, evaluating and reporting students’ achievement, rubrics were also designed to guide students’ learning, teacher’s instruction, course development and administrators’ program observations (Reddy, 2007).

Turgut and Kayaoglu (2015) concludes that together with increasing awareness of the importance of giving feedback and involving students in the assessment process, rubrics have changed from being simply an assessment tool to being a potential instructional tool. The criteria and performance-level descriptions in the rubrics help students understand what the desired performance is and what it looks like (Brookhart, 2013). With the rubrics as a guide, students learn to monitor their own progress and make improvements in a timely manner (Yoshina & Harada, 2007). According to McMillan (2013) the scoring rubrics has emerged as formative assessment model for teaching and learning. The shift from summative assessment to formative assessment has taken place and rubrics is one of the tool to assist student as they engage in the self-regulated learning process. However Utha (2015) found out Bhutanese teachers hardly use rubrics in teaching and learning. Even though they use, they generally keep assessment criteria to themselves without articulating what counts when they give grades, creating inconsistent assessment of student performance across the module. Rubrics were used only for assessment purposes.

Over the last couple of years the first year students of one of the colleges under Royal University of Bhutan were taught Educational Assessment and Evaluation module using lecture method which made them passive learner. Educational Assessment and Evaluation is an educational module offered in Bhutanese education colleges. It is all about the assessment of child and effective learning. Students did not get enough opportunities to engage actively in learning process and had less experience in learning by themselves. They relied on teacher to decide what, when and how to learn. As a result learner did not outgrow their dependency on teacher. On top that, majority of Bhutanese students attain a great deal of knowledge through repeating after teachers and through memorizing. Students had been conditioned to learn by this method and demanded that they were taught in this manner. Many times they ended by learning the material through rote memorization without asking why or seeing the big picture which resulted in poor achievements in Educational Assessment and Evaluation tests (Giri, et al., 2016). Once the certain topic was memorized and tested, students tend to forget the subject matter making teaching centered teaching unreliable for degrees where the graduates are expected to have a full understanding of what they learned. Students also lack initiative and problem-solving skills because they have not been trained to search for data by themselves. Continuing to spoon-feeding students in higher education perpetuated the issue of stifling their creative thinking and independent learning (Samah, Jusoff & Silong, 2009).

Using rubrics as an instructional approach facilitate or empower learner autonomous study-skills which lead to lifelong learning. The learner centered approach using rubrics encourages independent learning where learners are responsible for their own learning. This can be other skills for the survival in 21st century where knowledge is abundant. The approach can further enhance learning by doing, critical thinking, analyzing power and organization. Rubrics improve the students' quality of work through self-assessment and feedbacks. Rubrics also guide, monitor, facilitate and scaffold students while they are learning. Therefore this study was designed to examine learning achievement and the opinions of first year students towards rubric usage in Educational Assessment and Evaluation and solve the problems faced by students in the classroom using rubrics.

2. Objectives of the study

2.1 To examine the learning achievement in Educational Assessment and Evaluation of first year students using rubrics and a traditional method.

2.2 To investigate the opinions of students towards rubric usage in Educational Assessment and Evaluation.

3. Materials and methods

3.1 Research Design

The research methodology of this study is a mixed method (qualitative and quantitative approach) which aims to find out the learning achievement and opinions of first year students towards rubric usage in Educational Assessment and Evaluation. The quantitative data were collected through pre-test, post-test and survey questionnaire and the qualitative data were collected through students' reflective journal.

3.2 Population and Sampling

The population of the study comprised of 120 students from 4 sections of first year students in one of colleges under Royal University of Bhutan. The age range was from 18-20 years old. Students were selected for the course based on the merit rating of their grade 12 marks. Therefore all first year students in 4 sections had equal competency in the module.

The cluster random sampling was used to select 60 students from 2 sections out of 4 sections of first year students in one of the colleges under Royal university of Bhutan. One section was used as an experimental group and the other one as a control group. Each section has 30 students.

3.3 Research instruments

Rubric: The two types of rubrics were analytical and holistic rubrics which were designed and used in the lesson to study the effects of using rubrics on the learning achievement of students. The rubrics were developed based on the objectives of Unit 2 of Educational Assessment and Evaluation course book and could be applied to all the topics under Unit 2. The rubrics for the Educational Assessment and Evaluation concept or knowledge was analytical since it had level of performance for each criteria along with the description while rubrics for the bookkeeping was holistic as it provided the wholesome view of the expected outcome. The rubrics for Educational Assessment and Evaluation concept or knowledge had definition of concept, use of terminologies, types, use of diagrams and calculations as dimensions or criteria, and excellent, good, satisfactory and needs improvement as a scale that describes the level of achievement. Each criteria or dimension had task descriptions. The rubrics for bookkeeping had the overall description of the expected outcome of the given tasks along with the scores. The sample of one rubric used in the study is shown in Table 1.

Table 1 shows rubric for learning Educational Assessment and Evaluation concepts/knowledge.

Content	Excellent(4)	Good(3)	Satisfactory(2)	Needs Improvement(1)
Definition of concepts	Defines the concept correctly with detailed explanation	Defines the concepts correctly with partial explanation	Define the concepts with some errors	Defines the concepts wrongly
Use of Educational Assessment and evaluation terminologies	Uses most appropriate assessment terminologies with clear pronunciation and correct spelling	Uses appropriate assessment terminologies with some unclear pronunciation and correct spelling	Uses limited assessment terminologies with wrong pronunciation or few errors in spelling	Uses inappropriate assessment terminologies and wrong spelling
Use of diagrams/ models and examples	Uses good diagrams/mod els/ examples in explaining the assessment concepts and principles	Uses adequate diagrams/models /examples in explaining the assessment concepts and principles	Uses limited diagrams/mode ls/examples in explaining assessment concepts and principles with more errors	Uses wrong diagrams/models/exam ples in explaining the assessment concepts and principles
Types of assessment and testing strategies	All types of the assessment and testing strategies are clearly explained with examples	All types of assessment and testing strategies are clearly explained without examples	Many types of assessment and testing strategies are missing and partial explanation only	Types of assessment and testing strategies are missing
Calculation	Formulas are correctly used, all the steps are shown and answer is correct	Formulas are correctly used, all steps are shown but answer is wrong	Formulas are correct, some steps are not shown and answer is wrong	Formulas are wrong, many steps are not shown and answer is also wrong
Making connection with real-life situation	Makes connection with real life application with justification	Makes connections to real life application but without justification	Makes limited connections to real life situation	Makes no connection to real life application

In the experimental group, the researcher introduced rubrics to the students and then taught how to use rubrics to learn Educational Assessment and Evaluation concepts. Researcher provided students with rubrics along with the topic. Students learned the given topic using rubrics. Rubrics has the description of expected outcome of the given topic. Rubrics guided the students step by step to the expected learning outcomes. Teacher facilitated, monitored and scaffolded when students were learning the given topic using rubrics. Teacher made sure that all the resources like the Internet, textbooks, journals, etc were available for the students.

The control group was taught in a traditional way using a lecture method where teacher used power point presentation, text books, and board to teach the students. The traditional method was teacher centered approach where teacher was main knowledge giver and students as the knowledge receiver.

Lesson plan: The researcher used 8 lesson plans in total. Four lesson plans were prepared for the experimental group using rubrics while other 4 lesson plans were prepared separately for the control group in a traditional way with the same objectives. Each lesson plan lasted for one and half hour.

Learning Achievement test: Pretest and posttest were conducted in both the control group and the experimental group to collect the quantitative data. Thirty multiple choice questions were prepared from Unit two of Educational Assessment and Evaluation course book.

Survey Questionnaire: The researcher developed survey questionnaire using five points Likert scale focusing on students' opinions towards rubric usage in Educational Assessment and Evaluation. Twenty survey questionnaires were prepared based on rubrics used in Educational Assessment and Evaluation, and administered once to the experimental group to investigate student's opinions towards the rubric usage.

Student Journal: The students in the experimental group were asked to write a reflective journal on the rubric usage in Educational Assessment and Evaluation. The students wrote reflective journal for two times in the 2nd week and the 4th week. Students were asked to write about their opinions towards rubric usage in Educational Assessment and Evaluation.

3.5 Data Analysis

Comparative statistical analysis was done using paired sample t-test and independent sample t-test to analyze the data collected from pretest and posttest. A comparative statistical analysis using paired sample t-test was done within the group. Comparison of pretest and posttest scores of two groups was done by conducting independent t-test to assess and compare the learning achievement between the control group and the experimental group. The inferential statistics t-test with $p < 0.05$ level of significance, the mean and standard deviation were used to infer the results in this study. The total average mean and standard deviation were computed for questionnaires on student's opinions towards rubric usage and presented through graphical presentation. The data collected from student's reflective journal were analyzed by using a

coding system (open, axial, and selective) based on the Grounded Theory of Strauss and Corbin (1998).

4. Result

4.1 Result Analysis of Test Scores (Learning Achievement test)

The first objective of the study was to examine and compare the learning achievement in Educational Assessment and Evaluation of students after using rubrics in the experimental group and a traditional method in the control group. Therefore pretest and posttest with same questions were administered for both groups at the beginning and at the end of the study.

4.1.1 Comparison of pretest and posttest scores within the group(Paired sample t-test)

Table 2 shows the comparison of pretest and posttest scores within the group (the control group and the experimental group).

Group	Test	Mean	Mean Difference	Standard Deviation	Sig. (2 tailed)
Control	Pretest	7.03	12.64	2.25	0.000*
	Posttest	19.67		2.76	
Experimental	Pretest	7.10	18.30	2.43	0.000*
	Posttest	25.40		1.61	

* Significant ($P < 0.05$)

The comparison of pretest and posttest scores within the group was done by comparing mean, standard deviation and significance value (p) as shown in Table 2. The mean of the pretest and posttest of the control group were 7.03 and 19.67. The mean of pretest and posttest of the experimental group were 7.10 and 25.40 respectively. The mean difference of pretest and posttest of the control group was 12.64 and the mean difference of pretest and posttest of the experimental group was 18.30. The significance value (p) for both the group was 0.000 which is lower than 0.05 ($p < 0.05$). This means that there was statistically significant rise in students' scores in the posttest when compared to the students' scores in the pretest in both the control group and the experimental group.

4.1.2 Comparison of pretests and posttests scores between the groups (Independent Sample t-test)

Table 3 shows the comparison of pretests and posttests between the group (the control and the experimental group).

Tests	Group	Mean	Mean Difference	Standard Deviation	Sig (2 tailed)
Pretest	Control	7.03	0.07	2.25	0.91
	Experimental	7.10		2.43	
Posttest	Control	19.67	5.73	2.76	0.00*
	Experimental	25.40		1.61	

* Significant ($p < 0.05$)

Table 3 shows that the mean difference in the pretest of the control and the experimental group was 0.07 and the two tailed significance value (p) was 0.91 which higher than 0.05 ($p > 0.05$). This indicates that the test score in the pretest for both the groups were not statistically significant. This means students in both groups had an equal learning ability before the treatment.

The mean difference of posttest between the control group and the experimental group was 5.73 and significant value (p) was 0.00 which was lower than the significant value $p < 0.05$. This indicated that there was statistically significant difference in posttest scores between the control group and the experimental group. This showed that the test scores in the posttest for the experimental group were significantly higher than the test scores of the control group in the posttest. As expected by the researcher students in the experimental group who were taught using rubrics performed better than the students in the control group who were taught using a traditional method.

4.2 Analysis of the Survey Questionnaire

The second objective of this study was to investigate the students' opinions towards rubric usage in Educational Assessment and Evaluation. The 20 survey items of questionnaire using five points Likert scale were prepared and administered to the experimental group at the end of the study. The survey questionnaire focused on students' opinions towards rubric usage in Educational Assessment and Evaluation.

Table 4 illustrates the mean, standard deviation and students' level of opinion towards rubric usage in Educational Assessment and Evaluation.

Sl. No		Mean	Std. Deviation	Level of Opinion
A	Opinion on Interest			
1	Learning educational Assessment and Evaluation with rubrics is fun.	4.67	.498	Strongly Agree
2	I like the assessment tool-rubrics	4.80	.407	Strongly Agree
3	I enjoyed learning Educational assessment and Evaluation with rubrics.	4.87	.346	Strongly Agree
4	Rubrics makes the learning interesting.	4.77	.430	Strongly Agree
5	I like learning with rubrics.	4.87	.346	Strongly Agree
	Total	4.79	.405	Strongly Agree
B	Opinion on Guidance			
6	Rubrics guided me while I am learning	4.73	.450	Strongly Agree
7	I became independent learner with the rubrics	4.80	.407	Strongly Agree
8	I understood the Educational Assessment and Evaluation concept more clearly with help of rubrics.	4.77	.430	Strongly Agree
9	I become more responsible for learning with rubrics	4.73	.450	Strongly Agree
10	My performance improved after using the assessment tool-rubrics	4.73	.450	Strongly Agree
	Total	4.75	.437	Strongly Agree
C	Opinion on Confidence			
11	I am confident in learning Educational Assessment and Evaluation concepts with rubrics	4.63	.490	Strongly Agree
12	I learn better with the rubrics	4.87	.346	Strongly Agree
13	I get good grades in Educational Assessment and Evaluation when assessment tool-rubrics are used	4.67	.479	Strongly Agree
14	I can perform better if there are rubrics	4.77	.430	Strongly Agree
15	Learning Educational Assessment and Evaluation concepts are easier with rubrics	4.67	.479	Strongly Agree
	Total	4.72	.445	Strongly Agree

D	Opinion on Feedback			
16	The feedback from my teacher improved my learning	4.77	.430	Strongly Agree
17	The feedbacks are specific to the criteria used in the rubrics and very helpful	4.77	.430	Strongly Agree
18	Feedback motivated me learn more	4.77	.430	Strongly Agree
19	Feedback improved my performance in Educational Assessment and Evaluation	4.83	.379	Strongly Agree
20	Feedback were given immediately by teacher and help us learn a lot	4.70	.466	Strongly Agree
	Total	4.77	0.43	Strongly Agree
	Total Mean for all components	4.76	0.429	Strongly Agree

Source: Choden, 2012, p.12; McMillan, 2013, p.61; Miller, Linn and Gronlund, 2009, p.351; Garcia-Ros et al., 2012. Level of opinion: 1-1.50 strongly disagree, 1.51-2.50 disagree, 2.51-3.50 undecided, 3.51-4.50 Agree, 4.51-5.00 strongly Agree.

The total mean for all components (interest, guidance, confidence and feedback) was 4.76 out of 5 as shown in Table 4. This indicated that the students' level of opinion towards rubrics usage in Educational Assessment and Evaluation falls in the (Strongly Agree) category on the Likert scale. This means students in the experimental group had positive opinions towards rubric usage in Educational Assessment and Evaluation. The data analysis of students' opinion questionnaires also showed that almost all students strongly agreed that rubrics used in Educational Assessment and Evaluation arose interest in them, provided guidance, provided feedback and gained confidence in learning Educational Assessment and Evaluation concepts using rubrics. Therefore researcher concluded that students had positive opinions towards rubric usage in Educational Assessment and Evaluation.

4.3 Analysis of Students' Reflective Journal

The main purpose of the reflective journal was to investigate the students' opinions towards rubric usage in Educational Assessment and evaluation. The students in the experimental group wrote two reflective journals in the 2nd and the 4th weeks of the study. The students in the experimental group were asked to write their opinions towards the rubric usage in Educational Assessment and Evaluation. The data obtained from the students' journal were analyzed by using the coding system (open, axial and selective) based on Grounded Theory of Strauss and Corbin (1998). The overall data were organized and interpreted in nine core themes: 1) Encouraged independent learning 2) Informed teachers' expectation 3) Consistent and objective assessment 4) Provided guidance 5) Helped in goal setting and planning 6) Provided feedback 7) Motivated to learn 8) Encouraged self-assessment and peer assessment 9) Reduced anxiety.

4.3.1 Encouraged Independent Learning

The students in their reflective journal mentioned that rubrics encouraged independent learning where the learner were responsible for their own learning. Here it means learners tried to learn on their own and construct the meaning with the help of criteria explicitly listed in rubrics.

“Rubrics has detailed description of the characteristics for each level of performance, so with the help of rubric, we can learn ourselves.” (EILSRJ5)

“It helped me to develop and gather lot of information without the help of teacher and it encourages self-assessment”. (EILSRJ7)

“Learning using rubrics is one of the best way to learn without depending on others.” (EILSRJ23)

Majority of students acknowledged that rubrics encouraged them to be independent learner, self-initiate work and regulate their own learning. Therefore, it can be concluded that rubrics encouraged independent learning in the learners.

4.3.2 Informed teacher’s expectations

Students felt that they better understood teacher expectation when rubrics were provided to them. Students stated that understanding the expectation of teacher, format of the task and the resources necessary to complete it were all important in doing high quality work.

“Instructional rubrics were helpful in general. We are able to carry out the task with the expectation of teacher’s desire.” ITESRJ6

“Rubrics helped me to fulfill the teacher’s expectation and as a result I managed to score high marks in the given task.” ITESRJ24

Majority of students acknowledged that rubrics informed them about the teachers’ expectation.

4.3.3 Consistent and objective assessment

Students in the experiment group revealed that rubrics allowed the assessment to be more objective and consistent. They also emphasized that rubric-referenced grading as fair and transparent. Rubrics comprehended and justified the grade to the students. That’s why students were liberated from the perception of traditional biased grading.

“Well-defined grading criteria made everything clear and understandable.” (COASRJ15).

“Rubrics made grading transparent instead of traditional unsteady grading system”. (COASRJ18)

“Rubrics strengthened the quality and standard of assessment. It made assessment and evaluation fair and provided justice.” (COASRJ27)

The above excerpts show that rubrics provided consistent and objective assessment in the experimental group.

4.3.4 Provided Guidance

The entries in student's journal described rubrics as a 'guide to learn'. This is because rubrics monitored student's progress and provided them direction. When rubrics were given to students with the task description, it helped students monitor and assess their progress as they worked toward clearly indicated goals.

"Rubrics have helped me by providing guidance on what specific expectation my Lecturer has for the specific task". (PGSRJ12)

"Rubrics guided me while I am learning Educational Assessment and Evaluation concepts". (PGSRJ14)

"Rubrics were helpful in learning Educational Assessment and Evaluation concepts as it provides clear information of what to do."(PGSRJ25)

4.3.5 Helped in Goal setting and planning

The students showed high interest in using the rubrics and they seemed to be aiming for the highest level in the rubrics. This shows that rubrics helped them in goal-setting and planning which were crucial metacognitive strategies that supported students' learning. Students also revealed that the integration of the rubrics in Educational Assessment and Evaluation course served them in planning and shaping instruction by breaking the Educational Assessment and Evaluation concepts into different components and directing students towards manageable learning targets.

"Rubrics supported good thinking". (HGPSRJ30)

"I used rubrics to allocate time and resources in the planning and completion of my task."(HGPSRJ27)

"Rubrics helped me in planning to achieve goal that was set in the beginning of class with the help of rubrics."(HGPSJJ19)

4.3.6 Provided feedback

Students also stated that rubrics were an effective tool to provide focused feedback. The feedback enabled them to learn meaningfully and effectively. Rubrics also assisted them in overcoming their shortcoming in learning through meaningful feedback.

"We received necessary feedbacks on our task from our tutor". (PFSRJ29)

"Rubrics helped me to receive feedback from our tutor. Feedback helped us to learn more". (PFSRJ13)

"We received feedback both from our tutor and from our friends. The feedbacks were provided based on rubrics". (PFSRJ18)

4.3.7 Motivated to Learn

Students also reflected in the journal that involving them in development of criteria and rubrics motivated them to learn. This is because they were clear with criteria to success. The positive feedback that they received from the lecturer also motivated them. The motivation encouraged the students to engage themselves in exploring information with enthusiasm.

“When we are clear with the skill we need to master, we gain confidence and solve the problem easily”. (MLSRJ19)

“Learning with rubrics was helpful in general. We were able to do the given task with the expectation of teacher desire. It made me confident in learning Educational Assessment and evaluation.”(MLSRJ9)

*“Positive feedback provided using rubrics were motivating”.*MLSRJ4

4.3.8 Encouraged self-assessment and peer assessment

Based on student’s reflective journal, it was also found that rubrics could be used for self-assessment and peer assessment of students where they evaluated their own work and compared with others work, and earned better grades. This led to the development the personal habit of self-assessment amongst the students and encouraged peer assessment.

“Rubrics helped us in self-assessment and peer assessment. Peer assessment was a good way to look at others work, assess them and compare to our work in order to learn from our friends. Self-assessment was very helpful as it allowed me to spot the mistakes in my own work and rate myself.” (ESPSRJ21).

“Rubrics not only helped us to learn but it also helped us to do self-assessment.” (ESPSRJ6)

“Rubrics helped us to reflect, analyze and improve our work.” (ESPSRJ28)

4.3.9 Reduced Anxiety

Since rubrics helped students to focus their effort on producing high quality work and getting better grades, they felt less anxious in learning Educational Assessment and Evaluation concepts.

“Rubrics focused us in fulfilling goal and objective of the task.” (RASRJ12)

“I enjoyed learning with rubrics as it gave me clear direction”. (RASRJ21)

“I was never worried about the procedure. Rubrics contained everything. Teacher should use rubrics for all the types”. (RASRJ27)

Based on student’s reflective journal, the researcher concluded that the opinions of students towards rubric usage were: 1) rubrics encouraged independent learning 2) rubrics informed teacher’s expectation 3) rubrics provided consistent and objective assessment 4) rubrics provided guidance 5) rubrics helped in goal setting and planning 6) rubrics provided feedback 7) rubrics motivated to learn 8) rubrics encouraged self-assessment and peer assessment and 9) rubrics reduced anxiety: all of which may directly or indirectly enhance students’ academic performance.

5. Discussion

5.1 Learning Achievement Test

The first finding was from the analysis of student’s achievement tests that was pretest and posttest of the control group and the experimental group. The findings showed that there was no significant difference in the mean score of the students in the control and the experimental group in the pretest before giving the treatment. However there was significant difference in the mean score in the post test for both control group and the experimental group. The posttest mean

score of the experimental group was significantly higher than the posttest mean score of the control group. This indicated that the students in the experimental group performed better than the students in the control group. Therefore researcher concluded that rubrics used in Educational Assessment and Evaluation enhanced the learning achievement of first year students in Bhutanese University.

The findings of this study was consistent with Uddin's (2014) finding that rubrics had a significant impact on student's academic performance. The finding was also congruent with Jonsson (2014) and Howell's (2011) finding that rubrics contributed to a solid academic performance by playing a substantive role in positively impacting academic performance. It was also similar with Panadero and Jonsson's (2013) finding that rubrics had the potential to influence students learning positively after analyzing 21 studies on rubrics. However, Pinto and Santos (2006) argued that the exclusive use of assessment rubrics may not achieve the effective learning outcomes. There was the need to move beyond basic usage to a more innovative approach that guarantees students the experience of ownership. Egodawatte (2010) agreed that contending training and guidance on the use of rubrics will help reduce the discrepancies, and intrinsically motivate students to use them for learning. Andrade (2001) had also shown that just providing a rubric to students was not consistently associated with better performance, and concluded that students must engage deeply with rubrics, perhaps by co-creating them and using them for self- and peer assessments, as students did in the Reitmeier, Svendsen, and Vrchota's (2004) study.

The possible reasons to account for such a significant gains in the test scores in the experimental group could be due to immense implication of rubrics on student's academic performance. Students used rubrics to support their own learning and academic performance. Using rubrics helped them to focus on their effort, produce work of high quality, earn better grades and felt less anxious about the given task (Heidi and Ying Du, 2005). Another reason for the significant increase in the test scores was due to shift in traditional paradigm of teacher centered teaching to a paradigm characterized by active and students centered learning. Use of rubrics in the classroom had changed the role of teacher to a mentor and student as a discoverer of their own new knowledge. The learner centered approach using rubrics encouraged independent learning where learner was responsible for his/her own learning. The other reason for better performance by the experimental group was due to several learning theories associated with rubrics used in the module. Learning using rubrics was greatly based on self-regulated learning theory, constructivism and Behaviorism. Rubrics assisted the students in managing their thoughts, behavior, and emotion in order to successfully navigate their learning experience. Cheng and Huang (2014) also agreed that self-regulated learning had positive effect on students' academic performance. The integration of rubrics in Educational Assessment and Evaluation had also supported constructivist theory of learning where learners actively constructed their own knowledge using explicit criteria listed in rubrics. Numerous studies supported that constructivist learning enhanced student's academic performance (Qarareh, 2016; Akanwa & Ovute, 2014). The feedback provided by rubrics relies on the Behaviorist theory of leaning which believes that the learner get motivated to learn when they received positive feedback. The motivation fostered

student's learning. This was supported by Gbollie and Keamu's (2017) finding that motivation had a significant impact to student's academic performance.

5.2 Survey Questionnaire

All the statements under four components of opinion were rated above 4.51 which falls in strongly agree category. This is because they found rubrics as a valuable tool in teaching and learning in higher education. Students' response to the statement '*I am confident in learning Educational Assessment and Evaluation concepts with rubrics*' was rated the lowest from 20 items, one possible reason could be time constraint because this study was carried out for only four weeks. Since they were using rubrics for the first time, it was not easy to gain confidence in short period of time. However the total mean for all the components (interest, guidance, confidence and feedback) was 4.76 out of 5. This indicated that the students' level of opinion towards rubrics usage in Educational Assessment and Evaluation falls in the (Strongly Agree) category on the Likert scale. This means students in the experimental group had positive opinions towards rubric usage in Educational Assessment and Evaluation. This finding of the study was supported by Eshun & Poku (2013) who concluded that in terms of studio based learning, 86% of the students had a positive perception on the use of rubrics for its support in learning process but Andrade and Du (2005) reported that students not only had a positive perception towards rubrics but they also agreed that rubrics supported their academic performance in the contexts of providing feedback, guidance and generation of interest. In Raposo-Rivas' (2016) study, almost one in three students (72.4%) were satisfied with the use of rubric in their learning. Similarly, Kulprasit (2016) also found that students showed a positive attitude toward the writing rubrics when rubrics were used as assessment for learning in English as Foreign Language (EFL).

The possible reasons for students to have positive opinions towards rubric usage could be because of autonomous, guided and less anxious learning environment created by rubrics. like in Moni and Moni's (2008) finding that the rubrics were strongly favored by students, almost all the students in the experimental group strongly agreed that rubrics used in Educational Assessment and Evaluation arose interest in them, provided guidance, provided feedback and gained confidence while they were learning Educational Assessment and Evaluation concepts using rubrics. Another reason why students had positive opinion towards rubric was because they perceived its value. That's why they had rated all the statements above 4.51.

5.3 Students' Reflective Journal

According to the student's reflective journal, students revealed that rubrics made teachers' expectation explicit. They liked the fact that rubrics let them know "what is expected," and contrasted it with "guessing game" they felt they have do when teacher did not provide rubrics. This matched with the findings of Qasim (2015) and Maxwell (2010) that rubrics informed students about teachers' expectation. As in Andrade and Du's (2005) study, they also expressed that rubrics gave them insight into teacher's expectations. Students in the experimental group emphasized that rubric-referenced grading as objective, consistent, fair and transparent. This finding was very much consistent with Bloxham, Boyd, and Orr (2011) findings which

shared the same thing. Jonsson (2014) also identified that rubrics made assessment tasks more transparent for students and provided them with the tools to unlock secret by involving them in the assessment process. However it contradicts with Andrade and Du's (2005) finding that they did not see the impact as being primarily "Better, fair grades" (p. 5), but instead quicker and more responsive grading.

Students uniformly endorsed in their journal that integration of the rubrics in Educational Assessment and Evaluation course served them in planning and shaping instruction by breaking the Educational Assessment and Evaluation concepts into different components and directing students towards manageable learning targets. This findings reflected the key aspects of self-regulatory behaviors such as goal setting, planning, self-assessment and revision (Zimmerman, 2002). Students mentioned in their journal that rubrics provided more informative feedback about their strengths and areas in need of improvement. Similar findings was also reflected in the study by Helvoort (2010) that rubrics encouraged meaningful feedback. With the help of criteria listed in rubrics, they were able to assess their own performance and improve their quality of work. This supports the findings of Andrade, Ying and Xiaolei (2008) which claimed that student's self-assessment using rubrics leads to improvement in their performance.

Students also shared that rubrics reduced anxiety. This was due to the fact that they did not know exactly where to put emphasis, what to look for, how much emphasis they should give on different elements of task. When they knew what they had to include and what they did not have to include and how much emphasis they had to put on different elements, they felt a sort of relief and they could produce their best product as much as possible. Besides, it also gave them a sense of independence, a sense of autonomy, when they knew what they have to do and why (Uddin, 2014). This supports Reynolds-Keefer (2010) and Panadero's (2011) findings where rubrics lowered student's anxiety level because of increased communication between teacher and students. Occasionally 1 or 2 students expressed dissatisfaction with rubrics saying that rubrics created a restrictive environment with little room for interpretation. However, majority of students experienced an incredible impact of rubrics in their performance. In time, they were so much motivated that overwhelming numbers of students showed great deal of enthusiasm in the hope that rubrics must be included in all the courses in university. This is because of the positive emotions that they experienced during treatment using rubrics facilitated the meta-cognitive process in them and improved their performance.

6. Conclusion

The data analysis of learning achievement test revealed that the students in the experimental group who were taught using rubrics performed better than the students in the control group who were taught using a traditional method. The data analysis of survey questionnaire and student's reflective journal concluded that students had positive opinions towards rubric usage in Educational Assessment and Evaluation. The opinions of students towards the rubric usage were 1) rubrics encouraged independent learning among students 2) rubrics informed teacher expectations to students 3) rubrics provided consistent and objective assessment 4) rubrics provided guidance while students were learning 5) rubrics helped in goal

setting and planning in Educational Assessment and Evaluation 6) rubrics provided feedback 7) rubrics motivated them to learn 8) rubrics encouraged self-assessment and peer assessment 9) rubrics reduced anxiety 10) rubrics arose interest in them and 11) rubrics gained confidence in learning Educational Assessment and Evaluation. The result of the study was also consistent with previous researches done in similar topics. The study concluded that rubrics enhanced the students' learning achievement and students had positive opinions towards rubric usage in Educational Assessment and Evaluation. Therefore rubrics had positive effects on students' learning achievement in Educational Assessment and Evaluation.

7. Recommendation

Since the study found out that teaching Educational Assessment and Evaluation module using rubrics enhanced learning achievement and also students had positive opinions towards rubric usage, Bhutanese University teachers are recommended to use rubrics as instructional approach in other modules as well. The researcher recommends Royal University of Bhutan to train university teachers to use rubrics in teaching and learning. Further research needs to examine whether this strategy or approach will bring similar outcome if used in other subjects too.

8. Author

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EFFECTS OF DIRECTED READING THINKING ACTIVITY TO ENHANCE ENGLISH READING COMPREHENSION SKILLS OF GRADE EIGHT STUDENTS IN BHUTAN

Hema Rai ¹ and Somchanok Phu-ampai²

Abstract

The study was designed to compare the comprehension abilities of students in English reading using DRTA strategy in the experimental and the control group and to explore the learning satisfaction of students in the experimental group towards DRTA strategy. The research was an experimental research with two-group pretest – posttest design. The study employed mixed mode research methodology, which comprised of qualitative and quantitative research methods. Clustered random sampling method was used to select two sections (66 students) of grade eight students out of four sections as research participants. One section was an experimental group with 33 students and another was the control group with 33 students. The instruments for data collection were learning achievement test, satisfaction questionnaire and students' reflective journal. The experimental group was treated with DRTA strategy. The instruction lasted for four weeks. Quantitative data were collected through learning achievement test and satisfaction questionnaire while qualitative data were collected through students' reflective journal. The same learning achievement test were administered as pre-test and post-test to both groups. Satisfaction questionnaire was administered to the experimental group and also asked to write reflective journal. The quantitative data were analyzed and interpreted using inferential statistics t-test, mean and standard deviation while qualitative data were analyzed using the coding system (open, axial and selective). The finding on students learning achievement showed that the post-test scores of the students in the experimental group was higher than the post-test scores of students in the control group with the significant value, $p=0.00$. The finding revealed that the use of DRTA strategy enhanced reading comprehension skills of students. The finding from the satisfaction questionnaire revealed that students in experimental group were extremely satisfied with DRTA strategy with mean of 4.87 and standard deviation 0.28. The finding from students' reflective journal also revealed that students were satisfied with DRTA strategy as it enhanced their critical thinking skills, developed comprehension skills, and enjoyed learning with their friends. Therefore, Directed Reading Thinking Activity (DRTA) improved the reading comprehension skills of students.

Keywords: Effects, Directed Reading Thinking Activity, Reading comprehension, Learning satisfaction, Bhutan.

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1. Introduction

English has been used as a medium of instruction in Bhutan since the 1960s. English curriculum consists of four modes of discourse. The four modes of discourse in English curriculum in Bhutan are reading and literature, writing, listening and speaking and language and grammar (Centre for Educational Research and Development [CERD], 2002). The purpose is to teach English literature to students and to instil them the love of different Genres. English curriculum consists of different literary pieces which are appropriate to the learners' age at different level. (Royal Education Council [REC], 2016) stated that wide care is taken to include literary pieces covering a wide geographical area and time span so that the learners can get the taste of different customs and cultures.

Though English is given paramount importance in Bhutan the performance of Bhutanese students in English is poor compared to other subjects. According to the press release from MOE (2017), the mean mark in English for the 2016 academic year was reported to be 55.42% only, the lowest of all subjects. In the Examination of Bhutan Higher Secondary school Education Certificate (BHSEC) in 2016, only 0.28% of students could score mark in the range of 80-100 in English. While in the same mark range; 38.48% of students scored in computer application, 8.89% of students scored in economics, and 11.37% of students scored in Environmental science (Bhutan Council for School Examination and Assessment [BCSEA], 2017). The result revealed that Bhutanese students perform poorly in English compared to other subjects.

Therefore, students should acquire competency in English in order to apply the knowledge to real life situation and across various subjects. Ministry of Education [MOE], (2014), in Bhutan Education Blueprint 2014-2024, states that if children do not acquire competencies in English and Mathematics at primary level, they will encounter with learning challenges later. Thus, the achievement level of students declines as the students move to higher grades. MOE (2014) mentioned that the findings from the ASSL indicated that the overall performance of Bhutanese students is challenged in meeting international standards, but also of the national standards.

One of the reason for poor performance in English could be the teaching method. English in Bhutan is mostly taught using traditional method, where teachers explain the text and students listen. There is only one way communication in the classroom. The instruction in the classroom is provided mainly through lecture method. Teacher is considered as a source of knowledge while students as a passive receivers. Boumaov (2008) states that the responsibility for teaching and learning is mainly on the teacher in the traditional method and it is believed that if students are present in the lesson and listen to the teacher's explanation and examples, they will be able to use the knowledge.

Bhutanese students face a lot of difficulty in comprehending the text as they lack appropriate skills. Moreover, teachers fail to use an appropriate reading strategy which adds up to the poor performance of students in comprehension. They explain the meaning of difficult words and ask students to comprehend the text with the given questions. National Education Assessment in Bhutan [NEA], (2013) concludes that Bhutanese class Ten students are way below average in reading skills in the English language, with only 38.13 in reading. This indicates that reading in English needs special attention in Bhutan. Therefore, reading comprehension is crucial in understanding the text.

Ministry of Education in Bhutan also gives a lot of emphasis in reading. The year 2015 was observed as a national reading year. Schools were also awarded the certificate for reading the maximum number of books. Subsequently, reading week has been introduced in school every year for a week. Even though students are given more opportunities to read, they struggle with reading as they are not equipped with appropriate reading strategies. Wangmo (2014) reports that Bhutanese teachers use traditional methods in the reading instruction. Therefore, effective reading strategies need to be implemented for reading.

Nevertheless, the reading problem of the students can be enriched by effective teaching strategy. According to O'Reilly and McNamara (2007), strategy instruction is particularly needed and effective for those who are struggling with reading. Hence, it is very important to discover various ways to improve students' reading ability and forming a good reading habit. To improve students' reading and comprehension skills, there has been a demand to use different reading strategies. To make reading efficient and effective, reading strategies and teaching approaches need to be adopted.

Apparently, students' reading comprehension can be improved by using directed reading thinking activity (DRTA) strategy as it is an active strategy to engage students in learning. DRTA improve students' comprehension skills and they are actively involved in the learning (Erliana, 2011). DRTA strategy is a student centered method. Students are actively involved in learning through different phases. These activities of predicting, confirming, and modifying predictions help students monitor their comprehension skills before, while, and after reading the text. As a result, the implementation of DRTA will help students comprehend a text.

A number of Studies reveal that the use of DRTA strategy enhances the reading comprehension of the students. In the study carried out by Abisamra (2006) states DRTA as an effective strategy for comprehending the text because it helps the student set reading purpose by making a prediction, read actively and enthusiastically, and grasp more information from what they have read. DRTA also promotes the thinking ability of the students. Furthermore, Yazdani (2015) concludes that DRTA strategy focuses on the development of thinking skills and involves the students in active learning. DRTA is one of the methods that is intended to develop students' ability to read critically and reflectively.

A lot of research and studies have been carried out throughout the world using DRTA strategy, the studies revealed that DRTA strategy helped the students boost their learning achievement in reading comprehension. Elfira, Marhum, and Mashuri (2015), suggested that English teachers can use DRTA strategy in teaching reading comprehension skills. Friska (2015), also suggested DRTA strategy over conventional method. Furthermore, El-Koumey (2006) recommended DRTA strategy should be used for teaching reading comprehension skills from the outset of instructions. Therefore, the research was designed to find out the effect of DRTA strategy on students' reading comprehension skills. Moreover, the study focused on the learning satisfaction of the learners with DRTA strategy.

2. Objectives of the study

- 2.1 To compare the comprehension abilities of students in English reading by using DRTA strategy in the experimental and the control group.
- 2.2 To explore the learning satisfaction of the students' in the experimental group using DRTA strategy in reading texts.

3. Material and methods

3.1 Research Design

This study employed mixed mode (quantitative and qualitative) research methodology. Cameron (2015) states that mixed method research represents research that involves collecting, analyzing, and interpreting quantitative and qualitative data in a single study or series of studies that investigate the same underlying phenomenon.

The study aimed to find the effects of Directed reading thinking activity to enhance English reading comprehension skills of grade eight students in Bhutan. The study also intended to find out the learning satisfaction of students regarding the effectiveness of the reading strategy. The research was an experimental research with two group pretest-posttest design. Figure 1 illustrated the research design

Research Design

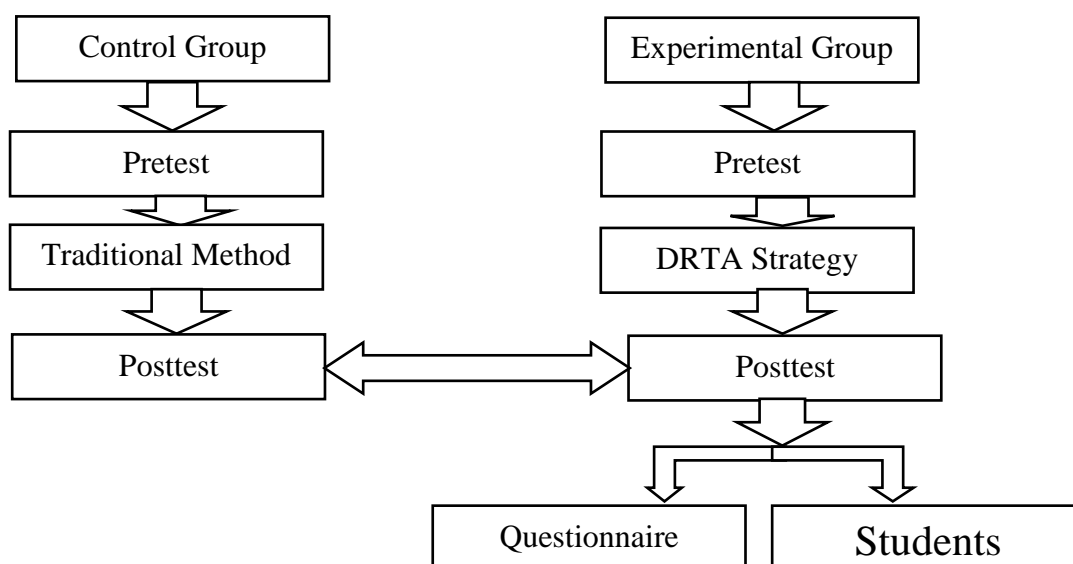


Figure 1 Research Design

3.2 Population and Sampling

The population of the study was four sections which consisted of 132 grade 8 students in a lower secondary school in Western Bhutan. The researcher used cluster random sampling technique to select two sections. The study was carried out in two sections out of four sections of grade 8. The researcher randomly selected two groups out of four groups as all the groups comprised of mixed ability students. One of the sections was an experimental group with 33 students and the other section was a control group with 33 students. The experimental group was taught using DRTA strategy while the control group was taught using traditional method.

3.3 Research Instruments

The following research instruments were used for collecting different data.

Achievement test: An achievement test comprising of 20 multiple choice questions from the story “The Magic Brocade” was developed for pre-test and post-test. The pre-test was administered at the beginning of the study and later used again as post-test that was administered at the end of the experiment. The questions used for pre-test and post-test for both groups were the same. The pre-test and post-test were administered to assess and compare the achievement level between the experimental group and the control group.

Satisfaction questionnaire: In order to find the satisfaction level of the students towards DRTA strategy, questionnaire comprising of 15 items were administered to the experimental group after the intervention. The data for the questionnaire were collected through Likert scale with five points; the rating scale as follows: 5- Strongly agree, 4- Agree, 3- Neither agree nor disagree, 2- Disagree, and 1- Strongly disagree (Vagias, W.M, 2006).

Students’ Reflective Journal: At the end of the treatment, all the participants in the experimental group were made to write a reflective journal on the satisfaction level with DRTA strategy. Students’ reflective journals were collected to support the quantitative data on satisfaction using DRTA strategy.

3.4 Research Procedure

An approval letter from the Director General, Ministry of Education of Bhutan was obtained about the study. This was followed by seeking permission from Dzongkhag Education officer and the principal of the school and concerned teacher teaching grade 8 English. Eight detailed lesson plans were used in teaching the story “The Magic Brocade” to grade 8 students. Four lessons were planned for 100 minutes incorporating DRTA strategy and the other four using a traditional teaching method.

Pre-test and post-test were conducted for both groups. However, satisfaction questionnaire was administered only to experimental group to find out the learning satisfaction using DRTA strategy.

4. Data Analysis

4.1 Test scores

A comparative statistical analysis using paired sample t-test was done within the group i.e. analysis of pre-test and post-test of the experimental group as well as the control group. The comparison between pre-test and post-test scores of the two groups were done by conducting independent t-test to assess and compare the learning achievement of grade 8 student using DRTA strategy and the traditional teaching. The 2 tailed significance value (p) was referred to determine the significance difference between the means.

4.2 Questionnaire

The data analysis of students' satisfaction questionnaire was done based on the five point Likert scale. Mean and standard deviation of the questionnaire were computed to examine students' satisfaction towards DRTA strategy in the experimental group

4.3 Students' Reflective Journal

Content analysis was carried out for the students' reflective journal. The content analysis was carried out by using a coding system (open, axial, and selective) based on Grounded Theory of Corbin and Strauss (2008). The data were interpreted into six core themes.

5. Results

5.1 Analysis of Test Scores

The first objective of the study was to compare the comprehension abilities of students in English reading by using DRTA strategy in the experimental and the control group. The pre-test and post-test were administered to both groups. A comparative statistical analysis was done using paired sample t-test within the group and independent t-test between groups. Mean, standard deviation, significance value, frequency of scores and percentage were used to infer the results. Pre-test and post-test scores were computed using Software package for Social Science (SPSS). Table 1 shows the comparison of pre-test and post-test within the group.

Table 1 Pre-test and Post-test Comparison within the group

	Mean		Mean Difference	2-tailed significance	Standard Deviation	
	Pre-test	Post- test			Pre-test	Post-test
Control group	9.91	16	$16 - 9.91 = 6.09$.000*	2.8	2.6.
Experimental group	10.76	19.09	$19.09 - 10.76 = 8.33$.000*	2	1.1

*Significance level (p): <0.05 significant

As presented in Table 1, the mean of pre-test and post-test of the control group were 9.91 and 16, the mean difference was 6.09. The Standard deviation in the control group was 2.8 in pre-test and 2.6 in post-test respectively. The mean of pre-test and post-test of the experimental group were 10.76 and 19.09 respectively. The mean difference was 8.33. The standard deviation of pre-test and post-test of experimental group was 2 and 1.1 respectively. The significance value (p) 0.00 denotes that there was statistically significant increase in scores of the post-test than the pre-test in both the groups. However, the mean difference in the experimental group was significantly higher than the mean difference of the control group.

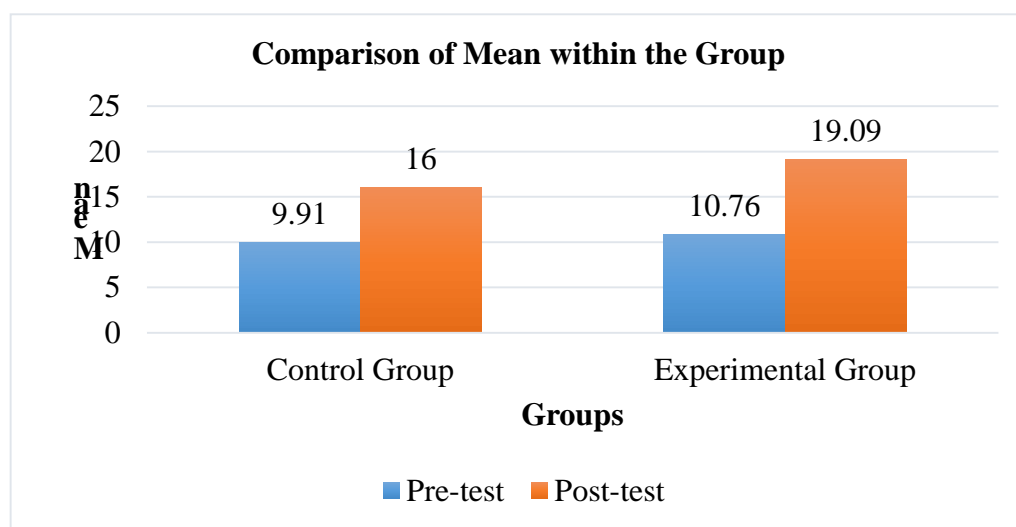


Figure 2 Comparison of Pre-test and Post-test within group

Table 2 Pre-test and Post-test Comparison between groups

Group	Test	Mean	Mean difference	Standard Deviation	2-tailed significance
Control	Pre-test	9.91	10.76-9.91= 0.85	2.8	.157
Experimental		10.76		2	
Control	Post-test	16	19.09-16 = 3.09	2.6	.000*
Experimental		19.09		1.1	

*Significance level (p) <0.05- significant

As shown in Table 2, the mean difference of the pre-test between the groups was 0.85. The 2- tailed significance value (p) was .157 which is higher than 0.05 ($p > 0.05$), which indicated that the pre-test scores of both the groups were not statistically significant. Therefore, it was noted that the learning ability of the students in both groups were equal at the beginning of the experiment.

The mean difference of post-test between the groups was 3.09 as shown in table 2. The 2-tailed significance value (p) was .000 which is lower than the significant value $p < 0.05$. This indicated that the post-test of both groups were statistically significant. The post-test scores of the experimental group was much higher than the post-test scores of the control group. Therefore, the experimental group performed better than the control group after the intervention.

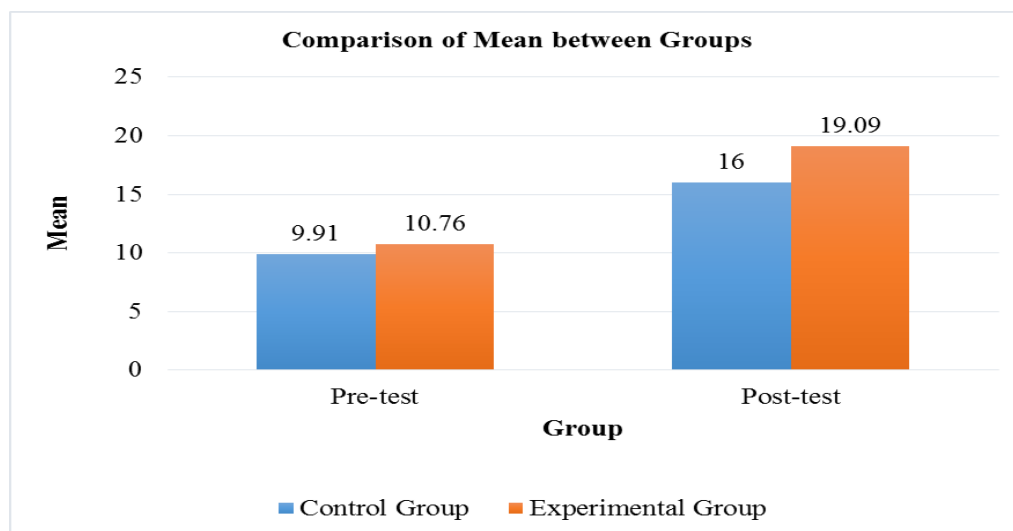


Figure 3 Comparison of pre-test and post-test between groups

Table 3 Frequency and percentage of post-test scores of both groups

Scores	11	12	13	14	15	16	17	18	19	20	Total students and percentage
Control Group	1	3	2	3	5	6	2	4	4	3	33
Percentage	3.0	9.1	6.1	9.1	15.2	18.2	6.1	12.1	12.1	9.1	100%
Experimental Group	0	0	0	0	0	1	2	6	8	16	33
Percentage	0.0	0.0	0.0	0.0	0.0	3.0	6.1	18.2	24.2	48.5	100%

Table 3, showed the frequency and percentage of post-test scores of students in the control and the experimental group. The learning achievement test was set out of 20 marks. The lowest score obtained by students in the control group was 11 and the highest was 20, while the lowest score obtained by students in the experimental group was 16 and the highest was 20. There was a vast difference between the scores obtained by students in the control group and the experimental group after the intervention. Only 3 students in the control group scored 20 in post-test while 16 students in the experimental group scored 20 in post-test. However, compiling the scores by percentage, only 9.1% of students scored 20 in the control group while 48.5% of students scored 20 in the experimental group. Students in the experimental group acquired higher scores than the students in the control group in post-test. Therefore, it was concluded that DRTA helped improve students' reading comprehension skills in English.

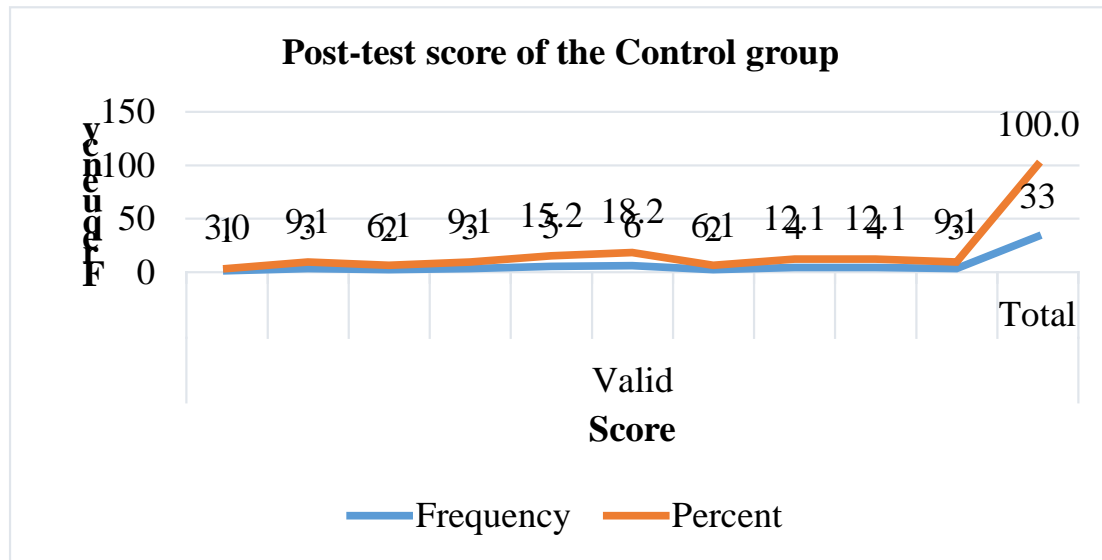


Figure 4 Post-test scores of control group in percentage and frequency.

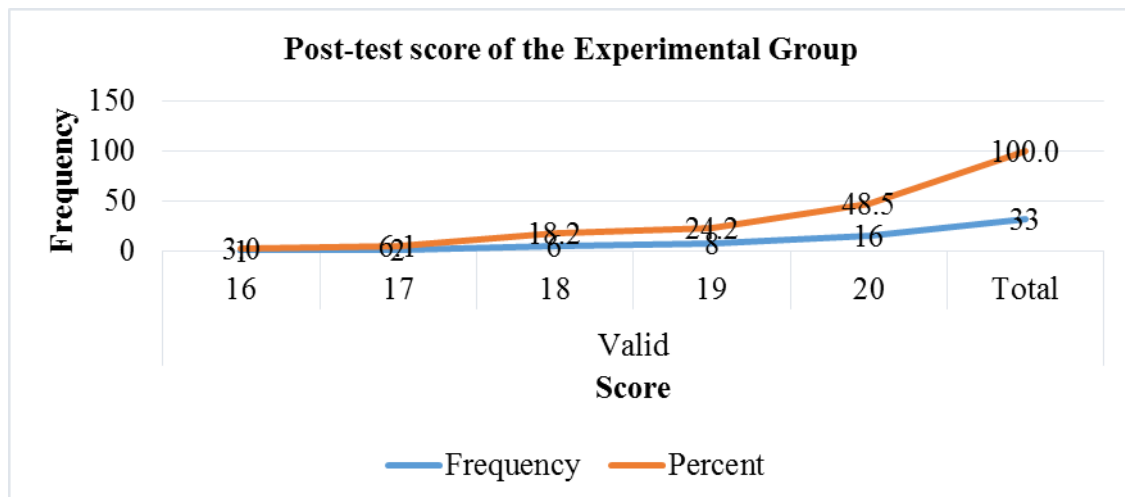


Figure 5 Post-test scores of Experimental group in percentage and frequency

5.2 Questionnaire

The second objective was to explore the learning satisfaction level of the students in the experimental group using DRTA strategy in reading the text. The data for the questionnaires were collected through five point Likert scale; the rating scale is as follows: 5- Strongly agree, 4- Agree, 3- Neither agree nor disagree, 2- Disagree, and 1- Strongly disagree (Vagias, W.M, 2006). The questionnaire was administered after the intervention to the experimental group. Mean and standard deviation was computed for all the statements. The result was presented in Table 4.

Table 4 Mean and Standard Deviation of students' satisfaction questionnaire

Sl.no	Statement	Mean	S.D	Level of Satisfaction
1	DRTA improved my vocabulary	4.64	.489	Strongly Agree
2	It helped to build confidence	4.67	.479	Strongly Agree
3	It helped to build good relationship with my classmates	4.97	.174	Strongly Agree
4	It motivated me	4.76	.435	Strongly Agree
5	It helped me to analyze what I know	4.88	.331	Strongly Agree
6	It helped me to interact with the teacher	4.88	.331	Strongly Agree
7	It helped me to stay focus throughout the lesson	4.94	.242	Strongly Agree
8	It encouraged me to read	4.85	.364	Strongly Agree
9	It helped me to make right decision	4.82	.392	Strongly Agree
10	I enjoyed DRTA strategy	5.00	0.000	Strongly Agree
11	It helped me to activate my prior knowledge	4.82	.392	Strongly Agree
12	It helped me to make prediction	5.00	0.000	Strongly Agree
13	It helped me facilitate creative discussion	4.91	.292	Strongly Agree
14	I learnt a lot when discussing with my friends	4.94	.242	Strongly Agree
15	It helped me to interact with my friends	5.00	0.000	Strongly Agree
	Total	4.87	0.28	Strongly Agree

Note: Level of satisfaction on individual items in the questionnaire: (0.00-1.50) = Strongly Disagree, (1.51-2.50) = Disagree, (2.51-3.50) = Neither Agree nor Disagree, (3.51- 4.50) = Agree, and (4.51-5.0) = Strongly Agree

From the above Table, the satisfaction level of grade 8 Bhutanese research participants in the experimental group after 4 lessons using DRTA strategy indicated “Strongly Agree” on the level of satisfaction with the mean of 4.87 and standard deviation of 0.28. Therefore, the result indicated that the students experienced high level of satisfaction when DRTA strategy was integrated into teaching and learning the story “The Magic Brocade” in English. The highest mean of 5.00 was rated by the participant for the statement 10, 12, and 15 with a standard deviation of 0.000. The overall learning satisfaction level of students with DRTA strategy is shown in Figure 6.

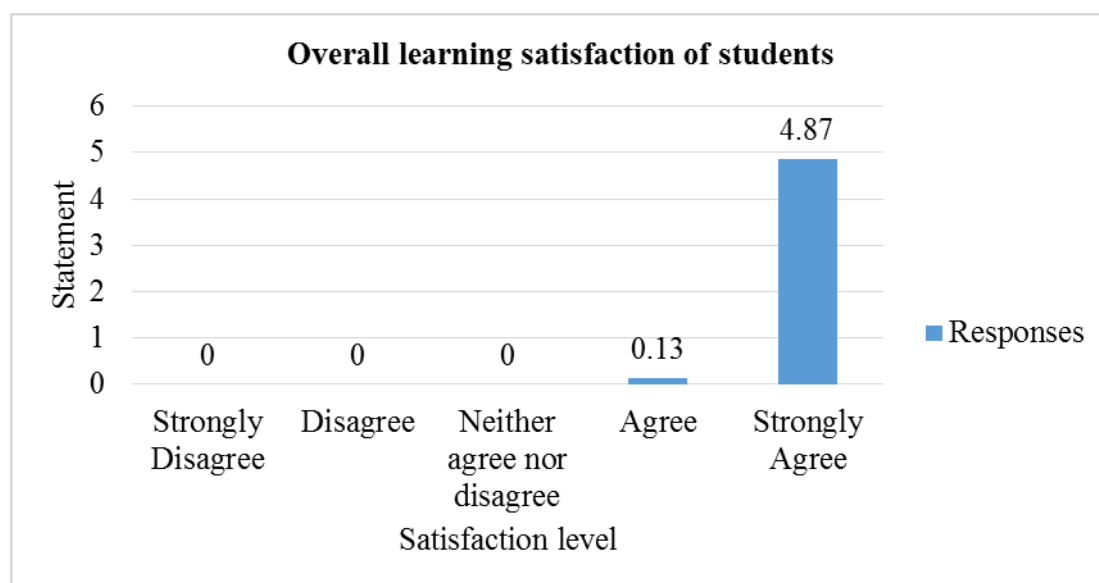


Figure 6 Overall mean of the responses

Figure 6 showed the overall learning satisfaction level of students in teaching and learning the story “The magic Brocade” in English when DRTA strategy was implemented. The graph showed that almost all the students were satisfied with DRTA strategy with a mean of 4.87 for ‘strongly agree’, and 0.13 for ‘agree’. The graph also depicted that none of the students rated for ‘strongly disagree’, ‘disagree’, and ‘neither agree nor disagree’. Therefore, the researcher concluded that students portrayed a high level of satisfaction when DRTA strategy was used for teaching and learning the story “The Magic Brocade” in English.

5.3 The Result of Students’ Reflective Journal

This part presents the findings of the qualitative data through students’ reflective journal. The qualitative data were provided to support the quantitative data based on learning satisfaction of DRTA strategy. The students were asked to write reflective journal once after the last class. Reflective journal was categorized by coding and put into different themes as proposed by Corbin and Strauss (2008). The learning satisfaction of students could be seen from their reflective journal.

5.3.1 Enhanced Critical Thinking

Students’ felt that DRTA strategy enhanced critical thinking as they were asked to predict about the lesson based on some questions. Their background knowledge was activated when they predicted about the lesson.

5.3.2 Developed Comprehension Skills

Students revealed in the reflective Journal that DRTA strategy developed Comprehension skills as it was carried out in three phases. They were asked to read the text after prediction and discuss the correct answer of the given questions in groups. Therefore, they learnt new words and meaning of words while reading independently.

5.3.3 Interesting Lesson

Students felt the lesson interesting when taught with DRTA strategy. They were alert throughout the lesson. Each individual had different prediction. Therefore, it was exciting for students to listen to varied prediction.

5.3.4 Enhanced Interaction

DRTA strategy allowed them to interact with their friends. They listened to their friends and shared their ideas too. Students agreed that they participated better in the activities when they discussed with their friends. Therefore, there was more interaction amongst students while DRTA strategy was implemented.

5.3.5 Flexibility of Responses

Students felt DRTA as a flexible strategy as they can change their prediction after reading the text. DRTA strategy allowed them to write the answer of the given questions freely during prediction phase. Therefore, DRTA strategy created conducive learning environment where students could share their responses freely.

5.3.6 Developed Curiosity

Students also revealed that DRTA strategy developed curiosity about the unseen text. The text was divided into chunks for different classes, it developed curiosity about the next part of the text. They mentioned that curiosity kept them on track and love to learn a lot.

6. Discussion

The findings of the study were: 1). DRTA strategy improved the reading comprehension skills of grade 8 Bhutanese students. 2). Students in experimental group were satisfied towards DRTA strategy.

6.1 Achievement Test

Pre-test and post-test with 20 multiple choice questions were administered to both the experimental and the control group. The pre-test was administered before the treatment whereas post-test was administered after the treatment to both groups. The post-test scores of participants in the experimental were higher than the post-test scores of the control group with significance value (p) 0.000 as shown in Table 2. The findings showed that the mean scores of post-test of the experimental group was higher than the mean scores of the control group. This revealed that DRTA strategy enhanced the learning achievement of the students. Thus, it enhanced the reading comprehension skills of students.

The finding was similar to the studies carried out by Ari (2014) investigated the effect of SQ3R and DRTA strategies used by fifth grade students on comprehension showed that DRTA strategy significantly increased the reading comprehension of students. Agustina (2016) conducted an experimental study to investigate the effects of DRTA and LC strategies on students reading comprehension achievement of narrative text based on English score levels also showed that DRTA and LC made difference on students' reading comprehension significantly. A positive finding was revealed by Odwan (2012) that there was statistically significant difference at ($\alpha=0.05$) in reading comprehension in favor of experimental group among English secondary stage students in Jordan due to DRTA strategy. Erliana (2011) whose study focused on improving reading comprehension through directed reading thinking activity (DRTA) strategy revealed that DRTA not only improved students' comprehension but also increase their motivation in learning. Somadayo, Slammat, Nurkamto, and Suwandi (2013) examined the effect of learning model DRTA (directed reading thinking activity) towards students' reading comprehension ability seeing from their reading interest revealed that DRTA yield a better result in reading comprehension compared to DRA and PQRS model. Yazdani (2015) investigated the explicit instruction of reading strategies: directed reading thinking activity vs. guided reading strategies also concluded that DRTA strategy had a more significant positive effect than guided reading. A study by El- Koumy (2006) on the effects of directed reading thinking activity on EFL students' referential and inferential comprehension revealed that DRTA is an effective strategy for developing both referential and inferential comprehension skills. Chaemsai and Rattanaovich (2016) conducted a study to compare the English reading comprehension and ethical awareness of grade seven students using DRTA strategy and traditional approach to the tales of virtue based on His Majesty the King's teaching concepts concluded that Students taught with DRTA strategy had significantly higher English reading comprehension and increased ethical awareness. Arianti (2003) carried out a study to investigate the significance and effectiveness of teaching narrative text inference by using DRTA strategy concluded that DRTA strategy increase students' ability of narrative text-based inference-making significantly. All their findings revealed that there was a significant improvement in reading comprehension skills with the use of DRTA strategy. Therefore, the students who were taught with DRTA strategy performed better in learning achievement test.

The possible reason for high test score in post-test by the experimental group could be because the schemata of students were activated throughout the study. Therefore, schema theory supported the findings. According to Anderson (2008) comprehending a text requires activating an existing schema or creating a new schema that organize the information. Further, the finding of the study was supported by cognitive theory. Students were actively involved to construct the meaning through their own understanding.

6.2 Students' satisfaction in using DRTA strategy

A learning satisfaction questionnaire of 15 items were administered to experimental group. The data analysis revealed a high level of satisfaction when DRTA strategy was implemented with a mean of 4.87 as shown in Table 4. The data for the questionnaire was collected through five point Likert scale; the rating scale is as follows: 5- Strongly agree, 4- Agree, 3- Neither agree nor disagree, 2- Disagree, and 1- Strongly disagree

Some of the reasons for students' higher level of satisfaction were due to conducive learning environment where students were given freedom to predict about the text, share and discuss their prediction with their friends. There was flexibility to change their response to the given questions after reading the text. According to Elfira, Marhum and Mashuri (2015), DRTA strategy encourages students to use their mind while reading, thus making them thoughtful and active learner as they comprehend the text. Moreover, it is an active strategy which is implemented in three phases. El-Koumey (2004), mentions that DRTA engages students in thinking about what they read in three phases.

The students' reflective journal aimed to investigate the learning satisfaction of students with DRTA strategy in order to support quantitative data. The findings revealed that students were satisfied with DRTA strategy, as it helped them to enhance their critical thinking skills and develop comprehension skills. The students enjoyed the lesson since DRTA strategy kept them alert throughout the lesson and developed curiosity. The students also mentioned that DRTA strategy help them interact with friends and there was flexibility of the responses.

The findings of the study is supported by Mansyah (2012) who concluded that with DRTA strategy students could freely write since they know they would not be graded on correctness of their answers thus, the risk free method encouraged students to use critical thinking skills. The finding of the study is consistent with Seftika (2016) who revealed that DRTA enhanced the students' participation in class interaction both individual and group work discussion.

7. Conclusion

7.1 The Result of Test Score Analysis

Pre-test and post-test were administered to both experimental and control group to determine the differences in reading comprehension abilities in English. Pre-test was administered before the intervention to both groups. Experimental group was taught using DRTA strategy whereas control group was taught with traditional method. Post-test was administered after the intervention to both groups.

A comparative statistical analysis using paired sample t-test was done within the group. The mean difference in control group was 6.09, the mean in pre-test was 9.91 and the mean in post-test was 16 respectively as shown in Table 1. The mean difference in experimental group was 8.33, the mean in pre-test was 10.76 and the mean in post-test was 19.09 respectively as shown in table 1. The significance value (p) was 0.00 which indicated that there was statistically increased in the scores of the post-test compared to pre-test of both the groups. However, the mean difference of experimental group was significantly higher than that of the control group.

A comparative statistical analysis using independent t-test between the experimental and the control group were computed. The post-test mean difference of the experimental group and control group was 3.09 as shown in Table 2. The significance value (p) of the post-test was 0.00 which indicated post-test scores of the experimental group was statistically significant. The post-test scores of the experimental group was higher than the post-test scores of the control group.

As shown in Table 3, students in the experimental group performed better in achievement test than the students in control group in post-test. The learning achievement questionnaire was set out of 20 marks. The lowest score in the control group was 11 and the highest was 20, while the lowest score in experimental group was 16 and highest was 20. Only 3 (9.1%) students in the control group scored 20 in post-test while 16 (48.5%) students in experimental group scored 20 in post-test. Therefore, the study concluded that DRTA strategy improved the learning achievement of grade 8 students in English. Thus, enhanced their reading comprehension skills.

7.2 The Result of the Students' Satisfaction Questionnaire

To find out the learning satisfaction, questionnaire was provided to the students in the experimental group using the five point Likert scale. The satisfaction questionnaire consisted of 15 items. The highest mean score was 5 and the lowest mean score was 4.64 with the average mean score of 4.87 as shown in Table 4. Therefore, the result indicated that students were extremely satisfied in learning English with DRTA strategy.

7.3 The Result of Students' Reflective Journal on Satisfaction

Students in the experimental group were asked to write a reflective journal after the treatment to find out their learning satisfaction towards DRTA strategy. Qualitative data were collected to support quantitative data based on learning satisfaction of students towards DRTA strategy. The data collected were analyzed using open, axial and selective coding system of the grounded theory (Corbin and Strauss, 2008).

The result from the students' reflective journal proved that students were satisfied with DRTA strategy. With the use of DRTA strategy in reading text, students found easier to comprehend the text through interaction with friends and there was flexibility with their responses too. Students enjoyed reading the text with the use of DRTA strategy. Moreover, DRTA strategy helped them enhance their critical thinking skills and develop curiosity which let them to read further.

8. Recommendations

8.1 Recommendation for practice

The study found out that DRTA strategy enhanced learning achievement, increased level of satisfaction in English. The following recommendations have been made based on the findings of the study.

- 1) DRTA was found effective in English comprehension skills. Therefore, teachers can use this approach in teaching the reading text to students.
- 2) DRTA strategy was found as student centered approach where the students actively participate and interact with their friends. The teacher is just a facilitator while using DRTA strategy. So, English teachers must shift the mode of teaching from lecture method to DRTA method.
- 3) This study recommends that the lesson should be well planned while using DRTA strategy.
- 4) This study recommends that the students should be familiar with the procedure involved while implementing DRTA strategy.

8.2 Recommendation for future research

- 1) Further research may be carried out to investigate the relationship between reading comprehension and thinking skills.
- 2) Research may be conducted to study the effectiveness of DRTA with other grades.

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EFFECTS OF USING MANIPULATIVES IN TEACHING MATHEMATICS TO ENHANCE LEARNING OUTCOME OF GRADE 5 BHUTANESE STUDENTS

Kencho Lham¹ and Somchanok Phu-ampai²

Abstract

The purpose of this study was to find out the effectiveness of manipulatives on learning outcome of grade 5 Bhutanese students in mathematics. This study also aimed to examine students' learning contentment after using manipulatives in teaching and learning mathematics. The research was a quantitative research with a two-group pretest-posttest design. The study group consisted of 78 grade 5 students (39 in experimental group and 39 in control group) studying in one of the primary schools in the Southern District of Bhutan. The study was carried out for four weeks. A clustered random sampling method was adopted to select two sections of grade 5, one as the control group and other the experimental group. The experimental group was treated with manipulative materials while the control group was taught using the traditional method. The data was collected from the learning achievement test and learning contentment questionnaire. Both the groups were administered with the same pre-test and post-test prepared from the chapter 'Fraction' of grade 5. The learning contentment questionnaire was administered to the experimental group at the end of the treatment to examine the level of learning contentment of the students after using manipulatives. The data collected were analyzed and interpreted using inferential statistics t-test with $p < 0.05$ level of significance, mean, and standard deviation. The findings of the study revealed that using manipulatives in mathematics enhanced the learning outcome of grade 5 students as the post-test mean score of experimental group was significantly higher than that of control group with 2-tailed significant value of 0.00. It was also found that students in the experimental group exhibited high level of learning contentment when manipulatives were incorporated in teaching and learning mathematics. Thus, the findings recommend the teachers to use manipulative materials in teaching mathematics.

Keywords: Manipulatives, Learning outcome, Fraction, Learning contentment, Bhutanese

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1. Introduction

Mathematics is considered as an essential subject in our life. According to Hom (2013), mathematics is an art that deals with the logic of shape, quantity and arrangement. Everything that we do in life is related to mathematics. Further, Connes (2010) states that mathematics is the backbone of modern science and an effective source of new concepts and tools to understand the reality in which we participate. It helps us understand the complex ideas and prepares individuals to face the challenges of life. Mathematics is significant not only in the development of science and our understanding of the workings of the universe, but also it is equally important to individuals for personal development, and in the work place.

Mathematics prepares the learners with powerful set of tools which include problem solving skills, logical reasoning, communication skills and the ability to think in abstract ways (CAPSD, 2005). Owing to its significance, mathematics was introduced as one of the major subjects in Bhutan and a strong emphasis was given to the mathematics education. Department of Curriculum and Research Division [DCRD] (2010) states that the main reason of introducing mathematics as the major subject in Bhutan is due to its significance in every aspects of life. It is important that students at all grade levels understand the significance of studying mathematics in order to keep career options open. A strong mathematics program can keep doors of future programs open to students.

Royal Education Council [REC] of Bhutan (2012) believes that throughout the Bhutanese mathematics course, students will be continually challenged to solve problems, reason logically, make connections and represent ideas in multiple ways. Bhutanese mathematics curriculum follows the six process standards of National Council of Teachers of Mathematics [NCTM]. Despite considering the fact that mathematics is one of the major subjects and also its significance in our daily lives, students perform very low in the subject. This is because learning mathematics has been a nightmare for many Bhutanese students (CAPSD, 1996) and Bhutanese students are poor in mathematics (Kuensel, 2001). The performance was worst for those students who found mathematics difficult and boring than those who liked the subject (BCSEA, 2013).

Bhutanese students perform poorly in their successive grades since they lack understanding of basic concepts that are required for learning further concepts. Mathematics in the past was taught with the use of traditional method where the emphasis was on memorization of basic facts such as multiplication table, formulas and studying examples. It solely focused on the content coverage rather than students' learning. It was a teacher-centered learning where students were not provided with the opportunity to get out of the box. National Education Framework by REC (2009) states that mathematics is one of the main weaknesses of Bhutanese students and most of them do not like to learn it, thus majority of the students score less than 50%.

Teaching method has direct effect on achievements in mathematics and also on the students' outlook towards mathematics (Papanastasiou, 2008). Time is ripe to understand that teaching in the 21st century is more than an information feeding process. The role of a teacher has considerably changed; teachers now act as a guide and facilitators in the classroom. Teachers need to adopt constructivist teaching and learning. Students have to be provided more time for self-learning through enquiry based activities. In Bhutan, 21st century teaching pedagogy has been implemented in the schools to eradicate the age old existing teaching approach. Thus, using manipulatives in teaching mathematics could be one of the strategies to engage students in meaningful learning and increase their success rate.

Jones and Byrnes (2006) added that students who benefited from high quality instruction are self-regulated, have strong mathematics backgrounds and had low levels of frustration. Teachers are the ones who can improve quality of instruction with the use of effective teaching methods. Harbor and Peter (2001) also stated that the issue of poor performance in mathematics examination was due to the problem of teaching methods. There are many other factors undermining the performance of the students in mathematics; however, teaching method was considered the most influential one. Therefore, to make mathematics an interesting and fun subject, it is important that we change the teaching method.

Depending on the student's learning abilities, teachers may use appropriate objects to bring math to life and to make the abstract concepts more concrete (Golafshani, 2013). Manipulatives are the objects that are designed to represent mathematical ideas that are abstract (Moyer, 2001). Manipulatives denote an outer reality of abstract ideas that promote reflective thinking (Van de Walle, Karp, and Bay-Williams, 2009). Teachers use manipulatives to support students' conceptual acquisition of abstract symbols and mathematical language. Incorporating manipulatives in teaching mathematics makes learning more interesting, meaningful, and logical. It will be helpful for the learners to construct self-learning, critical thinking, and problem solving skills.

Studies indicated that use of manipulatives will help to improve students' learning achievement in mathematics. The study conducted by (Allen, 2007) on 'How Using Manipulatives will Increase Students' Achievement in Mathematics' recommended that students enjoy learning with manipulatives as it gives them a better understanding of basic math skills and hold their interest in the subject. Similarly, Cope (2015), Kontas (2016), and Rosli, Goldsby, and Capraro (2015) also used manipulatives to enhance learning achievement of the students in mathematics and it proved to be effective in their studies. According to the researchers, use of manipulatives can help the learners understand the abstract mathematical concepts.

Many researches have been conducted using manipulatives in teaching mathematics in different regions of the world and the results indicated that it helped the students in understanding the abstract mathematical concepts. Thus, having seen the difficulty level of Bhutanese students in learning mathematics and fall in their success rate, this study is intended to use manipulatives in teaching mathematics in Bhutan whereby there may be an increase in the learning outcome and learning contentment of the students. This approach allows students to explore, analyze the concept, and think critically. It also enables them to involve themselves in the learning, experimenting and understanding the concepts and relationships. Therefore, teaching mathematics with the use of manipulatives may be a possible solution to increase students' learning outcome and learning contentment in mathematics.

2. Objectives of the study

- 2.1 To find out the effects of manipulatives on the learning outcome of grade 5 students in learning mathematics.
- 2.2 To examine students' learning contentment after using manipulatives in teaching mathematics.

3. Materials and methods

3.1 Research Design

The research was quantitative in nature with two-group pre-test and post-test design which aimed to increase the learning outcome of grade 5 Bhutanese students in mathematics using manipulatives. In this study, the achievement test was developed to compare the learning outcome of the experimental group before and after the use of manipulatives. Also the learning outcome between the experimental and control group was compared. The researcher framed questionnaires to find out the learning contentment level of the students after using manipulatives in teaching mathematics.

3.2 Population and sample

The population and sample of the study consisted of 78 students from 2 sections of grade 5 students studying in one of the primary schools in the southern region of Bhutan. Each section had 39 students with mixed gender and mixed ability. A clustered random sampling method was adopted to select two sections for the study. One section was used as an experimental group and the other as a control group.

3.3 Research Instruments

The data for this quantitative study was collected from the following research instruments:

Learning outcome test: To find out the effect of manipulatives on the learning outcome of grade 5 students in mathematics, a pre-test and post-test was conducted to the participants. The test consisted of 20 multiple choice questions developed from the chapter 'Fraction' with equal number of questions from each topic. The pre-test and post-test was administered to examine the achievement level in the experimental and control group before and after

teaching. The pre-test was administered before teaching and later it was used to compare with the post-test administered at the end of the treatment.

Questionnaire: To examine students' learning contentment in mathematics after using manipulatives, a set of questionnaire framed by using five point Likert scale was used. The questionnaire consisted of 15 statements pertaining to the learning satisfaction, interest and engagement of the students as a result of incorporating manipulatives in teaching and learning mathematics. It was administered only to the experimental group after the treatment.

Lesson plan: The study deployed 8 lesson plans of 100 minutes. Two lessons in a week, one for an experimental group and the other for a control group was taught for four weeks. The experimental group was taught using manipulatives and the control group was taught using the traditional method.

3.4 Research Procedures

Pre-test was administered to both experimental and the control group before teaching. The test consisted of 20 multiple choice questions prepared from the chapter 'Fraction.' Eight detailed lesson plans were deployed in teaching the chapter 'Fraction' to the grade 5 students. The duration of each lesson was 100 minutes. Experimental group was taught by using manipulatives while the control group was taught with the traditional method. Two lessons in a week, one for an experimental group and the other for a control group was taught for four weeks. At the end of the treatment period, post-test was conducted to both the groups using the same question as that of pre-test and learning contentment questionnaire was administered to the experimental group only.

Manipulatives are many and they come in different forms. Different manipulatives will have different uses like attribute blocks and geometric shapes in numerous colors and shapes can be used in sorting or designing tasks, counters are helpful in solving equations of simple addition and subtraction, base-ten blocks are beneficial in representing and performing operations on multi-digit numbers, and fraction pieces are useful in representing different fractional concepts and relationships (Spear- Swerling, 2006). The manipulatives used in teaching the chapter 'Fraction' in this study were pattern blocks, fraction strips, colored tiles, fraction bars, fraction circles and linking cubes.

For example, pattern blocks were used to teach the concept of 'Fractions as Division.' In order to familiarize students with the concept, teacher used pattern blocks to demonstrate the meaning of 'Fractions as Division.' Afterthat students were divided into groups and distributed the pattern blocks to each group. Then the groups were provided with the questions and teacher instructed the students to discuss with their group members and model the answer for the question using pattern blocks. Finally, a member from each group was asked to present their answer to the class and teacher provided feedbacks and suggestions. Similarly, colored tiles were used to teach the concept of 'Equivalent Fractions.' Firstly teacher used colored tiles to teach the concept of equivalent fractions and how to create equivalent fractions. Then students were divided into groups and teacher distributed colored

tiles to each group. After that the groups were provided with the questions. Then the members in the groups were made to discuss and model the questions using colored tiles and write down the answers in their notebook.

3.5 Data Analysis

In comparing and assessing the effect of manipulatives on the learning outcome of grade 5 students in mathematics, a comparative statistical analysis of pre-test and post-test within the group of both experimental and control group was done using the paired sample t-test. The comparison of pre-test and post-test scores between the groups was computed by using independent t-test. The inferential statistics t-test with $p < 0.05$ level of significance, mean, and standard deviation was used to interpret the results. In order to see the effect of manipulatives on the learning contentment of the students, a set of questionnaire consisting of 15 statements was used in the experimental group after the treatment. The data collected through questionnaire was analyzed with the use of descriptive statistics such as mean and standard deviation.

4. Results

4.1 Analysis of the test scores

A comparative statistical analysis using paired sample t-test was done within the group (i.e. analysis of pre-test and post-test of experimental group as well as control group) and independent t-test between the groups (i.e. a comparison of pre-test and post-tests between the two groups). The inferential statistics t-test with $P < 0.05$ level of significance, mean, and standard deviation was used to interpret the results.

4.1.1 Pre-test and Post-test Comparison within the Group

Table 1 Comparison of pre-test and post-test within the group

Group	Test	Mean	Mean Difference	Standard Deviation	Sig(2-tailed)
Control	Pre-test	5.26	$14.28 - 5.26 = 9.02$	1.83	0.00*
	Post-test	14.28		1.52	
Experimental	Pre-test	5.36	$19.36 - 5.36 = 14.0$	1.11	0.00*
	Post-test	19.36		1.01	

Significance level (p) : < 0.05 -Significant*

The scores of pre-test and post-test within the groups were compared in terms of mean, standard deviation and significance value (p). The mean of the pre-test and post-test scores of control group were 5.26 and 14.28 respectively which resulted in the mean difference of 9.02. Similarly, the mean of the pre-test and post-test scores of experimental group were 5.36 and 19.36 respectively which resulted in the mean difference of 14.0.

The significance value (p) of both control and experimental group was 0.00 which indicated that, there was statistically significant increase in the scores of the students in the post-test as compared to that of the pre-test in both the groups. From the comparison, it was also noted that the mean difference of experimental group was significantly higher than that of the control group. This is illustrated in figure 1.

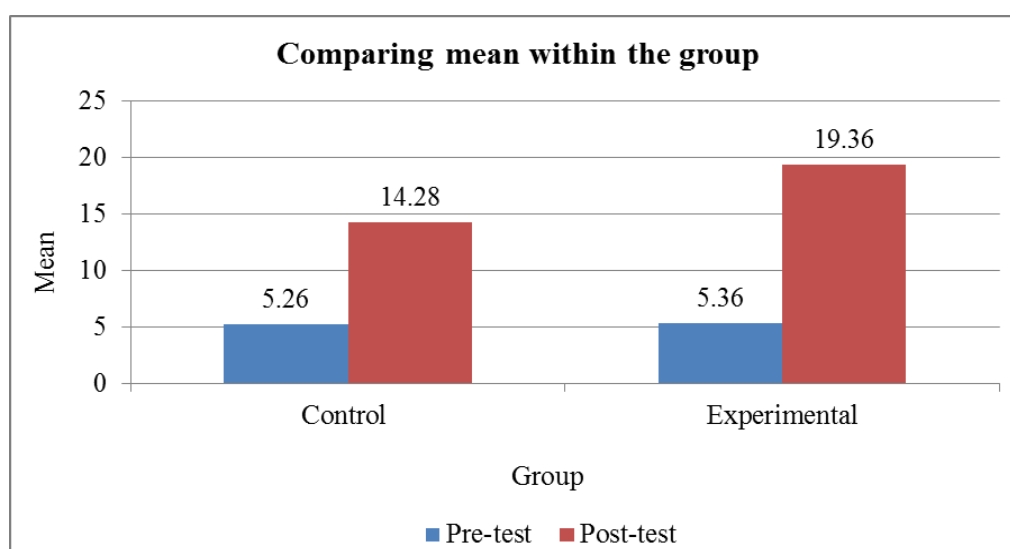


Figure 1 Comparison of Pre-test and Post-test within the group

4.1.2 Pre-tests and Post-tests comparison between the groups

Table 2 Comparison of pre-tests and post-tests between the groups.

Test	Group	Mean	Mean Difference	Standard Deviation	Sig(2-tailed)
Pre-test	Control	5.26	$5.36 - 5.26 = 0.10$	1.83	0.77
	Experimental	5.36		1.11	
Post-test	Control	14.28	$19.36 - 14.28 = 5.08$	1.52	0.00*
	Experimental	19.36		1.01	

Significance level (p) :< 0.05-Significant*

Table 2 shows that the pre-test mean of control group was 5.26 and that of experimental group was 5.36 which resulted in a mean difference of 0.10. The 2-tailed significance value (p) was 0.77 which indicated that there was no significant difference between the pre-test means of the two groups. Further, the result indicated that the two groups had equal learning abilities in the beginning of the treatment.

The post-test mean of the control group was 14.28 and the experimental group was 19.36 which resulted in a mean difference of 5.08. The 2-tailed significance value (p) was 0.00 which indicated that the mean of the experimental group was significantly higher than the mean of the post-test of control group. This is illustrated in figure 2.

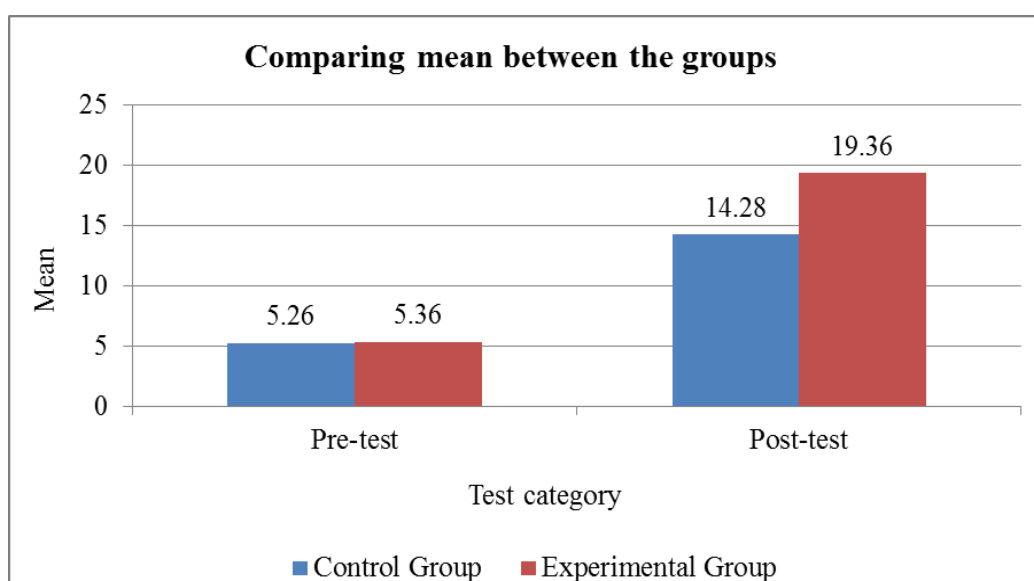


Figure 2 Comparison of Pre-tests and Post-tests between the groups.

4.2 Analysis of Questionnaire on Students' Learning Contentment

The second objective of the study was to examine students' learning contentment after using manipulatives in teaching mathematics. The data was collected by using a questionnaire with 15 statements. It was administered only to the experimental group after the treatment. The mean and standard deviation were computed. Table 3 shows the mean and standard deviation of the statement after the treatment.

Five point Likert scale was used to evaluate the learning contentment of the students in mathematics after having taught with manipulatives. Table 3 provides a summary of the tabulation for the five responses (strongly agree, agree, I don't know, disagree and strongly disagree).

Table 3 Mean and standard deviation of students' contentment questionnaire

Sl. No	Statement	Mean	S.D	Level of Contentment
1	I am satisfied with what I learnt in mathematics using manipulatives.	5	0.00	Strongly Agree
2	The activities were relevant to the topic.	5	0.00	Strongly Agree
3	I enjoyed the activities because of the manipulatives.	5	0.00	Strongly Agree
4	Manipulatives helped me in understanding the abstract mathematical concepts.	5	0.00	Strongly Agree
5	Appropriate manipulatives were used for the activities.	5	0.00	Strongly Agree
6	Manipulatives made the lesson more interesting.	5	0.00	Strongly Agree
7	I think learning to use manipulative is necessary in mathematics problem solving.	4.97	0.16	Strongly Agree
8	Manipulatives are enough for all the students.	4.97	0.16	Strongly Agree
9	Everyone got a chance to play with the manipulatives.	4.97	0.16	Strongly Agree
10	It increased my interest in the subject.	5	0.00	Strongly Agree
11	Manipulatives made problem solving easy.	5	0.00	Strongly Agree
12	It helped me understand the problems quickly	4.87	0.34	Strongly Agree
13	The lesson was a hands-on experience for us.	5	0.00	Strongly Agree
14	I would like to use manipulatives in solving mathematical problems.	5	0.00	Strongly Agree
15	I would like to use manipulatives again.	4.97	0.16	Strongly Agree
	Total	4.98	0.07	Strongly Agree

Level of Contentment: 0.00-1.50- Strongly disagree, 1.51- 2.50- Disagree, 2.51- 3.50- I don't know, 3.51- 4.50- Agree, 4.51- 5.00- Strongly agree.

Table 3 shows that almost all the statements were rated as strongly agree with the average mean 5 and standard deviation 0.00. The lowest mean was 4.87 with a standard deviation of 0.34 which also falls in strongly agree category. The overall mean was 4.97 and standard deviation was 0.07. Therefore, the data analysis indicated that students strongly agreed with the statements and they had high level of contentment when manipulatives were incorporated in learning mathematics.

The overall learning contentment level of students with manipulatives is shown in figure 3.

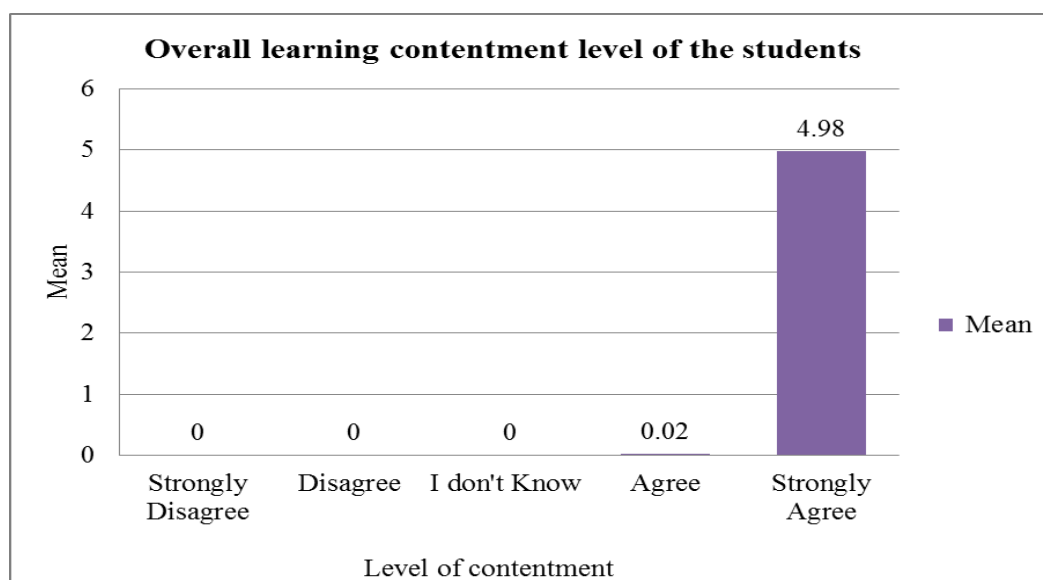


Figure 3 shows the overall learning contentment level of the students when manipulatives were incorporated in teaching and learning mathematics. The graph represents the mean of the ratings done by the participants in the contentment questionnaire which was administered to the experimental group after the treatment. The graph shows that the overall mean score of the ratings done by the students was 4.98 which clearly indicates that all the students were highly contented with mathematics lessons when taught with manipulatives and they strongly agree that the use of manipulatives in mathematics provides them with lots of learning contentment, enjoyment, and fun.

5. Discussion

5.1 Learning Outcome Test

The first major finding of the study was using manipulatives in teaching mathematics enhanced the learning outcome of grade 5 students in the chapter 'Fraction.' This was evident from the achievement test results of the students which showed the mean difference of 14.0 in the pre-test and post-test of the experimental group. The pre-test scores were almost equal in both groups indicating the same ability of students in both control and the experimental group. When the post-test scores of both the groups were compared, the mean of the experimental group was significantly higher than that of control group with 2-tailed significant value of 0.00.

Thus, this finding is parallel to the studies carried out by Allen (2007) who investigated on how using manipulatives will increase students' achievement in mathematics and found out that students were actively involved in learning of the abstract concepts through concrete representations which helped them to improve their learning achievement. Similarly, Kontas (2016) studied on the effect of manipulatives on mathematics achievement and attitudes of secondary school students; Ross (2008) who examined the effect of mathematical manipulative materials on third grade students' participation, engagement, and academic performance during a unit on multi-digit addition and subtraction; Absi and Nofal (2010) who conducted a study on the effect of using manipulatives on the mathematical achievement of the first grade students; Goracke (2009) studied the role of manipulatives in the eighth grade mathematics classroom; and Corsi (2014) examined on the use of concrete manipulatives in third grade special education and student achievement. All their findings revealed that there was significant improvement in students' learning outcome when manipulatives were used as tools in teaching and learning mathematics.

The possible reasons for the high test score in the post-test by the experimental group could be due to the active involvement of the students in learning the abstract mathematical concepts with the use of manipulatives. Students were made to work in groups and peers to explore the concepts to find out the solutions for their problems. Kolb's Experiential Learning theory and the theory of Constructivism supported this finding of the study. According to these two theories, learning is enhanced when students acquire knowledge through active processes that engage them. The theories emphasizes on the importance of the active involvement of learners in constructing knowledge for themselves with the help of prior knowledge and experiences. They focus on the student-centered learning where the learners work with their society and construct the knowledge socially.

5.2 Survey Questionnaire

The second major finding of the study was that students in the experimental group exhibited high level of learning contentment when manipulatives were incorporated in learning mathematics. This major finding revealed that the students were highly contented when the mathematics lesson was taught using manipulatives. The learning contentment questionnaire was used only with the experimental group since the control group was taught using the traditional method. Almost all the students who were in the treatment group enjoyed learning with manipulatives throughout the activities.

This finding is in line with the study conducted by Cockett and Kilgour (2015) who studied on the impact of using manipulatives in mathematics on student understanding, efficiency, engagement, and enjoyment. Their study revealed that students are more engaged when using manipulatives and their perception of learning environment improved in the areas of enjoyment, understanding, and efficiency. In the study conducted by Goracke (2009), it was found that students enjoyed mathematics class more as a result of using manipulatives. Similarly, Allen (2007) also found out that students increased their skills and exhibited more interest and enjoyment when the learning was done through the use of manipulatives.

The possible reasons for such findings could be due to students' like and interest for the mathematics course as a result of using manipulatives in the activities. It helped them to understand the topics easier and they also learnt the correct way of completing the tasks with the help of manipulatives. Manipulatives in mathematics lessons reinforced their learning and it was more enjoyable and educative than regular instruction for students. Thus, students were fully contented with the lesson.

6. Conclusion

The purpose of this study was to find out the effectiveness of manipulatives on the learning outcome of grade 5 students in learning mathematics and to examine students' learning contentment after using manipulatives in teaching mathematics. Quantitative data were collected to fulfill the stated purposes and the conclusions drawn from the results of the data analysis are as follows:

6.1 The Result of Test Score Analysis

The first objective of the study was to find out the effectiveness of manipulatives on the learning outcome of grade 5 students in learning mathematics. The pre-test and post-test was administered to both control and the experimental group in order to determine the learning outcome of the students before and after using manipulatives in teaching the chapter 'Fraction' in grade 5.

A comparative statistical analysis using paired sample t-test was done within the group to see the difference in the level of achievement between pre-test and post-test. The mean of the pre-test and the post-test of control group were 5.26 and 14.28 respectively. The mean of the pre-test and post-test of experimental group were 5.36 and 19.36 respectively as shown in table 1. The mean difference of the control group was 9.02 while the mean difference of the experimental group was 14.0. The significance value (p) was 0.00 which indicated that there was statistically significant increase in the scores of the post-test as compared to that of the pre-test in both the groups.

Therefore, this indicated that both the groups could do well in the post-test as compared to the pre-test. Moreover, the post-test score of the experimental group was higher than the control group. This accepted the hypothesis 1 (H1) which stated that the learning outcome of the experimental group that used manipulatives will be better than the control group that used traditional approach. It also indicated that use of manipulatives in teaching mathematics enhanced the learning outcome of the students compared to the traditional approach. Thus, manipulatives were found to be effective in teaching the mathematical concepts.

A comparative statistical analysis using independent t-test between the control and the experimental group were computed. The mean difference of the post-tests of the control and the experimental was 5.08 as shown in table 2. The significance value (p) of the post-tests was 0.00 which indicated that the scores in the post-tests of both the groups were statistically significant. It means that the score of the post-test of the experimental group was much higher than the score of the post-test of the control group. The result was as expected by the researcher that the experimental group would perform better than the control group in their post-tests. This also accepted hypothesis 1 (H1) of the study which stated that the learning outcome of the experimental group that used manipulatives will be better than the control group that used traditional approach.

6.2 The Result of the Survey Questionnaire Analysis on Students' Learning Contentment

The second objective of the study was to examine students' learning contentment after using manipulatives in teaching mathematics. In order to find out the learning contentment of the students, questionnaire which was framed based on the five point Likert scale was provided to the experimental group after teaching. Table 3 shows the mean and standard deviation of each statement. The overall mean was 4.98 with a standard deviation of 0.07. The result indicated that the students after having taught with the use of manipulatives exhibited high level of learning contentment in mathematics. The group, peer, and individual activities enabled them to work in a more comfortable way.

Since the result of this study revealed students' high level of learning contentment in mathematics lesson when taught using manipulatives, a conclusion can be drawn that the use of manipulatives in teaching mathematics enabled students to gain more learning contentment towards learning mathematics. Thus, students were extremely contented after the treatment was given accepting the second hypothesis (H2) that the students in the experimental group will exhibit high level of learning contentment when manipulative is incorporated in teaching mathematics.

7. Recommendation

This study was carried out to find out the effects of using manipulatives in teaching mathematics to enhance learning outcome and learning contentment of grade 5 Bhutanese students. The findings of the study revealed that the use of manipulative materials in teaching mathematics enhanced the learning outcome and the level of learning contentment of the students. Therefore based on the findings of the study, following recommendations have been made.

7.1 Recommendation for Practice

1. Since the study found out that the use of manipulatives enhanced the learning outcome and learning contentment of the students, mathematics teachers are recommended to use manipulatives during mathematics instruction.

2. Teachers may also try teaching other topics instead of Fraction using various manipulative materials.
3. Professional development programmes should be organized for the teachers to help them understand the specific uses for manipulatives, so they will have a thorough understanding about how they work.
4. This study can serve as reference for future researcher who carries out research in the similar field.

7.2 Recommendation for Future Research

Based on the findings and the limitations of this study, the researcher recommends further studies to be carried out in the following areas:

1. The study limited itself to the use of manipulatives in teaching Fraction only. For further study, similar research can be conducted in teaching other topics.
2. A replica of the study should be carried out in the primary schools in other countries to investigate the effects of manipulative instructional resources on students' learning outcome and learning contentment.
3. This study was limited to 78 grade 5 students. For further study, similar research can be carried out with different grade level and sample size.
4. Since the study was conducted within one month focusing on just one topic, the researcher recommends further studies to be carried out for a longer period of time focusing on more topics.
5. This study focused on teaching primary school mathematics. So the findings reported here cannot be generalized to other grade levels and other subject areas. Thus, further investigation is needed to examine the effects of the methods on different subject matters and different grade levels.

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An instructional model to enhance thinking and processing skills based on the principle of “Teach Less, Learn More”

Nongnuch Boonklum¹

Abstract

Instructional models are regarded as guidelines to direct students to the achievement of the core objectives of a curriculum. The efficiency of the students' performances is primarily dependent on the teachers' instructional management. The roles of the teachers, therefore, involve the preparation of the academic contents, practical skills, instructional design, instructional materials, project models, activities and learner assessment and evaluation tools. These factors significantly affect the students' learning achievement.

This research aims to research and develop an instructional model to improve students' learning achievement and enhance students' thinking and processing skills, problem solving skills, and application of knowledge into real-life situations by enhance thinking and processing skills based on the principle of “Teach Less, Learn More”. By using the purposive sampling method, the sample group numbered 20 students who were the 3rd year International Business Management majors on the Business Finance course of Naresuan University International College. The data collection is done by conducting questionnaires, interviews, aptitude tests to assess the students' analytical thinking, communication skills, thinking and processing skills, including problem solving skills.

The research instruments were the instructional model which was adjusted on the teaching and learning ratio from 70:30 into 30:70 and the project-based learning adapted from the Singapore educational policy of “Teach Less, Learn More”

This study revealed that the implementation of the principle “Teach Less, Learn More” by using project-based learning affected the learning achievement of students in terms of more than 40 percent of the students were able to apply the knowledge from classroom learning into the projects at more than 50 percent. Students were able to develop the academic attributes which include knowledge searching, learning and innovation skills, life and career skills, information media and technology skills. Also, the instructional satisfaction of students in the first semester of 2015 academic year who received the “Teach Less, Learn More” instruction reached an excellent level which was 12 percent higher than previous academic year.

Keywords: 21 Century Skills, Teach Less Learn More, Constructivist, Project – based Learning

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Introduction

According to the 21st century learning concept, Somkiat Tangkitvanich et al. (2014:9) put forward that the principle was founded to counter the didactic approaches of education in the 20th century that had placed the importance on memorization and rote learning of core subjects such as mathematics, sciences, linguistics and social sciences. For the 21st century learning, the goal of learning is to reach the learning outcomes of students and the implantation of essential skills of the 21st century including higher-order thinking skills, cultural learning, innovation, life skills, and information and communication technology skills. These skills have to be developed through the content of core subjects and other essential knowledge in the 21st century; for examples, global awareness, economic and financial literacy, entrepreneurialism, civic and health awareness, and environmental literacy. Therefore, the lean, thinking, and interdisciplinary curriculum is required in order to produce learners with the preferable 21st century character traits featuring thinking, learning passion, civic awareness, moral courage, problem-solving ability, adaptability, communication, and effective collaboration with others

To put the 21st century principles into practice, students need to be equipped with knowledge and understanding in academic disciplines through the learning of core subjects as well as practicing essential skills such as critical thinking, problem-solving, creative thinking, communication, and collaborative learning. Therefore, it is crucial to develop a supporting system of learning standards, evaluation, curriculum and teaching approaches that enhances professional qualities and positive learning environment that enhances students’ participation in the learning processes. According to a study by Pongpool (2011, 2-3), the visionary education framework of Singapore (cited in Vongkitrungruang and Chittaruek, 2011) indicated in the component number two that there was a need for implementing school change; in other words, the teachers should adjust their roles and teaching method from the lecture style of the 20th century into a more facilitator style with a less teaching in the 21st century. This means that teachers can motivate learning through the Project-Based Learning (PBL) which affords students’ thinking, interrogating skills leading to autonomous learning and problem-solving skills. Giving students more opportunities to take control of their learning in a dynamic classroom, teachers are no longer the center of the instruction but they adopt different roles and knowledge to maximize students’ learning. Consequently, the students are expected to have the potential in producing innovations or creative ideas.

Therefore, to produce such competent students demands a design of a lean intensive curriculum which has been responded to by the Singapore government in establishing the visionary framework of “Teach Less, Learn More” (henceforth TLLM) which is a part of the national education policy “Thinking School, Learning Nation” (Fogarty and Pete, 2011 cited in Tangkitvanich et al., 2013). In this regard, the TLLM is explained as not about reducing the learning content but readdressing the questions “What to teach?” and “How to teach?” This includes the shift from curriculum-led instruction into the awareness of the essential skills in the 21st century for student life-long learning. Instead of lecturing all the topics in the economics textbooks, the instructor can select one of the topics such as entrepreneurship as a

highlighted lesson. For the “How to teach?”, reducing time spent on lecturing, increasing time on students’ participation, and practice of thinking skills through project-based learning or researching skills can be done in classrooms.

To manage the learning according to the “Teach Less, Learn More” principle at the Republic of Singapore, the project-based learning has been prevalently adopted. Regarding the term ‘project-based learning’, the Faculty of Science and Technology of Rajabhat Suan Sunandha defines it as a learning management that supports student-centeredness and encourages students to take action in surveying, researching, experimenting, and invention while the teacher becomes more like a facilitator or guide who designs the learning process. The role of the teacher is to support students in team working, encourage learning, and give constructive feedback to students in achieving the project objectives. Therefore, the benefits of project-based learning is not merely the knowledge or searching of information but the learning and innovation skills, life and career skills, and Information Media and Technology skills. A well-planned project-based learning can enhance students’ enthusiasm in searching and researching as well as critical thinking, problem solving, communicating, and collaboration. This is in line with Parinya Tewanaruemitkul’s article on an interview with Professor Tan, the Vice President of National University of Singapore (NUS) about what makes the institution become the second in Asia and eighth in the world university rankings in 10 years; “It was found that the only change was the “teaching method” from lecturing and direct instruction into searching and problem-solving skills; in other words, the Lecture-based Learning was turned into a more problem-based learning that facilitates learning by doing through project-based learning.” Such achievement was reflected on the QS World University Rankings in 2011-2015 that the institution was ranked at 33, 25, 24, 22, and 12 in the year 2015 respectively.

In the 2014-2015 World Economic Forum (WEF) rankings, Singapore was ranked number 4 in the competitiveness of the education quality. The researcher is interested in using the instructional method that enhance thinking and processing skills under the principle of “Teach Less, Learn More” which is the second visionary education framework of Singapore as a research framework of instructional design for the project-based learning. The goal of the instruction is to engage students in autonomous learning by information searching, researching skills, and problem-solving in the working process. It also focuses on the integration of knowledge and experience as well as the application of the project skills in daily activities which serve the requirement of the 21st century learners.

Research Objectives

1. Research and develop the instruction to improve students’ learning achievement and to enhance students’ ability in analytical thinking, problem solving, and knowledge integration from the content to the project and real-life application.
2. To develop students’ competencies, attitude, knowledge, thinking for autonomous learning, and desired attributes.
3. To study students’ satisfaction on the instructional model to enhance thinking and processing skills under the principle of “Teach Less, Learn More”.

Conceptual Framework

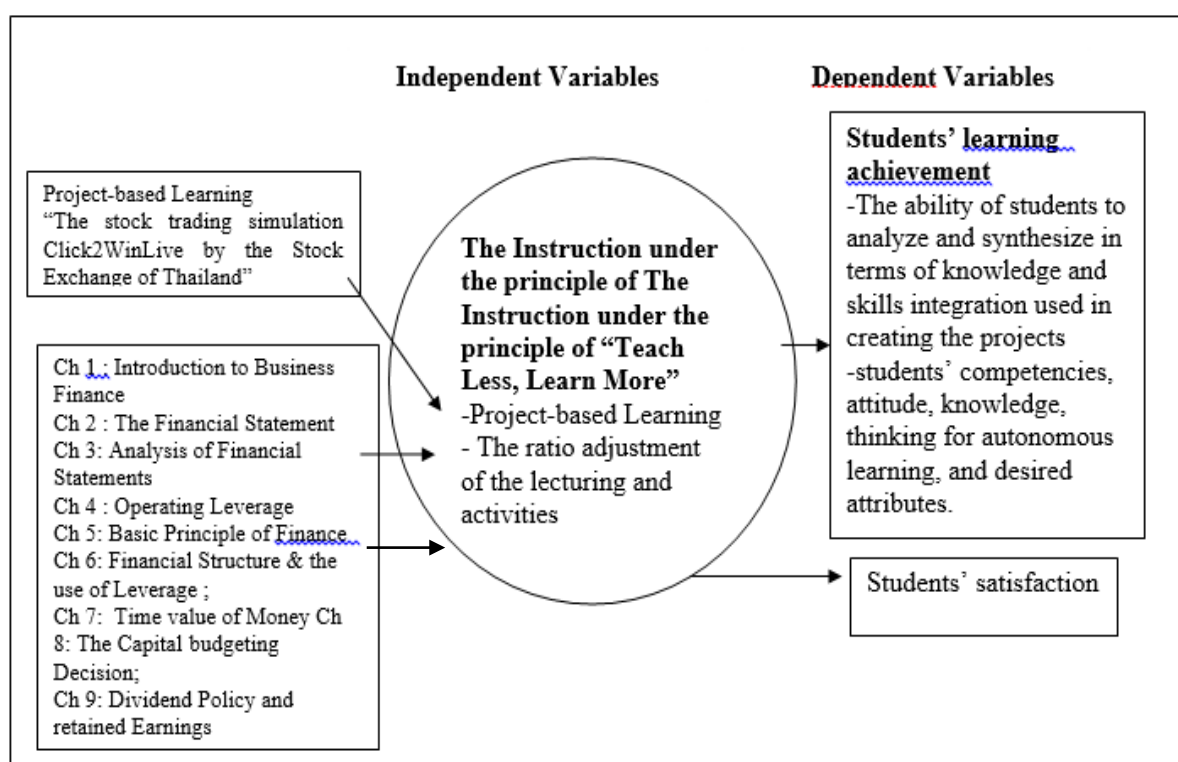


Figure 1. Conceptual framework

Scope of the Content

The content of the instruction model that applied the ratio adjustment of the lecturing and activities was taken from nine chapters of the Business Finance course: 1) Ch 1 : Introduction to Business Finance; 2) Ch 2 : The Financial Statement; 3) Ch 3: Analysis of Financial Statements; 4) Ch 4 : Operating Leverage; 5) Ch 5: Basic Principle of Finance; 6) Ch 6: Financial Structure & the use of Leverage; 7) Ch 7: Time value of Money; 8) Ch 8: The Capital budgeting Decision; 9) Ch 9: Dividend Policy and retained Earnings

For the content of the instruction, the researcher organized the lecturing time and activities time in the ratio of 30:70 which included the exemplification, discussion, practice, and project work.

Scope of the instruction

The researcher designed the lessons that focused on skill practice, thinking, and practice under the principle TLLM by applying the Project-Based Learning.

<p style="text-align: center;">Independent Variables</p> <p>The instruction model focusing on thinking and processing skills under the principle TLLM by applying 1) the Project-based 2) Learning with the ratio adjustment of the lecturing and activities from 70:30 into 30:70</p>	<p style="text-align: center;">Dependent Variables</p> <p style="text-align: center;">Students' learning achievement</p> <ul style="list-style-type: none"> -The students' ability to think and analyze in creating the project - The students' satisfaction on the instruction that enhances thinking and processing skills under the principle of TLLM
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Research Method

This research aims to research and develop an instructional model to improve students' learning achievement and enhance students' thinking and processing skills, problem solving skills, and application of knowledge into real-life situations by enhance thinking and processing skills based on the principle of "Teach Less, Learn More. This study applied a descriptive analytical study and inferential to examine and develop the students' application of knowledge from the Business Finance and other courses into the project work. The population of the study is 20 second-semester of the 2015 academic year students study at Naresuan University International College. The sample consisted of 20 students who were the 3rd year International Business Management majors on the Business Finance course. The data collection is done by conducting questionnaires, interviews, aptitude tests to assess the students' analytical thinking, communication skills, thinking and processing skills, including problem solving skills. Observation by informal talks between the instructor and the students were used to collect the qualitative data including gestures, characteristics, and behaviors in order to propose the solution of the learning problems. The instructor also monitored students' learning and group work. Project Evaluation by the summary report of the students' project "The stock trading simulation Click2WinLive by the Stock Exchange of Thailand" which was a project designed for studying theories, principles, or new perspectives.

Data Analysis

The researcher analyzed the quantitative data such as mean and standard deviation of the students' satisfaction on the instruction as well as conducted the qualitative analysis. The observation on the students' ability of integrating interdisciplinary knowledge and analytical thinking were used to assess the project quality and learning outcome. The general information of the 20 students in the Business and Finance course of Naresuan University International College in the second semester of the 2015 academic year was also investigated. The data analysis consisted of four steps as follows:

1. The collection of the general information was conducted according to these steps

1.1 The construction of the lesson plans under the TLLM principle was conducted by drawing on the related principles, theories, and related literature to determine the learning design which were:

1.1.1 Course content and description: The course employed in this research was Business Finance

1.1.2 Learning and activities design: the instruction was constructed under the principle of TLLM. The ratio of the lecture and activity was adjusted from 70:30 into 30:70.

Table 1 Summary of the of Learning/Activity elements under the principle TLLM

Elements of Learning/Activity under the principle TLLM		
Elements	Hours	Percentage
Lecture	18	60
Presentation	6	10
Case Study	4	7
Practice	10	17
Quiz	4	7
Practice by doing (Project-based Learning)	18	30
Total	60	100

As shown in Table 1, the researcher designed the instruction by organizing the lecture and other activities into 30:70. For the content, the instruction covered the calculation and analysis in 18 hours of lecture while the other activities took 42 hours including project-based learning (18 hours), practice (10 hours), presentation (6 hours), and quiz and case study (4 hours each). These indicated that the researcher (the lecturer) spent the time on lecturing at 30 percent and other activities at 70 percent of the class time.

2. The learning management under the principle “Teach Less, Learn More”

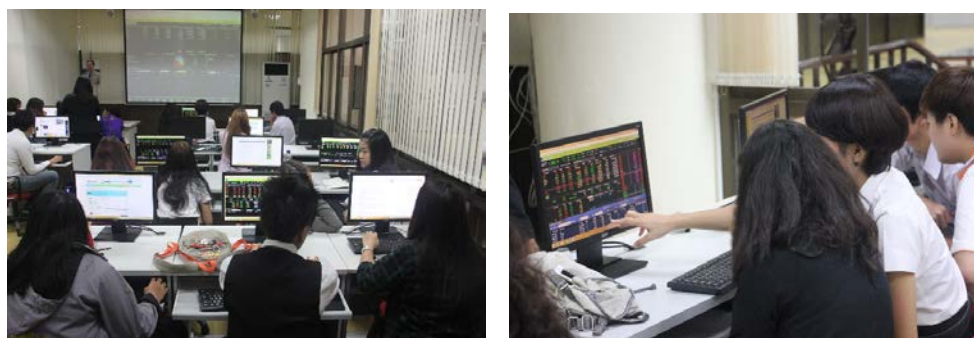
The researcher organized the learning and activities according the lesson plan and directed the instruction by applying the principle TLLM which is related to the Constructivist Theory. In this principle, learners are encouraged to construct their own knowledge and understanding through different ways of learning, learning through experiences, creating new knowledge, and knowledge sharing. These were achieved by using the project-based learning under the title “The stock trading simulation Click2WinLive by the Stock Exchange of Thailand”. Students were assigned to use the simulation for the stock trading by dividing the investment fund into 10 small portions, 5 million baht each. The time of the simulated issued share trading was 1 month; after that, the researcher evaluated the students’ performance on the analysis, principles, and reasons of choosing the share for trading. Nevertheless, the students’ use of information for making decisions, the amount of content taken from the Business Finance course, and the benefit or loss from the stock trading were not applied in the evaluation score. The objectives of the project were to support students’ team working and real-life practice, discovering new knowledge, students’ participation, and practice professional skills in business, finance, and economics. Students practiced systematic planning in working

and integrated the cross-disciplinary knowledge in doing the project. These are considered as indicators of successful learners of the project-based learning which requires the learners to use Information Technology in searching information to complete the academic tasks and real-life application. Moreover, the instruction aims to engage students in knowledge discovery and construction rather than learning from secondary data or other available resources created by others.

The researcher structured the processes of students' project "The stock trading simulation Click2WinLive by the Stock Exchange of Thailand" into four stages as follows:

1. Preparation: The researcher reviewed the curriculum and content of the Business Finance course as well as the theoretical framework of 21st century skills which underlies the Singapore's TLLM policy. The instructional procedures, learning management, and related documental references and researches were studied and applied in the project-based learning design.

2. Selection of topic: The project which was designed according to the TLLM principle was entitled "The stock trading simulation Click2WinLive by the Stock Exchange of Thailand"



Picture 3. Coaching and learning facilitator in the project "The stock trading simulation through Clik2Win by the Stock Exchange of Thailand"

3. Doing the project: The researcher (the instructor) role's was a coach and learning facilitator in the classroom which was equipped by networked computers and the Wi-Fi system to support the Stock Exchange of Thailand trading simulation program. The researcher provided the instruction of how to use the simulation program and divided the students into 10 groups of 2 people. The amount of trading fund was five million baht for each group. The students could freely make decision on the share trading based on the information and analysis in the Business Finance course as well as other available resources or related subjects.

4. The conclusion and evaluation by presentation: The researcher designated the time frame of the project and the students were assigned to submit the portfolio of the share trading including the summary of trading analysis of each company and supporting information of such trading decision.

5. The synthesis and knowledge integration of the course in the project

Table 2. The synthesis and knowledge integration of the course in the project (an example of a company's share)

Group/Stock/Reason (by students)	Chapter
Group 1 - AOT	
1. November, December and January are the peak season for tourists.	Ch 1, 8
2. Terminal2 at Don - Muaeng airport will open in December(According to THE NATION news website)	Ch 5
3. The earning ratio of AOT currently stands at 24.56,with the dividend yield set at 2.03	Ch 9,3
4. AOT total market capital totals 459,999 million baht	Ch 8
5. The net profit margin since 2011 has increased rapidly. In 2011 the net profit margin stood at 11% while in 2015 it rose to a healthy 40.92%	Ch 2
6. AOT stock value is expected to increase in the future, due to the ASEAN agreement.	Ch1,8
Group 2 - LH	
1. A stable company in the stock market, where prices are not sensitive and do not fluctuate.	Ch 1
2. The middle class in Thailand is rising on a day by day basis so the numbers of Thai citizens who need and desire houses and condominiums are increasing every day.	-
3. The company is yielding a good net profit in its financial statement, highlighting the company is doing well.	Ch 2
4. The Company is offering investors a good dividend yield of (6.88%).	Ch 9
Group 3 - AAV	
1. AV is the second time that we bought, the reason because that time there has the news of FAA which will change the category of Thai's Airplane from category 1 to category 2 which the Thai's airplane cannot landing to USA. And some countries in EU. But the news shows that the airways inside the country didn't get the effect from this bad news so much.	Ch 5
2. AAV is the airline currently experiencing the most growth in its industry because AAV caters for low cost travel.	Ch 5
Group 4 - ADVANC	
1 Expect ADVANCE will be the winner for 4 G auction in Thailand	Ch 1
2. From the Financial Data, they have less current assets than current liabilities but they have more Non-Current Asset than Non-Current liabilities which show this company has the ability to pay its liabilities.	Ch 2
3. P/E of market is 23.29 but this company is 16.02 meaning we can get money back faster.	Ch 3
4. P/BV of market is 1.79 but this company is 15.77 meanings for the company goes into bankruptcy we will gain money 15.77 times of prices.	Ch 3
5. ROA is 39.51 meaning the company has the ability to gain profit from assets.	Ch 3
6. ROE is 99.02 meaning the company has the ability to gain profit from equity.	Ch 3

Group/Stock/Reason (by students)	Chapter
Group 5 - PTTEP	
1. The company Potential management.	Ch 1
2. Currency: Currently, the rate of exchange has appreciated which would highlight profitability for the company and a good chance to carry out international operations.	Ch 3
3. Dividend Yield: The Company provides dividend yield 7.29% and dividend per share 1.00 Baht for stockholders.	Ch 9
Group 6 - PTT	
1. High Dividend yield: the company gives a high Dividend yield of 4.40% compared to other companies in the same marketplace.	Ch 5,9
2. The company' potential : It's a business which looks after its shareholders operating on a large international scale with plenty of financial resources and natural resources a great investment for future investors I'm an industry which yields historically good results for its investors.	Ch 1,5,9
Group 7 - KBANK	
1. The group decided to buy KBANK because its one of the most reputable, recognized banks in Thailand with countless branches in great locations across Thailand enabling them to respond to customers need and want.	Ch. 1
2. Share Prices: KBANK share's price now is very low compared to the time our group acquired KBANK	Ch3
3. Dividend per share of KTB is 0.90 baht per share, increasing every year.	Ch 9
4. The share price has decreased -0.10 baht, our group hope the share price will increase in the future.	Ch3
Group 8 - WORK	
1.1 Quick ratio: The company current liabilities stand at 0.60 which is too much debt and makes the ability to repay short-term debt and liquidity to repay less than the last year that shows the company has low liquidity in debt.	Ch3
1.2 ROE: The company investments in equity will be returned from the operation of the business to high return is 99.20 and shows that the ratio is higher. It means show with high efficiency in the exploitation and more than last year 95.86%.	Ch3
1.3 ROA: shows the company has ROA 39.51, less than last year 41.88, this highlights the ability to measure the profitability of all assets used in business operations that provide a return on operating is low than last year, it shows it represents an efficient use of assets.	Ch3
1.4 Total assets turnover: the company has total assets turnover of 1.24% less than last year recording of 1.30% that means the company has more assets than needed if compared between last year and this year.	Ch3
1.5 Gross profit margin: The company has a very respectable and healthy 44.23% gross profit margin the same figure reported last year.	Ch3
1.6 Debt-to-Equity Ratio: the company has more than last year 2.43 if compared with last year 2.22. This shows the structure of the company's capital as a proportion of total debt compared with equity is higher than last year and show that high debt means high risk too.	Ch3
1.7 Receivable Turnover : The company has less than last year 10.03 if compared with last year is 10.13 that shows the relationship between sales and debtors and show that the company is capable of dividing the debtor's less than last year and	Ch3

Group/Stock/Reason (by students)	Chapter
has changes receivables into cash slowly than last year.	
1.8 Average Collection Period: A Factsheet show the company has duration of the debt collection is higher that means not good because that higher than last year is 36.40 if compared with last year is 36.03 with the terms of payment (Term of Sale) was to show the collection.	Ch3
1.9 Inventory turnover: the company has versatility of the product that can be sales slowly than last year that reflect the performance of slower sales is 33.50 compared with last year this year is 47.50%	Ch3
Group 9 - BEC	
1. Dividend Policy: BEC World Plc. Has its policy to pay dividend at the rate of not lower than 90% of its net profits of fiscal year.	Ch 9
2. Historical Trading	Ch3
3. Fact sheets:	Ch3
3.1) Accumulated: Turnover Ratio, Value Trader (BVPS ₪/share 2013=3.71,2014=3.84,2015=3.72)(P/BV 2015=9.07)(P/E 4 DEC 2015=20.37)(Turnover Ratio(%) 4 DEC 2015=24.66)	
3.2) Statement of Comprehensive Income (EPS ₪ 9 M/2015= 1.15)	Ch 2,3
3.3) Statement of Cash Flow (Operating Cash Flow, Investing Cash Flow, Financing Cash Flow, Net Cash Flow)	Ch 5
3.4 Rate of Return (Dividend Yield %= YTD 5.93),(Payout Ratio YTD=1.21	Ch 3, 9
3.5 Annualized: ROR, ROA (Ratios=Current Ratio, ROE%, ROA%, D/E, Turnover, Gross Profit Margin%, EBIT Margin%, Net Profit Margin%) (Growth Rate), (Cash Cycle=Avg. Collection Period, Inventory Turnover, A/P Turnover, Average payment Period, Cash Cycle)	Ch3
4. Dividend payment policy: The company has a customary payment policy to pay dividend at least 90% of net profit to the shareholders as shown in consolidated financial statement.	Ch 9
5. Important Financial Data: (2014 Total assets=17,289. Liabilities (M. baht)=8,355, Total Shareholders' Equity=8934, Revenues from Sales=16167, Total Revenues=16321, Gross Margin=7466, Net Profit=4415) (Financial Ratio 2014 : Net Profit to Total Revenues=27.05%, Return of Total Shareholders' Equity 49.42%, Return of Total Assets=25.54%, Net Profit per Share =2.21, Dividend per Share =2.00*, Book Value Per share =4.47)	Ch 3
Group 10 - BANPU	
1. Percentage of dividend : Dividend yield 6.35%, Dividend Per Share(Baht)=0.50	Ch 9
2. Company name and type of company's industry (Industry: Resources)	Ch1
3. Dividend Policy: At least 50% of net profit after tax and legal reserve(with additional conditions)	Ch 9
4. Profit and loss of company:	Ch 2
4.1 Financial Data on Q315 30/09/201 (Total assets=238161.76 MB. Liabilities = 162554.18MB, Revenues = 66314.40MB, Net Profit=-57.34MB)	Ch 2
4.2 Financial Ratio: ROA=3.40%, ROE=0.01%, Net Profit Margin = - 0.09%)	Ch3

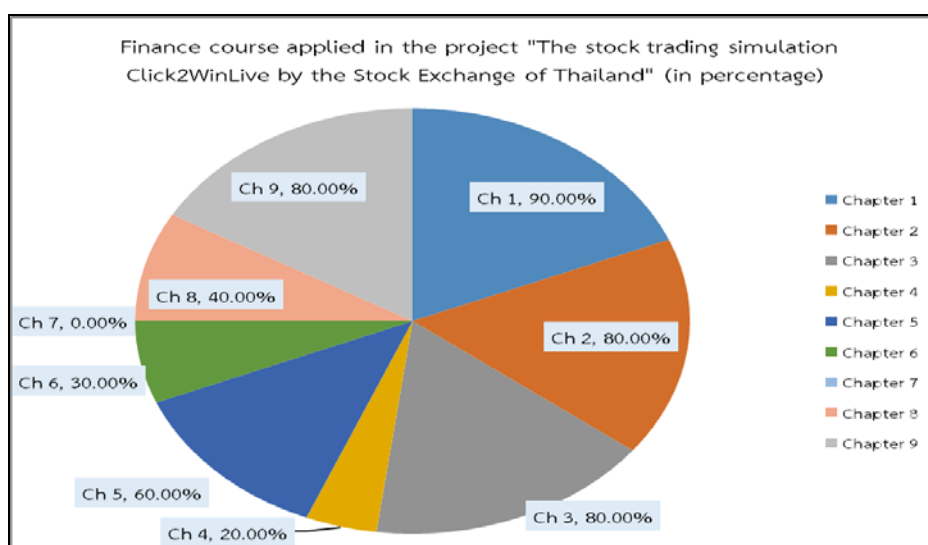


Figure 4. The application of content from the Business and Finance course applied in the project “The stock trading simulation Click2WinLive by the Stock Exchange of Thailand” (in percentage)

As seen in Figure 4, the application of content from the Business and Finance course applied in the project of every group of students was at 88.89 percent of all the contents. There was only one chapter (chapter 7) or 11.11 percent which was not used in the project.

Analysis of the Findings

The analysis included the synthesis of knowledge and application of the content from the Business Finance course into the project “The stock trading simulation Click2WinLive by the Stock Exchange of Thailand”. The details were presented as follows:

1. Considering the amount of content used in the project, it was found that there were four groups (40%) out of ten groups that applied more than 50% of the content in the project. There was only one group (10%) that applied only one chapter in the project. The chapters that were mostly applied were Chapter VIII: The Capital budgeting Decision, Chapter III: Analysis of Financial Statements, and Chapter I: Introduction to Business Finance, respectively.

2. Regarding the class organization of 30% of lecture and 70% of students’ activity. The time on activities was spent on the project-based learning (30%), students’ practice (16.66%), presentation (10%), and case study (6.66%). This enabled students to integrate the knowledge and information from the course into real-life practice which could be evaluated by the quality of the project and the class attendance and participation which was more than 85%.

3. The instructor conducted the instruction to enhance students’ holistic comprehension of the content and the knowledge transfer between the content. The students were encouraged to apply the knowledge during the last four weeks of the project using the simulation program for stock trading. The researcher placed an emphasis on the learning process and supporting student’s critical thinking by using initiative questions based on the real examples of trading

situation which facilitated autonomous learning and enthusiasm. The instructor’s role was the facilitator who provided learning guidance for the students to transfer the knowledge from the content into the project practice. Furthermore, the positive learning condition and situation were created to activate students’ autonomous learning rather than teacher-led learning. Students’ individual learning styles, preferences, and readiness were prioritized. From the instructor’s observation students which had shown attentive participation in the project in the last months of the semester. They asked questions showing their interests in learning needs and techniques in applying the content knowledge into the project of the trading simulation program. In addition, they spent more after-class time doing information research to complete the project in the computer lab.

4. The instructional management of project design had enabled students’ practice in searching information and applying analytical thinking skills from the content knowledge in the project at more than 60%. They also integrated their prior knowledge from the previous courses which included the economics and political policies in the project application which enhanced the understanding of the importance of problems and solutions as the tool for analysis, knowledge synthesis, and the merit of Information Technology in learning. These may benefit students’ development in learning, thinking and team working skills that are essential to their future personal and professional lives.

Conclusion and discussion

The research and development of the instruction to enhance thinking and processing skills under the principle TLLM yielded the following conclusion and discussion:

1. The development of the instruction encouraged the learners’ analytical thinking and problem solution skills with knowledge integration from the course content into the project.

The Project-based Learning (PBL) was built upon the two principles of Constructivism by Piaget. It was later developed by Seymour Papert who proposed the use of Information Technology to construct the concrete knowledge for students through discovery learning. Students’ construction of ideas or products is equivalent to knowledge acquisition which is meaningful, retentive, and transferable to others as well as being a fundamental for other knowledge development (Khaemane, 2004). In addition, Constructivism views the knowledge as something that is not only facilitated by teaching but also students’ creation of their own meaning-making connections and learning by doing. These principles inspired the researcher’s design of the project-based instruction to mediate positive learning environment with the Information Technology integration to generate substantial knowledge for the students. Students were supported to transfer their course content knowledge into the project so that they could develop new competencies in acquiring new concepts while participating in the activities. The meaningful learning is activated by the focus on the importance of the content which supports students’ potential in using the analytical and practical skills in real situations. Students’ initiatives also reinforce complex skills such as the process of inquiry which constitutes higher-order thinking skills, problem-solving skills, collaborative skills, and communication. The integration of knowledge from other subject is applied in the real-life situations. These could be assessed through the increased class attendance at 85% and the project report that required students’ search of information, knowledge integration, and

application in real experiences. Students' ability in thinking and analytical skills were reflected on the project designed by the instructor.

In the analysis of the project, the presentation, and the summary report, it was found that four groups (40%) out of ten groups had applied more than 50% of the content in the project. There was only one group (10%) that applied only one chapter in the project. This is in accordance with the Learning Pyramid in the research of Harvard University published in Harvard Business Review which suggested that the different instructional organization influences the different learning outcomes. In other words, students would learn 5% from lecture, 10% from reading, 20% from listening and audiovisual learning through watching television or listening to the radio, 30% from demonstration, 50% from discussion such as knowledge sharing in groups, 75% from practice doing, and 90% from teaching, tutoring, or coaching others (Harvard Business Review, 2011).

2. The development of students' ability on skills, attitudes, knowledge, and thinking in learning by themselves and desired attributes

The impact of reduced lecture time and increased learning time empowered learners' ability, skills, attitudes, knowledge, and thinking in autonomous learning from the change of stock price in the market. The project enabled students' authentic learning in stock investment and collaborative learning to analyze the problems and solutions which required the extended knowledge, namely, both micro and macroeconomics to be incorporated in the investment decision. The application of project-based learning resulted in development of desirable attributes which involve knowledge, searching skills, learning and innovation skills, life and career skills, Information Media and Technology skills. The development of these qualifications also engaged students in vigorous exploration through critical thinking and problem solving, communicating, and collaboration which were the key to successful life and career. This finding is consistent with Darling-Hammond et al. (2008) (as cited in The Thailand Development Research Institute, 2013) in terms of being no difference between problem-based learning and conventional learning when it comes to factual learning. However, the development of skills such as critical thinking, communication, collaboration with others, and application of knowledge in real-life situation can be achieved better through the problem-based learning approach. This is also evidenced in the finding of Suparat Chanmaen and Anirut Satimun (2014: 1171) reporting that the ability of students' in doing the project after learning through the e-learning project in the Innovation and Educational Technology was at a good level which could be the consequence of the learning by doing, information sharing, drawing on various sources of information, group brainstorming on the project, responsibility distribution, and collaboration to finish the final product.

3. The learning organization of "Teach Less" means students spend less time listening to the lecture. Accordingly, the researcher organized the instruction time into 30% of lecture and 70% of practice/activity. Regarding the satisfaction survey about the teacher, it was found that students indicated the highest satisfaction on the teacher with the mean of 4.24. When compared to those of the conventional instruction in the previous semester (2/2014), the satisfaction level was at the mean of 3.79. This suggested that the level of satisfaction increased at the percentage of 12. These results agree with the previous study of Somkiat Tangkitvanich et al. (2014: 26-28) who stated about the Trends in International Mathematics and Science Study (TIMSS) and argued that the extensive instruction on the content might

cause more negative than the positive effects on students’ learning. To give examples of the benefits of the instruction “Teach Less, Learn More”, students are likely to show greater attention, less absence, and more creative ideas in working that lead to successful learning outcomes. This also supports the finding of Aree Preedeekul (2015:1) who conducted the research “Development of an instructional model based on “Teach Less Learn More” principles to enhance the English communication ability of 1st year higher education students in the ASEAN community” and found that the students indicated a high level of satisfaction on the instructional model.

In summary, the instructional model based on the “Teach Less, Learn More” principles which required the researcher to adjust the teaching and learning ratio from 70:30 into 30:70 and the use of project-based learning “The stock trading simulation Click2WinLive by the Stock Exchange of Thailand” enabled students in applying the course content and knowledge into the project. Apparently, students were engaged in extensive search of information from other sources by themselves which led to the use of critical, creative, analytical thinking in solving problems. The project was achieved by the utilization of the simulation program which was significant for the learning. As a result, students are able to think critically and solve the problems to produce the outcomes which fulfill both the curriculum objectives and real-life application.

Additional findings from the research

The summary of addition findings are as follows:

1. The application of instructional model based on the principle “Teach Less, Learn More” by reducing the lecture time and increasing the learning time from the ratio 70:30 into 30:70 positively affected the learning environment in the experimental group. It was found that the collaboration learning, the argumentation, and interrogation were more effective than the conventional learning in the 2/2015 academic year.

2. The application of instructional model based on the principle “Teach Less, Learn More” facilitated students’ application of the content knowledge by using the technology tool in the project-based learning. This practice supports the concept of 21st century learning. In this regard, Vicharn Panich (2014) stated that the learning of 21st century learning has to overcome “The Content” into the learning of “21st Century Skills”. Since these skills cannot be taught by the teacher, the students have to acquire the skills by themselves while the teacher can help designing the learning and being the coach or facilitator in the process. In addition, this will prepare students to become the qualified 21st century graduates by practicing the cognitive domain which involves intellectual processing, learning, and problem solving. Students are equipped with qualifications to reach the highest level of development to the analysts, problem solvers, creatives, collaborators who know how to use information. Given the opportunities in sharing knowledge and group discussion, students’ extensive learning and deep understanding can be applied in practical and situational analysis. All of these can be assessed by the quality of the students’ project which is the outcome of cross-disciplinary knowledge.

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The Presentation about Masculinity of Thai Southerners in Thai Films: A Comparative Case Study of KhunPun and Chaiya

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Abstract

The purpose of this study is to understand the presentation about masculinity of Thai southerners in Thai films which shows the formats of the virility showed in Thai films. The researcher chooses two instance films which present the masculinity of Thai southerners: KhunPun and Chaiya, to compare the presentation of the masculinity in the different contexts according to the different socials and cultures.

The result found that a Thai film named 'KhunPun' presents the masculinity of Thai southerners in the field of the man who is strength and morality, bravery, smartness, leadership and heroism which is the presentation of the masculinity in the point of selflessness, helping others, and doing for the nation which is according to the mainstream social value of the masculinity.

On the other hand, Thai film named 'Chaiya' presents the masculinity of Thai southerners in the combination of the mainstream social value of the masculinity and the modern social value of the masculinity which is the man who is conceit on honor. Chaiya presents the masculinity in the view of ambition, intension, friendship, love and the masculinity in the view of the sacrifice. The main characters have the different and diversity of the masculinity according to the concept 'The variety of the masculinity.'

Keywords: social value, masculinity

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Introduction

The masculinity is arisen from the different gender, which is the presentation according to what the society is expecting. The role of the different gender is the bisector male and female according to the social. the masculinity is from the way that the society defines the features and characteristics. It has seen as the symbol of being a man. The masculinity is the created thing in social which has to be existed. The masculinity has been developing, changing, or modified through something. In the Thai society case, the masculinity in one period may be a leadership who can handle or control everything. It may be who can assign the others destiny. (Wason Panyakaew, 2014).

The social is shaping the men to believe that they have to have the behaviors which present their masculinity. It is a stereotype about the role of the male. It causes the men have the strict role of gender according to what the social has expected. (Richmong-Abbott and Marie, 1992). The scholars point that the stereotype of the true men that they have to be strength and strong, self-sufficiency, independent, aggressive, succeed, cold-heart, good at keeping their minds, keen on, having a man's body, powerful, love challenging, love the opposite gender, and determined. (Kilmartin and Christopher T, 2000).

When you examine the masculinity in the Thai society, it is found that the masculinity is created by what the society itself. So, it included the different of characteristics and the values in the different in the social group and social classes as follows: in the lower class. The masculinity is about the power that always presents through the violent and the power to assign and control their destinies and also the others which mean their family members and relatives. On the other hand, in the middle class, the masculinity is measured or presented through the responsibility and gratitude. So, an ordination becomes the symbol of being a true Thai man. Moreover, it also means having strong status and career. (Wason Panyakaew, 2014). The masculinity is different according to the social conditions and environments. We can find the characteristics of the presentation of the masculinity hiding in the literatures, dramas, and films.

The Thai film named KhunPun reflects the heroic tradition, Thai superhero. One of the interesting topics from this film is the way that the director deals with the gossips and the spread news about the ferocity of KhunPun. The director wanted KhunPun to be the ideal hero who is the icon of the Thai policemen. Finally, he connects to the devotion and doing a thankless job. This is the main point of the film: the demand to rouse the Thais feeling. (VatinSarn Santi, 2016).

The Thai film named Chaiya is the film about the honor or pride, friendship, and love. Not only presenting about the story of beloved friends who can devote their lives to each other, but 'Chaiya' is also the film that will awake the stream of Thai-Chaiya boxing which is the martial art to be the legacy to the next generations. (ThaiPR.net, 2007).

I choose these two Thai films: *KhunPun* and *Chaiya* as the cases study in term of comparison because Thai film named *KhunPun* is based on the true story. The main character: *KhunPun*, has taken the role to present his stories and behaviors which truly happened. He was the southern policeman who was keen on getting rid off all the bandits who robbed and killed the villagers in the southern areas. It is created from his own story – *KhunPuntharakRajadej* who brought the peace to the local people. He removed all the influential people who were illegal from the southern areas. The study about this Thai film helps me see the true characteristics of the Thai southern men more than the other films which are fictitious stories and characters.

Besides, the Thai film: *Chaiya*, shows the southern martial art which is called ‘*Chaiya Boxing*.’ It is ancient boxing which originated in Suratthani, in the southern of Thailand. I choose this film to study about the masculinity of Thai southerner men because it shows the thinking concepts, views, and opinions of Thai southerners about the local culture – *Chaiya Boxing*. Moreover, the main actors and the supporting actors are the southerners as well. Thus, the study about the masculinity of Thai southerners from the main and supporting actors who are the southerners makes the results of the study are more reliable than study from the actors from the other parts of Thailand. Obviously, the criteria for films selection is to select the films which are in the southern social context. Also, I choose the films that the main and supporting actors are the southerners.

Thus, the researcher is interested in the topic about the masculinity of the southerners from the Thai films: *KhunPun* and *Chaiya*. As two of the films are presenting the southern social context that the men take a great role in the society. It is the presentation about being heroism for all along, and also being the clear presentation about the pride and the martial art of the southern men. So, the researcher is keen on finding the answers how to create the presentation of the masculinity of the southerners which has mentioned above, what are the factors of the creation. The researcher also concerns that how it take a role to the men, and in each context, how the masculinity of the southerners changes.

I take the concept about the presentation about masculinity to be the conceptual framework for the analysis of the masculinity of Thai southerners in Thai films: *KhunPun* and *Chaiya*. Marie Richmond – Abbott has analyzed the masculinity. She found that the presentation about masculinity can be divided into two aspects: the old masculinity (Tradition Man) which presents about the body’s strength, violence, aggression, and does not to show the sensitive or real feeling. (Marie Richmond – Abbott, 1992, be referred by Saharaj Kittimahacharoen, 2008).

However, for the modern masculinity (New Man), Abbott explained that when the social changed, the masculinity also changed. It can be seen through the men who are succeeding in working. The new men can show their sensitive feeling. They also join with the group of women. (Marie Richmond – Abbott, 1992, be referred by Saharaj Kittimahacharoen, 2008). I bring the mentioned concept to adjust with this research in order to compare the old and modern masculinity Thai southerners through Thai films: KhunPun and Chaiya. These two films present the difference of the masculinity of Thai southerners.

The presentation of Masculinity within the Thai film: KhunPun

According to the presentation of masculinity within the Thai film: KhunPun, the masculinity of the southerners from this film is composed of the strength, morality, brave, smartness, leadership, and heroism of the actors which have the details are:

The strength and morality

The masculinity of the southerners in the topic of the strength and morality was appeared. Especially on the scene that KhunPuntharakRajadej announced that the bandits, who were named as a ‘tiger’ by the southerners, who robbed the properties, killed and attacked the people had to reform themselves to be good and virtuous people. KhunPuntharakRajadej announced that “if you promise that you are ending up of being the bandits and go to be monks, I promise that I will capture you in alive.”

The latest speech shows that KhunPuntharakRajadej, the young southerner policeman, had expressed his masculinity by giving the opportunity to the others who were mistaken or made the mistakes which is being the bandits and killing people. He gave the opportunity to them in reforming themselves to be good and virtuous people. KhunPuntharakRajadej had offered the best way for whoever were bandits which is being monks in order to cleanse their minds from vices and live on the better way. Moreover, they will be capitalizing on the ordination which helps them being better people and having peaceful minds. According to the Buddhism belief, the ordination is the way to consign merit to the killed souls.

The masculinity of KhunPuntharakRajadej in the field of strength and morality still appears in the scene that KhunPuntharakRajadej persuaded AnhaVeeyaroo, the great magical bandit, while he and the bandit were fighting to force AnhaVeeyaroo gave up to the policemen. KhunPuntharakRajadej said that “if you promise that you are ending up of being the bandits and go to be monks, I promise that I will capture you in alive.”, “We are wasting our time in fighting, so lay down your arms and give up, AnhaVeeyaroo. You are duped by O-larn. I will be your witness.” The speeches showed the masculinity of the moralistic southerner or helping and encouraging the other by to steadfast in accuracy. It is how to give the opportunity to somebody who made the mistakes to reform themselves to be better people and live normally in the society. KhunPuntharakRajadej is generous. He forgave to whoever did the mistakes.

Bravery

The masculinity of the southerners in the field of bravery appears in the scene that KhunPuntharakRajadej stamped out KrabKhamthong, the green bandit, without any fear. KhunPuntharakRajadej and the policemen were facing and fighting with KrabKhamthong. The police team is leading by Issara, the inspector, who took the team to close the bandit gang of KrabKhamthong. However, the policemen and KhunPuntharak Rajadej were surrounded by KrabKhamthong. Besides, Issara was shot. So KhunPuntharakRajadej show his masculinity in the way of bravery by helping to shoot the bandits who were under KrabKhamthong in order to protect Issara to be save.



Figure 1: The masculinity of KhunPuntharakRajadej in the field of bravery
Source: Mastermovie-HD (2016)

These behaviors show the bravery and masculinity of KhunPuntharakRajadej who is strong-minded, never afraid of any dangerousness, and ready for handle his responsibility on protecting the others to be saved, although he has realized that his team is surrounded by the gang and cannot save their lives. The scene is not only showing the bravery of KhunPuntharakRajadej, but also show the social conditions of the Southern. Is was the time of the Dark Age. The people were in dire strait. The governors cheated. Moreover, it has a news about the World War and the intrusion from Japanese which made the people were panic. The harmony was breaking. The motherland was in flames. The people got stung and had no recourses, so they turned to be the bandits to protect themselves and be free from the government power. This situation formed the great bandits in every single area. One of the great bandits at that time is 'Anyaveeyaroo', the great magical bandit, or in another name: The Devil of Budokan.

KhunPuntharakRajadej show his bravery by disguised to be the local people and hid in the dangerous areas where had many of bandit gangs. He officiated as a policeman to find the evidence to take it as a guilt and suppressed the bandits. He hoped to improve the society. He was never afraid of any dangerousness as the speech he had said to his boss, who sent him into those areas to be an undercover agent, that "This mission is a secret mission with no supporting, I might not return." His speech shows out his bravery with no fear of death.

KhunPuntharakRajadej went forward to meet AnhaVeeyaroo, the great bandit who made the people feared at the Budo Mountain. It was his bravery, who is the southern policeman. He knew that the guerrillas or the small fries of Anya Veeyaroo were branches off to a wide circle. AnhaVeeyaroo had many of henchmen who were good at magic as AnhaVeeyaroo. These henchmen are his supporters. They were: Sung and KrabKhamthong. KhunPuntharakRajadej, however, was still doing his job without any fear.

One more scene which shows the bravery of KhunPuntharakRajadej is the scene that ‘Malai’, an ordinary local person asked him to go out of the village because she was worried about his safe. Her asking was failed and cannot change his intention. Malai said to KhunPuntharakRajadej that “I’m begging you, please go out of here. Otherwise, lots of people will die because of you. I have seen the good policemen dead here. Next time will be yours. You cannot run away forever.”

KhunPuntharakRajadej said about the bravery in protecting the land that “I still remember what LuangNadol said before I took this mission to be here. He asked me that will I change something. I have no answer for the question. I just know that, if we do not have any belief in anything, our land will have nothing remains. We should brave enough to protect our motherland.”

His speech shows that all of us should brave to protect our land, beginning by trust and believe in ourselves that we can. Every person has to be responsible for taking care and instill the peace of the land, and also respect to the laws. These properties are such bravery in changing and improve our land.

Smartness

The masculinity of the southerners in the field of smartness of KhunPuntharak Rajadej, the southern policeman, appeared in the scene that KhunPuntharakRajadej disguised to be a goatherd who was fishing at the pond at the Budo mountain and faced with AnhaVeeyaroo who was the prestigious bandit for the local people. AnhaVeeyaroo talked to KhunPuntharakRajadej that “this pond has small fish only”, but KhunPuntharak Rajadej answered that “I have heard that this pond has big fish.” From his words, Khun PuntharakRajadej wanted to let AnhaVeeyaroo knew that he had to catch the big fish. The big fish in this mention meaning is an influential person, an illegal man, or the bandits who kill the people in the area. The mentioned speech show his smartness in speaking and using metaphor which has an indirect meaning to AnhaVeeyaroo with a sharp remark.

So, AnhaVeeyaroo answered KhunPuntharakRajadej that “Do you think you can catch the bigger fish with that small rod? Everything around the Bodo Mountain is in my care. Anyway, I allow you to take the fish here. This is my stake. If you can catch the fish by that small rod, you get it. But if you cannot do, next time I’m going to take it back.

KhunPuntharakRajadej picked up that challenge and said “Yes, boss.” KhunPuntharakRajadej clearly understand what AnhaVeeyaroo had said. AnhaVeeyaroo wanted to warn KhunPuntharakRajadej that he had to give up the thought that he wanted to catch the big fish. KhunPuntharakRajadej cannot catch the big fish that he wanted for sure because the area are in the care and control of AnhaVeeyaroo. Nobody included people and policemen dared to catch AnhaVeeyaroo and punish him because he had a magical power. He was the great bandit who cruel, invulnerable, and strong. Whoever wanted to catch him, they have to be killed.

The smartness of KhunPuntharakRajadej still appears in the scene that he disguised to be an ordinary man named Bud. Then he went to the village and lived with other villagers in order to grope for some clues of the bandits who killed the people. The people in the village did not know that he was the policeman. This scene shows his smartness about the adaptation to live with the people without any doubtfulness. Nobody knew he was a disguised policeman.



Figure 2: The scene that KhunPuntharakRajadej disguised
Source: Mastermovie-HD (2016)

KhaiToh, the southern man, lived in the same village with KhunPuntharakRajadej. He was the man who took KhunPuntharakRajadej to live with the others in the village. He told the other villagers that KhunPuntharakRajadej was his relative from Phumpin district, Suratthani. This made the villagers believed that KhunPuntharakRajadej would not be the troublemaker who brought the problems to them. They accepted KhunPun tharakRajadej as one of the villagers. KhaiToh had warned KhunPuntharakRajadej that “Remember! Being my employee, you have to listen to me. Don’t ask or argue. I will cut your first two months wages. One hundred baht will be my commission. I will tell everyone that you are my relative, but you don’t tell anyone that you are not the people who were born here. Don’t say too much and don’t know too much, especially being the villager here. Understand? The more you know, you will not die well.” The words from KhaiToh reflected the social conditions that people were feared of a powerful man. The people had to obey and follow the commands from the rulers. Whoever wanted to stand on the other side would be in the dangerousness or death.

The masculinity of KhunPuntharakRajadej in the field of the smartness also appeared in the scene that he had a job in the night club. That made KhunPuntharak Rajadej met Malai, the beautiful singer of that night club. Malai did not know that Khun PuntharakRajadej was a disguised policeman until she saw he saluted to the body of the policeman who killed and publicly hanged to forced KhunPuntharakRajadej was showed that he was a disguised policeman. KhunPuntharakRajadej was found that he was a policeman. So, he was hunted by the gang of AnhaVeeyaroo. However, while he was hiding from the hunt, he was spelling the magic which hide himself from the bandits. This scene shows his smartness in using the magic to get away from the gang to avoid the fighting between him and AnhaVeeyaroo's gang. This saved him and the gang could not catch him.

KhunPuntharakRajadej was a southern policeman who was smart in solving problems. He learned that the happened problems came from what to think and create the way to solve the problems correctly. Thus, the scene that KhunPuntharakRajadej went to meet the father of the black magic maker: AnhaVeeyaroo. The purpose was to know his story and to know more about him which helped KhunPuntharakRajadej solved the conflict problems and suppressed the great bandit correctly. The man who knew best about AnhaVeeyaroo's life was his father. KhunPuntharakRajadej spoke with Anha Veeyaroo's father and then knew that the reason which forced AnhaVeeyaroo was his father.

His father told that AnhaVeeyaroo was his own guilty. The father was mistaken and was a bandit who killed and robbed people. AnhaVeeyaroo respected his father too much and admired him as an icon. However, one day, the father was caught by the policemen and was brought to the jail by legally punishment. After that, the father wanted to improve himself to be a better man, but he was despised by the others. No one forgave him for his mistakes in robbing and killing people for all along. The father was condemned that he could not reform himself to be a good man. As he was a bad man inborn, so he would die as a bad man. He was also attacked by the people. The event made AnhaVeeyaroo lost all of his belief for everything. He especially lost his respect for his father who let the people attacked himself without any fighting back.

That past event was the beginning of being the bandit who killed the people of AnhaVeeyaroo. This scene shows the smartness of KhunPuntharakRajadej in finding the information and facts about AnhaVeeyaroo to know him better. Talking with the bandit's father let KhunPuntharakRajadej knew that even AnhaVeeyaroo was invulnerable and hard to kill, but he had the weak point which was in his own heart. If KhunPuntharak Rajadej wanted to release AnhaVeeyaroo out of the guilty and the devil which were in his mind, KhunPuntharakRajadej had to ruined AnhaVeeyaroo's heart. Then AnhaVeeyaroo would die. To know his profile and weakness was the way to be the victory of KhunPuntharakRajadej in catching the great bandit: AnhaVeeyaroo. This victory was from his smartness in searching the information.

Leadership

KhunPuntharakRajadej was a young policeman who had presidential leadership. He was a man with good responsible in his job. Moreover, he always worried and cared about his policemen who were under his care and also his colleagues. His behavior was the good role model for the other policemen to follow as appeared in the scene that Khun PuntharakRajadej tried to connect the policeman who survived from hunting by the gang of AnhaVeeyaroo, but he did not catch any news about that poor policeman. This made he was blinded about the policeman and also himself.

The way to find the news about that policeman of KhunPuntharakRajadej shows that he was the leader who was plodding away and attempt in finding the information about the survived policeman. He wanted to save the policeman from the dangerousness. KhunPuntharakRajadej had the characteristic of the leader. He was dared to protect his man and colleague who worked with him to save from the powerful man or the bandit.

He was brave and strongly believed in the justice. KhunPuntharakRajadej was also active in doing his job and to catch the bandits with no fear. He was the man who always thought about the public services, steadfast in the accuracy, and appreciated in his own job. The case that every policeman, who was sent to do the job in the areas full of the bandits, were killed to make the government sectors or which was called ‘crown sectors’ by the villagers were losing their faces in the cases like these for many times because they would lose the policemen every time.

This showed that the bandits did not afraid of the law and challenge the power from the government. It caused the government to lost lots of budget for this area. Nobody wanted to go to the areas which were named that ‘everyone was the bandit.’ It showed that the life were not save. KhunPuntharakRajadej knew this well. He, however, was still working as the man who protect the people until he could suppress the bandits and brought the peace here. So KhunPuntharakRajadej was a true leader who brought the good change to the society.

From the scene that KhunPuntharakRajadej saluted to the body of the policeman who was publicly hanged by the gand of AnhaVeeyaroo in order to force KhunPuntharak Rajadej showed up and would be killed by the gang, Hanging the body in the public was planned by AnhaVeeyaroo because he wanted to know that who was the disguised policeman. As the disguised policeman would salute the dead body and he would never knew that he was sight by the bandits.

Thus, KhunPuntharakRajadej was captured by the gang of AnhaVeeyaroo. The gang knew that he was the disguised policeman who came to find the information about the bandits and influential people in order to get rid of them all. It brought the peacefulness into the society and returned the freedom to the people. It was also the way to stop the oppression. What KhunPuntharakRajadej had created showed the role of getting rid of the conflict and created the unity of the society.

The leadership of KhunPuntharakRajadej was showing through his working without any fear. As in the scene that KhunPuntharakRajadej came to meet Luang O-larn to inform him that he was given a suspension from the center because of his corruption without the fear of the laws. He also met the bandits secretly and helped them. KhunPuntharakRajadej brought the instruction from the center to inform Luang O-larn. However, he was threatened by Luang O-larn that he had to have evidences in blaming the other. Luang O-larn challenged KhunPuntharakRajadej that he had to find the evidences in three days. If he could not find them, he would turn to be a dead body. Of course, KhunPuntharakRajadej did not afraid of the words, not even a little. That was because he was strong, confident, and also steady. He was not afraid of facing with the difficult problems or harmful things according to those words. These were the leader qualifications.



Figure 3: The leadership of Khun Pantharak Rajadej
Source: Mastermovie-HD (2016)

Heroism

KhunPuntharakRajadej showed his heroism or being the man who dared to fight with the bandits without any fear. It appeared on the scene that KhunPuntharakRajadej killed KrabKhamthong in the killing field. His heroism also showed on the scene that he fought with many bandit gangs and won every time. As KhunPuntharakRajadej was the policeman who could not be shot or killed. Besides, KhunPuntharakRajadej was the good policeman who had a good hand in conquering the great bandit: AnhaVeeyaroo. So he was a true hero.

The heroism of KhunPuntharakRajadej appeared on the scene that he was spelling the magic to allow him to see the gang of KrabKhamthong which was hiding and waiting for attacked the policemen. In that moment, the policemen were surrounded by the gang of KrabKhamthong and almost lost to the bandits. Fortunately, KhunPuntharakRajadej could save their lives all the policemen who were surrounded by leading his men shot the gang on the marks that he pointed. This because he could see where were the bandits. Then KhunPuntharakRajadej ran to point the place that the gang was hiding and ordered his men to shoot on the marks. It caused him and the policemen finally got the victory in fighting with the gang of KrabKhamthong.

KhunPuntharakRajadej is the true hero who was commanded straightly from the center government to conquer and get rid of the influent illegal in the areas around the Budo mountain. He did not afraid of the warning from the policemen in the areas who warned him to run away from the places as fast as he could. They said this was an illegal and dangerous area. The law was in the hands of the mutinous people. If KhunPuntharak Rajadej was still hunting the bandits, they would hunt him as well. The policemen in the area were asking him to believe in what they had warned that if he loved his life, he had to leave this town. By the way, KhunPuntharakRajadej was committed to conquer all the bandits. He did not even listen to the warning. This regarded that KhunPuntharakRajadej was a true hero for the people in the harmful area.



Figure 4: The heroism of KhunPuntharakRajadej
Source: Mastermovie-HD (2016)

The presentation of masculinity of the southerners in the film: Chaiya

The presentation of masculinity about the southerners in the Thai film: Chaiya found that the masculinity of the southerners in this Thai film presents the image of Thai man with the conceit in their honor. It is the presentation of masculinity through the ambition, intention, and friendship. It is also the presentation of masculinity which present through love. Moreover, it is found that the masculinity is showed through the sacrifice as follows:

The conceit on honor

The masculinity in the field of conceit of honor appeared in the scene that 'Piek,' the young southern man who was a boxer refused the accusation which the committee judged him to lose the opponent. The committee said that Piek fix the match or box without the pride. Actually, however, Piek did not fix the match, but he was hurt and too often to box. It caused the bad effects to his body. It burned him out and stopped his boxing.

These made the fandom were dissatisfied to Piek that he made them failed. The fans that came to see Piek on that day booed him out off the stage and threw things to him. The boxing trainer in the camp that Piek was belonging to called him to meet and gave him money in order to take him out. Piek asked for his another chance to be there and made a promise to his trainer that he would work hard. However, the trainer told him that it had to spend too much money and the trainer knew that Piek did not have much money. The trainer so offered him to fix the match or surrendered to the enemy and he would find the way to take Piek back to the stage. Piek answered that he thought that the trainer was in the boxing. His speech made the trainer got mad, so the trainer kicked him out. The scene showed that Piek was conceit on his honor by asking his trainer to go back to the stage in order to delete the rumors. Also, the scene that he did not accept the offer that offered him to raise the white flag and get money showed that money could not buy his prestige.



Figure 5: The scene that Piek did not accept the offer
Source: Party Channel (2017)

The ambition, intention, and friendship

The presentation of masculinity of the southerner in the Thai film: Chaiya, this film shows the the image of the young men named Piek, Samoh, and Pao. The three of them were born and raised in the same slum and they had the same dream to be the boxers. They had thought that being the bower was the only way to take them out of the slum. Between the three of them, Pao was the man who looked nearly was a boxer because he was the younger brother of the boxer named Krang. He was also the son of the famous boxing trainer named Kru Tiw. Kru Tiw, Pao's father, had taught Thai-Chaiya boxing to Pao, Samoh, and Piek. It showed the intention and devotion to catch him the dream and succeed it which was being the boxer.

The event which presented the friendship between Piek, Pao, and Samoh, the young southern men who had the intention and devotion for their dreams to be true, was the scene that Samoh's father was killed because he did not have money to pay for the gamble.

Samoh was planning to commit his suicide followed his father. Nevertheless, Piek and Pao got a very present help in a trouble. The event made Samoh believed that three of them would not forsake each other. This scene also shows the friendship and presented the masculinity of the southerners which loved their friends.

The scene that presented three of them did not give up his dream to be a boxer was the scene that Piek and Pao went to be boxers who box in the rubber plantation. They meant to train thai-Chaiya boxing and were good at it. Samoh decided to sell his ship and it helped them could go to Bangkok. For the boxers, going to Bangkok and had some boxing there were their final destination of being a boxer, so did them: Piek, Pao, and Samoh. They presented their intension and they really keen of the man to catch their own dream and succeed it.



Figure 6: The scene that them could go to Bangkok
Source: Party Channel (2017)

Love

The masculinity in the field of wanting to love appeared in the scene that Piek, the young southern man. He fell in love with Sri Prai, a nurse who was a daughter of the doctor in the market. Piek showed Sri Prai about his masculinity that he could protect, prevent, and took a good care for her. He also could protect her from other men who attacked her. The event was when Sri Prai was riding her bicycle and went back to her home. Whiling she was on her way home, there were a few men who were in the market stopped her. Piek was found the event so he reached and helped her. He fought the men till he got hurt. The event showed his courage. It also showed that he wanted to protect Sri Prai: his beloved couple.

These field of love and wanting to live the rest of life with Sri Prai also appeared in the scene that Piek met Sri Prai in the rubber garden. He asked her to engage with a watch which he had kept his money to but for her. Then Piek brought Sri Prai to Bangkok with him to show that he would not leave her. The way he asking her to engage and the responsible for Sri Prai were a presentation of the man role which was honored to her. This assumed that it was the presentation of the masculinity of Piek because he made her sure that he was going to marry her soon. It reflected that the southern men was a good man. This was the reflected of true man.



Figure 7: The scene that Piek asked Sri Prai to engage
Source: Party Channel (2017)

The sacrifice

The presentation of masculinity of the southerners in the field of sacrifice appeared in the scene that Piek sacrificed Sri Prai; his beloved couple, to his beloved friend; Pao even though he still loved her and could not give her up. Nonetheless, Piek wanted that Sri Prai's family would be happy because Piek could not choose his own way like Pao. Pao became the boxer, but Piek became the hooligan. Piek knew that if Sri Prai was with him, her life would be in the danger. The way Sri Prai saw that Piek cheated on her by had sex with another girl was fixed to let Sri Prai go without any worry. Actually, Piek never forgot her.

The event showed his sacrifice that he gave Sri Prai to Pao to take a good care to her because Pao always loved Sri Prai all time they were together. Pao was the only man who could to everything to make Sri Prai was happy. So, the sacrifice was the presentation of the masculinity from Piek: who was a true man. It also was an deep affection that Piek had which was love without asking and taking anything back except seeing someone he loved was happy.



Figure 8: The scene that Piek sacrificed Sri Prai to his beloved friend
Source: Party Channel (2017)

Table 1: The masculinity of Thai southerners in Thai films: KhunPun and Chaiya

Masculinity of Thai southerners in Thai film: KhunPun	Masculinity of Thai southerners in Thai film: Chaiya
Leadership Thai southern men have a leadership. The mentioned characteristic is presented through the role of KhunPuntharakRajadej. The policeman who leads the subordinates to beat the bandits to become successful. He also loves his nation and motherland.	Love honor and dignity Thai southern men love their honors and dignities. These characteristics are presented through Piek-the southern young boxer- who was blamed that he fixed the match without the dignity. Then the enemy was getting win. Piek was not accepted this accusation. Thus, he asked for another chance to prove himself again.
Heroism Thai southern men are being heroism. This is presented through the role of KhunPuntharakRajadej. He has ability to fight and win the bandits and bring the peace to the villager in the society.	Ambition Thai southern men have an ambition which is also presented by Piek, Pao, and Samoh. They have the same dreams that they wanted to be the boxers who had the opportunities to perform on the great stage. This caused the three of them went to Bangkok to make the dreams came true.
Smartness Thai southern men are smart which can be seen through KhunPuntharakRajadej. He solved the problem about the unrest in the are of Budo Mountain. He disguised to live with the villagers in order to arrest the bandits to be legislative punishment.	Intension Thai southern men have intension and never get their heads down to any obstacles. These were expressed through the roles of Piek, Pao, and Samoh. Although they faced with many problems which were challenging, they were keen on doing their dreams. They still lived in the capital city: Bangkok, and did not go back to the slam where was their hometown until they were succeed.

Masculinity of Thai southerners in Thai film: KhunPun	Masculinity of Thai southerners in Thai film: Chaiya
Strength Thai southern men are strong. It can be seen through KhunPuntharakRajadej who has a strong magical fetishism, and have a strong mind to beat with many bandits.	Friendship Thai southern men have a precious friendship between friends. They loved their team. Piek, Pao, and Samoh made the promise that whatever they were happy or not, they would never leave the others.
Bravery Thai southern men are brave. You can see from the brave man, KhunPuntharakRajadej. He is never afraid of the powerful people who are above the laws.	True Love Thai southern men have a true love. Piek presented it when he made a promise to Sri Prai, his beloved woman, that he would love only her. He showed his sincerity by engaging with Sri Prai in order to promise that he would marry her.
Morality Thai southern men have a moral which is presented by KhunPuntharakRajadej who used to give the bandits who burgle and kill the villagers the opportunity to be the good people. He made a promise that he would never kill them if the bandits gave up the fight and went to be monks.	Sacrifice Thai southern men have a sacrifice which is showed through the role of Piek. He was contract killer at that moment. He was also a gambling hooligan. He was worried that Sri Prai would be in the danger. So, he made a plan to make Sri Prai got wrong that he was cheating on her to let her go and have a new life with his beloved friend: Pao.

Source: The Presentation about Masculinity of Thai Southerners in Thai Films: A Comparative Case Study of KhunPun and Chaiya (2017)

Conclusion

A Thai film named KhunPun present the mainstream values about the masculinity of the southerner through the main actor: KhunPuntharakRajadej who was a virtue, brave, strong, and courageous policeman. He did his work with the honest according of the wished of the society to the police career. This film created the good image for the career. It is a worthy Thai film because it shows the power of goodness which can beat the badness. It helps to support and encourage the good people to keep on doing the good things. It also makes the Thais are proud of the police career through the main actor: KhunPuntharakRajadej. He was the pride of the southerners and the field of Thai policeman because he was the true man who made of virtue, bravery, and strength till he was the image of the mainstream masculinity which was praised by Thais. Thai people accepted him because he was in the social expectation.

The features answer to the research by Kamjorn Luiyapong which is *The Fight Film in Hollywood with the Reflection of the Masculinity*. It is found that the presentation of the masculinity which appears in the fight film created the image of the men that they have to be strong. So, the directors have to present the masculinity which meant by the society to the social (Kamjorn Luiyapong, 1997).

The Thai film named *Chaiya* presents the masculinity of the southerners which is an admixture of the mainstream and modern social values of the masculinity. These make the presentation of the masculinity in this film are matched together. It is true when comparing with the masculinity in the present time which is being more modern.

The Thai film named *Chaiya* reflects the social conditions in Thailand, which is full of gambling in the field of boxing. It has a veneration which did to the enemies to beat them or doping before going to box on the stage. However, the men in this film wanted to beat the enemies by their own abilities more than to corrupt. It shows that the southern men love their honor and pride. Furthermore, this film broadcasts the sensitivity of the man, which is conflicting with the mainstream masculinity which has thought that the men have to be strong.

Thus, showing the sensitivity of the actors is the presentation of the modern masculinity which is involves with the research by Aungsana Chittarat which is *The Modern Masculinity Which Reflects Through The American Films in 1996-1998*. It is found that the films present the characteristics of the men which are changed and can be accepted that the men can show their emotions and feelings and need not to conceal them. The image of the masculinity is not putting them to be like a center of everything anymore. They: the men are sacrificing something to someone (Aungsana Chittarat, 1999).

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THE EFFECTS OF ACTIVE LEARNING APPROACH IN TEACHING SCIENCE TO 5th GRADE STUDENTS IN BHUTANESE CLASSROOM

Karma Dema¹ and Somchanok Phu-ampai²

Abstract

The purpose of this study was to investigate the effects of active learning approach on learning outcome of 5th grade Bhutanese students and to find the perspective towards the use of active learning approach in learning Science. The research was a quantitative research with one-group pretest-posttest design. The population of the study comprised of 59 students of 5th grade which were divided into two sections comprising of 29 students in one section and 30 students in another section. A cluster random sampling method was adopted to select one section of 29 students with mixed ability and gender. The sample group was treated with active learning approach. The study was carried out for four weeks. The data for the study were collected from the learning outcome test and students' perspective questionnaire. Pretest and posttest were conducted before and after the experiment to find the learning outcome of the students. Questionnaire was administered after the experiment to find out the level of students' perspective towards active learning approach in learning science. The data were analyzed and interpreted using inferential statistics t-test with $p < 0.05$ level of significance, mean, and standard deviation. The findings of the study revealed that incorporating active learning approach in science improved the learning outcome of 5th grade students as the posttest mean score was significantly higher than the mean score of pretest with 2-tailed significant value of 0.00. It was also found that students' exhibited high level of perspectives when active learning approach was incorporated in teaching and learning science. Thus, the findings suggested that the active learning approach had positive effects on the learning outcome and students' perspective towards the approach in learning science.

Keywords: Active Learning Approach, Learning outcome, Perspective, Bhutanese

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1. Introduction

Knowledge of science is very crucial for every citizen as it is one of the ways to help learners understand about the workings of the universe and the natural world around them. The wellbeing and life style of people and the natural world are greatly affected by the knowledge and skills of science that an individual holds. Through science, students get to explore what is happening in our immediate environment. According to Department of Curriculum and Research Development [DCRD], (2011) Science is a way of investigating and questioning phenomena, exploring the natural and physical world, experimenting with objects, tools and testing hypotheses. It incorporates generating, testing and justifying ideas, gathering evidences and communicating the findings in order to develop scientific knowledge. (Royal Education Council [REC], 2012).

Science education in Bhutan started with a borrowed curriculum from India in 1960s. There had been several changes made in science curriculum since after it was being introduced. One of the major moves was the introduction of new approach to primary education (NAPE) in 1986 for classes IV to VI mainly to promote science based on Bhutanese natural and social environment. After fourteen years of implementation of NAPE education in Bhutan, there was a growing concern that primary science textbooks and teacher manuals were lacking in content. Moreover, the learning activities were more of teacher centered and do not inculcate any scientific skills and values. Therefore, in 2001, the science textbooks and teachers' manual were reviewed. The main purpose of this reform was to add content and update the learning activities that caters the learner-centered approach. Thus, the revised science curriculum in Bhutan aimed at generating students with scientific temper, passion and enthusiasm for science. It also aimed to prepare the learners to pursue science related careers and lead the country's future scientific endeavors (Department of Curriculum Research Development [DCRC], 2011).

Nowadays, learning Science is given paramount importance and interactive way of learning Science is highly encouraged. Moreover, learning Science is also very beneficial as it has been linked with other subjects like History, Geography, Mathematics, social studies, English and other languages. This will definitely help the students to learn many things at a time in science. According to Narmadha and Chamundeswari (2013) teachers should try to make learning of Science an enjoyable experience in order to improve their achievement. The students should be actively engaged in the Science activities so that students will remember the experiences and apply the knowledge for a life time. Since Science is an on-going process, the learning continue even after the students step out of school. Therefore, it is definitely a wise move to help students to understand the importance of Science and the implication of learning Science.

Owing to the importance of the subject, Science education is considered as an important subject in Bhutan. Yangden (2015) and Tenzin, Johnson, and Ramachandran (2008) pointed out that despite considering the huge importance of the subject, Bhutanese students still considered science as a difficult subject and do not show much interest in learning science which has an adverse effect on students been opting for science streams in higher levels. Rabgay (2012) states that this is mainly because of a traditional way of teaching was still carried out in most of the Bhutanese classrooms in teaching science, where class periods are lecture based and involves chalk and chalkboard, and spoon feeding technique. According to Sherub and Dorji (2013), although Bhutanese primary school teachers were trained in the new methods of teaching, they still adopt traditional approaches and have access to limited teaching and learning materials. These weaknesses of traditional method of teaching has led to poor understanding of concepts and has resulted in poor achievements in science tests (Tenzin, et al, 2008).

Similarly, Yangden (2015) and Namgay (2013) also found out that science curriculum in Bhutan stressed the development of investigative skills through fair tests as similar to a more conventional learning and memorization of scientific facts and figures. Even the simple science experiments are being carried out by the teacher themselves, where students just sit and observe. Such instructional design would make the students passive recipients of knowledge and students expect the teacher to be totally in charge of their learning whereby students lack their analytical, critical, and reflective thinking skills and students become dependent learners (Thamraksa, 2003).

In a diagnostic standardized test conducted collaboratively by Royal Education Council [REC] and Education Initiatives in 2008, in 18 different schools in Bhutan for classes V, VII and IX in English, Dzongkha and Science found that students' learning outcomes were below the minimum expectations of their grade levels. The survey findings also revealed that students mostly enjoy learning languages (both English and Dzongkha) compared to Science. This is mainly due to the ineffective use of teaching strategies and teacher centered teaching and learning been stressed in the science classrooms. Similarly, the pupil performance Report- 2017, (National Subject-Wise Performance), found that the overall mean for science was 50.20 which was found to be low as compared to other subjects like English (53.67), Dzongkha (65.47), Mathematics (54.75), Economics (62), History & Geography (60.69) and Computer Application (76.35).

Today's changing scenario of the modern world demands for child centered teaching and learning. According to Goktalay (2016) states that 21st century students are active learners and use of lecture method may not be appropriate for their engagement. Hence, teacher needs to shift to new pedagogies, methods and approaches in the classroom that engages students actively as pointed by Trivedi (2013). Similarly, Fitzgerald and Smith (2016) state that teachers are the user developer of the curriculum. Therefore, teacher should not only deliver the content knowledge, but also should make the learning meaningful, fun and enjoyable within the context of their own classroom which will in turn have the direct impact on students learning achievement. DCRD (2011) states that students learn best in

science when engaged in a variety of investigative activities such as asking questions, designing investigation, conducting experiments, explanations of their findings and communicating their ideas to others in a wide range of ways, which encourages learners to think critically both in the science classroom as well as in their daily lives as citizens.

Young children enjoy exploring and investigating their surroundings, and if the teachers instill this natural feeling with the science activities, students' interest in the subject may be greater as they progress in higher levels as pointed by Eshach (2006). When students developed their interest, they participate more in the classroom activities which will have the direct impact on students learning achievement. Mijena (2015) states that effective teaching and learning requires the use of different methodologies and strategies by the teacher in the classroom which involves students actively in the learning process. Therefore, active learning approach is one that engages the students actively in a learning process which makes the learning more attainable and meaningful. According to Wurdinger and Carlson (2010) students learn better when students are actively involved in their own learning process through varieties of learning tasks. In addition, CAPSD (2009) states that in order to optimize the learning of the students, a variety of instructional modes should be used to engage students' especially at the primary levels. In this regard, active learning approach is one of the methods to engage the learners and motivate them in learning science.

Active Learning is important topic in education today because it is essential to engage students and find an effective way to teach science content (Mathais, 2014). Active learning caters to many different learning styles and allows students to be more engaged in the learning process, increasing understanding and memory of topics learned. Many students lose interest in science or become overwhelmed by the subject often as early as primary school preventing them from reaching their full potential in science classrooms. By engaging students through active learning helps student understand the content better and they can discover the true excitement and real life applications that science brings. According to Karmustafaoglu, Costu, and Ayas (2006) use of active learning techniques in the classroom makes the lessons more interesting and the students' takes part in the lesson more attentively. Further, the success and interest of the student are determined and improved better in active learning classroom. Therefore, use of active learning approach in the lesson had many benefits as it can stimulate learning in students with different learning styles, encourages interactions, provides equal opportunity to participate and encourages student' to be part of their own learning.

Many researchers like Aboagye (2012), Mello and Less (2013), Mommani, Asiri and Alatawi (2016) and Aydede and Matyar (2009) had conducted research on effectiveness of active learning on various topics and subjects and revealed that students learning through active learning approaches have higher academic performances, improves retention power, self-esteem, and students' engagement and develop social skills. Further, Prince (2004) supported that active learning engages learners in a meaningful learning process in or outside the classroom. Felder and Brent (2009) state that, through active learning students do more than simply watching, listening and taking notes. According to Carr (2013), active learning is all about engaging students and getting them to actively participate in a lesson.

With the growing concern of the quality of education in Bhutan, Transformative pedagogy for the 21st century learners have emerged as a leading new approach to classroom teaching in Bhutan recently. The approaches mainly focus on student-centered, cooperative learning structures and active learning approaches. However, only few Bhutanese researchers have done research on active learning approach in Bhutanese teaching and learning context. Therefore, the purpose of this study is to find out the effects of active learning approach on students' learning outcome and students' perspective towards active learning in learning science in Bhutanese classroom. The approach would also serve as an alternative method for the teachers in Bhutan in teaching science.

2. OBJECTIVES OF THE STUDY

- 2.1 To study the effects of active learning approach on learning outcome of 5th grade students in Science.
- 2.2 To find out the perspective of 5th grade students' towards active learning approach in learning Science.

3. MATERIALS AND DESIGN

3.1 Research design

The research was quantitative in nature with one-group pretest-posttest design which aimed to improve the learning outcome of 5th grade students in Science using active learning approach in Bhutan. In this study, the learning outcome test was developed to compare the learning outcome of the sample group before and after the use of active learning approach. The pretest was conducted before the intervention of the active learning approach and the posttest was conducted after the intervention of the active learning approach. The researcher also aimed to find the perspective level of the students towards active learning approach. The questionnaire was administered at the end of the treatment. Figure 1 shows the research design of the study.

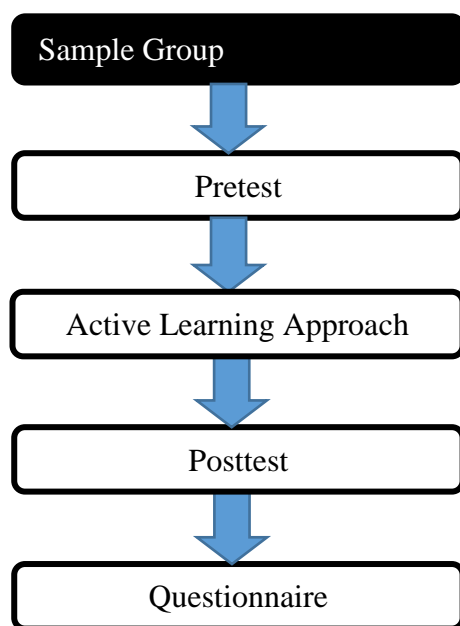


Figure 1 Research Design

3.2 Population and sample

The population of the study included 59 students of 5th grade which was divided into two sections consisting of 29 students in one section and 30 students in another section in one of the primary schools under Paro District, Western Bhutan.

A cluster random sampling method was used to select one section of 5th grade students from the two sections as the sample group of the study. The sample group comprised of 29 students of 5th grade with mixed gender and mixed ability.

In order to prevent bias in selecting the sample group, the researcher did the lucky dip between the two sections of 5th grade. From the lucky dip, the section with 29 students was chosen as the sample group. The age group of the students ranged from 9-14 years old.

3.3 Research Instruments

The data for this quantitative study was collected from the following research instruments:

Learning outcome test: To find out the effects of active learning approach on the learning outcome of 5th grade students in science, a pretest and posttest was conducted to the participants. The test consisted of 20 multiple choice questions developed from the chapter 'Green Plant' with equal number of questions from each topic. Pretest and posttest was conducted to the sample group to compare the learning outcome of the students' before and after the intervention of the active learning approach. The pretest was conducted before the intervention of active learning approach and later posttest with the same questions as the pretest was conducted at the end of the treatment. The pretest and posttest scores were used to compare the learning outcome of the 5th grade students in science.

Questionnaires: To find out the perspective of students' towards active learning approach, a set of questionnaire framed by using five-point Likert scale was used. The questionnaire consisted of 15 statements pertaining to the students' perspective towards active learning approach in teaching and learning science. It was conducted to the sample group at the end of the treatment to find the perceptive level of the students' towards the use of active learning approach in learning science.

Lesson plan: The study deployed 8 lesson plans of 60 minutes. The researcher taught twice to the sample group. The study lasted for four weeks. The sample group was taught using active learning approach.

3.4 Validity

The research instruments were validated by 3 experts who included a professor from Rangsit University, Thailand and two senior science teachers from Bhutan. The validity of the instruments were done using five -point Likert scale and Item Objective Congruency Index (IOC). Item Objective Congruence (IOC) of the instruments was calculated to find if the items align with the learning objectives. IOC was computed for the lesson plans, questionnaire and the learning outcome test.

The index of item objective congruence developed by Roviinelli and Hambleton (1977) ranges from -1 to +1. If the rating is 1, it means that the item clearly matches stated objectives. If the rating is 0, it means that item is unclear or not sure whether the measures meet the objectives or not. If the rating is -1, it means that the item clearly does not match objective or ensure that that the measures does not meet the stated objective. If the value for any test item is between '0.67 to 1.00', the item is considered for accuracy and acceptable and if the value is below 0.67 to -1, the item needs to be changed.

The formula for calculating the $IOC = \sum \frac{r}{n}$ Where 'r' represents the sum of the scores of individual experts and 'n' represents the number of experts who validated the items. If the value of test item is between 0.67 – 1.00, the item is considered for accuracy and acceptable and if the value is below 0.67, it is considered that the item needs to be changed. The rating for all test items were above 0.67 which proved that the items were valid for the study.

3.5 Reliability

To check the reliability of the learning outcome test questions, a pilot test consisting of 35 multiple test questions were conducted with a section of another 5th grade students which is not a sample group in the same school. Kuder-Richardson formula (KR-20) was applied to find out the reliability coefficient of the learning outcome test. The KR-20 coefficient should be equal to or greater than 0.70 for the instruments to be reliable. The KR-20 coefficient was 0.748 which was greater than 0.70, this indicated that the learning outcome test was reliable. From 35 questions, 20 questions were selected for the pretest and posttest.

Similarly, 30 perspective questionnaire was tried out in another section of 5th grade students which was not a sample group. To find the reliability, Cornbach's alpha (α) was computed using SPSS software. The cornbach's alpha was 0.802 which was greater than 0.70, this indicated that questionnaire was reliable. From 30 statements, 15 statements were selected to find the perspective towards active learning approach in learning science.

3.6 Significance of the study

3.6.1 The use of active learning approach in the study would help students to improve their learning outcome in science.

3.6.2 The study helped the students to exhibit high level of perspective towards learning science through active learning approach.

3.6.3 The study would also be useful to motivate science teachers in Bhutan to use active learning approach as an alternative teaching method to improve their teaching, whereby bringing a modification in teaching method from teacher-centered to student centered.

3.7 Research procedures

Pretest was conducted to the sample group before the intervention of active learning approach. The test consisted of 20 multiple choice questions was prepared from the chapter 'Green plant'. Eight detailed lesson plans were used in teaching the chapter 'Green Plant' to 5th grade students. The duration of each lesson was 60 minutes. The sample group was taught using active learning approach. The researcher taught twice a week and the study was lasted for four weeks. At the end of the treatment period, posttest was conducted to the sample group using the same question as that of pretest. The perspective questionnaire was administered to the sample group at the end of the treatment to find the perspective level of the students' towards active learning approach in learning science.

3.8 Data analysis

In comparing and assessing the effects of active learning approach on the learning outcome of 5th grade students in science, a comparative statistical analysis was done using one sample t-test by comparing in terms of mean and standard deviation. The comparison was done 'within the sample group' by comparing the pretest and posttest scores of the sample group. The inferential statistics t-test with $p < 0.05$ level of significance, mean, and standard deviation was used to interpret the results. In order to find out the perspective of 5th grade students towards active learning approach, a set of questionnaire consisting of 15 statements was administered to the sample group after the treatment. The data collected through questionnaire was analyzed with the use of descriptive statistics such as mean, standard deviation and significance value (p).

4. RESULT

4.1. Analysis of Test Score

A comparative statistical analysis using one sample t-test was done within the sample group (i.e. analysis of pretest and posttest scores of the sample group). The inferential statistics t-test with $p < 0.05$ level of significance, mean, and standard deviation was used to interpret the results. Table 1 shows the comparison of the pretest and posttest within the sample group.

Table 1. Comparison of the pretest and posttest within the group

Group	Test	Mean	Mean Difference	Standard Deviation	Sig (2-tailed)
Sample Group	Pretest	8.41	14.14 – 8.41=5.73	2.37	0.00
	Posttest	14.14		1.96	0.00

Significance level (p) < 0.05-Significant

The scores of pretest and posttest were compared in terms of mean, standard deviation and significance value (p). The results showed that the mean score in the pretest was 8.41 and the standard deviation was 2.37. In the posttest the mean score was 14.14 which was 5.73 higher than the pretest resulting to the significance value (p) of 0.00 which indicated that there was significant increase in the scores of the students in the posttest after intervention of the active learning approach. It was also noted that the mean differences in the group after the intervention of the approach was significantly higher than before the intervention. This was further illustrated in figure 1 below

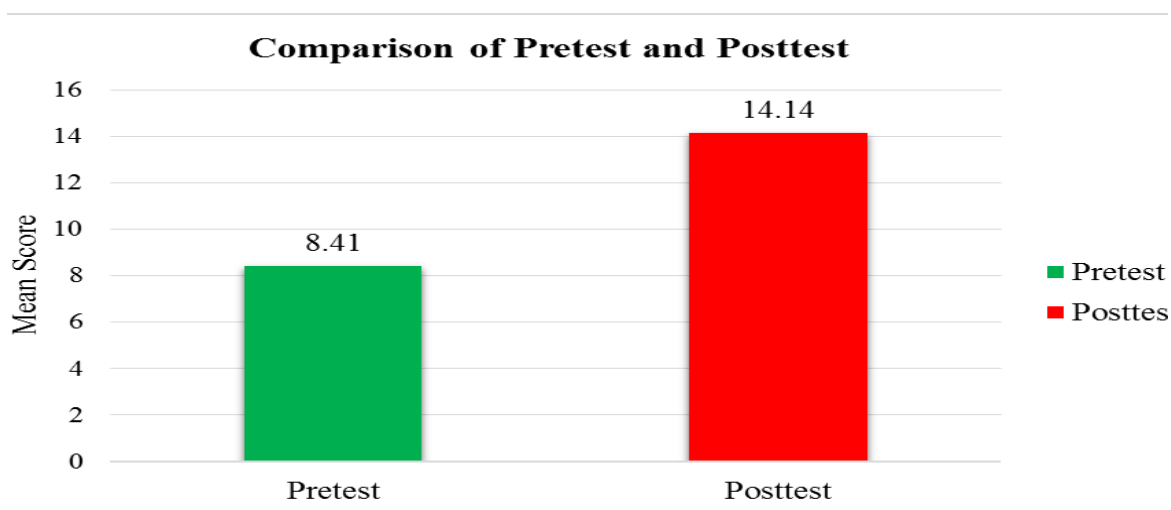


Figure 2. Pretest and posttest comparison

Further, it was illustrated by figure 3 below which shows the individual student performances of pretest and posttest scores.

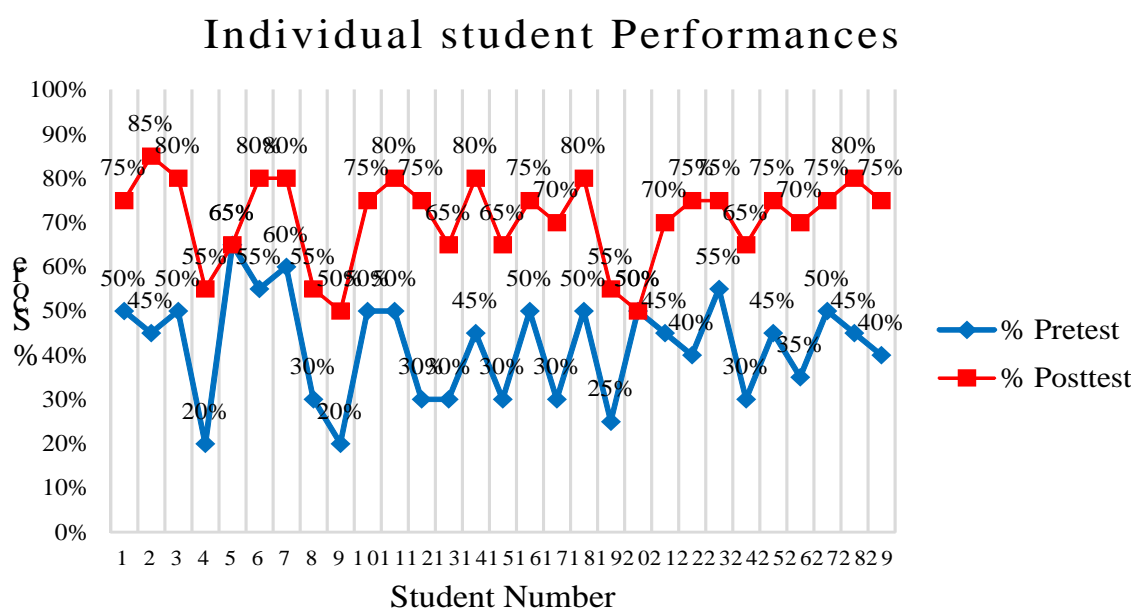


Figure 3 Individual Student Performances in Pretest and Posttest

Figure 3 above shows the level of learning outcome of each student in the pretest and posttest. The blue line shows the pretest score in terms of percentage whereas the red line shows the posttest scores in terms of percentage. The pretest was conducted before the experiment and posttest with same questions as pretest was conducted after the experiment. The figure intensely illustrates the differences in the performances of each student in their pretest and posttest. Most of the students had increased their scores in posttest indicating that active learning approach was effective in learning science. Student number 5 and 20 did not show any differences in terms of the scores and the reason could be due to the limited time

for the activities. However, maximum students made significant difference in the score from pretest and posttest indicating that the approach was effective in improving the learning outcome of the students in science.

4.2 Students' Perspective Questionnaires

The second objective of the study was to find out the perspective of students' towards active learning approach in learning science. The data was collected by using a questionnaire with 15 statements. It was administered to the sample group after the treatment. The mean and standard deviation were computed. Table 3 shows the mean and standard deviation of the statement after the treatment.

Five-point Likert scale was used to assess the perspective of 5th grade students' towards active learning approach in learning science. Table 3 provides a summary of the tabulation for the five responses (Strongly Agree, Agree, Not sure, Disagree and Strongly Disagree).

Table 2. Mean and Standard Deviation of students' Perspective questionnaire

No.	Statements	N	Mean	Standard Deviation	Perspective level
1	I learn more when I am fully involved in the activities.	29	4.59	.501	Strongly Agree
2	I never get bored in the class when I am taught with active learning approaches.	29	4.83	.384	Strongly Agree
3	I become more curious in the class when taught with the active learning approach	29	4.90	.310	Strongly Agree
4	I don't understand much when I listen for a longer period of time.	29	4.55	.632	Strongly Agree
5	Active learning method provides room for us to participate actively and share our experiences.	29	4.66	.484	Strongly Agree
6	Active learning involves a democratic relationship between the teacher and the student.	29	4.72	.528	Strongly Agree
7	I am able to give maximum attention when I am actively involved in the learning process.	29	4.66	.553	Strongly Agree
8	Active learning strategies help me to develop my interest towards learning science.	29	4.86	.351	Strongly Agree
9	Use of active learning strategies makes the science lesson more interesting.	29	4.83	.384	Strongly Agree
10	I like active learning approach because there is lot of interactions with friends.	29	4.79	.412	Strongly Agree
11	Use of active learning strategies in science makes me curious to learn than normal teaching.	29	4.79	.412	Strongly Agree

No.	Statements	N	Mean	Standard Deviation	Perspective level
12	I like active learning approach to be used in all the subjects to help enhance our learning.	29	4.83	.384	Strongly Agree
13	I prefer learning science when taught with active learning approach.	29	4.62	.561	Strongly Agree
14	I enjoy participating in the class activities when taught with the active learning approach.	29	4.72	.528	Strongly Agree
15	Learning is fun and exciting when taught with active learning approach.	29	4.86	.351	Strongly Agree
			4.75	0.45	

Scales : (i) Level of perspective: Strongly Agree(4.51-5), Agree(3.51-4.50), Not Sure (2.51-3.5), Disagree (1.51-2.50), Strongly Disagree(0-1.50)

Table 2 shows that almost all the statements were rated as strongly agree with the average mean 4.75 and standard deviation 0.45. The lowest mean was 4.55 with a standard deviation of 0.632 which also falls in strongly agree category. Therefore, the data analysis indicated that students strongly agreed with the statements and they had high level of perspective towards the use of active learning approach in learning science.

The overall perspective level of students towards active learning approach is shown in figure 4

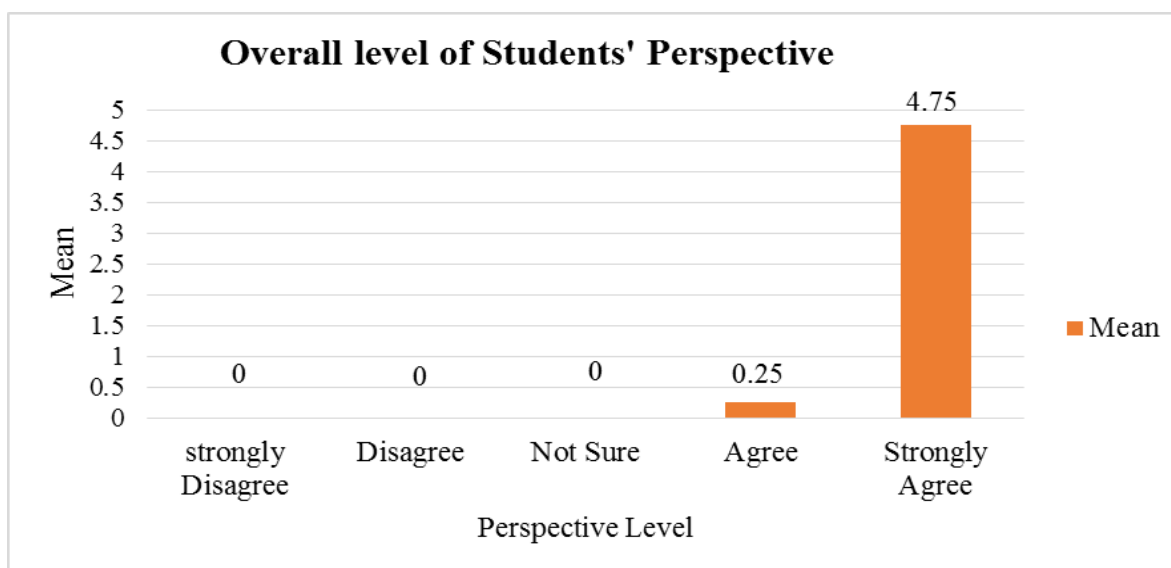


Figure 4 shows the overall perspective level of the students towards active learning approach in learning science. The graph shows that almost all the participants were positive and showed high level of their perspective toward the use of active learning approach in learning Science with the mean of 4.75 for 'strongly agree' and 0.25 for 'agree'. The graph also shows that none of the participants rated for 'strongly disagree', 'disagree', and 'not sure'. Therefore, it was concluded that all the students were positive towards active learning approach in learning science and they strongly agreed that teaching and learning with active

learning approach in science helped them to develop their interest, curiosity and provides them with lots of enjoyment, and fun in learning science.

5. DISCUSSION

5.1. Learning Outcome Test

The major finding of the study was the use of active learning approach improved the learning outcome of 5th grade students in science after the treatment. This was evident from the learning outcome test results of the students which showed the mean differences of 5.73 in the pretest and posttest of the sample group. When compared the mean scores of the pretest and posttest of the sample group, the mean for the posttest was significantly higher than the mean score of the pretest with 2-tailed significant value of 0.00.

Thus, this finding was in line with the study carried out by Abogye (2012) which aimed to find effects of Active Learning Approach on learners' achievement in physic science which showed that students who were treated with active learning approach resulted in more positive learning outcomes compared to those who were treated with conventional teaching methods. Similar positive findings was also revealed by Soltanzadeh, Hashemi and Shahi (2013) that active learning approach in the classroom have positive impact on quality of the students' learning process and also motivate them to learn more; Yoder and Hochevar (2005) also conducted study on encouraging active learning can improve students' performance on examinations; Mello and Less (2013) conducted a study on the effectiveness of active learning in the arts and science in the college level; Mamashela and Kibirige (2013) conducted to examine the effects of active learning on grade 10 learners performance in physical sciences; and Sesen and Tarhan (2010) conducted effects of active learning on high school students' learning achievement and attitude towards chemistry lesson. All their findings revealed that there were significant improvement in students' learning outcome of the students when active learning was incorporated in the lessons. Other researchers also reported that when active learning strategies like cooperative learning, discovery learning, constructivist learning, inquiry based learning, collaborative learning are used consistently students' shows more interest in learning and gain better academic achievement (Akinoglu and Tandogan, 2006; Armbruster, Johnson, Patel, and Weiss, 2009; Baepler, Cotner, Decker, Walker, 2008; Lopatto, 2007; Rabgay, 2011; Wilke and Straits, 2001; Yangden, 2015).

The possible reasons for high test score in posttest of the sample group could be due to the active engagement of the students throughout the learning process. The students were fully engaged in learning process with different active learning approaches where they were allowed to discuss, interact, share and present their findings in small groups as well as in pairs. The group activity further encouraged the students to interact, discuss and share their thoughts. The other reason could be due to the social interaction where students were given freedom to move, share their ideas with peers, and help each other's learning. Even silent students were also encouraged to talk and share their views and enjoyed greater degree of autonomy to ask and seek help from peers as well as from teacher which created conducive learning environment in the classroom. Constructivism theory, experiential learning theory, and Vygotsky social development theory supported this findings of the study. According to these theories, learning take place when students are actively involved in the learning process.

The theories focuses on the construction of knowledge based on prior knowledge by engaging students in the learning process. The theories also focuses on student centered learning which centered the responsibility their own learning.

5.2. Students' Perspective Questionnaires

The second major finding of the study was that the students showed high level of perspective towards active learning approach in learning Science. This major finding revealed that the students exhibited high level of perspective when science lessons was taught with active learning approach. The perspective questionnaire was used at the end of the treatment to the sample group. Almost all the students in the sample group enjoyed learning science with active learning approach.

This result was parallel with the findings of Adede and Matyar (2009) who found out in their study that students had positive perspective for active learning approach as compared to traditional approach. The author further stated that active learning also helped students to increase their cognitive level, create sense of curiosity, had ability to apply knowledge, developed independent learning skills and prepared them for their future careers. It was concluded that students' had positive perspective in learning with the inclusion of the approach and also showed more interest in learning science subjects. Similarly, Alzyoud (2013) who carried out a study to examine Abu Dhabi University (ADU) students' perspectives towards active learning approach. The study revealed that the students' perceptions was positive towards the use of active learning approach in their lessons. The author further revealed that the use of active learning approach in the classroom helped students engage in the activities, interact, discuss, share and express their thoughts which motivated them to learn more.

The possible reasons for such finding could be due to conducive and friendly atmosphere as well as due to the active involvement of the students in the learning tasks. The other possible reason for positive perspective for the use of active learning approach could be due to the use of different active learning approaches in the lesson. Students were sometimes made to stand out off their seats, move and interact each other. Students were found very curious and excited while doing the activities. The students were actively involved and motivated throughout the learning process. The other reason also could be due to the free movement (Example; For the activity Think-pair- Share and Stir-the-Class where students got out of their seats to pair up with their partner) and equal opportunities provided to every students to talk and share their thoughts.

6. CONCLUSION

The purpose of this study was to find the learning outcome of 5th grade students in science using active learning approach and secondly to find out the perspective of 5th grade students towards active learning approach in learning science. Quantitative data was collected to fulfil the stated purposes and the conclusion drawn from the results of the analysis are as follow:

6.1. Analysis of learning outcome Test Score

The first objective of the study was to study the effects of active learning approach on learning outcome of 5th grade students in Science. For this objective, same itemed pretest and posttest were conducted to the sample group in order to determine the learning outcome of 5th grade students before and after using active learning approach in teaching 'Green Plant' in science.

A comparative statistical analysis was done using one sample t-test within the sample group to see the difference in level of achievement between pretest and posttest. The mean scores of pretest and posttest were 8.41 and 14.14 respectively as shown in Table 1. The mean differences between pretest and posttest was 5.73. The significance value (p) was 0.00 which indicated that there was statistically significant increase in the scores of posttest than that of pretest of the sample group.

Therefore, this indicated that students performed better in posttest as compared to pretest. Thus, this accepted the hypothesis (H) of the study which stated that the learning outcome of 5th grade students' in science will be better when taught with active learning approach. It was supported by individual student performances of pretest and posttest as shown in Figure 3 which indicated that students perform well in posttest as inclusion of active learning approach as compared to pretest. It also indicated that use of active learning approach in science improved learning outcome of 5th grade students in science. Thus, use of active learning approach was found to be effective in teaching and learning science.

6.2. Students' Perspective Analysis

The second objective of the study was to find out students' perspective towards active learning approach in learning Science. In order to find the perspective of students towards active learning approach, a set of questionnaire which was framed based on five point Likert scale was provided to the sample group after the treatment. Table 2 shows the mean and standard deviation of each statements. The overall mean was 4.75 with the standard deviation 0.45. The result indicated that students after having taught with active learning approach exhibited high level of perspective towards the approach in learning science. Since the result of this study revealed students' high level of perspective towards the approach in science lessons when taught using active learning approach, a conclusion can be drawn that the use of active learning approach in science enabled students to exhibit positive perspective towards active learning approach in learning science.

6.3. RECOMMENDATION

This study was carried out to find out the effects of active learning approach in teaching science to improve learning outcome and perspective towards active learning in science of 5th grade students in Bhutan. The findings of the study revealed that the use of active learning approach in teaching science improved the learning outcome and exhibited positive perspective towards active learning approach in learning science. Therefore based on the findings of the study, following recommendations have been made for the better teaching and learning of science.

6.3.1 Recommendation for Implementation

1. Teaching through active learning approach had positive impact on learning outcome of the students. The result from this study showed that the learning outcome score of the posttest was higher than the pretest score. Therefore, use of active learning approach into daily classroom in teaching science is highly recommended.
2. Since the finding of this study showed positive perspective towards active learning approach in learning science, therefore teachers may initiate to incorporate active learning approaches into their lessons to make the lesson interesting, and engaging, to enhance their learning.
3. Students showed positive perspective in learning science with active learning approach. Thus, use of active learning approaches in daily teaching in the classroom would be rewarding.
4. This study would help as a reference for Bhutanese researcher to research in related field of studies.
5. The study also recommends the school administration to focus on active learning approach and provide professional development to teachers.
6. Teacher may also use active learning as a teaching strategy to enable students be engaged in the teaching learning process rather than using the traditional way.

6.3.2 Recommendation for future research

Considering some of the limitation of the study, following were the recommendations for further research;

1. Further research may be carried out to study the effectiveness of Active Learning Approach in other subjects and other level of education.
2. This study has used only seven active learning strategies. Researches may conducted to study the effectiveness of each active learning strategies in various subjects.

3. Further research may be carried out to study the effectiveness of other active learning approaches in science.
4. The study may be conducted how to incorporate active learning with lecture, so that even lectures can be active learning.

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From Paradise to Nightmare Thailand's Journey on Commercial Surrogacy

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Abstract

In recent years, surrogacy- the practice where woman carries and gave birth to a baby for the couples who want children and cannot have one has taken a commercial form in the global market. Though surrogacy services were available in many countries like the US, UK, Australia, due to the high quality and low fee clinics, Thailand and India have become a reproductive tourism hub. More than 2000 foreigner couples came to Thailand each year for commercial surrogacy. The surrogacy industry seemed to be a lucrative business for both surrogate mother and the intended parents in Thailand until now. This case study offers a description of the consequences of the Assisted Reproductive Technologies Act (ART Act) in Thailand, which was implemented after a controversial case of Baby Gammy. Other series of controversies fueled the public attention and Thailand government solved this by putting a law that ended commercial surrogacy in 2015. However, the surrogacy market in Thailand was less regulated. It was associated with big incentives to surrogates and other parties, which could lead this business to grow underground and make it more difficult to regulate than before. This law also had a negative impact on Thailand's LGBT community as same sex couples were not allowed to undergo surrogacy. The purpose of this case was to enhance students' understanding of the transition of Thailand from a surrogacy paradise to the nightmare after the implementation of the ART act in 2015. Also, readers were expected to understand the complexity underlying the implementation of the ART act—which excludes homosexual families from having children and also has been a lucrative business for people in lower socioeconomic strata. Further, we were expecting readers to discuss if the implemented policy has helped to better the surrogacy market in Thailand and supported mothers like Lily or if it has promoted the underground surrogacy in the country? At last, readers have to further discuss other alternatives rather than banning surrogacy in Thailand.

Keywords: Surrogacy, Thailand, Reproductive Health

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Overview

Lily, a woman of 22, belonged to a family with a poor economic background in Thailand. When her economic constraints hit the rock bottom, she decided to opt for surrogacy and got enrolled in an America based surrogacy clinic in Bangkok. Surrogacy in Thailand back then was a lucrative business. Thailand was a popular destination for surrogacy attracting couples from all over the world. One of those couples who came to surrogacy was David Farnel and Wendy Lee from Australia.

In early 2013, Lily met this Australian couple through surrogacy clinic in which she was enrolled. The clinic helped Lily for commercial surrogacy contract with them. Through artificial insemination, Lily got pregnant. Things were going smooth until her 2nd trimester of the Pregnancy. During her 7th month checkup, she was diagnosed as a case of Twin Pregnancy—one child with the Down syndrome. Her clients asked her to abort the child with Down syndrome and keep the healthy child.

However, by that time Lily was in love with her babies. Being a Buddhist and according to her beliefs, abortion was a crime. “How could I kill my baby?” she thought. Hence, she refused to abort the child and decided to raise the baby boy on her own. On Dec 2013, Lily delivered Twin Babies—a boy with a down syndrome (Gammy) and a healthy girl (Pipah). The biological parents flew back to Australia with the healthy twin sister Pipah leaving baby Gammy behind.

Hereby, Lily started facing trouble. Her economic condition was not good enough to raise the child only on her own. Hence, in July 2014, she started raising funds for her genetically diseased child. The news was an international sensation on July 2014 and donors from all over the world helped her amass a lump sum of \$250,000 to help her raise the baby. Further, the incident gained a huge popularity in the international media. As a response to which Thai government imposed a ban on foreign surrogacy from July 30, 2015 under the Protection of Children Born from Assisted Reproductive Technologies Act (ART) which has raised questions about commercial Surrogacy

Defining Surrogacy

Surrogacy takes two forms: Altruistic and Commercial. The distinction between these two forms of surrogacy is made depending on the fact whether surrogate receives financial incentives or not¹. The era of commercial surrogacy began in 1970s. July 25, 1978 was a special day in medical history that the world's first IVF baby “Louise Brown” was born in UK. This giant leap in the field of biotechnology helped to flourish surrogacy and helped people all over the world who were dealing with issues of infertility².

Since then, surrogacy has gained a lot of popularity around the world. However, the topic could not remain void from controversy. There were a lot of questions raised from ethical, legal and social point of view. The first legal issue was in 1985, when the surrogate mother refused to give the child, known as Baby M, to her biological parents³. Many people believe that this act was a form of trade mechanism towards women especially who needs money. Also, there was a human right concerns related to the use of contracts and whether the baby should know the surrogate mother or not⁴.

Different religions, including Muslims and Christians are against Surrogacy. Islamic Law was against surrogacy and regard using third party in reproduction as adultery⁵. In addition to Muslim society, the Catholic Church strongly opposes the use of assisted reproductive technology and surrogacy as stated "Techniques that entail the dissociation of husband and wife, by the intrusion of a person other than the couple (donation of sperm or ovum, surrogate uterus), are gravely immoral. These techniques (heterologous artificial insemination and fertilization) infringe the child's right to be born of a father and mother known to him and bound to each other by marriage. They betray the spouses' right to become a father and a mother only through each other"⁶.

Despite of the fact that surrogacy was illegal in many parts of the world. It has been a lucrative business in the developing countries. In Asian Countries, especially India and Thailand, surrogacy was one of the booming industry until recently. The surrogacy seemed to be a lucrative option for women of poor socioeconomic background to earn money. Socioeconomic constraints coupled with lack of proper legislation to regulate surrogacy industries were the factors that were prompting commercial surrogacy in these countries. However, both of these countries have passed bills for shutting down Commercial surrogacy in all forms recently³.

Surrogacy in Thailand

It was in 1987 when the first IVF baby was born in Thailand in Chulalongkorn University. Initially, it was confined in the Medical College and Government hospital, but later many private health clinics and agencies were established in providing the services to the infertile couples⁷. In comparison to developed countries, Thai surrogates were relatively cheaper. Hence, due to economical and quality services, Thailand became an attractive country for commercial surrogacy for international clients from countries where commercial surrogacy is illegally or expensive³. During 2006 to 2010, Thailand developed as the epicenter for IVF. Each year, more than 2000 foreign couples would come to Thailand for commercial surrogacy services. The number had increased after India banned the commercial surrogacy services. The cost of Surrogacy in Thailand is USD 22,000 or 760000 THB approximately—which was relatively cheaper than Western countries. Surrogates were paid \$10,000 for a successful pregnancy along with monthly allowance of \$450 and free lodging facility in Bangkok where women would be kept during their pregnancy⁸. Hence, Thailand was a surrogacy Paradise for foreigners, seeking commercial surrogacy services, leading to growth on economic perspectives of the poor mother like lily through Medical Tourism⁹.

However, after the baby Gammy incidence, under the *Protection of Children Born from Assisted Reproductive Technologies Act*, Thailand has banned commercial surrogacy contract arrangement to the foreigners since July 2014¹⁰.

Catalysts for New Surrogacy Law in Thailand and its Consequences

Though, Thai Medical Council Act for assisted reproduction had already been in place since 1997 and further revised in 2001, these guidelines failed to control the increasing trend of commercial surrogacy thereby indicating policy shortcomings³. However, it was not until in 2014, when a series of scandals shook the Thai nation and drew attention of international media.

On Feb 23, 2011 fifteen women who were forced to be involved in illegal commercial surrogacy, were rescued by a non-profit organization (AAT- Alliance Anti Traffic) and the Thai authorities from Bangkok. Most of these women (11 out of 15) were allured into this money making business as they had been promised US\$ 5,000 per baby which was easy money for them. As for the remaining 4 women, they were forced into this lucrative business. This case was portrayed as a case of human trafficking rather than of illegal commercial surrogacy¹¹

Adding to this series, in July 2014, there was a controversial, yet another groundbreaking story of “Baby Gammy” where the surrogate mother was left behind with a genetically disorder baby with a Down syndrome. The intended parents had taken the healthy, female twin back to Australia leaving Baby Gammy behind¹². Following this scandal, there was Mitsutoki Shigeta case also known as “baby factory” case, where a Japanese businessman had fathered 16 surrogate children questioning the motive behind it¹³.

These scandals triggered public outrage, as a result in August 2014; the Thai government published a draft law banning commercial surrogacy “Protection for Children Born Through Assisted Reproductive Technologies Act” (the “ART Act”)¹⁴. On November 2014, the draft law was passed in the parliament by 177 votes¹⁰. Hence, in February 2015, the National Legislative Assembly of Thailand officially enacted the ART act which was effective from July 30, 2015¹⁵.

“ART law aims to stop Thai women's wombs from becoming the world's womb by barring foreign couples coming to Thailand for seeking commercial surrogacy services”, said Mr. Pat, who was a member of Thailand's National assembly¹⁶.

Under new legislation only heterosexual couples, who have at least one partner as a Thai citizen can only opt for surrogacy. The form of surrogacy must be altruistic and the surrogate must be of blood relation to either one of the couple. Further, any form of commercial surrogacy was banned. Anyone who broke the law would be punished with up to 10 years' jail or a fine not exceeding 200,000 Baht (\$8000). Also, if anyone was involved in advising about surrogacy, he or she would be imprisoned up to five years or charged up to 100,000 Baht. Also, the selling of sperm, ovum and embryos were also banned according to the new legislation¹⁷.

Post Banning Period

Steve and James, the same sex couple from Australia were caught up in the turmoil created after the Thai Government banned surrogacy in the country. They were the biological parents of three weeks' child Rhyely, and were looking forward to go back to Australia on September 2014. However, when the ban was imposed, it was difficult for them to return back to their country. Steve and James were among over 200 couples who were not allowed to leave Thailand due to the prohibition. Seeking permission from the Thai government to return home with their children added significant stress on foreign couples. The extra cost and delays caused couples in financial crises and were forced to take out additional loans while waiting for a decision that took up to six months from Thai government. Further, approximately 400 couples who had their pregnancies underway were affected by the sanction. Nearly half of them from Australia were also in trouble as clinics suddenly shut down. They lost contact with their surrogates and were left in the mist of uncertainty in Thailand away from their residing countries^{3 7}.

Challenges

In Thailand, the compensation for surrogate mothers were more than 6000 USD which was equivalent to 200,000 Baht (Approx. 1USD=35THB)¹⁸. This was more than one-and-a-half-year income compared to minimum salary of 300 Baht per day in Thailand^{19 20}. Some received compensation around 10 years of their current salary¹⁸. Especially in Thailand, Thai surrogates were involved in surrogacy business due to economic concerns. Most of the women became surrogates to pay for their education, to pay off debts, or to support their families. Park Ok, a village which is nearly 6 hour ride from Bangkok, had 24 women involved in surrogacy business. These women bought new cars, renovated homes after being a surrogate mother. This has further increased interest of other women in the village about the business.

"If I wasn't this old, maybe I would have done it myself," Ms. Thongchan, one of the villagers said⁸. Some women were also pressured into being surrogates by their family members and husbands' because of large payout surrogacy provides. This can be a big incentive for Thai surrogates although Thailand has relatively low unemployment rate of 6.4% in 2014²¹.

Hence, when the business looked economically promising, banning surrogacy might be less likely to affect the market. Banning surrogacy would not stop, instead it might go underground and make it more difficult to control and regulate. As a result of the ban in surrogacy, black market for surrogate mothers might proliferate, pushing the entire industry underground³. In India, an eight-month pregnant surrogate mother died in a Mohali hospital. She had been registered under a false name and was found to be commissioning altruistic surrogacy. This left behind a web of several questions. In India, surrogacy is illegal, but it still continues to operate as an unregulated industry²². Similar cases might exist in Thailand, but not much has come into light so far.

If such unregulated market continued it could endanger the lives of mother and children. As we know, Pregnancy is associated with many maternal and child health complications and surrogates need better quality of health care than a normal pregnancy. Now, the new law has put their health in a more danger condition. It was the surrogate mothers who must endure the physical trauma of pregnancy and birth. In addition to that, she must also endure the psychological pain of surrendering the child after its delivery. Unregulated market would make it difficult for women to seek legal advice if they had any issues during the surrogacy period²³. Also, commissioned children would experience, at a minimum, confusion about their origin as well as legal battles over citizenship rights³.

The new law affects all couples both national and international who were looking for surrogates in Thailand. As mentioned earlier, childless couples need to be Thai nationals or one Thai national with at least three years of marriage. The surrogate mother must be a blood relative. This law made the process difficult for the couples without relatives. It limited their choices of family as the law did not allow surrogacy except blood relation¹⁸. The community that was affected the most in Thailand was same sex couples. In March 2015, Thailand parliament passed gender equality act to protect LGBT community from discrimination, violence and to protect the rights²⁴. But in the new surrogacy law, same sex couples were banned from getting children through surrogacy. The two laws, both enacted in 2015 were contradicting each other and clearly showing that same sex couples had no right to get any offspring of their own. This was a challenge for Thai LGBT population who were usually well accepted in the community unlike other countries²⁵.

As Thailand banned commercial surrogacy, operators looked towards Cambodia and the surrounding nations to offer commercial surrogacy. Due to lack of proper regulation there might be a high chance of Thai couples and women seeking commercial surrogacy from neighboring or ASEAN Countries.

Way forward

The potential for the Thai surrogacy industry to be unregulated after the ART act increased. As discussed earlier, though there were risks involved in the field of surrogacy, surrogacy provides genetically incapable parents with the children as well as her women who were not economical sound with the economic opportunities. Thus, banning commercial surrogacy industry was not a perfect solution for Thailand. Instead of banning the surrogacy and driving the practice underground, Thailand should have implemented laws to regulate the commercial surrogacy—with arrangement for protection of all parties involved. Thailand should have implemented laws and procedures regulating commercial surrogacy so that arrangements would proceed with protections in place for all parties. Regulation of private clinics which has worked out in certain states of US could be a good alternative to regulate the Thailand commercial surrogacy market. Surrogacy option could be made available through fertility clinics or by the surrogacy clinics; however these must be regulated by laws³.

Thus, in conclusion after implementation of the ART act in 2015, Surrogacy in Thailand went from being a lucrative business with Thai women as well as for foreigners, surrogacy paradise to the nightmare. Though the act was implemented to ensure that Thai surrogacy completely shuts down after its implementation, the chances of the business to be underground could not be denied. However, this might not quite be the case. Even after imposing the ban, it might not rule out the scope of underground surrogacy. Banning down surrogacy mainly aims to prevent Thailand from being "the womb of the world" but why is this diminution brought up to the only one option for the childless couples? So, instead of putting a sanction on the commercial surrogacy industry, government needs to bring out other better options for fertility. The government of Thailand needs to answer this to people rather than shutting down the business totally.

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Free Maternal Neonatal and Child Health Care Policy between Ministry of Health (MoH) and CHAM in Malawi

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Aye Thanda Aung⁴ and Pragya Karki⁵

Overview

It was at the third session of the parliament in 2002, in Malawi, various Ministers had come to present amid cheerful applause and at times disapproval groaning from those who had been invited. The last presentation was to be made by the Minister of Health, and everyone was still cheerful due to the encouraging presentation that had been given by the Minister of Finance. As the Minister of Health stood and got to the podium, you could tell from his serious and pensive face, that he was going to present issues of “life and death”.

“It has been the second death, in 3 weeks, of a pregnant mother while trying to give birth at home, in the remote village of Golazana. The whole village is dumbfounded, the husbands of the deceased, are inconsolable. For both cases, it was their first pregnancy, and for nine months they had joyfully and expectantly waited for the birth of the new children. Both had not been able to access antenatal health care services as they had opted to give birth at home, they could not afford to pay the Maternal fees at the local clinic. This has been the case for many of the poor women living in most remote rural areas.”

As he finished narrating this ordeal, the whole chamber went quiet and everyone was visibly shaken by the sad news. All parliamentarians could be seen shaking their heads, probably thinking, what if I was the person in the narrative of such a sad story. Everyone seemed to have concluded in their minds that health was a matter of “life and death”, hence the obligation of everyone sitting in this chamber was to ensure life is preserved at all cost.

The Minister of Health finished off with a persuasive argument that there was need for implementing “*innovative and practical*” ways to improve access to Maternal Neonatal Child Health Care (MNCHC) services in remote areas. “For my Ministry and this applies to the whole government as well” he said “development is measured by how well we improve maternal and child health. Events of the past 3 weeks in Golazana, should not happen again in our modern world”.

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Just as he got off from the podium, the Minister of Health got hold of the Prime Minister and other members of the Health Committee. An emergence Maternal and Child Health taskforce was set up to look into practical ways of ensuring that Maternal and child health services were accessible and affordable to families living in remote areas. The MNCHC taskforce was to work under the direct and strict supervision of the Minister of health. The taskforce was given a 20 days' period to gather all information necessary from all the remote areas of the country and finding innovative ways of addressing this dire issue.

Malawi demographics

Malawi is a sub-Saharan African country and has an economy which is primarily based on agriculture, which contributes to about 30% of the country's GDP. The country, with 3 regions and 27 districts (12 in the south, 9 in the center and 6 in the north) is 901 km long and ranges from 80 to 161 km in width. In 2015 the country had a population of about 15 million people and an annual growth rate of 1.9%. The population density is estimated at about 105 persons per square kilometer (range: 307 to 42 per district), which was the highest in Sub-Saharan Africa¹.

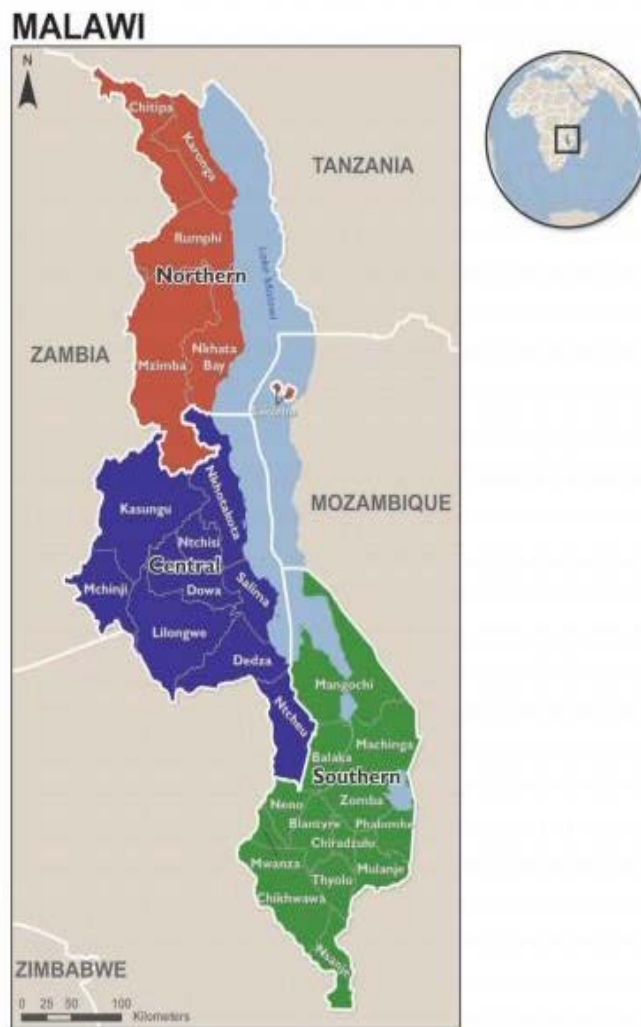


Figure 1: Map of Malawi Source: Demographic Health Survey (2015)

Trends in childhood mortality, as assessed through the 1992, 2000, 2004, 2010, and 2015-16 MDHS surveys. The data presented in Figure 1.2 document a steady decline in under-5 mortality rates from 234 deaths per 1,000 live births during the 5 years immediately preceding the 1992 MDHS, to 133 deaths per 1,000 live births in the 5 years prior to the 2004 MDHS, to reach 64 deaths per 1,000 live births in the most recent 5-year period. Infant mortality decreased from 135 deaths per 1,000 live births, to 76 deaths per 1,000 live births, and to 42 deaths per 1,000 live births in the same period².

HIV/AIDS, NCDs (mainly diabetes and hypertension), lower respiratory infection, diarrheal diseases, and malaria were the top 5 causes of adult morbidity and mortality. However, acute respiratory infection (ARI), fever, and diarrhea, malaria and malnutrition were the five most common childhood illnesses and deaths³.

Deaths per 1000

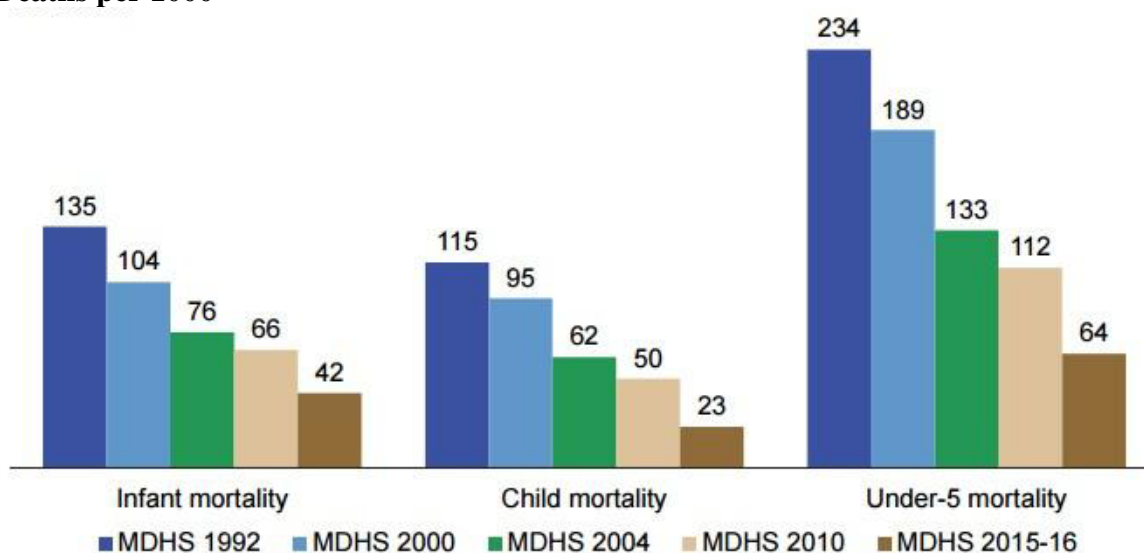


Figure 2: Trend in child mortality (1992 – 2016): Source: Demographic Health Survey (2015)

Maternal and Neonatal Child Health Care services in Malawi

Maternal and child health services refers to the essential health care that a mother receives before, during pregnancy, childbirth, and after birth⁴. These services are crucial for the survival and well-being of both the mother and infant. Antenatal care (ANC) and postnatal care (PNC) services are the integral components of MNCHC services which enables early detection of complications and prompt treatment; prevention of diseases through immunization and micronutrient supplementation; birth preparedness and complication readiness; and health promotion and disease prevention through health messages and counselling of pregnant women⁵. The following is the list of MNCHC Antenatal, delivery and Postnatal care services (ANC and PNC) services provided at the health facilities in Malawi:

- Screening and testing (PMTCT)
- Supplementation (Vitamins)
- Health Education
- Anthropometry (weight, BMI, height)
- Family planning
- Birth and emergency plan, infant feeding
- Curative services
- Health Commodities and Non-monetary incentive (insecticide treated nets)
- Preventive measures (tetanus toxoid immunization, iron and folic acid)
- Counseling (nutrition, psychosocial)

These services were made possible by the government of Malawi, through the MoH, provided leadership for health policy development through coordinating development plans, development of policy, development of investment plans, and monitoring implementation of the plans. Public health services were delivered at three levels of care with clear referral links from; primary, secondary up to tertiary level of care. Primary care level was the first point of entry into the health system and involved preventive and health promotion community led interventions and secondary level services were accessed at district hospitals while tertiary services were obtained at the central hospitals.

An estimated two-thirds of health facilities in Malawi offered antenatal care (ANC) services in 2010, with nine of every ten health centers offering ANC and PNC services⁶. Although health care services were free for all at point of delivery, the government faced various challenges due to limited funding and resources. MNCHC services were also affected leading to increased maternal and neonatal mortality rates which affected the number of pregnant women having home deliveries as they could not access and afford to pay for ANC and PNC services. This led to high maternal mortality rates in Malawi.

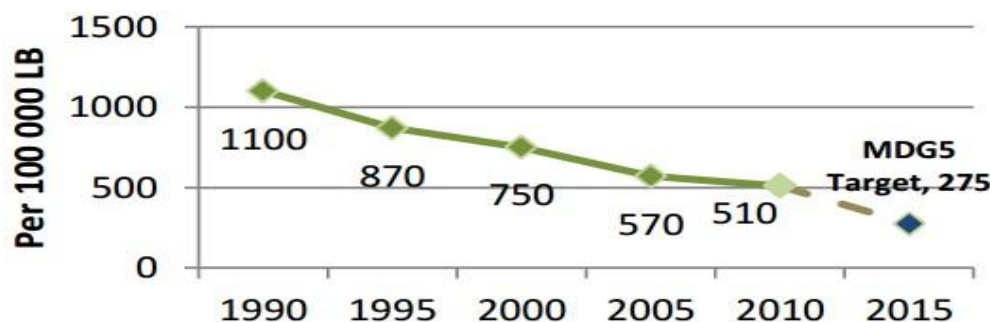


Figure 3: Maternal Mortality Rate from 1990 to 2015: Source: Malawi Demographic Health Survey (2015)

Place of births- Where are babies born?

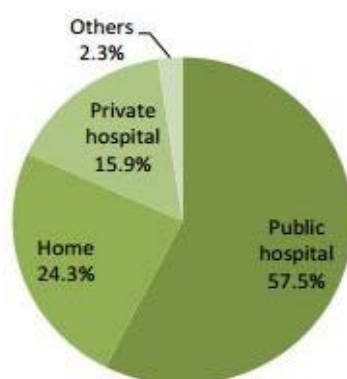


Figure 4: Place of birth in Malawi: Source: Demographic Health Survey (2010)

According to the graph in Fig 3, the high maternal and child mortality ratio of 1100/100,000 live births in 1990 was well above the MDG 2015 target of 275/100,000 live births. Despite the interventions that were implemented, maternal mortality remained high. Most women continued to give birth at home as shown in the Figure 2, with no skilled health workers (HWs) to attend to them. A greater percentage of these women were from remote and rural areas with a low socioeconomic status. The country made great progress in improving MNCHC where maternal mortality declined through improving the country's health outcomes. To achieve MDGs 4 and 5 to help strengthen the Malawi health system, the government emphasized on implementation of MNCHC programming through; Safe Motherhood Programs, expanded program immunizations, Emergency Triage Assessment and Treatment (ETAT), Family Planning programs, nutrition programming. They also implemented policies like the National Population Policy (1994) and Integrated Management of Childhood Illness (1999) to support the effectiveness of MNCHC services¹.

The Public-Private Partnerships with CHAM to facilitate service provision and access helped to reduce coverage gaps in rural and remote parts of the country, hence increased access and utilization of maternal and child health services. Under-five mortality substantially declined from 244 to 71 deaths per 1,000 live births between 1990 and 2012. With the global aim to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births². Malawi had to focus on achieving health equity by also addressing issues such as drug and staff shortages, improving quality of services, addressing adolescent reproductive health, and unsafe abortions in MNCHC. Malawi was one of the 193 member states committed to implement the SDGs (2015-2030) which aims to ensure healthy lives and well-being for all at all ages. Two of its targets are to reduce the global maternal mortality ratio to less than 70 per 100,000 live births and end preventable deaths of newborns and children under 5 years of age¹.

Women who resided in rural areas had reduced access to MNCHC services, when compared to women in urban areas. This was attributed to acute shortage of resources and services unavailability. Comparisons between the three regions in Malawi demonstrated that there were slight disparities in the number of skilled attendants in MNCHC services. Ninety-six percent of women in the Northern Region received ANC from a skilled attendant compared with 95 percent of women in the Southern Region and 94 percent of women in the Central Region⁶. Although the majority of women received ANC from a skilled attendant regardless of their education, socioeconomic status was seen to be directly related with use of a skilled attendant for ANC services¹.

CHAM and the Service Level Agreement (SLA 2002 and 2012)

CHAM was formed around 1966, a period when missionary health services grew substantially in Malawi. For these health providers to interact well with government, they formed a charitable organization called the Private Hospital Association of Malawi which later became CHAM. CHAM was established as a union of churches (Roman Catholic, and Protestant churches) working under the Episcopal Conference of Malawi and Christian Council of Malawi⁷.

The CHAM's executive was responsible for implementing policies and decisions through the association's secretariat. The MoH was not part of the executive committee and did not have decisive influence on CHAM policies. CHAM consisted of health facilities, hospitals and training colleges that were formed to address health inequities in rural and remote areas by improving access to quality care through the provision of cost effective health services. It consisted of 175 health facilities and 12 training colleges located in all the three regions of Malawi. CHAM activities expanded over the years to include establishing hospitals and training schools which trained nurses, paramedics and other health workers since its founding. In addition, CHAM provided critical care and preventive services to a greater percentage of people living in marginalized areas.

As a result of the challenges faced in the access of MNCHC services to women in remote areas, the Government of Malawi was prompted to enter into a contractual agreement, an effective fiscal mechanism called Service Level Agreement (SLA 2002) with CHAM institutions. The SLA 2002 aimed at improving access, equity, quality and to reduce the financial burden of out of pocket expenditure (user fees) on MNCHC health services¹. Most of the CHAM facilities were situated in remote and hard to reach areas and played a crucial role in creating access to essential health services for the people of Malawi.

In describing the SLA, the Minister of Health said;

“This is a turning point for families living in the remote areas, mothers and their children can now be assured of a safe environment. The past events of women who died whilst giving birth in Golazana can no longer be part of our future”.

Under the SLA 2002 agreement, CHAM facilities were contracted by the Ministry of Health (MoH) to provide MNCHC services within their catchment area “free of charge” to pregnant mothers, infants and young children. In addition to this Memorandum of Understanding (MOU), the government would then pay the CHAMs for MNCHC services accessed by women who live in the remote areas and could not afford to pay user fees to access these services⁷.

The SLA provided dividends in terms of increased access to MNCHC health services. This was the case as those that were previously excluded from these services on the account of user fees from CHAM facilities were now able to access them. However, there were difficulties in financing and effective implementation of the SLA due to the political and economic challenges¹. This led to a lack of trust between the government and CHAM, whereby in some instances government and CHAM accused each other of lack of transparency and accountability. The clear misunderstanding and poor implementation and monitoring of the SLA policy negatively affected the gains that had been made in MNCHC services delivery in the remote rural areas. Consequently, as the women visited the CHAM health care facilities, they had to pay MNCHC fees resulting in women reverting to home deliveries due to lack of finances⁶.

Financing SLA to provide MNCHC services in Malawi

The contracting of health services was popular in developing countries in the 1980s following the implementation of World Bank and IMF structural adjustment programs. These programs were preferential to partnerships between public and private healthcare systems and the developing countries had to adhere to loan conditionalities imposed on them⁴. As a result of these loans they would address weak capacity in the public sector and spread out coverage of services to poor populations⁸.

Since the late 1990s, many developing countries stopped charging user fees for health care or put in place strategic plans in order to expand accessibility to health care. Since 2006, the Malawi government joined the other states to implement this mechanism. Many health care programs were implemented with an aim to increasing access to services and challenges are usually faced if accurate and suitable measures are not put in place. The implementation of the SLA program presented some challenges to both government and service providers. Some of these are: increased workload, shortage of personnel, shortage of drugs and equipment, congestion, increase in water and electricity bills and delays in payments by the DHO making it difficult for the contracted institutions to replenish depleted stocks of drugs and supplies.

Public health care financing in Malawi came largely from government taxes as well as funding from co donor agencies and the Ministry of Finance was responsible for allocating fiscal expenditure for the health sector¹. Financing from the private sector was another major source of health financing. Prior the SLA a good proportion of the population, including pregnant women and young children, were not covered by the public funding. Such communities had to make an out-of-pocket payment to access health services at health facilities and private health insurance was not also well developed, largely due to state provision and financing of health services, and to high levels of poverty⁸.

The SLA was introduced in perspective by the government as a strategic plan to advance partnership between the non-public agencies providing health care in Malawi. It was formulated in line with the National policy framework on Public-private enacted by cabinet and the Public-Private Partnership Strategy of the⁷. Malawi government and CHAM signed an MOU as partners in health care delivery outlining the operating principles of their partnership so promote the accessing of health services at CHAM institutions. CHAM would continue charging ‘minimum’ user fees and in turn the MoH will be responsible for paying salaries to all CHAM health care institutions’ employees⁷.

The dependency of Malawi health sector was mostly on foreign donor funding which was affected and saw a decline due to the impact of the 2013 “Cashgate” government scandal. This affected Malawi in that they faced limited potential growth in its revenue and facing a fiscal crisis in its health sector with a total health expenditure declining from 22% to 16%⁹. The first SLA agreement was introduced in 2002 covered all EHP (Essential Health Package) health care services⁷. The SLA was also renewed in 2012 and mainly focused on making MNCHC services available and accessible to women and young children living in remote areas. Government made plans that the funding of SLA services would come from the District Health Office’s (DHO). The District Health Management Team (DHMT) was responsible for adequately reflecting the cost of provision of service, administration, monitoring and evaluating SLAs (CHAM, 2009 and CHAM and NCA, 2009). The MoH would cover the direct costs of medicines, medical supplies as well as monitoring of SLAs while CHAM facilities responsible for indirect costs such as infrastructure, equipment and utilities¹.

In relation to the delay of payments by the government to CHAM came with its implications and in the views of DHMT, it was discussed in a study by Gama (2013), were interviews were conducted to collect information. The DHMT presented that the delay in payment strained the CHAM institutional budgets affecting the quality of services provided to the community and also at times lead to non-provision of these health services as the resources. Representatives of CHAM facilities suspect that the delay or non-payment by the DHO could be a result of high staff turnover and lack of proper governance system with people in power advancing their own interests and not of the government or people⁷. Another point of view was that CHAM were interested in the financial gains from the SLA and not the provision of quality health care services to the poor population as claimed in many CHAM documents¹⁰.

Although the government was delaying or not paying CHAM facilities, research on the effects of user fee exemption for MNCHC services has in numerous countries yielded positive) results in a number of developing countries such as Uganda and Sierra Leone, Senegal, Kenya, Ghana, Burkina Faso, Burundi and Nepal⁹. Although such strategies were implemented successful in other developing countries, in South Africa and Afghanistan, they saw an increase in ANC visits but the program was not sustainable as there was no effective delivery⁸.

Service Accountability

According to the SLA contract, the monitoring and evaluation process was based on the utilization of health services by patients living in the catchment area of the health facilities. The facility was required to provide a monthly report, with details of all services utilized during the reporting period through Health Management Information System to the DHO. The DHO was responsible for verifying the information provided to ensure whether CHAM facilities were meeting contractual requirements. Zonal supervisors from the MoH were also responsible for carrying out routine checks on the performance of the agreement as part of the district supervision visits. Such supervisory visits included at least a biannual visit to the CHAM health facility covered in the agreement. However, members of the management team at some CHAM facilities alleged that the verification process through monitoring and evaluation mechanisms by DHOs and routine visits by the zone rarely take place as stipulated in the contract.

The SLA contract stipulated that the total monthly fees of the agreement had to follow principles of performance or results based financing. A financial report was then submitted and reviewed by both parties (CHAM and MoH) before payment was made. Key indicators established at baseline were used to measure performance, on the basis of population served and targets for a particular intervention⁷.

The framework stipulated that monitoring of the SLAs needs to be done on an ongoing basis. Monthly reports for health services provided were sent to the District Health Officers (DHOs), who then compiled monthly reports, disaggregated by facility, into quarterly reports. The format for activity report was not strictly prescribed, but included a breakdown of the contracted interventions. Given that government had limited resources to effectively monitor and evaluate the SLA, there were concerns about the possibility exploitation of the contract by CHAM facilities. Conversely, there were apparent capacity constraints which limited the extent to which the MoH could monitor and implement SLAs⁷. It was apparent that CHAM facilities through SLA were helping poor and marginalized people to access and utilize essential health care services. However, the general perception among the members of District Health Management Teams (DHMT) was that CHAM facilities were expensive and overcharging the government for simple procedures which would cost less in public health care facilities. One official from the MOH asserted that they were losing interest in the effectiveness of the SLAs and felt CHAM facilities were inflating prices for services offered:

“Every item used is charged, we have over prescription problems with CHAM, bed space charged at K60.00, charging administration fees, they argue that it is for utilities bill”. Most CHAM officials expressed concerns about time spent on meetings with DHMTs to negotiate payments and discuss SLA related issues: Moreover, they were conflicts on both sides on the understanding of the SLA.

“The hospital management has been to the district and zone office several times to discuss the payment issue,”. Other CHAM members added “MoH did not define what exactly SLA is all about- are they outsourcing to CHAM or is it supporting CHAM, or is it a mixture of both? Clarity of this could assist in improving a lot of things on the ground”

Furthermore, despite the removal of user fees through SLA, women still find it difficult to use the facility because of the cost of food and transport. CHAM hospitals do not provide meals for their patients. The amount of money required for meals can represent a burden: *“I have been here for 2 weeks waiting for delivery; they have treated me well, but have spent a lot of money on food for me and my guardian.”*

The monitoring of the SLA agreement was also affected by bureaucratic nature of how CHAM and MoH are managed. These two organizations had different levels of authority and affected the timely making of decisions and their implementation. The long chain of authority (especially for MoH), without clearly defined roles hampered the progress on who was to be accountable for the monitoring of the SLA. Similarly, the organizational structure of CHAM facilities, bureaucratic in nature, with a top down hierarchy and many levels of authority made the process of negotiation with MoH seem complex. For example, the reporting system of the SLA was characterized by writing many reports that were submitted to various offices before funding was released and during procurement of goods.

Conclusion

The contracting of health care services in Malawi through the SLA provided hope for pregnant women and young infants living in remote areas. Significant progress was made in improving access to MNCHC services for women by providing them with financial protection (out of pocket payments). Malawi has been successful in decreasing child mortality rates from 1990 - 2015, by implementing various MNCHC programs. Despite this contractual agreement, women from remote areas still had less access to MNCHC services compared to addition, political and economic challenges continued to compromise effective implementation of the agreement, financing and monitoring and evaluation. Malawi was one of the countries committed to implementing the SDGs and achieving them by 2030. For the SLA to improve and help strengthen the provision of MNCHC services, there is a need for both the MoH and CHAM to partner in coordinating the contract through well-defined monitoring and evaluation structures. Malawi could learn from other developing countries such as Ghana, Nepal, Burundi and Kenya where free MNCHC services were effectively implemented and significant improvement in decreasing maternal, infant and child mortality rates was achieved. Despite all the progress that was made in provision of MNCHC services

in remote areas, there were still big gaps on organizational roles in implementing the SLA policy. Furthermore, CHAM and MoH, were two bureaucratic organizations, who acted in different ways, thus caused the fragmented implementation of the policy.

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The Value of Ecological Conscience in Udom Wisetsathon's Novels: Integration of Knowledge for Education Management amid Nature and Environment Crisis¹

Chayada Choochaisinghakul² Manoch Dinlansagoon³ and Phatchalin Jeennoon⁴

Abstract

The objective of this article was to study the value of ecological conscience that affects the integration of knowledge for education management amid nature and environment crisis in Udom Wisetsathon's novels focusing on nine texts: Tha-khen Hamlet, The Mighty One, Song of Swallows, The Thread of Love, Green Moon, The Weeping Land, Revolutionary Trees, Forest Planters, and As the Sun Leaves the Sky by employing ecological conscience perspective as an approach to the study. The study results revealed that there were three types of the value of ecological conscience that is beneficial to instruction: the learner's Thai language skill development: reading novels will improve skills in reading, writing and using Thai language correctly, whose learners can apply the knowledge obtained from studying the language about nature and environment in the novels, such as the use of image and poetry. Next, the development of Thai literary education, employing ecological conscience in the study of novels along with other concepts such as Buddhism concept, discourse concept and human rights concept, reflect creative literary studies to the benefit of society as a whole, especially with regard which to natural resources conservation and the learners' quality development the application of Buddhist principles to the instruction can motivate learners to be good and moral persons in relation to their fellow human beings and nature around them. The value of ecological conscience in Udom Wisetsathon's novels indeed benefits education of instruction in Thai society and could enlighten learners with a conscience of love and appreciation of nature in harmony with existing situations of nature and environment.

Keywords: Ecological Conscience, Udom Wisetsathon's Novels, Integration of Knowledge and Nature and Environment Crisis

Introduction

¹ This research article is a part of thesis "Ecological Conscience in Udom Wisetsathon's Novels"

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Ecological conscience is a social concept that has continued from the search for a way to solve the problem of nature and environment crisis by calling upon man to be aware of the value and significance of nature and environment to solve together the said problem within the bound of man's best ability. Regarding literature study, the concept of ecological conscience plays an important role in transmitting relations between man and nature, as Thanya Sangkha-panthanon (2016: 351-352) stated that the concept of ecological conscience indicated relations between man and natural world appearing in literary texts through the role language application about nature and environment to show the unity of man and nature.

A study of ecological conscience is therefore a valuable study in terms of entertainment, knowledge about nature and environment, and rendering lessons about the coexistence between man and nature, in accordance with Thawat Punnothok (1984: 9), who said: "Good and valuable literature means not only the value of content and form but also true efficiency capable of marking concepts grow in the society for a long time or become common concept of society". A study of the value of literature is therefore a study that lends usefulness to society as a whole, for example to point out the condition of man in society, and some imitation of a situation of human existence toward the development of a better way.

The characteristic so described is in agreement with Udom Wisetsathon's novels, which aim to reflect the relations of man and nature upon to the present, concerning both the dependence on nature in the conduct of living and destruction of nature in search of interest leading to deterioration of nature and man's experience of violent natural crisis. Udom Wisetsathon thus brought forth bodies of knowledge of old such as narrated account, belief, and wisdom of local variety to show the closeness of man to nature in the past and to transmit relations between man and nature in present-day situation. This involves diversity of thinking and man's behavior toward nature that has changed as new bodies of knowledge have increasingly played roles in the conduct of human life, for example, the use of Buddhist concept to teach man not to molest or destroy everything in the nature, the use of discourse line of thinking to call upon man to see impacts of development and replace them with nature and environment discourse, in order for man to conserve nature to full abundance, along with the employment of the concept of human rights so that man becomes aware of rights and equality in the conduct of life between man and other living thing in nature.

Udom Wisetsathon's novels are therefore valuable for integration of knowledge for instruction amid nature and environment crisis, as the nine novels are suitable for young people, be they *Tha-khen Hamlet*, *Song of Swallows*, *The Thread of Love*, or *The Green Moon*, which have won a prize from the national committee for development of books, a prize for a good book for children and juveniles from the federation for development of books and reading, and a seven-book award. Besides, the contents of the novels stress the significance of nature and environment in accord with the five aims of the core fundamental curriculum to make the learner a good person endowed with intelligence and happiness. The fifth of these aims states that students must have conscience for the conservation and development of environment and public mind toward being useful and doing good thing for society (Ministry

of Education. 2008: 5). To study ecological conscience in Udom Wisetsathon's novels is thus valuable for the conduct of instruction of the Thai educational curriculum, which stresses for students the quality of being good individuals in possession of knowledge and with public conscience for society as a whole.

The researcher therefore chose to study the value of ecological conscience in Udom Wisetsathon's novels focusing on nine texts; *Tha-khen Hamlet*, *The Mighty One*, *Song of Swallows*, *The Thread of Love*, *Green Moon*, *The Weeping Land*, *Revolutionary Trees*, *Forest Planters*, *As the Sun Leaves the Sky*, in order to integrate sets of lessons from the study of the novels into the conduct of instruction for students to be able and good, capable of nature and environment.

Objective

The objective of this research article was to study the value of ecological conscience in Udom Wisetsathon's novels that affected the integration of knowledge for education management amid nature and environment crisis. The nine novels chosen were *Tha-khen Hamlet*, *The Mighty One*, *Song of Swallows*, *The Thread of Love*, *Green Moon*, *The Weeping Land*, *Revolutionary Trees*, *Forest Planters*, *As the Sun Leaves the Sky*.

Methodology

The researcher proceeded step beginning with setting an outline, concept, and texts to be used in the research. Then data were explored and collected about concepts of ecological conscience and Udom Wisetsathon's novels focusing on nine texts; *Tha-khen Hamlet*, *The Mighty One*, *Song of Swallows*, *The Thread of Love*, *Green Moon*, *The Weeping Land*, *Revolutionary Trees*, *Forest Planters*, *As the Sun Leaves the Sky*. These appeared as related articles, documents, and research products, which were studied in detail. Throughout the researcher employed the technique of analysis and presented the data by descriptive analysis toward discussion and conclusion of results.

Result

The study of the value of ecological conscience in Udom Wisetsathon's Novels as it affects integration of knowledge for education management amid nature and environment crisis may be divided into three topics, namely, development of skill in Thai language, development of Thai literary study, and development of equality of learners.

1. The development of skills in Thai language

The skills in Thai language are basic learning skills consisting of speaking, listening, reading, writing, and analytical thinking. To study novels for development of skills in Thai language, the learners must train himself continuously by using novels as media of learning for development of language skills of reading and writing. Besides, the study of novels can very well help develop the learner's literary skills, as the indicator of the secondary education Thai language instruction for fundamental core curriculum B.E. 2551 states that a student must possess the quality of analysis and criticism of literature and literary works in accordance with fundamental principles of criticism by making learning linkage, appraising literary values, and synthesizing ideas from literature and literary works for application in real life.

For this reason, Udom Wisetsathon's novels are suitable for Thai language instruction. In particular, in term of value it was found that the author had the language style in keeping with the character of the Thai language, for example, the use of imagery and the employment of literary terms about nature and environment, which a teacher may cite as examples in the conduct of instruction, so that a learner may see diversity in the use of language creatively, so as to lead to conservation of nature and environment. For example, the use of personification to endow nature with a spirit, feeling and thinking, or action in conformance with human behavior, by making wind streams whisper to rolls of waves and shining stars smiling as sky expanse, as shown below.

“สายลมกระซิบแผ่วต่อริ้วคลื่น... กลิ่นหอมของมวลดอกไม้ ที่ไม่เคยตระหนี่ต่อการมอบความ
หอมหวานให้ทุกชีวิต... กะพริบแสงแห่งดาวแย้มยิ้มล้นผืนฟ้า เป็นดวงตาที่ไม่เคยตระหนี่ความงาม
ความเอื้ออาทร...” (อุดม วิเศษสาร 2541: 23)

“The wind stream whisper softly to roll of waves ... The fragrance
of all flowers that never fails to lend sweetness to all lives ... Stars
twinkling with smiles that overwhelm the sky expanse ... the eyes
never withholding beauty and care” (Udom Wisetsathon. 1998: 23)

The use of Composition of “Klon Suphap” or “Polite Verse” Type

This is to transmit an account demanding conservation of nature and environment through the swallow's new song, which is the Thai poetry “Klon Suphap”, see nature unlike something beautiful of old, thus.

“คืนเกิดหนา	หยุดเข่นฆ่า	ป่าไพรพฤษ
คืนสำนึก	มอบธารา	ป่าอุ้มฝน
คืนฟ้าใส	มอบนกกา	ป่าปวงชน
คืนกมล	โลกสดสวย	ด้วยมือคน
มอบ...บทเพลง	ทางเขนใหม่	ในโลกกว้าง

ให้...ปีกหาง	กางร่อนไป	ในทุกหน
มวล...พลั้ง	หลังปลุกจิต	สุจริตชน
ชีพ...แม่ป่น	ขอโอบกบิน	จวบสิ้นใจ”

(อุดม วิเศษสาธ. 2538: 182 – 183)

“Give back, let’s. Stop killing forests and trees,
Give back the conscience. Give back streams and rain-carrying forests.
Give back a clear sky, birds and crows, and public woods.
Keep our minds balanced. Give beauty to the world, with our own hands.

Give new songs of swallows in the wide world.
Let the wings and tails spread out all over.
With full force honest people come awake.
Even to death we shall fly to the last breath.

(Udom Wisetsathon. 1995: 182 – 183)

Besides, in the part of instruction about creative writing, a teacher can show composed expressions from the novels as example, as they possess the characteristic of “Klon Suphap” with contents that set readers to thinking about how to cultivate in students a positive kind of conscience about nature and environment by making an effort to cultivate forests, as in the following example of the use of Klon Suphap for composition:

“สองมือ <u>น้อย</u>	ค่อย <u>ค่อย</u> ขุด	ดิน <u>สุด</u> แข็ง
ฝ่ามือแดง	แตกบวม <u>ซ้ำ</u>	น้ำตาไหล
หย่อนกล้าไม้	เร่งกลบ <u>หลุม</u>	รุ่มร้อนใจ
จะพลิก <u>พื้น</u>	ป่า <u>ผืน</u> ใหญ่	เพื่อมวลชน

(อุดม วิเศษสาธ. 2538: 110)

Two little hands slowly dig up dirt so hard,
Red palms break, become swollen, and bruised, accompanied by tears.
Seeding put in and plant holes fast filled up, all in hot pursuit,
Recover shall we yet a vast expanse of forest for the masses.

(Udom Wisetsathon. 1995: 110)

The author employed vowel rhyme in composing “Klon Suphap”, as in the words *Noi* and *Khoi* (น้อย – ค่อย), *Khut* and *Sut* (ขุด – สุด), *Chum* and *Num* (ซ้ำ – น้ำ), *Loom* and *Room*, (หลุม – รุ่ม) and *Fuen* and *Phuen* (พื้น – ผืน) with high tone and with rising tone, and with rhyming of consonant such as *Roum* and *Ron* (รุ่ม – ร้อน). These are plays of words that add beauty to compositions.

Udom Wisetsathon’s novels can therefore very well be instructional media for development of Thai language with regard to reading, writing, and literary works, with the

teacher involved being able to use the novels as texts for students to study, analyze, and criticize so as to apply the ideas from the reading to affairs of daily life. This application of ideas of ecological conscience will make students realize the value and significance of nature around them and become part of society in working together to solve problems of nature and environment crisis.

2. Development of the Study of Thai Literary Works

Udom Wisetsathon's novels are contemporary and relevant to social change by laying bare accounts of the beauty of nature and environment about to deteriorate through time and human action. The idea of ecological conscience thus plays an important role in demanding conservation of nature and environment by blending various branches of knowledge to result in maximal value and usefulness for society as a whole in caring for nature and environment. From the study of the novels, it was found that the author integrated the knowledge about conservation of nature with various concepts such as Buddhist concept, Discourse, and human rights concept, which are new ways of studying new forms of literary works by considering principally social development jointly with state sector in conjunction with maximal national benefit, as the correction of problems of crises of nature and environment calls for cooperation of all sectors of people. This is laid out by the Government in the national plan for economic and social development #12, which aims at the conservation and rejuvenation of natural resources and the quality of environment so as to support the kind of growth friendly to the environment and to good quality of life for the people (Office of The National Economic and Social Development Board, Office of the Prime Minister. 2016: 10) by integrating various branches of knowledge so as to lead to the correction of problems of nature and environment crisis so violent at present.

From the study of ecological conscience in novels it was found that the author transmitted experience in solving problems of natural and environmental destruction by applying various bodies of knowledge to fit individual area, for example, solution of problem of forest fire, trees felling and forest destruction, and improper hunting of animals. But the best way to solve those problems is to start with people. If people understand and are aware of the true value of nature and environment in the best possible way, leading to integration of knowledge for social development with balance and endurance, just as Udom Wisetsathon integrated various kinds of knowledge about social development in connection with preservation and care of natural resources as follows.

2.1 Integration of Knowledge about Buddhist ideas.

The author showed natural happening long in harmony with the Buddhist Dharma principles, for example, the teaching about facing reality and uncertainty of life through the Trailak (the three characteristics of existence) from the accounts of *Tha-Khen Hamlet* and *Noo-nui*, so as to witness the fact that all living things, be they humans or animals, experience suffering, illness, and death. Now for the long-living *Tha-Khen Hamlet*, the fact that it one enjoyed prosperity and abundance and now experiences decay is only to be expected.

“ได้ซี! คน สัตว์ ยังเจ็บป่วยได้ ตายได้ หมู่บ้านก็เหมือนกัน เราอยู่ที่นี่มาตั้งแต่เกิด ได้เห็น หมู่บ้านเจริญเติบโต ทรุดโทรม และอาจกลายเป็น หมู่บ้านร้างหรือตายในที่สุด ความเปลี่ยนแปลงของมันเห็นได้ด้วยตา และเข้าใจได้ด้วยความรู้สึกของคนที่รักมัน” (อุดม วิเศษสาร. 2535: 30)

“Sure thing! Humans and animals may suffer illnesses and die. Likewise is a hamlet. We have been here from birth and have seen the hamlet grow, go into decay, and may become a deserted hamlet and eventually die. It changes can be seen by the eyes and understood by the feeling of those who love it” (Udom Wisetsathon. 1992: 30)

To teach the conduct of life by the middle path in nature in harmony with that very principle from the story *Forest Planters* through *Uncle Dum's* accounts about the man's satisfaction with the way of life within his means. Although he does not farm to harvest rice for storage to be consumed and sold, he nevertheless acts like a farmer in planting mangrove trees, bending and straightening like farmer. The only difference is that he has no rice to store for food and for sale to earn some income for himself, but he harvests happiness for the storage of life, which is most valuable to him

“ตอนแก่เฒ่ากว่านี้ ต้องถือไม้เท้า เหมือนขวานานะแหละ ก้ม ๆ เงย ๆ เป็นสิบ ๆ ปี หลังที่ น่าสงสารต้องโก่งเป็นธรรมดา ขวานาทำนาข้าว ปักดาตูแลต้นข้าว เป็นเจ้าของข้าว ได้เก็บเกี่ยวข้าว ใส่ยุ้งฉางชีวิตไว้กินขาย แต่พวกเราทำนาโกงกาง ปักดาตูแลฝักโกงกางบนชายเลน เราเก็บเกี่ยว เหมือนกัน เก็บเกี่ยวความสุขใส่ยุ้งฉางชีวิต ข้าวในยุ้งขวานาอาจจะหมดไป หรือถูกลักขโมยได้ แต่ ความสุขในยุ้งฉางของเรา ไม่มีใครมาลักขโมยได้ ไม่หมดไป มีแต่เพิ่มขึ้นทุกขณะ” (อุดม วิเศษสาร. 2554: 57)

“As I grow older I must carry a cane just like a farmer, bending and straightening for ten of years. My poor back has to bend for sure. Farmers work a rice farm, planting and looking after tice crops as well as owning them. They harvest rice and put it in storage of life for sale. But we work a mangroves farm, looking after mangrove pods on a mud floor. We do harvest happiness for life storage. A farmer's rice in storage may be depleted or stolen, but the happiness in our storage can never be stolen or depleted; rather, it keeps increasing moment by moment.” (Udom Wisetsathon. 2011: 57)

2.2 Integration of the knowledge of discourse

The author employs a discourse about nature and environment through a role of discourse of development that stresses development to the point of violent destruction of nature and environment as well as discourse of nature and environment that stresses conservation and rejuvenation of destroyed nature and environment, such as *Sang's* forest building from the story *Green Moon*. In the story the author renders the words of a monk on pilgrimage he met while journeying in the midst of forest. The monk taught him that the construction of a forest should begin with planting trees in people's hearts. That is to say, if people love a forest and realize its value, they will help to look after and protect it against destruction with a loving and treasuring heart.

“เมื่อป่าถูกทำลายด้วยคน ป่าก็สามารถสร้างได้ด้วยคน จง ‘ปลูกต้นไม้ในหัวใจคน’ ปลูกจิตสำนึกคนให้รู้จักคุณค่าของต้นไม้ คุณค่าของป่า ให้คนกับป่าพึ่งพิงให้ประโยชน์กันและกัน ป่าให้ประโยชน์กับคน คนดูแลปกป้องป่า โดยเฉพาะอย่างยิ่งคนรอบผืนป่า ปลูกป่าในหัวใจคน เหล่านี้ไว้ให้ได้” (อุดม วิเศษสาร. 2543: 41)

“As a forest is destroyed by man, so can man build it. ‘Plant a tree in man's heart’. Put conscience in a person so that he knows the value of trees and the forest, so that man and forest benefit each other. Forest benefits man, and man protect forest, especially people around a forest; cultivate a forest in these people's hearts.” (Udom Wisetsathon. 2000: 41)

Moreover, to pose a question is a process of discourse creation and serves to stimulate conservation of nature and environment, as the boy *Kob* asks *Grandpa Pueak* how he would feel if dugongs becomes extinct from the world so that *Grandpa Pueak's* children and grandchildren will have on chance to see this animal any longer.

“ตาไม่เคยคิดจริง ๆ รู้ว่า หากเจือกหมดไปจากโลก คนรุ่นต่อไป จะไม่มีโอกาสได้พบเห็น น่าเสียดาย... เสียงของกบดังขึ้นทุกที เรื่องนกแก้วแล้วท้องดำนั้น ก็เหมือนกัน ตาไม่รู้จักจริง ๆ รู้ว่า มันมีเฉพาะเมืองไทย ตัวที่ตาเพิ่งฆ่า อาจเป็นตัวสุดท้ายของโลกก็ได้” (อุดม วิเศษสาร. 2541: 132)

“Have you never thought at all that, should dugongs become extinct from the world, the next generations will have no opportunity to see any of them. That would be a shame! ... The sound of Kob gets louder all the time. And the bird Taew Laew with black stomach. It's the same. Don't you really know it's found only in Thailand? The one you have just killed may be the last in the world.” (Udom Wisetsathon. 1998: 132)

2.3 Integrating of the knowledge about ideas on human rights

From the study of ecological conscience in Udom Wisetsathon's novels, it was found that the infringement of human rights, a basic kind of rights all people are entitled to, still exists in Thai society, especially in local communities where citizens are ignorant and have no power to fight against influential groups in society, causing problems of infringement or human rights stemming from competition for natural resources in local communities. An example is a report on land and home trespassing in the case of *Nu Nui* from the story *Tha-ken Hamlet*. What happens is that when a piece of land in the hamlet becomes expensive and is wanted by shrimp farmers, causing investors from outside to buy land from local people at high price. *Nu Nui*, however, refuses to sell his land, as the land has been handed down from his ancestors. A group of investors threaten him, try to force him out by shooting, and set fire to his house with some damage.

“ถ้ามึงยังไม่เปิดประตู กูจะจุดไฟเผาบ้านมึงเดี๋ยวนี้ ไม่ให้มึงอยู่ที่นี้อีกต่อไป ถ้าขัดขืนจะถูกฆ่าตายหมดบ้าน เสียงนั้นไม่ได้ตะคอกเปล่า อึดใจต่อมาคบไฟทำจากผ้าชีวี่ชุ่มน้ำมัน พ้นปลายไม้ยาวขนาดแขนถูกจุดขึ้น หนูนุ้ยตัดสินใจเหินยวโกป็นทันที” (อุดม วิเศษสาธิต. 2535: 63)

“If you keep refusing to open the door, we will set fire to your house so you cannot live here anymore. If you resist, all of you in the house will get killed. The voice was not an empty threat. A moment later a torch made with a piece of rag soaked in oil and wound around a long pole the size of an arm was lit Nu Nui decided to squeeze the trigger right away” (Udom Wisetsathon. 1992: 63)

In presenting the exercise of the right to express opinions on conservation of nature and environment, the author seeks to show the people's expression of opinions, which is part of invoking balance and abundance of nature. This is in the story *The Thread of Love*. When Grandpa Pueak has listened to his grandson Kob begging the grandpa to see the importance of all living things in nature, including the bird with black stomach and the dugongs, that all animals treasure their own lives, that we must not pass a death sentence on others' lives. It is also pointed out that all kinds of animals and all things in nature belong to all human beings. They are not owned by any one generation of them. That Grandpa Pueak and others kill animals to the point of extinction or completely destroy nature is indeed unfair their children and grandchildren who will be without any more opportunity to see these things.

“แกคิดถึงการแสดงออกและหลากหลายคำพูดของกบ ที่ทักท้วงเรียกร้องสิทธิ์ ทั้งในเรื่องนกแต้วแล้วท้องดำและเงือก ... แกเพิ่งจะได้คิด และยอมรับว่าธรรมชาติสิ่งแวดล้อมไม่ใช่สมบัติของคนรุ่นแก หรือรุ่นใดรุ่นหนึ่งโดยเฉพาะ แต่เป็นของคนทุก ๆ รุ่นสืบต่อกันต่อไป” (อุดม วิเศษสาธิต. 2541: 133 – 134)

“ He kept thinking about a boy *Kob's* expressions and words of warning demanding rights in the accounts of both the black stomach Taew Laew bird and the dugongs. He Just came to his sense and admitted that nature and environment did not belong to his generation or any other generation in particular. Rather, it belongs to all of the generations to follow” (Udom Wisetsathon. 1998: 133 – 134)

The voicing of opinion by the frog that came from the learning gained in the classroom and the interest in conservation of nature enabled a boy *Kob* to take part in protecting the birds and sea animals nearly extinct. The author tried to pass on the value born out of the ideal of conservation of nature and environment by putting together various bodies of knowledge useful for society, be they about Buddhism, discourse, or human rights, to call forth conscience about the value of nature and environment that would lead to cooperation in correcting of nature and environment crisis.

3. Development of the Learner's Quality

The learner's quality is what the teacher must do in conjunction with a program of instruction to make the student a good person with a sense of merit and responsibility for society as a whole. Studying novels is a way for students to learn and explore ideas and life experiences. Reading good and valuable novels, a student must learn to distinguish between good and bad things to apply the knowledge and lessons from the novels to advantage in life and society as a whole. In studying the value of ecological conscience in Udom Wisetsathon's novels, one finds the substance of two different types that may be taken as a tool for development of the learner's quality.

3.1 To establish a good conscience for students about conservation of nature and environment. In the novel *Songs of swallows*, for example, the author refers to the cultivation of conscience for students so that they can see the value and benefit of trees to the conduct of human life. Students are taught to plant trees and look after them so that they grow up.

“ครูหนุ่มสาวเดินดูพวกเด็กปลูกต้นไม้ คอยช่วยเหลือให้คำแนะนำ... ถึงแม้ว่า เราและพวกเด็ก ๆ จะไม่สามารถพลิกฟื้นผืนป่าได้ แต่อย่างน้อยเราและเด็ก ๆ ได้พยายามแล้ว ครูสาวกระซิบเสียงชมชื่น เรอมองลูกศิษย์ตัวน้อย และไฟที่กำลังลุกไหม้อ้อโหมเผาผลาญป่าสักบนเทือกเขา” (อุดม วิเศษสาร. 2538: 107)

“Young teachers male and female walk around to see children plant trees, helping them with advice, assisting smaller children in digging up hard soil and breaking it into bits and pieces. as well as tying up a bag of water where it breaks These teachers' palms are hard and coarse: they repeatedly break and swell Their clothes are wet with perspiration. The teachers' eyes are not only filled with dreams, as are the students, but deep down in the teachers' eyes are profound pain and sorrow hidden, while keeping their eyes on the smoke from forest fire. The smoke is floating up the sky from several points. Although we and the children cannot revive the

forest, at least we have tried, a young lady teacher whispers bitterly. She is looking at those little pupils running around carrying water to the trees, keeping up with water breaking from leaks in plastic bags, in competition with the vast fire destroying a deep forest on the mountainside” (Udom Wisetsathon. 1995: 107)

In the novel *Green Moon* the author points out an idea of forest cultivation at the same time as the cultivation in children of the conscience to love and treasure nature and environment, as children will become adults in days to come who can keep forests from being destroyed.

“เขาเห็นด้วยกับกำนัน และมองไกลไปกว่านั้น ป่าผืนนี้หากสร้างสำเร็จ ป่าจะเติบโตพร้อมกับเด็ก ๆ เหล่านี้ พร้อม ๆ กับจิตสำนึกที่ยังลึกลงไปในหัวใจบริสุทธิ์ของพวกเขา ผลประโยชน์จากป่าที่เกิดขึ้นจะได้กับพวกเขาโดยตรงในวันข้างหน้า ในอนาคตป่าจะอยู่รอดหรือไม่ ขึ้นอยู่กับจิตสำนึก ความรักความหวงแหนของพวกเขา การที่เด็กเข้ามามีส่วนร่วมสร้างป่าตั้งแต่ต้นน่าจะเป็นสิ่งที่ดี” (อุดม วิเศษสาร. 2543: 155 – 156)

“He agrees with the village head and looks even farther. This expanse of forest if successfully built will grow with these children, simultaneously with the conscience penetrating deep into their pure hearts ne benefit from the forest will be theirs directly in the days to come. Whether the forest will survive or not would depend on their conscience and how much they love and cherish it. That children take part in forest building from the outset should be a good thing” (Udom Wisetsathon. 2000: 155 – 156)

While the novel *Forest Planters* shows the determination of a young female teacher who persuades young people to cast various plant seeds to clothe a bald mountain so that it becomes abundant and lively again.

“ครูสาวคนนี้ได้ชักชวนลูกศิษย์ของเธอ จัดตั้งเป็นกลุ่มเยาวชนสวมเสื้อผ้าให้ทวดปู่เขาใหญ่ หลังเลิกเรียนทุกวันและวันหยุด เธอและเด็ก ๆ ทั้งชายหญิงพากันยิงหนังสติ๊กขึ้นไปบนภูเขา สิ่งที่ยิงขึ้นไปเป็นเมล็ดและเม็ดพืชต่าง ๆ หลากหลาย ที่เป็นเม็ดโตหน่อยก็ยิงขึ้นไปเลย ที่เป็นเมล็ดเล็ก ๆ ก็ จะคลุกกับดินเหนียวยิงขึ้นไป มีทั้งพวกไม้ป่า ไม้ผล ไม้ดอก มีทั้งมะค่า ขนุน มะยม มะม่วง ตะแบก คุณ ดาวกระจาย ชมพูพันธุ์ทิพย์ กระถิน และอีกหลายชนิด”(อุดม วิเศษสาร. 2554: 52)

“This young teacher persuades her pupils to form a group of juveniles to clothe the Grandpa of the great mountain. After classes every day and on a holiday she and the children both boys and girls shoot their catapults mountain. What they shoot up are a variety of plant seeds. If they are of good size they are shot right up. Smaller seeds are mixed with clay and shot up. These seeds represent myriad kinds of produce fruits, flowers, or wood. She sets aside part of her salary to buy seeds, sweets, and plants to catapults for the children.” (Udom Wisetsathon. 2011: 52)

The action of the teacher and the children will help student readers to realize the importance of forest cultivation and the role of all human beings to help make this world acquire abundant nature. The result of planting trees together-to clothe a mountain-endows the children with beautiful nature full of colors from trees flowers, and butterflies of all kinds, so that the children need not face cold wind and fear of sliding soil. In the novel *As the Sun leaves the Sky*, the students are invested with the conscience of nature protection by passing on a girl's account of her determination to engage in forest cultivation and to form a group for nature cultivation that provides for students both knowledge and enjoyment.

“ผลงานของเด็กสาวมีมากเกินอายุ เธอเริ่มต้นโดยการสร้างกลุ่มเยาวชนรักษ์เทือกเขาฯ ให้เด็ก ๆ ในหมู่บ้านปลูกต้นไม้ รักษาป่าไม้ จัดส่วนหนึ่งของพื้นที่บ้านตนเองให้เป็นโรงเรียนสนุก ให้ความรู้ สร้างความรักต้นไม้ป่าไม้ ควบคู่กับความสนุกเพลิดเพลินต่าง ๆ ต่อมาได้จัดทำโครงการสร้างโลกสวยด้วยมือเด็ก และโครงการอื่น ๆ อีกหลายโครงการในหลายพื้นที่” (อุดม วิเศษสาร. 2557: 130)

“The fruit of the girl's labor exceeds her age. She begins by founding a group of mountain protecting youths so than the children of the hamlet plant trees and preserve forests, as well as tum one area at home into a school Those involved are provided with fun, knowledge, love of trees and forests, as well as various forms of entertainment. Later were created a program of building a beautiful world will children's hands and several other programs throughout a number of areas” (Udom Wisetsathon. 2014: 130)

3.2 The promotion of virtues and ethics that students must demonstrate toward fellow human beings and nature around them. The author tries to insert an idea about living with nature, such as gratitude suitably shown to ancestors and nature that have done human beings good turns. Also, one must make a living honestly and in careful consideration of conditions of nature around one. This will afford one a life of prudence.

“อย่าเพิ่งเลยตอนนี้ เลี้ยงบ่อเดิมต่อไปสักสองสามรุ่น มีเงินพอค่อยขยาย มันอาจจะไม่ได้กำไรทุกครั้งที่ไป สักวันน้ำเลาอาจจะเสียเลี้ยงกันไม่ได้ หนูนุ้ยอธิบายให้สองแม่ลูกเข้าใจ พร้อมกับมวนยาใบจากจูดสูบ ความยากจนและความล้มเหลวที่เคยประสบมา ทำให้เขามี ความรอบคอบมากยิ่งขึ้น เขามักจะคิดเสมอว่าอะไรก็ตามเมื่อมีการเริ่มต้น มันมักจะมี การเปลี่ยนแปลง และท้ายที่สุดจะมีจุดจบของมันเสมอ ไม่ว่าจะเป็นความทุกข์ ความสุข ความสมหวัง ความผิดหวัง หรือแม้แต่ชีวิตของคนเรา” (อุดม วิเศษสาร. 2535: 105)

“Not just yet. Keep two or three successive groups in the same pond. We will expand when we make more money. A profit may not come every time. One day the sea water may turn bad and no fish can be kept *Nu Nui* explains this to his wife and his child, and in the meantime makes a native cigarette for himself. The poverty and failure he experienced makes him careful increasingly. This is what he always thinks. Something begins and is bound to change, with its end coming, be it suffering, happiness, hope fulfilled, disappointment, or even a human life” (Udom Wisetsathon. 1992: 105)

The author presents a picture of making a living by doing things useful for society as a whole. The occupation of a sweeper may be lowly for many, but for *Uncle Maen* this is the occupation he loves and is proud of, as it is an occupation good for people at large and for society as a whole so that cleanliness can be maintained.

“กวาดขยะเป็นงานสุจริต ทำแต่ความดีต่อคนส่วนรวม ได้ทั้งบุญ ทั้งเงินค่าจ้าง ถ้าไม่มีคนกวาดขยะ บ้านเมืองจะสกปรกแคไหน โดยเฉพาะอย่างยิ่ง บริเวณสนามหลวงนั้นเป็นที่ตั้งของสิ่งสำคัญ ศักดิ์สิทธิ์คู่บ้านคู่เมืองทั้งนั้น ... บริเวณนี้ควรจะได้รับดูแล ปัดกวาดให้สะอาดอยู่เสมอ ... เอ็งจำไว้ คนเราเลือกเกิดไม่ได้ แม้แต่ตายก็ยังเลือกไม่ได้ ความสำคัญ ความยิ่งใหญ่ การมีคุณค่า หรือไร้คุณค่าของความเป็นคน อยู่ที่ว่า เมื่อตกอยู่ในภาวะหนึ่ง ๆ จะประพฤติ ปฏิบัติตัว ให้เกิดประโยชน์ต่อตัวเอง สังคม ส่วนรวมได้อย่างไรต่างหาก” (อุดม วิเศษสาธิต. 2537: 76)

“Sweeping is a kind of honest work, good for people as a whole. Merit gained as well as wage. Without a sweeper how dirty a place can be. Especially the Royal Ground (Sanam Luang) is the location of things of importance and sacred that go with the Domain, for instance, the Monastery of the Emerald Buddha, the statue of the Goddess of the Earth in the act of hair- bun squeezing, the Courts, one university, the Monument of Veterans, and so many others This area must be looked after and swept clean. You keep this in mind. A person cannot choose where to be born; nor can he choose where to die. The importance, the greatness, the quality or no quality of being human is that when one faces a situation how can one act for the benefit of oneself and society as a whole?” (Udom Wisetsathon. 1994: 76)

Besides, the author proposes a virtue humans should have in living with nature. It is that nature offers love to all lives but gets destruction in return from humans.

“ธรรมชาติได้บรรจุความรักไว้ในหัวใจของมนุษย์ทุกดวง มนุษย์ที่ห่างเหินจากธรรมชาติ หัวใจจะมีความกระด้าง มีแต่การทำลายล้าง ไม่เพียงทำลายล้างมนุษย์ด้วยกันและกัน แต่ยังทำลายทุกชีวิต ทั้งสัตว์ พืชพันธุ์ ภูเขา แม่น้ำ หรือแม้แต่ดวงดาว” (อุดม วิเศษสาธิต. 2541: 28)

“Nature puts love in every human heart. A human being living away from nature has a heart of stone full of destruction, not just that of fellow human-beings but also of all lives, animals, plants, mountains, rivers, or even stars” (Udom Wisetsathon. 1998: 28)

What the author wants to communicate is to make human-beings appreciate the good done by nature and environment and return it by reviving nature, and to propose good wishes fellow human beings should share, as in the novel *The Weeping Land*. It is a story about a mother and a daughter who cannot sell their agricultural products because some big shots stand in their way. The mother then takes the vegetables for sale at low price to avoid needless spoiling, as the vegetables would be needed by some other families.

“ถึงแม้ว่าจะได้เงินไม่ถึงครึ่งของราคาที่โกเหลียงเคยรับซื้อ แต่บุญตาก็กพอใจ เธอคิดว่าดีกว่าทิ้งให้เน่าเสีย อย่างน้อยสิ่งของเหล่านั้นยังเป็นประโยชน์ต่อคนอื่น ได้เลี้ยงปากท้องคนอื่น เธอถือว่าเป็นการทำบุญไปด้วย และหวังว่าผลบุญจะทำให้เธอกับลูกสาวหมดเวรหมดกรรมเร็วขึ้น ได้มีความสุขเหมือนคนอื่นอีกครั้ง” (อุดม วิเศษสาร. 2545: 149)

“ Although the money to be earned is not even half of what some merchant would pay, she is quite satisfied. She thinks it's better than letting it spoil. At least those things can be of use to others and can feed them. She thinks it's merit making at the same time and hopes the merit will help her and her daughter come to the end of their suffering sooner, so that they can enjoy happiness again like others” (Udom Wisetsathon. 2002: 149)

Her and her daughter's action may not bring a great deal of benefit but what she gains is happiness and clear conscience. That action shows the kindness that human-beings should have for each other. This is in keeping with the promotion of virtues and ethics that students should have for fellow human-beings and nature all around.

Conclusion and Discussion

The objective of this research is to study the value of ecological conscience in Udom Wisetsathon's novels that affects the integration of knowledge in the conduct of instruction amid nature and environment crisis. It was found from the research findings that the said value would be useful for the integration of such knowledge in three ways, namely, 1. Developme of skills in Thai language. A study of the novels by way of ecological conscience helps to forge linguistic correctness in the learner's reading and writing skills by learning the language in such a way that the unity of nature and man is achieved, and at the same time a study of nature from novels yields entertainment and happiness of heart to humans through movements and styles of beautiful language. 2. The development of the study of Thai literature through a study of the said value as stated shows constructive literary analysis and criticism through integration of social ideas for literary analysis, so that literature renders value for one who studies it and for society as a whole, for example, to apply a Buddhist point of view so that man looks back to his origin born out of nature, being born and extinguished

as a rule and a matter of nature. Next is the use of the idea of discourse to prompt and demand human beings to be aware of the value and significance of nature, to stop destroying nature and environment before it is too late. Also, it is the use of human- right idea to point out that all human-beings enjoy rights, freedom, and equality to the same degree in inhabiting and exploiting nature. 3. The development of the learner's quality. The value already mentioned plays a role in instruction both in building the learner's conscience and creating virtue and ethics that a learner may develop toward fellow human beings and nature all around. Moreover, literary analysis and criticism are in harmony with a study of Thai-language courses to develop the potential in reading and analysis. For the development of the learner's quality, Udom Wisetsatorn encourages students and young people to take part in the conservation of natural resources and environment, with teachers urging them on and pointing the way so that students develop a conscience to love and treasure nature and environment. It is also to promote coexistence between man and nature by mutual dependence through a point of view of love and kindness that man must possess toward a world-sharing friends and nature.

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Elderly Characters in Chamaiporn Saengkrachang's Novels: Roles of Literature in The Presentation of The Image of The Elderly that is of Value in Thai society

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Abstract

The objective of this research was to study elderly characters in Chamaiporn Saengkrachang's novels which show the roles of literature in the presentation of the image of the elderly that is of value in Thai society. The study focused on her 6 novels: Khunpoowaentato, Yambaiwansao yamchaowanathit, Khunyaiwaansa, Khunpoo waentataek, Amahboncondo and Naiweungfaaunphaisaan. It was found by the result of the study that Chamaiporn Saengkrachang created literature as learning media for human life including the coexistence of groups of people in different type society with the presentation of new images of the elderly including adaptation in society, value and meaning creation and health to create more value in society. This is an important role of Chamaiporn Saengkrachang's literature that outstanding by creates images of the elderly suited to the expectation or ideal of members of society. With roles both domestic and public prescribed for the elderly, changes in the modern world are accepted, The elderly know how to adjust themselves to those of other age groups. At the same time, the elderly are valuable to family and social institutions, capable of self-reliance and able to look after their own health. Chamaiporn Saengkrachang used various techniques for presentation of the elderly characters either through narrator, through elderly characters themselves and through other characters. Make it visible the image of the elderly characters with realistic, consistent with the reality of society and a representative of the elderly in current society. This also changed the image of the elderly as marginal people.

Keywords: Elderly characters, Chamaiporn Saengkrachang's novels, Image, Elderly

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Introduction

Literature plays an important role in enabling the reader to gain knowledge and idea as well as affect social change. Its role is to point a way for people in society for nearly all days and ages, as the clearest role of literature is social impact. Therefore, good literature must affect society in some degree, as said by academicians and sages about the social impact or influence of literature. An example is Jettana Nakwatchara (1978: 13-17), who said that literature was something bound to society and was a joint property belonging to every age and region. Literature must be studied in conjunction with society, as society is the birthplace of literature. An author demonstrates an idea, philosophy, and truth about a society with interest and responsibility. So literature influences society and serves as a force of human society. At the same time, Trisilp Boonkhachorn (1999: 4-9) said about literature and society that literature and society were related, that literature reflected life experience of an age intentionally or otherwise. Some critics thus said that literature was a mirror of an age, as it was a photograph of the life of an age. We can say therefore that the role of the literature of an age is one of the best mirrors of society to make the people of a society understand and be aware of what goes on in that society.

The present-day society is the time when the government is placing great importance on the elderly group, as the Thai population goes down in death rate and lives longer. This made Thailand begins to enter the society of the elderly since the year 2005 (A.D.) The trend is for Thailand to become a society of the elderly completely in less than ten years to come (Foundation of Thai Gerontology Research and Development Institute, 2013: 6), This will affect the social and economic conditions as well as the distribution of health and social resources of the country. The society has thus made preparations to accommodate those conditions in terms of law, policy, and other measures.

Literature is one factor that reflects what goes on in an elderly society and is also interested in the elderly group. The images of the elderly are presented from various points of view, for example, the presentation of elderly characters related to society, the reflection of problems of the elderly on various matters, or the demonstration of differences between the elderly and other ages. The researcher found that there were few studies on the elderly in literature, and that the entire picture of the studies hither has presented a similar image of the elderly. i.e., the relations of the elderly with their families, the elderly being deserted, the elderly as burdens to others, with the same point of view as what is held by society, meaning the picture of the elderly as marginal people, as this group must depend on other groups, is lacking in power, with a process to make the elderly marginal people. Such as prejudice of age, value reduction, and political economics (Manasikarn Kanjanajittra and party, 2012: 342).

Nevertheless, the images of the elderly that people in society recognize and understand comes from imagination in each society and culture at a particular period of time. The researcher found that literature tried to present the image of the elderly increasingly in a positive way by stressing the value to family institution and social institution including the state of the elderly being more sophisticated world-wise and society-wise. This is especially true of Chamaiporn Saengkrachang's novels, which have presented a variety of aspects of the new image of the elderly, and thus far these have not been seriously studied. The elderly that Chamaiporn has presented through literature is characterized by interesting role and image in harmony with the social change of each period, showing the fact of being the elderly of value. This has also changed the image of the elderly as marginal people and created a new image of the elderly based on the fact of present society.

For this reason the researcher was interested in studying the senior characters in six of Chamaiporn Saengkrachang's novels showing the role of literature in presenting the image of the elderly of value in Thai society, and limited the frame of research to the novels with elderly characters as protagonists in plot development. Besides, the researcher defined the term "elderly" for mutual understanding to mean a male or a female 60 years old or more.

This study should enable one to understand new dimensions about the image of the elderly, namely, self-adjustment in society, creation of value and meaning, and health. The image of the elderly is presented through various techniques through a narrator, an elderly character himself, and other characters, leading to an understanding of the role of literature in presenting the elderly in harmony with changes in the present society. Readers and people in society are made aware of the value and significance of the elderly so as to promote and support the policy of the government for better co-existence.

Objective

To study the elderly characters in Chamaiporn Saengkrachang's novels, which show the role of literature in the presentation of the image of the elderly that is of value in Thai society.

Methodology

For this research the researcher proceeded step by step as follows. First, a survey was made of Chamaiporn Saengkrachang's literature with elderly characters, and six novels were chosen with elderly characters as protagonists. These six novels were *Khunpoowaentato*, *Yambaiwansaoyamchaowanathit*, *Khunyaiwaansa*, *Khunpoowaenta taek*, *Amahboncondo* and *Naiweungfaaunphaisaan*. Second, Chamaiporn Saengkrachang's six novels were read in detail and set as data limit. Third, documents and research works were studied concerning Chamaiporn Saengkrachang's literature, image of elderly characters, and history of contributions to serve as an approach to the research. And fourth, the literature by the research objective was studied and the findings were arranged by synthetic system and presented by way of descriptive analysis.

Research Findings

The study elderly characters in Chamaiporn Saengkrachang's novels which show the roles of literature in the presentation of the image of the elderly that is of value in Thai society. The research consisted of the following details.

1. Image of the elderly

The image of the elderly this consists of three areas: social adjustment, creation of value and meaning and health, with the following details.

1.1 Image about Social Adjustment

This is when the elderly can adjust their behavior to fit situations and things around them to lessen conflicts with the ability to live together happily and establish good relations both with the family and with others in society. There are these following details about the image of the elderly's social adjustment in the novels referred to.

1.1.1 Adjustment to the world of people of differing ages

The elderly adjust by modifying certain behaviors and attitudes and simultaneously learning and accepting more the worlds of other ages in order to reduce age gaps and maintain the ability to live happily with those of different ages. As seen in the novel *Khunpoowaentato*, the character of Grandpa Jaroenjit reflects the image of the elderly who can sympathetically adjust to a life with children by accepting the difference. Grandpa Jaroenjit understands and accepts the children's personal preference for pizza. The cultures of food consumption of the people of two different ages may be different but can be reconciled, as shown by the fact that the Grandpa allows the children to eat pizza while he himself chooses to eat the Thai fried dish, so that the two uncles remark that they are witnessing a mixed culture of the young and the elderly (*Khunpoowaentato*, 2000: 194). It can be seen that the children's culture of consumption makes the grandpa try to adjust to avoid a conflict, with the grandpa accepting what the children favor. The grandpa's behavior of adjustment is something that the elderly in society can do so as to learn to live problem-free with those of different ages

Sharing life with those of middle age. In the novel *Saturday Yambaiwansao yamchaowanathit*, there are relations between the elderly and neighbors who can live together as friends, as Grandma Annie and Grandpa Summa live with new neighbors by making friends with Ben's family, welcoming them and making desserts and food for Ben's family. The two elderly people are always fond of saying to Ben and family: "We are neighbors," (*Yambaiwansao yamchaowanathit*, 2004: 32), and help Ben's family all the time, as can be seen when Ben's car breaks down, Grandma Annie and Grandpa Summa help by driving Ben and children to shop. What happens is this: "Grandpa Summa sits in front with Grandma Annie, and Ben becomes a passenger along with his child. How funny it is that he lets an old man of seventy-five drive him to shop!" (*Yambaiwansao yamchaowanathit*, 2004: 71).

The help and friendship that Grandma Annie and Grandpa Summa always extend to Ben and family signify adjustment in living with others as friends, and so a good relation develops and leads to closeness and mutual trust.

1.1.2 Keep up with modern technology

Adjustment to keep up with modern technology is another behavior that enables the elderly to keep up socially so that the elderly no longer belong to a backward and outdated age. An example is the character of Grandpa Jaroenji keeping up with technology from the novel *Khunpoowaentataek*. When Grandpa Jaroenjit is assigned the duty of teaching children of primary-school age, “the Grandpa learns that all the children in the Grandpa’s class have two worlds in their life. At the school there is an especially-designed computer room which the children enjoy visiting regularly” (Khunpoowaentato, 2011: 19). Grandpa Jaroenjit decides to learn computer because he wants to reach the children's world of technology. Grandpa Jaroenjit’s decision to learn computer shows an attempt by the elderly to adjust to the modern world. This reflects the reality of the present society where the elderly are eager to learn and reach technology all the more, as this can clearly be seen when Grandpa Jaroenjit goes to learn computer at a computer shop in the hamlet and discovers that several elderly people are surprisingly taking steps to the world of technology. This shows that a number of the elderly in the present society have become up-to-date with as well as mastered the world of technology.

Grandpa walks to the second floor of the shop. Here the grandpa is so surprised that he nearly falls off the stairs because when he looks into the glass-paneled room on the second floor he sees up to ten white heads. When he pushes the door to enter, twenty pairs of all the white heads turn to look at the grandpa as one eye. But all those eyes show a trace of worldly-wise quality so that the eyes become soft gray ones

(Khunpoowaentataek, 2011: 23)

Grandpa Jaroenjit’s use of computer shows good self-adjustment by the elderly so as to bring the elderly up-to-date and capable of keeping up with the modern world. It shows the elderly’s potential to adjust themselves to a proper age.

1.1.3 To spend life after retirement constructively

Retirement forces the elderly to face the problem of adjustment. The elderly who have worked away from home, such as government officials or workers at private companies, usually find themselves with a lot of free time after retirement so as to feel bored and no longer useful. The elderly must therefore be ready to face this change. The researcher found that the elderly in Chamaipom Saengkrachang’s novels adjust themselves properly after retirement by using their knowledge and ability to teach children. The character of Grandpa Jaroenjit in the novel *Khunpoowaentato* plans to spend his life after retirement teaching the children in his own home. He brings this up with Grandma Nij saying “Let’s teach these primary-school kids to read,” (Khunpoowaentato, 2000: 18). Grandma Nij quite agrees, so that the free time they have is not wasted. Similarly in the novel *Khunpoowaentataek*

when the Grandpa after retirement takes up a job of experimental teacher at a school, this makes him happy and highly satisfied to be able to spend his free time by being useful to others.

The grandpa drives off to the new workplace by the name of Manuswittayafasai Primary School forty kilometers away, giving Grandpa a stiff leg from stepping on the brake. But Grandpa appears very happy, telling Grandma Ni; children shine with innocence. It is uplifting to me like embracing the sky."

(Khunpoowaentataek, 2011: 9-10)

To spend the life after retirement teaching children is a suitable adjustment for the elderly in retirement to allow their life after retirement proceeds with value and usefulness. It helps to cut down boredom and unproductive free time so that liveliness and happiness are maintained when one can do what one likes and is good at.

1.1.4 To make the body and the mind ready for the death to come

Death is inevitable that no one can escape from. To make the body and the mind ready for death is important for everybody, especially those of elderly age, an age nearest death. The elderly must therefore be prepared in body and mind for any moment. The researcher has found that the elderly in the said novels have their bodies and minds ready for death with no attachment. This appears in the character Jantorn from the novel *Naiweungfaaunphaisaan*, who tries to learn and be acquainted with death, as when a young man talks about death with Jantorn so that she will be prepared to face death peacefully and happily, as follows.

Death a normal matter for human beings a natural condition facing everyone can o d a frightening black or cruel. It is simply a change being like your moving from the house you are in now to another house.

And what will the new house se be like? Jantorn asks softly.

I don't know. He answers sincerely. Nobody knows until he faces it. This is why anybody must be prepared for death, to make the transfer smooth, peaceful, and beautiful

(*Naiweungfaaunphaisaan*, 2015 : 285)

Jantorn's learning about death from others makes her understand that in truth death is something normal for human beings, a natural condition that all are faced with, and no one can avoid it. When she realizing this, she put her mind at rest and has a little fun joking with the ambassador of death in front of her." (*Naiweungfaaunphaisaan*, 2015: 285). Jantorn's preparation and adjustment for her body and mind to face death in front of her make her body and mind ready bravely with no worry about what will happen. It is a good adjustment for the elderly so that one can live comfortably without attachment, their conduct of life at the end being happy all the more.

1.2 Images with to value and meaning creation

The elderly's creation of value and meaning involves good and useful things for a life of value and meaning both to the elderly themselves and to others in society. And if the elderly have value and meaning, their children and people in society will see their value and significance all the more. The elderly's images about value and meaning creation in Chamaiporn Saengkrachang's novels may be seen as follows.

1.2.1 Creation of value and meaning for oneself

This gives the elderly a positive meaning, as seen in the character of Grandpa Jaroenjit from the novel *Khunpoowaentataek*. Grandpa Jaroenjit's conversation with Grandma Nij shows that the Grandpa does not put himself lower in value by not doing something honest and good.

My life is worth a lot of study.

Why not study your own life? Grandma Nij throws him a sarcastic look. I study when I can quit working and lie down to rest comfortably like others. I see the Director General Iwo houses from ours who retired last year, oh, how happy he is! I hear that he takes his wife on tours abroad like crazy.

How did he get rich? The Grandpa speaks sharply. Do you like it if I get rich by cheating and take you on tours?

(*Khunpoowaentataek*, 2011 : 127)

Grandpa Jaroenjit's creation of value and meaning for himself reflects the elderly who still love to work even after retirement and who choose to do good things both for their own feeling and in the eyes of others. This conveys the idea that the elderly in present society try to create good value and meaning for themselves in various ways so that people in society see the elderly in a more positive way and tone down their bias against the elderly.

1.2.2 The creation of values for family and social institutions

This is good and useful by transmitting knowledge and idea as one who teaches and cautions, as seen in the character Grandma Wan from the novel *Khunyaiwaansa*, who takes the responsibility of looking after Kratai, her granddaughter. She always keeps teaching and warning her that a good way to fall in love is to behave properly and not to be fooled into a wrong path. She gives a warning as follows.

You are grown up now so you must be careful what you do. Don't think that you are grown up and can save yourself. And about your association with men, don't lead him to expect something and don't make him think that you like him, because we don't know whether he's really the guy for you. You're too young. Just be a friend and learn enough about each other now. Don't go so far as going somewhere alone with him. If you do a lot of problems would follow. As a woman one can suffer only damage.

(*Khunyaiwaansa*, 2006 : 95)

The creation of values for family and social institutions by the elderly transmitting knowledge and idea as ones who teach and warn shows reliance on the elderly's knowledge and experience superior to those of any other ages. Those of other ages can make use of the elderly's words of teaching and warning to guide their lives in society as would be appropriate to their ages so that errors in life would be at minimum.

1.3 Health image

Our health is very important in life to be looked after and maintained. To make a strong body enables us to live happily without diseases. The image of health of the elderly that appears in the aforesaid novels appears as follows.

1.3.1 To look after one's own health

To look after the elderly's own health can be done by the elderly themselves by means of physical exercise, consumption of useful food, and sufficient rest for strong bodily health and for prevention of diseases, as seen in the novel *Saturday Yambaiwansao yamchaowanathit*. The characters Grandma Annie and Grandpa Summa need to look after themselves by eating more food useful for the body like bio-organic food.

On Saturday afternoon Grandpa had Aree come over with a plate of curry. Ben looked with surprise because the curry he saw was not known to him. What curry is it? A curry of a kind of flower and roasted catfish, sir. The master got it from the bio-organic food formula. Does Grandpa take bio-organic food too? Chaw-fah asked. Take or not it doesn't matter, sir. Aree said. How can old people eat pork?

(*Yambaiwansao yamchaowanathit*, 2004 : 36)

The care taken for one's own health among the elderly by eating useful food is a behavior of the elderly interested in their own health to prevent problems of falling ill, which is considered a right way of looking after one's own health

1.3.2 Not to be a burden for others

Some elderly people with a health problem are usually regarded by those around them or by their children and grandchildren as a burden to be cared for. But today the elderly can take care of themselves and do not act so as to be a burden to those around them. This can be done by the elderly taking care of themselves or taking out life insurance so that they need not rely too much on others. This can be seen from the character Amah in the novel *Amahboncondo* who conducts herself so that she is not a burden to those around her, i.e., she looks after herself. When Amah falls down on a slippery floor in a bathroom, she has to be treated in a hospital for a long time. While in hospital Choak and his sister, Amah's neighbors in the same condo, come to look after her and visit her. Amah thanks them for their concern and tells Choak not to take the trouble to look after her. "My hip bone broken and must be put in splint. I have to be hospitalized a month long. Many thanks to the girl. No need for her to

see me. You too. You go to school. No need to trouble on my account, (Amahboncondo, 2013: 99)

Amah's act shows an attempt by someone old to look after herself when faced with a health problem. Amah chooses to care for herself and tries not to be a burden for those around her. It shows an elderly person who needs not always bother her children and those around her to help her as the elderly today can take care and to look after themselves like those of other ages.

2. The presentation of the image of the elderly

The image of the elderly is a technique for the reader to see how to be a good elderly person. There are three techniques: presentation through a narrator, presentation through elderly characters themselves, and presentation through other characters, with details as follows.

2.1 Presentation through a narrator

The presentation of the image of the elderly through a narrator as a character in a story or through a narrator as a non-character involves the following details as follows about the personality, mood, and feeling of elderly.

2.1.1 A narrator describes an elderly character's personality

This is the narration of personality and character including some acts and behaviors of the elderly, such as the narration of the elderly's physical personality in the novel *Khunyaiwaansa*. The author prescribes a narrator who appears as the chief character in the story and describes Grandma Sweetie's outer personality, with the narrator representing herself as first person, i.e., Nu, which is a character in the story, Grandma Wan's grandchild. The girl describes Grandma Wan thus.

My grandma is named Wan. People say Grandma is not at all old. Whoever saw her when she was seventy now say as one voice that she is the same. Her set of teeth is still complete with perfect arrangement in her mouth, because it was the set of false teeth that came when Grandma was forty. But the whiteness of the teeth is gone. Grandma's teeth may be orderly, but they are black, red, and white combined because Grandma chews betel

(*Khunyaiwaansa*, 2006: 9)

Grandma Wan's physical personality as seen above is the picture of a grandma who is very old but not too old because the teeth in her mouth are complete and arranged in good order, albeit false teeth. Besides, the narrator describes the color of Grandma Wan as golden brown, because she makes herself look not too old by dyeing her hair: "My hair is soft golden brown. None of its strands is white like that belonging to one who is eighty. When you ask me at which shop I have my hair dyed, I will smile proudly and say I use Morgan," (*Khunyaiwaansa*, 2006: 9-10). This conveys the fact that one knows how to improve one's personality by looking after one's health and adding touches to look younger.

2.1.2 A narrator describes a character's mood and feeling

The narrator describes the mood and feeling of an old person at the moment or what appears at a particular moment, e.g., the narration of the mood and feeling of letting alone of the elderly in the novel *Naiweungfaaunphaisaan*. The author made the narrator not a character in the story but rather an omniscient narrator with a god's eye to describe Jantorn's mood and feeling of attachment without letting go after her husband's death. The feeling the reader gets is indifference like one who does not feel anything and who wants to talk to no one, in this description: "Jantorn is dressed like one about to go to the market or for a walk. She drives away from home slowly and unhurriedly, passing the houses in the lane one by one. Her heart is neutral and numb. What is it that makes her not want to talk to them so much? Is it a life desolate and alone or a dreg o emotion let up by mistake?" (*Naiweungfaaunphaisaan*, 2015: 63). And at the end, the narrator tells about Jantorn's mood and feeling that increasingly leave things in life alone without attachment to sorrow and a life that must meet with death, as follows.

Flowers of different colors all float around making circles of colors on clear blue seawater. Jantorn looks at the whirling blue stream that carry those petals away. At last nothing is left, just ashe Jantorn will be like this one day. No one can deny it nor knows when this will happen to anyone

(*Naiweungfaaunphaisaan*, 2015: 294)

Jantorn's feeling of lack of attachment as described by the narrator shows that Jantorn is a senior person who has experienced death someone close and who can adjust the of herself by means so that she can stay sane and learn to various be indifferent to her own death and the deaths of those around her. This is a good adjustment for the elderly who can be prepared body and mind to face to come.

The presentation of the image of the elderly through a narrator shows the characteristic of the elderly clearly, that enables the reader to see the picture of the elderly realistically, understand and see the picture of the elderly at once by the narrator's description. What is communicated here is a picture of the elderly suitable for the role and reasonably corresponding to the image of the character.

2.2 Presentation through elderly characters themselves

The fact that the author makes the elderly talk about themselves by showing acts, speeches, or dialogues between elderly characters and other characters is meant to show how they can be described This can be seen by how they are engaged in various activities how they live with others, and how they cope with various situations, for example, the presentation of the image of a senior person engaged in an activity by teaching In the novel *Khunpoowaentato*, the author makes presentation through the act and speech of the character Grandpa Jaroenjit showing how the Grandpa spends his daily life as a retired elderly person and how he feels that his daily life is empty with nothing to do, as the grandpa says to Grandma Nij: "I am retired, so I feel every day is empty," (*Khunpoowaentato*, 2000: 30). So

Grandpa Jaroenjit tries to find something to do by teaching the children at his own house, as can be seen in this description: “I’ll teach these kids how to read, just on the Saturday-Sunday holiday, beginning with the books the children like. We’ll read bit by bit together and try to understand together. They’ll grow up as children who know literature, with a reasonable foundation of understanding of life (Khunpoowaentato, 2000: 30)

To show the performance of an activity by the elderly through the Grandpa teaching the children means that the Grandpa usefully spends his free time after retirement. Moreover, his spending of free time enables Grandpa to stay with children so that they can adjust to each other. This is how the reader can see a well-adjusted elderly person.

The presentation of the image of the elderly through an elderly character makes the reader see a good image of an elderly character in various aspects of adjustment, in establishing value for the family institution and others, and in matters of health. Besides, the reader can understand an elderly character along with the development of a plot and the clarity of realistic.

2.3 Presentation through other characters

The author may show the qualities of the elderly by having other characters talk about the elderly. Other characters may talk and think about the elderly or react to them. This can be seen from the performance of activities, the living with others, and the confrontation situations. An example is how a with various elderly person lives with neighbor in the novel *Yambaiwansao yamchaowanathit*. The author presents a picture of Grandpa Summa and Grandma Annie through other characters in the novel that can make those of other ages become less biased toward the elderly. Grandpa Summa and Grandma Annie are presented as being always friendly toward middle-aged neighbors like Ben and family, making Ben aware of the good feeling and wish. The bias at the beginning changes to an increasing feeling of binding and closeness, as seen through Ben’s feeling thus: “He felt that the world of Grandpa and Grandma next door and his world were far apart. Came the time to eat and he took the first bite of that curry. He discovered that Grandpa’s world and his had moved close so as to be one,” (Yambaiwansao yamchaowanathit, 2004: 36)

Sometimes Ben is faced with a problem, and the author make a presentation to show that Grandpa Summa and Grandma Annie are the elderly people who always watch over him and are ready to help, as seen through Ben’s feeling: “He feels amused, but after that the feeling change to the kind of warmth that swells up. Are there people so concerned about him, especially those people not at all related to him?” (Yambaiwansao yamchaowanathit, 2004: 63). This communicates the idea that however Grandpa Summa and Grandma Annie act toward Ben and family all expresses a good wish of the elderly, so that the reader can see a picture of the elderly who can adjust to a life with neighbors with no problem.

The presentation of the image of the elderly through other characters informs the reader of the characters' feeling for each other either negatively or positively. The image of the elderly is more clearly seen through other characters, and shows a good image of an elderly character with respect to adjustment, value and meaning creation, and health.

Conclusion and Discussion

The characters of the elderly in Chamaiporn Saengkrachang's novels make representative pictures of the elderly in present society with value and positive meaning in terms of social adjustment, to the world of people of different ages; adjust adjustment to keep up with modern technology, adjustment to make life after retirement useful, and adjustment to face death to come. The creation of value and meaning is marked by creation of value and meaning for oneself as well as for family and social institutions. The matter of health is marked by caring for one's own health and not being a burden to those around one. This reflects the image of the elderly who accept the change of the modern world and who know how to adjust to the world of a new generation. Here the elderly are of value and meaning, can depend on themselves, take care of themselves without being burdens to others. This image is presented through various techniques of presentation through a narrator, elderly characters, and other characters, so that the reader comes to know and see elderly characters through realistic roles with reasonable movements alongside the development of a story. The good image of elderly characters on various dimensions can clearly be seen.

The image of the elderly as presented through characters by various techniques corresponds to the expectation or ideal of people in society. clearly creation of a new image of the It is elderly different from the elderly as marginal people, and this will help people in society understand and perceive the image of the elderly on the basis of the reality of present society. It will also encourage the reader and people in society to be aware of the value and importance of the elderly. This is to promote and support the policy of the government that stresses the importance of the elderly, and to bring about peaceful coexistence in society with understanding and happiness.

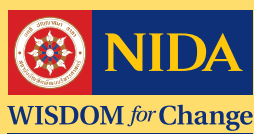
The study of the elderly in Chamaiporn Saengkrachang's novels also enables us to see that, as a writer who has always composed works that reflect society, her works presenting the picture of the elderly as studied by the researcher very well convey the ideal elderly in society, with an image of the elderly valuable to society that helps to reduce bias of age all the more. This shows the outstanding role of Chamaiporn's works. It can be said that this study reflects the fact that literature can very well serve as a tool to learn about human life including the living together in different kinds of society, so that people in society increasingly sense and recognize the importance of the elderly. This means the role of literature in mirroring correctly the roles of people in society.

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