DEVELOPING SELF-REGULATED LEARNING PRACTICES AND METACOGNITIVE SKILLS THROUGH ACTIVITY BASED LEARNING: POSSIBILITIES AND CHALLENGES

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INTRODUCTION

There are a variety of teaching strategies that teachers can use to improve student learning. Nowadays, most of the teachers use lecture method in their classrooms. However, with the students in the present context, lecturing does not hold their attention for very long, even though it is a method of conveying information to students. Teachers have to use learner-centered teaching-learning approaches to improve the metacognitive abilities of the students through the self-regulated learning practices which can be used in the activity based teaching-learning approach.

Self-regulated learning is a complex process, containing cognitive, motivational and contextual elements. Meta cognition is the instrument that controls these elements and which forms the basis of the process of self-regulated learning. Pintrich (2000) described self-regulated learning as: "an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation and behavior, guided and constrained by their goals and the contextual features in the environment". The self-regulation of cognition and behaviour are important aspects of learning and the extent to which students become self-regulators of their own learning influences their academic success (Beishuizen & Steffens, 2011).

Effective self-regulated learners actively set goals, decide on appropriate strategies, plan their time, organize and prioritize materials and information, shift approaches flexibly, monitor their learning by seeking feedback on their performance and make appropriate adjustments for future learning activities (Meltzer, 2007). Formal education should be to equip students with self-regulatory skills (Bakracevic Vukman & Licardo, 2010; Boekaerts, 1997). Dignath and Büttner's (2008) findings indicated role that teachers play in the development of self-regulated learning is insignificant in the teaching-learning processes.

The Faculty of Education of the OUSL realizes the importance of quality teachers for quality education. Therefore the faculty has introduced several teacher education programmes and using innovative approaches to increase self- learning abilities and metacognitive skills among the student teachers.

Objectives of the study

The main objective of this study is to examine the possibilities and challenges faced by student teachers to improve their self-regulated learning practices and metacognitive skills through activity based teaching-learning approaches used in Post Graduate Diploma in Education (PGDE) Programme conducted by the Faculty of Education. The specific objectives of this research are as follows:

1. To identify usefulness of activities adopted for Activity Based Learning approach;
2. To examine to what extent the Activity Based Learning approaches increase self-regulated learning practices among student teachers;
3. To Identify the metacognitive skills achieved by the student teachers through the self-regulated learning practices;

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4. To evaluate the problems faced by the student teachers to engage effectively in self-regulated learning practices in the activity based learning sessions; and
5. To make appropriate suggestions and recommendations to improve the effectiveness of the activity based learning approach.

RESEARCH METHODOLOGY

Quantitative and qualitative research approaches were used in this study within a framework of a survey research design. The study was conducted on the student teachers who followed PGDE programme in Tamil medium at the Colombo Regional Center of the OUSL in the 2011/2012 academic year. The total number of Tamil medium student teachers enrolled for the programme was 1054. Among them, 104 student teachers who followed PGDE programme at the Colombo Regional Centre were purposively sampled for this study. Data were gathered only from student teachers who were physically present at the Colombo Regional Centre for the activity based contact session on the day of visit by the researcher. Out of 104 student teachers 56 responded to the questionnaire. The data were collected using questionnaire.The questionnaire was structured type and focused on collecting data on three identified key areas namely; (i) identify usefulness of activities adopted for Activity Based Learning approach (ii) the extent the Activity Based Learning approaches increase self-regulated learning practices among student teachers, (iii) the metacognitive skills achieved by the student teachers through self-regulated learning practices and (iv) the problems faced by the student teachers to engage effectively in self-regulated learning practices in the activity based learning sessions. There were eleven main items in the whole questionnaire. Rating scales, selection of the most appropriate answer, structured type questions as well as a few open-ended questions were included in the sub items. The data obtained were tabulated and analyzed by applying elementary quantitative techniques such as frequencies and percentages. Open ended questions were analyzed qualitatively.

RESULTS AND DISCUSSION

Usefulness of Activities Adopted for Activity Based Learning

All the respondents were adult learners between the ages 30 to 45 years. The majority (86%) of the student teachers expressed that as adult learners, they do not expect all the information need to be given by the day school lecturers. Ninety six (96%) percent of the student teachers mentioned that they like to search more information themselves for their own learning.

Table 1. Students' Rating on Usefulness on Activities Adopted for Activity Based Learning

Activities	Greatly (%)	To Some Extent (%)	Moderately (%)	Little (%)
Group Discussion	72	28	-	-
Group Activities	87	13	-	-
Individual Presentations	79	16	05	-
Group Presentations	69	11	08	12
Peer Discussion	86	14	-	-
Individual Learning Activities	76	14	06	04
Group Learning Activities	91	09	-	-
Research Based Assignments	83	11	06	-

Student teachers expressed that the activities given for them in their PGDE programme such as group discussions (72%), group activities (87%), individual presentations (79%), group presentations (69%), peer discussions (86%), individual learning activities (76%) group learning activities (91%) and research based assignments (83%) were very useful and motivated them to do self-learning and search more relevant information for their learning.

Increase self-regulated learning practices

Group activities encourage students' involvements during the activity based day schools in various ways. The following statements were given to examine how far activity based learning approaches increased student teachers' involvement for self-learning practices.

Table 2. Students' Rating on Involvement of Self Learning Practices

Statements	Greatly (%)	To Some Extent (%)	Moderately (%)	Little (%)
Motivating to attend the activity based contact sessions	57	43	-	-
Searching more information for learning activities	21	64	15	-
Doing pre preparation for learning activities	17	71	07	05
Motivating to participate in group learning	36	57	07	-
Increasing participation in the group activities	50	41	07	02
Willing to take leadership positions in the group activities	43	43	14	-
Coming forward to do the presentations	14	71	14	01
Respecting the valuable presentations of peers	13	79	07	01
Creating opportunities for learning with peers	36	50	14	-
Coming forward to correct the incorrect answers of peers	21	64	14	01
Evaluating the presentations of the peers	28	57	14	01
Coming forward to give more information for insufficient explanation	28	57	14	01

As indicated in Table 2, the findings revealed that the majority of the student teachers have accepted that activity based learning contact sessions have increased their involvement in self-learning practices. More than 90% of the teachers expressed that activity based learning contact sessions have motivated and increased their participation in group learning and group activities. Further, they stated these sessions enabled them to respect the valuable presentations of peers. From the findings, it is clearly shown that activity based learning approaches have improved the self-learning and peer learning practices among the PGDE student teachers.

Meta Cognitive Skills

The following list of skills was given to the student teachers and they were asked to identify the higher order cognitive skills they achieved through the activity based learning approaches.

Table 3. Students' Ratings on Skills Development

Skills	To a Great Extent (%)	To some Extent (%)	Moderately (%)
Self -motivation	28	64	08
Planning	14	79	07
Sharing	15	64	21
Creativity	08	71	21
Analytical skills	22	71	07
Evaluating skills	21	71	08
Self- evaluation	14	79	07
Critical thinking	28	60	12
Reflective skills	07	86	07
Criticizing	14	64	22
Self -learning	21	71	08
Presentation skills	36	57	07
Leadership	21	71	08
Team sprit	43	50	07

According to Table 3, the findings revealed that activity based learning contact sessions have facilitated the student teachers to improve their higher order cognitive skills in a positive manner. More than twenty percentage of the teachers expressed that they have achieved higher order cognitive skills such as critical thinking, evaluation skills and analytical skills to a great

extent through the activity based learning contact sessions. They also agreed activity based learning contact sessions have improved their self-learning, presentation skills, leadership skills and team sprit to a great extent. It clearly shows that activity based learning sessions have helped them to develop not only the basic skills but also the higher level cognitive skills among the student teachers.

Problems and Issues Faced by the Student Teachers

Open ended questions in the questionnaire allowed the student teachers to mention the problems faced by them due to their involvement in the activity based contact sessions effectively. The following constrains were indicated by some of the student teachers: Among the respondents 36% of the student teachers expressed that they were unable to involve effectively due to lack of pre preparation and 56% indicated that time allocation for the activities was not enough. At the same time, 42% of them pointed out that the classroom facilities to formulate the groups and carry out the activities were not enough whereas 37% said large numbers in the groups was a problem for them. 24% of the student teachers reported that they did not receive support from all the group members. Majority of the student teachers stated that the time allocated for instructors feedback was not enough (68%) and 49% of them indicated that the questions raised by the peers after the presentation were not enough. The results revealed there are problems exist in the planning and implementation of activity based learning contact sessions and the Faculty of Education need to give more attention to address the above problems.

CONCLUSIONS AND RECOMMENDATIONS

The study revealed that the activity based learning contact sessions have motivated the student teachers to attend the sessions and helped them to increase their involvement in self learning and peer learning practices. Activity based learning contact sessions have made all the student teachers active learners and at the same time it has been very helpful to improve peer learning environment and team sprit among the student teachers. Effectiveness of the contact sessions has increased and it has helped them to develop basic and higher order cognitive skills such as critical thinking, evaluation skills and analytical skills. Lack of time allocation for instructors' feedback, insufficient time allocation for the activities, lack of classroom facilities to formulate the groups and to carry out the group activities were the main constrains faced by the student teachers during the activity based contact sessions. Overall, the analysis appears to suggest that in order to increase the active participation of the student teachers in the PGDE programme, Faculty of Education of the OUSL and other relevant teacher education institutions should adopt activity based learning strategies. This activity based learning strategies help to increase the self-learning practices and develop Meta cognitive skills among the student teachers. Further, faculty should give more attention to allocate classrooms with adequate facilities, and to allocate enough time for the activities.

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