
Upper Primary Students' Engagement in Active Learning: The Case in Butajira Town Primary Schools

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Abstract: The purpose of this study was to examine the level of upper primary students' engagement in active learning. The study involved an in-depth analysis and interpretation of the on-going classroom activities and events. A total of 48 science and social studies lessons conducted by 24 teachers of grades 6 and 8 classes were observed and tape-recorded. A combination of quantitative and qualitative approaches was employed to analyze and interpret the data obtained from the field.

The findings of this study reveal the existence of a very low level of students' engagement in active learning. The level of students' engagement in active learning was higher in grade six classes than in grade eight classes. However, no significant subject-wise variation in engagement rate was found in this study. The results seem to suggest that the policy has set expectation on schools to implement a pedagogical innovation that demands more than what they actually can at the moment.

Therefore, provision of more enabling conditions such as instructional resources, favorable working regulation, and continuous and relevant in-service training for primary teachers is highly essential in order to narrow down the existing gap between curriculum (policy) intentions and the actual pedagogical practices in the classrooms.

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Background to the Problem

Students' engagement has been conceptualized as a process that involves the attention, effort, and mental investment students expend in the work of learning (Marks, 2000). This conception appears to be consistent with other definitions of engagement such as students' active involvement with the learning process (Finn, 1993); their psychological investment in and effort directed toward learning or mastering the knowledge, skills and attitudes that academic work is intended to promote (Newman and Wehlage, 1992). Although research examining the effect of engagement on achievement is comparatively sparse, existing studies consistently demonstrate a strong positive relationship between engagement and performance across diverse populations (Finn, 1989; Finn and Rock, 1997). Conversely, lack of engagement is found to be adversely affecting student achievement and initiates a downward spiral that may lead to undesirable school behavior and, ultimately, culminates in some students leaving school entirely (Newmann, 1992; Steinberg, 1996).

Despite its importance, studies over the past two decades have documented low levels of student engagement in instructional activities (Goodlad, 1984; Qakes, 1985; Sizer, 1984; Steinberg, 1996). Sometimes, even though a teacher may be task oriented and may provide maximum content coverage, the students may be disengaged. Students can be disengaged in such subtle ways as looking attentive while their thoughts are many miles away. It is estimated that a quarter of a class may be "tuned out" at any one time (Borich, 1996). This means that they are not actively thinking about, working with, or using what is being presented (Savage, 1991; Marx & Walsh, 1988).

Studies have shown a strong relationship between the level of learners' engagement and the pedagogical approach employed in the classroom. In relation to this, Marks (2000) noted that authentic instructional work contributes strongly to the engagement of students. Authentic academic work involves students intellectually in a process of higher order thinking and

substantive conversation (Bronfenbrenner, 1979) and disciplined enquiry to solve meaningful problems (Marks, 2000). The findings of similar studies have revealed that students active engagement in learning occurred when the classroom activities are cognitively challenging (Stodolsky, 1988) and when teachers design and employ learners' grouping that is appropriate to the objectives of the lesson and the nature of the activities(Nunan,1992).

Moreover, students' engagement in active learning is found to be enhanced in classrooms where teachers pose open ended questions, incorporate student responses into further questions, and build discussion around the ideas the exchange generated (Nystrand and Gamoran, 1991). Even though open-ended questions are believed to be more capable in generating active learning classroom events than closed-ended questions, the vast majority of class questions asked by teachers are found to be closed-ended (Kerry, 1987; Dillon, 1988;).

The ease to frame and ask closed-ended questions (White and Gunstone, 1992) and to deal with the responses given to them, compared to open-ended questions (Berliner, 1976) seem to have attracted most teachers to emphasize the former type of questions in their classrooms.

The nature of the tasks set by teachers and the cognitive demands required of the learners, according to Nunan (1992) influence the level of students thinking (their learning approach). In this regard studies have reported that teachers who interpret teaching as the transmission of facts (Chin et al., 2002) and those who feel that tight control is the necessary feature of teaching (Good et al., 1987, Wood and Wood, 1988) are unlikely to design activities that engage students in deep learning such as analysis, posing critical questions, argumentation, reasoning, synthesis and others.

Active learning pedagogy can be implemented better in a classroom environment that provides learners with autonomy in the learning process (Nunan, 1992). Learners' autonomy or independence is one of the defining

features of active learning pedagogy (Marks, 2000; Nunan, 1992). Thus, in order for students to be autonomous in their own learning, a radical shift has to be made from teacher-controlled interaction to learner-controlled interaction in the learning process (Borich, 1996).

The subject-wise variation in the level of students' engagement in active learning has been one of the issues of classroom research. It has been revealed that students tend to have different levels of interest and concentration in learning different subjects (Shernoff, et. al., 2003). The study indicates that purely subjective perceptions of challenge and relevance influence student's individual decision to have different levels of engagement in learning different subjects. Similarly, Stools (1988) has reported variation in students' engagement in mathematics and social studies subjects' classes. The study, however, underlined that there was no difference in the level of engagement among elementary school students when the learning activities in mathematics and social studies subjects were cognitively involving.

Studies have shown the necessity of a number of conditions for effective implementation of pedagogical reforms that involve changes in the classroom practices (Prince, 2004; Bonwell and Eison, 1991). It is noted that in order for teachers to teach for active engagement in learning they must possess pedagogical knowledge and skills that go far beyond what is typically provided in teacher education (Lockheeds and Verspoor, 1991). Similarly, Verspoor (1993), reported that a well-designed and effectively implemented in-service teacher training program was a key element in the successful implementation of educational change programs. In-service training is found to be more fruitful when it is persistently available and accessible to teachers. Verpoor further argues that in-service training becomes more helpful when the objectives, contents and experiences expected to be obtained are geared towards developing the fundamental knowledge, attitude and skills that the reform requires (1993).

Another important enabling condition is the availability of a manageable class size. Studies involving classroom observations revealed that small classes

tend to have greater numbers of students “on task” (Evertson & Folger, 1989) and are characterized by a greater percentage of “task-oriented events” and smaller percentage of “disciplinary and procedural events” (Kiser-Kling, 1995). Moreover, the time required to prepare and deliver active learning lessons was found to be much longer than the length of time required for traditional lessons (Prince, 2004). Breslow (1999) noted that active learning methods tend to consume more class time than the transmission model of teaching. To avoid problems they are facing in managing limited class time, teachers sometimes seem to be tempted to just pour information directly. Ronwell & Eisan (1991) have also identified limited class time; a possible increase in preparation time; the potential difficulty of using active learning in large classes; and lack of materials and resources to be some of the school-related factors that hinder the utilization of active learning pedagogy.

Nevertheless, studies utilizing multi-level models to partition the variance in student engagement into learner-related, school-related and teacher-related factors have found the effects of the first and the second factors to be relatively minimal compared to the third factors (Marks, 2000, Shernoff, Schneider, and Csikszentmihalyi, 2001).

Hence, the studies discussed so far seem to suggest the conclusion that the nature of the ongoing classroom activities and the way students undertake and experience them may be the most critical factors in determining the level of students’ engagement in active learning.

Statement of the Problem

The Education and Training Policy strongly urges a radical shift to be made from the traditional transmission model of teaching to active learning pedagogy (MOE, 2002). The success of this pedagogical innovation, as can be learned from the above discussion, is influenced more by what is going on in the actual classroom than by what is stated in policy documents. Indeed, as Elmore, Sykes, and Spillane (1996) indicated, policy statements are just

intentions, and sometimes there might be a discrepancy between these intentions and the actual practice in the classroom. In view of the overwhelming domination of the transmission model of teaching in the Ethiopian education system, therefore, it seems reasonable to suspect the success of the new pedagogical innovation. Hence, this study attempts to examine the level of students' engagement in active learning in upper primary classrooms.

Particularly, this study attempts to answer the following basic questions:

1. To what extent are students engaged in active learning tasks in the classroom?
2. Is there any variation in the level of student engagement in active learning between subjects and grades?

Significance of the Study

In the context of Ethiopian schools, active learning is a new pedagogical innovation. It is slightly over ten years since active learning has been recommended to be the dominant pedagogical strategy for the implementation of the new curriculum. The implementation of this pedagogical innovation is, however, prone to a number of barriers owing to its novelty to the pedagogical culture of Ethiopian schools. That is, there might be a gap between the official claims and the actual classroom practices regarding the status of implementation of active learning pedagogy. It is, therefore, very essential to assess how well the innovation is being implemented in the actual classroom and the problems encountered in the course of implementation. More specifically, the findings of this study will give valuable evidence about the status of the new pedagogical innovation (active learning pedagogy) and the implementation problems encountered at the grassroots' level. This would help stakeholders (teachers, schools, teacher education institutions and the management of the education system) to make informed decisions.

Operational Definitions

Self-regulated Learning: It is a learning process that gives learners autonomy and independence to direct and control their own learning.

Upper Primary Schools: Are second cycle schools that enroll students from grade 5 through 8.

Transmission Method of Teaching: A method of teaching and learning in which the teacher plays the role of pouring information directly to students whose role is limited to passive listening.

Pedagogical Techniques: Are the different techniques employed in a given session to conduct the teaching-learning activities.

Learning Approaches: The ways a student interacts with a given set of learning task or material mainly in response to the teaching environment in which he/she is expected to learn.

Methods of the Study

In the context of this study, engagement has been conceived as a continuum that ranges from low to high in the level of students involvement (mentally and physically) in classroom activities. If classroom activities permit students' involvement to approach the highest level in the continuum it is said to be active engagement. Conversely, if classroom activities restrict the level of students' involvement to the lower end in the continuum, it is said to be passive engagement. The study dealt with an in-depth analysis and interpretation of classroom activities (teachers' teaching behavior and students' on- task behaviors) to explain the level of upper primary students engagement in active learning. In this way the study tried to address the major criticism of much classroom research in the third world which, according to Patricia (1995), has lacked independent assessment of classroom processes.

Subjects

The nature of the problem under investigation made it imperative to gather detailed qualitative and quantitative data about the teaching learning activities and events that take place in the actual classroom. It was also necessary to employ observation of the actual classroom practices by an independent observer (the investigator) as the major data gathering instrument. The study focused on a limited number of schools and subjects. This means that only four of the eight primary schools found in Butajira town were randomly selected as the major source of data for this study.

In the study area, Amharic was used as a medium of teaching in grades 5 and 6 while English was the medium of teaching grades 7 and 8. Considering this difference in the medium of instruction used within the upper primary grades, a stratified random sampling was used to select two (grades 6 and 8) of the four upper primary grades.

Moreover, science and social studies were selected as focal subjects mainly because of the investigator's curiosity to examine level of students' engagement in learning these subjects.

A stratified random sampling was used to select 24 subjects out of the population of 41 teachers teaching science and social studies in grades 6 and 8. A stratified sampling was used to ensure that each school was represented by a minimum of one teacher within each of the four cells or groups of subjects (2 subjects x 2 grades). Almost all teachers in the sample schools had college diploma, which was a requirement for teaching in upper primary classes. They had also more than 10 years of teaching experience. This was a minimum requirement to be assigned in the schools of Butajira town. Because of these reasons, teachers' level of training and teaching experience was not considered as a variable in selecting the sample teachers. Hence, all teachers in the sample population had college diploma and a minimum of 10

years of teaching experience. The following table shows the distribution of the subjects within the four cells.

Table 1: Distribution of the Subjects and Observations Conducted.

Grades	Subjects	Number of teachers in the sample schools	Samples selected from each cell		Number of observations in each cell
			No.	%	
6	Science	11	6	54.5	12
6	Social studies	9	6	66.6	12
	Science	13	6	46.2	12
8	Social studies	8	6	75.0	12
Total		41	24	58.5	48

Instruments

The instruments employed in this study were developed by the investigator based on the available literature. The study employed classroom observation as the major data gathering instrument.

Also, questionnaire and focus-group interview were used as data gathering instruments to complement the data obtained through classroom observation.

During classroom observation, notes were taken on all the activities and events observed during the observed lessons. For example, notes were taken on teachers' activities and the corresponding students activities. The number of students, who got involved in the activities including the length of time completing the activities required, was also recorded. The form of learner grouping observed during the activities was another area focused on during classroom observation. Besides, the verbal interactions that took place in each observed session was also audio-recorded to gather as much data as possible and to refine it through triangulation.

Right after each observation, the information collected through note taking and a written report and audio-taped data were interpreted, classified, quantified, and recorded in separate rating forms. The assumption that underlies the interpretation and classification of data is that the nature of the activity students are doing at a given moment within a given class hour or session and how they are doing it can be used as a basis to label the learning process in that particular moment as active or passive. The learning process at each moment (learning event) was labeled as 'active' to the extent that more than half of the student population was engaged in activities that involve mental and/or physical exercises such as searching for information independently, processing information, discussion, constructing meanings, producing their own materials (such as their own note). On the other hand, the learning process at any moment is said to be 'passive' if the activities engage more than half of the students in receiving ready-made information such as listening, note copying or recitation. Of course the process is prone to some degree of judgement or subjectivity, which is the inherent drawback of techniques that involve classroom observation. However, as noted by Wiley (1973) and Wiley & Harnischfeger (1974), although we cannot observe the psychological processes of active learning directly, we can see some "physical manifestations" of them in the 'on-task' behaviors of students.

Three forms were prepared to record the summary of the data for discussion. The first form was designed to record the ratio of the class time devoted to different learning behaviors (active versus passive). The second form was used to record the convergent-divergent ratio of teacher-generated and student-generated class questions. The third one had eight items related to the major strategies of active learning pedagogy. Teachers' performance in utilizing each of these strategies was rated by the investigator, using a 4 point rating scale. A mean of 3.5 and above constituted 'a very high performance,' 2.5-3.49 'high performance,' 2.0-2.49 average, and below 2.0 was related as 'poor performance.'

The instrument used to assess the attitude of teachers towards active learning pedagogy consisted of seven statements about the assumptions or strategies of active learning pedagogy. The subjects responded to each statement using a 5-point Likert-type scale anchored by 'strongly agree' (5) and 'strongly disagree' (1). Prior to the actual field-work, the feasibility of the procedure and the quality of the instruments were assessed in six peer teaching lessons conducted by student-teachers.

Methods of Data Analysis

The data obtained from the field were summarized and interpreted using frequency counts, percentages, mean, chi-square test and t-test. Together with the qualitative examination and interpretation of the observed and reported data, the analysis permitted conclusion to be made on the level of students' engagement in active learning.

Results

Table 2: Mean Percentage of Class Time Spent on Different Learning Behaviors.

Grade	Subjects	Total instruction in minutes	Mean Percentage Scores					
			The share of active learning behaviors		The share of passive learning behaviors		t	The length of students' off task time
			M	SD	M	SD		
6	Sos.Sot.	480	17.35	2.95	67.85	6.75	-33.6**	14.80
6	Science	480	18.9	2.46	65.32	5.95	-28.2**	15.70
8	Science	480	9.80	2.21	74.6	6.85	-35.2**	15.60
8	Science	480	12.62	2.03	75.31	6.65	-36.5**	12.07
Aggregate			14.56	2.38	71.68	6.28	-31.62**	13.76

** P<. 001

In all classes students' engagement in active learning behaviors consumed less than 20 percent of the total class time. The average length of class time devoted to students' engagement in active learning from 9.8% (in grade eight social studies classes) to 18.9 percent (in grade 6 science classes).

In more than two-third of the total curriculum time in all of the observed classes, students were passive recipients of ready made information delivered by their teachers. The difference between the lengths of Active Learning time and Passive Learning time was highly significant ($P < 0.001$). On the aggregate, students' on task behaviors that subscribe to active learning approach were observed in 14.56 percent of the total class time. The level of students' engagement in active learning was higher in grade 6 than in grade 8 and it was also a little longer in science classes than in social studies (Sos.St.) classes. However subject wise variation was not significant. The data further indicates that, on the average, nearly 14 percent of the curriculum time was not utilized for the actual teaching-learning activities. During this time students were observed to be off-task (disengaged).

Table 3: The Nature of Class Questions Asked by Teachers and Students in the Observed Classes.

Grade	Subject	Average number of questions asked in each session				Teacher-generated questions				Students-generated questions			
		OE*		CE**		OE		CE		OE		CE	
		F	%	F	%	F	%	F	%	F	%	F	%
6	Sos.St	3	12.5	21	87.5	2	8.3	18	75	1	4.2	3	12.5
	Science	4	15	23	85	3	11	19	70.4	1	3.7	4	14.8
8	Sos.St	1	7	13	93	1	7	11	78.6	0	0	2	14
	Science	1	6	16	94	1	6	13	76	0	0	3	17.6
Total average		2.25	11	18.25	89	1.75	10.2	15.25	89.7	0.5	14	3	86

*OE - Open-ended (divergent) questions

**CE – Closed-ended (convergent) question

The data in table 3 shows that the average number of questions asked per session ranges from 14 and 27. A relatively larger number of questions were asked in grade six classes than in grade eight. Within the same grade level, a larger number of questions were asked in science classes than in social studies classes

Table 3 also indicates that in all observed classes more than 85% of the questions were closed-ended (convergent) questions. The share of open-ended questions to the total class questions was comparatively higher in grade six Social studies (12.5%) and science (15%) classes than in grade eight Social studies (7%) and science (6%) classes. However, the variation in

closed-ended and open-ended questions ratio did not show any subject related pattern. The data further shows that it was not only that the participation of students in generating class questions was poor, their contribution to the observed few open-ended questions was also almost nil.

Table 4: Teachers' Utilization of Active Learning Pedagogical Strategy.

Ser No	Active learning instruction strategies	Mean scores for the levels of teachers performance				
		Grade Six		Grade Eight		Both grades
		Sost	Sc	Sost	Sc	
1	Providing for learners' autonomy or independence in the learning process	1.78	1.83	1.44	1.54	1.64
2	Designing cognitively challenging learning tasks	1.74	1.77	1.04	1.22	1.44
3	Designing tasks that engage students in varied learning activities	2.42	2.36	1.86	2.11	2.18
4	Using learners grouping to elicit a cooperative and competitive learning climate	1.53	1.72	1.38	1.23	1.46
5	Utilizing materials and resources for task-based learning	1.64	1.57	1.27	1.48	1.49
6	Arranging classroom seats to suit participatory (interactive) learning	1.0	1.0	1.0	1.0	1.0
7	Providing time and opportunity for students to learn through reflective thinking	1.22	1.46	1.26	2.12	1.23
8	Framing the instructional activities with the actual contexts of the learners' lives	1.88	1.62	1.36	1.48	1.49

Table 4 shows the results of the assessment of teachers' instructional performance in utilizing active learning pedagogical strategies. The mean scores obtained for teachers instructional performance in creating classroom interactions that promote learners autonomy in the learning process (M=1.64), and involving students in varied learning activities (M=2.18), and cognitively challenging learning activities (M=1.44) were found to be low. Similarly, the mean score for the level of utilization of materials and resources for task-based learning (learning through hands-on activities) was 1.49, whereas the value obtained for teachers performance in framing the instructional activities with what the learners already experienced was found to be 1 .60.

The mean value obtained for the creation of instructional events that engage students in reflective learning was 1 .23. This shows that teachers rarely provided time and opportunity for students to engage in thinking about what and how they are learning. The data further shows a very low mean score for the use of team building strategies that enhance a cooperative and competitive learning spirit (M = 1.96). In general, teachers' Instructional performance seems to be slightly better in grade six classes than in grade eight classes. It was also better in science than social studies subjects. However, regardless of the grade or the subject they teach, teachers' performance in utilizing most of the fundamental strategies of active learning pedagogy (except the strategy indicated in item 3) was below average, which means poor.

Table 5: Comparison between Perceived and Observed Active Learning Time.

Grade	Mean percentage of Active Learning Time			
	Subjects	Observed	Perceived(teacher reported)	χ^2
6	Social studies	18.00	33.42	7.25*
	Science	19.50	29.62	8.19
8	Social studies	10.50	24.56	6.20*
	Science	13.00	27.28	7.59
All classes		15.25	28.75	8.15

* P < 0.01

As can be seen from Table 5, a little more than 15 percent of the curriculum time was observed to have been devoted to active learning behaviors. However, teachers reported to have utilized higher percentages of active learning time (i.e nearly 29%) than what was actually observed. The difference between the observed and teacher-reported active learning time ranged from 10.12% in grade six science classes to 15.42% in grade six social studies classes. The chi-square test has shown that the variation between the observed and teacher reported active learning time was statistically significant for all subjects and grades ($P < 0.01$). It appears, therefore, that teachers feel to have generated a higher degree of active learning time than what was actually observed.

Table 6: Teachers Attitudes towards the Assumptions of Active Learning Pedagogy.

S. No.	Assumptions (strategies) of Active Learning Pedagogy	Teachers' Response (Mean Score) N=24
1	The best discipline is that which a child imposes upon himself	1.83
2	The best discipline is that which a child imposes upon himself	2.02
3	Students can maintain their attention and devotion even without the teacher's strict control over their learning	4.58
4	The quality of education can be improved if teachers shift their instructional approach from the transmission model to active learning pedagogy	4.66
5	If properly guided, most primary schools students can learn and understand even complex subject matter by themselves	1.86
6	Most primary school students can successfully work on learning tasks that require enquiry and problem solving activities	1.93
7	The task of preparing and organizing lesson notes should be left to students	1.64

As can be observed from the data in Table 6, the mean scores obtained for the first (M=1.83) and the second (M=2.02) items reveal teachers' disagreement about the ability of the students to exercise self-imposed discipline in their learning. These teachers feel that disciplined learning can be maintained if only the teacher exercises direct and strict control over students' learning.

The mean scores for item 3 (M=4.58) and item 4 (M=4.66) reveal teachers' strong agreement about the superiority of the facilitating role over the transmission role of teaching.

The mean scores obtained for items 5-7 indicate teachers' skepticism about the capability of their students to learn and understand complex subject matter independently (M=1.86), to engage in enquiry and problem solving activities (M =1.93) and also to organize and develop their own lesson notes (M=1.64). In general, teachers demonstrate a mixed perception about active learning pedagogy. On the one hand, they strongly accept the importance and superiority of active learning pedagogy. On the other hand, these teachers show unfavorable attitude towards the major assumptions of this pedagogy. It appears, therefore, that teachers strongly support active learning pedagogy without having a clear understanding of the specific strategies that generate active learning climate.

Discussion of Results

The findings of this study disclosed a very low level of student engagement in active learning in upper primary classrooms. Several studies conducted on the topic have reported similar findings (Goodlad, 1984; Qakes, 1985; Sizer, 1984; Steinberg, 1996). There was also a grade-wise and subject-wise variation in the level of active learning time. In general the length of active learning time was higher in grade 6 classes than in grade 8 classes. It was also slightly higher in science classes than in social studies classes.

Analysis of the instructional events suggests that provision of learners' autonomy or independence in the learning process, which is described as one of the defining features of active learning pedagogy (Marks, 2000; Nunan, 1992), has been the least implemented strategy in the observed classrooms. In virtually all classes, the observed instructional events did not empower the students to organize and regulate their own learning. A number of pieces of evidence can be mentioned in this regard. First, the longest class time was devoted to teachers' talk and other teacher-initiated

instructional events. Second, though questioning was employed in almost all classes, the vast majority of the class questions were teacher-generated. Third, even though learner's autonomy presumes a radical shift to be made from teacher-controlled interaction to learner-controlled interaction in the learning process (Borich, 1996), the observed events demonstrated teachers' skepticism about the ability of their students to exercise self-imposed discipline and independent learning.

Another characteristic of active learning pedagogy is the use of varied and cognitively challenging learning tasks (Marks, 2000). The observed lessons were not designed in a way that requires students to learn through in-depth discussion, debating, reasoning, experimentation, observation, analysis and other deep learning approaches. The nature of the tasks set by teachers and the cognitive demands required of the learners, according to Chin et al. (2002), influence the level of students' thinking (their learning approach). This clearly suggests that the level of student engagement in active learning is influenced by the nature of the class questions asked, the way the questions are utilized, the level of student involvement in generating questions and the way the answers generated by the questions are made.

The vast majority of class questions asked by teachers (nearly 9 out of every 10) were closed-ended. This means that the questions required the students to give a single word answer or they were questions that 'yes' or 'no' answers could satisfy. Sometimes the questions were directed to individuals; at other times, students were required to respond in unison. In any case, the virtual absence of open-ended (higher order) questions rarely posed a cognitive demand that urged the students to go beyond simple memorization of factual information. The ease to frame and ask close-ended questions (White and Gunstune, 1992) and to deal with the responses given to them, compared to open ended questions, (Berliner, 1976) seems to have attracted most teachers to emphasize the use of the former type of questions in their classrooms.

Teachers provided students time and chance to ask questions near the end of the lesson time. In this regard, studies have reported that teachers who

interpret teaching as the transmission of facts (Chin et al., 2002) and those who feel that tight control is the necessary feature of teaching (Good et al., 1987, Wood and Wood, 1988) are unlikely to invite student questions. Moreover, learners' reliance on listening and note-taking as the invariant learning strategy seemed to have seriously restricted their contribution to the total open-ended class questions. This result agrees with the findings of Chin et al., (2002). They reported that students tend to generate fewer open-ended questions when they are engaged in surface-learning activities.

The observed events disclosed teachers' pedagogical deficiency in setting appropriate tasks, using team building strategies, creating a conducive seat arrangement, and monitoring group activities. In almost all classes the tasks set for students group work were designed in the form of simple verbal questions that generated a single word or sentence level responses. The tasks did not engage students in joint hands-on activities nor did they require learners to analyze, argue, debate, criticize, generate, and organize ideas.

Besides, none of the observed teachers employed ability grouping (learners' heterogeneity) as team-building strategy. They also did not try to change the traditional seat arrangement that places the teachers' desk at the front of the room and aligns the students' desks in rows. Of course, the difficulty posed by large classes to organize small groups, to use different seat arrangements and to provide optimum support and feedback is well documented (Evertson & Folger, 1989; Bonwell & Eison, 1991; Breslow, 1999). However, teachers in the observed classrooms did not employ pedagogical strategies that are appropriate to induce active learning in large-sized classrooms. Teachers could have designed activities that engage students in deep learning activities; they could have organized heterogeneous learners grouping without changing the arrangement of desks; they could have facilitated the activities of groups within the available time. Therefore, teachers' lack of active learning, pedagogical knowledge and skills appropriate for large classes seems to have contributed more to the low status of active learning than the condition made by large class-size.

In general, the observed classroom events critically question teachers' pedagogical capability to design and employ group work that promotes students' engagement in active learning.

The attitude survey conducted in this study has indicated teachers' strong agreement about the superiority of the facilitating model over the transmission model of teaching. They unanimously confirmed the importance of active learning and the need for applying it in their classrooms.

Paradoxical enough, however, these teachers have demonstrated unfavorable attitude towards some of the fundamental assumptions and strategies of active learning pedagogy. For example, though active learning pedagogy is best implemented in a climate where self-imposed discipline and independent learning are highly promoted (Bronfenbrenner, 1979; Marls, 2000); respondent teachers have strongly rejected the mode of classroom interaction that encourages students to exercise self-regulated learning. In addition, the actual classroom events were dominated by teaching behaviors that subscribe to the teacher-centered model of teaching. There seems to be a mismatch between what teachers feel about active learning pedagogy and what they exactly know and do. This is because, as Patricia (1995) put it, attitude is only a predisposition to behave in a certain way and not a guarantee. The logical extension of this assertion is that, no matter how positive teachers' attitude towards active learning pedagogy may be, teachers do not do more than what they can and what they know about active learning pedagogy. The discrepancy between the observed and teacher-reported active learning time discovered in this study further confirms this conclusion.

The Education and Training Policy singles out active learning pedagogy as an essential instructional strategy for the implementation of the curriculum at all levels. Consequently, in recent years, authorities in the education system have been pressing teachers to implement this pedagogical practice in their classrooms. In spite of such pressing demands, however, it is highly unlikely for complex pedagogical innovations to be implemented as intended unless

due attention is given before hand to conditions that enable teachers in the implementation (Lockheed and Verspoor, 1991).

The results in this study seem to suggest, tacitly, that teachers in this study were lacking the knowledge and skills that are essential for the utilization of active learning pedagogy. Given the prevalence of the transmission model of teaching as a dominant pedagogical culture of Ethiopian education throughout its history (MOE, 2002; Tekeste, 1990; Hailu, 1974), the presence of limited knowledge and skills among teachers to implement this pedagogical innovation (active learning pedagogy) may not be surprising. Obviously, pedagogical innovations, for their proper implementation, require teachers to be equipped with new knowledge and skills (Prince, 2004; Verspoor, 1993). This is why the implementation strategy of the education and training policy has underlined the critical importance of continuous service teacher training for proper application of the newly introduced pedagogical innovations. It was found out in this study that in the last five years, only 2 of the 24 sample teachers attended pedagogical training on active learning methodology twice; 19 teachers attended only one in-service training program, and the remaining 3 teachers have never attended any pedagogical training on active learning. Thus, the absence of relevant and continuous in-service training for teachers included in this study appears to be one of the hindrances of the implementation of active learning pedagogy. This is consistent with the findings of Verspoor (1993) who underscored the availability of a well-designed and effectively implemented in-service teacher training program to be a key element in the successful implementation of educational change programs.

A close examination of the situations in the observed schools reveals the presence of other school-related barriers to the implementation of active learning pedagogy. For instance, the number of students in the observed classrooms was very large. This made it difficult for teachers to change the traditional seat arrangement, and to organize groups, and mediate students' independent individual and group activities. It was also learned that the schools did not have any budget meant for the production or purchase of

instructional materials. Teachers complained that they were expected to cover vast content in a short period of time, to teach several hundreds of students and to have a work load of not less than 25 periods per week. This seems to have unfavorable impact upon the level of implementation of active learning pedagogy. This result agrees with the findings of a number of studies that identified large class size (Evertson & Folger, 1989; Bourke, 1986; Bonwell & Eison, 1991); limited class time (Prince, 2004; Breslow, 1999; Bonwell & Sison, 1991); and scarcity of materials and resources (Bonwell & Eison, 1991) as some of the school-related factors that curtail the level of utilization of active learning pedagogy.

Conclusion and Recommendations

From the findings discussed above it can be concluded that the level of utilization of active learning pedagogy is very poor. The prevalence of listening and note copying as the typical learning strategy in the actual classroom, the virtual absence of open-ended questions and self-regulated learning activities seem to show the least utilization of active learning pedagogy in the observed classrooms.

The level of students' engagement in active learning tends to be higher in grade 6 classes than in grade 8 classes. The results in this study do not provide empirical evidence to explain the grade-wise variation in students' engagement in active learning. However, considering the impact of language proficiency on the rate and quality of verbal interaction and exchange of ideas between the teacher and the students and among the students themselves, it is safe to assume that the use of English (in which most teachers and students were observed to have difficulty) as a medium of instruction might have curtailed more the level of active learning in grade 8 classes than it did in grade 6 classes.

Though teachers support active learning pedagogy rhetorically, they are not yet liberated in their actual classroom practice from the traditional teacher dominated (transmission) model of teaching. The results suggest that teachers lack knowledge of the theoretical framework as well as the practical

skills necessary for clear understanding and proper application of active learning pedagogy.

In addition, the physical conditions of the classrooms and the working regulations in the schools seem to have unfavorable impact upon the utilization of active learning pedagogy. It appears that the education system has not adequately created enabling conditions for teachers (such as provision of on-going and relevant in-service pedagogical training, availability of conducive work regulations that give teachers sufficient preparation and working time and provision of educational materials and resources) to implement active learning pedagogy in their classes . It seems that the policy sets expectation on teachers to implement a pedagogical innovation that demands more than what teachers can actually do at the moment.

Therefore, provision of enabling conditions such as instructional resources, favorable working regulation, and continuous and relevant in-service training for primary teachers is highly essential in order to narrow down the existing gap between curriculum (policy) intentions and the actual pedagogical practices in the classrooms.

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