ORIGINAL ARTICLE

The Practice of Learner-Centered Method in Upper Primary Schools of Ethiopia

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Abstract
This article explores the practice of learner-centered methodology in upper primary school of Ethiopia and the major obstacles for the effective use of such methods in the classroom. Data were collected from upper primary school teachers, school principals, and students through observation, interview and focus group discussion from the sample schools in the country. The results of the study revealed that even though it is not adequate, upper primary school teachers try to employ learner centered methodology in the classroom. The major hindering factors identified for effective implementation of these methods in the upper primary schools are generally related to student, teacher, school, and resource and equipment related factors.

INTRODUCTION
The first modern school in Ethiopia was established in 1908. Since that time until 1944, there was no teacher education system, and Western teachers and principals populated the schools (MOE, 1973). A teacher training system for primary schools was initiated in late 1940s and still the teacher educators were foreigners. This initiative matured and in the 1960s, there were institutions offering certificates, diplomas and Bachelor of Arts Degree. However, early in the 1950s even the government itself sensed a general dissatisfaction with the education system of the then regime. This dissatisfaction grew and the government initiated a study called the Education Sector Review (ESR) in 1971 to reform the education system of the country.

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However, this reform process was discarded in September 1974 when the Dergue (Military Regime) began to rule the country. After closing the educational institutions for some time, the Dergue continued the training of teachers for three levels, namely elementary (1-6), junior secondary (7-8) and secondary (9-12). At the same time due to large expansion of schools, a significant number of untrained teachers were employed to serve as teachers. In 1982 the Dergue argued that the education policy of the Imperial regime was elitist (favoring some regions and urban areas) and irrelevant (that the curriculum did not take into account the concrete conditions in the country) (Tekeste, 1996). Accordingly, the government launched a reform study called Evaluative Research of the General Education System in Ethiopia (ERGESE) in 1983. The Ten Year National Perspective Plan (1984-1994) that was launched by the government in 1984 and that set policy statements for education (Seyum, 1996), however, covered its influence. Consequently, new curricula that reflected the new policy were developed (Temechegn, 2002) and the teacher educators during the Dergue regime (1974-1991) were increasingly Ethiopians rather than foreigners.

The present Ethiopian government also recognized the inadequacy of the education system to prepare the learner for useful participation in the community (Transitional Government of Ethiopia {TGE}, 1994). The government thus developed a new Education and Training Policy (ETP) that states, among other things, that the education system is entangled in complex problems of relevance, quality, accessibility and equity (TGE, 1994). The New Education and Training Policy similarly introduced the new system by demanding the development of new curricula.

Hence, to facilitate implementation of the policy in the area of teacher education, a task force was formed to study the problems. The duty of the task force was to investigate the quality and effectiveness of the teacher education system and forward possible solution to improve the education system of the country. Their study report showed that Ethiopian teacher education had multifaceted problems, and this led to a complete teacher education system overhaul, thus, the emergence of Teacher Education System Overhaul (TESO) (Teacher Education System Overhaul {TESO}, 2003).

The TESO program was developed as part of the implementation strategies of the New Education and Training Policy of Ethiopia. The Ministry of Education {MOE}, (2003) argues that TESO is intended to bring about paradigm shift in the Ethiopian teacher education system. This paradigm shift implies change in what is valued in society, and what knowledge society thinks should be learned in schools.

According to TESO (2003) document, the paradigm shift particularly in the context of teacher education involves (a) teaching which makes change in ideas and directly in pupils life (b) taking the real world in to the classroom and taking teachers out into the real world (c) democratizing teacher education giving teachers, students, and citizens confidence to make decisions and take initiatives, to take control of their world.

Moreover, the Teacher Development Program (TDP), which is part of Teacher Education System Overhaul, is launched towards the end of 2003. It is also part of the Government’s Second and Third
Education Sector Development Programs (ESDP II and III). It is a key strategy intended to achieve the ESDP objectives of enhanced quality of primary and secondary education.

The Teacher Development Program is based on the government’s original policy framework for the reform of the teacher education system overhaul (MOE, 2003). The five priority programs in the original national Framework for Teacher quality are: (i) Teacher educators’ professional development, (ii) Pre-service teacher education curricula, (iii) in-service teacher education program (iv) Selection criteria for pre-service teacher education, and (v) teacher education system reform.

As it is mentioned above from the five priority areas one of them is a pre-service teacher education curriculum. Based on the recommendation of TESO task force, the curriculum of pre-service teacher education particularly the diploma program focus on: practicum, linking the school with TEI and community, professional courses and research, academic area courses (combination of content and method learner centered methodology), assessment, gender, life skills and civics. From these focus areas the use learner centered methodology is the emphasis area of this research.

Based on these focus areas the curriculum has been developed and implemented starting from 2003 and new teachers are trained and graduated under this program. However, there is no research conducted to see the effect of the program on new teachers, thus, it is necessary to see the impact of this program on new graduates (new teachers trained to date under TDP) particularly in the areas of implementing learner centered methodology. Moreover, the Ministry of Education conducted the Mid Term Review (MTR) of Teacher Development Program on June 2006 and the report of this mid term review recommends the conduct of impact studies and surveys in order to determine Teacher Development Program progress to date against the ministry of Education guideline and to provide a base for future planning. Accordingly, this study is designed to see the impact of Teacher Development Program on the new teachers who are trained under this program in aspects of the use of learner centered methodology. More specifically, this study attempted to respond the following research questions.

• To what extent do new teachers trained to date under TDP employ learner-centered methods in their actual teaching?
• Does the application of learner-centered methods vary systematically between: (a) male and female teachers; and (b) urban and rural schools?
• Does the application of learner-centered methods vary systematically by discipline of study?
• What factors affect new teachers to utilize learner-centered methods in the school?

Generally, responding the above questions would have a paramount significance for the Ministry of Education since it would help the Ministry to understand the impact of TDP particularly on the upper primary school teachers’ use of learner centered methodology. Moreover, it would give baseline information and providing an evidentiary basis for future planning and implementation of Teacher Development Program for the Ministry of Education. Furthermore, it would serve as a feedback for the Regional Educational Bureau in general and regional teacher education institutions in particular about the impact of TDP on teachers teaching methodology.
METHOD OF THE STUDY

Study population and site
This study employed a descriptive survey research design. The target population for this study is all new teachers trained to date under TDP and school principals, teachers and students found in the schools where the new teachers are assigned. This study is conducted in selected four regional states (Amhara, Oromiya, SNNP and Addis Ababa) of the country.

Sample and sampling techniques
The sample size corresponds to ten percent of the new teacher trained to date under TDP, which were 228 teachers. Apart from this, one urban school and one rural school (except Addis Ababa Region since it has no rural school and Oromiya region that there is no urban sample school that the new teachers are assigned) were used from the sampled four regions to obtain qualitative data from school principals, peer teachers, and students. A total of three urban schools and three rural schools were included for the qualitative data. Particularly, all the school principals of the sampled schools were included in the interview. Besides, two peer teachers (one male and one female), three students (high, medium, and low achievers) and two observed teachers (male and female from different disciplines) of one urban and one rural school were included in the interview from each region.

With regard to determining the composition of the sample, multi-stage sampling technique was used to select participants for the proposed study. First, simple random sampling was used to select four regions and zones within the selected regions. Then purposive sampling technique was used to select Woredas and schools where these new teachers were assigned. Since the new teachers are usually assigned in remote schools in the woreda; the most accessible and particularly those schools and woredas that have relatively higher numbers of new teachers were given priority during selection to save time, money, and energy.

Instruments of Data Collection
To collect relevant data for this study the following instruments were employed

Observation/Interaction analysis Record sheet: Relevant data related to classroom observation were collected through the completion of observation/interaction analysis record sheets. As neatly stated in the introduction part, classroom observation using observation/interaction analysis record sheet was the focus of this study. This was conducted to determine the percentage of teachers who are able to apply the necessary Learner-centered methods in their classroom as well as the percentage of time the teachers use active learning in a single period. The record sheets consist of questions dealing with how long the sampled new teachers used or did not use the necessary Learner-centered methods in the observed lessons. About 33 Learner-centered methods identified from the document analysis conducted for this study were listed in the record sheets. After being familiar with these 33 methods, the researchers conducted lesson observation for the sampled 228 teachers. For each lesson observed, at the end of every 5 minutes, the researcher judged whether the teacher used one of the 33 Learner-centered methods or not.

Interview schedules: Interview schedules were used to collect information from school principals, peer teachers, students, and the selected sample of new teachers being observed. This is important to discover supplementary information to the
main task (direct observation). Through interview valuable information about the classroom activities of new teachers and their opinion regarding issues, relating to the use of Learner-centered methods was obtained. Interview schedules were prepared based on document analysis. Then interview was conducted with principals, peer teacher, students, and observed teachers.

**General Data Collection Sheet**: General Data Collection sheet was used to record influencing factors on teaching methods, for example, class size, availability of materials and equipment, libraries, laboratories etc. Like the interview schedules, this data collection sheets were prepared to obtain supplementary information for the main task (classroom observation). The general data collection sheet were prepared in such a way that various influencing factors could be organized under some general categories so that it was easier for data analysis to support generalization on the obtained results. Then data were collected from principals, peer teacher, and observed teachers through the prepared sheets.

**Validity and Reliability of the Instruments**

After preparing the instruments for data collection, validating the instruments was done using experts review and discussion. Here some irrelevant items were discarded and some ambiguous items were modified as per the comments given by the experts. Then the issue of reliability was addressed by pilot testing of the instruments in two primary schools that were not part of the main study. The percentage agreement between two observers was calculated to check the level of agreement between observers and it was found out that, about 81.3% agreement score was obtained which indicates good inter rater agreement between observers.

**Data analysis and Presentation**

To analyze the collected data both qualitative and quantitative data analysis techniques were used.

For the quantitative data collected through observation analysis record sheet both descriptive and inferential statistics using SPSS version 13 was used. T-test was also used in this study to compare means of two groups such as: (a) Teachers in the urban schools and teachers in the rural schools and (b) Male teachers and female teachers on their application of learner-centered methods. To see whether there is a difference among teachers of various disciplines on the extent of applying learner-centered methods, one-way ANOVA was used. Similarly, to check whether there is a difference in using LCM between teachers from urban schools and rural schools as well as between female and male teachers an independent samples T test was employed and the group statistics and the results of independent samples test was presented.

The relevant data collected for this study was systematically organized and the summary was presented using tables and figures. Information obtained from interview and general data collection record sheets is presented in support of the major findings obtained from classroom observation.

On the other hand, the qualitative data gathered through interview and document analysis, textual content analysis were used. In here, large amounts of descriptive information were organized into categories and themes through coding. Coding was designed to reduce the information in ways that facilitate interpretations of the
findings. Hence, detailed descriptions of the codes and the coding procedures were prepared in advance. To minimize error of qualitative information, consideration was given for careful records of notes and observations. To this effect, interviews were often tape-recorded and transcribed.

Moreover, through triangulation of results, information from different instruments in the study, such as interview, observation and document analysis converges to support interpretation.

Limitations of the Study
There are two possible weaknesses being acknowledged in this study. These are the presence of an external observer in the classroom, and single observation for each sampled new teachers. These were the suggested methodological strategies by the MOE advisors.

The presence of external observer in the class will likely create an artificial environment in the class, so to generalize based on the sampled observations will be subject to the problem of lacking external validity.

Moreover, this study used to base itself on a single observation for each sampled new teachers. However, this is not adequate to provide reliable evidence about the teacher utilization of student centered method across the year. Hence, it would have been good to have repeated observations of each teacher classes over the years to get more reliable information about each sampled teachers’ use of student-centered methods and to generalize to the whole teachers of the country.

Ethical Consideration
Before collection data from the sample upper primary school teachers, principals and the sample students the objectives of the study were communicated for them clearly and get consent from them.

RESULT AND DISCUSSION
In this part of the research report presents the general characteristics of the respondents and major findings of the study based on evidences. Here the main research questions are answered based on the collected data. For the sake of clarity of information, graphs and tables support some of the findings of the study.

As it is depicted in the table 1, 228 new teachers from the selected four regions were taken as a sample of the study. In each region sample zones were chosen; that is 4 Kefle ketemas (the same as Zones) from Addis Ababa region, 2 zones from Amhara region, 2 zone from Oromiya Region and 3 zone from South Nations Nationalities and Peoples Region(SNNPR) were taken. So, a total of 11 zones were chosen as a sample zone. As it can be seen again from each zone, woredas were taken and a total of 26 woredas were chosen as a sample. Furthermore, in each woreda numbers of schools were chosen. As a result, a total of 50 schools from the four regions were taken. Generally, the above table shows that from the total 228 new teachers observed 62 teachers (27.2%) were from Amhara region, followed by 60 teachers (26.3%) were from SNNP. The other 54 teacher (23.7%) and 52 teachers (22.8%) were from Oromiya and Addis Ababa regions respectively.
General characteristics of the respondents

Table 1: Participants number by Region, Zone, Woreda, and School

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of Regions</th>
<th>No. of Woreda/kebele</th>
<th>No. of Schools</th>
<th>No. of observed teachers</th>
<th>%</th>
<th>Interviewed People</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Principals Peer teachers Students Observed teachers</td>
</tr>
<tr>
<td>Addis Ababa</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>52</td>
<td>22.8</td>
<td>1** 2 3 2</td>
</tr>
<tr>
<td>Amhara</td>
<td>2</td>
<td>6</td>
<td>15</td>
<td>62</td>
<td>27.2</td>
<td>2 4 6 4</td>
</tr>
<tr>
<td>Oromiya</td>
<td>2</td>
<td>7</td>
<td>13</td>
<td>54</td>
<td>23.7</td>
<td>1** 2 3 2</td>
</tr>
<tr>
<td>SNNP</td>
<td>3</td>
<td>9</td>
<td>16</td>
<td>60</td>
<td>26.3</td>
<td>2 4 6 4</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>26</td>
<td>50</td>
<td>228</td>
<td>100</td>
<td>6 12 18 12</td>
</tr>
</tbody>
</table>

*Kebele: in Addis Ababa since there is no woreda kebeles are taken as woreda
** Since Addis Ababa has no rural school and Oromiya has no urban sample school that is why one urban school from Addis Ababa and one rural school from Oromiya were taken

To support the observation data by collecting qualitative data on the classroom activities of new teachers and their opinion regarding issues related to the use of learner-centered method interview was conducted with the principals of the school, peer teachers, students and observed teachers. As it is clearly shown on the above table from the four regions 6 principals, 12 peer teachers, 12 observed teachers and 18 students who are taught by these teachers were interviewed. In the case of Addis Ababa region since there is no rural school only one urban school was taken for interview. On the other hand, in the case of Oromiya since there is no urban school taken as a sample one rural school only was taken for the interview.

Table 2: Sex, status (rural/urban), and experience of observed sample new teachers

<table>
<thead>
<tr>
<th>Region</th>
<th>Sex</th>
<th>No. of teachers in selected schools</th>
<th>Teaching Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Urban</td>
</tr>
<tr>
<td>Addis Ababa</td>
<td>10</td>
<td>42</td>
<td>52</td>
</tr>
<tr>
<td>Amhara</td>
<td>32</td>
<td>30</td>
<td>14</td>
</tr>
<tr>
<td>Oromiya</td>
<td>34</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>SNNP</td>
<td>44</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>108</td>
<td>74</td>
</tr>
</tbody>
</table>

** 17 teachers have filled more than two-year service and they have taken as missing values
As it is clearly presented in table 2, the proportion of male and female teachers observed were almost equal, that is from the total observed new teachers 120 (52.6%) were males and 108 (47.4%) were females. From the total (50) school observed in the four regions for this study 15 (30%) schools were urban schools while 35 (70%) were rural schools. Regarding the teaching experience of the observed teachers most of them 133(63%) have a service of one year where as the remaining 78(37%) have served for two years. Still others (17) teachers responded that they have more than two years but they are taken as missing values because the focus was on new teachers who were graduated under TDP. These teachers might have a teaching service before they trained under TDP through the certificate program.

### Table 3: Departmental distribution of observed teachers

<table>
<thead>
<tr>
<th>Department</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>68</td>
<td>29.8</td>
</tr>
<tr>
<td>Mathematics</td>
<td>26</td>
<td>11.4</td>
</tr>
<tr>
<td>Natural science</td>
<td>58</td>
<td>25.4</td>
</tr>
<tr>
<td>Aesthetics and physical Education</td>
<td>14</td>
<td>6.1</td>
</tr>
<tr>
<td>social science</td>
<td>62</td>
<td>27.2</td>
</tr>
<tr>
<td>Total</td>
<td>228</td>
<td>100</td>
</tr>
</tbody>
</table>

The above table illustrates that from the observed new teachers the majority 68 (29.8%) were from language and followed by 62 (27.2%) and 58(25.4) social science and Natural science respectively. While relatively small proportion was observed in mathematics 26(11.4) followed by Aesthetics and Physical education 14 (6.1%).

**Teachers’ use of learner centered methodology in their classroom**

To see what proportion of teachers use Learner Centered Method (LCM) in their classroom within a certain lesson and compare with the TDP guideline set by the Ministry of education, frequency count method was used. In other words, the proportion of sampled teachers who used Learner Centered Methods (LCM) below and above 30% of the allotted time was calculated using frequency count to identify those teachers who used below and/or above the 30% cutoff score and the result is presented in figure 1.
As clearly shown in figure 1, the percentage of teachers who used LCM above 30% of the allotted time is 68.4 while those sampled teachers who used LCM below 30% of the allotted time is 31.6. When these values are compared with the major reference assumption in the TDP guideline, which says, “around 90% of the sampled teachers will use LCM above 30% of the allotted time”, the result is by far below the expected value having a percentage value deficit of 21.6.

Regardless of this, as per the evidences obtained for this study, about 82.9% of the sampled new teachers utilized some LCMs’ for 25% and above percent of the total time allotted for instruction. For more information about the percentage distributions of the sampled teachers who used LCM across time of instruction, please see figure 2.
As per the evidences presented on figure 2, very small percent (3.9%) of the sampled teachers have been observed not using LCM in the allocated time for instruction. However, the proportion of teachers who used LCM for 50% and above values of the allotted time is 57.9%. It is also evidenced in figure 2 that 19.7% of teachers were observed using LCM for 62.5% of the given time for instruction. Even very high proportion (95.1%) of the sampled teachers have been observed using LCM at least for 12.5% of their time for instruction.

In line with the above verification, it is important to know whether there are mean value differences between groups of different categories. Hence, the result pertaining this are presented in the next successive paragraphs.

**Differences in the teachers’ utilization of LCM in their classroom among departments, school location, and sex**

To see whether there is a difference among teachers of different departments on their utilization of learner centered methods, mean comparison using ANOVA statistics was employed and the results of descriptive statistics for the sampled departments is presented in table 4. Of course department categorization was made based on streaming that the new teachers categorized at times of their certification/graduation from the teacher training institutions.

**Table 4: Descriptive Statistics of LCM among departments**

<table>
<thead>
<tr>
<th>department</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Max</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>68</td>
<td>4.06</td>
<td>1.852</td>
<td>0.225</td>
<td>3.61</td>
<td>4.51</td>
<td>1</td>
</tr>
<tr>
<td>Mathematics</td>
<td>26</td>
<td>4.42</td>
<td>2.419</td>
<td>0.474</td>
<td>3.45</td>
<td>5.4</td>
<td>0</td>
</tr>
<tr>
<td>Natural science</td>
<td>58</td>
<td>3.67</td>
<td>2.131</td>
<td>0.28</td>
<td>3.11</td>
<td>4.23</td>
<td>0</td>
</tr>
<tr>
<td>Aesthetic and physical education</td>
<td>14</td>
<td>4.14</td>
<td>2.797</td>
<td>0.748</td>
<td>2.53</td>
<td>5.76</td>
<td>1</td>
</tr>
<tr>
<td>Social science</td>
<td>62</td>
<td>3.34</td>
<td>1.89</td>
<td>0.24</td>
<td>2.86</td>
<td>3.82</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>228</td>
<td>3.81</td>
<td>2.083</td>
<td>0.138</td>
<td>3.54</td>
<td>4.08</td>
<td>0</td>
</tr>
</tbody>
</table>

A cursory look in to table 4 pointed that the mean value of language teachers (M = 4.06, SD = 1.85) is comparably equal with the mean values of Mathematics teachers (M = 4.42, SD = 2.419), Natural science teachers (M = 3.67, SD = 2.131), Aesthetic and Physical Education teachers (4.14, SD = 2.797), and Social science teachers (M = 3.34, SD = 1.81). However, this is not adequate to understand whether there is significant difference between groups
hence table 5 presents the ANOVA summary.

**Table 5: ANOVA summary of differences in the utilization of LCM among departments**

<table>
<thead>
<tr>
<th>source of variation</th>
<th>sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>30.402</td>
<td>4</td>
<td>7.601</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within groups</td>
<td>954.488</td>
<td>223</td>
<td>4.28</td>
<td>1.776</td>
<td>0.135</td>
</tr>
<tr>
<td>Total</td>
<td>984.89</td>
<td>227</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in table 5, the probability of the F-ratio is .135. Since this value is greater than 0.05 critical values so is not statistically significant. In other words, the mean scores of teachers use of LCM in the sampled departments are homogenous (do not differ). This indicated that there is no statistically significant difference between the five groups (departments) in the utilization of LCM. Put it in another way, all the means are not significantly different from each other.

Supporting this research result Pritchard, (2005) had conducted a research to see the application of active learning methods in different subject matters of the school and he found out that active learning can be applied in all subjects of the school. This implies that if the teachers are willing and have the necessary knowledge and skills of active learning every subject can be taught through active learning techniques regardless of their difference.

With regard to comparing mean differences between: rural and urban schools, independent samples T test was employed and the group statistics and the results of independent samples test are presented in table 6 and table 7, respectively.

**Table 6: Group Statistics of LCM usage by school location**

<table>
<thead>
<tr>
<th>Status of the school</th>
<th>N</th>
<th>Mean</th>
<th>std. Deviation</th>
<th>std. Error of the mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>154</td>
<td>3.46</td>
<td>2.084</td>
<td>.168</td>
</tr>
<tr>
<td>Female</td>
<td>74</td>
<td>4.54</td>
<td>1.896</td>
<td>.220</td>
</tr>
</tbody>
</table>

Table 6 presented the mean and standard deviations of the scores on the dependent variable (usage of LCM) of the two groups. For teachers from rural schools the mean LCM usage score is 3.46 and the standard deviation of LCM usage scores is 2.08. For the teachers of urban schools the mean LCM usage score is 4.54 and the standard deviations is 1.90.

To check for equality of variances and the statistical significance differences of the usage score of the two groups, Levene’s test and the 95% confidence intervals were calculated and the obtained results are summarized in table 7 below.
Table 7: independent sample test result on utilization of LCM between urban and rural schools

<table>
<thead>
<tr>
<th>Levene’s Test for equality of variance</th>
<th>t-test for equality of means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal F Sig T Df Si.(2-tailed) Mean difference Std. Error difference 95% confidence interval of the difference</td>
<td>Equal Variance Not assumed</td>
</tr>
<tr>
<td>Variance Assumed 4.117 0.044 -3.769 226 0 -1.08 0.29 -2 -515</td>
<td>Lower Upper</td>
</tr>
<tr>
<td>Equal assumed -3.896 157.1 0 -1.08 0.28 -2 -532</td>
<td></td>
</tr>
</tbody>
</table>

Levene’s test for equality of variances in table 7 pointed that the variances are not equal since the p value of .044 is not statistically significant. The implication is that we should use the first row of the output, which gives the t-test values for equal variance. The difference between LCM usage scores for teachers of rural schools (M = 3.46, SD = 2.08) and for teachers of urban schools (M= 4.54, SD = 1.90) is -1.08. The 95% confidence interval for this differences is -1.644 – -.515. Since this confidence interval dose not include 0.00, the difference is statistically significant at the two-tailed 5% level. Hence LCM usage scores of teachers from urban schools is significantly higher (t = -- 3.769, df 226, two tailed p = .000 than LCM usage scores of teachers from rural schools. The variance for the two groups were significantly unequal (F = 4.117, at p value of 0.044.).

McCoy (2006) carried out research on the difference between urban and rural school teachers on the use of active learning techniques in their classroom. The result revealed that even though teachers of rural school know new methods of teaching such as cooperative learning and constructivists teaching, mostly they choose not to implement these techniques. Their classes were traditional, and they often used lecture because it was ‘easier’ than preparing more innovative hands-on-lessons. Moreover, the author explained that this is due to lack of resources, dissatisfaction with the work environment, work load (due to shortage of teachers), and lack of administrative support.

In line with the above evidences, the summary T test results for the independent variable sex was checked and gives the following result as shown in table 8.

Table : Group Statistics of LCM usage by sex

<table>
<thead>
<tr>
<th>sex</th>
<th>N</th>
<th>Mean</th>
<th>std. Deviation</th>
<th>std. Error of the mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>108</td>
<td>4.2</td>
<td>1.792</td>
<td>0.172</td>
</tr>
<tr>
<td>Female</td>
<td>120</td>
<td>3.46</td>
<td>2.264</td>
<td>0.207</td>
</tr>
</tbody>
</table>
As clearly presented in Table 8, the mean and standard deviations of the scores on the dependent variable (usage of LCM) of the two groups indicated that LCM usage scores of female teachers is 4.20 and the standard deviations is 1.79. Similarly, the LCM usage scores of male teachers’ is 3.46 and the standard deviations is 2.26. Concerning the results of Levene’s test for equality of variance and 95% confidence interval of the differences, see Table 9 below.

Table 9: Independent Samples T test result on LCM usage by sex

<table>
<thead>
<tr>
<th>Levene’s Test for equality of variance</th>
<th>t-test for equality of means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>F          Sig.          t       DF</td>
<td>sig. (2-tailed)</td>
</tr>
<tr>
<td>equal variance assumed</td>
<td>12.46</td>
</tr>
<tr>
<td>equal variance not assumed</td>
<td>2.770</td>
</tr>
</tbody>
</table>

Levene’s test for equality of variances in Table 9 pointed that the variances are unequal since the p value of .001 is statistically significant. The implication is that we should use the second row of the output, which gives the t-test values for unequal variance. The difference between LCM usage scores for female teachers (M = 4.20, SD = 1.79) and for male teachers (M= 3.46, SD = 2.26) is .745. The 95% confidence interval for this differences is 0.215 – 1.276. Since this confidence interval does not include 0.000, the difference is statistically significant at the two-tailed 5% level.

In support of the evidences presented in the previous pages, some qualitative information was obtained from interviewees of some selected schools. The findings of the interview are categorized and discussed under the following themes (1) teachers opinion about learner centered methodology; (2) learner centered methodology at college training; (3) teachers use of learner centered methods in their classroom; (4) major problems in using learner centered method.

Teachers’ opinion about learner centered methodology

The observed upper primary school teachers were asked to give their opinion about the learner centered methodology. It was learned from their responses that all the interviewed teachers have positive attitude towards the learner-centered methodology. All of them appreciate/like learner centered methodology. They suggested that this method is very important for student learning. Because they believe that learner centered method gives a chance for the students to help each other by sharing ideas, gives an opportunity to do practical skills, be active participants,
and be creative independently. In addition, learner centered method increase students’ achievement; helps to develop their self-confidence and make students free by avoiding fear and help the students to be free from expecting every thing from the teachers.

Supporting the above opinion research findings of Bonwell and Eison (1991) acknowledged that teachers think that an active learning method is very important for learners since it increases students' retention and comprehension of the course material and utilizes the students' data and knowledge base. It gives an opportunity to students to provide personal insights and interpretation (develop their own answers). In addition, it allows students to experiment with ideas, to develop concepts, and to integrate concepts into systems.

The same author furthermore explains that schoolteachers believe that active learning method is not only important for the students but also it has a great advantage for the teachers as well. It helps the teacher select objectives at the correct level of difficulty to meet the students' needs. The teacher encourages the students to be responsible for their own learning. Active learning brings the students into the organization, thinking, and problem solving process of the discipline. Active learning also gives the teacher time to perform the helping teacher functions of coach, listener, and advocate

Learner centered methodology at college training

The observed upper primary school teachers were also requested to mention (if there is any) some of the learner centered methods they experienced in their college training. All of the teachers confirm that their college training consist an element of learner centered methods. Some of the methods they experience in their college training include: group work, Discussion, Assignment (individual and group), Micro teaching, Laboratory work, Problem solving, Practical work, Demonstration, Questioning and Answering, Student presentation, Crossover group, Team teaching, Field trip, Visit, Experience sharing, Independent work, Project work and Role Play.

Substantiating the above idea research findings of Bekalu (2007) and Wudu (2006) on teacher education institutions confirmed that teacher educator’ employee active learning methods in their classroom while training their student teachers since teacher educators are participate in professional development trainings such as Higher Diploma Programs.

Teachers’ use of learner centered methods in their classroom

The respondents (observed teachers, principals of the school, peer teachers and students) were requested to list the learner centered methods that these new teachers use in their classroom to teach their students. All the interviewed teachers, school principals and students verified that they mostly employee learner centered methodology in their classrooms that they gained in the training in the college. The school principals explained that from the teachers of the schools the new teachers are by far better in using the learner centered methods than the those teachers trained by the previous curriculum. Some of the commonly used methods in their classroom include group work, assignment, discussion, practical activities, questioning and answering, presentation, field trip, guest presentation and team teaching.
Major problems in using learner centered method

The respondents were invited to list factors that facilitate or hinder the use of learner centered methodology in the classroom. All the teachers have stressed that even though learner centered methods have a lot of advantage for the students there are many hindering factors for effective implementation of these methods in the local Context. Similarly, peer teachers, principals and students also added that even though these teachers are trying to apply learner centered methods in their classroom there are many hindering factors. The factors are grouped into student related factors, teacher related factors, school related factors, and resource and equipment related factors.

The respondents (observed teachers, principals, peer teachers and students) pointed out that one of the problem they face in trying to use learner centered method in the classroom was student related factors. They described that these are related with the nature of the students themselves specially their motivation, age level, interest etc. The factors identified are students’ language problem (English language at grade 7-8), students unfavorable attitude to these methods, maturity level of the students are the major once.

The second group of factors mentioned by the respondents (observed teachers, principals, peer teachers and students) are related to the teacher themselves. They explicate that there are factors associated with the teacher themselves. They suggested that teachers related factor include teachers workload (they are expected to teach up to 30 periods), shortage of teachers, lack of short term training( refreshment courses), peer teachers (who are trained in the previous curriculum) influence, lack of shared understanding among teachers (between those who trained in the previous and new curriculum), lack of teachers commitment and skill.

The third group of factors is related to the school environment and policy. Respondents (observed teachers, principals, peer teachers and students) stated that the major factors that affect teachers use of learner centered methods include assigning teachers to teach different Course (e.g. 3.major courses), shortage of time, classroom arrangement (due to chair arrangement), large class size, budget problem for purchasing materials, problem of period allotment, problem of portion coverage, lack of encouragement from the Woreda education office are some of the factors mentioned.

The fourth group of factors is related to the resources and equipment necessary for using learner centered methods. Respondents (observed teachers, principals, peer teachers and students) contends that of the factors the most serious factor that hinder the new teacher from using LCM in the classroom is a problem of resources and equipment and materials. Since applying LCM is very difficult without the basic resources, equipments and materials. They mentioned the following as the most prevailing factors such as shortage of laboratory materials, shortage of books (learning materials), shortage of instructional materials, shortage of chair, lack of library, shortage / absence of facilities/ E.g. for Health and Physical Education, lack of pedagogical center expert are some to list.

This research result coincides with the research results of Wudu (2006) which made clear that at any level of education,
without adequate teaching materials and resources it is difficult to use active learning methods. Since active learning method requires the student to do their own learning themselves, but if there are no available teaching resources required it cannot be materialized.

**CONCLUSIONS AND RECOMMENDATIONS**

**Conclusions**

According to the findings of this study, the proportion of teachers who were expected to use LCM at least for 30% of their teaching time is below the expected level. As clearly stated in the Ministry of Education guideline, the expectation was "90% of new teachers will use LCM for about 30% of their teaching time". However, 68.4% of the observed new teachers were found using LCM for 30% and above proportions of their teaching time. In spite of this fact, large majority (82.9%) of the observed new teachers have been observed using LCM at least for 25% and above proportion of their teaching time. It is very encouraging that LCM is used in the Upper Primary Schools; however, the proportion of using it may not be as per the expectations. It is also good that various sorts of LCM are utilized in the college learning.

As per the findings of this study, new teachers of different streams/departments have no statistically significant difference in their use of LCM in their actual teaching. This implies that teachers of different departments were homogenous in terms of their LCM use in teaching for the specified grade levels. Unlike this, the study pointed that significant differences observed in LCM usage scores between new teachers who teach in urban schools and rural schools where those who are in the urban schools use LCM higher than those who are in the rural schools. In line with this the study revealed that there is significant difference in using LCM between female teachers and male teachers.

It is possible to attribute opportunities of short term trainings, better collegial academic interaction, and better educational resources to be readily available in the urban schools so that may be contributing for better use of LCM by teachers in the urban schools as compared to the rural schools. Despite this, little can be said on the observed differences between groups of female and male teachers. Probably one very small attribution might be some differences between male and female teachers' achievement results in college learning.

According to the evidences of this study, various factors are affecting new teachers' utilization of LCM in their actual teaching. While factors such as lack of interest and motivation for learning, poor English language skills, and dislike of some LCM because they are demanding students effort are some of the possible factors attributed from the students part. Other factors like: scarcity or absence of short term training opportunities, shortage of teachers leading to high workload, lack of commitment and skills, and lack of shared understanding and academic integrity between those who were trained with the previous curriculum and those who trained with the new curriculum were some of the major teacher related factors hindering the use of LCM in the Upper Primary Schools.

In addition to the above stated factors, still other factors that are related with the school as an institution and learning resources and equipment seriously affected new teachers' application of LCM in their actual teaching. Pertaining to the school related factors, teaching different courses, time shortage, large class size, budget...
constraint, handling vast courses, lack of encouragement by the Woreda education office were some of the major factors identified. With regard to factors related to the resources and equipment necessary for using LCM, shortage of laboratory materials, scarcity of books and instructional materials, shortage of chair, lack of library, shortage of facilities such as pedagogical center were identified.

Recommendations

Improving situations from the source should be considered very much important for a variety of reasons. On the one hand, it has prevention value. On the other hand, its effect is long term. Therefore, it is strongly recommended to enhance utilization of LCM in the colleges learning so that graduates can get plenty of opportunities to experience various LCM. Here it is important to encourage continuous professional development opportunities for college teachers, provision or fulfilling essential learning resource in colleges, and creating shared vision and academic integrity among college academic staff.

It is equally important to enhance the use of LCM in the Upper Primary Schools through school improvement initiatives, offering short-term trainings that can improve new teachers understanding and skills of using LCM, providing or fulfilling school support mechanism to avail essential learning resources, creating academic forums and improving peer interactions. Increasing the number of upper primary school teachers and promoting the use of LCM in the primary schools can also help in improving the use of LCM by primary school teachers.

There should be much emphasis given to strengthen the working environment of rural schools since utilization of LCM by teachers is significantly lower than those who are in the urban schools.

Of course, some essential teaching and learning resources such as text books, laboratory equipment, classroom facilities, and instructional materials potentially affect teachers’ utilization of LCM in the upper Primary Schools. Thus, availing them and/or creating opportunities for effective and efficient utilization should be underlined. Besides, Primary schools should also intervene to some of the hindering factors such as lack of pedagogic center or its non-functioning by allocating some budget even from internal revenue, encouraging teachers to prepare instructional materials, and promoting those primary school teachers for their effort in preparing and using instructional materials of various sort.

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