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Teachers' Perception and Classroom Practice of Instructional Scaffolding among a College of Teacher Education in Ethiopia

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ABSTRACT

Quality education is the function of a number of factors, one of which is quality learning. One of the mechanisms by which one's education system realizes its quality individualized learning is instructional scaffolding. To this end, the purpose of this study was to investigate the perception, practices and challenges of Instructional scaffolding in Woldia College of Teachers Education, Ethiopia. Participants of this study were 60 teachers of the college. In order to select the participants, stratified sampling technique followed by simple random sampling technique was applied. The data was collected through questionnaire and observation checklist. The study used descriptive survey research design and mixed research approach to generate information on the current perception, practices and challenges in using instructional scaffolding. As a means, thematic data analysis technique was used to analyze the gathered qualitative data; whereas the quantitative data was analyzed by using one sample t-test, statistical technique analysis of variance (one way ANOVA) and post hoc comparison. The result of the study portrayed that teachers have positive perception about the contribution of Instructional scaffolding. There was significance difference in effective utilization of Instructional scaffolding. Inappropriate selection of scaffolds that match the diverse learning and communication styles of students, not knowing when to remove the scaffold so the student does not rely on the support, and not knowing the students well enough (their cognitive and affective abilities) to provide appropriate scaffolds are the major challenges to its implementation. These imply that the current practices in using Instructional scaffolding might not be up to the purpose it is designed for. Hence, it is inferred that Instructional scaffolding in the college seems poorly utilized to realize student's learning and support their success. Thus, it is recommended that, Instructional scaffolding should be emphasized in HDP and CTE in service programs through manuals and clear guidelines.

Key Terms: instructional scaffolding, perception, practices, challenges

Introduction

Background of the Study

A great contribution of Piaget to the theory and practice of education was his view of the child as an active constructer of their own knowledge, as an independent discoverer and explorer, recently known as cognitive or individual constructivism (Berk, 2002; Krauseetal, 2003; McDevitt & Ormrod, 2002).The implication of this is that initiative and self determination of the child as a learner should not be hindered by educational instruction. Vygotskian theory was built up on the Piagetian idea of the child as an active learner with the emphasis on the role of social interaction in learning and development. This approach has become known as social constructivism (Krauseet al, 2003; McDevitt & Ormrod, 2002).The quality of child-adult interaction is seen as crucial when scaffolding children's learning (Bodrova&Leong, 1996; Fleer, 1992, 1995; Tharp & Gallimore, 1988).

Instructional scaffolds are similar to the scaffolding used in construction to support workers as they work on specific tasks. Put in place as temporary support structures, they assist students in accomplishing new concepts and tasks they could not usually achieve on their own ("Instructional Scaffolding," 2002). Larkin writes, "Using scaffold instruction optimizes student learning by providing a supportive environment while facilitating student independence. The concept of scaffolding (Bruner, 1975) is based on the work of Vygotsky, who proposed that with an adult's assistance; children could accomplish tasks that they ordinarily could not perform independently" (2002).

Similar to the scaffolding used in construction to support workers as they work on a specific task, instructional scaffolds are temporary support structures faculty put in place to assist students in accomplishing new tasks and concepts they could not typically achieve on their own. Once students are able to complete or master the task, the scaffolding is gradually removed or fades away-the responsibility of learning shifts from the instructor to the student.

Over the past two decades, an increasing number of educators and researchers have used the concept of scaffolding as a metaphor to describe and explain the role of adults or more knowledgeable peers in guiding children's learning and development (Stone, 1998; Wells, 1999; Hammond, 2002; Daniels, 2001).

The popularity of the scaffolding metaphor indicates its conceptual significance and practical value for teaching and educational research. Educators find the metaphor appealing as it "resonates with their own intuitive conceptions of what it means to intervene successfully in students learning" and "offers what is lacking in much literature on education - an effective conceptual metaphor for the quality of teacher intervention in learning" (Mercer, 1994, cited in Hammond, 2002, p.2).

Lack of awareness of some in depth characteristics of scaffolding indicated that the students might have some difficulties in understanding them and more explicit connections of scaffolding to the theory needed to be made.

The Ethiopian government is placing particular emphasis on education with the firm belief that the long- term development of the country rests upon the expansion and provision of quality education. The government's desire to improve the provision of quality education resulted in the formulation of the Education and Training Policy (ETP). It is clearly indicated that one of the main thrusts of Education Sector Development Program (ESDP) is to improve quality education (MoE, 2005).Thus, it could be said that quality of education is becoming one of the profound agendas that attracted government's attention today. The Ethiopian Education Sector Development Program V (ESDP V) included teaching strategies indicating the need to monitor student achievement through different teaching strategies to support progress.

As a result efforts made thus far, a significant increases in access to schooling has been seen (UNESCO, 2004), but quality of education is still in question. According to Miles (1975), whatever curriculum change is introduced and reforms are made, all will be of little or no gain without qualified and committed teachers This is because, it is the teacher and what the teacher knows and can do that determines student achievement (Harry and Rosemary, 2005).Thus, if teachers are to plan effectively to achieve quality education, they need to assess what students already know and what they need to learn. This is why increased researches have been focused on teaching instructions as an integral component of effective teaching and learning process (Stiggins, 2002).

If only teachers have accurate and reliable information about what their students know and how they learn best, they can adjust instructional strategies, resources and environments effectively to help all students learn. When learners' individual desires are addressed, they are able to recognize their achievements and make progresses

From all the above documents and research evidences, it could be said that the way teachers understand and use instructional scaffolding in learning could influence the way they teach and assist their students. But to find out how, no comprehensive research has been done so far at the study areas. Clearly, without understanding what exactly is happening in classrooms, all teacher support programs and efforts may not adequately realize the quality of education. Thus, it seems to be relevant to study the current status of instructional scaffolding Woldia College of teachers' education. Thus, the following conceptual frame work is the focus of this study.

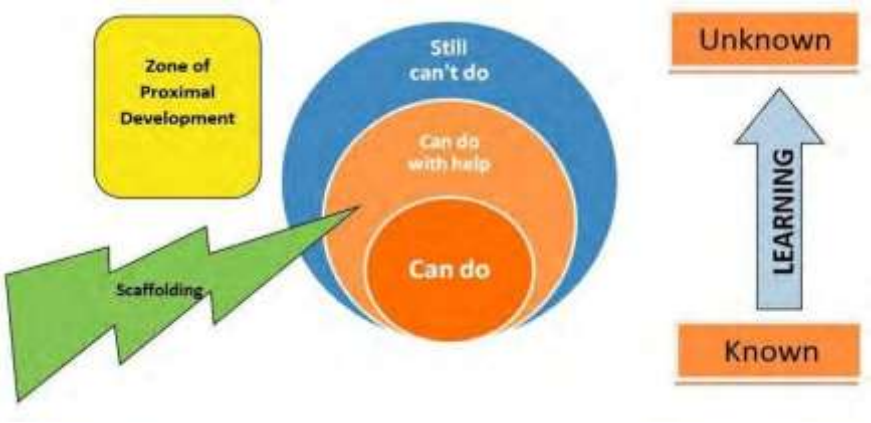

Figure 1: Conceptual frame work of the study

Making this frame work the central part of the study and bearing in mind the above justifications, the study designed to find answers to the following three major research questions.

1. To what extent do teachers perceive instructional scaffolding?
2. What are the ongoing instructional scaffolding practices in Woldia CTE?
3. What major possible challenges are affecting teachers' effective use of instructional scaffolding in Woldia CTE?

1.2. Objectives of the Study

The general objective of this research was to investigate teachers' perception towards IS, existing practices and challenges of instructional scaffolding in Woldia College of teachers' education. More specifically, the research intended:

1. Identify the extent of teachers' perception of instructional scaffolding.

2. Examine teachers' practices of instructional s c a f f o l d i n g during t e a c h i n g learning process.

3. Identify the major possible challenges that constrain teachers' effective use of instructional scaffolding.

2. Review of Related Literature

Concept of Scaffolding

The interpretation and operationalization of the scaffolding metaphor in educational research is highly diverse and "is sometimes used loosely to refer to rather different t h i n g s " (Hammond, 2002, p.2). Scaffolding has been interpreted in a wide sense as "a form of support for the development and learning of children and young people" (Rasmussen, 2001, p.570). The term can be used as an umbrella metaphor to describe the way that "teachers or peers supply students with the tools they need in order to learn" (Jacobs, 2001, p.125). The framework of systematic theory, in conjunction with a number of other educational theories(Jacobs, 2001; Rasmussen, 2001) enrich the context of implementation of the scaffolding metaphor but makes it more generic. Hammond and her colleagues (2002) argue that extended understanding of scaffolding in l a n g u a g e a n d l i t e r a c y e d u c a t i o n is n e e d e d . They point out the crucial role of language in scaffolding.

A more specific study of scaffolding is presented by Donovan and Smolkin (2002). They take a critical look at the issue of scaffolding in children's writing. They research the role of different levels of scaffolding in children's understanding and demonstration of their knowledge of genre. Tasks range from those that provide minimal or low level support to those that provide middle or high levels of support (contextual and visual support). Interestingly, the highest level in their range of scaffolding is described as a "direct instruction with revision" (Donovan & Smolkin, 2002, p.435). Their research revealed, however, that while scaffolding can assist children it may also, at times, hinder children in demonstrating their full range of genre knowledge (Donovan & Smolkin, 2002, p.428). This finding confirms our concern that scaffolding, when understood as d i r e c t instruction, might become counterproductive. Furthermore, some texts for pre-service educators also refer to direct instruction as at the highest level of scaffolding (Berk, 2000, p. 261).

Some other texts focus on the techniques of scaffolding as various forms of adult support: demonstration; dividing a task into simpler steps; providing guidelines; keeping attention focused (McDevitt & Ormrod, 2002) as well as providing examples and questioning (Eggen & Kauchak, 1999). Breaking content into manageable pieces also seems to be a common feature of scaffolding that has been emphasised in the texts (Berk, 2002; Eggen & Kauchak,1999; McDevitt & Ormrod, 2002; Krause et al., 2003).

2.2. Research and Theory: Why Scaffolding is Considered Useful as a Teaching

Strategy

Scaffolding's usefulness as a teaching strategy is amply supported by research and theory. Of particular relevance are Piaget's cognitive constructivism theory and more than any other theory the social constructivism ideas generated by Vygotsky. Bruner's beliefs about how students build upon prior knowledge might also be considered.

Before looking at various constructivist ideas, however, it is helpful to understand constructivism as a whole. The gist of constructivism is that humans construct their own learning by building new knowledge upon old (Hoover, 1996). "This view of learning sharply contrasts with one in which learning is the passive transmission of information from one individual to another, a view in which reception, not construction, is key." (Hoover,

1996)

According to Hoover, learners construct new understandings using what they already know; learning is active rather than passive. "Learners confront their understanding in light of what they encounter in the new learning situation. If what learners encounter is inconsistent with their current understanding, their understanding can change to accommodate new experience. Learners remain active throughout this process: they apply current understandings, note relevant elements in new learning experiences, judge the consistency of prior and emerging knowledge, and based on that judgment, they can modify knowledge." (Hoover, 1996).

2.3. Benefits of Scaffolding

According to Allyson S. and Sarah F. (2014) Scaffolding has been s h o w n to have the following benefits in higher education.

• Helps students meet d i s c i p l i n a r y expectations

Major assignments, such as a literature review, lab report, or research essay, require complex skill sets. Not only do students need to know the course material, they must also understand how to write in the appropriate disciplinary genre, select high- quality and relevant sources, and synthesize and evaluate difficult concepts and evidence. Scaffolding these a s s i g n m e n t s provides greater opportunity for students to attend to the process of completing an assignment, which then helps them to generate a higher quality product.

• P r o v i d e s m o r e o p p o r t u n i t i e s for students to receive formative feedback

Scaffolding allows you and your TAs to provide clear direction and feedback at each learning stage. This means you are more likely to catch problems early on, instead of in a pile of poorly done assignments at the end of the term. Formative feedback during the early stages gives students a chance to learn from their mistakes and a concrete opportunity to correct them.

• Promotes academic integrity

Because students must show their work at each stage of a scaffolded assignment, plagiarism is much more difficult. In addition, students tend to be less overwhelmed by a smaller assignment where they have a much better sense of the expectations, which means they have fewer temptations to copy from each other or outside sources. This is especially true when the earlier stages of the assignment are low-stakes and formative

• Results in better quality assignments

Because scaffolding helps students stay on track right from the beginning, it allows you to ask much more of students and still ensure that the quality of final assignments is much higher.

2.4. Methods of Scaffolding

As Allyson S. and S a r a h F. (2014) there are many ways to i m p l e m e n t scaffolding in any course. Consider the following four m e t h o d s : process, critical thinking, discipline, and blended.

Method 1: Process Scaffolding

Process s c a f f o l d i n g is ideal f o r supporting students in the p r o d u c t i o n of a complex assignment that t h e y m a y not have m u c h e x p e r i e n c e with. First and second year students who have little experience with university- level assignments and expectations may especially benefit, but process scaffolding can also be used effectively in upper year courses, especially in disciplines that do not require much writing in the early years.

For effective process scaffolding, imagine t h e finished product and break it down into its component parts:

- Have students submit smaller related assignments or parts of the larger assignment at regular intervals.
- Focus on those parts of the assignment that fit with your learning objectives and/or address areas where you perceive they lack skills.
- Give formative f e e d b a c k e a r l y on to help s t u d e n t s s t a y on track throughout the completion of the assignment.

Method 2: Critical Thinking Scaffolding

Critical t h i n k i n g scaffolding helps students improve the s o p h i s t i c a t i o n of their thinking. While it can be quite d i f f i c u l t to implement in survey courses, it is ideal for courses or assignments that delve into the depths of complex ideas or focus on specific issues.

Critical thinking can be scaffolded in different ways. The most c o m m o n would be to u s e d i f f e r e n t types of assignments to b u i l d s t u d e n t s ' critical t h i n k i n g skills throughout the course.

• Begin with simpler assignments that demand lower level cognitive skills

(e.g. abstract, description, quiz).

• Develop more complex assignments that demand interpretation, application, or analysis (e.g. case study, book review).

• Then encourage students to evaluate ideas w i t h more comprehensive assignments (e.g. literature review, policy recommendation).

Critical thinking scaffolding allows you to demand more sophisticated analysis from your students and encourages them to move beyond rote memorization or simple comprehension of course material

Method 3: Disciplinary P r a c t i c e

The aim of this type of scaffolding is induction into disciplinary practice: introducing students to professional discourse and p r a c t i c e s of your discipline by modeling t h e conventions of that discipline. Although this type of scaffolding is ideal for upper- level students who are considering their careers and making decisions about graduate school, it can also be helpful for lower- level students who may need some support in understanding the different expectations and criteria in different disciplines.

To make this type of scaffolding effective:

• Begin with building vocabulary and understanding of foundational concepts.

• Choose assignments that are common in your discipline

(book review, case study, lab report).

• Have students complete at least one a c t i v i t y (presentation, formal p e e r review, and lab) at a more professional level.

The main advantage of disciplinary scaffolding is that it explicitly models how to think like a philosopher, biologist, physicist, psychologist, etc., so that students can start to make the terminology and conventions a part of their everyday vocabulary and practice.

Method 4: Blended

The different approaches to scaffolding can also be blended in creative ways to encourage your students to develop a range of skills that will support your learning objectives and their success in your course and throughout their careers.

• Be creative! Interesting assignments encourage students to be engaged, and are much more fun to mark.

• Stay focused on specific learning objectives: attempting to accomplish too much may overwhelm students o r dilute key learning goals.

Blended scaffolding offers the opportunity to develop a course that is holistic in the way that it prepares students for future studies. The danger is attempting to do too much, which can dilute the instructional supports that scaffolding will offer. This does not mean that you can't ask a lot from your students; well- implemented scaffolding actually allows you to demand more from students without overwhelming them. It means only that y o u n e e d to stay focused on the objectives you want to achieve.

Methods

This section deals with the research design, population, samples, sampling techniques, instruments of data collection, and methods of data analysis.

Research Design

The purpose of this study was to assess teachers' perception, practices and challenges of instructional scaffolding in classroom teaching of woldia college teachers' education. Therefore, the study was conducted based on descriptive survey design. Here, since the research process assessed the existing situation depending on previous literatures and models, descriptive survey design was preferred. A survey design was chosen to ensure collection of information which precisely describes the nature of prevailing conditions at a specific point in time (Kang'ahi et al., 2012).

Population, Sample and Sampling Technique

The study was conducted in Woldia College of teachers' education. Teachers in Woldia

CTE were 97(Male=86, Female=11) in number. From this population, 60 (8 females and

52 males) teachers were selected as sample of the study using stratified sampling followed by simple random sampling technique.

Data collection Instruments and Procedures

Two research instruments were employed to collect relevant data for the study. These were questionnaire and classroom observation checklist.

i. Questionnaire

Close indeed categorical kind of questions with three parts having 10 likert items questionnaire, adapted from Alibali (2006) were prepared and administered to woldia CTE teachers who were not included in classroom observation(see Appendix 1).

The questionnaires were piloted by administering for 15 teachers whom were randomly selected. Then, Cronbach's Alpha of reliability coefficient was calculated and found to be (r=.81) for items measuring level of perception, and (r=.84) for items measuring practice.

To enhance validity, first the instrument was given for three teachers in professional studies to check face validity and content validity against leading questions. Furthermore, the instruments were administered for perspective respondents for pilot testing so that the validity of the instrument like ambiguities in the phrasing of questions, excessive complexity in the language that has been used were found and revised; inappropriate response categories for some questions were realized and some questions were found redundant so that all the cases were revised.

The researcher first made a request for cooperation and upon securing their consent informed them the aim of the study. A questionnaire was distributed to the teachers; 60 (8 females and 52 males) returned the filled in questionnaire.

ii. Classroom Observation Checklist

The second instrument applied in getting the necessary data was classroom observation checklist. In order to conduct classroom observation, the researcher prepared an observation checklist and requested each of the teachers to get permission for observing their classes. All of the teachers volunteered to let the researcher conduct the observations in each selected class. Moreover, the researcher promised them that all information would be kept confidential and their names would not be disclosed in the data analysis and discussion. The data were collect while teaching and learning takes place.

Methods of Data Analysis

In this study mixed data analysis technique was employed. The data obtained through close ended questionnaire were analyzed using different kinds of statistical tools which were processed through Statistical Packages for Social Science (SPSS) software version

20. The statistical results reporting formats included both descriptive and inferential statistics. The intent of descriptive statistics such as percentages and mean score is to give the picture of data by summarizing the original scores and thereby to provide better perception of the result from the analysis. In addition, inferential statistical tools were employed to test the difference in scores of response between different sample groups using one way ANOVA. One sample t-test was used to see if there is statistical significant difference between obtained means and expected mean. Furthermore, the data obtained through qualitative tools (i.e. observation checklist and open ended questionnaire) were described thematically.

Data Presentation, Analysis and Interpretation

This chapter deals with presentation, analysis and interpretation of the data obtained from the samples through questionnaires and classroom observation.

The first part deals with the profiles of the sample respondents in terms of their teaching experiences and qualifications. The second part is about instructional scaffolding having three sub titles: Perception of Instructional scaffolding, practices in using Instructional scaffolding and challenges encountered in using Instructional scaffolding.

Characteristics of Respondents

Year of Teaching Experience

Figure 2: Respondents' Year of Teaching Experience Distribution

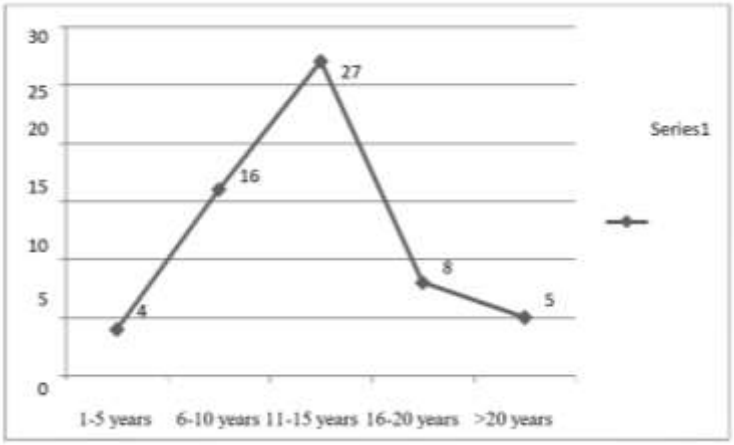

Figure 2 above shows that the years of teaching experiences distribution of teachers range from less than 5 years to greater than 20 years. Majority of teachers respondents' service year ranges from 6 to 15 years (26.7%+45% = 71.7%) and the rest service year categories share 28.3%. Thus, the service year distribution included in the study portrays

that all service year categories are included and thereby may provide ranges of information for the study.

Teachers' Qualification

Figure 3: Respondents' Qualifications

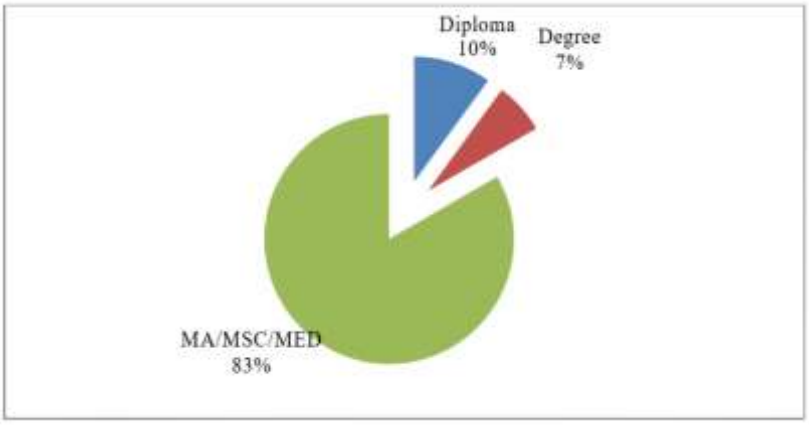

Figure 3 above shows that great majority (83%) of teachers teaching in the college hold second degree which is up to the expected standard. Some teachers (7%) hold first degree and the rest (10%) are diploma holders, which are below the standard.

Teachers' level of Perception towards Instructional scaffolding

Table 1: Results of one sample t-test on teachers' level of perception of IS

			Test Value = 3					
					Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
N	Mean	SD	T	Df			Lower	Upper
60	3.28	.65	25.817	59	.000	.78588	.7261	.8457

`

As can be seen from Table 1, there is statistically significance difference between the actual mean (3.28) and expected mean (3.0), since $p<0.05$. This implies that, majority of teachers agreed that they had positive perception about the contributions of IS. This teachers' perception of IS may have a great impact on implementation of Instructional scaffolding.

As stated by Allyson S. and Sarah F. (2014), instructional scaffolding has contributions to: help students meet disciplinary expectations, provide more opportunities for students to receive formative feedback, promote academic integrity, and result in better quality assignments

Results of teachers' demographical background analysis on their perception of Instructional scaffolding

Investigating if there are significant mean differences among the various subgroups of respondents in their perception of Instructional scaffolding was one of the objectives of the study. Thus, a one-way ANOVA was conducted to find out if there are any significant differences among the mean scores of respondents with various work experiences and educational qualifications.

Table 2:Results of analysis of variance of teachers' experience on Instructional scaffolding perception

	Sum of Squares	Df	Mean Square	F	Sig.
Between Group	.614	4	.153	.692	.601

Note: The mean difference is significant at the .05 level

As shown in the table above (Table 2), the observed F-value (.692) is lower than the critical value or the p-value (0.601) is greater than α-value. Therefore, there is no statistically significant mean difference in scores of Instructional scaffolding perception among teachers having various teaching experiences.

Table 3:Results of Analysis of Variance of Teachers' Qualifications on Instructional scaffolding Perception

Descriptive				ANOVA			
Qualification	N	Mean	SD		Df	F	Sig.
College diploma	6	3.22	.18	Between groups	2	1.209	.306
BA/BSC	4	3.28	.40	Within groups	57		
MA/MSC	50	3.34	.52	Total	59		

Significant at 0.05 levels

The mean scores as indicated in table 3 above on the Instructional scaffolding perception for the sample teachers with the qualifications of college diploma BA/BSC and MA/MSC are 3.22, 3.28 and 3.34 respectively. The observed F-value (1.209) is lower than the critical value or the p-value (0.306) is greater than α-value. Therefore, there is no statistically significant mean difference in scores of Instructional scaffolding perception among sample teachers with different educational qualifications. But the mean score of MA/MSC teachers found to be slightly greater than certificate and BA/BSC holders. This might arise from the fact that the great majority of the teachers who participated in the self- reported questionnaire are second degree holders.

To summarize, the contribution of Instructional scaffolding seems positively perceived by teachers of Woldia College of teachers' education.

Practices of instructional scaffolding in the college

The results related to teachers' practices of Instructional scaffolding from questionnaire and classroom observation are presented as follows.

Table 4:Results of one sample t-test on teachers' level of practice of IS

					Sig.	Mean	95% Confidence Interval of the Difference	
			-9.098				-.7503	-.4797

As it is indicated in table 4, the sig. value (0.00) at df (59) was found to be less than a significant level of α (p=0.000). That is, one can tell with 95% confidence (or at 5% level of significance) that there is significance difference between the value of actual mean (2.38) and expected mean (3.0). Therefore, observed respondents agreed that they had lower practices of assessment for learning. These lower teachers' practices have a great impact on achieving the goals of students' learning.

Results of teachers' demographical background analysis on their practices of Instructional scaffolding

Investigating if there are differences among the various subgroups of respondents in their practice of Instructional scaffolding was one of the objectives of the study. Thus, a one- way ANOVA was conducted to find out if there are any significant differences among the mean scores of respondents with various work experiences.

Table 5:Results of analysis of variance of teachers' experience on practice of IS (one way ANOVA)

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	6.252	4	1.563	8.661	.000
Within Groups	9.925	55	.180		
Total	16.177	59			

The observed F-value (8.661) is greater than the critical value (1.96) or the p-value (0.000) is less than (α=0.05). Therefore, there is a statistically significance mean difference in scores of IS practicing among teachers having various teaching experiences. Table 6:Multiple Comparisons of Teachers' Experiences on their practice of IS

(I) teaching Experience	(J) teaching Experience	Mean Difference	Sig.	(I) teaching experience	(J) teaching Experience	Mean Difference (I-J)	Sig.
	6-10 years	.24352*	.020		1-5 years	-.55025*	.000
	11-15 years	.19560	.093		6-10 years	-.30673	.122
	16-20 years	.55025*	.000		11-15 years	-.35465*	.046
1-5 years	21+ years	.02657	.999	16-20 years	21+ years	-.52368*	.008
	1-5 years	-.24352*	.020		1-5 years	-.02657	.999
	11-15 years	-.04792	.974		6-10 years	.21694	.371
	16-20 years	.30673	.122		11-15 years	.16902	.617
6-10 years	21+ years	-.21694	.371	21+ years	16-20 years	.52368*	.008
	1-5 years	-.19560	.093	*. The mean difference is significant at the 0.05 level.			
	6-10 years	.04792	.974				
	16-20 years	.35465*	.046				
11-15 years	21+ years	-.16902	.617				

From the post Hoc analysis presented on the table above (table 4.13) those teachers whose work experience is 1-5 years are significantly different from those with experience of (6-10) and (16-20) years indicating that they have better practicing of IS. Whereas, the same is not significantly different with (1-5) and (above 21) years of experience to practice IS.

Similarly, teachers with work experience of 6-10 years are significant different from all experience groups except those with work experience of 1-5 years. This shows that those teachers with work experience greater than 5 years seem to have relatively less practice of IS. Conversely, the other groups do not show significant difference in practicing IS.

Teachers with work experience of 11-15 years are significant different with experience of16-20 years indicating that they have better practice of IS. While, the rest groups (1-5), (6-10) and (above 21) years of experience do not show statistical different in practicing IS.

Teachers with work experience of 16-20 years are significant different from 1-5 years and above 21 years. This shows that those teachers with work experience greater than 20 years seem to have relatively less practice of IS. But (16-20) years of experience don't show significant difference with (6-10) as the p-value (.122) is greater than ((α=0.05).

When we compare teacher with work experience 21+years are significant difference with work experience with 16-20 years of work experience. This shows that they have better practice of IS. .

As a whole, we can conclude that teachers with work experience 1-5 and 11-15 years have better practice of IS. Whereas, teachers whose work experience is 6-10 years and greater than 20 years of experience have relatively less practice of IS.

Table 7:Results of Analysis of Variance of Teachers' Qualifications on Instructional scaffolding Practices

Descriptive				ANOVA			
Qualification	N	Mean	SD		Df	F	Sig.
College diploma	6	2.43	.53	Between groups	2	.832	.440
BA/BSC	4	2.70	.23	Within groups	57		
MA/MSC	50	2.35	.53	Total	59		

The mean scores as indicated in table above (Table 7) on the Instructional scaffolding practice for the sample teachers with the qualifications of college diploma, BA/BSC and MA/MSC are 2.43, 2.70 and 2.35 respectively. The observed F-value (.832) is smaller than the critical value or the p-value (0.440) is greater than α-value. Therefore, there is no a statistically significant mean difference in scores of Instructional scaffolding practice among sample teachers with different educational qualifications. Therefore, all the teachers as a group were found to possess low levels of Instructional scaffolding practice.

According to Allyson S. and Sarah F. (2014), one of the benefits of instructional scaffolding is allowing the teacher to provide clear direction and feedback at each learning stage. This means it is important to catch problems early on, instead of in a pile of poorly done assignments at the end of the term. Formative feedback during the early stages gives students a chance to learn from their mistakes and a concrete opportunity to correct them. At this point, the experiences of teachers were seen (observed) by the researcher and results of class room observation checklist are summarized in table 8.

Table 8:Teachers practice on class room observation checklist items of feedback Provision

Class room observation checklist items	Practice				Total obs. Class	
	N	%	N	%	No	%
Teachers provide detailed answer on students score for each assessment task	2	16.67	10	83.33	12	100%
Teachers provide Oral comments for students on how to improve their mistakes	3	25	9	75	12	100%
Teachers provide Written comments for students on how to improve their mistakes		0	12	100	12	100%
Teachers create positive competition among students by acknowledging students performance		0	12	100	12	100%

A total of 12 classrooms were seen during classroom observation time and the results were summarized on table 8. Regarding the first observation checklist item (providing of detailed answer on students score for each assessment task) the teachers experience were lower i.e. 16.67%. Here, during the time of observation, the researcher examined that teachers simply put the final score of students by considering their work (exams, assignments, quizzes….) rather than justifying the reason why they made wrong answers. Similarly, data gathered from class observation checklist on the provision of oral comments for students on how to improve their mistakes, teachers experience found to be less rank (i.e 25%). On the bases of the above fact, the researcher observed that some teachers in the observed classes tried to reinforce students who answered questions correctly and encourage those who did not answer questions correctly. Therefore, most teachers only encourage students who participated in answering question but students who were not participating in answering questions were not considered by teachers' corrective oral comments.

Concerning the provision of written comments for students on how to improve their mistakes, the experiences of teachers were not seen at the time of class room observation. Here, teachers in the observed classes didn't write any comment on student's different works for their mistakes, wrong doings and the like for further improvement. Finally, regarding the creation of positive competition among students by acknowledging students' performance; teachers experience in the observed classes was very unsatisfactory. Accordingly, such practice strongly hinders students' further learning.

To sum up, in the majority of observed classes of experience of feedback provision on students' learning was not taken into consideration and very unsatisfactory.

Challenges Affecting the Effective Use of Instructional scaffolding

Table 9:Frequency and percentage Description of Challenges in Implementing

Instructional scaffolding

No	Items	SD	%	D	%	A	%	SA	%
1	Planning for and implementing scaffolds is time consuming and	5	8%	6	10%	19	32%	30	50%
2	Selecting appropriate scaffolds that match the diverse learning and communication styles of students	6	10%	7	12%	17	29%	29	49%
3	Knowing when to remove the scaffold so the student does not rely on the	5	8%	14	24%	19	32%	22	36%
4	Not knowing the students well enough (their cognitive and affective abilities) to provide appropriate scaffolds.	4	7.24 %	12	20.12 %	21	34.17 %	23	38.47 %

SD= strongly Disagree; D= Disagree; A= Agree; SA=Strongly Agree

As it is indicated in table 9, great majority of teacher respondents (32%+50%=82%) agree that planning for and implementing instructional scaffolding is time consuming and demanding. This shows that it challenges the effective use of Instructional scaffolding. Similarly, as it is indicated in the same table, 78 %(29%+49%) of teacher respondents assume that Selecting appropriate scaffolds that match the diverse learning and communication styles of students is challenge to implement IS in the classroom. In addition, more than half of the respondents, 68% (32%+36%) of teacher respondents agree that knowing when to remove the scaffold so the student does not rely on the support was one of the major challenges to implement IS in the classroom. At the same time 72.64% (34.17%+ 38.47%) of teacher respondents agreed that knowing the students well enough (their cognitive and affective abilities) to provide appropriate scaffolds is a challenge to implement IS effectively.

Furthermore, in the opened ended questionnaire teachers were asked to inscribe the major challenges for effective implementation of IS in the classroom. They reflected that large class size is an obstacle that affects the use of Instructional scaffolding in the class room. Teachers indicated that the workload became higher as they were required to scaffold and keep records of the progress of all learners. These imply that large class size seems a well observed challenge that constrains the effective use of Instructional scaffolding where teachers are not familiar with strategies of managing large class size.

Conclusions

Based on the findings, the following key conclusions are drawn. Although Instructional scaffolding seems positively perceived as it has contribution in realizing students' learning, teachers had lower practice of IS in the classroom. These lower teachers' practices have a great impact on achieving the goals of students' learning. Inappropriate selection of scaffolds that match the diverse learning and communication styles of students, time consuming and demandingness for planning and implementing scaffolds, not knowing when to remove the scaffold so the student does not rely on the support, and not knowing the students well enough (their cognitive and affective abilities) to provide appropriate scaffolds, and large class size are the major challenges to implement IS effectively.

Recommendations

The finding realized that challenges such as inappropriate selection of scaffolds that match the diverse learning and communication styles of students, time consuming and demandingness for planning and implementing scaffolds, not knowing when to remove the scaffold so the student does not rely on the support, and not knowing the students well enough (their cognitive and affective abilities) to provide appropriate scaffolds, and large class size seem critical challenges in promoting the implementation of Instructional scaffolding in classrooms. Thus it is recommended that WCTE should:

- Introduce the strategies that could help to use Instructional scaffolding in a large class size through training.
- Prepare readymade Instructional scaffolding package (Instructional scaffolding items, feed backs, records, strategies and supplementary materials) documents to teachers and train them on how to prepare ahead of time.
- Ensure adequate and regular supervision of teachers and instructions to ensure that suitable instructional strategies are used to improve students' learning
- The college should improve teachers knowledge and skills by:

 Providing additional training for all teacher educators so as to minimize the g a p that seems to exist between teacher preparation and the reality of Instructional scaffolding in the classroom.

 strengthening HDP training better performance

 providing continuous and intensive on job training.

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