

EFFECTS OF SCAFFOLDING ON ENGLISH ACHIEVEMENT AMONG SECONDARY SCHOOL LEARNERS IN KENYENYA SUB-COUNTY, KENYA

¹Eunice Kerubo Ayiera, ²Dr. Judith Owaa, ³Dr. Bernard Mwebi

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Abstract: Language learning is a process just like language acquisition as put forward by Lev Vygotsky in the Social Cultural Development theory and the zone of proximal development. In the classroom, therefore, the process of language learning calls for an appropriate learning technique which not only makes learners active participants in classroom activities but also enables students enjoy the learning process. However in Kenyenia Sub-county, the effects of scaffolding on learners' English achievement are not known. Thus, the purpose of the study was to investigate the effects of scaffolding on English achievement among secondary school learners. Sequential explanatory design within the mixed methods approach was adopted by the study. The target population was 78 teachers of English and 2678 form three students (2022 class). The sample size constituted 364 students and 10 teachers picked out through purposive sampling as participants in the experiment, followed by 10 teachers and 10 learners selected by simple random sampling as interview respondents. Quantitative data was collected using Solomon-four non-equivalent quasi experimental group design while qualitative data was collected using interview technique. Quantitative data was analyzed using mean, standard deviation and paired samples t-test while qualitative data was analyzed thematically. Results showed that the posttest mean scores of English achievement among the experimental groups were higher than those of the control groups. The paired samples t-test showed a statistically significant effect of scaffolding learning on English achievement. From qualitative data, the study established that scaffolding led to an improvement in achievement among learners. The study concluded that scaffolding was the most appropriate language learning technique as it was very effective improving achievement in English as a subject among learners.

Keywords: scaffolding; English achievement; learning process; teaching technique.

1. INTRODUCTION

Language learning, just like language acquisition is a process and so it should be treated in the classroom as learners acquire new language skills (Boundless, 2016). This is because in the classroom language is the tool kit for intellectual activity (Mercer, 2018). With this respect, English language should be learned rather than taught and learning should actually be process based, as students learn through social interactions with more skilled peers and adults, through scaffolding (Sarikas, 2020). The process involves a more knowledgeable person demonstrating to learners how to tackle a learning task and later allowing the learners to do the rest on their own while the more skilled person offers support where necessary (West, Swanson and Lipscomb, 2019). Scaffolding learning enables learners to improve achievement in English as a subject as based on the results of standardized ability tests and assessments of performance by a teacher or supervisor and gives learners the strong desire to accomplish goals and attain high standards of performance and personal fulfillment (VandenBos, 2015).

Scaffolding learning process has been a solution out of many language learning challenges across the globe. To begin with, study by Zelnick (2017) established multiple challenges encountered by high school teachers of English in the USA brought about by preparation of day to day lessons and very large, diverse classes. To ease the way, the California Induction Program was formed in 2016 to guide and support beginning teachers on the application of scaffolding learning. Additionally, Scaffold Training Institute was put up three decades ago in Texas to train teachers on the application of scaffolding in the classroom. Consequently, Mahan (2020) asserted that scaffolding is the only possible solution to these challenges as the process was very successful in teaching English when the teachers provided strategies such as modeling to help students solve tasks. Also, teachers need to create more specific learning activities to provide their students with more support (Mahan,2020).

Similarly, learners of English had failed to achieve independent learning due to the application of traditional learning methods to teach English in high schools in China (Ma, Xie, Luo and Tian, 2023). Instead of learning on their own, the learners of English were taught by teachers hence the learners lacked the belief in their ability to master the language skills and apply them to communicate comprehensively. Ma, Xie, Luo and Tian (2023) noted that independent learning would be the only way to boost students' ability to master language skills and apply the skills in effective communication. Independent learning would be achieved through scaffolding method which entails contingent support by the teacher or a more knowledgeable peer followed by transfer of learning responsibility to the learner. Moreover, if the learners had to master the language skills, learner participation in learning activities was mandatory. Hence learners had to be allowed to do independent learning after scaffolding as the ultimate goal of high school teaching of English in China.

A similar situation was replicated in Ghana's where the new Curriculum emphasized on ensuring that every learner benefited from the teaching and learning processes (Senyefia, Osei-Asibey, and Otoo, 2020). Scaffolding was suggested as one of the teaching and learning processes as scaffolding would make the learning process successful. Scaffolding predicted diagnostic assessment at 90% (Senyefia, Osei-Asibey & Otoo, 2020), thus providing sufficiently for diagnostic assessment. However, scaffolding was not explicitly stated in the new curriculum (Senyefia, Osei-Asibey & Otoo, 2020)

Additionally, the Ministry of Education (MoE) in collaboration with the Kenya Institute of Curriculum Development (KICD) came up with the Competence Based Curriculum (CBC) Framework in 2017. The CBC would be implemented gradually in basic education institutions (KICD, 2017). In the process of developing the CBC, the concepts of scaffolding and the Zone of Proximal Development raised by Vygotsky's Social-Cultural Development theory were found to be useful in designing the pedagogical shifts that teachers would be trained in, to facilitate adoption of the CBC in basic education (KICD, 2017). Activities in the classroom would include journaling, experiential and collaborative and cooperative learning (KICD, 2017. p16). Moreover, when teaching English several skills are intertwined and taught as a unit. These skills include listening, speaking, reading, writing (Kenya Institute of Education (KIE), 2012). The process can be really perplexing especially when handling a heterogeneous class emanating from slow to fast learners, and learners from diverse first language backgrounds. This calls for scaffolding (KICD, 2017).

Consequently, Omuna and Syomwene (2020) noted that the performance of English in KCSE had remained poor between 2013 and 2018 due to teachers' failure to use appropriate instructional approaches if scaffolding is embraced, there would be improvement. Also, Muriithi and Njuk (2021) pointed out that teaching strategies play a major role in influencing learners' performance. The study advocated for student-centered approach so as to give the learner time to participate in class and improve the learners' ability to recall (Muriithi and Njuk 2021). A great percentage of teachers (50%) preferred discussion method which ensured every learner got involved while 25% preferred lecture method. However, the application of discussion method faced challenges since the number of students was large leading to adoption of poor teaching methods such as lecture method as opposed to discussion and other learner centered methods. Thus, discussion method which was advocated for, and which is one of the scaffolding techniques was preferred but evidently it was not being employed effectively in teaching English given large class sizes. Nevertheless, learner centered methods are the only solutions to the teaching of English as subject in Kenya.

The challenges were replicated in Kenyenyia Sub-County, Kenya, where Maiko (2018) reported teacher centered methods being utilized in English lessons more than learner centered method, thus interfering with the psychological well-being of the students. 55% of teachers employed lecture method, 15% discussion while 35% used other methods to teach English. The lecture method adopted by a majority of the teachers made students remain passive and receptive and not in control of their learning. However, even if the teachers employed these methods, 50% of the teachers admitted that learner centered methods such as scaffolding could make learners develop a positive attitude towards English as a subject as well as build

self-efficacy, which in turn would make the students perform better in exams. Further, 30% of teachers conceded that teacher centered methods encourage laziness and negatively affect students’ performance (Maiko, 2018). For learners to achieve their learning goals, scaffolding is not an option. Achievement is expressed through good performance in exams. However, wrong learning methods are employed to teach English leading to poor performance in exams (Maiko, 2018), which means, learners do not achieve their learning goals. Therefore the study examines the effects of scaffolding on English achievement to make it possible for scaffolding to be adopted in teaching/learning English as a subject.

2. RESEARCH METHODOLOGY

The study adopted the sequential explanatory design within the mixed methods approach (Creswell, 2014). Sequential explanatory design involved collection and analysis of quantitative data first followed by collection and analysis of qualitative. Quantitative data was collected using Solomon-four quasi experimental technique and qualitative data was collected using interview method. Both results were interpreted together.

Sequential explanatory design was suitable for the present study because it enabled the researcher to test the consistency of the findings from both interviews and the experimental techniques, thus, increasing the chance to control the threats of confounding variables that would have influenced the results. Additionally the study was based on psychological aspects of human behaviour which could be well understood when studied from various perspectives (Cohen, Manion and Morrison, 2018). Therefore, both quantitative and qualitative data gave the researcher a deeper and wider understanding of the effects of scaffolding-learning process on learners’ achievement in English.

Quantitative Phase

Quantitative data was collected using Solomon-four quasi experimental group design. Quasi experimental design was appropriate for this study because the researcher used participants in their naturally occurring groups which constituted the schools and the already existing classes. This means that sampling and assignment of subjects to the various study groups (experimental and control groups) was non-random (Jones and Bartlett, 2000).

Solomon-four group design involved the researcher randomly assigning participants to four groups; two experimental groups that underwent the prescribed treatment of scaffolding learning technique and two control groups which were not taught using scaffolding but served as the benchmarking point for comparison (Levy and Ellis, 2011). The researcher sampled the four groups and then went ahead to label them as Experimental group 1, Control group 1, Experimental group 2 and Control group 2. Two groups; Experimental group 1 and Control group 1 were pre-tested while the other two groups (experimental group 2 and control group 2) did not receive the pre-test. But experimental group 2 received the intervention. Finally all the four groups were post-tested (Sandler and Huck, 2015) as shown on Table 1.

Table 1.

Group	t1 (Pre-test)	t2 (Treatment)	t3 (Post-test)
Experimental grp 1	O1	X	O2
Control grp 1	O3	–	O4
Experimental grp 2	–	X	O5
Control grp 2	–	–	O6

Table 1 illustrates that the researcher performed six tests (labeled O1-O6) at various times. At time one (t1), Experimental group 1, and one control group 1 sat for English achievement test labeled as O1 and O3 respectively. This was followed by time two (t2) where scaffolding treatment was provided to the experimental groups 1 and Experimental group 2. The treatment is labeled X. At time three (t3), four English achievement posttests were done to all the groups and are labeled O2, O4, O5 and O6. Pre-test and post-test data from the four groups were analyzed and compared.

Qualitative Phase

Qualitative data was collected using interview technique. Interview method was appropriate for the study because the study touches on human psychological variables of self-efficacy hence the respondents were expected to give their own views, feelings and experiences that would not be captured by the English achievement test. Moreover, interview data allowed the researcher confirm, support and explain the findings of the experiment (Creswell, 2014). The respondents explained, supported as well as confirmed the statistically significant results that were obtained in Solomon-four experimental design as well as the English achievement test.

Sample Size and sampling technique

With regard to Solomon-four research design, four schools were purposively selected for this study; two boys’ schools and two girls’ schools which had a total of 364 students. This is because the experimental technique dictates that the subjects must be in the same natural environment. Hence four groups had to be selected from their naturally occurring environments. Interview respondents comprised of 10 teachers and 10 learners, also purposively sampled.

Purposive sampling was appropriate for the present study because the study was majorly quasi experimental, hence the sample was picked out to suit the experimental requirement that the subjects had to be in their naturally occurring groups, comprising of schools. Moreover, teacher interview respondents were also sampled purposively while students from participant schools were randomly sampled to be interview respondents. Teachers were purposively sampled considering their expertise in the application of scaffolding learning technique; hence they could give their views and opinions that could vividly explain quantitative data results. Additionally, learners were picked out using the simple random technique since a large population of learners had participated in the study, hence, simple random sampling method could avoid researcher bias.

Research Instruments

The present study collected quantitative data using pretest and posttest English achievement test and qualitative data using interview schedules.

English Achievement Test

The English Achievement Test contained sort answer questions obtained from the topics that had been covered within the six weeks of scaffolding learning. The English Achievement Test had a total of 35 items. The test was standardized and it was norm referenced. Standardization ensured that the questions, condition of administration, scoring procedures and interpretations were consistent and the tests were administered and scored in a predetermined manner. The EAT was set by the researcher from the material that had been covered by the whole sample. The questions were clear, short and open-ended. All the participants sat for the test at the same time. The researcher then constructed the marking scheme which was coordinated among the participating teachers to ensure consistence in the scoring. Marking of the test was done in the same venue to ensure similarity of external conditions. Grading was done according to the performance of the learners and the grading was determined by the researcher.

Interview Schedules

The interview schedule was constructed at the end of quantitative data collection and analysis through pre-post English achievement test as well as Solomon four group experiment. This is because the interview was meant to confirm, support or explain quantitative data findings at the end of the experiment. In addition, interviews collected the respondents feeling. Three interview questions were constructed which only acted as guidelines since the researcher did a lot of probing of the respondents.

3. RESULT

Independent and paired sample t-tests were utilized to establish the difference in English language achievement among the four groups of participants. Table 2 shows the mean scores and standard deviations in the pretest and posttest exams.

Table 2: Achievement in English for the four Groups

	Statistic	Mean	Std. Deviation
		Statistic	Std. Error
		Statistic	Statistic
Exp.Group 1-Pretest Achievement	103	47.611	1.007
Exp.Group 1-Posttest Achievement	103	57.631	.835
Control Group 1-Pretest Achievement	78	47.153	1.076
Control Group 1-Posttest Achievement	78	49.294	1.032
Exp. Group 2-Posttest Achievement	101	55.128	1.058
Control Group 2-Posttest Achievement	51	48.549	1.146

Source: English Test Achievement Scores (2023)

Table 2 displays the descriptive statistics of pretest and posttest scores in English tests achievement which were obtained before and after the students were exposed to scaffolding techniques for both intervention and control groups. It is evident that post-test achievement scores from intervention groups were higher than the scores of the control groups. For instance, the average score recorded for the post-test by Group-1 learners was 57.6 ($SD=8.5$) and post-test mean score of Group-3 learners was 55.1 ($SD=10.6$). The English Language Pretest Achievement score recorded from the control groups was generally low. This was reflected by a mean score of 47.1 ($SD=9.5$) for Group 2 pretest achievement score. Also notable, all the learners generally recorded higher posttest scores than pretest scores.

Moreover, interview respondents were asked how the improvement came about and the following extracts collected;

I have enough time to study on my own and discover my weak areas. After that I go to fellow students in our group and I ask them to assist me. When we are defeated the I am happy that I am performing better in English. In fact this is because of late teacher comes in to assist us. I feel very free with our teacher because nowadays he is very friendly. Also our teacher is encouraging us to concentrate on easy sections first before we move to the difficult ones. I have learned that this method where I start from the simple topics or questions has made me discover that one topic leads to the other. Even we as students we are encouraged to learn together without discrimination. Another decision I have made is about home works. I am always finishing my home works, because that is where exams are set from. In fact many questions given by our teacher as assignments are obtained from past papers. Compared to last time, I think I like English. In the past I used to think that English is difficult but I have discovered that I was not taking time to do my studies properly. (LoE1)

Another respondent made the following comments:

Sure enough many of my students performed better in this exam and I can confidently associate their good performance to the new teaching method. I think when we give them the opportunity to do things on their own, they own up the learning process. These learners are very active in group work, consultations and as I told you earlier I am making minimal follow ups for home works. They are happy and they even come for me when the lesson is due. (ToE1)

The responses by LoE1 and ToE1 suggest that one of the reasons why there was overall improvement in the post test mean in EAT was due to the increase in subject interest among the learners. LOE1 states that learners have the ability to discover where they are weak, something a teacher using the traditional methods could not do. The learners further get support from their superior others who comprise of the more knowledgeable peers and teachers only when there is need. This is possible through cooperative learning. Moreover, the learners are studying within their ZPD and this is making studies very easy for them. But as much as the learners are enjoying learning actively on their own, teacher support is necessary as respondent ToE1 admits that support is given as well as making follow up to the few who have not owned up the process. In overall, the positive effect of scaffolding on subject interest made the learners perform better in the posttest exam compared to the pretest

However, to investigate whether there was any statistically significant difference in English language test achievement scores between learners who received intervention and those who only received the traditional teaching, four different pairs were compared using t-tests and findings were shown in Table 3.

Table 3: Pairwise Comparison of Pre-test and Post-test Scores for Control and Intervention Groups in English Achievement Test

Pair	Groups	Mean	Mean Difference	Std. Error Difference	T	Df	Sig.
Pair 1	Exp.Group-1 Pretest	48.43	1.282	1.592	.805	77	.423
	Control Group1 pretest	47.15					
Pair 2	Exp.Group-1 pretest	47.61	-10.019	.549	-18.229	102	.000**
	Exp. Group-1 post-test	57.63					
Pair 3	Control Group1 pretest	47.15	-2.141	1.173	-1.824	77	.072
	Control Group1 post-test	49.29					
Pair 4	Exp. group-1 post-test	57.28	7.987	1.316	6.069	77	.000**
	Control.Group 1 post-test	49.29					

*significant at 5% level ** significant at 1% level

From Table 3, the results of an independent t-test analysis reveal that there was no statistically significant difference in pretests achievement scores between the control group1 and experimental group1 [$t(77) = .805$; $p = .423$] as indicated in Pair 1 results. These findings suggest that the two groups did not have remarkable differences in scores before the intervention, signifying that the randomization process was effective. This proves that extraneous and confounding variables were controlled in the study, thus suggestive of adequate internal validity of the data.

Moreover, to find out whether there was statistical difference between achievement pretest and posttest scores for the learners who were treated by scaffolding technique, a paired sample t-test was used as shown in pair 2. The results revealed that there is a statically significant difference between pre-test and post-test scores for experimental group 1, $t(102) = -18.229$; $p < .001$, suggesting that scaffolding instruction had an effect on achievement in English as a subject among the secondary school students.

The study went ahead to confirm whether an increase in academic buoyancy might have influenced the improvement in achievement by performing interviews and the respondents gave their views as follows:

Ok, another reason why I think I performed better in the test is because I started taking the teachers comments positively. When I did not perform well in the first CAT, our teacher encouraged us there is always room for improvement and the comments and the low marks should be a wakeup call for us. This is what encouraged me to put more effort in my studies. Also, when we have the stress about our studies, we are doing it in groups and what we cannot handle our teacher helps us. Our teacher simplifies some topics or questions and we find it easy to do our work within a short time. In fact, we support one another when doing our work, either personal studies or home works. This I can say for sure helped me perform better, and if we continue like this we shall perform very well in our final exams. (LoE3)

Similar opinions were given by another respondent:

My students seem to be able to deal with pressures since for instance they are able to clear their work in time and they do it well. I think group work is contributing a lot since the stronger ones help the weak ones. We do give them feedback after marking their work and to my surprise, some are coming to ask how they can improve from what they got and I am giving them guidance where necessary. So, I think their low mark does not discourage them anymore, instead of getting worried, they want what they can do to achieve better. (ToE5)

The remarks by LoE3 and ToE5 confirm the findings that the increase in academic buoyancy made the learners improve in their achievement test. The improvement in EAT performance was attributed to ability to withstand negative feedback as well as a bad mark, which the students took positively and hence they tried to improve from where they were. Additionally, the schoolwork pressures and academic stress were addressed by group work where learners could assist each other in their studies as well as assignments, coupled by support from the teachers. Teachers scaffold on the academic buoyancy of the learners contributed greatly to their achievement in the posttest EAT.

Further analysis was done to find out whether the existing difference in achievement was exclusively due to the use of scaffolding instruction technique or due to the effect of any other intervening variable which was not included in the study. The paired sample t-test on pair 3 (Control Group 1 Pretest and Control Group 1 Post-test) was done and it indicated that there was no statistically significant difference, $t(77) = -1.824$, $p = .072$ (ns) between the pretest and posttest achievement mean scores for control group 1. This shows that there is no statistically significant difference between pre-test scores and post-test scores in achievement among the learners who did not receive any treatment.

Additionally, a paired sample t-test was done on pair 4 to establish whether there was any significant difference between posttest scores of the experimental group1 and control group 1 learners and a statistically significant difference was obtained, $t(77) = 6.069$, $p < .001$. From these findings, the study established that the mean score differences between experimental group 1 posttest and control group 1 posttest was solely attributed to the treatment factor of scaffolding method.

The mean scores in posttest exams for the intervention group ($Mean=57.28$) was significantly higher than the mean score in posttest for the control group ($Mean=49.29$). However, it was envisioned that there may be some effect of pre-testing on post-test achievement scores. To ascertain that pretest sensitization did not influence the post test results, the use of solution with the Four Control Group Design was performed and the results tabulated on Table 4.

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Table 4: Solution with the Four Control Group Design: Learner Achievement

		Paired Differences			T	df	Sig.
		Mean	SD	SEM			
Pair 1	Exp. Group 1 Pretest Exp. Group 1-Posttest	-10.019	5.578	.549	-18.229	102	.000
Pair 2	Control Group 1 Posttest Control Group 1 Posttest	-2.141	10.364	1.173	-1.824	77	.072
Pair 3	Exp. Group 1 Pretest Control Group 1 Pre-test	1.282	14.064	1.592	.805	77	.423
Pair 4	Exp. Group 1 Pretest Control Group 1 Posttest	-.859	13.083	1.481	-.580	77	.564
Pair 5	Exp. Group 2 Posttest Control Group 2 Posttest	8.882	12.175	1.705	5.210	50	.000
Pair 6	Control Group 1 Posttest Exp. Group 2 Posttest	-6.038	14.698	1.664	-3.628	77	.001
Pair 7	Exp. Group 1-Posttest Exp. Group 2 Posttest	2.544	14.552	1.448	1.757	100	.082
Pair 8	Control Group 1 Posttest Control Group 2 Posttest	-.961	12.515	1.753	-.548	50	.586

From Table 4, a paired sample test for Pair 2 suggests that there was no statistically significant difference in learner's achievement mean scores between pretest and posttest values in Control Group 1 Pretest and Control Group 1 Post-test, $t(77) = -1.824, p = .072$ (ns). On the other hand, test results for Pair 1 confirms that there is statistically significant difference at .001 significance level between pretest and post-test scores of the Experiment group 1, $t(102) = -18.23, p < .001$, indicating that there is a statistically significant effect of scaffolding learning strategies on learner achievement in English as a subject.

Furthermore, from the test in Pair 3 it was concluded that the randomization process was effective during sampling of the experiment and control groups because no significant difference was found between Control Group1 Pretest and Experimental Group1 Pretest $t(77) = .805, p = .423$.

Also, t-test on Pair 4 confirms that there was no statistically significant difference between Experimental Group-1 pretest and Control Group 1 post-test, $t(77) = .580, p = .564$, further confirming that use of scaffolding method had a statistically significant positive effect on learners' achievement in English as a subject. On the other hand, t-test on pair 5 proves that there is significant difference between Experimental Group2 post-test and Control Group2 post-test (without pretest) at 1% level, suggesting that the statistically significant difference in learner achievement in English language noted was mainly attributed to use of scaffolding teaching strategy. Moreover, the difference in learner achievement in pair 3 (1.282) is higher than that of pair 4 (-.889) implying that, although pretest could have increased the learner's sensitivity to the pretest exam, the influence was negligible. This means that the improvement in achievement was mostly attributed to the effects of scaffolding learning techniques.

Contrary to this, the result of the t-test in Pair 6 showed a statistically significant difference, $t(77) = -3.628, p = .001$, between control group 1 posttest and experimental group 2 posttest scores. But pair 7, experimental group 1 posttest and experimental group 2 posttest, showed no statistically significant difference [$t(100) = 1.757, p = .082$]. Both groups in pair 7 had undergone scaffolding learning method. Finally there was no statistically significant difference in mean scores in pair 8, control group 1 posttest and control group 2 posttest scores. [$t(50) = .548, p = .586$] the groups in pair 8 were not subjected to scaffolding learning. Generally, the results in pair 6-8 suggest that external factors had not been included in the study, meaning, the improvement in achievement was only associated with scaffolding method.

Consequently, using the results in Pair 1 supported by findings in Pairs 2-8, there was sufficient evidence to reject the null hypothesis that "there is no statistically significant effect of scaffolding on achievement among secondary school English learners". This is because the study established that there was statistically significant effect of scaffolding learning method on learners' achievement. Hence, it was concluded that the use of scaffolding teaching/learning strategy is effective in improving learners' achievement.

The study went on to probe the learners on whether the improvement in self-efficacy might have led to the overall improvement in achievement and the following were their remarks.

I think I can learn on my own. This is because I do the topics that I can handle and our teacher comes in to help on more difficult topics or questions. I think the reason why I improved is that we were encouraged to set achievable targets unlike in the past when the teacher forced us to set very high targets. In fact, I am almost achieving my target because it was low enough for me. When I achieve it next time then I will set a higher one. We no longer refer to our notes when doing homework. We discuss the questions and it has made me learn to remember what we learned. I applied the same formula of remembering during last exam and my happiness is I improved. I am able to learn without much assistance and I am happy about it because if I can learn on my own, then even exams I am sure I will perform wonderfully. (LoE3)

Another respondent said:

My learners do not only believe in their abilities but they are surely putting that belief in practice. I am saying this because this is the time I am seeing students who are very focused, though the duration has been short. It is the time I do minimum supervision in class. Even during the CAT, let me say that I did not invigilate that much. Earlier the learners could go to the exam room with written materials, now I think they believe that they can perform well without the materials. And surely they have proved that. At the beginning, I asked them to freely set their targets, I did not interfere. Though they set very low targets, many of them achieved, and those who did not achieve are striving to achieve them. So I think my students believe that they can do better. That could be the reason why their performance is better. (ToE2)

From the responses by LoE 3 and ToE 2, the students achieved better results due to the increase in self-efficacy. This is confirmed by the fact that the learners started to believe that they can not only learn on their own but also do revision on their own successfully. Moreover the learners started setting achievable targets which they believed they could achieve, and ToE confirms that many of the learners achieved the set targets. The belief in their abilities was extended to the examination room. ToE states that minimum invigilation was done during exams but still there was better achievement among the learners. Therefore, learners who underwent scaffolding learning performed better because their self-efficacy had improved.

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