Gauging the Efficacy of Scaffolding Techniques in Teachingand Improving the Comprehension skills of ESL Learners

Dr. Uzma Hasan, King Saud Bin Abdul-Aziz University for Health Sciences Jeddah (Saudi Arabia). (2) Ms. Zahra Zohair Arab, University of Technology and Applied Science Ibri (Sultanate of Oman)

Abstract

The research has been established to take into consideration the entire domain of scaffolding techniques associated with education techniques with respect to ESL (English as a Secondary Language) students.Scaffolding can be used in English Language teaching to assist students in learning new ideas in the same way that it is used by construction workers. The scaffolds are taken down as the construction crew completes portions of the building and no longer requires assistance in the same manner progressively instructors eliminate the scaffolding as their pupils absorb the content and demonstrate signs of comprehension, allowing for more autonomous learning opportunities. The research has adopted a qualitative approach with respect to the collection of facts and figures pertaining to the domain of research and educational scaffolding techniques. The findings showed that scaffolding has a varied impact on ESL learners' improvement for both lower and higher-ability participants this reveals that, compared to the higher-ability students; the lower-ability students in the scaffolding group gained more in terms of reading comprehension growth.

Keywords:scaffolding techniques, education, ESL (English as a Secondary Language), Strategies.

Date of Submission: 13-02-2023

Date of Acceptance: 26-02-2023

I. Introduction

Scaffolding is a learning strategy used by teachers to demonstrate to pupils how to handle difficulties while providing them with support when they require it. Scaffolding is a relatively new approach to teaching new skills, concepts, and higher levels of comprehension. It offers a more mature educational and psychological perspective on teachers' support and intervention in the learning process of students. Many efforts have been made to investigate this point of view, its concepts, characteristics, types, and techniques, as well as to develop guidelines and precautions for using scaffolding in the classroom.

Theories of Scaffolding and Their Educational Relevance

Scaffolding, in its usual sense, is defined as "a temporary structure that is often put up in the process of constructing a building. As each bit of the new building is finished, the scaffolding is taken down. The scaffolding is temporary but essential for the construction of the building" (Gibbons, 2002, p. 10). The term "scaffolding" was conceptualized by Wood, Bruner, and Ross (1976, p. 9) for educational purposes. They defined it as an "adult controlling those elements of the task that are essentially beyond the student" capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence". Similarly, the teaching process can be compared to the construction of a building. In this context, scaffolding refers to the assistance provided to a learner while attempting to learn a new skill.

Pressley (2002) provides a detailed explanation, discussing both the metaphor derived from the term and its educational meaning. When a new building cannot stand on its own, scaffolding provides support. The scaffolding will be removed as the new structure is completed. Similarly, during scaffolding students, academic interactions are carefully controlled when sufficient instructional input has been provided, allowing students to progress toward an academic goal. This means that help is only offered when the student needs it. If the child is making rapid progress, the adult's reactive instructions will be less detailed than if the child were struggling with the task.

Gauging the Efficacy of Scaffolding Techniques in Teachingand Improving the Comprehension skills of ESL Learners



This support increases or decreases depending on the learner's ability to perform the task independently. Thus, scaffolding is a kind of temporary aid that supports and encourages the learner to reach a more advanced understanding or succeed in completing the desired task. This is what an instructor - the scaffolder - does when assisting a learner to solve a problem, performing a task, achieving a goal, or acquiring a skill beyond their own efforts (Hogan & Pressley, 1997; Larkin, 2002).

Scaffolding Approach: Significant features and traits of instruction

The concept of the region of proximal maturation, developed by Lev Vygotsky, is fundamental in scaffolding education. According to Vygotsky, a learner's developing level can be divided into two categories: the "actual developmental level" and the "potential developmental status." Zone of proximal maturation is defined as "the gap between the current developmental stage as evaluated by individual solution process and the potential ability status as assessed by conflict resolution under adult supervision or in partnership with more experienced colleagues (Mahan, 2020). Alternatively, the zone of proximal development (ZPD) can be defined as the area between what a student can accomplish on his or her own and what can be accomplished with the assistance of anymore knowledgeable other' adult or fellow learner. With the help of the so-called "more knowledgeable other," also known as the MKO, the learner is able to make connections between what is understood and what is unknown. Once the learner has increased their understanding, the current developmental level has also increased or decreased, and the ZPD has altered accordingly. Because the ZPD changes frequently as a student grows and learns the knowledge, scaffolding training must contain personalized to understand the changing ZPD of each learner in order for them to succeed. In accordance with Vygotsky's theories, "excellent learning" takes place in the child's region of proximal maturation (Rokhmat& PUTRIE, 2019). The evaluation of what the learner can accomplish on their own is critical to instruction in the ZPD, as is allowing learners to do as much as feasible on their own. It is the procedure of gradually dismantling the protective scaffolding that has been placed in place for a youngster until it is fully removed from the students. Once this is accomplished, the students are able to regulate their own learning and progress an autonomous learner (Valencia-Vallejo, López-Vargas&Sanabria-Rodríguez, 2018). Students are provided more aid or guidance from a teacher or another more experienced individual until they can exhibit task mastering of new and challenging tasks, which may take several weeks. As the learner progresses toward proficiency, the amount of aid or support provided to them is gradually reduced in order to transfer ownership of the process from the instructor to the student. According to the data collected, " "scaffolding is a notion used to define a particular sort of instructional methods that operates in a task-sharing context between the teacher and the students."

II. Method

The methodology of the research is qualitative and quantitative in nature and the research has collected various information with regard to the topic of scaffolding education (Valencia-Vallejo, López-Vargas&Sanabria-Rodríguez, 2018). The methodology has been adapted with respect to the entire elaborative approach of a distinct research framework establishment.

Research approach

The research features both a deductive and inductive approach of the research. The explanatory approach enables the research to have a broad spectrum in terms of the validity of the research. An inductive technique is a method of research strategy that tries to explain the many features of a study through the use of evidence and analysis of the sample data. In this strategy, the researcher starts with a broad concept and uses their study as a device to uncover topics that they may want to pursue further in the future. This method assists researchers in providing details in instances where just a limited quantity of data is available to them (Janson, Söllner&Leimeister, 2020). Prior to beginning their research, they must first develop an outline that will allow them to sell their idea to others while creating their research project. Explanatory research has been carried out with the goal of discovering a problem that has not previously been thoroughly investigated by other researchers. It is not intended to provide definitive proof, but rather to aid in the right understanding of the situation (Brauer, Korhonen&Siklander, 2019). As for the deductive approach, this provides the research with the much-needed qualitative approach in terms of assessing the literature themes of the research. This type of research is important in that it serves as a springboard for all the following research techniques. It offers the investigator with a better awareness of the topic matter, which allows them to better examine research problems and, as a result, develop more accurate conclusions about them (Kim, Belland& Walker, 2018).

Research strategy

This strategy delivers new insights into a certain issue while also providing more opportunities for the investigator to question and investigate new concepts and hypotheses. After doing an in-depth investigation of a subject, it is possible to create a circle in which the investigation of one issue raises further questions, and these queries open up new avenues for further investigation into the subject. Exploratory research has two primary goals: first, it helpsunderstand what they don'tknow (Mahan, 2020). It stimulates the researcher's intellectual curiosity and aids him in gaining a deeper understanding of the subject. It also develops procedures that can be applied as a component adopted by the after-research initiative. The research has adapted a case study-based approach in terms of philosophy. The information has been collected from various secondary sources containing significant information related to the theme of the research and its viability. This philosophy enables the research to have a more distinct and diverse domain of research topic (Kim, Belland& Walker, 2018).

Sampling technique and population

The sampling technique used in this research is selective in nature. The size of sample population is 10 respondents. The sample population has been chosen from the background of educators and management personnel working in the field of ESL environment and integrating scaffolding techniques of education.

Data collection methods

The research has adapted a data collection method of literature review. The information collected has been reviewed and retrieved from various literature articles and publications. The research has thematically established the literature review to segregate and assort the facts and information related. The quantitative data have been collected with respect to a survey questionnaire collected from various educators and management members in the field of practices scaffolding techniques of education. The sample questionnaire has been given below,

S.no	Question/ Responses	Yes	No	May be
1	Do you think Scaffolding techniques are effective in the impartment of			
	education for ESL students?			
2	Do you think the integration of Scaffolding techniques is more			
	beneficial for ESL students?			
3	Can Scaffolding techniques be practiced in an online ESL education?			
4	Can Scaffolding techniques be practiced at all levels of teaching?			
5	Can Scaffolding techniques be practiced in all skills of ESL teaching?			
6	Would you recommend this questionnaire to others?			

Fig: Sample questionnaire

Data analysis methods

The information has been analysed with respect to the thematic analysis of the research. The themes of the research have been established to correlate the facts and figures related to the research study. As for the quantitative data, the data has been analysed with respect to the statistical analysis of the responses collected from the survey questionnaire.

The research has followed all of the necessary ethical standards associated with the study. The research has collected information from freely accessible sources which signify towards of the consent of the respective publisher to distribute the material. The research will not be used for any commercial purpose. The sources of the research have been chosen from publications that are not older than 5 years (Korhonen, Ruhalahti&Veermans, 2019).

III. Result and Discussion

Scaffolding Instruction Consists of Six Fundamental Elements 1 – Identifying a Specific Objective

It is the instructor's role to develop a common aim for the class or group and the teacher's opportunity to connect with the student and accomplish intersubjectivity (the sharing of intents, sensations, feelings, and ideas) is necessary in order to attract or mobilize the learner's desires. Pre-assessment of the pupil and the program must be completed by the teacher before class begins. The teacher plans the accomplishment of educational objectives while taking into consideration the requirements of each student. The instructor must be mindful of some of the student's problem-solving strategies that are distinctive, unorthodox, and frequently unsuccessful. Encouraging the learner to contribute to the achievement of the common objective will increase intrinsic motivation (Kim, Belland& Walker, 2018). It will also assist the learner in controlling their feelings of frustration because they will sense that their desires have been acknowledged. It will support the student in building a drive to master the objective in situations where success depends on one's own ability to learn new abilities (Korhonen, Ruhalahti&Veermans, 2019). It is in this way that the method of learning is regarded as valuable, and the accomplishment of mastery is regarded as being directly proportional to the number of effort put forward.

2 – Comprehensive Approach to the Task

The Whole Task Strategy is supported by the concentration on the ultimate goal that must be achieved throughout the complete system. As a result, rather than learning a collection of distinct sub-skills, the task is mastered as a whole. Each aspect of the lesson is understood in the context of the whole assignment (Kim, Belland& Walker, 2018). The quantity of passive information on the side of the learner is reduced as a result of this technique, and the requirement for a transfer is reduced as a result. It should be emphasized that this method is only successful if the student does not have considerable difficulties with any of the essential skills that are required to perform the entire activity (MacLeod& van der Veen, 2020).

3 - Availability of Assistance Right Away

Achievement on a regular basis is critical in scaffolding, especially when it comes to controlling the depressive moods of the learner (Kim, Belland& Walker, 2018). A more frequent occurrence of student achievements may be achieved if the instructor provides support in a timely and efficient manner so that the learner can progress with the activity (MacLeod& van der Veen, 2020). Through positive self-efficacy, these accomplishments help to enhance enthusiasm in the learner, resulting in more efficient use of their work and exertion in the future. This approach clearly conforms to the first rule of scaffolding, as stated by Zhao and Orey, which is to support the learner with activities that are not yet able to complete on their own and is designed to do so in a systematic and systematic manner (Korhonen, Ruhalahti&Veermans, 2019).

4- Intention-Assisting

Intention-assisting It is essential to the scaffolding procedure that the learner's main emphasis receives aid, allowing the learner to overcome his or her current obstacles. By giving instant assistance with the present mission at hand, a more successful learning atmosphere is provided since knowledge has been connected and imparted in accordance with the learner's concentration, allowing the learner to remain focused on the work at hand and therefore more efficient. Nevertheless, if the learner's goals do not constitute an appropriate method for finishing the work, it is frequently required to refocus the learner's intent. The instructor must be aware that there are a variety of approaches to completing a given activity or assignment. If the learner's current trajectory is successful, it should be maintained, as it is the purpose of scaffolding to support the learner in moving forward with the minimum amount of compensation as is reasonably practical (Korhonen, Ruhalahti&Veermans, 2019). If the instructor finds themselves constantly assisting a student who has low-level intentions, it may be a smart option to resort to coaching as a tactic to assist the learner in progressing through the learning process. This is advantageous in that it allows the student to analyze the work from a unique viewpoint, which encourages the development of complex thinking abilities (Kim, Belland& Axelrod, 2018).

5 – The Minimum Level of Assistance

The level of support supplied should be proportional to the level of ability demonstrated by the student. The learner should be provided with only the assistance required to resolve the current hurdle; yet, the level of support given should not prevent the learner from responding to and engaging in the learning process associated with that specific task. In other respects, support should only be provided for those tasks that the individual is unable to complete on their own. If the current work is within the learner's capability, there should be no need for an intervention. It is vital to demonstrate these abilities if the learner does not have them at the time.

Challenges associated with scaffolds

- Scaffold planning and implementation are time-consuming and physically difficult tasks.
- Choosing adequate scaffolds that are acceptable for students' different language and learning methods is a difficult task (Korhonen, Ruhalahti&Veermans, 2019).
- Understanding when to dismantle the scaffolding so that the learner does not become reliant on it is essential (Kim, Belland& Axelrod, 2018).
- Being unable to provide appropriate scaffolding because of a lack of familiarity with the pupils' cognitive and emotional capabilities (MacLeod& van der Veen, 2020).

Recommendation and Conclusion

- When using instructive scaffolding, the following statements might be utilized as guidelines:
- Choose tasks that are appropriate for the goals of education, course educational objectives, and the needs of the students (Mahan, 2020).
- Enlist the assistance of students in the development of educational objectives (this might boost students' enthusiasm and their willingness to work hard).
- When evaluating students' performance, take into account their experiences and past knowledge content that is too straightforward will rapidly bore pupils and diminish motivation. Information that is overly challenging, on the other extreme, may cause students' attention levels to drop (Korhonen, Ruhalahti&Veermans, 2019).
- To assist students as they go through a task (for example, suggestions, inquiries and tips; stories; prototypes; visual scaffolds (including gesturing; symbolic gestures; drawings; and other techniques of emphasizing visual data); and other techniques of emphasizing visual input (Kim, Belland& Axelrod, 2018).
- Encouraging and rewarding pupils, as well as making suggestions and having them describe their achievements, in order to assist them to stay on track and engaged on the end objective.

Structural scaffolding assists students in bridging the research problem between what they already know and what they really want to understand, guiding them through the development of new skills, and breaking down unknown abilities into smaller, more easily digestible concepts. Scaffold is the process of breaking down learning into manageable parts and offering a resource or structure for each piece. It is possible to preview the book and discuss essential vocabulary before scaffolding readings or to chunk the material and read it while discussing it as they go during scaffolding readings.

References

- 1. Brauer, S., Korhonen, A. M., &Siklander, P. (2019). Online scaffolding in digital open badge-driven learning. Educational Research, 61(1), 53-69.
- 2. Gallagher-1993-cited-in-Fisher_fig1_256458270 [accessed 2 Feb 2023]
- 3. Gibbons, P. (2002). Scaffolding language, scaffolding learning: Teaching second language in the mainstream classroom. Portsmouth: Heinemann.
- 4. Goh, C. C. (2017). Research into practice: Scaffolding learning processes to improve speaking performance. Language Teaching, 50(2), 247-260.
- 5. Hogan, K. and Pressley, M. (1997). Scaffolding student learning: Instructional approaches and issues. Cambridge: Brookline Books.

- 6. Janson, A., Söllner, M., &Leimeister, J. M. (2020). Ladders for Learning: Is Scaffolding the Key to Teaching Problem-Solving in Technology-Mediated?earningContexts?Academy of Management Learning & Education, 19(4), 439-468.
- 7. Kim, N. J., Belland, B. R., & Axelrod, D. (20an 18). Scaffolding for optimal challenge in K–12 problem-based learning. The Interdisciplinary Journal of Problem-based Learning.
- 8. Kim, N. J., Belland, B. R., & Walker, A. E. (2018). Effectiveness of computer-based scaffolding in the context of problem-based learning for STEM education: Bayesian meta-analysis. Educational Psychology Review, 30(2), 397-429.
- 9. Korhonen, A. M., Ruhalahti, S., &Veermans, M. (2019). The online learning process and scaffolding in student teachers' personal learning environments. Education and Information Technologies, 24(1), 755-779.
- 10. MacLeod, M., & van der Veen, J. T. (2020). Scaffolding interdisciplinary project-based learning: a case study. European journal of engineering education, 45(3), 363-377.
- 11. Mahan, K. R. (2020). The comprehending teacher: Scaffolding in content and language integrated learning (CLIL). The Language Learning Journal, 1-15.
- 12. Pearson and Gallagher 1993An Outcome-Based for Technology Integration in Higher Education Statistics Scientific Figure on ResearchGate. Available from: https://www.researchgate.net/figure/The-Gradual-Release-of-Responsibility-Model-Pearson-and-
- 13. Pressly, M. (2002). The challenges of classroom strategy instruction. 159 Elementary School Journal, 89(3), 301-342
- 14. Rokhmat, J., & PUTRİE, S. D. (2019). A strategy of scaffolding development to increase students' problem-solving causality-thinking use of physics learning with a causality-thinking approach. Journal of Turkish Science Education, 16(4), 569-579.
- 15. Valencia-Vallejo, N., López-Vargas, O., &Sanabria-Rodríguez, L. (2018). Effect of Motivational Scaffolding on E-Learning Environments: Self-Efficacy, Learning Achievement, and Cognitive Style. Journal of educators online, 15(1), n1.
- Van Uum, M. S., Verhoeff, R. P., &Peeters, M. (2017). Inquiry-based science education: Scaffolding pupils' self-directed learning in open inquiry. International Journal of Science Education, 39(18), 2461-2481.
- 17. Wood, D., Bruner, J. & Ross, G. (1976). The role of tutoring and problem-solving. Journal of Child Psychology and Psychiatry, 17, 89-100.