



Determining and ranking the components of the qualitative model of educational support in Iran's secondary education system

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ABSTRACT

Background and Aim: The impact of teaching methods on educational quality has been proven in many research studies. The purpose of this research was to determine and rank the components of a quality educational scaffolding model in the Iranian secondary education system. **Methods:** The research method was qualitative-quantitative. The qualitative section's population included experts and specialists in the fields of learning-teaching, teaching methods, and educational scaffolding, as well as related written documents including articles, scientific research, and relevant authored books. The priority-setting section included top and middle managers from education department deputy offices. In the qualitative part, deep interviews were conducted with 13 experts using snowball sampling until theoretical saturation was reached, and 18 documents (texts) were examined using a purposive method. In the priority-setting part, 35 individuals were selected through purposive sampling and responded to a matrix questionnaire. The validity and reliability in the qualitative phase were ensured through necessary reviews including acceptability (expert review) and confirmability (re-review by experts), and in the priority-setting phase, the content of the matrix questionnaire was verified for understandability and clarity by five academic and organizational experts, and reliability was calculated with inconsistency rates between 0.01 to 0.06. Qualitative data were analyzed through theoretical coding, and priority-setting data were analyzed using the Analytic Hierarchy Process (AHP) technique in Expert Choice software. **Results:** The results of the qualitative part indicated that the quality educational scaffolding model in the Iranian secondary education system consists of 10 categories (development of human and non-human resources, improvement and development of the educational system, teaching-learning methods, culture building and communications, supportive laws and behaviors, performance monitoring, strategies based on cognition and metacognition, motivation-based strategies, mental development, and scientific advancement), 21 subcategories (human resource development, student empowerment, development of hardware and software facilities, participatory and interactive teaching, task simplification, virtual learning, teaching based on scientific theories, culture building among parents and teachers, effective communication, supportive behaviors, internal and external organizational strategies and guidelines, mental and academic engagement, continuous assessment, metacognitive strategies, cognitive strategies, cognitive and metacognitive strategies, motivational strategies, psychological well-being, actualization of potential talents, improvement of learning process and academic progress), and 134 indicators which were categorized under causal, contextual, interventional, strategies, and outcomes in the research's paradigmatic model. **Conclusion:** The results of the priority-setting part also indicated the greater importance of "outcomes" and the component of "academic progress".



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Introduction

Educational scaffolding, as one of the interactive features in the self-assessment discourse model, manifests in three phases: instructional content, skills, and systems, and in the classroom phase (Khatib & Kardoust, 2020). Recently, there has been a growing interest in the concept of educational scaffolding as a dynamic, multifaceted, and evolving structure due to its impact on teachers' professional growth and students' learning (Kamrani, Tajeddin, & Alami, 2022). Over the past decades, teachers' understanding of learning has expanded, and they are replacing their role as knowledge transmitters with the creation of student-centered and knowledge-centered classrooms. This shift has opened more avenues for scaffolding. It is assumed that focusing on the nature and types of scaffoldings and their impact on learners' language skills is a prerequisite for language learning. Scaffolding is effectively "a bridge used to build upon what learners already know to arrive at something they do not know. If well managed, it acts as an enabler, not a disabler." Operationally, scaffolding is defined as a set of strategies that teachers use to progressively advance learners (Ekati, Mojouzi, & Peyshadast, 2022). Numerous studies have been conducted on the utilization of educational scaffolds in learning environments, but there is limited empirical evidence on the impact of educational scaffolding strategies on learning and retention (Sami'ee-Zafarghandi & Iravani-Mansh, 2017). In the early 1980s, researchers related scaffolding to Vygotsky's concept of the Zone of Proximal Development (1978). The term scaffolding traces back to the studies of Wood, Bruner, and Ross (1976), which suggested that educational scaffolding could enhance students' learning. Teachers should control the components of learning tasks beyond learners' capacity and allow them to study and complete parts of the lesson within their ability. In this approach, teachers, using various methods, create a safe space for learners to encourage them to engage in learning through interaction with peers and teachers (McCluskey, Orr, Stack, & Kleskova, 2010). Factors influencing learners' performance include metacognitive skills, motivation level, and prior knowledge (Mayer & Alexander, 2011). Educational scaffolding is a temporary support aimed at

developing independent thinking and learning skills in learners, gradually removed as learners become less dependent. Teachers initially take most of the responsibility but gradually transfer it to learners (Saif, 2022). Generally, educational scaffolding is defined as the process of actively involving learners in managing their learning and acquiring skills (Rahimi-Doust, 2013).

The study by Ekati, Mojouzi, and Peyshadast (2022) on enhancing writing ability through scaffolding techniques showed that these techniques consistently improve learners' writing skills. Kamrani, Tajeddin, and Alami (2022) examined scaffolding in content-focused online education, finding that the goal of scaffolding is more related to strengthening students' cognitive structures, controlling frustration, and enhancing their participation in the learning process. Also, cognitive learning of concepts was identified as a key objective of teachers' scaffolding. Teachers used various activities to engage students in the scaffolding process. The research by Khatib and Kardoust (2020) on the manifestation of scaffolding in different classroom phases for teachers showed that teachers transmitted more information in the phases of instructional content, systems, and skills, and less in the classroom phase. Sami'ee-Zafarghandi and Iravani-Mansh's (2017) study on the utilization of educational scaffolding strategies and their impact on students' learning and retention demonstrated that using scaffolding strategies in teaching mathematics increased learning and retention compared to traditional methods. Taghi-Zadeh and Aghakasiri's (2016) research on supporting learners in e-learning environments showed that technological scaffolds could provide procedural and metacognitive support for daily classroom activities, thus supporting the flow of classroom learning. Heo's (2022) study on teacher scaffolding and language learning for students with supported backgrounds showed that teachers serving students in language classes should prepare various scaffolds and approach students' social-emotional learning and behavior with non-judgmental attitudes and constructive approaches. Sun, Rocamora, Siclander, Li, and Dolin's (2021) study on elementary students and scaffolding in digital game-based learning identified both general classroom and individual strategies, both having

significant impacts on students' learning activities and mathematical perceptions in digital games in primary education. The research by Schutz, Danielson, and Cohen (2019) on approximation in English language arts: Scaffolding joint instructional teaching showed that teacher educators invested in four capital tools that scaffold approximations into spaces for creating joint coordination of action, including instructional activities, repeated practice representations, planning templates, and specified texts and learning objectives. Kim and Lim's (2019) study on promoting learning in online and decentralized problem-solving showed that the reflective scaffolding group scored higher in cognitive and social presence, as well as representation, monitoring, and evaluation of problems in problem-solving than the supportive scaffolding group. The reflective scaffolding group also showed higher progress than the supportive group. Lefstein, Wader Weiss, Tabak, and Segal's (2018) study on learner agency in educational scaffolding: The case of teacher coaching used ethnographic methods of language to examine 14 coaching sessions, finding that coaching interaction involved joint participation in professional work. Multiple roles of creating opportunities and commitments for coordinators in doing their work and thus creating scaffolding interactions were observed.

Method

The research methodology was a mixed approach, and the research design was of a mixed-type. The statistical population in the qualitative part included experts and specialists in the field of learning-teaching, teaching methods, and scaffolding, as well as related written documents such as articles, scientific research, and relevant authored books. The population was determined using snowball sampling for experts and purposive sampling for documents, resulting in 13 experts and 18 documents (texts) aligned with the research objectives. Criteria for expert selection for interviews included proficiency in learning-teaching, teaching methods, and scaffolding approach. Snowball sampling was used until theoretical saturation was reached, selecting 13 individuals. The statistical population in the priority-setting section consisted of senior and middle managers of education department deputies, with 35 experts and specialists selected using purposive sampling.

Materials

1. Semi-structured interview: In the qualitative part of the research, semi-structured interviews were used as the data collection tool. Validity and reliability in the qualitative stage were ensured through necessary reviews including acceptability (expert review) and confirmability (expert re-review).

2. Matrix Questionnaire: In the priority-setting part, a matrix questionnaire was utilized. For data validity in the priority-setting phase, the content of the matrix questionnaire was confirmed for comprehensibility, clarity, and expressiveness by five academic and organizational experts, with amendments made for accuracy. For data reliability in the priority-setting phase, the inconsistency rate of the questionnaire's criteria was determined. If the inconsistency rate was less than or equal to 0.1, the system's consistency was deemed acceptable. The reliability of the matrix questionnaire was considered adequate with inconsistency rates between 0.01 and 0.06.

Implementation

Initially, the statistical population was identified, followed by the selection of samples for interviews and data collection using various sampling methods. Data were then collected using semi-structured interviews and the matrix questionnaire, with qualitative data analyzed through thematic analysis and quantitative data through factor weighting.

Results

Demographically, in both parts of the research, the majority of participants were male with doctoral degrees. The main focus of the qualitative part was exploring and discovering factors influencing the element, criterion, and indicators related to the scaffolding model for secondary school students as the primary concept. To achieve this, criteria and indicators were organized based on open and axial coding of content analysis data from texts and in-depth exploratory interviews with key experts. Initially, data at the sentence and phrase level were analyzed for each interview and text, extracting conceptual codes from interview transcripts and texts. Subsequently, these criteria and indicators were organized into factors through refinement and reduction, with continuous review for naming. To ensure appropriate organization, interview transcripts were reviewed again, and these indicators were

examined to achieve logical saturation for factors and criteria. Open and axial coding ceased when a meaningful classification was obtained after several reviews of interview transcripts. Overall, the qualitative data analysis yielded 544 initial conceptual codes. After reviewing these codes and eliminating duplicates (410 codes), 134 codes were ultimately identified. The qualitative findings

are presented as results of thematic analysis and concept coding. The initial step in this phase was open coding. Here, common concepts from recorded units were enumerated and common codes counted. After reviewing these codes, duplicates were eliminated, reducing the initial 544 codes to 134. In axial coding, from these 134 common codes, coding was completed with common codes (134 codes).

Table 1. Axial and Selective Codes

Row	Factor (Selective Code)	Criterion (Axial Code)
1	Development of Human and Non-Human Resources	Human Resource Development
2		Empowerment of Students
3		Development of Hardware and Software Facilities
4	Improvement and Development of the Educational System	Collaborative and Interactive Teaching
5		Simplification of Tasks
6	Teaching-Learning Methods	Virtual Learning
7		Teaching Based on Scientific Theories
8	Culture Building and Communications	Culture Building Among Parents and Teachers
9		Effective Communication
10	Scaffolding	
11	Supportive Laws and Behaviors	Supportive Behaviors
12		Strategies and Instructions for Internal and External Organizational Activities
13	Performance Monitoring	Cognitive and Academic Engagement
14		Continuous Assessment
15	Strategies Based on Cognition and Metacognition	Metacognitive Strategies
16		Cognitive Strategies
17		Cognitive and Metacognitive Strategies
18	Motivation-Based Strategies	Motivational Strategies
19	Mental Progress	Psychological Well-being
20		Realization of Potential Talents
21	Scientific Progress	Improvement of Learning Processes
22		Academic Progress

Finally, the table below presents the results of selective coding, where in this coding phase, 134 common codes, categorized under 21

criteria (and one central phenomenon), were grouped under 10 factors.

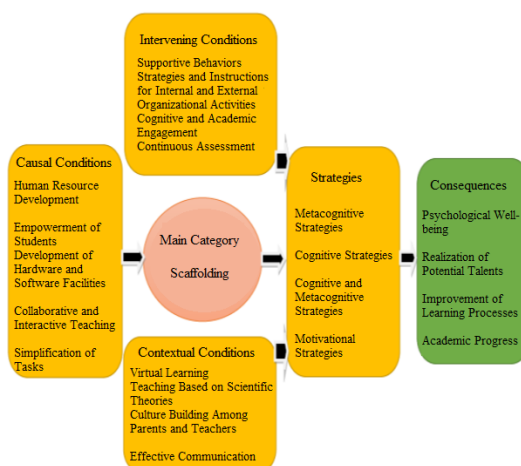


Figure 1. Paradigm model of study

In the priority-setting section, based on the matrix questionnaire and responses from 35 selected experts, the components of the

qualitative model of educational scaffolding in Iran's secondary education system were ranked.

Table 2: Components of the Quality Model for Educational Scaffolding in the Iranian Secondary Education System

Main Components	Weight	Rank
Causal Condition	0.171	3
Contextual Conditions	0.084	4
Intervening Conditions	0.073	5
Strategies	0.261	2
Consequences	0.411	1

Finally, a general ranking of the dimensions of the research model was conducted. The 5 categories of model components, in general,

included 21 elements, and the results of their overall ranking are presented below:

Table 3: Overall Ranking of the Components of the Quality Model for Educational Scaffolding in the Iranian Secondary Education System

Indicator	Components	Weight	Rank
CC1	Human Resource Development	0.076	5
CC2	Empowerment of Students	0.051	7
CC3	Development of Hardware and Software Facilities	0.019	16
CC4	Collaborative and Interactive Teaching	0.028	13
CC5	Simplification of Tasks	0.039	9
BC1	Virtual Learning	0.037	11
BC2	Teaching Based on Scientific Theories	0.014	17
BC3	Culture Building Among Parents and Teachers	0.026	14
BC4	Effective Communication	0.013	18
IC1	Supportive Behaviors	0.013	19
IC2	Strategies and Instructions for Internal and External Organizational Activities	0.008	20
IC3	Cognitive and Academic Engagement	0.032	12
IC4	Continuous Assessment	0.005	21
Strategy1	Metacognitive Strategies	0.026	15
Strategy2	Cognitive Strategies	0.038	10
Strategy3	Cognitive and Metacognitive Strategies	0.079	4
Strategy4	Motivational Strategies	0.115	2
Results1	Psychological Well-being	0.044	8
Results2	Realization of Potential Talents	0.075	6
Results3	Improvement of Learning Processes	0.08	3
Results4	Academic Progress	0.182	1

According to the table above, the ranking results based on the obtained weights also confirm that, from the experts' perspective, the components: Academic Progress with a final weight vector of "0.182", Motivational Strategies with a final weight vector of "0.115", Improvement of the Learning Process with a final weight vector of "0.08", and Cognitive and Metacognitive Strategies with a final weight vector of "0.079" are of the utmost importance and priority among all components (21 elements) of the model. Furthermore, the components: Continuous

Evaluation with a final weight vector of "0.005", Internal and External Organizational Strategies and Guidelines with a final weight vector of "0.008", Supportive Behaviors with a final weight vector of "0.013", and Effective Communication with a final weight vector of "0.013", have the least importance and priority among all components (21 elements) of the model. The inconsistency rate of the entire model is 0.06, thus these components are consistent and reliable.

Conclusion

The purpose of the present research was to determine and rank the components of the qualitative model of educational scaffolding in Iran's secondary education system. The research method was mixed qualitative-quantitative. The population for the qualitative part included experts and specialists in the field of learning-teaching, teaching methods, and scaffolding, as well as written documents related to the topic, including scientific articles, research, and related textbooks. In the priority-setting section, 35 high and middle-level education department managers responded to the matrix questionnaire. The qualitative results indicated that the educational scaffolding qualitative model in Iran's secondary education system comprises 10 categories (development of human and non-human resources, improvement and development of the educational system, teaching-learning methods, culture building and communication, supportive laws and behaviors, performance monitoring, cognitive and metacognitive strategies, motivational strategies, mental advancement, and academic progress), 21 subcategories, and 134 indicators, fitting into the paradigm model's causal, contextual, interventional, strategic, and consequential conditions. The priority-setting results also emphasized the greater importance of "Outcomes" and the component of "Academic Progress."

According to Ekati, Mojoozi, and Pishdad's (2021) results regarding enhancing writing skills through scaffolding techniques, metacognitive, motivational, and technology-based scaffolding techniques consistently improve students' writing skills. In this research, the components of "Empowerment of Students" and "Development of Hardware and Software Facilities" explained the "Causal Conditions" while the components of "Metacognitive Strategies" and "Motivational Strategies" explained the "Strategies" in the current research's paradigm model. Hence, the results align with those of Ekati, Mojoozi, and Pishdad (2021).

Results from Mohammadlou and Mohammadlou's (2021) research on the use of educational scaffolding strategies in mathematics learning showed an increase in students' interest and motivation in solving math problems, improved problem-solving skills, participation in group activities, learning

organizational methods, following learning goals, and reduced failures during problem-solving. In the current study, the component of "Collaborative Teaching" explained the "Causal Conditions," "Teaching Based on Scientific Theories" explained the "Contextual Conditions," "Motivational Strategies" explained the "Strategies," and "Improvement of the Learning Process" explained the "Outcomes" in the paradigm model. Therefore, the results are consistent with those of Mohammadlou and Mohammadlou (2021).

Results from Khatib and Kardoost's (2020) research on scaffolding in different classroom phases for teachers showed that teachers transmitted more information in the phases of lesson content, systems, and skills using models and cues, while less information was provided in the classroom phase. Novice teachers used more overlapping and initiating structures that disrupted learner interaction, whereas experienced teachers created more interactive environments. In this research, the component of "Collaborative Teaching" explained the "Causal Conditions," and "Teaching Based on Scientific Theories" explained the "Contextual Conditions" in the paradigm model. Thus, the results align with those of Khatib and Kardoost (2020).

Results from Asadi Piran, Afras, and Razmjoo's (2019) research on the impact of various scaffolding methods on students' reading abilities and styles showed that traditional and virtual scaffolding methods had different effects on developing global reading, problem-solving, and supportive strategies among Iranian students. The hard scaffolding group (as a traditional scaffolding group) and subsequently the virtual scaffolding group used reading strategies the most. In the current study, the components of "Empowerment of Students" and "Development of Hardware and Software Facilities" explained the "Causal Conditions," while "Virtual Learning" explained the "Contextual Conditions" in the paradigm model. Therefore, the results are consistent with those of Asadi Piran, Afras, and Razmjoo (2019).

Results from Arefi, Khazaei, and Khazaei's (2019) research on educational scaffolding strategies and their effectiveness on students' learning and motivation for progress demonstrated that lesson plans based on educational scaffolding strategies are effective

for learning and progress motivation. In this research, the components of "Improvement of the Learning Process" and "Academic Progress" explained the "Outcomes" in the paradigm model. Hence, the results are in line with those of Arefi, Khazaei, and Khazaei (2019).

Results from Mostafa'i Alai, Kardoost, and Saeidian's (2018) research on the role of visual educational scaffolding in enhancing students' writing abilities showed that visual educational scaffolding helps students better understand the meaning of vocabulary and even some grammatical points in the content. In the current study, the component of "Empowerment of Students" explained the "Causal Conditions," while "Improvement of the Learning Process" explained the "Outcomes" in the paradigm model. Thus, the results align with those of Mostafa'i Alai, Kardoost, and Saeidian (2018).

Results from Samiei-Zafarghandi and Eiravan-Manesh's (2016) research on the use of educational scaffolding strategies and their impact on students' learning and retention demonstrated that employing educational scaffolding strategies in teaching mathematics, compared to conventional methods, increases students' learning and retention. In the current study, the component of "Empowerment of Students" explained the "Causal Conditions," while the components of "Improvement of the Learning Process" and "Academic Progress" explained the "Outcomes" in the paradigm model. Therefore, the results are in harmony with those of Samiei-Zafarghandi and Eiravan-Manesh (2016).

Results from Sharifi, Sharifi, and Sharifi's (2015) research on scaffolding and peer teaching for social learning showed that both scaffolding and peer teaching methods, derived from Vygotsky's Zone of Proximal Development theory, are strategies for improving teaching and learning. In the current study, the component of "Teaching Based on Scientific Theories" explained the "Contextual Conditions" in the paradigm model. Thus, the results align with those of Sharifi, Sharifi, and Sharifi (2015).

Results from Taghi-Zadeh and Aghakathiri's (2015) research on support strategies for learners in electronic learning environments demonstrated that technological scaffolds could provide procedural and metacognitive support for daily classroom activities, thereby supporting the classroom learning flow. In the

current study, the component of "Teaching Based on Scientific Theories" explained the "Contextual Conditions" in the paradigm model. Therefore, the results are consistent with those of Taghi-Zadeh and Aghakathiri (2015).

Results from Gapanchi and Pajoo's (2013) research on scaffolding oral skills and attitudes in English language showed that many participants were unfamiliar with these technologies and considered the use of these media beneficial for developing oral language ability and speaking skills. In the current study, the component of "Development of Hardware and Software Facilities" explained the "Causal Conditions," "Virtual Learning" explained the "Contextual Conditions," and "Improvement of the Learning Process" explained the "Outcomes" in the paradigm model. Hence, the results align with those of Gapanchi and Pajoo (2013).

The research results by Etemadfar, Zarei Zavaraki, and Abbaspour (2014) regarding the impact of blended mentoring based on strategic knowledge scaffolding on learning and retention showed that blended mentoring significantly influenced learning and retention, especially in developing managerial competencies requiring high-level learning. In the present study, the components "Development of Human Resources" and "Development of Hardware and Software Facilities" explained the "Causal Conditions," the component "Virtual Learning" explained the "Contextual Conditions," and the component "Improvement of the Learning Process" explained the "Outcomes" in the paradigm model. Therefore, the results align with those of Etemadfar, Zarei Zavaraki, and Abbaspour (2014).

The research by Pourjamshidi, Zanganeh, and Momeni Rad (2014) on educational scaffolding and its impact on Persian language learning showed that cognitive, technical, procedural, metacognitive, and motivational scaffolding positively and significantly predicted Persian language learning among non-Iranian Persian learners. In the present study, the components "Cognitive Strategies," "Metacognitive Strategies," and "Motivational Strategies" explained the "Strategies," and the component "Improvement of the Learning Process" explained the "Outcomes." Therefore, the results align with those of Pourjamshidi, Zanganeh, and Momeni Rad (2014).

Findings by Rahimi-Doust, Norouzi, Ferdanesh, and Amirtimouri (2013) regarding educational scaffolding in a computer-based problem-solving learning environment showed that optimal educational scaffolding based on learners' metacognitive skills requires the use of metacognitive scaffolding strategies. In the current research, the component "Development of Hardware and Software Facilities" explained the "Causal Conditions," "Virtual Learning" the "Contextual Conditions," and "Metacognitive Strategies" the "Strategies." Therefore, the results align with those of Rahimi-Doust et al. (2013).

Research by Heo (2022) on teacher scaffolding and language learning in immersive classes showed that teachers serving young learners in language classes should prepare scaffolding in various ways and pay attention to students' social-emotional learning with non-judgmental attitudes and constructive approaches. In the present study, the components "Improvement of the Learning Process" and "Psychological Well-being" explained the "Outcomes." Therefore, the results align with Heo's (2022) findings.

Research by Yang (2022) on the scaffolding of Chinese university students' English argumentative writing demonstrated that introducing Toulmin's model of argumentation through scaffolding had a significant impact on most argumentative elements in students' writings. In the current study, the component "Teaching Based on Scientific Theories" explained the "Contextual Conditions," and "Improvement of the Learning Process" the "Outcomes." Therefore, the results align with Yang's (2022) findings.

Research by San, Rokamo, Siklander, Li, and Dolin (2021) on scaffolding in digital game-based learning in mathematics identified general classroom and one-on-one strategies, both of which had a significant impact on students' learning activities and mathematical perceptions in digital games in primary education. In the current study, the components "Development of Hardware and Software Facilities," "Virtual Learning," "Improvement of the Learning Process," and "Academic Progress" explained the "Outcomes." Therefore, the results align with those of San et al. (2021).

Research by Maxic and Jusic (2021) on scaffolding for creativity development from students' perspectives led to defining four types

of scaffolding for creativity: cognitive, social, motivational, and cultural. In the present study, the components "Cognitive Strategies" and "Motivational Strategies" explained the "Strategies," and "Realization of Potential Talents" the "Outcomes." Therefore, the results align with Maxic and Jusic's (2021) findings.

Research by Gunawardena and Wilson (2021) on critical thinking for students with scaffolding showed that teachers can help develop critical thinking in students by creating a culture of thinking in class with explicit scaffolding. In the current study, the component "Realization of Potential Talents" explained the "Outcomes." Therefore, the results align with Gunawardena and Wilson's (2021) findings.

Research by Beck, Jones, Storm, and Smith (2020) on scaffolding for students' writing processes through dialogue assessment emphasized the improvement of students' writing processes through scaffolding. In the current study, the component "Improvement of the Learning Process" explained the "Outcomes." Therefore, the results align with Beck et al.'s (2020) findings.

Research by Kim and Lim (2019) on promoting learning in online and decentralized problem-solving showed the positive impact of scaffolding designs on indirect online problem-solving activities in relation to learner characteristics. In the current study, the component "Improvement of the Learning Process" explained the "Outcomes." Therefore, the results align with Kim and Lim's (2019) findings.

Research by Hasan (2018) on the impact of motivational scaffolding on writing skills acquisition indicated a positive effect of motivational scaffolding on acquiring writing skills. In the current study, the components "Motivational Strategies" and "Academic Progress" explained the "Outcomes." Therefore, the results align with Hasan's (2018) findings.

Research by Li (2017) on educational scaffolding in teaching English based on an online writing platform emphasized the increase in students' interest in writing and improvement in their writing skills. In the current study, the components "Development of Hardware and Software Facilities," "Virtual Learning," and "Academic Progress" explained the "Outcomes." Therefore, the results align with Li's (2017) findings.

Research by Zakaria, Kerr, and Griffin (2016) on educational scaffolding showed that the development model improves the learning of both strong and weak students, creating significant progress in student performance across all ability groups. In the current study, the component "Academic Progress" explained the "Outcomes." Therefore, the results align with Zakaria, Kerr, and Griffin's (2016) findings.

Conflict of Interest

According to the authors, this article has no financial sponsor or conflict of interest.

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