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SCAFFOLDING STRATEGIES FOR DIVERSE LEARNERS: EXAMINING THEIR SUPPORT ON MASTERY AND INDEPENDENCE IN INCLUSIVE CLASSROOMS

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ABSTRACT

This study examined the scaffolding strategies used in inclusive classrooms at Riyadh International School, Saudi Arabia (2025-2026), and their relationship to learners' mastery and independence. Using a descriptive–correlational research design, the study involved 32 respondents composed of teachers (56%) and learning support staff (44%). Data were collected through a validated researcher-made questionnaire and analyzed using frequency and percentage, weighted mean, standard deviation, and Pearson's correlation coefficient at the 0.05 level of significance. The findings revealed that scaffolding strategies were highly implemented (WM = 4.25, SD = 0.72), with modeling (WM = 4.49) and feedback (WM = 4.45) being the most frequently used strategies, while peer teaching (WM = 3.56, SD = 1.11) was the least implemented. Learners demonstrated frequent mastery (WM = 4.06) and independence (WM = 3.98), with strengths in applying learned skills but weaker performance in goal setting and self-monitoring. Correlation analysis showed significant positive relationships between scaffolding strategies and learner mastery (r = 0.416–0.628) and learner independence (r = 0.503–0.708), indicating that effective scaffolding contributes to improved learning outcomes.

The study concludes that scaffolding strategies play a vital role in promoting both mastery and independence in inclusive classrooms. However, greater emphasis is needed on developing learner autonomy and self-regulation. It is recommended that Riyadh International School strengthen professional development, increase student-centered learning opportunities, promote goal-setting and peer learning, and regularly monitor instructional practices to enhance the effective implementation of scaffolding strategies.

KEYWORDS: *Inclusive Education, Scaffolding Strategies, Learner Mastery, Learner Independence, Multicultural Classrooms, Professional Development.*

I. INTRODUCTION

The focus on inclusive learning is the main purpose in most systems of education. Learning opportunities should be made more accessible to learners with varying backgrounds, regardless of their abilities or social, economic, and ethnic status, and schools should provide more differentiated and appropriate approaches. Diversity in preparation, language proficiency, mode of instruction, and stages of development are inherent to learners in any inclusive classroom setting; therefore, teachers ought to utilize instructional approaches responsive to the students' needs and focused on enhancing learners' capacity for engagement, independence, and effective learning (Hattie and Timperley, 2007; Rosenshine, 2012).

Although inclusive practices are now very widespread, concerns have been expressed about student reliance on instructional support and students' ability to learn and develop skills as independent learners. Far too many students are still provided with explicit instruction, prompting, and significant guidance that prevent them from developing self-regulation skills, the ability to solve their own problems, and the capacity to make independent judgments. The difficulty is to provide instructive support whilst at the same time providing students with increasing levels of control over their learning. This task is furthermore complicated in classrooms which comprise significant linguistic and cultural diversity, since students' learning strategies are affected. The effect that strategies have on learners (e.g., Direct vs. Student-led)is shaped by learners' prior education (van de Pol et al., 2010; Zhang et al., 2017).

Strategies have been widely discussed, proposed, and explored as effective means for scaffolding knowledge acquisition and skill-acquisition performance and capabilities. Learners take on this responsibility by applying various strategies such as modeling, prompting, practice, and feedback. Not surprisingly, research into using scaffolding effectively to support independent, learning-responsive learners within multicultural/inclusive settings seems scant in the extant research field. These provide a framework for which a teacher needs to be equipped to address the spectrum of learning needs that may be experienced within her classroom and curriculum.

This study investigates the effectiveness of scaffolding strategies in promoting both subject mastery and learner independence among students in inclusive classrooms at Riyadh International School, drawing on Vygotsky's Social Constructivism, Bandura's Social Learning Theory, and Scaffolding Theory. More specifically, it reviews current scaffolding approaches, assesses their contribution to academic mastery and independent learning, and makes evidence-based recommendations for increasing inclusive instructional practices. The findings are likely to inform the development of culturally relevant and flexible scaffolding approaches that encourage student achievement and independence in varied educational contexts.

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1.1 Statement of the Problem

1. What is the profile of the respondents in terms of role, years of experience, area of assignment, and number of learners in inclusive classrooms?
2. What scaffolding strategies are employed by teachers and learning support staff in inclusive classrooms in terms of modeling tasks and procedures, prompting learners to think critically, guided practice, giving timely and constructive feedback, and gradual release of responsibility?
3. What is the perceived level of learners' mastery and independence in inclusive classrooms when scaffolding strategies are utilized?
4. Is there a significant relationship between scaffolding strategies and learners' mastery of lessons in inclusive classrooms?
5. Is there a significant relationship between scaffolding strategies and learners' independence in completing tasks in inclusive classrooms?
6. Based on the findings of the study, what action plan may be proposed to enhance scaffolding strategies in inclusive education?

2. REVIEW OF RELATED LITERATURES AND STUDIES

The current literature consistently demonstrates that scaffolding tactics have a favorable impact on learners' academic progress, engagement and independence. According to Azzaroiha et al. (2025) scaffolding increases cognitive success, higher order thinking skills, problem solving skills, motivation and learner autonomy. Correspondingly, it has been found by Rahmat et al. (2021) that assisted teaching with dialogues and practical engagement increased learning satisfaction, confidence and sense of responsibility. Moreover, it has been demonstrated by Nguyen (2022) that guided teaching with staged removing of support helped to improve both the learners' learning the autonomy development. In a related approach, it has been studied by Shao et al. (2023) that scaffold in controlled teaching is of vital importance to the improve the learners' self-regulation and performance.

The use of scaffolding has been identified as significant instructional practice in facilitating diverse learners inclusive classroom. In the case of students with heterogeneous learning needs, scaffoldings have contributed significantly to students' social-emotional and academic growth according to Garg (2024). For example, learning has developed significantly among students after teachers adopted such scaffoldings as guided practice, prompts and questions, and visual aids (Manuel, 2025). It has resulted in enhancement in their learning efficacy, engagement and even academic performance as well. Scaffoldings have successfully promoted learners' autonomy, metacognitive knowledge and academic achievements (Cheung & Heng, 2025).

However, even with all this positive data there are serious lacunae as most research has either taken place in or focused on higher education, on-line distance education or confined classroom environments. The specific environments of multicultural, inclusive schools have received minimal attention. In addition, while scaffolding is often associated with academic success, few research have studied its concurrent effects on learner mastery and independence. Therefore, the present study explores the scaffolding strategies used by teachers and learning support staff at Riyadh International School and their association with learners' mastery and independence in inclusive classrooms. The results are anticipated to guide evidence-based suggestions for enhancing scaffolding practices and inclusive educational strategies.

II. RESEARCH METHODOLOGY

Research Design

This study used a descriptive-correlational approach to investigate the types of instructional supports for learning, referred to as scaffolds, and their relationship with students' achievement and autonomy in inclusive classrooms at Riyadh International School. The descriptive phase described the profile of the students (i.e., Respondents), the types of instructional support utilized by classroom teachers and learning support staff, and the level of their achievement and independence; the correlational phase examined the correlation between instructional support and the outcomes. This approach was adequate because it allowed researchers to describe the phenomenon (i.e., the Practice of teaching in the inclusive classroom). Moreover, it allowed researchers to examine the relationship between variables without manipulating dependent variables, which would save time and budget.

Population, Sampling, and Research Locale

This study was conducted at the Riyadh International School, Riyadh, Saudi Arabia. This school enrolls and educates student population reflecting many cultures, racial groups and lingual variations from many field areas and fields of the study. Given the setting's diverse learner population and inclusive education policy, it was used to examine effective scaffolds within an inclusive classroom. A purposive sampling strategy was employed to select informants from relevant stakeholders of the sampled organization due to direct implication in an inclusive teaching context.

Respondents of the Study

The participants comprised 32 educational practitioners, with 18 being teachers (56.25%) and 14 being learning support personnel (43.75%). Their active participation in curriculum design, classroom execution, intervention strategies, and student assistance yielded significant insights regarding the application of scaffolding techniques and their impact on student proficiency and autonomy.

Research Instrument

Data were collected by researcher-made-questionnaire which has three part: The first part gathered respondent's profile/background information (respondent role, years of teaching experiences, place of assignment, and number of students in inclusive class). The second part focused on the level of scaffolding instructional approaches used in modeling, exhortation, coaching, prompting, questioning, feedback, and assisted task completion. The third part focuses on learner mastery of lesson's objectives and independence of student while doing their task. The measurements of Likert 5-points scales were Strongly Disagree (1) to Strongly Agree (5). The contents of the instruments were guaranteed by experts. The

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researcher confirmed the reliable information in order to know well if the instruments were fit. Therefore the instrument was pilot-tested in the study with suitable number of respondents to the relevant characteristics, in order to assure reliable data.

Data Gathering Procedure

Consisted of three steps; data collecting (before collection), data collecting and data collecting (after collection). In pre data collection part the questionnaire prepared to pilot test with some expert and it revised according to their advice. The study approved by school administration. In data collection phase the researcher distributed the questionnaire to the teacher and learning support staff and they were asked for signed a permission paper. After the researcher got back all the answered questionnaire, the researcher checked if there was any not filled answers and they were entered to tabulation table. In post data collection phase the data of collected questionnaire have been coded and then transferred into tabulation table and calculated based on statistical calculation as planned.

Statistical Treatment

The socio demographic characteristics of the respondents were presented in terms of frequencies and percentages. Data on the type of scaffolding strategies employed were treated for frequencies. The degree of skill and independence of learners were treated for weighted mean and standard deviation. A Product Moment Correlation coefficient of correlation (Pearson r) was used to assess the association between the scaffolds on learners; skill, as well as between scaffolding and learners ; independence. All tests will be tested at a 0.05 level of significance.

III. RESULTS AND DISCUSSION

Demographic profile of the respondents in terms of role, years of experience, area of assignment, and number of learners in inclusive classrooms

Table 1.1: Role of the Respondents

Groups	Frequency (f)	Percent
Teacher	18	56.25%
Support Staff	14	43.75%
Total	**32**	**100.00**

Table 1.1 shown the distribution of respondents by their responsibilities in the implementation of inclusive education. Out of the 32 respondents, 18 (56.25%) were teachers and 14 (43.75%) were learning support workers. Results show fairly equal representation of both groups which is in line with the collaborative spirit of inclusive education practices at Riyadh International School.

The engagement of teachers and support personnel provides a comprehensive perspective of the application of scaffolding tactics and their impact on learners' mastery and independence. This shows that inclusive instruction is strengthened by the shared duties of educational professionals who directly help learners with various needs. The finding also aligned the work done by Rahmat et al. (2021). Guided practice, dialogue and tasks guided by the teachers and the support personnels assisted learner gain understandings, participate and share the responsibility of learning. These activities are an indication of need for collaborative instructional support for successful learning to be held within inclusive educational context.

Table 1.2: Years of Teaching Experience

Age Range	Teachers		Support Staff		Total	
	Freq	%	Freq	%	Freq	%
11 years & above	11	34.38	4	12.50	15	46.88
6 to 10 years	2	6.25	4	12.50	6	18.75
3 to 5 years	3	9.38	4	12.50	7	21.88
0 to 2 years	2	6.25	2	6.25	4	12.50
Sub-Total	**18**	**56.25**	**14**	**43.75**	**32**	**100.00**

Table 1.2 shown the distribution of respondents by years of teaching experience. 46.88 % (n=15) had been in teaching field > or = 11 years, the lowest of respondent (12.50 %, n=4) falls in group who had 0-2 years' experience. 21.88% (n=7) group falls in three-five years in teaching field and 18.75 %(n=6) falls in six-ten years teaching field.

Thus the study shows that most of respondents have been practicing teachers or been supported as members of faculty which suggests a high level of proficiency with curriculum or supporting procedures or student needs in teaching practices. The successful application of scaffolding techniques that support students' mastery and independence in inclusive classrooms may benefit from their vast professional experience. The school's ability to offer organized and adaptable support for students with a range of needs is further demonstrated by the significant number of seasoned practitioners. The lower percentage of less experienced staff, however, emphasizes how crucial it is to pursue ongoing professional development in order to guarantee the uniform and successful use of inclusive teaching methods across all experience levels.

The results align with that of Graham et al. (2020) who revealed that providing additional support and continuous Professional development helps to equip even novices with better instructional support skills than even experienced teachers which means in all capacity building initiatives to

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support with instructional quality including scaffolding quality in inclusive educational setting.

Scaffolding strategies are employed by teachers and learning support staff in inclusive classrooms in terms of modeling tasks and procedures, prompting learners to think critically, guided practice, giving timely and constructive feedback, and gradual release of responsibility

Table 2: Composite mean on the scaffolding strategies are employed by teachers and learning support staff in inclusive classrooms in terms of modeling tasks and procedures, prompting learners to think critically, guided practice, giving timely and constructive feedback, and gradual release of responsibility

No	Sub-variables	Mean	SD	VD
1	Modeling tasks and procedures	4.49	0.78	Highly Implemented
2	Prompting learners to think critically	4.15	0.81	Frequently Implemented
3	Guided practice	4.43	0.72	Highly Implemented
4	Giving timely and constructive feedback	4.45	0.69	Highly Implemented
5	Gradual release of responsibility	3.96	0.99	Frequently Implemented
	Overall	**4.29**	**0.88**	**Highly Implemented**

Legend: 4.20-5.00 Strongly Agree (Highly Implemented); 3.40-4.19 Agree (Frequently Implemented); 2.60-3.39 Neutral (Occasionally Implemented); 1.80-2.59 Disagree (Rarely Implemented); 1.00-1.79 Strongly Disagree (Not Implemented)

Table 2 display the overall use of scaffolding strategies by teachers and learning support workers in inclusive classes at Riyadh International School. Results demonstrated that scaffolding strategies were Highly Implemented (M=4.29, SD=0.88). Leading with the highest means the variables included: providing modelling tasks and processes (M=4.49, SD=0.78), the provisioning of just-in-time and useful information (M=4.45, SD=0.69), guided practice (M=4.43, SD=0.72) and all of them were considered as Highly Implemented. With the least M(mean) was the provision gradually unloading of responsibility(M=3.96, SD=0.99), which in turn would fall in the 'Frequently Implemented' group'.

Findings suggest that teachers and learning support staff routinely employ scaffolding strategies to aid diverse learners in inclusive classrooms. Modelling, strongly implemented, shows that teachers often demonstrate activities, give examples, and explain procedures to aid in learning. Similarly, the high scores for guided practice and constructive comments indicate that learners are provided with continual support, monitoring and remedial advice during the learning process. However, the comparatively lower score for gradual transfer of responsibility implies that possibilities for learners to autonomously apply information and take greater ownership of learning may still be enhanced.

This confirms the research by Taber (2018) which explained that good scaffolding comes in the form of supported instruction within the learners' Zone of Proximal development and to gradually fade the scaffolding as skills progress. It also aligns with Salehomoum et al. (2022) which stated that using the Gradual Release of Responsibility approach to teaching promotes learners' independence through teachers to learners progress, and Han (2021) and Langelaan et al. (2024) who found out that active teaching, scaffolding, feedback and collaboration strongly increase learner engagement, achievement and independence due to, amongst other things, guided practices. Therefore, to summarize all this, the results support the hypothesis which is to verify whether all scaffolding procedures contributes to an adequate inclusion within an adequate teaching approach, it supports academic achievement as well as the autonomy of the learner.

Level of learners' mastery and independence in inclusive classrooms when scaffolding strategies are used

Table 3.1: Learners' mastery of lessons when scaffolding strategies are used

S/N	Indicators	Mean	SD	VD
1	Learners recall key facts and definitions from scaffolded lessons.	4.22	0.55	Highly observed
2	Learners complete structured tasks correctly after guided instruction within inclusive settings.	4.19	0.64	Frequently Observed
3	Learners apply learned skills to unfamiliar or real-world situations following scaffolded support.	4.03	0.69	Frequently Observed
4	Learners retain knowledge over time after scaffolded lessons.	4.19	0.54	Frequently Observed
5	Learners show measurable improvement in performance after receiving differentiated scaffolding.	4.31	0.64	Highly Observed
6	Learners analyze and evaluate information rather than merely restating what was taught during scaffolded activities.	3.94	0.76	Frequently Observed
7	Learners solve multi-step problems without further assistance after initial scaffolded support.	3.66	0.75	Frequently Observed

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8	Learners connect new knowledge to prior learning during scaffolded instruction.	4.13	0.83	Frequently Observed
9	Learners explain learned concepts in their own words to peers or the teacher after scaffolded lessons.	3.81	1.06	Frequently Observed
10	Learners meet the specific performance standards set for the lesson after scaffolding is provided.	4.13	0.55	Frequently Observed
	Overall	**4.06**	**0.73**	**Frequently Observed**

Legend: 4.20-5.00 Strongly Agree (Highly Implemented); 3.40-4.19 Agree (Frequently Implemented); 2.60-3.39 Neutral (Occasionally Implemented); 1.80-2.59 Disagree (Rarely Implemented); 1.00-1.79 Strongly Disagree (Not Implemented)

Table 3.1 illustrates respondents' views on learners having control over lessons when scaffolded interventions to learners in an inclusive learning classroom context (mean = 4.06; SD = 0.73), which is interpreted linguistically as Frequently Observed on learners having optimum control over lessons when scaffolded instruction was received, mainly in the areas with higher averages, including recall, application of concepts, retention of content knowledge, and attainment of the expected objectives.

Among the elements, learners' achievement in the task after the different, tailored scaffolds was relevant, as evidenced by the highest mean score, and it could be interpreted as Highly Observed (M = 4.31, SD = 0.64). These results reveal that learners' achievements were sensitive to individualized and specific instructional supports. These results also show the extent to which specific scaffolding enables learners to fill their deficit in their previous knowledge and gain learning objectives, which corroborates with the previous study(Manuel, 2025), which revealed that the usage of the scaffolding method improves learners' achievement, participation, and the development of their skills and capacity for teaching learners with diversity.

Conversely, the indicator "Learners solve multi-step problems without further assistance after initial scaffolded support" had the lowest mean score (M = 3.66, SD = 0.75) but was still within the Frequently Observed group. This means that learners can use acquired concepts independently, but solving more difficult tasks without further support is still a growing talent. The study points to the potential for continuous opportunities for supervised practice and gradual release of responsibility to further learners' problem-solving skills.

To sum up, scaffolding techniques have a positive effect on the students' learning environment in an inclusive context. This study, therefore, fits well with a study by Han (2021), which states that scaffolding, cooperative learning, and feedback play a critical role in students' achievement. It also aligns with the research of Azzaroiha et al. (2025), which found that scaffolding promotes increased cognitive performance, problem-solving skills, and higher-order thinking skills, and encourages autonomous learning.

Table 3.2: Learners' independence in completing tasks when scaffolding strategies are used

S/N	Indicators	Mean	SD	VD
1	Learners' complete routine assignments without constant support after scaffolding in inclusive classrooms.	4.06	0.67	Frequently Observed
2	Learners voluntarily contribute ideas during classroom discussions in inclusive settings.	4.34	0.65	Highly Observed
3	Learners' express confidence when presented with challenging tasks after scaffolded instruction.	4.06	0.67	Frequently Observed
4	Learners attempt tasks first before seeking help from the teacher following scaffolded guidance.	3.72	0.73	Frequently Observed
5	Learners set personal learning goals and monitor their own progress after scaffolded support.	3.44	0.95	Frequently Observed
6	Learners follow instructions accurately and submit work on time within inclusive classroom activities.	3.97	0.78	Frequently Observed
7	Learners plan the sequence and resources needed before starting a task after scaffolded modeling.	3.69	0.69	Frequently Observed
8	Learners choose among different strategies when approaching a task in inclusive learning environments.	3.72	0.68	Frequently Observed
9	Learners manage their attention and behavior during activities without reminders after scaffolding is reduced.	3.78	0.66	Frequently Observed
10	Learners persist through unfamiliar or difficult tasks without immediate guidance in inclusive classrooms.	3.59	0.84	Frequently Observed
	Overall	**3.84**	**0.77**	**Frequently Observed**

Legend: 4.20-5.00 Strongly Agree (Highly Implemented); 3.40-4.19 Agree (Frequently Implemented); 2.60-3.39 Neutral (Occasionally Implemented); 1.80-2.59 Disagree (Rarely Implemented); 1.00-1.79 Strongly Disagree (Not Implemented)

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Table 3.2 shows the learners become independent in completing tasks after using scaffolding strategies in inclusive settings. The total overall mean is 3.84 with SD=0.77, which, when reported orally, is expressed as Frequently Observed. This indicates that during the learning process, learners are independent in task execution, decision-making, managing the learning process, and participating in classroom activities.

The indicator with the highest recorded average score (M=4.34, SD=0.65, Highly observed) was the statement: Learners "provide their ideas during group learning for discussion with other classmates in inclusive classrooms." This proves that learners feel they are active participants in lesson learning activities and they are not shy in giving their thoughts in an exclusive classroom settings. Hence, these results showed that the scaffolding activities created a constructive and safe learning environment and allowed learners to feel confident participating and discussing with their classmates. Most importantly, these results are relevant to an exclusive learning context where students possess diverse skills and abilities.

"Learners set goals themselves, test their learning development, once support is removed," with M = .7; SDG = 4.39, although in the Mostly Observed category. This supports that learners start by taking ownership, though they need to develop self-regulation in setting goals and testing self-monitoring. This implies instructors need a better understanding of their learners to foster further opportunities to promote learning ownership and to make learners more goal-minded and reflect on their own learning.

Overall, these findings indicate that scaffolding can have a positive effect on the development of learner independence in inclusive settings. These findings echo the results from Shao et al.'s (2023) analysis. "Regulative" learning scaffolding could make a significant positive impact on self-regulation, learner autonomy, and academic outcomes. In a similar manner to the findings of Cheung and Heng (2025), there were similarities, demonstrating that scaffolding "…could improve learner autonomy, self-efficacy and metacognitive knowledge."

Furthermore, learning independence can be fostered not only through improved learning outcomes but also by assisting students in developing the fundamental learning independence skills required for the inclusive learning environments necessitated by multicultural settings (Hargrave, 2020).

Significant relationship between scaffolding strategies and learners' mastery of lessons in inclusive classrooms

Table 4: Correlative inference between scaffolding strategies and learners' mastery of lessons in an inclusive classroom

Variables under inference	Comp. rho	Strength of Correlation	p-value	Decision	Remarks
Modeling tasks and procedures & mastery of lessons	0.416	Moderate	0.018	Reject Ho	With significant correlation
Prompting learners to think critically & mastery of lessons	0.507	Strong	0.003	Reject Ho	With significant correlation
Guided practice & mastery of lessons	0.479	Moderate	0.006	Reject Ho	With significant correlation
Giving timely and constructive feedback & mastery of lessons	0.461	Moderate	0.008	Reject Ho	With significant correlation
Gradual release of responsibility & mastery of lessons	0.628	Strong	0.000	Reject Ho	With significant correlation

Table 4 shows a correlation between scaffolding tactics and students' mastery of lessons in inclusive classrooms. The findings demonstrated that all dimensions of scaffolding strategies were positively and significantly connected to learners' competence, with correlation coefficients ranging from 0.416 to 0.628 and all corresponding p-values less than 0.05. Consequently, the null hypothesis was rejected in all situations.

The highest positive correlation between learners' mastery and the gradual release of responsibility (= 0.628, p = 0.000) was obtained, which implies that when responsibility for instruction is gradu-ally shifted from teachers' roles to learners' roles, higher learner competence is achieved. Significant positive corre-lation was identified between questioning and prompting the learner in a criti-cal manner (= 0.507, p = 0.003), which indicates that thinking analytically, questioning and using the higher-order thinking was central to the in-depth of learning and some moderately and strongly correlative as between: learner competence and in-tensive practice (= 0.479, p = 0.006), giving of useful comments in time-ly way (= 0.461, p = 0.008) and, modeling of task and proc-esses (= 0.416, p = 0.018).

The research indicates that through these scaffolding strategies, learners learn more deeply, remember and consolidate information, generalize better, and demonstrate higher academic achievement. This research suggests that learning is better when it is mediated through explicit teacher instruction; explicit explanation and demonstration; directed practice through questioning; relevant and constructive feedback; and encouragement for learners to manage their own learning. It was particularly noteworthy how strong the relationship was between gradual release of responsibility and demonstrated mastery learning.

Manuel's (2025) study found that scaffolding behaviors, such as guided participation, question prompts, and instructional prompts, increase engagement, achievement, and

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confidence, significantly improving a student's development. In contrast, Azzaroial et al.'s (2025) study revealed increased cognitive ability, higher-order thinking processes, problem-solving capacity, and increased learning autonomy. Additionally, the large, significant association with a gradual shift of responsibility supports Salehomoum et al. (2022), who proposed that moving control of learn-ing from teacher to students over time results in a better-understood and more durable mastery of learning objectives. In sum, study results suggest- that effective scaffold-ing is essential for learning objectives mastery in inclusive and multicultural classrooms.

Significant relationship between scaffolding strategies and learners' independence in completing tasks in inclusive classrooms

Table 5: Correlative inference between scaffolding strategies and learners' independence in completing tasks in an inclusive classroom

Variables under inference	Comp. rho	Strength of Correlation	p-value	Decision	Remarks
Modeling tasks and procedures & Independence	0.454	Moderate	0.009	Reject Ho	With significant correlation
Prompting learners to think critically & Independence	0.708	Strong	0.000	Reject Ho	With significant correlation
Guided practice & Independence	0.362	Moderate	0.041	Reject Ho	With significant correlation
Giving timely and constructive feedback & Independence	0.559	Strong	0.001	Reject Ho	With significant correlation
Gradual release of responsibility & Independence	0.668	Strong	0.000	Reject Ho	With significant correlation

Table 5 shows the association between scaffolding tactics and learners' freedom in completing tasks in inclusive classrooms. The results showed a positive and significant relationship between all scaffolding strategies and learners' independence, with correlation coefficients ranging from 0.362 to 0.708 ($p < 0.05$). Therefore, the null hypothesis was rejected for all variables. This shows that the use of scaffolding tactics considerably helps in the development of learner independence.

Of the six factors, encouraging students to think critically has a strong and significant positive relationship with student independence (= 0.708, p = 0.000); next is scaffolding, which means the teacher gradually gives ownership and control (= 0.668, p = 0.000). This implies that teaching encourages students to think critically (a learner's independent problem-solving approach), enabling them to self-regulate in task activities so the teacher can scaffold, and learners rely more on themselves when working. Constructive feedback also showed a significant positive correlation with students' independent learning (= 0.559, p = 0.001), implying that providing feedback when the teacher deems it necessary could help students become more self-controlled and empowered during task accomplishment.

Furthermore, modelling activities and processes (= 0.454, p = 0.009) and guided practice (= 0.362, p = 0.041) were positively and moderately correlated with learner independence. These findings show that scaffolding activities and giving guided learning experiences are advantageous in the incremental growth of learners' confidence and competence in performing tasks with less support from the teacher.

Conclusively, the overall findings indicate that scaffolding techniques are a central factor that influences and determines the levels of autonomy of learners in inclusive classrooms, of which guided participation/scaffolding, scaffolding with critical thinking question prompts, and scaffolding for graduated transfer of responsibility showed the highest correlation with autonomy, which emphasized approaches conducive to learners' sense of autonomy, self-direction, and independent problem solving. The finding also resonates with Cheung and Heng (2025), who reported evidence that scaffolding facilitates learners' autonomy, self-efficacy, and metacognition. The result is congruent with Shao et al. (2023), who reported that the use of regulated learning scaffolding significantly affected learners' self-regulation and autonomous learning behaviors. It supports Salehomoum et al. (2022)'s conclusion that gradual release of responsibility provided learners with the tools and methods needed for academic task performance and eventually independent completion of tasks.

Action plan may be developed based on the findings of the study

Enhancement of Implementing Scaffolding Strategies in Inclusive Classroom

The findings led to the development of an action plan entitled "Enhancement of Implementing Scaffolding Strategies in Inclusive Classrooms" to promote the consistent and successful application of scaffolding tactics at Riyadh International School. The program aims to increase the skills and abilities of teachers and learning support workers in using effective scaffolding strategies to support learners' independence and higher learning achievement.

Topic issues in an action plan: 1. To improve knowledge of research-based scaffolding skills of teachers with training programs with schools or with professionals 2. 2. To increase deliberate planning for scaffolding activities in real environments through the use of planning tools, coaching, and

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a set of lesson plans, training, and real-time observations. To improve teachers' reflective skills of scaffolds as follows through observation feedback, training with mentors and team meetings, etc. 4) Increase evidence of implementation and student growth with class observations and collection of data on outcomes. 5) Sustainability of good practices through continuous professional development opportunities and with learning communities.

Framework for Implementation: Four stages of Preparation, Implementation, Monitoring and Evaluation • Preparation Phase-This stage focuses on the preparation of baseline, planning meetings and materials, and delivery of all professional development training to teachers. • Implementation Phase-This phase will be comprised of workshops, mentoring sessions, scaffolding techniques and classroom lectures. To guide teachers' progress, monitoring and observation activities will include on-site visits to check performance on performance goals through class observation visits, staff-room consultative meetings, class-level performance check-ups, and records of learners' learning outcomes. • The evaluation phase will assess the overall influence of the implementation program on teachers' instructional approach and the increase in their learners' mastery and independence in the subject area.

The proposal will provide: improved teacher support, improved consistency in delivery increased learner independence and autonomy, my improved learner engagement, and improved student attainment The project will be funded by an award to the school of SAR165,000 The plan will be implemented in a rigorous, school-centric, evidence-based way which clearly reflects the school's culture and values of inclusivity, a focus on the learner and evidence-based leadership. This promotion of actions to support, offer stability, allow for risk-taking, and create secure, sustained improvements in both Teaching and Student achievement is considered significant.

IV. SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary of Findings

This study examined the use of scaffolding strategies and their relationship with students' competency and independence at Riyadh International School in inclusive classrooms for the academic year (2025 – 2026). The sample respondents of the study were teachers and learning support service staff with more than 11 years of teaching experience. Based on the results, the scaffolding strategy was employed frequently (M = 4.299). Modeling tasks and procedures, guided practice, and the effective use of timely and immediate feedback strategies were ranked highest. Students' competency (M = 4.06) and independence (M = 3.84) were identified as common practices in an inclusive classroom. The results show there were significant associations between scaffolding methods and the students' competency, the highest being the gradual transfer of responsibilities (= 0.628, $p < .05$). Results also suggest strong relationships between strategies of scaffolding and student independence, particularly between gradually releasing responsibilities (= 0.668, $p < 0.05$) and encouraging critical thinking (= 0.708, $p < 0.05$).

Conclusions

Overall, this study suggests that the use of a broad range of scaffolding is fundamental to good inclusive classroom teaching practice. Learning Support Officers, the Head of Department, learning support staff, and classroom teachers rely heavily on modeling, guided practice, feedback, and questioning related to learning to think, as well as practice in the gradual release of responsibility, to cater for diverse learners from varied backgrounds. These scaffolding strategies allow children to learn the lesson and provide opportunities to complete tasks autonomously. These techniques, particularly the gradual release of responsibility and its connection to learners' thinking skills, were more effective in improving learners' achievement and independence in culturally diverse classrooms, as evidenced in the findings.

Recommendations

Consistent application of scaffolding practices, specifically gradually releasing responsibility for learning, peer instruction experiences, and use of student-created demonstrations of understanding, should become routine within schools. Professional development should enhance the capabilities of teachers and support staff to develop more independent, self-regulated, and critical learners. Incorporating instructional activities that facilitate goal setting, monitoring progress toward goals, and reflecting on what was learned is important in the classroom. Additional investigations should be implemented in multiple schooling contexts with greater numbers of participants to further explore the effectiveness of scaffolding strategies with varying learners in promoting mastery and independence.

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