

Scaffolding in Tourism Education: Enhancing Learning and Industry Readiness

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DOI: <https://doi.org/10.58726/27382915-2026.1hs-193>

Key words: *scaffolding, zone of proximal development, tourism higher education, curriculum design*

Introduction

Learning can be defined as a change in behavioral repertoire, understood as the potential to act in ways not previously possible [12]. Yet this potential only becomes visible when learners are motivated or required to demonstrate their new competence.

The persistent divide between theory and practice places significant pressure on universities to prepare students for increasingly complex professional environments. Vocationally oriented programs, such as tourism, face particular challenges in balancing theoretical knowledge with practical application [9].

Similar challenges are evident in tourism higher education in Armenia. Employers stress the need for universities to ensure that graduates develop competencies consistent with industry needs. They also emphasize the importance of consulting with leading tourism organizations when designing curricula, adopting contemporary teaching methods and technological tools that reflect the realities of the business environment, and ensuring that academic content stays relevant to industry developments [14].

All these challenges have prompted educators to explore new approaches and to design courses that actively support students in translating their learning into practice, developing both professional readiness and higher-order thinking skills.

The current article touches upon the concept of scaffolding in tourism higher education to address these issues. Scaffolding refers not merely to “support,” but to tailored interventions corresponding to learners’ current level of readiness. In tourism higher education, this may mean structuring opportunities – through simulations, projects, or fieldwork – that gradually bridge theoretical understanding and professional practice. It has been proven that instructional scaffolding is effective across disciplines, yet there are only a few studies addressing its application in tourism higher education. Most existing research has focused on schools [5] rather than universities, or has measured outcomes such as students’ final test scores [11] or acquisition of tourism-related terminology [1] rather than the development of practical knowledge. This study seeks to address that gap by exploring how scaffolding can support tourism students in achieving better results in their final group project.

Thus, the theoretical significance of the study lies in examining the best practices for the implementation of instructional scaffolding in tourism higher education, while the practical significance focuses on evaluating the effectiveness of scaffolding strategies in developing students’ practical skills and competencies.

Research Methods: For this article, works by leading researchers on scaffolding were collected and analyzed. Best practices were studied to understand how they can be implemented in tourism higher education. The study applied mixed data collection methods, including questionnaires, end-of-course student feedback on the effectiveness of scaffolding, and analysis of the final group project outcomes to evaluate learning progress.

Thus, the current study aims to examine the effectiveness of scaffolding as a strategy for structuring the curriculum to bridge the gap between theory and practice in tourism higher

education in Armenia. It addresses the identified research gaps by investigating the following objectives:

- To analyze the pedagogical potential of scaffolding in tourism higher education.
- To implement scaffolding techniques, such as rubrics, guiding questions, and structured support, in a specialized course.
- To explore how scaffolding can facilitate the transfer of theoretical knowledge into practical skills.
- To evaluate the impact of scaffolding on students' ability to independently design and deliver the group project at the end of the specialized tourism course.

Defining the Meaning of Scaffolding in Educational Contexts

Scaffolding is frequently mentioned in educational settings, yet supporting learners or organizing activities cannot be considered scaffolding unless specific conditions are fulfilled.

The term scaffolding was first introduced to describe how teachers supported children building with wooden blocks and was later popularized by Wood, Bruner, and Ross to explain the pedagogical implications of Vygotsky's zone of proximal development (ZPD) [2]. Although Vygotsky never used the term, it is generally seen as rooted in his perspective on development, learning, and education. He argued that when a learner faced limitations in one modality, teachers and educational systems had a responsibility to provide alternative means of access. Vygotsky linked such practices to the broader human capacity to learn through cultural tools, developed and refined over generations [12]. Learners use these tools in shared activities with more proficient users, and over time they internalize the tools, allowing independent use. This early understanding of scaffolding laid the foundation for the concept as it is applied in education today. Vygotsky also emphasized that higher-order mental functions emerge through mediated activity with both material (books, technology) and symbolic tools [13]. At its core, scaffolding, as a tool used in teaching, positions the educator as a cultural mediator: support is not static or universally applied but must be culturally grounded, context-sensitive, and adaptable to learners' needs [10]. Both scaffolding and the ZPD stress that learning is inseparable from cultural, social, and historical contexts.

According to Belland [2] scaffolding refers to a form of temporary instructional support that helps students engage with challenging tasks until they can perform them independently and can be characterized by four key features that distinguish scaffolding from other forms of instructional support.

1. It is contingent: support is adjusted based on continuous, dynamic assessment of student performance. As students demonstrate progress, support is gradually reduced.
2. It requires intersubjectivity: a shared understanding between teacher and learner of what successful task performance looks like. In this way the learners can recognize when they have achieved the goal, which is essential for future independent performance.
3. It is temporary and oriented toward skill gain. Unlike tools or aids that provide permanent assistance, scaffolding aims to promote learning that leads to independence rather than ongoing reliance.
4. It both simplifies and highlights complexity. It supports students in managing tasks while also drawing attention to critical challenges.

Pea [7] distinguishes between two different types of scaffolding functions that were originally outlined by Wood, Bruner, and their colleagues.

- Channeling and focusing: scaffolding often works through channeling, by narrowing choices to guide effective action, and focusing, by highlighting key aspects of a task.
- Modeling: Modeling involves demonstrating more advanced solutions to a task [7]. Taber [12] highlights tools such as DARTS (directed activities related to text). The term was first

introduced by Lunzer and Gardner [6]. With the use of DARTS the educator helps the students move beyond passive note-taking by asking learners to actively engage with materials – for instance, labeling diagrams or interpreting texts. Carefully designed, these tasks become scaffolds if they (a) ask students to attempt something beyond their current ability, (b) provide structured support, (c) gradually reduce that support, and (d) enable independent performance of the task.

Taber [12] noted two main challenges in learning that scaffolding tools can address:

1. students may know the basics but struggle to see which ideas are most relevant, especially since working memory limits how much information they can handle at once;
2. even when each step is clear, the overall structure of new concepts can feel overwhelming and too complicated.

To address these challenges, Taber [12] proposed two scaffolding tools: PLANKs and POLES. PLANKs (Platforms for New Knowledge) involve presenting prerequisite knowledge that students already possess but reorganized in a way that highlights relevance and makes it easier to build new ideas. POLES (Provided Outlines Lending Support) are teacher-provided frameworks or outlines that guide students through new concepts, offering temporary support until learners develop their own understanding and confidence.

Thus, by focusing on step-by-step engagement with complex tasks, scaffolding enables learners to develop reasoning, problem-solving, and strategic thinking skills. This structured, interactive approach also fosters metacognition, as learners reflect on their own thinking processes, monitor their progress, and gradually take responsibility for performing tasks independently. In specialized tourism courses, such an approach strengthens students' ability to adapt knowledge to diverse scenarios, a competence essential for success in the tourism and hospitality sector.

Integrating Scaffolding to Support Practical Learning in a Specialized Tourism Course

The main challenge in designing specialized tourism courses is structuring the content and learning activities so that they align with students' perspectives and prior knowledge. Concepts that seem simple and straightforward to an expert may initially appear complex to students. In this context, scaffolding can create an opportunity for the students to engage in tasks initially beyond their capabilities, extending their skills through guided participation, collaboration, and interaction with peers, instructors, and discipline-relevant tools [12]. In the tourism courses, this often includes case analyses, project planning, and problem-solving, helping students develop transferable skills for professional contexts. Scaffolding can also help students connect new information with what they already knew, allowing them to develop clearer and more advanced understanding.

In the context of the current study, these principles guided the design of the specialized course *Introduction to Tourism* (1st year), where scaffolding was applied to support students in completing their final group project. The study involved 44 students. The course was delivered in Armenian, and all participants were native speakers of the language. To achieve this goal, the following steps were implemented:

1. To support students' metacognitive development and identify their current understanding within the Zone of Proximal Development (ZPD), short questionnaires were completed by the students at the beginning and end of each lesson. Drawing on Pintrich's [8] framework of planning, monitoring, and evaluating learning, students responded to 4-5 content-specific questions before and after each class session. The results helped both students and instructors monitor learning progress, reflect on understanding, and identify areas requiring additional support. This ongoing feedback informed the design and adjustment of scaffolding strategies, ensuring that guidance was appropriately targeted to students' evolving needs throughout the semester.

Across the semester, students engaged in smaller scaffolded tasks aligned with each topic. Two main scaffolding tools were used: PLANKs (Platforms for New Knowledge) and POLES (Provided Outlines Lending Support). With PLANKs, students worked on tasks like interpreting

case studies, labeling components of tourism systems, or analyzing industry texts to understand new concepts. Rubrics were provided as a form of POLES [12], offering temporary structured support until students developed sufficient understanding and confidence to work independently (see Figure 1).

<i>TASK 1: Planning UK Journeys – Car Itinerary</i>		
Scenario: Mr. and Mrs. Williams live on Orford Road, Walthamstow, and want to travel to Nottingham to attend a surprise birthday party. They need to arrive by 12:00 mid-day. Your task is to create a detailed journey plan for them.		
Use this rubric to guide your work:		
Task Component	What You Need to Do	Tips / Guidance / Sources
Departure Time	Calculate the time they need to leave home to reach Nottingham by 12:00.	Consider the total distance, estimated travel speed, and any stops. Source: RAC Route Planner (https://www.rac.co.uk/route-planner/)
Route Selection	Choose the best route from Walthamstow to Nottingham.	Use online route planners to find the fastest or most convenient route. Highlight main roads and alternatives. Sources: RAC Route Planner; Google Maps (https://maps.google.com)
Service Station Stop	Suggest one service station stop for fuel and a short break.	Include the name, location, and approximate stop time. Source: Welcome Break Journey Planner (https://www.welcomebreak.co.uk/journey-planner/)
Total Mileage	Calculate the total distance for the journey.	Use online tools or maps. Ensure mileage matches your selected route. Sources: RAC Route Planner; Google Maps
Petrol Cost	Estimate the fuel cost for the journey.	Use the car's fuel efficiency (1.6L Ford Focus, 45 mpg) and fuel price (£1.13 per litre). Show your calculation. Source: Fuel Economy Calculator (http://www.fuel-economy.co.uk/calculator/)
Expected Arrival Time	Confirm the expected arrival time considering stops.	Make sure it aligns with the requirement to arrive by 12:00. Sources: RAC Route Planner; Google Maps
Journey Map	Draw or generate a map showing the planned route.	Clearly label start, destination, and any stops. Sources: Google Maps; MapQuest (https://www.mapquest.com)
Travel Advice	Provide any relevant tips (e.g., tolls, roadworks).	Check online sources for current road conditions, closures, or delays. Sources: RAC Route Planner; Traffic England (https://www.trafficengland.com)
Presentation	Compile all information into a clear, organized document.	Use headings, tables, and maps. Make it easy for the Williams family to follow. Sources: Your notes, tables, and visualizations from all above websites
Submission:		
<ul style="list-style-type: none"> • Include all calculations, maps, and advice in one document. • Ensure all information is accurate, clear, and easy to read. • Check your work against each rubric component before submitting. 		

Figure 1. Scaffolding Rubric with Detailed Instructions

2. A blended learning model, using a flipped classroom approach, was applied in this course. Integration of scaffolding together with the implementation of a flipped classroom model helped students work at their own resolution. A flipped classroom approach enabled students to study course content outside the classroom, at their own pace, preferred location, and individual rhythm, while class time was devoted to collaborative discussions and applied exercises [15]. In the current specialized tourism course, this combination allowed students to achieve lower-level outcomes, such as understanding and remembering, through online study, while higher-level outcomes, such as creating, applying, and analyzing [3], were addressed during in-person sessions, combining practical and collaborative learning.

3. In the design of this course, scaffolding was progressively removed across the semester: with each task, rubrics and guidance were simplified, discussions became more student-led, and learners were encouraged to take greater responsibility for applying theoretical concepts independently. This kind of gradual removal of support is known as “fading” [7]. Without this deliberate process, learners may continue depending on step-by-step instructions, especially if they are used to highly structured tasks (see Figure 2).

<i>TASK 2: Planning UK Rail Journey – London to Birmingham</i>	
Scenario: Mr. Johnson needs to travel from London to Birmingham for an event at the Birmingham NEC on Tuesday 6th October 2020. He wants to travel first class with a seat that has a table and power socket, arrive one hour before his 13:00 meeting, and return to London after 17:00.	
Task Component	What to Include
Outward Journey – Departure Station & Platform	Station and platform from London.
Outward Journey – Departure Time & Duration	Train departure time and travel duration.
Outward Journey – Changes	Any train changes required.
Outward Journey – Onboard Facilities	Amenities on board (e.g., wifi, food, toilets).
Outward Journey – Arrival Time	Expected arrival in Birmingham.
Outward Journey – Taxi Advice	How to get from the station to the NEC.
Outward Journey – Cost	Ticket price.
Return Journey – Departure Station & Platform	Station and platform from Birmingham.
Return Journey – Departure Time & Duration	Train departure time and travel duration.
Return Journey – Changes	Any train changes required.
Return Journey – Onboard Facilities	Amenities on board.
Return Journey – Arrival Time	Expected arrival in London.
Return Journey – Taxi Advice	How to get from the station to home.
Journey Map	Map showing both outward and return journeys.
Submission:	
<ul style="list-style-type: none"> • Complete all fields clearly. • Provide a map showing the route. • Ensure information is accurate and organized. 	

Figure 2. Scaffolding Rubric with Faded Support

4. As a method of assessment, peer evaluation, complemented by formative assessment in the form of educator feedback, was incorporated to help students identify gaps in understanding and critically evaluate both their own progress and that of their peers. This kind of assessment which aligns with form of scaffolding described by Bruner [4] enabled the educator to monitor learners’ mistakes and provide timely guidance.

By implementing these steps, the curriculum was designed to integrate scaffolding in a way

that structured the learning experience, enhanced higher-order thinking, fostered metacognitive awareness, and supported students in applying knowledge effectively, enabling them to successfully plan and complete their final group project.

Results

At the conclusion of the *Introduction to Tourism* course, students reported that the structured integration of scaffolding strategies facilitated their engagement with the final group project. According to post-course reflections and feedback, students found it easier to plan, sequence, and execute the project tasks, as the scaffolded activities throughout the semester had prepared them for complex problem-solving and project management.

Students indicated that scaffolding improved both their individual and collective performance. The majority of students showed improvement from Semester 1 to Semester 2 (See Table 1). Increases in both average and median scores indicate an overall positive trend, while a smaller number of students performed worse, suggesting areas for targeted support. Students improved quality of the group project, with clearer planning, stronger application of concepts, and more developed analytical reasoning.

Table 1

Student performance comparison across Semesters 1 and 2

<i>Metric</i>	<i>Comparison of Semester 1 and Semester 2</i>
Students improved	24 out of 44
Students worsened	12 out of 44
Students unchanged	6 out of 44

The results suggest that the deliberate integration of scaffolding in the curriculum design of specialized tourism courses combining with other pedagogical techniques and methods can enhance both student learning processes and practical project outcomes.

Limitations

A key limitation of this study is that the effectiveness of scaffolding in tourism higher education depends heavily on learners’ prior knowledge, skills, and learning styles. Although questionnaires were designed to assess student knowledge and understanding, they provided only a limited view of individual learning processes. More detailed, continuous observation of each learner’s Zone of Proximal Development (ZPD) would be necessary to fully capture how students interacted with scaffolding support, how effectively they internalized guidance, and where adjustments might have further optimized learning. Additionally, the study was conducted in a domestic course with Armenian students using their native language, so the cultural and linguistic context was relatively homogeneous; future research should consider cultural diversity as a factor influencing the design and effectiveness of scaffolding strategies.

Finally, because the study focused on a single course and a specific student cohort, the generalizability of the findings is constrained. The effectiveness of scaffolding strategies may differ in other tourism courses, in different institutional contexts, or with students of varying professional and academic experience levels. Future research could address these limitations by combining detailed ZPD-based observations, statistical analysis of project outcomes, and long-term assessment across multiple courses and cohorts to better understand the peculiarities of scaffolding in tourism higher education.

Conclusion

The findings suggest that scaffolding provides an effective instructional strategy for tourism courses in higher education. Well-designed and, where possible, customized scaffolding materials, used by an educator who manages access to these tools, allow learners to engage in activities within

their ZPD and make meaningful learning discoveries. This approach can enable students in tourism courses to better transfer theoretical knowledge into practical skills, help reduce difficulties during complex tasks, and enhance the overall quality of their project outcomes. While developing effective, tailored scaffolding tools is challenging, it is essential for genuinely educative teaching. The study may be particularly useful for educators, curriculum designers, and researchers aiming to improve instructional practices in tourism programs.

DOI: <https://doi.org/10.58726/27382915-2026.1hs-193>

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«Փայտամած» ուսուցման ռազմավարության կիրառության արդյունավետությունը զբոսաշրջության մասնագիտական դասընթացների ուսուցման գործընթացում

Մինասյան Աննա

Անվտիում

Հանգուցային բառեր. *փայտամած, մոտակա զարգացման գոտի, զբոսաշրջության բարձրագույն կրթություն, ուսումնական ծրագրի նախագծում*

Սույն հետազոտության շրջանակում ուսումնասիրվել է «փայլտամած» ուսուցման ռազմավարության արդյունավետությունը ՀՀ բարձրագույն ուսումնական հաստատություններում դասավանդվող զբոսաշրջության մասնագիտական առարկաների ուսուցման գործընթացում: Աշխատանքում ուսումնասիրվել են «փայտամած» ռազմավարության գործիքներ, որոնք կարող են օգնել ուսանողներին ավելի արդյունավետ կիրառել տեսական գիտելիքները գործնականում, զարգացնել քննադատական մտածողությունը և կատարել ավելի բարդ առաջադրանքներ, ինչպիսիք են խմբային նախագծերը:

Ուսումնասիրությունը իրականացվել է «Զբոսաշրջության հիմունքներ» դասընթացի շրջանակում, որտեղ «փայտամած» ռազմավարության գործիքները ինտեգրվել են դասընթացի նախագծման ընթացքում: Նպատակն էր «փայտամած» ռազմավարության համապատասխան գործիքների միջոցով ուսանողներին ցուցաբերել համակարգված աջակցություն՝ ելնելով յուրաքանչյուր ուսանողի մոտակա զարգացման գոտուց և նրանց աստիճանաբար ուղղորդելով դեպի ինքնուրույն գործունեություն: Տվյալների հավաքագրման մեթոդներն ընդգրկել են հարցաթերթիկներ, դասընթացի ավարտին ուսանողների կարծիքների ուսումնասիրման վերաբերյալ բանավոր հարցում և խմբային նախագծային աշխատանքների արդյունքների վերլուծություն:

Հետազոտության արդյունքները ցույց են տվել, որ «փայտամած» ուսուցման ռազմավարությունը օգնել է ուսանողներին ավելի համակարգված ծրագրել և իրականացնել նախագծային աշխատանքը: Խմբային նախագծերը նախորդ կիսամյակի համեմատ առանձնացել են տեսական գիտելիքների ավելի խորքային կիրառմամբ և կառուցվածքով:

Այսպիսով, լավ մշակված և ուսանողների պահանջմունքներին հարմարեցված «փայտամած» ռազմավարության գործիքակազմը, համակցված այլ ժամանակակից դասավանդման մեթոդների հետ, կարող են բարելավել ուսումնառության արդյունքները զբոսաշրջության մասնագիտական դասընթացներում:

Սույն հետազոտությունը կարող է կիրառվել բարձրագույն ուսումնական հաստատություններում զբոսաշրջության մասնագիտական առարկաներ դասավանդողների կողմից ծրագրերի արդյունավետ նախագծման համար:

Скаффолдинг в образовании по туризму: повышение эффективности обучения и готовности к профессиональной деятельности

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Резюме

Ключевые слова: скаффолдинг, зона ближайшего развития, высшее образование в сфере туризма, разработка учебной программы

В исследовании рассматривается применение скаффолдинга для повышения эффективности обучения на специализированных курсах по туризму в системе высшего образования Армении. Основное внимание уделяется формированию у студентов навыков практического применения теоретических знаний, критического мышления и успешного выполнения сложных заданий, включая групповые проекты.

Методы скаффолдинга были интегрированы в курс «Введение в туризм», обеспечивая постепенное сопровождение студентов от структурированной поддержки к самостоятельному выполнению задач в рамках их зоны ближайшего развития. Для оценки результатов использовались опросы, анализ обратной связи студентов и оценка итоговых групповых проектов.

Результаты показали, что скаффолдинг способствовал более эффективной организации и планированию проектной работы, повышению аналитических навыков и глубокому применению теоретических концепций. Итоговые проекты отличались структурированностью и высоким уровнем критического мышления.

Выводы исследования подтверждают, что адаптированные материалы скаффолдинга в сочетании с активным педагогическим руководством значительно повышают образовательные результаты, способствуют готовности студентов к профессиональной деятельности и помогают преподавателям разрабатывать практико-ориентированные курсы по туризму.

Ներկայացվել է	01. 10. 2025 թ.
Գրախոսվել է	25. 10. 2025 թ.
Ընդունվել է տպագրության	27. 05. 2026 թ.