A METHODOLOGY FOR USING THE SILKROAD.LAB-XR SYNERGETIC DIGITAL LEARNING PLATFORM TO DEVELOP THE PROFESSIONAL COMMUNICATIVE COMPETENCE OF FUTURE TOURISM SPECIALISTS

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Abstract

This paper proposes a teaching methodology for developing professional communicative competence through the SilkRoad.Lab-XR digital learning platform. It specifies five functional directions, five instructional stages, and five performance indicators. Proposed capabilities are distinguished from verified implementation, and the need for pilot testing is emphasized.

Keywords

tourism education; professional communicative competence; synergetic approach; digital learning; professional communication; pedagogical methodology.

Introduction

Tourism students need opportunities to rehearse guiding, visitor consultation, itinerary presentation, and service-related communication in environments resembling professional practice. Extended reality and interactive digital environments may support such rehearsal by presenting contextual information and allowing students to respond to simulated visitor requests. Nevertheless, technological immersion alone does not guarantee improved learning; activities must have clear objectives, feedback procedures, and defensible assessment criteria.

The SilkRoad.Lab-XR platform is considered in this study as a proposed synergetic digital learning environment for tourism education. The discussion focuses on

pedagogical scenarios and functional requirements rather than presenting unverified platform capabilities as already implemented. In particular, virtual tourism settings, interactive dialogue, multimedia resources, and reflective evaluation are considered potential elements of a coordinated learning design.

The objective of this paper is to propose a methodology for using SilkRoad.Lab-XR to develop professional communicative competence among future tourism specialists, with an emphasis on instructional sequencing, authentic tourism tasks, assessment, and responsible use of digital technologies.

Methods

Scenario-based instructional design, task analysis, and reflective assessment were used to formulate a platform-supported teaching methodology. Four illustrative activities were examined: virtual guiding, tourism consultation, itinerary explanation, and responding to visitor complaints. For each activity, the learning objective, expected learner performance, feedback process, and assessment criteria were specified. Proposed platform functions were distinguished from technically verified capabilities, and the methodology was framed for subsequent pilot testing.

Results and discussion

Five functional directions are proposed for SilkRoad.Lab-XR. First, a virtual tourism setting can provide a context for accurate oral presentations of tourist attractions. Second, interactive scenarios can support dialogue between a visitor and a specialist. Third, audio, video, and text resources can strengthen professional vocabulary and listening comprehension. Fourth, guided simulated interactions can provide repeated practice in communication strategies. Fifth, digital records and teacher feedback can support reflection and formative assessment.

An illustrative lesson assigns a student the role of a guide presenting the Registan ensemble in Samarkand. The student first checks historical information against reliable

sources, then prepares a three-minute introductory presentation, answers at least three visitor questions, and responds to an unexpected request. The instructor assesses the presentation using a predefined rubric. The scenario is an instructional example, not a report of a completed trial.

The proposed methodology has five stages: establish the learning objective and prepare materials; explore the virtual tourism setting; perform the communicative task; evaluate the recording or observed performance; and repeat the task after targeted correction. Each stage should provide clear instructions and an observable learning product.

If AI-generated dialogue is used, the system may produce incorrect historical or service information. Factual claims must therefore be checked, personal data should not be entered unnecessarily, and final assessment should remain under qualified human supervision. Accessibility and reliable internet access should also be considered when selecting the delivery format.

Five performance indicators are suggested for initial and final comparison: factual accuracy, linguistic correctness, communication strategy, intercultural etiquette, and purposeful use of digital tools. To evaluate effectiveness, equivalent tasks and consistent assessment conditions should be used. The methodology thus connects a proposed platform environment with specific professional learning objectives while acknowledging the need for technical and pedagogical validation.

The platform methodology must distinguish existing functionality from proposed extensions. XR, AI dialogue and analytics are treated here as instructional design components whose implementation status requires technical verification. The educational value of each component depends on its contribution to an observable communication outcome.

For a virtual guided-tour assignment, the teacher supplies verified information about a heritage site and a visitor profile. Students prepare a concise introduction, guide the visitor through a sequence of points, respond to clarification requests and conclude with practical guidance. The task can be completed with conventional multimedia when immersive hardware is unavailable.

A responsible pilot should document platform stability, accessibility, privacy safeguards and the quality of AI feedback. Pre- and post-task performances may be scored with the same analytic rubric; qualitative reflections can explain changes that scores alone do not capture. No effectiveness claim should be made until these data have been collected and examined.

Methodological implication. The platform methodology must distinguish existing functionality from proposed extensions. XR, AI dialogue and analytics are treated here as instructional design components whose implementation status requires technical verification. The educational value of each component depends on its contribution to an observable communication outcome.

Practical application. For a virtual guided-tour assignment, the teacher supplies verified information about a heritage site and a visitor profile. Students prepare a concise introduction, guide the visitor through a sequence of points, respond to clarification requests and conclude with practical guidance. The task can be completed with conventional multimedia when immersive hardware is unavailable.

Assessment consideration. A responsible pilot should document platform stability, accessibility, privacy safeguards and the quality of AI feedback. Pre- and post-task performances may be scored with the same analytic rubric; qualitative reflections can explain changes that scores alone do not capture. No effectiveness claim should be made until these data have been collected and examined.

Conclusion

The proposed SilkRoad.Lab-XR methodology integrates virtual tourism scenarios, interactive dialogue, and reflective assessment to support professional communicative learning. Five functional directions, five instructional stages, and five assessment indicators provide a practical design framework. The platform's technical capabilities and the methodology's educational effectiveness require independent verification through implementation and controlled evaluation.

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