

INTERNATIONAL EXPERIENCE IN USING OPEN EDUCATIONAL
ENVIRONMENTS IN PRE-SERVICE TEACHER EDUCATION

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Abstract. This thesis examines international experience in using open educational environments in the preparation of pre-service teachers. The study focuses on the pedagogical potential of Open Educational Resources (OER), Massive Open Online Courses (MOOCs), digital educational platforms, and open educational practices in developing the professional competencies of future teachers. The experience of the United Kingdom and India is analyzed, with particular attention paid to the TESS-India project implemented by The Open University. The study demonstrates that integrating open educational resources into teacher education can contribute to the development of digital competence, independent learning, collaboration, creativity, and professional development among pre-service teachers.

Keywords. pre-service teachers, open education, open educational environment, OER, MOOC, digital education, professional competence, teacher education, international experience.

Introduction

The rapid development of digital technologies is transforming the content, organization, and methodology of teacher education. In this context, one of the important tasks of higher education is to prepare future teachers who are capable of searching for, selecting, evaluating, adapting, creating, and effectively applying modern educational resources. The integration of technological experiences into initial teacher education is increasingly considered an important component of preparing teachers for contemporary educational environments [1].

Open educational environments provide learners with opportunities to access a wide range of educational, informational, and digital resources. One of the key components of such environments is Open Educational Resources (OER), which include teaching, learning, and research materials that can be freely accessed and, under appropriate open licenses, reused, adapted, and redistributed. Research on open education practices indicates that such approaches can expand access to educational resources while supporting collaboration, independent learning, and pedagogical innovation [2].

Main Part

International experience demonstrates that open educational environments can play an important role in the professional preparation and continuing development of teachers. In particular, the experience of the United Kingdom provides significant examples of integrating open education into teacher education. The Open University has developed

MODERN EDUCATIONAL SYSTEM AND INNOVATIVE TEACHING SOLUTIONS

and implemented a number of open educational initiatives aimed at expanding access to teacher professional development and supporting innovative pedagogical practices.

One of the notable examples is the TESS-India (Teacher Education through School-based Support in India) project. The project was developed with the participation of The Open University and focused on improving teacher education and classroom practice in India. It incorporated open educational resources and mobile technologies to support teachers' professional learning. Within the project, a large collection of openly available educational resources was developed in several languages and adapted to the educational and cultural contexts of Indian teachers [3].

An important feature of the TESS-India experience is that OER were not treated merely as supplementary electronic materials. Rather, they were incorporated into teacher education and professional development as an integral component of the learning process. The project developed approximately 200 open educational resources, including videos, learning materials, and resources aimed at supporting teachers and school leaders [3].

Another significant element of this experience is the use of MOOCs for developing teachers' capacity to work with OER. The TESS-India OER MOOC was designed to introduce educators to the principles of open educational resources and their application in teaching and teacher education. The course also emphasized active, learner-centred pedagogical approaches and the integration of OER into teacher education programmes [4].

The international experience demonstrates that effective use of OER requires more than simply providing access to digital materials. Future teachers need to develop the ability to search for appropriate resources, assess their quality, understand licensing conditions, adapt materials to particular educational contexts, and integrate them into pedagogical practice. In this respect, the localization of OER is particularly important. The TESS-India experience demonstrates how open resources can be adapted to different linguistic, cultural, and pedagogical contexts [5].

Recent research also emphasizes the importance of OER literacy among pre-service teachers. This literacy includes awareness of OER, the ability to use and adapt open resources, and the capacity to integrate them into pedagogical practice. A recent review of research on OER literacy among pre-service teachers indicates that although future teachers generally demonstrate positive attitudes toward OER, gaps remain in their knowledge of open licenses, resource adaptation, and open pedagogical practices [6].

Therefore, open educational environments should not be viewed simply as a collection of freely accessible digital resources. They should be regarded as a pedagogically organized environment in which future teachers search for, evaluate, select, adapt, create, share, and apply educational resources in accordance with professional and instructional objectives.

Comparative analysis of international experience

Area of international experience — Main characteristic — Opportunities for pre-service teachers

Open Educational Resources (OER) — Freely accessible and reusable educational materials — Searching, evaluating, and selecting educational resources

MOOCs — Open online courses for large numbers of learners — Independent professional development

Open pedagogy — Active creation, adaptation, and sharing of educational resources — Development of creativity and methodological competence

Mobile learning — Learning through mobile technologies — Flexible and accessible learning

Collaborative learning environments — Interaction between teachers and learners — Development of communication and teamwork skills

Localization of OER — Adaptation of resources to local educational and cultural contexts — Development of pedagogical flexibility

The analysis shows that international practice extends beyond the simple use of digital educational materials. Open educational environments increasingly function as integrated learning spaces that combine independent learning, collaboration, digital competence development, open pedagogical practices, and continuous professional development.

Conclusion

The analysis of international experience demonstrates that the use of open educational environments in pre-service teacher education can contribute to improving the accessibility, flexibility, and effectiveness of professional training. The experiences of the United Kingdom and India, particularly the TESS-India project, demonstrate the potential of integrating OER, MOOCs, mobile technologies, and open pedagogical practices into teacher education [3; 4; 5].

At the same time, international research indicates that technological access alone does not guarantee effective use of open educational resources. Pre-service teachers need specific competencies related to searching for, evaluating, adapting, creating, and pedagogically integrating OER into their professional activities [6].

Consequently, the international experience can provide a valuable methodological basis for improving pre-service teacher education in Uzbekistan. In particular, the integration of OER and MOOCs into university courses, development of students' independent learning activities, formation of digital and methodological competencies, and adaptation of international open educational practices to the national educational context can be considered promising directions.

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