

TLIC PAPER

Reframing Teacher Education Through International Collaboration: Exploring Project-Based Learning in Diverse Contexts

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ABSTRACT

This paper focuses on a multi-method study that investigates students' attitudes and preferences toward project-based collaboration in diverse international contexts. The courses under scrutiny were developed and taught as part of an international blended learning collaboration in teacher education between Dr. Ambedkar University (AUD) in India and Ludwigsburg University of Education (LUE) in Germany. The primary focus of this paper is to analyze and discuss students' experiences in international project-based environments, with a particular emphasis on the theme of diversity in teacher education. The discussed study employs a multi-method research design that incorporates qualitative interviews and various written feedback forms to gather data on different aspects of the collaborative processes. The findings of this study have the potential to develop future practices and enhance project-based learning scenarios within higher education. The insights gained from this research can inform pedagogical approaches, and intercultural exchange, ultimately enriching the internationalization efforts within higher education institutions.

KEYWORDS

project-based learning, higher education, international collaboration, diversity education, teacher training, qualitative evaluation study

1 PROJECT-BASED AND COLLABORATIVE LEARNING IN DIVERSE CONTEXTS

The process of learning and teaching in collaborative international settings has become increasingly important in the face of interconnected, diverse, and global societies [1]. Project-based and collaborative learning, coupled with the utilization of new information technologies, have become integral features of higher education systems worldwide [2]. At the same time, the landscape of learners and educators has become more autonomous and simultaneously interconnected,

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driven by factors like globalization, migration, and internationalization. The idea of internationalization, a multifaceted phenomenon in higher education, is motivated by political agendas, economic interests, academic rationales, and the aspirations of lecturers and students [3]. Responding to the challenges and potentials of international collaboration, higher education systems need to provide students with opportunities to engage with international perspectives to develop reflected and balanced positions in diverse learning and teaching contexts. Within the realm of intercultural and collaborative learning, the development of intercultural competence stands out as a critical skill in teacher training. Collaboration between students from diverse cultural backgrounds can offer an effective means of fostering intercultural competence. Against this backdrop, project-based and collaborative learning are considered vital approaches to navigating the challenges of a globalized world and cultivating competencies in autonomous and diversity-sensitive learning within the higher education sector [4]. These approaches offer communication tools, foster autonomous learning, encourage collaboration, and facilitate shared learning between students and teachers [5]. Consequently, there is a growing demand for the development of international project-based courses within increasingly autonomous and diverse learning environments. The higher education sector plays a pivotal role in these developments and must address both familiar and unfamiliar challenges to prepare students for learning and teaching in diverse contexts.

2 BACKGROUND AND CONTEXT OF THE COLLABORATIVE INTERNATIONAL COURSES

This study presents the development, implementation, and evaluation of two consecutive courses in the Master's program "Teacher Education" at Ludwigsburg University of Education (LUE) in Germany: "*Diversity and Resilience in Education (I) + (II)*". The courses emphasize project-based international collaboration as the primary approach, creating an inclusive learning environment that embraces diversity as a starting point and goal in education. Students actively participate in diverse groups, engaging with individuals from various backgrounds. Additionally, they design learning tasks that accommodate children with diverse life experiences. This approach equips students with the necessary skills to sensitively perceive and constructively shape diversity, fostering inclusivity within their educational practices.

The first course focused on digital collaboration with students and lecturers from Dr. Ambedkar University (AUD) in India. The second course involved in-person collaboration with Indian and German students and lecturers at AUD in Delhi. These courses address several key areas, including (a) the examination of diversity and resilience in educational contexts, (b) project-based and collaborative learning, (c) the autonomous implementation of education-related projects, (d) the exploration of international perspectives, and (e) the presentation and reflection on the projects. The courses are designed to foster connections between students, their future work environments, and their prospective colleagues, using an education-related project. The collaborative and project-based nature of these courses aims to provide students with valuable international experiences by actively engaging them in the implementation of an education project. Additionally, students can earn up to three credit points, as per the European Credit Transfer and Accumulation System (ECTS), for each course, and may even utilize their projects as a foundation for their Master's Thesis.

3 DESIGN OF THE QUALITATIVE EVALUATION STUDY

The key research focus of this study explores how students perceive international project-based collaboration and how these experiences can be constructively used for the design of future courses and internationalization in the higher education sector. Therefore, the study emphasizes the reflections and discussions of students who participated in both courses, aiming to explore their individual experiences in collaborative international learning contexts. To achieve this, a multi-method approach was employed, focusing on students' attitudes and preferences toward project-based collaboration in an international setting. The interviewed students had the opportunity to participate in both courses, experiencing both digital and in-person international collaboration in project-based contexts. To gather data, a multi-method approach was utilized, incorporating qualitative interviews and various forms of asynchronous and written feedback [6]. Given the complex research focus of examining students' experiences in collaboration, an innovative approach was adopted to capture multiple perspectives through (a) synchronous dialogue-based interviews and (b) asynchronous individual feedback. Semi-structured qualitative interviews were conducted in both synchronous (via video calls) and asynchronous (recording audio files independently) manners. The asynchronous approach allowed participants to take their time for reflection, while synchronous interviews facilitated in-depth discussions, clarification of ambiguities, and constructive dialogue between the interviewer and participants. By utilizing this combined methodology, the study sought comprehensive data encompassing individual, reflective, subjective feedback, and dialogue [7]. The theoretical framework guiding the development of questionnaires and the analysis of qualitative data revolved around fundamental pedagogical characteristics in the context of international, collaborative, and project-based learning [5]. Deductive categories were established based on the reflection of theoretical frameworks on collaborative and project-based learning in international contexts. These categories encompassed (a) general experiences in the courses, (b) experiences in project-based learning (c) experiences in collaboration, and (d) experiences in internationalization. Each category consisted of several key questions, supported by specific prompts or additional inquiries. Furthermore, the examination of learning strategies and perceptions of change within learning formed part of the questioning process. The findings show implications for the integration of collaborative projects in internationalization, enabling the higher education sector to better prepare students for learning and teaching in diverse worlds.

4 FINDINGS OF THE STUDY

The analysis and discussion of the data encompass five overarching categories, which have been derived from both deductive categories and inductive insights obtained from the data. The findings within the data are organized and explored within the framework of these categories. However, certain responses and reflections in the data exhibit connections to multiple categories, prompting discussions from different category perspectives.¹

¹ All results, quotations, charts, transcriptions and analysis phases of the study are available through the author.

4.1 General experiences in international project-based contexts

The opportunity to undertake a small-scale empirical project serves as a significant motivating factor for many students who register for the course. During interviews, education is frequently discussed in connection with first-hand experiences, and students perceive individual projects as beneficial for their studies and future endeavors. The interviewed students discuss their projects as enriching experiences that enhance their skill set and prepare them for future work: *“I consider the project and the course as an enrichment. In each project, one gains experience which is helpful for my future work.”* The project-based approach seems to foster autonomy and self-responsibility, which further fuels students’ motivation [8]. The prospect of independent and project-based work is particularly appealing to some students, as they express a desire for more independent learning opportunities in their studies. The course’s international and interdisciplinary nature also contributes to its appeal. Students appreciate the freedom to explore their interests and ideas while integrating different disciplines and perspectives into their work. Additionally, students report a high level of satisfaction from presenting their projects and learning from the presentations of their peers. This demonstrates students’ eagerness to learn about diversity by experiencing encounter in diverse groups and working on collaborative projects.

4.2 The importance of encounter and relationship in international collaboration

The interviewed students highly appreciate the blending of digital and in-person collaboration and report about various experiences with very flexible and independent ways of learning. They seem to experience presentations and discussions with international peers as very intense and report a high level of involvement through the development of relationships in in-person contexts: *“I think that the intensity of in-person learning contexts is very different (to digital learning contexts), especially when you discuss and share ideas”*. The importance of encounter and relationship is highlighted in many interviews and is experienced as very important and sustainable in in-person contexts. Additionally, some students report the significance of in-person meetings, as situations and modes can be experienced more profoundly and discussed directly: *“... in the real encounter we can use all our senses to access situations as a whole ...”*. This can lead to efficient collaboration as there seem to be fewer misunderstandings in in-person meetings: *“It was clearer when we met in-person. And we usually found solutions faster”*. The interviewed students also state that in-person learning can lead to profound results: *“One was able to learn more during the in-person meetings because one discussed issues which were beyond the topic. (...) more background information, to understand things better.”*

4.3 Project-based learning in international collaboration

Students participating in the discussed courses have engaged in the development and implementation of projects focusing on diversity education, driven by their individual interests and subject choices. Projects such as *“A Comparative Study of Religious Diversity in Education in India and Germany,” “The Impact of COVID-19 on Diversity and Minorities in Schools,” “Addressing Domestic Violence and Its Effects*

on *Educational Settings*,” and *“The Significance of Diversity-Responsive Teaching in Mathematics”* have been developed within these courses. The feedback regarding the project-based nature of the courses and collaborative work has been predominantly positive. Many students appreciate the opportunity to pursue their individual interests, enabling them to cultivate competencies in their chosen educational fields. The development of these competencies seems to profit strongly through the diverse perspectives of their international project partners. Students report that the various encounters helped them to connect project-based topics and private attitudes. In these processes *“... it got easier to create memories which are connected to content-related things.”* Some student report that the in-person meetings helped to include different levels of knowledge and led to an in-depth discussion of the topics: *“Different contexts and fields of knowledge came together. (...) this helped to learn about oneself within the project and to broaden one’s horizon.”* Some features of project-based learning were highlighted in the discussions: *situation-oriented learning, practical orientation, focus on individual interests, communication, and collaboration.* Motivation develops through individual interest and collaboration: *“One is much more involved if you are really interested in the project and work together with others on it.”* The freedom and flexibility offered by project-based learning, along with the development of skills such as organization, workload management, and collaboration, were frequently highlighted as positive aspects of this approach: *“(...) experiences ... especially in the areas organization and coordination and the self-discipline that goes along with these.”* The students also value the potential for creativity and high levels of engagement stemming from intrinsic motivation and the responsibility they have for their projects and international team members: *“It (project-based learning) gets you out of your comfort zone”.* However, students emphasize the importance of a reliable course structure and close mentoring provided by their instructors. While project-based learning offers flexibility and autonomy, students acknowledge the need for a dependable framework and mentoring programs to support their projects effectively. Overall, the project-based nature of the courses is deemed highly relevant for students’ future studies and professional fields: *“I thereby (through project-based learning) gained experiences in collaboration, organization, and coordination which I can use for my future studies.”*

4.4 The role of collaboration

The students interviewed expressed that the collaborative processes within the courses were both intense and constructive. They highlighted the project-based and international nature of the courses as factors that fostered deep engagement and strong motivation: *“(...) I never experienced such a strong collaboration within a team.”* Despite the challenges, the coordination of projects and the inclusion of diverse interests were seen as constructive tasks. Many students also shared their experiences of collaborating with external partners, such as teachers, headmasters, lecturers, and NGOs. These partners actively participated in the students’ projects, providing authentic perspectives on the various course topics.

The interviewed students discuss the benefits and problems of digital and in-person collaboration: *“Digital spaces made this (collaboration) possible”.* In multiple instances, students highlighted the significance of digital communication methods in their projects and collaborative efforts, whether on an international or local scale. Shared documents and digital platforms played a crucial role in establishing collaborations and preserving the outcomes of various projects, as mentioned

by many students. The use of video conferences, where shared documents were collaboratively processed, was frequently cited. However, it is worth noting that some students expressed challenges in opening up and sharing their ideas and thoughts in digital environments. This also could lead to a lack of creativity in digital contexts: *“I could imagine that one loses some creativity due to the structure and character of video calls.”* Most of the interviewed students find in-person collaboration more constructive and discuss the learning effects as being more sustainable: *“(…) because we experienced so much (in in-person contexts), as we discussed the topics intensively and connected these discussions with situations and memories…”*. Students report that they experienced stronger motivation and involvement in in-person collaboration: *“… the level of engagement is different in in-person collaboration. One participates with a different emotionality. (…) social contact and interaction lead to a more intense analysis of the topics.”* In addition to this, some students emphasize the importance of establishing relationships and trust within their in-person collaboration: *“One can establish mutual trust (in in-person collaboration) easier.”*

4.5 International perspectives in project-based collaboration

The students interviewed expressed a deep appreciation for the inclusion of international perspectives in the courses and their respective projects: *“The contact with international partners ... supports understanding, tolerance, and open-mindedness, and also intercultural learning…”*. The diverse backgrounds and socialization systems of the participants contribute to a comprehensive understanding of the collaborative projects and their related topics. Many students found that discussing similarities and differences, as well as reflecting on their ideas within the context of different perspectives, fosters highly constructive learning processes. In light of this, some students emphasize the importance of including different life worlds within the projects, recognizing the enriching contributions they bring.

The students unanimously emphasize the significant impact of in-person encounters, highlighting their indispensable role in internationalization. They expressed that meeting face-to-face is distinctly different and holds a deeper meaning, allowing for a genuine understanding of their peers' lifeworlds and fostering discussions on similarities and differences in a more comprehensive manner: *“It is completely different when you meet in person... because you get to know the lifeworld of your peers differently and you can discuss similarities and differences completely differently in real life. And this is more fundamental and broader than digitally.”* Many students emphasized the inseparable connection between internationalization and personal engagement, asserting that project-based collaboration is essential for establishing strong bonds. Furthermore, they noted that the collaboration extends beyond the initial project, providing authentic insights into their partners' diverse lifeworlds and creating experiences that would not have been possible in local contexts.

These insights demonstrate that project-based collaboration can be considered crucial for cultivating strong engagement and generating profound outcomes in internationalization efforts. While digital contexts play a vital role in facilitating the development and continuity of international collaboration, the value of in-person encounters lies in establishing mutual trust and fostering sustainable relationships. Students expressed that the constructive discussions and broadening of horizons achieved through international collaboration were immensely valuable and enriching.

5 NEW PERSPECTIVES FOR TEACHER EDUCATION

In the field of education, project-based courses have been found to foster high levels of motivation and encourage students to take ownership of their work, promoting autonomous and self-responsible learning [9]. The evaluated courses show that project-based learning in international contexts can lead to strong experiences of involvement and motivation in the collaboration between students in collaboration [10]. Engaging in collaborative projects with international partners not only develops interdisciplinary competencies but also offers students deeper insights into chosen topics and multifaceted connections to future work fields. This collaborative approach allows students to test and reflect on their ideas within autonomous yet cooperative environments, thereby fostering innovation competence and active knowledge construction [2]. International perspectives and in-person experiences with international peers can provide students with diverse insights into educational institutions and curricula, as well as didactic concepts and everyday learning situations. Furthermore, students can gain authentic insights into the life worlds of their collaboration partners and can jointly reflect on their ideas and assessments of pedagogical issues based on a wide range of experiences. Thus, the development and implementation of projects by students in collaboration with international partners play a crucial role in higher education internationalization. Against this backdrop, the study emphasizes the significance of real in-person encounters, particularly when cultural diversity is involved, as they can foster in-depth and sustainable learning experiences [11].

To be able to offer this, collaborative project-based courses with international partners require a structured approach that enables students to (a) explore themes and develop projects individually and in collaboration with others on suitable online platforms; (b) share and discuss ideas online; (c) implement and discuss projects in-person; and (d) create new content and tasks for themselves and others. Course designers should provide a solid course structure and a comprehensive mentoring program to support students throughout all stages of international collaboration. The study underscores that the combined process of autonomous and collaborative work is a crucial factor in students' learning experiences.

By following their individual interests and ideas and developing them within international teams, especially in project-based settings, students can cultivate various competencies. This approach is particularly beneficial for higher education students enrolled in teacher training as it allows them to: (a) autonomously set appropriate goals, (b) reflect and discuss ideas in international contexts, (c) have frequent opportunities for individual and collaborative revision, and (d) connect with various educational institutions. To facilitate these processes, learning environments that blend digital and in-person collaboration are essential. Exchange occurs through personal encounters [12]. Therefore, international encounters in higher education necessitate both digital and face-to-face contexts to be effective, productive, constructive, and sustainable.

International collaborative courses have the potential to enhance cultural understanding and awareness, expand professional networks, and expose participants to diverse perspectives and ways of thinking.

The analyzed courses demonstrate the ability to foster key aspects crucial for future teachers, including (a) Cross-cultural competency: Collaboration and encounter aid students and educators in acquiring the knowledge, skills, and attitudes required to effectively engage with diverse cultures and perspectives [13].

(b) Intercultural communication: Project-based settings provide opportunities for students and educators to develop intercultural communication skills such as active listening, empathy, and the ability to adapt communication styles to different cultural contexts [14]. (c) Collaborative learning: The designed courses and activities encourage collaboration and cooperation among students from different cultural backgrounds, facilitating mutual understanding and respect [15]. (d) Flexibility: Project-based and collaborative courses accommodate and adapt to the diverse cultural and academic backgrounds of students and educators, promoting flexibility [16].

International collaboration in a project-based setting is a crucial means of fostering culturally responsive understanding in future teachers. The diverse lifeworlds and educational contexts of the collaborating students offer great potential for developing diversity-sensitive perspectives and can prepare future teachers for their work with a highly diverse student body.

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