

A GLOBAL INTERCULTURAL PROJECT EXPERIENCE (GIPE): REFLECTIONS ON COMBINING ONLINE AND ON-SITE PROJECT-BASED LEARNING ACROSS FOUR CONTINENTS

Author:

MANFRED MEYER¹, ATTLEE M. GAMUNDANI², KATJA BECKER³, COLIN STANLEY⁴

Affiliation:

^{1,3}WESTFÄLISCHE HOCHSCHULE, GERMANY

^{2,4}NAMIBIA UNIVERSITY OF SCIENCE AND TECHNOLOGY, NAMIBIA

INTRODUCTION

The concept of "Internationalisation at Home" has gained momentum¹ with the increasing digitalization of education and limitations on mobility². Collaborative Online International Learning (COIL) is an innovative, cost-effective instructional method that promotes intercultural learning through online collaboration between faculty and students from different countries or locations³. The benefits of using COIL courses have been widely recognized⁴, with learners developing intercultural competencies⁵, digital skills, international education experience⁶, and global awareness⁷.

However, multicultural communication in project environments can be complex and demand awareness of cultural variations⁸. The creation and development of effective cross-cultural collectivism, trust, communication, and empathy in leadership is an important ingredient for remote project collaborations success⁹. This is an area that has been least explored in research on communication in virtual teams¹⁰.

The GIPE projects are mainly carried out as so-called Collaborative Online International Learning (COIL) events. However, to gain a "real world" experience abroad in an intercultural team, students from all partner universities can participate in the Spring School being held for two weeks in Germany and the German students present and hand-over the results in the country of the partner university. The main objective of this research was to examine the experiences of students participating in the GIPE project and to evaluate the effectiveness of the project in enhancing intercultural competencies and fostering collaboration among students from different continents. This paper will also explore the implications of the GIPE project for Education 2.0 considering the COVID-19 pandemic and the future of education delivery and administration transformation.

METHODOLOGY

A mixed-methods approach was employed for populating the contents of this paper. The mixed methods included both qualitative and quantitative data collection with analysis methods. The data collection methods used in this study include:

- **Surveys:** An online survey was administered to the participating students to gather information about their experiences and perceptions of the GIPE project at the end of

the Spring School. The survey included questions on the student' perceptions of the project's effectiveness in enhancing intercultural competencies, fostering collaboration among students, and the challenges faced during the project.

- **Interviews:** In person interviews were conducted during the Spring School in Germany to gather in-depth information from students about the project. The interviews were conducted in person during the Spring School in Germany.
- **Document analysis:** Project documents such as project plans, meeting minutes, and reports were analysed to gather information about its execution and implementation.

The data collected through the surveys and interviews was analysed using descriptive statistics and thematic analysis, respectively. The results of the quantitative and qualitative data analyses were then integrated to provide a comprehensive understanding of the project and its effectiveness towards Education 2.0.

OVERVIEW OF THE GIPE PROJECT

The Global Intercultural Project Experience (GIPE) ¹¹ funded by DAAD provides students with the opportunity to work together in an international context to promote mutual collaboration between academics and cross-cultural working groups of students from Namibia, Peru, Indonesia, and Germany. This project also aims to enhance the skills and knowledge of students to foster a better understanding of different cultures. The project is open to students from the participating universities, with up to 8 students from each university receiving a DAAD scholarship to cover their mobility costs to attend the Spring School or the Hand-Over to the client, respectively. Non-mobile students can also take part in the project and benefit from international teamwork. Additionally, students can receive corresponding credit points (CP) on successful participation and will receive a certificate.

A quadrilateral partnership was conceptualised, building on long-term individual staff and institutional bilateral collaborations of the Westfälische Hochschule with its partner universities in three continents. The program builds on previous successful bilateral student software development projects and aims to provide equal learning opportunities for all students. The program incorporates travelling, client selections from the partner countries, and an emphasis on interdisciplinary projects.

Thus, the main objective of GIPE is to provide students with state-of-the-art skills and knowledge while working in a distributed multicultural and multidisciplinary team, to strengthen collaboration among its partner universities and promote intercultural exposure through 'internationalisation@home' activities.

The overall framework

The DAAD established its program "UAS.International" in order to strengthen internationalisation efforts at German Universities of Applied Sciences. Within this program, GIPE received a four-year funding from 2019-2023. In the beginning, representatives from all four partner universities congregated in Germany to plan the implementation of the framework. A German representative then visited all partner universities to promote GIPE and to ensure institutional commitment and support.

At the core of the GIPE framework are the annual student projects running from February to June/July, preceded by a client and project selection, evaluation of students' applications, awarding scholarships as well as requirements gathering and detailed project planning with the selected client (see Figure 1).

The annual projects consist of four phases:

1. **Online collaboration preparation:** A virtual global kick-off event brings all stakeholders together. Through targeted training, students join the project in intervals depending on their universities' lecturing schedules.
2. **Two-week face-to-face phase:** All participating students and one university representative meet at "Spring School" in Germany for team building, intercultural exposure, and mixed-team-setup.
3. **Online collaboration:** The students continue working on their project tasks in mixed teams using various online collaboration tools.
4. **One-week project-touchdown and hand-over:** The German students travel to the client situated in one of the partner countries.

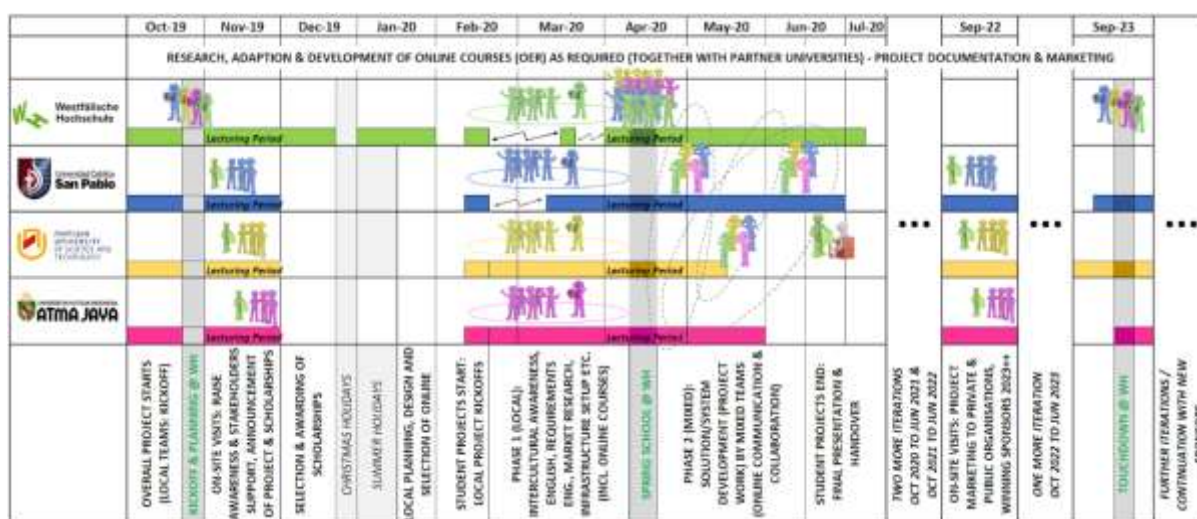


Figure 1. The Masterplan for the GIPE Framework 2019-2023.

REFLECTIONS ON COMBINING ONLINE AND ON-SITE PROJECT-BASED LEARNING

Colegio San Juan Apostol, a private school in the outskirts of Arequipa, Peru, was chosen as client for the GIPE 2022 project which was a well-organised and successful endeavour, thanks to its clear structure and effective use of technology.

The project was divided into five sub-streams (Virtual Teaching; Personal Data Infosystem; Cultural Heritage, SW Backbone, and Network Infrastructure) providing a clear and organised approach to the work at hand. The use of Zoom other online collaboration tools helped to facilitate communication and collaboration between students and faculty from different countries before Spring School. The Spring School itself was a positive experience for students, as they were able to learn from each other, build relationships, and gain a deeper understanding of different cultures. The project was able to overcome the challenges of language and cultural barriers to create an inclusive and collaborative learning environment. Since the entire project was based on a mobile application, another challenge was to find solutions that could be implemented with the existing infrastructure. Limited access to technology among students at the Colegio San Juan Apostol also posed a real problem. Only 30% of the students had access to a laptop, and there was only one low-range or mid-range Android smartphone per family. Additionally, most of the 800 students lived 2-3 km away from school, making it difficult for them to access the Internet.

Ultimately, the project was able to meet its objective which was to create a holistic application, wherein children can access learning materials online, parents can view important information about their children without physical presence in the school, and teachers can view timetables and communicate with parents.

Lessons learned from the Spring School in Germany

The aim of GIPE is to provide a collaborative platform for students, clients, and facilitators to work on a project together, learn from each other, and form friendships. Participants found the experience academically and culturally very rewarding and were personally enriched by the program. Figure 2 quotes some testimonials. They reported having learned new skills, gained work experience, and understood different perspectives. They also enjoyed meeting people from other countries and learning about their cultures. Additionally, they all express that the experience of working with an international team was challenging but rewarding, and that they have a lot of positive memories from the experience. Many of the students also report that they have grown professionally and personally because of the program.



Figure 2. Some Selected Student testimonials per region.

The benefits of incorporating guest lectures as an add-on to local classes was noted as a best practice, which can be incorporated in future projects. The Spring School also provided inspiration for re-designing curricula in partner universities, specifically project-based learning in Namibia. Further research is needed to address and measure the effects of the intercultural learning experience. Additionally, the Spring School revealed a missing link to social sciences towards effective evaluation of the GIPE program.

The Spring School also emphasised the importance of onboarding and team building as essential components of the program. The focus on incoming students and leisure time activities helped create a positive and inclusive atmosphere. However, it was noted that a few responsibilities among the students were unclear during the final project phase.

The GIPE 2022 project provided valuable learning opportunities for students in a cross-cultural and international work setting, which helped to expand their global perspective and understanding. The use of COIL as the main mode of project collaboration allowed students to work together in a virtual environment despite time differences and language barriers. The blend of online and on-site project-based learning was effective in providing them a comprehensive learning experience. The Spring School helped strengthen students' collaboration and intercultural empathy.

Comparison of online and on-site project collaboration modes

Based on the following four themes, we evaluated the positives or negatives of the online and on-site project collaborations.

Technical

From the technical perspective, the GIPE 2022 project was well-managed, with connection issues being resolved leading to more productive project meetings onsite. Time differences were not an issue as the participants were all in the same time zone, unlike in earlier online schools. For troubleshooting technical difficulties, alternative solutions were available such as access to onsite computer labs and more stable Internet connectivity which helped students research solutions well and progress on delivering project milestones.

Social

The social aspect of the GIPE 2022 project was favourable for the project's success, the environment and atmosphere provided by the host was conducive for motivation, group dynamics and concentration. The morale support from peers was also an important factor in the project, during offline modes, peers shared challenges seamlessly and project guides could extend help for complex encounters. Small experiences like celebrating birthdays in person helped teams bonding together. Interpersonal skills such as teamwork, leadership and social skills are easier to build in offline modes compared to online settings. For students that work best in groups, they draw energy towards completing tasks when they have a team around them. Thus, the Spring School provided a conducive environment to build student camaraderie.

Didactic

The didactic approach of focus and dedication of the GIPE 2022 project was conducive to productivity. The presence of facilitators and guides made it easier to assign tasks, facilitate the work, ask for assistance, and explain assignments. Evaluation of the project can be done online, but personal growth, development, and group dynamics is better evaluated offline. The project interconnections were easily managed, technical issues could be resolved spontaneously, and coordination between big teams is easier to manage offline.

Intercultural

The GIPE 2022 project provided an intercultural experience for students, both online using Zoom and in-person through the Spring School in Germany. The experience of staying together 24/7 provided opportunities for students to explore the cultural differences and similarities. However, the intensity of the intercultural experience can be immersive when students interact physically. The issue of language barriers was overcome using translation tools and the support of multilingual facilitators, blending the different cultures within the team to come up with a cohesive project.

GIPE Specific

The GIPE project brought together students and faculty from four different countries to work on multiple subprojects. The credit-driven approach helped partner institutions to integrate their semester courses into the running GIPE project, providing everyone with a unique opportunity to learn and collaborate in a cross-cultural setting. The Spring School provided a valuable learning experience, giving students and guides access to the host institution's teaching facilities and allowing improved interactions between students and faculty. This experience not only helped to improve the GIPE project but also laid the foundation for further engagements beyond.

Impact of GIPE on Education 2.0

Education 2.0 entails the use of technology in education to enhance the learning experience¹² and provide more flexibility and accessibility¹³. It emphasises online learning and remote instruction¹⁴, and often incorporates interactive and multimedia elements, such as videos, simulations, and virtual reality¹⁵. The delivery formats for Education 2.0 ranges from various platforms¹⁶, such as online courses, webinars, and mobile apps¹⁷, and can be accessed by students from anywhere with Internet connection¹⁸. Anchored around the goal to provide more personalised and adaptive education¹⁹, Education 2.0 can help to improve student engagement and outcomes²⁰. With the rise of COVID-19 pandemics, Education 2.0 became more prevalent as many schools and universities shifted to remote learning²¹. This was the same scenario the GIPE projects for 2020 -2021 fully operated under. The GIPE 2022 project made use of both worlds – online and offline.

GIPE has had a positive impact on education by promoting cross-cultural understanding and collaboration among students. A major benefit of GIPE allows students to gain first-hand experience of different cultures, which can help to broaden perspectives and develop a more global mindset especially for students without the opportunity to travel or study abroad. Another benefit of GIPE is that it encourages teamwork among students. By collaborating on projects either online or offline, students learn how to communicate effectively with people from different backgrounds and cultures, an important skill in an increasingly globalised world.

The GIPE model has had a significant impact on Education 2.0 in Namibia, particularly considering the COVID-19 pandemic. The first client, the National Commission on Research, Science and Technology (NCRST), testified that the GIPE model was an efficient and cost-effective approach. As a result, they explored the model to implement their regional ICT centres in collaboration with three universities (NUST, IUM, UNAM). The GIPE model presented to school leaders at the Windhoek International School, received much interest for further exploration with learners predominantly in low resourced and urban schools. These present an excellent opportunity for sharing resources, as well as promote peer-to-peer social and technical skills transfer and cultural experiences among learners.

CONCLUSION AND RECOMMENDATIONS

GIPE has provided a valuable opportunity for students from Namibia, Peru, Indonesia, and Germany to work together on a real-world project, fostering mutual collaboration and intercultural competencies. Projects completed from 2020 to 2022 were effective in enhancing intercultural competencies, fostering collaboration among students, and providing a valuable learning experience.

The Spring School program provided a complementary approach, addressing some of its fully online shortcomings and bringing a new perspective to Education 2.0. An offline mode allows for effective

packaging and adjustment of learning content, also guided by body language and addressing interpersonal limitations such as lack of morale and comprehension challenges. Additionally, team building for intercultural groups is more effective in an offline setting. However, it is important to consider the environmental impact of an offline approach, as the “going green” campaign favours an online mode in terms of reducing carbon footprint and the associated financial obligations. Despite this, it's worth noting that adjustment periods for time differences still play a role during the Spring School program as students may find it difficult to adjust to a new time zone. These points should be taken into consideration while making decisions on future implementations of the program.

In conclusion, the continued success of GIPE projects so far has created a reference model for building similar collaborative initiatives. It also points towards education delivery and administration transformation in the future. The results of the study can provide valuable insights for educators and administrators in developing similar international collaborative projects and addressing the challenges that may arise during their implementation.

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NOTES

- ¹ Beelen and Jones, 'Redefining Internationalization at Home'.
- ² Phùng and Phan, 'Higher Education in Vietnam and a New Vision for Internationalization at Home Post COVID-19'.
- ³ Kiegaldie et al., 'Implementation of a Collaborative Online International Learning Program in Nursing Education: Protocol for a Mixed Methods Study'.
- ⁴ DeWinter and Klamer, 'Can COIL Be Effective in Using Diversity to Contribute to Equality? Experiences of IKudu, a European-South African Consortium Operating via a Decolonised Approach to Project Delivery.'
- ⁵ De Castro et al., 'Collaborative Online International Learning to Prepare Students for Multicultural Work Environments'.
- ⁶ Jie and Pearlman, 'Expanding Access to International Education through Technology Enhanced Collaborative Online International Learning (COIL) Courses.'
- ⁷ Ceo-DiFrancesco and Bender-Slack, 'Collaborative Online International Learning: Students and Professors Making Global Connections'.
- ⁸ Ochieng and Price, 'Managing Cross-Cultural Communication in Multicultural Construction Project Teams: The Case of Kenya and UK'.
- ⁹ Ochieng and Price, 'Framework for Managing Multicultural Project Teams'.
- ¹⁰ Mukherjee et al., 'Organizational Identification among Global Virtual Team Members: The Role of Individualism-collectivism and Uncertainty Avoidance'.
- ¹¹ A detailed description of the GIPE project ("GIPE framework") and discussion of lessons learned from the first two student projects in 2020 and 2021 can be found in Meyer et al., 'GLOBAL INTERCULTURAL PROJECT EXPERIENCE (GIPE): A Distributed Interdisciplinary Project-Based Learning'.
- ¹² Castro and Tumibay, 'A Literature Review: Efficacy of Online Learning Courses for Higher Education Institution Using Meta-Analysis'.
- ¹³ Kasim and Khalid, 'Choosing the Right Learning Management System (LMS) for the Higher Education Institution Context'.
- ¹⁴ Kaldoudi et al., 'Problem-Based Learning via Web 2.0 Technologies'.
- ¹⁵ Ehlers, *Open Learning Cultures*.
- ¹⁶ Redecker, 'Review of Learning 2.0 Practices: Study on the Impact of Web 2.0 Innovations of Education and Training in Europe'.
- ¹⁷ Bhargava et al., 'Radiology Education 2.0—on the Cusp of Change: Part 1. Tablet Computers, Online Curriculums, Remote Meeting Tools and Audience Response Systems'.
- ¹⁸ Tirziu and Vrabie, 'Education 2.0: E-Learning Methods'.
- ¹⁹ Peng, Ma, and Spector, 'Personalized Adaptive Learning: An Emerging Pedagogical Approach Enabled by a Smart Learning Environment'.
- ²⁰ Collaço, 'Increasing Student Engagement in Higher Education'.
- ²¹ Dhawan, 'Online Learning: A Panacea in the Time of COVID-19 Crisis'.

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