Cultivating Global Competence Through Collaborative Online International Learning: Insights from Shanghai Jiao Tong University's SDG July Camp

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Abstract: Higher education institutions are faced with the challenge of developing global competence in students to prepare them for rapidly changing and interconnected world. This article provides insights from Shanghai Jiao Tong University's (SJTU) experiences in delivering Collaborative Online International Learning (COIL) courses through its "SDG July Camp" program. It explores the challenges and takeaways in scaling up COIL courses as an institutional initiative, highlighting the importance of fostering global competence in higher education. SJTU's SDG July Camp offers selected courses related to the United Nations Sustainable Development Goals (SDGs), providing students with opportunities to interact with peers from diverse cultural and disciplinary backgrounds and develop cross-cultural communication skills. The article also discusses the role of SDGs in promoting the internationalization of course content. It aims to contribute to the ongoing discourse on fostering global competence in university students and the effectiveness of COIL in achieving this goal.

Keywords: Global competence; Collaborative online international learning; COIL; SDGs; SJTU SDG July Camp; Higher education

1. Introduction

In an increasingly interconnected, diverse, and complex world, fostering global competence in university students is not only important but arguably a necessity for preparing the future workforce. Universities find it imperative to prepare future leaders, innovators, and change-makers by instilling a deep understanding of diverse cultures and global issues.

The effectiveness of Collaborative Online International Learning (COIL) courses in building students' global competence has been well established by current literature that often focuses on a given subject area, such

as international business [1], engineering [2], or nursing [3], which all testify to the effectiveness of COIL in building students' global competence. However, few have addressed the question of how to scale up the COIL courses to cover as many students as possible. This article will delve into the experiences of Shanghai Jiao Tong University (SJTU) in delivering the "SDG July Camp" program to illustrate the challenges and takeaways in delivering COIL courses as an institutional initiative [3].

2. Defining global competence

Global competence has been defined in various ways. The core concept is generally the willingness to understand and act on issues of global significance [4]. The Organisation for Economic Co-operation and Development defines global competence as "the capacity to analyze global and intercultural issues critically and from multiple perspectives, to understand how differences affect perceptions, judgments, and ideas of self and others, and to engage in open, appropriate and effective interactions with others from different backgrounds based on a shared respect for human dignity" [5]. Global competence, therefore, refers to the skills, attitudes, values, and knowledge that allow one "to establish productive and respectful relationships with people from different cultures and to engage for just, peaceful, inclusive and sustainable societies" [6,7].

The focus of global competence research often differs according to region. For instance, German research on global competence has primarily focused on global and sustainable development education, while English literature has centered more on an individual's aptitude to communicate, and this aptitude is frequently differentiated into intercultural communication, linguistic and cultural competence [7].

3. Developing global competence

Global competence can be a comprehensive competence "developed through certain experiences, e.g., studying abroad or working at an international company. It can also be a competence developed with an intentional focus of developing it, e.g., attending a program to develop certain global competence skills" [8]. Methods used by universities to enhance global competence in students include developing global competence-related curricula, promoting short-term studying abroad, assigning students to intercultural projects, facilitating interactions between local and international students, and hiring international teachers [8].

4. The United Nations Sustainable Development Goals (SDGs)

"The United Nations Sustainable Development Goals (SDGs) were adopted by the United Nations (UN) in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity" [10].

Shanghai Jiao Tong University (SJTU) believes that the internationalization of course contents is an indispensable part of global competence development. The UN SDGs can serve as a catalyst in the internationalization of course contents [7].

"Education is both a goal in itself and a means to attaining all the other SDGs." In China, sustainable development education has usually manifested itself in sustainability-related disciplinary programs at the university level. In addition to these, programs that are branded with SDGs come in the form of summer schools that consist of a series of lectures offered by colleges of environmental sciences and engineering and are often

headlined by guest speakers invited from the international academic community. For SJTU, the SDGs are a perfect tool and framework to promote global competence, as the SDGs are "global in nature" and serve as a perfect catalyst to international course content [8].

5. The SJTU SDG July Camp

The July Summer Camp at Shanghai Jiao Tong University is a school-wide initiative aimed at promoting the teaching and learning of sustainable development goals through selected courses and broadening students' global perspectives. The course is aimed at SJTU students and international students from Chinese and overseas universities. Students will interact with peers from different cultural and disciplinary backgrounds, enhance cross-cultural communication skills, and develop global thinking through online learning forms such as peer learning, group work, and project-based learning. The course content is related to sustainable development goals and has been redesigned to adapt to online teaching, requiring at least 40% of course assignments to include group work and interactive activities. These courses are taught entirely online in the third semester, usually between mid-June and mid-July. The course provides credits for SJTU undergraduate students and is open to international students of all subject backgrounds and levels, and is free of charge for international students. In 2023, some courses will also be open to graduate students.

The SJTU SDG July Camp offered 10 courses in 2022, 12 courses in 2023, and 17 courses in 2024. Apart from courses, the camp also offered online training sessions on SDGs, intercultural competence, pitching skills, an ice-breaker event during the opening ceremony, and a closing ceremony to celebrate learning outcomes [8]. These sessions were open to all participating students.

"Story Circles" [10] were employed in the ice-breaker events and received very good feedback. In 2024, the ice-breaker events were held in each course. It was always recommended to course instructors that Story Circles would serve as an effective tool for group work, both to ensure an equal share of responsibilities for each group member and to facilitate communication and build trust. Nonetheless, instructors would have their preferences and be free to use their pedagogical methods and models in group work.

The online collaboration tool Lark, also known as Feishu, was chosen for this project due to its global accessibility, ability to create virtual learning communities, and user-friendly interface. Weekly communication through Lark on topics related to food and cultural heritage. In 2023, the Sustainable Development Goals July Camp was promoted at a global university network, Universitas21 (U21), as a member-led activity. Member universities hosted public lectures, with professors from the University of California, Davis, the University of Connecticut, and the University of Nottingham participating. In 2024, 10 out of the 17 courses offered at SJTU July Camp underwent multiple runs, with improvements made every year. To provide authentic sustainable development goal projects, experts from the United Nations Development Programme have been invited to give public lectures. In 2024, the project unexpectedly attracted 3,000 external students, half of whom were Chinese, and the other half were international students. Compared to 2022, the number of participants in 2024 has significantly increased.

6. Student feedback on the SJTU SDG July Camps

Overall, students described their experiences as fruitful, informative, engaging, meaningful, and inspiring. They particularly appreciated the improvement of their communication and collaborative skills, the opportunity for

cultural exchange, the increase in awareness of global issues, and the relevance to their future field of work.

Student satisfaction for the SDG July Camp has consistently exceeded 90% over three years. From the 133 feedback surveys that were collected in 2022; 135 feedback surveys in 2023; 183 feedback in 2024; 92% in 2022, 95% in 2023, and 2024. The students rated the program between four and five stars on a 5-star scale. 93% and 94% believed they developed a better understanding of the SDGs through the program, which increased to 98% in 2024. 91% found the program helpful in developing their communication skills in 2022 and 2023, which increased to 92% in 2024.

6.1. Major challenges
6.1.1. Faculty engagement and training
The popularity of sustainable development goals in China is limited, and teachers have an insufficient understanding of them, requiring time to increase participation [11,12]. Lack of cross-cultural training, although many teachers have overseas degrees, not everyone can collaborate with international partners. Teachers face challenges when dealing with online teaching for students with different cultural and disciplinary backgrounds. In addition, designing tasks and projects suitable for online group collaborative learning is also a major challenge faced by teachers.

6.1.2. Student recruitment and preparation [13,14]
(1) Chinese college students do not often adopt peer learning and lack preparation for cooperative learning, which makes online group discussions difficult to conduct.
(2) English-proficient students leading discussions may cause cross-cultural dissatisfaction and require continuous support.
(3) International enrollment ensures cultural diversity among students, but teachers do not bring their own students, but rather market-driven enrollment. In the third year, the number of applicants has surged, and choosing the timing and method of student enrollment has become a problem, making the process cumbersome.
(4) Managing large online courses and supervising multiple work groups is challenging.

6.1.3. Technology and training
(1) Feishu/Lark is a fully integrated online collaboration tool that works perfectly with course delivery. However, users still need to spend some time mastering its various functions.
(2) In the past three years, some international students have reported that their Internet connection problems have led to difficulties in accessing.

6.1.4. Institutional support and administration
Strong institutional support is necessary. For example, the University of Hong Kong has launched a curriculum guide that requires at least 20% of teaching activities to include interactive elements. At HKU, the Teaching Innovation Center has developed technological hardware to promote group collaboration between online and offline students. Despite the lack of similar facilities, teachers at Shanghai Jiao Tong University (SJTU) still provide on-site classrooms for students every year. After consideration, it has been decided to conduct the course entirely online. Although most summer camps are non-credit extracurricular activities, SJTU's July summer camp has become a part of undergraduate education and is seen as an innovative credit course. Integrating

Collaborative Online International Learning (COIL) into regular education is a major advancement in SJTU's teaching approach [15].

6.2. Key takeaways

Regularly organized dialogues and discussions allow teaching consultants, course leaders, and experienced teachers to exchange experiences, and new leaders to raise questions [16]. These meetings aim to help course leaders adapt to online teaching and diverse student groups while redesigning course content to emphasize sustainable development goals. In course design, teachers will receive support, with a particular focus on collaboration and interactivity in online and cross-cultural environments, and identifying best practices for group work. Teachers expressed satisfaction with the participation of United Nations experts and officials in the seminar. SJTU teachers typically invite graduate students to serve as teaching assistants and train them in project management, course promotion, student registration, and more. At the same time, universities recruit more teaching assistants to support large classes, provide technical training for teachers and students, establish online learning communities, provide support and consulting services, and collaborate with stakeholders to explore the best direction forward. Since the Sustainable Development Goals July Camp is a new initiative, it requires continuous discussion and problem-solving. Collective wisdom, which involves making decisions together with colleagues, is the key to achieving Sustainable Development Goal 17, which is the value of partnerships.

7. Conclusion

SJTU's Sustainable Development Goals July Camp continues to develop based on its past experiences. As its cooperation with the global university network U21 has shown, international platforms can promote sharing and cooperation on COIL courses. In 2022, a U21 seminar focused on sustainable development teaching was held, which is a field that global universities continue to make progress on. The guest lectures by experts, such as from UNDP, have enhanced students' understanding of the United Nations Sustainable Development Goals (SDGs) and cultivated a global perspective. These goals should be integrated into university strategies and reflected through teaching and research. Overall, SJTU's July Summer Camp, as a COIL initiative, fosters global capabilities in students. Activities such as "Story Circles" and seminars focus on cross-cultural communication skills, which directly promotes global competence. Through participation in international projects, focus on the SDGs, and adoption of diverse curriculum delivery with interactive methods, higher education institutions can help students expand their worldview and develop global capabilities.

By sharing the experience of Shanghai Jiao Tong University's Sustainable Development Goals July Summer Camp program, this study hopes to share best practices and continue to develop the courses and projects for the benefit of all students and a better future.

Disclosure statement

The authors declare no conflict of interest.

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