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Article

Teacher experience of intercultural group work in higher education: a scoping review

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Abstract

One strategy to reach international goals at universities is intercultural group work (IGW), combining students from different cultural backgrounds to develop their intercultural skills and understanding. Much of the existing IGW research has had a student perspective, underscoring both affordances and challenges. To gain a more complete picture of IGW, this scoping review investigates the existing empirical literature on the teacher perspective. Our review shows scarce research in this area, mostly on virtual group work and individual course initiatives. A thematic analysis reveals that teachers' focus in IGW is on facilitating interaction between student groups; planning the curriculum regarding learning outcomes, developing activities and assessment for IGW; and building intercultural competence. Teachers' challenges with IGW

also emerge such as lack of time, skills and training. We conclude that further research is needed about on-campus IGW, specifically how individual course initiatives might address program and institutional goals and become more sustainable.

Keywords: Intercultural group work, internationalisation, teacher experience

Introduction

In the international classroom, the inclusion of all students is often a challenge (Jones, 2009; Leask, 2009; Spencer-Oatey & Dauber, 2017). Typically, home and international students occupy their own spaces with limited interaction (Harrison & Peacock, 2010). One way of encouraging interaction has been intercultural group work (IGW), where groups of students from different cultural backgrounds work together on a task or project in the classroom (Poort et al., 2019). There has been much research into the affordances and challenges of such an environment from a student perspective (Jiang et al., 2023; Poort et al., 2019). Some of the affordances of IGW have been presented as intercultural competence, increased creativity, greater self-awareness, and even improved grades (De Vita, 2002; Reissner-Roubicek & Spencer-Oatey, 2021; Spencer-Oatey & Dauber, 2017). It has also been argued that working in intercultural pairs can aid integration (Bergman et al., 2023). At the same time, major challenges exist concerning language and communication; group composition; differing background knowledge; and interpersonal attitudes and engagement (Reissner-Roubicek & Spencer-Oatey, 2021).

While research on student experience in this environment is vital in designing pedagogical formats to facilitate the group work, it is important to examine teachers' experiences as well. Teachers are responsible for forming and facilitating the groups and creating the structure within which the group work will take place. The demands that they face in doing this are numerous, from deciding on suitable content areas, to employing a useful strategy for forming the groups, to supporting the groups throughout their work, to assessing the students' work. A question remains about the extent to which teachers are equipped to teach IGW since studies worldwide have shown a lack of professional development generally in the international classroom (Beelen, 2018; Coryell & Salcedo, 2021; Hammond & Radjai, 2022; Zou et al., 2022). This leads to a catch-22 situation – teachers who want to create a working pedagogical structure for IGW do not necessarily have the support or expertise to do this. Therefore, research on teacher experience is crucial for understanding their needs.

For teachers working with IGW and the international classroom, a few websites have been developed to

provide support and advice. Amongst these are EQUiiP[1] ; TICKET[2] ; and SUCTIA[3], all EU funded projects that were conducted between 2016-2022. Some of these materials build on good practice from a teacher perspective, for example, EQUiiP follows on from the IntlUni project. Similarly, several influential and well-known books take up the topic with helpful advice and tips for teachers working in the international classroom (Carroll & Ryan, 2007; Dippold & Heron, 2021; Gregersen-Hermans & Lauridsen, 2021; Leask, 2015). However, it remains unclear what and whose experience these materials reflect, thus the question of empirical data on teachers' experiences with IGW remains.

This scoping review seeks to investigate the existing research on teacher experience with IGW, focusing on empirical research in journal and conference articles included in key databases in the field. Through this overview, the review aims to answer a vital question in the IGW research to date: what research exists that examines the teacher perspective; what can be learnt from it, and which gaps remain?

Previous research on intercultural group work and pedagogy

In terms of previous literature reviews on the affordances and challenges of IGW, three noteworthy reviews are highlighted below. The first focuses on IGW from a business perspective (Stahl & Maznevski, 2021); the second focuses on IGW from a student engineering education perspective (Jiang et al., 2023); and the third concentrates on the role of pedagogy in teamwork in general (Riebe et al., 2016). All provide valuable complementary insights, though they lack the teacher perspective on IGW.

Stahl and Maznevski's retrospective from 2021, which builds on their previous meta-analysis from 2010, examines multicultural work groups mainly in business settings to examine the contextual conditions under which diversity contributes to effective team outcomes. Their 2010 review developed a theoretical framework for IGW, concluding that such teams experience both process gains and losses compared to less diverse teams, making IGW a 'double-edged sword' (p. 5). Culturally diverse teams tend to be more creative but also face more conflicts influenced by contextual factors, such as task complexity, the duration of the group work and the team's location. In their 2021 review, they emphasise the complexity that these contextual factors can bring, for example concerning creativity and conflict, and the effect that individuals in the group can have in terms of helping their team focus on team-shared goals. However, an additional contextual factor not included is the extent to which external leaders of the teamwork, such as managers or teachers, can affect the group work.

[1] EQUiiP – https://equiip.eu
[2] TICKET – https://interculturalticket.eu
[3] SUCTIA - https://www.eaie.org/community/projects-advocacy/suctia.html

Jiang et al. (2023) similarly highlight the affordances and challenges of IGW but in an engineering education setting. They reviewed 77 articles focusing on intercultural team characteristics, the challenges of IGW, and relevant coping strategies from a student perspective. Their findings echo the double-edged sword mentioned above, while also showing many benefits of IGW than those reported elsewhere. IGW was found to be particularly beneficial for competence improvement (e.g. improved professional, collaborative and communicative skills); cognitive development (e.g. increased understanding and awareness of engineering problems and cultural differences); and affective development (e.g. increased openness, respect, confidence in project work and motivation). At the same time, the articles described challenges on an individual and relational level. On an individual level, these were summarised as linguistic and psychological challenges as well as challenges with prior background and experience. On a relational level, these included interactional and technological challenges as well as challenges with teamwork, time management and planning. To a lesser extent, there were issues contextually with external stakeholders such as lack of support from supervisors. This indicates that external leaders like teachers have an important role to play.

Regarding teamwork in general in higher education and pedagogical approaches thereof, Riebe et al. (2016) conducted a thorough systematic literature review on teamwork and pedagogy in higher education to explore the conditions that either enable or constrain teamwork pedagogy. Their analysis revealed two themes: pedagogy and transaction costs. Transaction costs were defined as factors that either enable or constrain teamwork pedagogical activities and decisions. The most common affordance identified was employers' expectations, and that teamwork is one way to meet these expectations, while inadequate preparation was the most frequently cited constraint. The importance of teacher instruction in training students in team skills emerged as a primary focus in the pedagogical theme. It is likely that the challenges in IGW are greater, due to the increased complexity of the environment.

In short, the review studies summarised above shed some light on the affordances and challenges of working in IGW and suggest a key role for teachers in effective group work. However, they also reveal existing gaps. While it appears that IGW can present more challenges than other kinds of group work, the specific teacher practices in setting up and working with IGW have not been investigated in a systematic way, thus it remains unclear how teachers work with and affect this environment.

Therefore, this scoping review seeks to address this omission and examine the existing research on teacher experience in working with IGW in higher education. The following questions formed the basis for the study:

> (1) What empirical research *has been carried out* into teachers' perspectives and experiences of IGW in higher education?

(2) What does the empirical research *reveal* about these perspectives and experiences?

Methodology

Scoping reviews are designed to investigate the range of literature available on a topic as well as provide an overview of its focus (Grant & Booth, 2009; Munn et al., 2018). Since we suspected that little had been published on the topic of teacher experiences of IGW, a scoping review was conducted rather than a systematic review, to explore the topic and address a broad question, using the process suggested by Arksey and O'Malley (2005) as outlined in Table 1. A scoping study, in contrast to a systematic review where individual studies might be presented in more detail, aims to provide an overview, without commenting in detail on the quality of the studies in question (Arksey & O'Malley, 2005). It is important to point out that the process is not linear but iterative, requiring reflection at each step of the way and recursive analysis of the data.

Table 1. Process in a scoping review (Arksey & O'Malley, 2005)

Step	Action
1	Identify the research question (s)
2	Identify relevant studies in selected databases using inclusion and exclusion criteria and a well-formulated search string
3	Selection of the literature found and eliminate irrelevant articles
4	Chart the data
5	Collate the results thematically, summarise, and report the results

The process described above follows the guidelines from the PRISMA 2020 statement (McGowan et al., 2020), designed to provide a checklist of items that should be included in a scoping study, from the title to the discussion section. For example, the guidelines require that the study is identified as a scoping study in the title and that the full electronic search strategy is provided in the methods section.

The method followed the steps described above in Table 1 (Arksey & O'Malley, 2005). *Step 1* of identifying the research questions has already been outlined.

Step 2a: Identifying relevant studies in selected databases

The choice was made to focus on published articles, and on the advice of two librarians working at the first author's institution, four databases were selected for this purpose for their common usage in the field of higher education. Two were general: *Scopus* and *Web of Science* and the third was educational, *ERIC*. A fourth database, *Proquest Dissertation & Theses*, was selected specifically to investigate relevant doctoral theses in the area but none were found. Google Scholar was not used due to the questionable reliability of the articles generated, for example predatory journal articles might be included in a search. Published articles were selected to ensure that they were peer reviewed, which is not necessarily the case with other literature such as books and websites.

Step 2b: Inclusion and exclusion criteria

The criteria are shown in Table 2. Articles had to meet all four inclusion criteria to be included, and the occurrence of a single exclusion criterion was sufficient to exclude the article from further consideration.

Table 2. Inclusion and exclusion criteria for relevance to study

Inclusion criteria	Exclusion criteria
Published between 2003-2022	Published before 2003
Article published in English	Article published in another language than English
Any empirical study of teacher experience / attitudes / reflections of IGW in higher education	Studies focusing only on student experience of IGW (with no teacher experience) Studies focusing only on theoretical aspects of IGW and teaching in HE (no empirical data) Any study that has implications for teaching but not based on teacher data
Studies from any HE discipline	Studies from outside HE e.g. secondary education

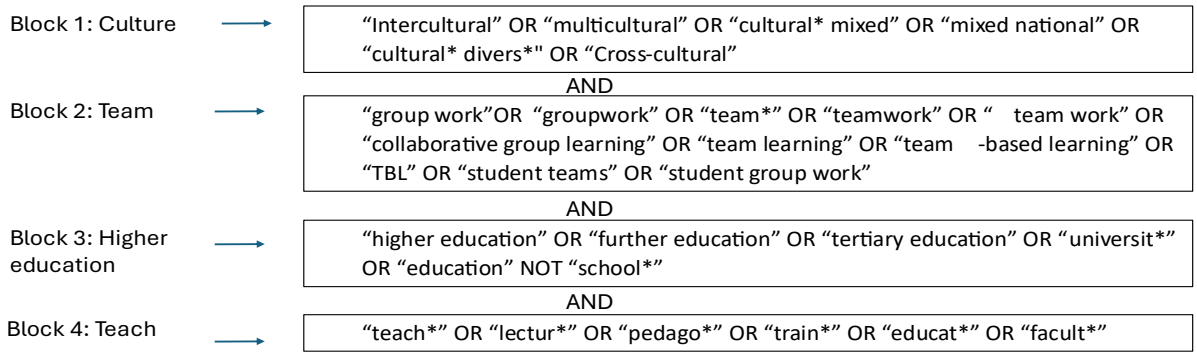
As regards dates chosen, Riebe et al. (2016) showed a clear increase in publications from 2005 so it was decided to use a 20-year period, starting just before the increase happened, i.e. 2003-2022. Only

publications written in English were considered, due to accessibility, outlets of publication, and ease of processing in line with other literature reviews mentioned in this article (Jiang et al., 2023; Riebe et al., 2016). The search included all higher education disciplines.

Step 2c: Search string

The search string was compiled partly using the search terms from Riebe et al., (2016), with a goal of getting as many responses as possible (see Figure 1).

Figure 1. Search string used

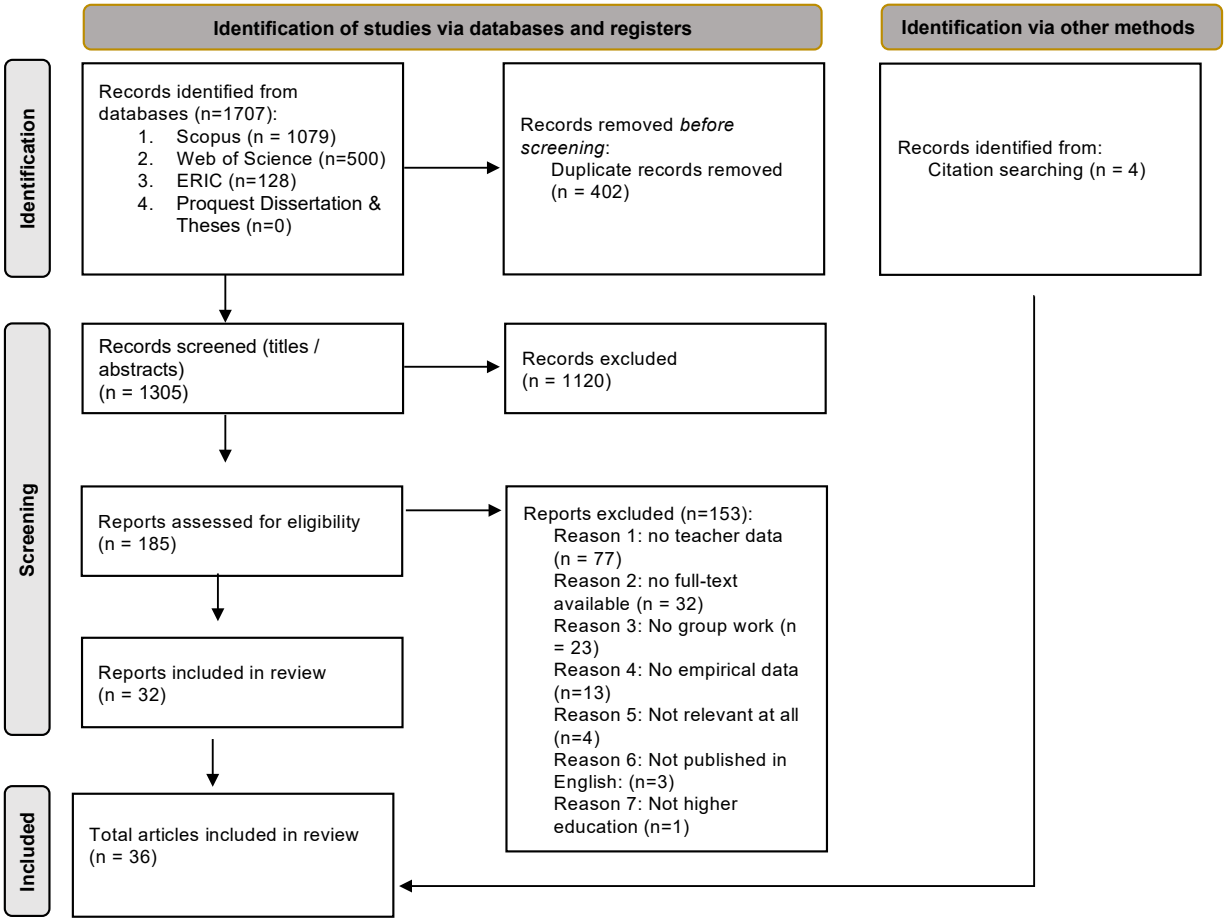


The string was modified several times using * to provide more hits. At the same time, modifications served to reduce irrelevant hits by for example, adding NOT 'school*' to remove hits focusing on secondary rather than higher education. As a test, the authors checked to see whether certain articles that they expected to be found with the search string actually appeared.

Step 3: Selection of the articles

After the search string was used in the four databases, the collection was downloaded into Endnote where the duplicates were removed, first digitally and then manually. The final articles were then downloaded into Rayyan, a web-tool designed for systematic reviews. The final duplicates were removed, and the remaining articles (1305) were then checked one by one by reading the title and abstract, using the Rayyan codes of 'include' 'exclude' and 'maybe' and using the criteria from Table 1 (see figure 2).

Figure 2. A flowchart of the selection process



At two points in the process, each one of the 'maybe' articles were read by two of the co-authors by retrieving the full text, when available, and inspecting the content of the paper manually. For each of these papers, decisions about inclusion were made through discussion by at least two of the co-authors, by referring back to the criteria (Table 2), and any disagreements were thus resolved. This initial selection process resulted in 32 relevant articles, 14 of which were journal articles and 18 were conference articles.

Once the list of articles was agreed on, a pearling strategy was employed, whereby the reference lists of the articles were checked to ascertain if any articles had been missed in the search or if there were any relevant books or book chapters which should be included. The three literature reviews referred to above were also checked for relevant articles. Through this process, four journal articles were subsequently added from Jiang, Dahl and Du's (2023) systematic review on intercultural teamwork, bringing the total number to 36.

Step 4: Chart the data

The 36 articles were downloaded into Excel for further categorization. This included:

- Author(s), year of publication, journal

- Country (-ies) involved in data collection
- Nature of group work
- Discipline

The results of this categorization are given in the results section in response to research question 1.

Step 5: Code the results thematically

To carry out a thematic analysis, all 36 articles were imported into NVivo. First, the parts of the text connected to the teacher experience were identified and then they were coded using verb-based phrases such as 'supporting student-based interaction' (Saldaña, 2011). Chunks of text varied from a sentence to a short paragraph. Once the initial coding of the 36 articles was completed, the resulting 40 codes were grouped together into similar categories (Cho & Lee, 2014) through discussion among the co-authors. Articles were counted per code rather than instances of the code so for example, if theme X appeared more than one time in one article, the article was only counted once for that theme. It should be noted that while the coding focused on the teacher experience and IGW, instances where teachers discussed broader aspects of student collaboration were also coded. It was through this process that the three main chronological categories of 'Planning', 'Implementing' and 'Reflecting' emerged (see Table 3). This process was repeated several times abductively, drawing inspiration from the categories presented in Jiang et al. (2023), Riebe et al. (2016), and Stahl and Maznevski (2021).

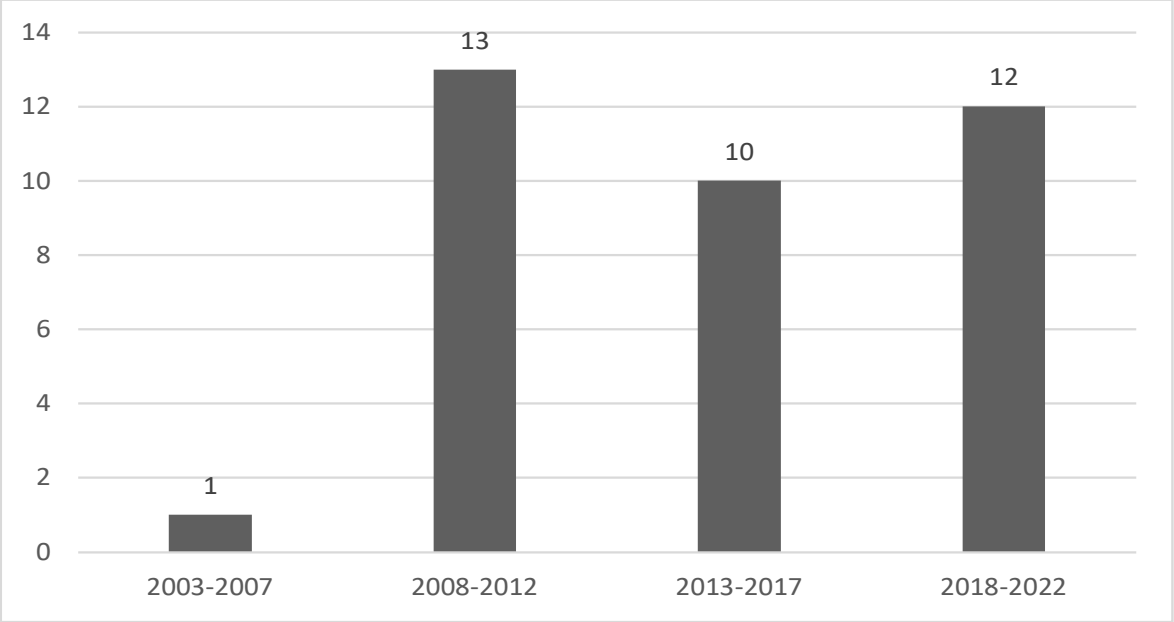
Results

This scoping review reveals that little research has been published on teachers' experiences with IGW in higher education. From an initial database of 1309 articles, only five journal articles and five conference articles specifically focused on this topic, i.e. where the teacher experience was a major part of the data collection and analysis. A further thirteen journal articles and thirteen conference articles contained some indirect data where teacher reflections were included, but the focus of the study lay elsewhere, for example on student experience. This section addresses each of the two research questions in turn.

RQ1: What empirical research has been carried out into teachers' perspectives and experiences of IGW in higher education?

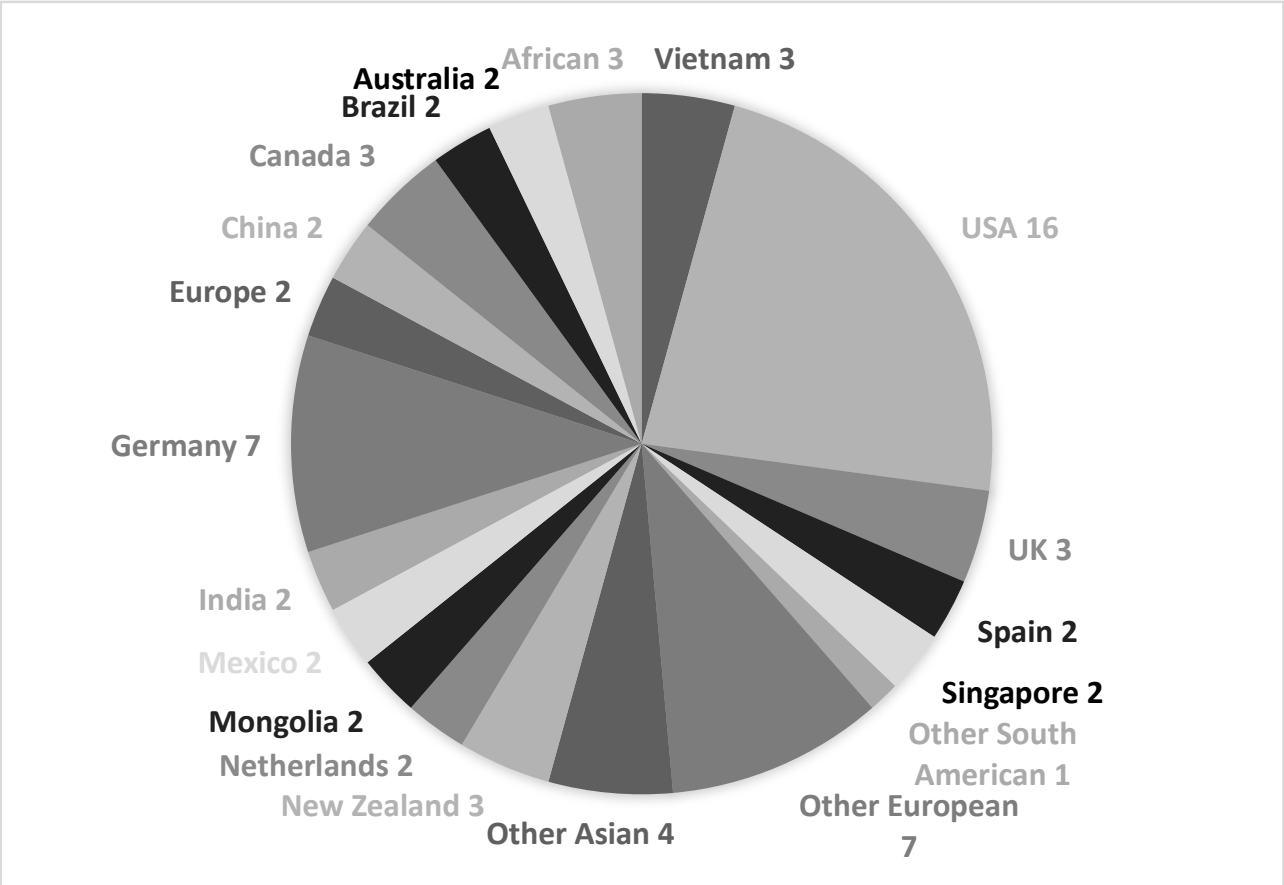
The following figures provide information about the 36 articles found in terms of year of publication, countries where data was collected, type of group work and disciplinary areas.

Figure 3. Year of publication



As shown in other studies (cf. Jiang et al., 2023; Riebe et al., 2016), there was a clear increase in publications after 2007, though it has remained fairly even since then. Figure 4 shows the countries where the data was collected, where this was stated. In two articles, only Europe was given (and not individual countries) and in one article, not all countries that participated in the study were stated. Countries with only a single article have been grouped together to show the region instead. In total, data was collected in 31 different countries; one article often includes more than one country.

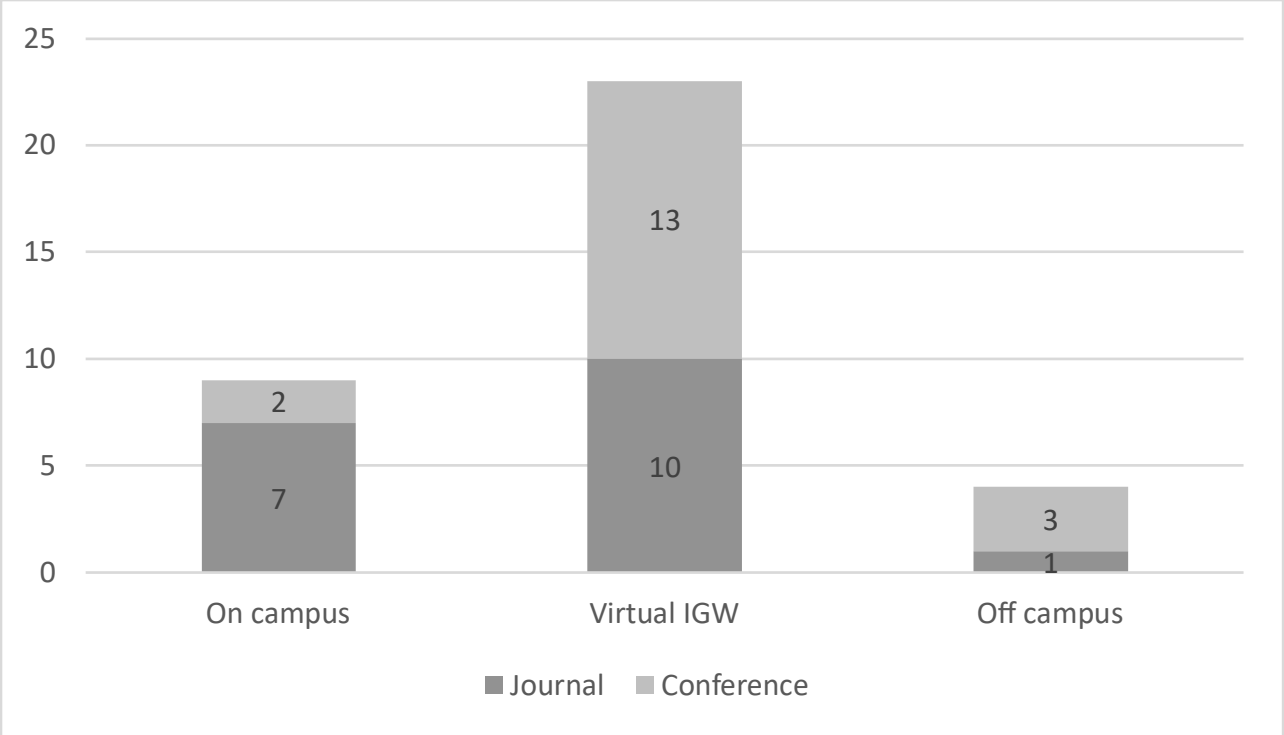
Figure 4. All the countries where data was collected



As shown, data was collected in a very wide range of countries. Of the Anglosphere countries, the USA (16) dominated in line with other findings (Jiang et al., 2023). In Europe, data was collected most frequently in Germany (7) and in Asia, it was collected most frequently in Vietnam (3).

Figure 5 shows the type of group work. The two main types are on-campus or virtual. 'On-campus' is defined as students on the same campus working in teams while 'virtual IGW' is where teams from different universities and usually different countries are connected online.

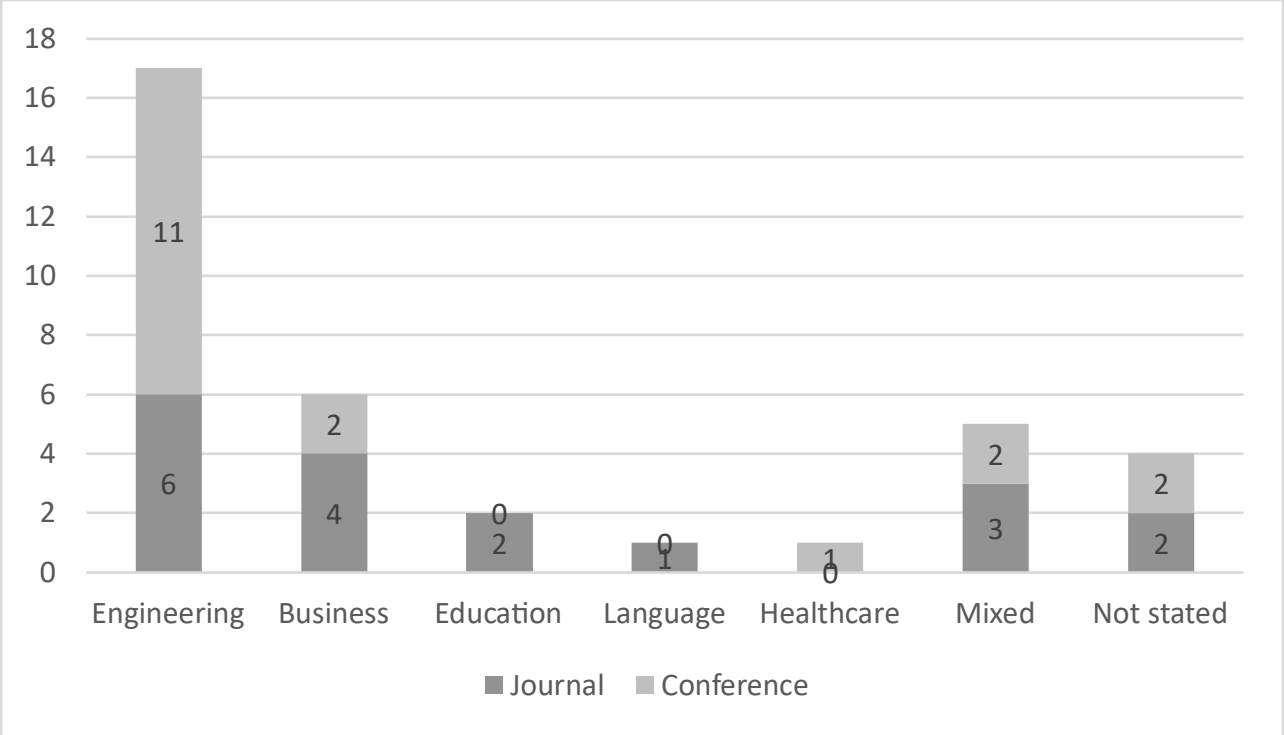
Figure 5. Type of group work



Most of the articles concerned virtual IGW (23/36), particularly the conference articles. The journal articles were divided more equally between on-campus IGW (7/18) and virtual IGW (10 /18). The few articles in the 'off campus' category involved students or staff from one country travelling to another country. The total number of articles about on-campus IGW was one quarter of the total (9/36). Overall, this figure suggests the need for research to focus on on-campus interventions as this seems to be an under-researched area.

Figure 6 shows the discipline area of the students involved in the IGW.

Figure 6. Discipline areas



Interestingly, where there has appeared to be a lack of articles on IGW and engineering compared to other disciplines (Jiang et al., 2023; Bergman et al., 2022), this is not what is shown in Figure 6. By far, the main category concerns engineering students working together. Within engineering, many software engineering projects were represented. Engineering tended to be represented in the mixed category as well. Since engineering has a strong preference for working in teams (Kimpton & Maynard, 2024) and it is a highly internationalised discipline area (Bergman et al., 2022), this is perhaps not surprising.

RQ2: What does the empirical research reveal about teachers' perspectives and experiences of IGW in higher education?

The themes emerging from the 36 articles have been organised into the chronological order of course delivery: from planning to implementation to reflection on the course. 'Planning' relates to all the themes connected to the teacher preparation for the course; 'implementing' refers to the delivery of the course and descriptions of what actually took place, and 'reflecting' refers to teachers' post course reflections on what went well/less well and key issues for future consideration. The three overarching categories are interconnected and there can be some overlap in the themes.

Table 3 shows the themes within these three overarching categories and the number of articles thereof, presented in decreasing order of frequency. The themes represent issues that were mentioned in at least four articles.

Table 3. Numbers of articles by categories and themes of full article dataset

Category	Theme	Number of articles
Planning	Planning the IGW	12
	Dealing with country/university timing	11
	Designing course activities and assignments	10
	Organizing teams	10
	Developing intercultural competence (ICC) strategies	9
	Being aware of different academic traditions	9
	Planning student interaction	7
	Deciding on learning outcomes for intercultural competence (ICC)	5
Implementing	Assessing learning	13
	Digital solutions for interactions	10
	Supporting student interaction	10
	Getting-to-know-you activities	5
Reflecting	Reflecting on students communicating	14
	Reflecting on teachers communicating	9
	Behavioural adjustment: being flexible	9
	Reflecting on teachers and students communicating	7
	Teacher challenges: Expected and changing role	7
	Teacher challenges: Availability	6
	Intercultural student differences	5
	Teacher challenges: Lack of skills	5
	Training the trainers	5
	Reflecting on intercultural learning	4
	Teacher challenges: Time in course	4
	Leveraging international diversity	4
	Teacher improvements: Reflecting on project	4
	Teacher improvements: Shifting course design	4
	Affective development: building trust	4
	Affective development: building motivation	4

Category 1: Planning

The themes in this section range from planning the course as a whole to the group work in particular, and syncing these activities across different institutions as regards virtual group work. They are discussed below in this order rather than the order presented in Table 3.

In general, *Developing intercultural competence strategies* through IGW was emphasized, where both the importance of intercultural learning (Kumi-Yeboah, 2018; Vidovic et al., 2021) and the affordances of achieving this are stressed (Yefanova et al., 2017). Connected to this, a few articles mentioned that the course included *Learning outcomes for intercultural communication*, such as students being able to communicate effectively in a cross-cultural environment (Alliet-Gaubert et al., 2012; Hilliard, 2005; Orta et al., 2020).

In terms of promoting communication in class, the theme *Planning student interaction* included strategies for scaffolding. For example, with on-campus groups, this could be about steering students' seating arrangements (Cruickshank et al., 2012; Yefanova et al., 2017) and facilitating relaxed discussions (Kurek & Müller-Hartmann, 2019).

Concerning *Organizing teams*, self-selected versus teacher-selected teams were considered and in the case of virtual IGW, whether teams should be formed within one campus or across campuses. The consensus generally was that teachers should be active in the group formation based on criteria like topic interests, nationality background and schedules (Dool, 2010; Gloor et al., 2011; Sisto, 2009) and that student teams in virtual IGW should have representatives from all campuses (Gloor et al., 2011; Orta et al., 2020). Smaller groups were preferred of between two to five students (Orta et al., 2020; Sisto, 2009).

In terms of *Planning the IGW*, the articles discussed strategies such as team contracts and seminars on team building. Baker and Clark (2010), for example, discuss how students are prepared for their group work through discussions on teamwork and explicit instructions on the process and outcomes.

Regarding the course as a whole, several of the conference papers discussed the fact that teachers felt challenged by *Designing course activities and assignments* for an international student group, for example, the international perspectives that need to be considered (Clear, 2011; Kumi-Yeboah, 2018). One issue was the lack of teacher training to do this, and another was the lack of knowledge about the student population taking the course (Kumi-Yeboah, 2018). In relation to this, was the worry about student ability in completing the assignments (Danielewicz-Betz & Kawaguchi, 2014) especially when the nature of the activity was very complex (Kjellberg et al., 2015). Some articles suggested solutions such as finding common ground (Danielewicz-Betz & Kawaguchi, 2014) and using examples appropriate and relevant to all students (Hilliard, 2005).

Moving beyond the course level, *Dealing with country and university timing* focused on the practicalities of syncing between different national campuses, in terms of different schedules, deadlines, holidays and time zones (Clear, 2011; Davison et al., 2017; Gloor et al., 2011; Raval et al., 2020; Trowbridge & Liu, 2017; Van Petegem & Lang, 2019; Zaugg et al., 2011). In setting up virtual exchanges, *Being aware of different academic traditions* reflected on aspects such as setting up agreements between universities (Hitchcock et al., 2011), the consequences of company culture for sharing knowledge (Ayesu & Bengoa, 2020) or different methodological approaches (Kurek & Müller-Hartmann, 2019).

Category 2: Implementing

As regards the implementation of the course, a major theme in this section was *Assessing learning* in the IGW and the project. This was presented in terms of the issues in some articles and solutions in others. Concerning issues, lecturers and students were worried about fair group assessment and unrealistic grading e.g. excellent students being pulled down or vice versa and being able to show an individual's true contribution. While most lecturers felt their assessments were clear and logical, less than half of the students agreed with this (Baker & Clark, 2010). In virtual IGW, Trowbridge and Liu (2017) pointed out the different grading schemes in different universities. In terms of solutions, opinions were divided at times. While Gatlin-Watts et al. (2007) suggested balancing individual control with shared objectives, Dool (2010) proposed having a significant grade for the group assignment and only one grade for the team. Some articles agreed on the importance of formative assessment (Yefanova et al., 2017) where Cruickshank et al. (2012) discussed the importance of scaffolding the assignment, for example, working with drafts and Sisto (2009) suggested more specific criteria and providing written comments in feedback to the criteria, stressing the importance of positive feedback.

The theme, *Supporting student interaction* focused specifically on groups that might be disadvantaged in some way and how to enable interaction in these cases. For example, Yefanova et al. (2017) discuss the dilemma between encouraging international students to speak and share but at the same time, not pushing them outside their comfort zones. Logemann et al. (2022) discuss the situation during the pandemic where a faculty member opened their Zoom room early so that students had a chance to chat informally before the class start. Zaugg et al. (2011) talk about accommodating different language backgrounds by, for example, providing students with questions before class to give them a chance to prepare.

Getting-to-know-you activities, typically self-introductions, were mainly as a way for students to become more familiar with their teams (Baker & Clark, 2010; Kumi-Yeboah, 2018), though this could also be used with the class as a whole (Sisto, 2009).

Digital solutions for interactions discussed virtual group work and the technology teachers chose for this,

for example, Skype, LMS and email. This was more common in the conference articles which tended to highlight primarily practical concerns, such as accessibility to and familiarity with different technologies (Davison et al., 2017; Hilliard, 2005).

Category 3: Reflecting

Teaching reflections both reflected back on what had been done and reflected forward for possible adjustments. In terms of reflecting back, communication between the different groups was stressed, both in terms of knowledge sharing but also general interaction. As regards *Reflecting on student communicating*, the focus was more on issues of language proficiency and different kinds of English (Baker & Clark, 2010; Gatlin-Watts et al., 2007; Gloor et al., 2011) though Yefanova et al. (2017) found that teachers perceived this to be more problematic than the students in their study. As regards *Reflecting on teachers communicating*, some articles emphasised the pivotal role of teacher interaction in setting up IGW and the fact that this takes time to establish in virtual IGW (Kurek & Müller-Hartmann, 2019; Vidovic et al., 2021). For *Reflecting on teachers and students communicating*, many articles stressed the importance of good communication routines such as weekly meetings and clear agendas (Gloor et al., 2011; Zaugg et al.,2011).

Three themes discussed intercultural communication and differences. *Intercultural student differences* emphasized the challenges of cultural differences between different nationality groups, particularly in the areas of knowledge sharing (Ayesu & Bengoa, 2020); work focus (Ayesu & Bengoa, 2020); time (Danielewicz-Betz & Kawaguchi, 2015; Gloor et al., 2011); direct versus indirect communication (Gloor et al.,2011); individualistic versus collectivist cultures (Danielewicz-Betz & Kawaguchi, 2014) and problem solving (Kjellberg et al., 2015).

The theme, *Leveraging international diversity,* on the other hand, discussed how to maximise the richness of the international classroom by being aware of it (Trahar & Hyland, 2011), giving all students a chance to participate through activities like Think-Pair-Share (Cruickshank et al., 2012) and bringing in experiences from different countries (Hilliard, 2005).

Finally, the theme, *Reflecting on intercultural learning*, discussed the importance of this reflection for both teachers and students and trying to include it in the course, with varying success (Yefanova et al., 2017). In some examples, the reflection was positive, for example Hilliard (2005) showed that the majority of students and staff felt that they had learnt about other cultures whereas in Trahar and Hyland (2011), teachers problematize their own assumptions that international students should mix and learn from local students.

Within *Affective development*, the main aspects mentioned are *Building trust* and *Building motivation*. In

the former, this is emphasised when building global digital teams (Ayesu & Bengoa, 2020; Davison et al., 2017; Gloor et al., 2011). In the latter, both intrinsic and extrinsic motivation are referred to (Ayesu & Bengoa, 2020; Pinkelman et al., 2017).

The *Behavioural adjustment* of *Being flexible* is often mentioned in connection with virtual IGW and was described as necessary for both teachers (Kurek & Müller-Hartmann, 2019) and students (Zaugg et al., 2011).

Teacher improvements involved both reflecting back, stressing the need to evaluate the project (Gatlin-Watts et al., 2007) and having clear project descriptions (Hilliard, 2005) as well as looking ahead to the importance of shifting course design where necessary (Dossick et al., 2015; Kjellberg et al., 2015).

Teacher Challenges covered four areas: *Teacher availability*, *Time in course*, *Lack of skills* and *Expected and changing role*. These all relate to the importance of teachers being present in the courses, teacher commitment and training. Lack of time is an issue (Baker & Clark, 2010) as well as the challenge of designing a curriculum when students are from diverse backgrounds (Kumi-Yeboah, 2018). As regards the teacher role, comments involve the different roles teachers need to adopt, aside from content teacher, such as motivator and guide (Dool, 2010; Foster et al., 2018) as well as being able to multitask (Danielewicz-Betz & Kawaguchi, 2014).

Finally, in the theme *Training the trainers*, some articles highlight the fact that few teachers have been trained to work with IGW and argue that this needs to happen if there is to be an improvement in this area (Baker & Clark, 2010; Kumi-Yeboah, 2018).

Discussion

This scoping review aimed to investigate the existing empirical research on the teacher perspective when working with IGW in higher education. The 36 articles included in the study focus on individual courses and initiatives, most of them being virtual IGW. Four key areas emerge from the data: interaction, curriculum, intercultural competence and, to a lesser extent, teacher challenges.

Interaction was a key focus in the articles, in terms of teachers' planning, supporting and reflecting on the student interaction and the group work. Interaction between students is generally given as one motivating factor for carrying out group work in any form, and particularly for IGW (Jiang et al., 2023; Leask, 2009; Riebe et al., 2016). IGW sets extra demands on the students regarding language and communication elements (Jiang et al., 2023; Spencer-Oatey & Dauber, 2017) and therefore makes more demands on the teacher in terms of facilitating the group work. In addition, particularly in the case of virtual IGW,

interaction is needed between teachers in different courses, universities and countries, requiring flexibility when dealing with different contexts and cultures.

Another key area of interest in the articles is that of the course curriculum, including the elements of learning outcomes for group work and intercultural communication; designing course activities related to these; and assessment of the group work. Assessment is always a challenge in group work and becomes more complex within IGW, for example, with extra considerations around language and the level of explicitness required (Baker & Clark, 2010; Sisto, 2009).

IGW can be one way of working towards goals of intercultural competence which was stressed as important in some articles. Elements of intercultural competence were also discussed in the sense of being flexible, building trust and being aware of different traditions.

Finally, while the articles tended to stress the affordances of IGW and successful strategies for working with it, teacher challenges of facilitating IGW were also raised such as having a changing role, availability, time, lack of skills and lack of training.

Research implications

While the articles provide some insights, our findings show generally a lack of studies on the teacher perspective in IGW, confirming claims in previous research (Beelen, 2018; Coryell & Salcedo, 2021; Hammond & Radjai, 2022; Zou et al., 2022). Of the 36 articles found, half were conference articles and only ten of the 36 specifically focused on the teacher perspective. Our review shows a particular lack of research in the teacher perspective in the following two areas: IGW on-campus and IGW from a broader, institutional perspective.

While virtual IGW is an interesting area of research, it tends to be offered to a small minority of students at a university, due to the challenges of syncing these activities across different institutions and with different teachers (Kumi-Yeboah, 2018). On-campus IGW, on the other hand, has the potential for wider student participation since it can be employed not only at a course level but also at program and even institutional level. While most institutions have goals for internationalisation and group work, none of the articles discuss how implementing IGW might achieve these goals. In addition, single course initiatives are ultimately challenging to sustain, since they are dependent on individual, enthusiastic staff willing to invest extra time and energy to carry them out. Many of the articles were positive in their presentation of IGW, particularly virtual IGW, and a more critical perspective connected to the sustainability of such initiatives would be helpful.

Another insight is that research on the teacher perspective in IGW is needed across a greater variety of

regional and disciplinary contexts. Like other literature reviews, we focused on articles published in international outlets where a small fraction was not written in English. However, it would be interesting to investigate further if publications in other languages show different results. Given the relatively few articles found with this scope, the implications that can be drawn are only indicative and need further investigation.

Institutional implications: pedagogy and policy

There are several implications of this study for institutions, both for teachers and institutional managers. Intercultural competence is an area which is increasingly important given institutional goals for working with internationalisation and the need to integrate all students into the university environment. Our research supports the picture that course and institutional managers need support and training in implementing the international classroom with activities such as IGW across the institution (Jiang et al., 2023; Riebe et al., 2016).

On an individual level, teachers could be supported in the form of training in pedagogical aspects, for example through embedding intercultural training within teacher in-service training; providing resources for assessing IGW; or working with an expert mentor. On an institutional level, policies or frameworks are needed to foster more effective IGW environments, backed up with leadership support and encouragement such as peer learning for teaching (Lauridsen & Gregersen-Hermans, 2023). In this way, communities of practice can be created to provide additional support.

Conclusion

This scoping review has examined the existing research on teacher experience in working with IGW in higher education and concluded that little has been done at present, especially as regards IGW on-campus. Despite the scarcity of this research, some valuable insights emerged from our thematic analysis, particularly from virtual IGW contexts. Teachers working in IGW place great focus on facilitating students' interaction; developing a meaningful curriculum in terms of learning outcomes, activities and assessment; and promoting intercultural competence. To a lesser extent, teachers also reported challenges in terms of roles, availability, and lack of teacher training in IGW. We highlight a need for more empirical research on the teacher experience, particularly about how IGW is implemented in on-campus courses, considering a broader institutional and on-campus perspective. This is important not least in being able to provide relevant support to teachers. Expanding the focus of the research on IGW to include teachers, institutions, and contextual/regional dynamics will be beneficial for universities striving to meet goals connected to internationalisation on-campus.

References

Alliet-Gaubert, M., LeRoux, G. C., de Jesus, C. D. F., Cruz, A. J. G., Rouzineau, D., Giordano, R. C., Joulia, X., & Nascimento, C. A. O. (2012). Cooperative WebLab in chemical engineering between France and Brazil: Validation of the methodology. *Education for Chemical Engineers*, 7(1), e7-e13. https://doi.org/10.1016/j.ece.2011.09.001

Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International journal of social research methodology*, *8*(1), 19-32.

Ayesu, J. A. O., & Bengoa, D. S. (2020). The cultural complexity of knowledge sharing in multicultural teams. *Proceedings of the 21st European Conference on Knowledge Management (ECKM 2020)*, 73-80. https://doi.org/10.34190/EKM.20.246

Baker, T., & Clark, J. (2010). Cooperative learning - a double-edged sword: A cooperative learning model for use with diverse student groups. *Intercultural Education*, *21*(3), 257-268. https://doi.org/10.1080/14675981003760440

Beelen, J. (2018). Watering a hundred flowers; Institutional leadership for internationalisation at home. In J. Beelen & J. Walenkamp. (Eds.), *Leading internationalisation in higher education: People and policies*. *Portraits and papers presented to Susana Menéndez on the occasion of her farewell as a member of the Executive Board of The Hague University of Applied Sciences* (pp.65-77). The Hague University of Applied Sciences.

Beier, S., Bickel, M., Brockmann, P., & Choinzon, M. (2012). It takes a global village to teach global software engineering: A Mongolian-German team-teaching project. *Proceedings of the 2012 International Conference on E-Learning and E-Technologies in Education (ICEEE 2012),* 152-157. https://doi.org/10.1109/icelete.2012.6333395

Bergman, B., Negretti, R., & Apelgren, B.-M. (2022). Individual experiences of intercultural group work in engineering education over time: beyond 'home' and 'international' labels. *European Journal of Engineering Education* 48(1), 143-156. https://doi.org/10.1080/03043797.2022.2081132

Bergman, B., Negretti, R., Spencer-Oatey, H., & Stöhr, C. (2023). Integrating Home and International Students in HE: Academic and Social Effects of Pair Work PBL Assignments Online. *Journal of studies in international education*, *28*(2), 240-258. https://doi.org/10.1177/10283153221150117

Carroll, J., & Ryan, J. (2007). Teaching international students: Improving learning for all. Routledge.

Cho, J. Y., & Lee, E.-H. (2014). Reducing confusion about grounded theory and qualitative content analysis: Similarities and differences. *Qualitative Report*, *19*(32), 1-20. https://doi.org/10.46743/2160-3715/2014.1028

Clear, T. (2011). Replicating an 'onshore' capstone computing project in a 'farshore' setting - An experience report. *Proceedings of the 6th IEEE International Conference on Global Software Engineering (ICGSE 2011),* 161-165. https://doi.org/10.1109/ICGSE.2011.11

Coryell, J. E., & Salcedo, A. (2021). Values and Attitudes for Teaching International Graduate Student Populations European Faculty Insights for Instructional Professional Development During European Higher Education Internationalization. In C. Glass, K. Bista, & X. Lin (Eds.), *The Experiences of International Faculty in Institutions of Higher Education: Enhancing Recruitment, Retention, and Integration of International Talent* (pp. 101-116). Routledge.

Cruickshank, K., Chen, H., & Warren, S. (2012). Increasing international and domestic student interaction through group work: A case study from the humanities. *Higher Education Research and Development*, *31*(6), 797-810. https://doi.org/10.1080/07294360.2012.669748

Danielewicz-Betz, A., & Kawaguchi, T. (2014). Multicultural (mis)communication in IT research labs. *Proceedings of the 2014 IEEE International Professional Communication Conference (IPCC 2014).* https://doi.org/10.1109/IPCC.2014.7020357

Davison, R. M., Panteli, N., Hardin, A. M., & Fuller, M. A. (2017). Establishing Effective Global Virtual Student Teams *IEEE Transactions on Professional Communication*, *60*(3), 317-329. https://doi.org/10.1109/TPC.2017.2702038

De Vita, G. (2002). Does Assessed Multicultural Group Work really pull UK Students' Average down? *Assessment & Evaluation in Higher Education*, *27*(2), 153-161. https://doi.org/10.1080/02602930220128724

Dippold, D., & Heron, M. (Eds.) (2021). Meaningful Teaching Interaction at the Internationalised University: Moving from Research to Impact. Routledge.

Dool, R. (2010). Managing conflict in online multicultural student teams. *Proceedings of the International Conference on Society and Information Technologies (ICSIT 2010),* 185-189.

Dossick, C. S., Homayouni, H., & Lee, G. (2015). Learning in global teams: BIM planning and coordination. *International Journal of Automation and Smart Technology*, *5*(3), 119-135.

Foster, D., Gilardi, F., Martin, P., Song, W., Towey, D., & White, A. (2018). Students as co-producers in a multidisciplinary software engineering project: addressing cultural distance and cross-cohort handover. *Teachers and Teaching*, *24*(7), 840-853. https://doi.org/10.1080/13540602.2018.1486295

Gatlin-Watts, R., Carson, M., Horton, J., Maxwell, L., & Maltby, N. (2007). A guide to global virtual teaming. *Team Performance Management*, *13*(1-2), 47-52. https://doi.org/10.1108/13527590710736725

Gloor, P., Paasivaara, M., Lassenius, C., Schoder, D., Fischbach, K., & Miller, C. (2011). Teaching a global project course: Experiences and lessons learned. *Proceedings of the 2011 Community Building Workshop on Collaborative Teaching of Globally Distributed Software Development, CTGDSD 2011,* 1-5. https://doi.org/10.1145/1984665.1984666

Grant, M. J., & Booth, A. (2009). A typology of reviews: an analysis of 14 review types and associated methodologies. *Health information & libraries journal*, *26*(2), 91-108. https://doi.org/10.1111/j.1471-1842.2009.00848.x

Gregersen-Hermans, J., & Lauridsen, K. M. (Eds.). (2021). Internationalising programmes in higher education: An educational development perspective. Routledge.

Hammond, C. D., & Radjai, L. (2022). Internationalization of Curriculum in Japanese Higher Education: Blockers and Enablers in English-Medium Instruction Classrooms in the Era of COVID-19. *Higher Education Forum, 19*, 87-107.

Harrison, N., & Peacock, N. (2010). Interactions in the international classroom: the UK perspective. In E. Jones (Ed.), *Internationalisation and the student voice: Higher Education Perspectives* (pp. 125-142). Routledge.

Hilliard, A. (2005). Outline and evaluation of a joint European and Canadian virtual mobility: e-learning project. *Proceedings of the European Conference on Games-based Learning, 4th European Conference on e-Learning, ECEL 2005* (pp. 163-172).

Hitchcock, L., Quan, V. H., & Danh, T. C. (2011). Intercultural competence in practice: Reflections on establishing cross-cultural collaborative education programmes. *ACM Inroads*, *1*(3), 85-93.

Jiang, D., Dahl, B., & Du, X. (2023). A Systematic Review of Engineering Students in Intercultural Teamwork: Characteristics, Challenges, and Coping Strategies. *Education Sciences*, *13*(6). https://doi.org/10.3390/educsci13060540

Jones, E. (2009). Internationalisation and the student voice: Higher education perspectives. Routledge.

Kimpton, C., & Maynard, N. (2024). Factors shaping teamwork skills development in tertiary engineering education: a systematic literature review. *European Journal of Engineering Education*, *50*(2), 253–280. https://doi.org/10.1080/03043797.2024.2357343

Kjellberg, M., Adawi, T., & Brolin, K. (2015). Challenges in implementing PBL: Chalmers formula student as a case. *Proceedings of the 43rd SEFI Annual Conference 2015 (SEFI 2015)*.

Kumi-Yeboah, A. (2018). Designing a cross-cultural collaborative online learning framework for online instructors. *Online Learning Journal*, *22*(4), 181-201. https://doi.org/10.24059/olj.v22i4.1520

Kurek, M., & Müller-Hartmann, A. (2019). The formative role of teaching presence in blended virtual exchange. *Language learning and technology*, *23*(3), 52-73.

Lauridsen, K. M., & Gregersen-Hermans, J. (2023). From experience to expertise–different avenues leading to professional development for HE educators. In F. Hunter, R. Ammigan, J. Gregersen-Hermans, E. Jones, & A. C. Murphy (Eds.), *Internationalisation in higher education: Responding to new opportunities and challenges. Ten years of research by the Centre for Higher Education Internationalisation (CHEI)* (pp. 129-141). Educatt Università Cattolica del Sacro Cuore

Leask, B. (2009). Using formal and informal curricula to improve interactions between home and international students. *Journal of Studies in International Education*, *13*(2), 205-221. https://doi.org/10.1177/1028315308329786

Leask, B. (2015). Internationalizing the curriculum. Routledge.

Logemann, M., Aritz, J., Cardon, P., Swartz, S., Elhaddaoui, T., Getchell, K., Fleischmann, C., Helens-Hart, R., Li, X., Palmer-Silveira, J., Ruiz-Garrido, M., Springer, S., & Stapp, J. (2022). Standing strong amid a pandemic: How a global online team project stands up to the public health crisis. *British Journal of Educational Technology*, *53*(3), 577-592. https://doi.org/10.1111/bjet.13189

McGowan, J., Straus, S., Moher, D., Langlois, E. V., O'Brien, K. K., Horsley, T., Aldcroft, A., Zarin, W., Garitty, C. M., & Hempel, S. (2020). Reporting scoping reviews—PRISMA ScR extension. *Journal of clinical epidemiology*, *123*, 177-179.

Munn, Z., Peters, M. D., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, *18*, 1-7.

OECD. (2021). Education at a Glance 2021: OECD Indicators.

Orta, P., Urbina-Coronado, P. D., & Ahuett-Garza, H. (2020). Global competences through IDEEA Global course. *Proceedings of the 11th IEEE Global Engineering Education Conference (EDUCON 2020*), 1423-1427. https://doi.org/10.1109/EDUCON45650.2020.9125400

Pinkelman, R., Awolin, M., Walter, S., Nasajargal, B., Norovryenchin, O., Nergui, U., & Hampe, M. (2017). Sustainable transfer of a German PPBL model to a Mongolian environment: Intercultural experiences, reflections and recommendations. *Proceedings of the 45th SEFI Conference*, 151-161.

Poort, I., Jansen, E., & Hofman, A. (2019). Intercultural group work in higher education: Costs and benefits from an expectancy-value theory perspective. *International Journal of Educational Research*, *93*, 218-231. https://doi.org/10.1016/j.ijer.2018.11.010

Raval, M. S., Kaya, T., Zaveri, M., & Sharma, P. (2020). Experiments with multinational cross-course project. *2020 IEEE International Conference on Teaching, Assessment, and Learning for Engineering (TALE 2020)* (pp. 570-575). https://doi.org/10.1109/TALE48869.2020.9368362

Riebe, L., Girardi, A., & Whitsed, C. (2016). A systematic literature review of teamwork pedagogy in higher education. *Small Group Research*, *47*(6), 619-664. https://doi.org/10.1177/1046496416665221

Reissner-Roubicek, S., & Spencer-Oatey, H. (2021). Positive interaction in intercultural group work: Resources to foster success. In Z. Zhang, T. Grimshaw, & X. Shi (Eds.), *International Student Education in Tertiary Settings* (pp. 82-104). Routledge.

Saldaña, J. (2011). *Fundamentals of qualitative research*. Oxford University Press.

Sisto, M. (2009). Can you explain that in plain English? Making statistics group projects work in a multicultural setting. *Journal of Statistics Education*, *17*(2). https://doi.org/10.1080/10691898.2009.11889522

Spencer-Oatey, H., & Dauber, D. (2017). The gains and pains of mixed national group work at university. *Journal of Multilingual and Multicultural Development*, *38*(3), 219-236. https://doi.org/10.1080/01434632.2015.1134549

Stahl, G. K., & Maznevski, M. L. (2021). Unraveling the effects of cultural diversity in teams: A retrospective of research on multicultural work groups and an agenda for future research. *Journal of International Business Studies*, *52*(1), 4-22. https://doi.org/10.1057/s41267-020-00389-9

Trahar, S., & Hyland, F. (2011). Experiences and perceptions of internationalisation in higher education in the UK. *Higher Education Research and Development*, *30*(5), 623-633. https://doi.org/10.1080/07294360.2011.598452

Trowbridge, A., & Liu, A. (2017). Design of an international joint course on Grand Challenges for Engineering. *Proceedings of the 124th ASEE Annual Conference and Exposition*.

Van Petegem, W., & Lang, D. (2019). Enriching learning experiences for students to enhance their engineering competences across cultures and nations. *Proceedings of the 47th SEFI Annual Conference 2019 - Varietas Delectat: Complexity is the New Normality*, 1243-1250.

Vidovic, M., Hammond, M., Lenhardt, J., Palanski, M., & Olabisi, J. (2021). Teaching Virtual and Cross-Cultural Collaborations: Exploring Experiences of Croatia- and U.S.-Based Undergraduate Students. *Journal of Management Education*, *45*(6), 953-986. https://doi.org/10.1177/1052562920972170

Yefanova, D. N., Montgomery, M. L., Woodruff, G. A., Johnstone, C. J., & Kappler, B. (2017). Instructional practices facilitating cross-national interactions in the undergraduate classroom. *Journal of International Students*, *7*(3), 786-805. https://doi.org/10.5281/zenodo.570034

Zaugg, H., Davies, R., Parkinson, A. R., Magleby, S. P., Jensen, G., & Ball, A. G. (2011). Creation and implementation of a backpack course to teach cross-cultural and virtual communications skills to students in an international capstone experience. *Proceedings of the 2011 ASEE Annual Conference & Exposition*.

Zou, T. X., Law, L. Y., Chu, B. C., Lin, V., Ko, T., & Lai, N. K. (2022). Developing academics' capacity for internationalizing the curriculum: A collaborative autoethnography of a cross-institutional project. *Journal of studies in international education*, *26*(3), 334-351. https://doi.org/10.1177/1028315320976040

Appendix: Database of articles used in scoping review

Alliet-Gaubert, M., LeRoux, G. C., de Jesus, C. D. F., Cruz, A. J. G., Rouzineau, D., Giordano, R. C., Joulia, X., & Nascimento, C. A. O. (2012). Cooperative WebLab in chemical engineering between France and Brazil: Validation of the methodology. *Education for Chemical Engineers*, *7*(1), e7-e13. https://doi.org/10.1016/j.ece.2011.09.001

Ayesu, J. A. O., & Bengoa, D. S. (2020). The cultural complexity of knowledge sharing in multicultural teams. *Proceedings of the 21st European Conference on Knowledge Management (ECKM 2020)*, 73-80. https://doi.org/10.34190/EKM.20.246

Baker, T., & Clark, J. (2010). Cooperative learning - a double-edged sword: A cooperative learning model for use with diverse student groups. *Intercultural Education*, *21*(3), 257-268. https://doi.org/10.1080/14675981003760440

Barbosa, B., & Prado-Meza, C. M. (2017). How far can we go without leaving the classroom? Results of an international cooperation experience with students in Mexico and Portugal. *Proceedings of the 9th International conference on education and new learning technologies (EDULEARN17)*, 7421-7430. https://doi.org/10.21125/edulearn.2017.0326

Beier, S., Bickel, M., Brockmann, P., & Choinzon, M. (2012). It takes a global village to teach global software engineering: A Mongolian-German team-teaching project. *Proceedings of the 2012 International Conference on E-Learning and E-Technologies in Education (ICEEE 2012)*, 152-157. https://doi.org/10.1109/icelete.2012.6333395

Chang, L. G., Fiori, C. M., Jaselskis, E. J., Schexnayder, C., Hogle, L. G., & Shane, J. S. (2013). Preparing Students to Work on Multi-Cultural Teams. *Proceedings of the 2013 ASEE Annual Conference & Exposition*.

Clear, T. (2011). Replicating an 'onshore' capstone computing project in a 'farshore' setting - An experience report. *Proceedings of the 6th IEEE International Conference on Global Software Engineering (ICGSE 2011)*, 161-165. https://doi.org/10.1109/ICGSE.2011.11

Cruickshank, K., Chen, H., & Warren, S. (2012). Increasing international and domestic student interaction through group work: A case study from the humanities. *Higher Education Research and Development*, *31*(6), 797-810. https://doi.org/10.1080/07294360.2012.669748

Danielewicz-Betz, A., & Kawaguchi, T. (2014). Multicultural (mis)communication in IT research labs]. *Proceedings of the 2014 IEEE International Professional Communication Conference (IPCC 2014)*. https://doi.org/10.1109/IPCC.2014.7020357

Davison, R. M., Panteli, N., Hardin, A. M., & Fuller, M. A. (2017). Establishing Effective Global Virtual Student Teams *IEEE Transactions on Professional Communication*, *60*(3), 317-329. https://doi.org/10.1109/TPC.2017.2702038

Dool, R. (2010). Managing conflict in online multicultural student teams. *Proceedings of the International Conference on Society and Information Technologies (ICSIT 2010),* 185-189.

Dossick, C. S., Homayouni, H., & Lee, G. (2015). Learning in global teams: BIM planning and coordination. *International Journal of Automation and Smart Technology*, 5(3), 119-135.

Ferreira, R. M., Juan Fuente, A. A., Gómez, M., & Camacho, D. (2017). Improving sociocultural outcomes for students in the higher education through participation on virtual mobility: The UbiCamp experience. *International Journal of Engineering Education*, *33*(6), 2050-2060.

Foster, D., Gilardi, F., Martin, P., Song, W., Towey, D., & White, A. (2018). Students as co-producers in a multidisciplinary software engineering project: addressing cultural distance and cross-cohort handover. *Teachers and Teaching*, *24*(7), 840-853. https://doi.org/10.1080/13540602.2018.1486295

Gatlin-Watts, R., Carson, M., Horton, J., Maxwell, L., & Maltby, N. (2007). A guide to global virtual teaming. *Team Performance Management, 13*(1-2), 47-52. https://doi.org/10.1108/13527590710736725

Gloor, P., Paasivaara, M., Lassenius, C., Schoder, D., Fischbach, K., & Miller, C. (2011). Teaching a global project course: Experiences and lessons learned. *Proceedings of the 2011 Community Building Workshop on Collaborative Teaching of Globally Distributed Software Development, CTGDSD 2011*, 1-5. https://doi.org/10.1145/1984665.1984666

Hilliard, A. (2005). Outline and evaluation of a joint European and Canadian virtual mobility: e-learning project. Proceedings of the European Conference on Games-based Learning, *4th European Conference on e-Learning, ECEL 2005*, 163-172.

Hitchcock, L., Quan, V. H., & Danh, T. C. (2011). Intercultural competence in practice: Reflections on establishing cross-cultural collaborative education programmes. *ACM Inroads*, *1*(3), 85-93.

Kjellberg, M., Adawi, T., & Brolin, K. (2015). Challenges in implementing PBL: Chalmers formula student as a case. *Proceedings of the 43rd SEFI Annual Conference 2015 (SEFI 2015).*

Komori-Glatz, M. (2018). "Cool my doubt is erased": Constructive disagreement and creating a psychologically safe space in multicultural student teamwork. *Journal of English as a Lingua Franca*, *7*(2), 285-306. https://doi.org/10.1515/jelf-2018-0012

Kumi-Yeboah, A. (2018). Designing a cross-cultural collaborative online learning framework for online instructors. *Online Learning Journal*, *22*(4), 181-201. https://doi.org/10.24059/olj.v22i4.1520

Kurek, M., & Müller-Hartmann, A. (2019). The formative role of teaching presence in blended virtual exchange. *Language learning and technology*, *23*(3), 52-73.

Logemann, M., Aritz, J., Cardon, P., Swartz, S., Elhaddaoui, T., Getchell, K., Fleischmann, C., Helens-Hart, R., Li, X., Palmer-Silveira, J., Ruiz-Garrido, M., Springer, S., & Stapp, J. (2022). Standing strong amid a pandemic: How a global online team project stands up to the public health crisis. *British Journal of Educational Technology, 53*(3), 577-592. https://doi.org/10.1111/bjet.13189

Nguyen, H. T. T. (2021). Project-based assessment in teaching intercultural communication competence for foreign language students in higher education: A case study. *European Journal of Educational Research*, *10*(2), 933-944. https://doi.org/10.12973/EU-JER.10.2.933

Orta, P., Urbina-Coronado, P. D., & Ahuett-Garza, H. (2020). Global competences through IDEEA Global course. *Proceedings of the 11th IEEE Global Engineering Education Conference (EDUCON 2020*), 1423-1427. https://doi.org/10.1109/EDUCON45650.2020.9125400

Pinkelman, R., Awolin, M., Walter, S., Nasajargal, B., Norovryenchin, O., Nergui, U., & Hampe, M. (2017). Sustainable transfer of a German PPBL model to a Mongolian environment: Intercultural experiences, reflections and recommendations. *Proceedings of the 45th SEFI Conference*, 151-161.

Raval, M. S., Kaya, T., Zaveri, M., & Sharma, P. (2020). Experiments with multinational cross-course project. 2020 IEEE *International Conference on Teaching, Assessment, and Learning for Engineering (TALE 2020)*, 570-575. https://doi.org/10.1109/TALE48869.2020.9368362

Sisto, M. (2009). Can you explain that in plain English? Making statistics group projects work in a multicultural setting. *Journal of Statistics Education*, *17*(2). https://doi.org/10.1080/10691898.2009.11889522

Trahar, S., & Hyland, F. (2011). Experiences and perceptions of internationalisation in higher education in the UK. *Higher Education Research and Development*, *30*(5), 623-633. https://doi.org/10.1080/07294360.2011.598452

Trowbridge, A., & Liu, A. (2017). Design of an international joint course on Grand Challenges for Engineering. *Proceedings of the 124th ASEE Annual Conference and Exposition*.

Uziak, J., Oladiran, M. T., Eisenberg, M., & Scheffer, C. (2010). International team approach to project-oriented problem-based learning in design. *World Transactions for Engineering & Technology Education*, *8*(2), 137-144.

Van Petegem, W., & Lang, D. (2019). Enriching learning experiences for students to enhance their engineering competences across cultures and nations*. Proceedings of the 47th SEFI Annual Conference 2019 - Varietas Delectat: Complexity is the New Normality*, 1243-1250.

Vidovic, M., Hammond, M., Lenhardt, J., Palanski, M., & Olabisi, J. (2021). Teaching Virtual and Cross-Cultural Collaborations: Exploring *Experiences of Croatia- and U.S.-Based Undergraduate Students. Journal of Management Education, 45*(6), 953-986. https://doi.org/10.1177/1052562920972170

Wilson, C., Hirtz, M., Levkin, P. A., Sutlief, A. L., & Holmes, A. E. (2019). Facilitating an international research experience focused on applied nanotechnology and surface chemistry for American undergraduate students collaborating with mentors at a German educational and research institution. *Journal of chemical education*, *96*(11), 2441-2449.

Yefanova, D. N., Montgomery, M. L., Woodruff, G. A., Johnstone, C. J., & Kappler, B. (2017). Instructional practices facilitating cross-national interactions in the undergraduate classroom. *Journal of International Students*, *7*(3), 786-805. https://doi.org/10.5281/zenodo.570034

Zaugg, H., Davies, R., Parkinson, A. R., Magleby, S. P., Jensen, G., & Ball, A. G. (2011). Creation and implementation of a backpack course to teach cross-cultural and virtual communications skills to students in an international capstone experience. *Proceedings of the 2011 ASEE Annual Conference & Exposition*.