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Leveraging Peer Learning for Integration of International Students in the Classroom

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Leveraging Peer Learning for Integration of International Students in the Classroom

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Introduction

Studying abroad is a unique experience for students worldwide (Nilsson, 2016). Around 4.5 million students are studying outside their home country, with an annual growth rate of seven percent (OECD, 2014). This figure is predicted to be 8 million by the year 2025 (Sadykova, 2014). Most of those students (over 764,000) are heading to the United States making higher education one of the country's largest service sector exports (Institute of International Education, 2012). In the Irish context, the international education sector is currently worth approximately €1.58bn per annum to the economy, and it is projected to grow to €2.1bn per annum by 2020 (Department of Education and Skills, 2016). In 2010/2011, 20,995 international students attended publicly and privately-funded Irish Higher Education Institutes (HEIs). This number has increased by 58% to 33,118 in 2014/2015. International students not only contribute to the economy but also contribute to the diversity and internationalisation of their classrooms and enhance the mutual understanding and appreciation of the differences found around the world (Wu, Garza, & Guzman, 2015).

Many international students face difficulties as they pursue higher education outside of their home countries (Özturgut & Murphy, 2009). These challenges include difficulties adjusting to the academic culture, complications in communication with faculty and peers, and language difficulties (Wu et al., 2015). Increasing the interaction level between international students and their domestic peers can have a positive impact on their average grade and their learning experience as a whole (Glass et al., 2014). Peer learning is one of the main educational practices that can contribute significantly to increase such interaction between students (Damon, 1984). Peer learning is mutually beneficial and involves the sharing of knowledge, ideas and experience between participants (Boud, Cohen, & Sampson, 2013). By building upon their prior knowledge and experience, peer learning can actively engage international students and significantly help in their integration into an inclusive learning environment (Tinto, 1999).

Academic challenges faced by international students

The academic challenges faced by international students are linked to language skills, academic background, and cultural aspects. These aspects may be interconnected, or some students may just experience differences in a subset of the facets. Understandably, students with a different native language, a different alphabet, travelling between Western and non-

Western cultures and shifting from a teacher-centred educational system to a student-centred one, will experience the most challenges. Hence, a good proportion of the literature focuses on the experiences of Chinese students studying in English-speaking countries.

Language challenges are associated with discomfort in participating in discussions and team projects (Sadykova, 2014). Students may refrain from challenging and criticizing ideas, they may prefer to use softer language and phrasings, and they may misunderstand task allocations and the decision-making process employed by their native classmates (Sadykova, 2014). Chinese students have been reported to sometimes converse in Mandarin before joining in wider discussions (Brook & Milner, 2014), possibly because they prefer to reassure each other before exposing themselves to a wider audience, since culturally they are more conscientious of public image (Brook & Milner, 2014).

Different cultures will also present different communication styles, for example in the level of directness (Brook & Milner, 2014). Besides rich vocabulary and good grammar, international students also need to be aware of the colloquialisms, set phrases, slang, culturally specific analogues, and metaphors (Sadykova, 2014). Therefore, students with limited previous exposure to a host culture may also find it challenging when their peers and instructors use cultural references that hinder learning the course content (Sadykova, 2014).

In terms of academic background, international students from non-Western cultures also experience challenges with the critical thinking and problem-solving skills that are valued in a predominantly constructivist classroom, since this may not match the format they had in their native countries (Sadykova, 2014). International students may also struggle with critical reflection and with developing autonomous learning skills (Brook & Milner, 2014). While in Western, mind-oriented cultures, it is expected from "the learner to question the known and to explore and discover the new" (Li, as cited in Kedzior *et al.*, 2015, p. 1), in non-Western, virtue-oriented cultures, the learner needs to "develop the virtues of resolve, diligence, endurance of hardship, perseverance, and concentration" (Li, as cited in Kedzior *et al.*, 2015, p. 1).

In an international university in Germany, intercultural peer-to-peer training was offered to all new incoming students, aiming to facilitate their integration into multicultural classrooms. While this improved the awareness of the effects of culture (own and other) on the social life of students, it was less adequate at preparing them for the student-centred academic practices, perhaps due to the lack of involvement of academic staff in the process (Kedzior *et al.*, 2015). Therefore, educators should be aware of the unequal power relationships between international and domestic students in group discussion and projects (Sadykova, 2014), and the complexities involved in engaging in action learning with international students (Brook & Milner, 2014). Educators should raise awareness to the differences, and communicate needs and expectations via concrete measures (such as active participation in class), necessary for successful academic integration in the multicultural classrooms (Kedzior *et al.*, 2015), and create a power-sharing class atmosphere to promote inclusivity (Sadykova, 2014).

The benefits and challenges associated with peer learning

Peer learning approaches, both formal and informal, are widely used in third level teaching (Topping, 2005). A study comparing a traditional lecture style to a peer instruction based style showed that peer instruction resulted in positive changes in students' attitude and beliefs toward the subject (Ping Zhang, Lin Ding, & Mazur, 2017). The benefits to this approach include reducing student anxiety, reinforcement of learning by teaching, greater understanding, cost effective strategy of teaching. A UK study into student led-peer learning showed that first year students utilising peer learning approaches experienced reduced anxiety in the transition to higher education as well as improved academic confidence and a greater sense of belonging (Keenan, 2014). Peers tend to have a similar discourse style and students are more comfortable with their peers rather than a lecturer resulting in a better communication and understanding (Boud & Cohen, 2013). As the quote by Robert Heinlich says "when one teaches, two learn" and peer tutors enhance their own understanding by teaching it to others (Colvin & Ashman, 2010). Furthermore, peer learning is mutually beneficial for both provider and recipient with benefits including higher academic achievement and greater productivity, increased communication skills and connectivity to peers and development of support systems (Colvin & Ashman, 2010). The learning outcomes from peer learning include peer and self-assessment, managing learning and how to learn, communication and articulation of knowledge and skills, critical enquiry and reflection, working with others (David Boud, Ruth Cohen, 2013).

Although one of the benefits of peer teaching is its cost effectiveness and the reduction of burden on faculty staff (Brannagan et al., 2013) peer teaching can be time consuming. Peer tutors must be trained, monitored and assessed to ensure they can fulfil the role and responsibility of a tutor. Challenges identified in interacting with peers included the over reliance on the peer tutor or conversely non acceptance of the tutor and their abilities to fulfil the teaching role (Colvin & Ashman, 2010). Other challenges identified were broadly categorised into: gaining buy-in, awareness raising, evidencing benefits, setting up and maintenance of schemes, resourcing, quality assurance, embedding, and getting the organisation and processes right (Keenan, 2014).

The benefits associated with peer learning complement some of the challenges faced by international students identified above such as communication, greater sense of belonging, and increasing cultural awareness. A review of current trends in peer learning approaches will allow the identification of suitable peer learning approaches to enhance increased interaction between diverse students. This will then inform our artefact which is a roadmap for in-class peer learning approaches with the goal to increase integration.

Current approaches and trends in peer learning

Peer learning is an educational practice defined as the acquisition of skills and knowledge through supporting and helping among peers who are are not professional teachers and are from similar social groupings (Topping, 2005; O'Donnell & King, 2014). The most popular

forms of peer learning are peer tutoring, cooperative learning, peer instruction, and peer instruction.

The main feature of Peer Tutoring (PT) is the designation of roles; at one point someone has the role of a tutor while the other(s) are in the tutee(s) role with an emphasis on curriculum content (Topping, 2005). Rosen et al. (1977) investigated the cognitive processes involved in the peer tutoring relationship where they argue that pairing individuals with students of greater ability has a positive impact on tutees achievements. However, same-ability pairings can shift the emphasis from the acquisition of basic skills to more complex and 'higher order skills' (Topping & Ehly, 2001). An alternative conceptualisation of peer learning is Cooperative Learning (CL) which involves students working together to perform certain tasks where teacher facilitates and guides the interactive process (Slavin, 1990, Topping, 2005). Peer Assisted Learning (PAL) is a form of collaborative learning in which it provides "*a setting for students to collaborate in discussing and solving problems, working through examples, reviewing the content of lectures and sharing lecture notes, identifying key issues, and anticipating and answering potential examination questions*" (Capstick & Fleming, 2002, p. 70). Combining the benefits of PAL, bilingual teaching and student support in one academic programme, learning experience of international students can significantly improve (Cui, Huang, Cortese, & Pepper, 2015). Peer Instruction (PI) is another form of CL that was developed by Harvard Physics professor Eric Mazur (Mazur, 1997). PI provides an effective cognitive strategy in which peer interaction is facilitated by short breaks in a lecture designed to reveal common misunderstandings. Student outcomes associated with PI across different disciplines have been reviewed and analysed in Vickrey, Rosploch, Rahmanian, Pilarz, & Stains (2015). This comprehensive review indicated that PI has significantly improved students' ability to solve quantitative and conceptual problems in comparison with traditional lectures. Moreover, instructors value the improved student engagement and learning outcomes with PI. Another interesting area of development in peer learning is Peer Assessment (PA) where peers can evaluate the products of others in the group (Dochy, Segers, & Sluijsmans, 1999; Hwang, Hung, & Chen, 2014). Peer assessment can enhance self-assessment and can yield metacognitive gains. However, it can result in social discomfort between learners. This can be mitigated by making the peer assessment and feedback in a formative and qualitative manner which is both more socially comfortable and more useful to the learners (Topping, 1998).

In the discussion above, some peer learning practices occur completely in the classroom context such as peer instruction while others such as peer tutoring mostly occur in contexts other than the classroom. In order to avoid social uneasiness between international students and their peers, guided peer interactions are more preferable. Therefore, classroom-based approaches for peer learning is recommended for multicultural classrooms.

The application of peer learning approaches in intercultural learning environments

Researchers have undertaken studies examining how international students engage and can benefit from peer learning experiences. Sadykova (2014) argues international students may be unprepared to participate in discussions, group and individual projects on the level expected owing to their own learning experiences and learning environment being different from the one they are entering (Wang, 2007; Zhang & Kenny, 2010). In this context, she

examines the mediation roles that peers may play in the context of multicultural online learning environments. Peers become "invaluable mediators of knowledge for international students who seek peer assistance to compensate for the lack of culture-specific knowledge and skills and to satisfy their interest in the host culture" (Sadykova, 2014, p. 24). The study suggests that course developers and facilitators should be proactive when assigning group projects and activities so as to enable close peer-to-peer interaction and opportunities for building personal relationships with other class members.

Sadykova argues that peer-learning can bridge gap. She undertook a mixed-method study (survey and interview) of international students to investigate their experiences of peer-to-peer online interaction on online learning environments. Interviews indicated that participants valued experiences and knowledge that their peers bring to class. Sadykova concludes that peers assume the role of a "more knowledgeable other" and that international students particularly value their peers' understanding of course activities, academic writing and presentation conventions (Sadykova, 2014, p. 38). From this analysis, it would appear that peer-learning has a dual benefit for international students: not only does peer learning improve understanding of course content but peer learning also helps an international student to 'learn the ropes' of their new academic environment and expectations.

Evans (2015) undertook an action research project "to investigate how peer learning could support international postgraduate students in their learning journey and enhance their learning experience". (Evans, 2015, p. 32) The small-scale study involved experienced postgraduate students sharing their learning experience with thirty four new international postgraduate students. Participants then evaluated this experience through an open-ended feedback questionnaire. Evans concludes that new students appreciated former students sharing their learning experience with them, regardless of gender or nationality and that the majority of students believed the sessions could help them "to understand the academic jargon, contribute to group discussion and learn how to seek help when needed" as well as improving their social and cognitive abilities (Evans, 2015, p. 40). Integrating peer-led learning sessions can allow international students to "gain more experiences, skills and knowledge to maximise their chances of success" (Evans, 2015, p. 41).

Both studies demonstrate the beneficial impacts peer-learning sessions can have for international students both academically and socially, providing much-needed support structures to alleviate the challenges faced by international students integrating into host institutions.

Artefact

Harnessing the peer learning approaches described above a staged approach to integration was developed as this project's artefact. A roadmap poster was produced for the leveraging of peer learning in the multicultural classroom, starting by raising awareness to the academic challenges faced by international students, then easing students into active learning formats via instructor-defined groups and tasks, that increase gradually in size and complexity. The poster is in Figure 1.
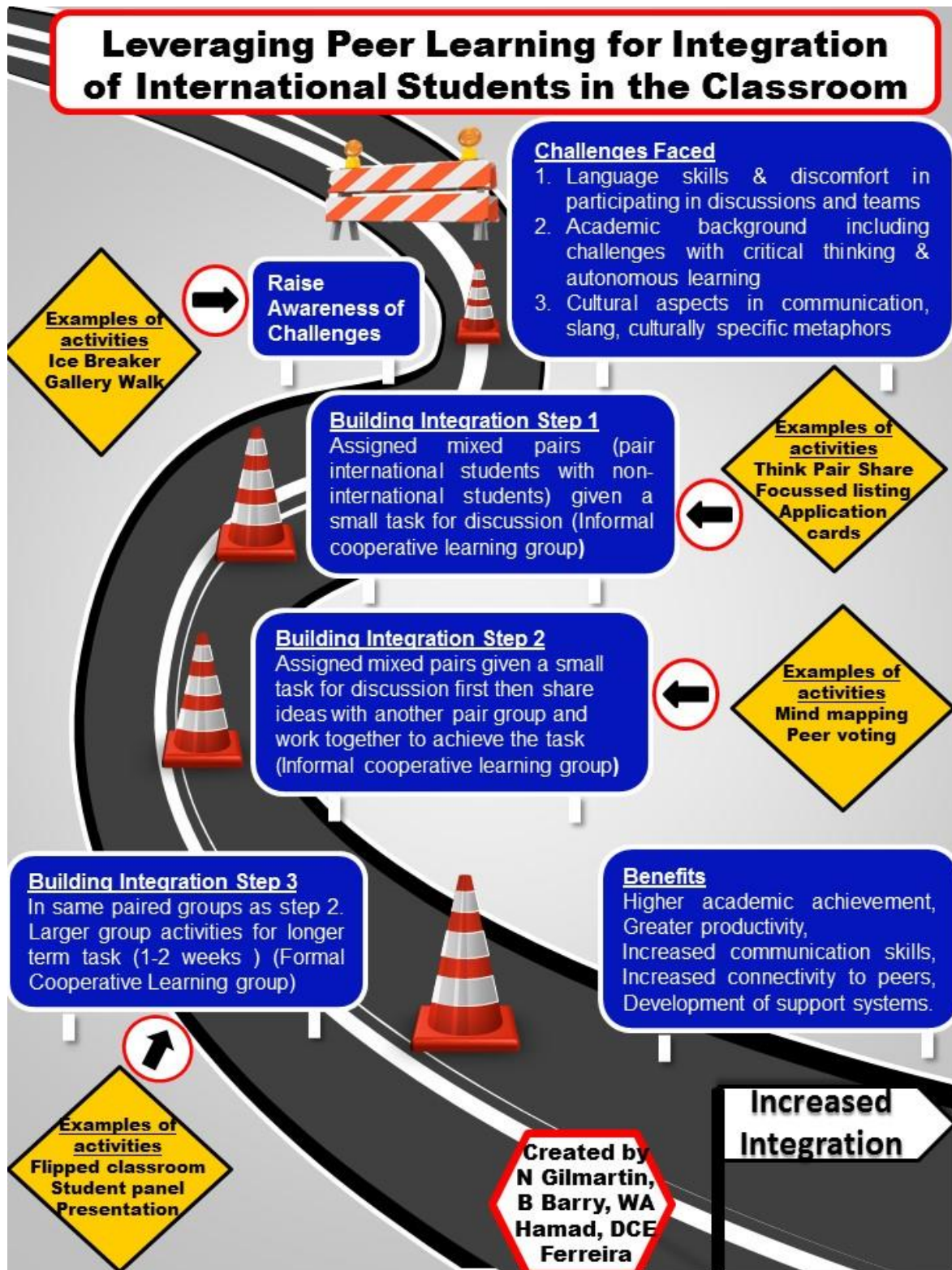
Leveraging Peer Learning for Integration of International Students in the Classroom

Challenges Faced
1. Language skills & discomfort in participating in discussions and teams
2. Academic background including challenges with critical thinking & autonomous learning
3. Cultural aspects in communication, slang, culturally specific metaphors

Examples of activities
Ice Breaker
Gallery Walk

Raise Awareness of Challenges

Building Integration Step 1
Assigned mixed pairs (pair international students with non-international students) given a small task for discussion (Informal cooperative learning group)

Examples of activities
Think Pair Share
Focussed listing
Application cards

Building Integration Step 2
Assigned mixed pairs given a small task for discussion first then share ideas with another pair group and work together to achieve the task (Informal cooperative learning group)

Examples of activities
Mind mapping
Peer voting

Building Integration Step 3
In same paired groups as step 2. Larger group activities for longer term task (1-2 weeks) (Formal Cooperative Learning group)

Benefits
Higher academic achievement,
Greater productivity,
Increased communication skills,
Increased connectivity to peers,
Development of support systems.

Examples of activities
Flipped classroom
Student panel
Presentation

Created by N Gilmartin, B Barry, WA Hamad, DCE Ferreira

Increased Integration

Figure 1 - Roadmap for Leveraging Peer Learning for Integration of International Students in the Classroom

Conclusions

The academic challenges faced by international students are linked to language skills, academic background, and cultural aspects. Peer learning is mutually beneficial for provider and recipient, with benefits including higher academic achievement and greater productivity; increased communication skills and a greater sense of belonging; and the development of support systems. Classroom-based approaches to peer learning such as peer instruction are preferable for multicultural classrooms in order to avoid social uneasiness between international students and their peers. The two studies analysed in detail demonstrate the beneficial impacts peer-learning sessions can have for international students. Therefore, a roadmap was produced to guide practitioners into leveraging peer learning in the multicultural classroom. In future work, we would envisage implementing this roadmap in our classrooms, bookended by a survey to assess the students' perceived impact on the integration of international students.

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