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Engagement of International Students at Irish Higher Education Institutions

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ABSTRACT

Existing research paints a mixed picture of how international students fare academically following a transition to a host higher education institution. Most studies that have examined differences between domestic and international students' engagement have treated international students as a homogenous group. Less evidence is available on the experiences of international students from different regional groups. Drawing on Irish Student Engagement Survey data, this article explores the extent to which international students' engagement differs from that of their Irish peers, and whether there are differences across regions of origin. The findings indicate that while international students are highly engaged compared with their Irish counterparts, regional differences persist when the data were disaggregated. The article is of potential interest to policymakers and higher education institutions, offering insights into how the provision of services and supports to international students could be better targeted.

Keywords: international students, regional differences, Republic of Ireland, student survey, student engagement

INTRODUCTION

Across developed countries the rapid growth in international student mobility has become an important feature of the higher education landscape, resulting in an increasingly ethnoculturally diverse student body. Students from Asia form the largest group of international students in Organisation for Economic Cooperation and Development (OECD) countries, followed by students from Europe and Africa (OECD, 2020). In order to accommodate cultural diversity while addressing the academic needs of both domestic and international students, higher education institutions (HEIs) have been urged to adopt teaching practices that consider the academic needs of different groups of students (Crose, 2011). International students are a highly motivated, engaged, and self-selected group (Cho et al., 2020), yet differences in learning approaches and classroom engagement exist between groups of students from different geographic areas (Vazirani et al., 2018). However, most existing studies on the engagement of international students focus on just one national or ethnic group or compare the engagement of domestic students with that of international students as a homogenous group (Fakunle et al., 2016; Irish Survey of Student Engagement [ISSE], 2019; Lee et al., 2013; Yu & Moskal, 2019). The few existing studies that have considered different countries or regions of origin have found differences between national groups across personal, emotional, and social adjustment aspects (Rienties & Tempelaar, 2013) and learning experiences (Ammigan et al., 2021).

In this context, the concept of student engagement, which broadly refers to meaningful student involvement with the learning environment, has acquired prominence as HEIs seek to provide learning experiences to all students that "lead to high quality learning" (Coates, 2006, p. 27). Teaching students from around the world at HEIs poses both didactical as well as pedagogical challenges stemming from differences between education systems that need to be addressed in order to provide students with an engaging learning environment (Faas, 2020). In this regard, better understanding how different groups of (international) students engage with the learning environment is warranted, as positive engagement has been found to contribute significantly to positive student experience and ultimately their academic success (Harper & Quaye, 2015; Wang & BrckaLorenz, 2018). The disaggregation of data on student engagement offers an important means for HEIs to identify challenges that particular groups of international students may face and to inform the development of targeted supports, thereby enhancing international students' engagement in host HEIs. In this way, international students can also be considered by host institutions as a resource to support all students;

support structures designed for these students can be used more broadly to enhance the experiences of all students (Mihut, 2019).

The engagement of international students in higher education is a relatively under researched area in Ireland (O'Connor, 2010), particularly regarding the engagement of international students from different regional groups. One exception is a study by Finn et al. (2021), which demonstrates differences in academic satisfaction among students from diverse regions of origin. Reflecting the student mobility trends across industrialized countries, the number of students traveling to Ireland for third-level education has significantly increased, with the United States of America, United Kingdom, China, India, Malaysia, Canada, and Saudi Arabia among the most common countries of origin (Higher Education Authority [HEA], 2020a). Considering financial challenges faced by many HEIs and global competition for students, Irish HEIs have sought to develop a better understanding about the engagement of international students to ensure that they can provide a high-quality learning experience to the increased number of international students arriving in Ireland.

Recognizing that international students cannot be treated as a homogenous group (Brooks & Waters, 2011), this article builds on existing studies on student engagement and satisfaction with HEIs (Clarke et al., 2018; Farrelly & Murphy, 2018; Finn et al., 2021) by examining differences in the engagement of international students in Ireland using the Irish Survey of Student Engagement (ISSE). The ISSE recommended that further research disaggregate international student data to pinpoint key differences and indicators most influenced by country of permanent address, a suggestion that is taken up by this article.

The study is guided by the following research questions: How do international students compare with their Irish counterparts across different domains of engagement? Does engagement of students differ by region of origin, after controlling for individual and institutional factors?

Conceptual Framework: Student Engagement

There is considerable variation in how "student engagement" is defined. The concept is generally used to describe meaningful student involvement with the learning environment involving several dimensions. Two main conceptual models have emerged: the North American model of engagement (Fredricks et al., 2004), which captures behavioral, emotional, and cognitive dimensions, and the European approach of engagement (Schaufeli et al., 2002), which includes absorption, vigor, and dedication. Both models are strongly associated with students' academic

performance, their approach to learning, and disposition toward the learning environment in general (Alrashidi et al., 2016). Students' levels of engagement have been shown to shape their academic outcomes, student retention, satisfaction with their overall experience, and sense of belonging (Ashwin & McVitty, 2015; Harper & Quaye, 2015).

Student surveys have become one of the largest and most frequently used data sources for quality assessment in higher education, providing evidence-based information on institutional performance (Klemenčič & Chirikov, 2015; Williams, 2014). National surveys have been developed in countries including the United States, Australia, the United Kingdom, and Ireland to provide data that measure student engagement, enabling HEIs to benchmark nationally (Hagel et al., 2012; Tight, 2020) and respond to students' evolving needs and expectations (Leiber, 2020). These surveys include a range of student engagement indicators from student learning to the learning environment, highlighting the concept's multi-dimensional character. This has led to some criticism, as it remains unclear whether the engagement is attributable to the student, the institution, or the interaction between them (Wise et al., 2011). Nevertheless, engagement indicators may help understand how domestic and international students evaluate their learning experience in an HEI.

This article conceptualizes student engagement by drawing on a set of nine engagement measures set out in the ISSE. The ISSE defines student engagement as students' involvement in activities and environments that are likely to generate high-quality learning and views student engagement as reflecting two key elements: the time and effort students put into their studies and other educationally beneficial activities; and how HEIs deploy resources and organize curriculum and other learning opportunities to encourage student participation in meaningful activities that are linked to learning (ISSE, 2019).

LITERATURE REVIEW

At the heart of student engagement are students' learning approaches and experiences within the learning environment (Ashwin, 2014; Coates & McCormick, 2014). Wang and BrckaLorenz (2018) argued that effective learning strategies help students to build on their strengths and facilitate comprehension, ultimately resulting in greater engagement. Higher order forms of learning (analyzing, synthesizing, evaluating, and applying) and higher order thinking skills (creating, evaluating, analyzing, applying, understanding, and remembering) have been found to be positively associated with greater engagement (Krathwohl, 2002).

Students also learn by way of reflecting on and making sense of their current or prior experience and then applying the acquired knowledge in the classroom (McCormick, 2013). However, variability in lecturers' attitudes toward reflection has been found to impact student engagement (Vivekananda-Schmidt et al., 2011). Integrative learning refers to students' learned ability to make connections through the curricula and integrate information from various sources and is essential for deeper learning, improvement of learning, and retention (Woodside, 2018). Integrative learning approaches have been linked to high levels of student engagement as they tend to utilize a variety of ways of introducing and revisiting material (Kelley et al., 2010). Collaborative learning, which requires students to interact with peers, has been shown to have a positive relationship with student achievement and satisfaction (Wang & BrckaLorenz, 2018). Finally, in developing quantitative reasoning skills, students learn to interpret, represent, calculate, and communicate quantitative information. All these approaches provide students with the necessary skills to improve their learning and enhance engagement.

The role of interaction with faculty, support staff, and other students cannot be underestimated in enhancing students' experiences at HEIs (O'Brien & Iannone, 2018; Wang & BrckaLorenz, 2018). Students gain additional learning experience through formal and informal discussion of their academic performance, course work, and other topics with their lecturers (Alqurashi, 2020; Wang & BrckaLorenz, 2018). The extent and quality of student–faculty interaction has been found to positively affect various student outcomes, including knowledge of the subject matter, cognitive skills, attitudes and values, educational attainment, and career choice and development (Pascarella & Terenzini, 2005). Some ethnic groups may find it difficult to approach academic staff—especially staff of a different ethnic background—and anticipate negative perceptions of their ethnic group (Schwitzer et al., 1999). International students from Africa, the Middle East, and Southeast Asia have been found to rate the quality of their interactions with academic staff in U.S. HEIs significantly lower than students from North America and Southern Asia (Glass et al., 2013). Students' relationships with faculty members have been found to act as a strong predictor of learning, over and above their background characteristics, particularly for students of color (Lundberg & Schreiner, 2004). As academic staff are often the main contact point for international students, it is important for them to be aware and correct any implicit biases they may hold about students' background (Glass et al., 2015).

Cultural awareness is also important in interaction with peers, as a student's peer group is an important source of personal development and

learning (Farrelly & Murphy, 2018; Pascarella & Terenzini, 2005). In some cases, the quality of interaction between different groups of students is hindered due to language barriers (Hanasaab, 2006). Cross-cultural tensions in HEI environments have been identified by Lee and Rice (2007), who found that students from Asia, Latin America, and the Middle East were more likely to report experiencing discrimination than students from Europe, Canada, and New Zealand.

The above studies indicate that both academic and social factors influence student engagement. The engagement of international students should not be seen as the sole responsibility of the student (Kettle, 2017). Different perceptions between international students and academic staff about essential learning skills can lead to unmatched supports by academic staff, and academic staff should familiarize themselves with the challenges these students are experiencing and the learning strategies they are employing (Wang & BrckaLorenz, 2018). International students may be affected by fluency in the language of instruction (Farrelly & Murphy, 2018; Lee et al., 2013), understanding academic vocabulary, finding the speed of the lecture challenging (Ramsay et al., 1999), difficulties with required critical thinking skills, reluctance to participate in collaborative learning modes such as group discussions (Gillett & Baskerville, 2012), as well as different assessment criteria and course work requirements (Farrelly & Murphy, 2018). Ammigan and Jones (2018) noted that while factors such as arrival, living arrangements, learning, and student support matter, the academic dimension was found to be the most important aspect in influencing the overall student experience (Ammigan et al., 2021).

Learning factors and approaches may also differ between domestic and international students. Some research has alluded to higher engagement of international students compared with their native peers (O'Reilly et al., 2015). However, differences exist between regional groups in their learning approaches and satisfaction with their learning environment (Idris et al., 2019). Challenges experienced by students can be addressed by creating supportive environments for all students (Baik et al., 2019), characterized by university-wide and peer support (Farrelly & Murphy, 2018; O'Reilly et al., 2015).

METHOD

In the Republic of Ireland, higher education is provided by universities, institutes of technology, and colleges of education. Entry into Irish HEIs is highly competitive and based on academic merit. Irish HEIs generally require proof of English proficiency for all international students whose first language is not English. In line with international trends and strategic

commitments, international student enrolments have grown over time, with international students accounting for 12% of all enrolments in Irish HEIs in 2018–2019 (Groarke & Durst, 2019; HEA, 2020b). Ireland's international education strategy aims to increase the number of international students studying in Ireland and provide a high-quality student experience (Department of Education and Skills, 2016).

Data and Method

We used anonymized data from the 2019 edition of the ISSE. The ISSE collects data on engagement levels based on students' self-reported perceptions of their experiences and has formative links with the U.S. National Survey of Student Engagement (NSSE) and the Australasian Survey of Student Engagement (AUSSE). Limited personal (e.g., age, gender, and domicile) and institutional variables (e.g., mode of study, program type, ISCED level of study) are collected through the survey, reflecting the approach of the AUSSE.

The survey includes first year and final year undergraduate and taught postgraduate students. The survey adopted a census approach and invited all members of the target cohorts to participate. Responses were weighted by sex, stage of study (first year, final year, taught postgraduate), and mode of study (full time or part time/remote) at institutional level to ensure that the profile of respondents matched the profile of the student population. No additional weighting was applied for international students.

The 2019 survey had a response rate of 29%, with 40,558 students taking part in the study (19,557 first year undergraduate students, 13,951 final year undergraduate students, and 7,050 taught postgraduate students). At 4,409 responses, international students accounted for 11% of the survey respondents. National data show that the proportion of such students in the total student population in 2019 was 12% (HEA, 2020b). In order to facilitate grouping of international students by region of origin, only international students who provided the country of their permanent address were included in our analysis (n = 3,835). Overall, the proportions of international student responses by region of origin in the ISSE survey are comparable to the proportions of international student respondents to the Eurostudent VI survey for Ireland (collected in 2016) and to figures compiled by Ireland's Central Statistics Office (CSO) for 2017 (CSO, 2021). A direct comparison with data from CSO is not possible due to

Table 1: Student Engagement Measures

Indicator	Components	*M*	*SD*
Higher-order learning	• applying facts, theories, or methods to practical problems or new situations; • analyzing an idea, experience, or line of reasoning in depth by examining its parts; • evaluating a point of view, decision, or information source; • forming an understanding or new idea from various pieces of information	36.520	14.167
Reflective and integrative learning	• combining ideas from different subjects/modules when completing assignments; • connecting learning to problems or issues in society; • including diverse perspectives in discussions or assignments; • examining the strengths and weaknesses of views on a topic or issue; • trying to better understand someone else's views by imagining how an issue looks from their perspective; learning something that changed understanding of an issue or concept; • connecting ideas from subjects/modules to prior experiences and knowledge	30.907	11.067
Quantitative reasoning	• reaching conclusions based on analysis of numerical information; • using numerical information to examine a real-world problem or issue; • evaluating what others have concluded from numerical information	20.235	14.094
Learning strategies	• identifying key information from recommended reading materials; • reviewing notes after class; • summarizing what was learned in class or from course materials	30.970	12.797

Collaborative learning	• asking another student to help understand course material; • explaining course material to one or more students; • preparing for exams by discussing or working through course material with other students; • working with other students on projects or assignments	31.007	12.723
Student-faculty interaction	• talking about career plans with academic staff; • working with academic staff on activities other than coursework; • discussing course topics, ideas, or concepts with academic staff outside of class; • discussing performance with academic staff	14.301	12.482
Effective teaching practices	• clearly explained course goals and requirements; • taught in an organised way; • used examples or illustrations to explain difficult points; • provided feedback on a draft or work in progress; • provided prompt and detailed feedback on tests or completed assignments	34.744	13.896
Supportive environment - How much an institution emphasises:	• Providing support to help students succeed academically; • using learning support services; • contact among students from different backgrounds; • providing opportunities to be involved socially; • providing support for overall well-being; • managing non-academic responsibilities; • attending campus activities and events	28.670	14.012
Quality of interactions	• looks at students, academic advisors, academic staff, support services staff, other administrative staff and offices	39.266	13.571

Source: ISSE (2019); mean and standard deviation measures are based on ISSE 2019 data.

differences in how countries are grouped into regions. It is possible that the ISSE data is not fully representative of all regional groups of international students. We used ordinary least square (OLS) regression to analyze the data.

Variables

The definition of "international student" is based on a student's country of permanent address, or "domicile," prior to their entry to their program of study. International students were grouped into regions of domicile, based on the World Bank administrative classification: (a) East Asia and Pacific, (b) Europe and Central Asia, excluding the European Economic Area (EEA) and the United Kingdom, (c) EEA including the United Kingdom, (d) Latin America and the Caribbean, (e) Middle East and North Africa (MENA), (f) North America, (g) South Asia, and (h) Sub-Saharan Africa.

The ISSE includes nine distinct engagement measures, each of which are computed from a series of items. The possible scores for computed measures range from 0 to 60.

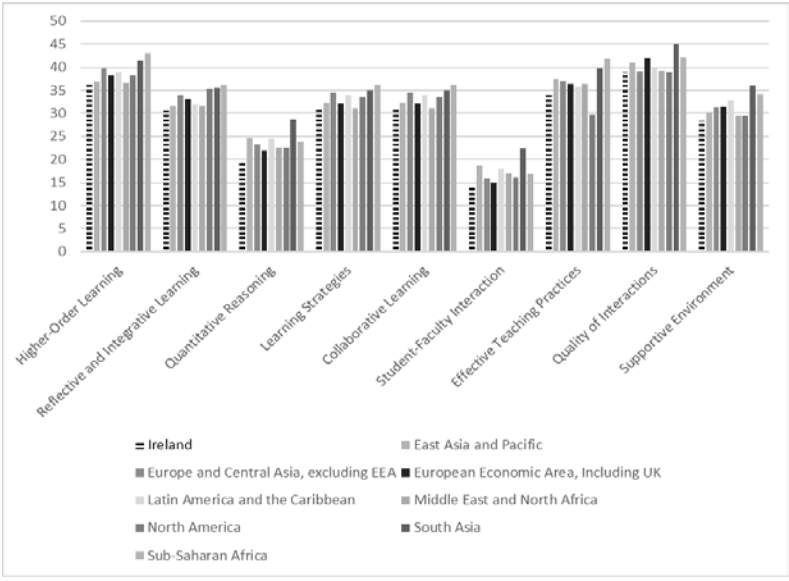
RESULTS

The number of international students from different regions of domicile vary in the 2019 ISSE data, ranging from 91 students from Latin America (0.2%) to 889 from South Asia (2.2%). In 2017, Asian students represented the most numerous groups of international students in Ireland (Central Statistics Office [CSO], 2021). As a group, international students were more likely to be enrolled at a university (53%) than Irish students (45%). This is consistent with population level data, but the ISSE survey participants are more skewed toward non-university participants. At the survey population level, 61% of international students were enrolled in a university (ISSE, 2019). However, among respondents, variations emerged between international students by different regions of domicile. A higher proportion of international students from Sub-Saharan Africa (52%) and Latin America and the Caribbean (52%) were enrolled at an institute of technology than Irish students (49%). International students from all regions of domicile were also more likely to be enrolled in an undergraduate program, compared with their Irish counterparts (45% vs. 14%). The rate of enrolment in graduate programs was highest for international students from South Asia (86%) and lowest for international students from the MENA region (27%).

Previous research on the Irish context has shown that international students have higher levels of engagement than domestic students overall

and that their level of engagement has increased over time (Finn et al., 2021; ISSE, 2019). This study has shown that these results persist when disaggregating engagement by region of domicile, with high levels of engagement among international students across the range of indicators. As a response to this study's first research question, Figure 1 illustrates the distribution of means for students from all regions of domicile on all engagement indicators. The figure shows that, overall, levels of engagement do vary slightly between domestic and international students and that engagement levels are consistent across regions of origin. However, on the effective teaching practice indicator, international students from North America register the lowest mean, followed by Irish students.

Figure 1: Mean Scores by Region of Domicile on Engagement Indicators (ISSE, 2019)



The ISSE collects relatively limited information on the demographic characteristics of respondents. Additional limitations on data analysis and the inclusion of key control variables are due to the use of the anonymized dataset. For example, multilevel analyses are not possible on this dataset. As such, this study is not able to show if variations within HEIs are higher than variation between settings (ISSE, 2019; McCormick, 2013). Race and ethnicity, socioeconomic, and academic performance data are not included

Table 2: OLS Regression Results Across Engagement Indicators

Variable	Higher order learning	Reflective and integrative learning	Quantitative reasoning	Learning strategies	Collaborative learning	Student–faculty interaction	Effective teaching practices	Quality of interactions	Supportive environment
Constant	40.520	34.274	25.804	31.950	31.970	17.394	34.749	40.674***	29.374
East Asia and Pacific[a]	0.408	0.388	4.036***	1.900***	-1.657***	3.337***	3.195***	1.999	1.501**
Europe and Central Asia, excluding EEA	2.419**	2.316***	3.340***	3.025***	-1.552*	2.321**	2.484**	.133***	2.871**
EEA, Including UK	1.030	1.417**	1.614**	0.941	-1.647**	0.571	1.732**	2.863	2.949***
Latin America and the Caribbean	1.141	-0.042	3.673*	2.618	-3.754**	2.206	1.292	0.648	4.829**
MENA	-0.138	0.413	2.302*	0.578	-0.929	2.187*	2.371*	0.382	1.242
North America	0.415	3.128***	1.895**	2.072***	-.799	1.796**	-4.132***	.153	.360
South Asia	2.067***	1.730***	5.469***	3.112***	3.175***	5.341***	5.115***	4.877***	7.737***
Sub-Saharan Africa	5.642***	4.450***	2.937**	5.117***	1.317	1.204	7.234***	2.546**	6.012***
Undergraduate (reference graduate)	-4.468***	-4.430***	-3.106***	-2.212***	-0.919***	-4.104***	-1.323***	-2.247***	1.523***
Institute of Technology (reference university)	-2.459***	-2.040***	-0.597***	-1.812***	2.268***	3.215***	1.065***	1.118***	-2.592***
Other higher education type (reference university)	-1.967***	-0.669**	-2.637***	-0.839**	0.686**	.836**	-0.970**	-0.539	-3.315***
Part-time or remote (reference full-time)	1.561***	0.669***	-2.803***	2.838***	-7.705***	-4.260***	3.179***	1.888***	-4.630***
Female (reference male)	1.128***	1.974***	-4.524***	1.931***	0.328**	-1.502***	-0.490**	-1.225***	0.155
Observations	30,515	40,220	35,197	35,202	39,785	35,145	31,184	28,371	30,932
R^2	0.037	0.058	0.047	0.034	0.060	0.046	0.022	0.018	0.04
Adjusted R^2	0.037	0.057	0.046	0.034	0.059	0.045	0.022	0.018	0.04

Note. *** $p < .001$; ** $p < .01$; * $p > .05$.
[a]Reference for all regions of domicile is Ireland

in the survey. As such, inferential analyses on engagement indicators as outcome variables offer only limited information. However, the data allow for testing of the association between region of domicile and engagement indicators after controlling for the effect of type of course (undergraduate or postgraduate), type of institution (institute of technology, university, and other HEI) mode of study (part time/online or full time), as well as the gender of the respondents. The ordinary OLS regression models (see Table 2) used to answer the second research question of the study explain a small fraction of the variability in engagement indicators, ranging from 2% for effective teaching practice to 6% for collaborative learning. Data on region of domicile was missing for 0.4% of the sample, while no missing data was registered for the control variables included in the analysis. Missing data was higher for the outcome variables included in the study and no data imputations were conducted.

Across models, differences in engagement scores between Irish and international students from different regions of domicile are statistically significant after including the available controls. International students from South Asia were the only group to systematically register statistically significant higher mean scores across all engagement indicators compared with Irish students ($p > .001$). On all but two indicators (collaborative learning and student–faculty interaction) international students from Sub-Saharan Africa had statistically significantly higher mean scores than students from Ireland ($p > .01$). Students from Europe and Central Asia had higher scores than Irish students on all indicators, except for collaborative learning ($p < .05$). Students from Latin America and the Caribbean registered higher scores on the quantitative reasoning and supportive environment indicators, but lower scores on the collaborative learning indicator than Irish students. Students from the MENA region had statistically significantly higher engagement scores than Irish students on the quantitative reasoning, student faculty interaction, and effective teaching practices indicators ($p > .05$). EEA students had statistically significantly higher scores on the following indicators: (a) reflective and integrative learning, (b) quantitative reasoning, (c) effective teaching practices, and (d) supportive environments ($p > .01$), and lower scores on the collaborative learning indicator ($p < .01$). International students from East Asia and Pacific obtained statistically significant higher mean scores on the following indicators: (a) quantitative reasoning, (b) learning strategies, (c) student–faculty interaction, (d) effective teaching practices, and (e) supportive environment. North American international students had statistically significantly higher mean scores compared with Irish students on: (a) reflective and integrative learning, (b) quantitative reasoning, (c) learning strategies,

and (d) student–faculty interaction. Students from the North American region also registered statistically significantly lower scores on the effective teaching practices indicator.

Engagement levels remain lower for undergraduate students compared with postgraduate students for all engagement indicators with one exception. Undergraduate students had statistically significantly higher mean scores on the supportive environment indicator. Mean scores were statistically significantly lower at institutes of technology compared with universities for the following indicators: (a) higher order thinking, (b) reflective and integrative learning, (c) quantitative reasoning, (d) learning strategies, and (e) supportive environments. In return, students at institutes of technology were statistically significantly more likely to have higher levels of engagement on the following indicators: (a) collaborative learning, (b) student faculty interaction, (c) effective teaching practices, and (d) quality of interaction. Respondents in part-time and remote programs also reported mixed levels of engagement across indicators compared with their peers in full-time programs. While these students registered statistically significantly higher scores for (a) higher order learning, (b) reflective and integrative learning, (c) learning strategies, (d) effective teaching practices, and (e) quality of interaction, they reported lower engagement on (a) quantitative reasoning, (b) collaborative learning, (c) student–faculty interaction, and (d) supportive environment. Females were statistically significantly more likely than males to report higher scores on the following indicators: (a) higher order learning, (b) reflective and integrative learning, (c) learning strategies, and (d) collaborative learning. On the other hand, males registered statistically significantly higher score on the (a) quantitative reasoning, (b) student–faculty interaction, (c) effective teaching practices, and (d) quality of interaction engagement indicators.

Limitations

This study has some limitations. First, the student survey captures a respondent's perception of experiences and is not an observable fact (Ewell & McCormick, 2020). Second, the small numbers of students from certain regions necessitated the creation of broad country categories. As such, the data precluded a deeper analysis of the heterogeneity that exists within the broader regional categories studied. We acknowledge that students from countries captured by, for example, the Asia categories, may differ in engagement with their host institutions. Third, as previously stated, the lack of demographic data in the ISSE dataset, such as socioeconomic background, ethnicity, linguistic background, and academic achievement, precluded an analysis of the effect of such variables on student engagement.

Given that research in the Australian and U.S. contexts has found an association between student background characteristics and engagement, including socioeconomic status, parents' and students' educational attainment, and language background (Jackling & Natoli, 2011; Radloff & Coates, 2010), the inclusion of some of this demographic information, such as is captured in the NSSE and AUSSE, may have enabled us to produce a more nuanced picture of the engagement of international students in Ireland. Previous research based in the Irish context has shown that, after accounting for region of origin, higher parental education is inversely associated with academic satisfaction (Finn et al., 2021).

DISCUSSION

Internationalization has become a characteristic of contemporary academic life in HEIs across Western societies. Various surveys have endeavoured to explore the engagement of international students in host institutions to enhance student experiences. Despite growing numbers of international students, research on variations in student engagement by regions of origin is sparse. This article responds to this gap by disaggregating data on international students to explore differences in the engagement of international students from different geographic regions.

Consistent with existing research in the Irish context (Clarke et al., 2018; Farrelly & Murphy, 2018; Finn et al., 2021; ISSE, 2019), this study shows that international students in Ireland score higher on most engagement indicators compared with their domestic counterparts. Even when disaggregating engagement by region of domicile, international students are engaging well overall with teaching and learning at Irish HEIs. This is a positive finding concerning international students, considering the importance of the academic dimension in shaping student experiences. This finding may be explained by the selection effect of international students, whereby more motivated students have opted to study abroad, as well as the supports put in place by the Irish HEIs for these students.

Compared with Irish students, one group of international students stands out regarding engagement: the South Asian group tended to show higher levels of engagement across all indicators. This finding may be explained by the high ambitions among this group as indicated in earlier studies (Ramburuth & McCormick, 2001; Zhu & Leung, 2011). However, our findings differ from some previous studies in the U.S. context, which found lower levels of engagement among Asian international students compared with other international students (Zhao et al., 2005). This may be due to between-country differences in student experience that may not

be captured by the regional categories used in the analysis. Students from the MENA region had statistically significantly higher engagement scores than Irish students on the quantitative reasoning, student–faculty interaction, and effective teaching practices indicators. The reasons for high engagement of MENA countries, as well as other regions, across these dimensions merits further research.

Disaggregation of data has also shown some variations in the effective teaching practice indicator: North American students scored lower than all other groups in this dimension, possibly reflecting different expectations of these students in this area. Lower academic satisfaction of North American students in Irish HEIs has also been found by a recent study based on Eurostudent survey (Finn et al., 2021). Collaborative learning has been increasingly utilized as a teaching approach in HEIs. After applying control variables, our analysis revealed that for some regions (East Asian and Pacific, European and Central Asia, EEA, Latin America, and the Caribbean), scores in collaborative learning remained lower compared with those of Irish students, possibly indicating more prevalent self-paced learning approach in the education systems in these regions.

We also found that compared to postgraduate students, undergraduates showed lower levels of engagement. As the latter scored higher on supportive environment, this seems to indicate that the support mechanisms put in place by the Irish HEIs may be effective, but that more could be done in other domains of engagement. Findings on type of institution and mode of study offered mixed results and represent a topic that merits further research.

CONCLUSION

This research contributes to studies exploring whether country of domicile explains differences in engagement among Irish and international students. In the context of Ireland's international education policy goals to ensure a high-quality learning experience for international students, this article points to the variation in students' engagement by region of origin and the need for consideration to be given to tailoring of supports to respond to the needs of different groups of international students. Irish HEIs have put in place a range of supports for international students at institutional, faculty, and departmental level, including international offices with international student advisors, induction and academic supports, as well as pastoral care (Clarke et al., 2018). We have shown that different groups of students may need support in specific areas, be it learning approaches or communication with faculty. The picture is likely to be more diverse within HEIs. This makes any blanket recommendations difficult but

equally cautions against a "one size fits all" solution to student engagement. Given that learning and student outcomes are linked to engagement, it is important for each institution to determine what is working well in terms of international student engagement in all its dimensions and what needs improvement. In this regard, student engagement surveys offer a good insight into the HEI performance. Further research at the institutional level—including of ISSE data and qualitative studies on student engagement—may assist HEIs to better understand how to improve engagement of international students from different regions.

Though this article primarily focused on examining differences in experiences among the international student population, that domestic students scored lower than international students on most indicators gives rise to questions about Irish student engagement and HEI responses to their needs. Our findings suggest that a "whole institution approach" to supporting the engagement of both international and domestic students may be useful to ensure that the whole student body can benefit from internationalization efforts.

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