

## **The Irish survey of student engagement: A comparative analysis with international surveys of student engagement.**

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According to Coates (2010), measuring engagement can provide a means to develop a fuller understanding of the student experience above and beyond that ascertained through student satisfaction surveys. To examine this topic further, this research analyses the Irish Survey of Student Engagement (ISSE) and compares it to similar surveys of student engagement from other countries. The surveys deal with student engagement, rather than satisfaction and are modelled on the first such survey used in the United States and Canada, the National Survey of Student Engagement (NSSE). The underpinning design decisions for the NSSE is based on the premise that what students do during college counts more in terms of desired outcomes than who they are or even where they go to college (Kuh, 2001). The development of the NSSE was based on Chickering and Gameson's (1987) seven practices in undergraduate education and other instruments that measured the student experience.

In Ireland, the National Strategy for Higher Education to 2030 (HEA, 2011) recommended that every Irish higher education institution should put in place a comprehensive anonymous student feedback system, coupled with structures to ensure that action is taken promptly in relation to student concerns. This brought about the Irish Survey of Student Engagement (ISSE) and the central objective of this project is to develop a valuable source of information about students' experiences of higher education in Ireland by asking students themselves.

This paper aims to address the question: how does the Irish Survey of Student Engagement compare to other such surveys and is it achieving what it set out to do? The researcher proposes recommendations for improving the Irish Survey of Student Engagement and explores alternative options to measuring student engagement.

The methodology employed is secondary research of the actual surveys used elsewhere and related academic journal articles on this topic. The research explores the background and context of the surveys and provides an overview of each. Throughout the paper, the local experience at the researcher's Irish higher education institute is considered and used to support claims made, where possible.

The surveys of student engagement have immense value and encourage a participation rate that could not be replicated through qualitative means. With some more rigid approaches and a combination of other methodological possibilities, the Irish survey could be more comparable internationally, but this may not be of great importance. Of utmost importance is comparisons of institutions within a country and due to the latitude given to institutions in how they participate, this is not always possible. This merits attention and a more cohesive approach should be developed in order address the important underpinning rationale for the research, to give students a voice and to improve student engagement.

**Keywords:** Irish, survey, student, engagement, higher education.

## **1.0 Introduction**

The area of student engagement is of interest to me as I believe it lies at the heart of all learning. Students' engagement with their studies is vital to their success (Yorke, 2013). As Coates (2010) argues, measuring engagement can provide a means to develop a fuller understanding of the student experience above and beyond that ascertained through student satisfaction surveys. This highlights the importance of engagement and this paper analyses the Irish Survey of Student Engagement (ISSE) which was piloted with higher education partners in 2013.

Trowler and Trowler (2010: 9) goes so far as to suggest that 'the value of engagement is no longer questioned'. Throughout the paper, student engagement surveys used in other countries are analysed to explore the best approach in evaluating student engagement. The first survey of its kind was implemented in the US in 2000 and has since spread across the English-speaking world and beyond (Coates & McCormick 2014)

This short paper is limited in the scope of analysis that can be provided but I make suggestions where I feel alternative approaches could be employed for the ISEE and for measuring engagement in general. I agree that the ISSE is a useful tool but would like to see more consistency across, and more importantly within, countries in terms of their approaches used.

## **1.1 Theoretical Framework**

The philosophical stance taken by a researcher impacts upon the perspective and approach to how the research is actually carried out, how the problem is conceptualised and how data is gathered and analysed (Carson et al., 2001). This research is primarily qualitative, in that it seeks to ascertain the views, opinions and feelings through a literature/document review.

I have adopted an interpretivist ontology agreeing with the assumptions set out by Mack (2010) that reality is indirectly constructed based on individual interpretation and is subjective, people interpret and make their own meaning of events and that there are multiple perspectives on one incident. This research is based on my own past experience as a commercial research analyst who as an early stage researcher was involved in piloting an internationally comparable survey of overseas visitors to Ireland.

I have also adopted an interpretivist epistemology in line with the assumptions presented by Mack (2010) that knowledge arises from particular situations and is not reducible to simplistic interpretation and knowledge is gained through personal experience.

## **2.0 Background and context**

The National Strategy for Higher Education to 2030 (HEA, 2011) recommended that every Irish higher education institution (HEI) should put in place a comprehensive anonymous student feedback system, coupled with structures to ensure that action is taken promptly in relation to student concerns. This brought about the ISSE and the central objective of this project is to develop a valuable source of information about students' experiences of higher education (HE) in Ireland by asking students themselves.

## **2.1 Irish Survey of Student Engagement**

The national survey of students in HE in Ireland was piloted in 2013. This study was co-sponsored by a number of partners: the Higher Education Authority (HEA), Institutes of Technology Ireland (IOTI), the Irish Universities Association (IUA) and the Union of Students in Ireland (USI). This collaborative partnership was put in place to manage, direct and implement the pilot survey project.

Following the successful pilot in 2013, the first full survey was offered in 2014 to all first year undergraduate, final year undergraduate and taught postgraduate students in thirty HEIs including Universities, Institutes of Technology and Colleges of Education.

## **2.2 International best practice**

The Irish Survey of Student Engagement (ISSE) is based on extensive research conducted in Australia, New Zealand and the US. The National Survey of Student Engagement (NSSE) has been used by over 1,500 colleges and universities in the United States (US) and Canada since its inception in 2000.

The Australasian Survey of Student Engagement (AUSSE) is based on the NSSE but has incorporated additional elements. It has been in operation since 2007 and is increasingly used in Australia and New Zealand. Both of these surveys are designed to measure student engagement. The ISSE is based closely on the AUSSE.

The UK also piloted a NSSE in 2013 with the questions adopted from the US and Canadian survey. An overview of these four main surveys is set out in Table 1.

China and South Africa are two other countries who also implemented adapted versions of the NSSE in China (Ross et al, 2011; Zhang, 2013) and South Africa (Strydom and Mentz, 2010), however, these are not addressed in this research.

It is not clearly set out why the ISSE is based so heavily on AUSSE or why it is appropriate to be used in an Irish context. Much of the rationale appears to be that the other surveys are worth replicating because they have been in existence for so long.

Information on each of the surveys can be found on the following websites:

NSSE <http://nsse.indiana.edu/>

AUSSE <http://www.acer.edu.au/ausse>

ISSE <http://studentsurvey.ie/wordpress/>

UK Engagement Survey <https://www.heacademy.ac.uk/consultancy-services/surveys/ukes>

### 3.0 Analysis of Surveys of Student Engagement

Table 1 presents a summary overview of four surveys of student engagement researched for this paper. Each of the sections is then analysed in more detail to examine the differences and to identify if the ISSE and other surveys of student engagement can be improved for the future.

**Table 1: Overview of Surveys of Student Engagement**

	<b>NSSE</b>	<b>AUSSE</b>	<b>ISSE</b>	<b>UK ES</b>
<b>Initiated</b>	2000	2007	2013	2014
<b>Most recent full report available</b>	2014 (survey updated in 2013)	2012 (not enough participants to report in 2013)	February – April 2014	01/02-30/06/2014
<b>Locations covered</b>	US	Australia & New Zealand	Ireland	United Kingdom
<b>Target audience</b>	First-year and senior students	First- and later-year higher education students (separate survey for postgrads POSSE)	First-year & final year students and taught postgrad students – on campus or distance / eLearning, in-service	Undergrads and postgrads
<b>Selection criteria</b>	Census administered or randomly sampled	May conduct a census or survey a random sample – 2008 101,141 were invited to take part after stratified systematic sampling	Up to each institute how they do it	Up to each institute how they do it
<b>Participation</b>	622 bachelor's degree-granting institutions	Australasian tertiary institutions – 31 (20 in Australia, 11 in New Zealand)	30 – Universities, Institutes of Technology, Colleges of Education	32 Institutions
<b>No. respondents</b>	335,000 (152,810 first-year and 203,055 senior students)	46,854 (incl. 651 paper)	19,844 (9,514 1 <sup>st</sup> year, 7,394 final year 3,036 postgrad)	25,533
<b>Response rate</b>	Average institutional – 30% (highest 80% and 45% of institutions achieved a response rate of at least 30%)	22.5% (varied from 10.9% to 79.5% at various institutions) Total pop. Across 31 institutions - 221,212 (91,757 1 <sup>st</sup> year students and 129,398 later-year students)	15.6% (of national population 127,545 – ranged from 8.7% to 41.2% at various institutions)	13% of total population of approx. 203,000 students
<b>No. questions</b>	113	169	121	83
<b>Delivery method</b>	Online survey	Online survey or a combination of paper and online surveying	Online survey	Online survey (but some did use a paper option)
<b>Technical delivery</b>	Administered by Centre of Postsecondary	Centrally managed by ACER and key activities conducted by	Some used external survey administrators, some	Administered by the institutions themselves, as a

	Research at the University of Indiana	institutions	engaged with internal learning management system (e.g. Moodle, Blackboard)	standalone survey or part of an existing institutional survey.
<b>Participation cost</b>	\$1,800 to \$7,800 determined by undergraduate enrolment	\$3,800 to \$10,600 depending on students enrolled / surveyed (separate costs for POSSE & SSES)	No direct costs – funded by HEA. Cost is staff time and resources required to encourage participation	Free for HEA subscribers. Non-subscribers pay a fee (from £250) + £600 for account with Bristol Online Surveys

### 3.1 Survey Design

The main issues I identified when analysing the survey were to do with survey design. I start by looking at the underpinnings and address specific aspects of the survey design.

#### 3.1.1 Underpinnings

The surveys deal with student engagement, rather than satisfaction and are modelled on the first such survey used in the US and Canada, the NSSE. The underpinning design decisions for the NSSE is based on the premise that what students do during college counts more in terms of desired outcomes than who they are or event where they go to college (Kuh, 2001). The development of the NSSE was based on Chickering and Gameson's (1987) seven practices in undergraduate education and other instruments that measured the student experience.

The AUSSE was then developed in Australia and New Zealand and some new outcomes were measured. The AUSSE was used as the basis for the ISSE and the NSSE forms the basis of the UK survey. In all cases, the rationale is that the earlier versions of the survey have been extensively developed and tested elsewhere. There is a sound logic here, but I would question just because everyone else is doing it, does not mean others have to do it the same.

#### 3.1.2 Number of questions

The number of questions for each survey varies from 83 to 169, which means not all areas are comparable. The length of some surveys may dissuade people from participating because it is too long. I imagine there might not be a need for all of those questions and that a streamlined version would increase participation. Some surveys (NSSE and UK ES) allow extra questions of interest to the institutes to be added.

#### 3.1.3 Response options

For most questions, there are four response options (never, sometimes, often, very often). Responses have been averaged to arrive at a mean value between 1 and 4. This treats the four response options as lying on a continuous scale, assuming the gaps between responses are the same. However, this may not be true as the difference between 'never' and 'sometimes' may be larger than the gap between 'often' and 'very often'.

There are also very few open ended questions, which I feel would be beneficial in providing useful insights. Each survey is broken into sections and it would be suitable to have a comment box at the end of each asking for general feedback relating to that area. This does happen towards the end of the survey, but I feel this could be integrated throughout.

### **3.1.4 Wording of questions**

Some of the questions are worded very vaguely and are open to interpretation by students. For example, “thinking critically and analytically”, “relationships with teaching staff”. The understanding of such terms may vary from student to student and this means that the results are undermined.

The questions ask students to evaluate how much effort they have invested – not how happy they are with what they received. Not all responsibility to facilitate and improve engagement rests with the student, the institute should also be involved and this requires its own measurement.

### **3.1.5 Self-reporting**

Another major issue I have with the survey is that it is self-reporting. The validity and credibility of self-reports have been examined extensively (Baird, 1976; Berdie, 1971; Pace, 1985; Pike, 1995; Turner & Martin, 1984). The accuracy of self-reports can be affected by two general problems. The most important factor (Wentland & Smith, 1993) is the inability of respondents to provide accurate information in response to a question. The second factor is unwillingness on the part of respondents to provide what they know to be truthful information (Aaker, Kumar & Day, 1998). This raises the whole question of students reporting their perception rather than reality. The survey requires recall of fairly mundane events and one must question the reliability of recall over long periods of time.

## **3.2 Testing validity and reliability**

Survey validation has involved focus groups, expert consultations, cognitive interviews, pilot testing, expert reviews, feedback from institutional users and psychometric analysis.

Detailed pre-testing is undertaken with students to ensure that the questions used were understood in the national context. The similarities between the four surveys should enable HEIs to consider the experiences of their students compared to students in other countries, however, there are some significant differences that must be considered about the approaches used and contexts.

Post-fieldwork reliability tests demonstrate the overall reliability of the surveys in each of their national contexts. Inter-item correlations, corrected item total correlations and Cronbach’s alpha measures are provided throughout the surveys and appear to give the findings gravitas and confidence that statistics are correctly representative.

As part of commitment to transparency as well as continuous improvement, most surveys conduct follow up research to assess the quality of the survey and resulting data. The NSSE compiles a Psychometric Portfolio, which is a framework for presenting their studies of the validity, reliability, and other indicators of quality of NSSE's data, including analysis of data subsets defined by a variety of student and institutional characteristics (NSSE, 2015).

### **3.3 Target Audience / Selection criteria**

The target audience is mixed for each survey and this is an issue for comparative analysis. Some target undergrads and postgrads and some look for all undergrads while others target just first- and final-year students. Some surveys do not cover postgrads at all. I think it would be best if a common target audience was agreed and the most obvious one is undergrad students from first- and final-year. This avoids the current system that is open to interpretation. I think the ISSE should follow the lead of the AUSSE and conduct a separate survey for postgrads.

Selection criteria also vary from survey to survey: a census of students or a random sample is taken and it is sometimes left up to each institute how they do it. This not only causes issues for comparisons across the surveys but also within each survey.

Irish results apply to the entire publicly-funded system of HE whereas the US results are based on a self-selecting group of HEIs. This means that direct comparisons are not valid due to significantly different contexts.

As a student enrolled in an online programme myself, I note that the survey is not suitable for this cohort or part-time students. I believe the solution would be to design a separate survey for these cohorts.

### **3.4 Delivery / Technical delivery**

All of the surveys can be conducted online and in addition the AUSSE offers a paper based approach. I think the option of a paper based approach is a good idea as it is more inclusive, particularly for students who may not be willing or able to participate in online surveys.

Surveys are administered by external survey administrators or locally by each institute. The approach varies across the surveys and sometimes even within each survey. When internal management systems are used (e.g. Moodle, Blackboard) it is the responsibility of the institute to report findings back to a central body for collation. When external survey administrators are used, the HEI prepares an extract from their student record system and submit this to the administrator. The ISSE pilot in 2013 actually used two external survey administrators but this proved problematic at times.

Depending on the technical delivery approach chosen, participants are either presented with a dedicated link to the survey or they access it via a central site. I believe that there is a need for consistency on this matter and that a single online access point is provided. I believe that a neutral project management approach is the most appropriate.

### **3.5 Incentive**

Incentives to participate were not used for the pilot of the ISSE and they are not mentioned for any of the other surveys. The ISSE does make the point that other surveys are incentivised and suggests that each institute should make that decision at a local level. I know that my institute did offer a prize of an iPad for participating in the 2014 survey and think this is a good idea, as most other surveys offer a similar incentive and if ISSE did not do so it would be disadvantaged.

### **3.6 Timing**

Most data appears to be collected in Spring or Summer each year. In order to be truly comparative I feel that the timing should be co-ordinated and timed to get the most reflective picture. For example, two months before the end of term, the survey should be opened and left open for one month. This would address the issue with students doing exams or being off-campus for holidays.

### **3.7 Presentation of findings**

The ISSE scores are presented on a scale ranging from 0 to 100 and should not be interpreted as percentages of students. These are aggregated scores from Likert scales and transformed into a composite index score. Index scores are calculated for an individual student when he/ she provides responses to the majority of contributing questions. The exact number of responses required varies according to the index, based on psychometric testing undertaken by NSSE and AUSSE, but a majority is always required. For example, eleven questions contribute to the index Academic Challenge. Six of these must be answered in order to calculate the index score. Seven questions contribute to Active Learning. Four of these must be answered in order to calculate the index score. The index score is calculated from the mean of responses given, excluding non-responses. Index scores for any particular student group, for example first years, are calculated as the mean of individual index scores.

For some surveys, the index scores are presented for the various questions and percentile distributions are shown in a modified 'box and whiskers' chart. The charts show student scores at the 95<sup>th</sup>, 75<sup>th</sup>, 50<sup>th</sup>, 25<sup>th</sup> and 5<sup>th</sup> percentile, which allows the reader to discern the range and spread of scores. It is a different way of presenting findings that some readers may struggle to interpret if it is new to them.

The meaningfulness of the data could also be questioned, so what if the median value is 20 or 23, what exactly does that mean? This is where less questions and more analysis and exploration of the findings could improve the overall contribution of the survey findings.

### **3.8 Ethical Concerns**

Cooper and Schindler (1998) maintain that ethical considerations in research are necessary to ensure that no one is adversely affected by the research carried out. A lot of discussion is given about the anonymity of the surveys and confidentiality. However, students may still be concerned as sometimes they have to give their ID number and DOB. These personal details are replaced by a proxy value and age in years respectively, to protect confidentiality, however some students may be uneasy that their answers could be tracked back to them.

### **3.9 Participation cost**

In some countries, the institutes must pay to participate and I feel this presents a barrier. I think the Departments of Education in each country should cover the cost of the survey and this should help to broaden the participation and therefore be more representative of the target markets.



### **3.10 Bias**

Porter (2002) posits if higher-ability students have better memories and can recall more events, this could explain higher levels of engagement found at some institutions. He also suggests that students often use inference to answer questions rather than recall and this can be guided by implicit normative theories. He suggests that respondents then report on what they feel should have occurred rather than the actual occurrence. This inherent bias is linked with the problem of self-reporting discussed earlier and is an issue if different groups of respondents answer questions in systematically different ways.

A common occurrence with survey data (not just these four) is that there are more female respondents. This indicates a bias that exists and must be borne in mind when interpreting results.

I understand that local politics and agendas may be in place regarding the design and reporting of such surveys. However, this has to be balanced with the need for useful comparative research.

### **4.0 Discussion – GMIT's experience**

*In the ISSE Report on effective feedback and uses of ISSE data: an emerging picture (ISSE, 2015), the institute where I work GMIT (Galway-Mayo Institute of Technology) outlines the following sequence of activities to promote awareness and understanding of the data:*

- *Summary institution-level report*
- *Briefing of Academic Council*
- *Briefing of Students' Union*
- *Briefing of Centre for Educational Development*
- *Briefing of Executive Board*
- *Report to all staff and all students*
- *Data analysis workshop*
- *Head of School briefings and action workshops*

There have also been a number of initiatives and changes in approaches based on the findings of the ISSE reports. This shows that the findings from the survey are being listened to and the changes are aimed at having a positive impact on the student learning experience, which is a welcome development.

### **5.0 Conclusion**

The surveys are asking students to reflect on something that has happened months ago and therefore I would question the reliability of the data they present. If the purpose is to really identify student engagement, there could be other ways of doing this more robustly. For example, students could be asked to keep logbooks of their activities and more qualitative approaches might present more meaningful results and might address this shortcoming.

As with any survey, they are only a snapshot of the situation at a given point in time and this might exclude deeper understanding. However, I do feel the surveys of student engagement have immense value and encourage a participation rate that could not be replicated through qualitative means. With some more rigid approaches and a combination of other methodological possibilities, the survey could be more comparable internationally, but this may not be of great importance. Of utmost importance is comparisons of institutions within a country and due to the latitude given to institutions in how they participate, this is not always possible. This merits attention and a more cohesive approach should be developed in order address the important underpinning rationale for the research, to give students a voice and to improve student engagement.

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