University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

# University College Cork

## Irish Survey of Student Engagement

### Preliminary Analysis of UCC data 2018

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# Irish Survey of Student Engagement

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**Summary**

A primary purpose of the Irish Student Survey of Engagement (ISSE) is to collect data on student engagement with the aim of supporting institutional decision making. The 2018 survey is the third year that the current set of questions have been used. There was a review prior to the 2016 survey which refined the questions down to sixty-seven, which are groups into a number of indices. These are Higher Order Learning, Reflective and Integrative Learning, Quantitative Reasoning, Learning Strategies, Collaborative Learning, Student-Faculty Interaction, Effective Teaching Practices, Quality of Interactions, and Supportive Environment. We now have three years of data on these indices on which to make comparisons.

Historically, UCC has always had a lower response rate. This year it was 13.9%. It is lower than other institutions, and the lowest when compared to the other seven universities in ISSE. Nevertheless, it is sufficient for data analysis. The indices are scored out of sixty and cannot be compared with each other. The valid comparisons are on an index score across years in an institution, or across institutions in the same year.

When we compare UCC index scores across the three years the scores increase year on year, albeit that these are very minor. An exception to this would be Higher Order Learning. In was 35.7 in 2016, 37.6 in 2017, and 40.2 in 2018.

When compared to the other seven ISSE universities in the 2018 survey, the UCC scores are comparable. The UCC Higher-Order Learning score (40.16) is higher than the ISSE University average (37.93). However, the statistical effect size for this difference is small, so it may not represent a real world difference. There is a similar pattern with Quality of Interactions, with the UCC Score (40.22) being higher than the ISSE University average (38.57). However, the effect size is small. In contrast the UCC Collaborative Learning score (25.35) is lower than the ISSE University average (30.61). Statistically this is a medium effect size, so probably does represent a real world difference. In addition, this pattern is evident in the previous years' surveys as well.

Rather than being taken as absolute, these difference should be regarded as sign posts for further analysis of the data to try and determine what is driving the scores in these indices so as to capture good practices within Higher Order Learning and Quality of Interactions, and what needs to happen to foster greater Collaborative Learning.

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## Introduction

The Irish Student Survey of Engagement (ISSE) had three broad aims. These are to facilitate the collection of data on student engagement, support the analysis of this data and foster impactful decision making within institutions. This report presents results from the UCC sample of the 2018 ISSE survey. Prior to the 2016 survey a review of the instrument was undertaken so as to: reflect the range of experience in higher education in Ireland; allow institutions to focus on factors over which they had control; while also allowing the data to be compared to equivalent international measures and allow use of the data to other partners in the project. This review resulted in a 67 question survey, and this is the third year in which the same questions have been used. It is envisioned that, subject to periodic reviews, these questions will be used for the foreseeable future. This will allow comparison of results from 2016 onwards.

Different indicators should not be compared to each other, as they are not related to each other. These indices are as follows:

**Higher Order Learning**;

Applying facts, theories, or methods to practical problems or new situations

Analysing 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

**Reflective and Integrative Learning**;

Combined ideas from different subjects/modules when completing assignments

Connected your learning to problems or issues in society

Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in discussions or assignments

Examined the strengths and weaknesses of your own views on a topic or issue

Tried to better understand someone else's views by imagining how an issue looks from their perspective

Learned something that changed the way you understand an issue or concept?

Connected ideas from your subjects / modules to your prior experiences and knowledge

**Quantitative Reasoning**;

Reached conclusions based on your analysis of numerical information (numbers, graphs, statistics, etc.)

Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)

Evaluated what others have concluded from numerical information

**Learning Strategies**;

Identified key information from recommended reading materials.

Reviewed your notes after class.

Summarised what you learned in class or from course materials

**Collaborative Learning**

Asked another student to help you understand course material

Explained course material to one or more students

Prepared for exams by discussing or working through course material with other students

Worked with other students on projects or assignments

**Student-Faculty Interaction**

Talked about career plans with academic staff

Worked with academic staff on activities other than coursework (committees, student groups, etc.)

Discussed course topics, ideas, or concepts with academic staff outside of class

Discussed your performance with academic staff

**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

**Quality of Interactions**;

With Students'

Academic advisors,

Academic staff,

Support services staff (career services, student activities, accommodation, etc.), and other administrative staff and offices (registry, finance, etc.)

**Supportive Environment**

Providing support to help students succeed academically

Using learning support services (learning centre, computer centre, maths support, writing support etc.)

Contact among students from different backgrounds (social, racial/ethnic, religious, etc.)

Providing opportunities to be involved socially

Providing support for your overall well-being (recreation, health care, counselling, etc.)

Helping you manage your non-academic responsibilities (work, family, etc.)

Attending campus activities and events (special speakers, cultural performances, sporting events, etc.)

Attending events that address important social, economic, or political issues

**Non Indicator Items** There are a series of questions that are not part of the above indices.

Thinking critically and analytically

Analysing numerical and statistical information

Acquiring job- or work-related knowledge and skills

Working effectively with others

Solving complex real-world problems

Being an informed and active citizen (societal / political / community)

How would you evaluate your entire educational experience at this institution?

If you could start over again, would you go to the same institution you are now attending?

Indicator scores are indicators of relative performance and are not percentages, they are calculated on a scale from 0 to 60, rather than 100. Prior to 2016 they were calculated out of 100. Indicator scores provide greatest benefit when used as signposts to explore the experiences of different groups of students - for example, final year full-time students and final year part-time students. In particular, indicator scores provide an insight into the experiences of comparable cohorts over multiple datasets e.g. the experiences of 2017 first year students relative to 2016 first year students. If a particular indicator score prompts interest, the following is a suggested process may be useful:

A particular indicator score appears higher or lower than for other groups

How representative are the respondents to the indicator questions for this group?

Review number of respondents to form view on how representative the data may be

Review responses to related questions to determine whether this provided insights

Potentially, explore further with student groups

**Response Rates and Demographics**

The overall ISSE response rate was 28.0%, which was a slight increase from the 2017 rate (27.2%). The UCC response rate is much lower than this at 13.8% - (see Table 1, page 10). This rate is also lower than the response rate for 2017 (19.5%). However, last year's response may have been exceptional. Historically the UCC ressponse rate showed increases of between 1-2%, and so compared to the 2016 (11.7%)

Table 1

*Demographic characteristics of the UCC Sample*

| **Characteristic** | **Population** | **Sample** | (*2016 %)* | (*2017 %*) | **2018 (%)** | **ISSE(%)** |
|---|---|---|---|---|---|---|
| **UCC** | 11,971 | 1,662 | (*11.7%*) | (*19.5 %*) | 13.9% | 28.0% |
| **Year/Cohort** | | | | | | |
| Undergraduate first year | 4,908 | 880 | | (*26.1%*) | 18.1% | |
| Undergraduate final year | 3,666 | 431 | | (*15.4 %)* | 11.8% | |
| Postgraduate taught | 3,397 | 345 | | (*12.8 %*) | 10.2% | |
| **Age** | | | | | | |
| 23 and under | | 1,149 | | | | |
| 24 and over | | 513 | | | | |
| **Gender** | | | | | | |
| Female | | 1,171 | | | | |
| Male | | 491 | | | | |

response rate, the 2018 (13.9%) response rate may not be as out of line as a comparison with just the 2017 (19.5%) rate would indicate. Although a higher response rate may be preferred, effort here should not be made at the expense of postponing analysis of the data pending higher response rates. A more realistic approach may be decisions on ensuring the number of responses in subsets is sufficient for the interpretation of the data and decision-making.

## ISSE Indices

The data presented in this report are drawn from statistics compiled by the ISSE. The comparisons used are between the UCC index scores and the average for the other seven ISSE Universities, and all other ISSE institutions.

The 67 questions are grouped according to indicators to which they contribute. These are; Higher Order Learning, Reflective and Integrative Learning, Quantitative Reasoning, Learning Strategies, Collaborative Learning, Student-Faculty Interaction, Effective Teaching Practices, Quality of Interactions, and Supportive Environment. There is a small number of non-indicator questions.

The scores for the indicators are displayed in Table 2, page 11). A visual inspection of the data would seem to indicate that the UCC scores are increasing, albeit that these increases are mostly small in nature.

## Comparison of Index Scores for 2016, 2017 and 2018

Table 2

*Mean index UCC scores for 2016, 2017 and 2018*

| | | 2016 | 2017 | 2018 |
|---|---|---|---|---|
| HO | Higher Order Learning | 35.7 | 37.6 | 40.2 |
| RI | Reflective and Integrative Learning | 30.8 | 30.6 | 31.9 |
| QR | Quantitative Reasoning | 17.5 | 18 | 18.0 |
| LS | Learning Strategies | 30.3 | 30.3 | 31.4 |
| CL | Collaborative Learning | 24.6 | 25.1 | 25.4 |
| SF | Student-Faculty Interaction | 10.7 | 10.6 | 11.0 |
| ET | Effective Teaching Practices | 33.3 | 34.6 | 34.6 |
| QI | Quality of Interactions | 36.3 | 39.0 | 40.2 |
| SE | Supportive Environment | 27.7 | 29.5 | 29.9 |

## Year Cohort Comparisons

In comparing the year cohorts the trend is for there be to increases from first year to final year to taught post graduate, see Table 3 (page 12). An exception to this trend is the Supportive Environment Index, which has the reverse trend. This may represent students becoming more independent as they progress.

Table 3

*Mean index scores for UCC for 1st year, final year and taught post graduate students*

| | First Year | Final Year | PG Taught | Total |
|---|---|---|---|---|
| HO | 38.8 | 39.4 | 43.6 | 40.2 |
| RI | 30.3 | 31.4 | 36.9 | 31.9 |
| QR | 17.1 | 18.9 | 18.9 | 18.0 |
| LS | 30.8 | 29.9 | 34.8 | 31.4 |
| CL | 23.8 | 27.6 | 26.6 | 25.4 |
| SF | 7.6 | 14.4 | 15.0 | 11.0 |
| ET | 33.8 | 32.4 | 38.8 | 34.6 |
| QI | 39.1 | 39.0 | 43.4 | 40.2 |
| SE | 31.1 | 29.3 | 28.1 | 29.9 |

## UCC and ISSE Comparisons

In order to contextualise the UCC results the pertinent comparison is the average index score for the other seven ISSE universities, see Table 4 (page 13). In addition, the scores for all other ISSE institutions is also included to add further context. Compared to other universities UCC has statistically significant higher scores in Higher Order Learning and Quality of Interactions. However, these are small effect sizes, and so most probably do not represent real world differences. However, this pattern does represent a change in trends, where historically UCC had lower scores than the other Universities, albeit that the differences were for the large part marginal. In keeping with other years, UCC scores lower in Collaborative Learning. However, the difference this year is of a

medium effect, rather than the large effect sizes of previous years. Nevertheless, it most probably represents a real world difference.

**Effect Sizes.** In recent years there has been a move away from relying solely on significance testing, and instead p values are supplemented with reference to effect sizes. Given the size of these groups it is entirely expected that differences between them would be statistically significant, but would very possibly represent false positives. The effect size provided by ISSE for comparisons across institutions is Cohens d. Rocconi and Gonyea (2015) suggest the threshold should be *0.5 = large, 0.3 = moderate, 0.1 = small* for the NSSE indices, and we will use these cut-off for interpretation purposes for differences across institutions. Although a small effect size does represent a significant difference between groups, it is more probably that medium and large effect sizes represent real world differences.

Table 4

*Mean index scores for UCC, other ISSE Universities, and all ISSE Institutions*

| | UCC | ISSE Univ | ISSE All |
|---|---|---|---|
| Higher-Order Learning | 40.16 | 37.93 (-0.16) | 36.63 (-0.25) |
| Reflective and Integrative Learning | 31.92 | 32.07 | 30.72 (-0.11) |
| Quantitative Reasoning | 17.99 | 20.24 (+0.15) | 19.74 (+0.13) |
| Learning Strategies | 31.44 | 31.78 | 30.89 |
| Collaborative Learning | 25.35 | 30.61 (+0.40) | 31.13 (+0.46) |
| Student-Faculty Interaction | 11.04 | 13.04 (+0.16) | 14.07 (+0.25) |
| Effective Teaching Practices | 34.64 | 34.02 | 34.70 |
| Quality of Interactions | 40.22 | 38.57 (-0.13) | 39.12 |
| Supportive Environment | 29.87 | 30.30 | 28.8 |

Colours indicate the scale of the effect size

>=0.3 medium positive effect

>=0.1 small positive effect

<=-0.1 small negative effect

## Higher Order Learning: ISSE Field of Study

The difference between the Higher Order Learning Index score and the scores for the other ISSE Universities represented a small effect size. Nevertheless the data was examined by the International Field of Education Classification to determine whether this difference was uniform. This breakdown for the Higher Order Learning Index is displayed in Table 5 (page 15) and consists of comparisons of UCC students in these fields of study compared to the average score of the other seven ISSE Universities. The trend of the index scores for the other ISSE universities being lower (small effect size) for these areas of study is consistent, with some exceptions. The UCC Education score represents a large effect size, so the difference is larger than the general trend would suggest. However both Information Communication Technologies, and Services have lower scores (medium effect size), which goes against the general trend. These medium and large effect size differences are likely to represent real world difference.

## Collaborative Learning: ISSE Field of Study

The score for the UCC Collaborative Learning Index is lower than the score for the other ISSE Universities. Historically, this difference has been a large effect size, so very likely represented a real world difference. This year the difference is a medium effect size. This could represent a change in the right direction. Data from future years will help us decide whether this is an anomaly, or the beginnings of a trend. The ISSE data is broken down by the International Field of Education Classification, and is displayed in Table 6 (page 16). The comparison is with the average score of the other seven ISSE Universities. In general the UCC index scores are lower than the other ISSE universities. There is no difference for those studying Information Communication Technologies. However, with Health Welfare, and Business, Administration Law the differences represent a large effect size. In addition, Arts Humanities, and Social Science, Journalism Information have medium effect size differences. Itis likely these represent real world differences. Education, Natural Sciences, Mathematics Statistics, and Services have small effect sizes differences, so these are unlikely to represent a real

Table 5

*Mean Higher Order Learning Scores by International Field of Education Classification among ISSE Universities*

| | UCC | ISSE Univ |
|---|---|---|
| UCC Total | 46.16 | 37.93 (-0.16) |
| Education | 40.40 | 37.06 (-0.65) |
| Arts & Humanities | 39.02 | 37.38 (-0.12) |
| Social Science, Journalism & Information | 43.56 | 41.35 (-0.16) |
| Business, Administration & Law | 42.67 | 38.85 (-0.28) |
| Natural Sciences, Mathematics & Statistics | 37.68 | 35.78 (-0.14) |
| Information & Communication Technologies | 30.36 | 35.76 (+0.38) |
| Engineering, Manufacturing & Construction | 38.10 | 37.67 |
| Health & Welfare | 41.29 | 38.52 (-0.19) |
| Services | 31.99 | 37.67 (+0.42) |

Colours indicate the scale of the effect size

>=0.3 medium positive effect

<=-0.1 small negative effect

<=-0.5 large negative effect

world difference.

Table 6

*Mean Collaborative Learning Scores by International Field of Education Classification among ISSE Universities*

| | UCC | ISSE Univ |
|---|---|---|
| UCC Total | 25.35 | 30.61 (+0.46) |
| Education | 29.82 | 31.82 (+0.15) |
| Arts & Humanities | 21.31 | 25.94 (+0.37) |
| Social Science, Journalism & Information | 26.67 | 29.42 (+0.37) |
| Business, Administration & Law | 26.17 | 32.34 (+0.50) |
| Natural Sciences, Mathematics & Statistics | 27.47 | 31.12 (+0.26) |
| Information & Communication Technologies | 31.49 | 32.13 |
| Engineering, Manufacturing& Construction | 34.31 | 35.89 (+0.13) |
| Health & Welfare | 24.03 | 30.58 (+0.53) |
| Services | 26.44 | 28.70 (+0.16) |

Colours indicate the scale of the effect size

>=0.5 large positive effect

>=0.3 medium positive effect

>=0.1 small positive effect

**Qualitative Analysis of Open Comments**

The open-ended comments suggest that for the most part, students either felt supported during their experiences and were able to resolve all issues as they arose, or had positive experiences and did not need much support. Students were asked to provide comments to two open ended questions:

1. **What does your institution do best to engage students in learning?**
   **425** students provided responses to this question and the responses denote an alignment with UCC's performance in all indicator scores.


*Fig. 1 – Engagement drivers*

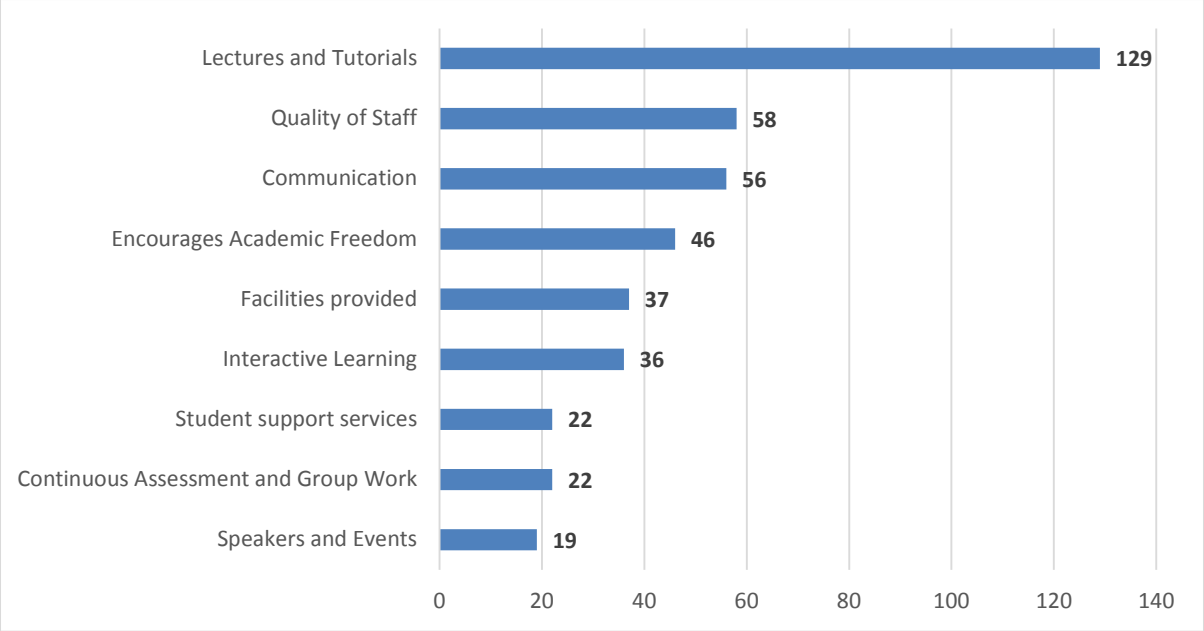


*Fig. 2– Engagement Categories – (All Cohorts)*

# *Sample Open Comments*

| | |
|---|---|
| Lectures and Tutorials | • *It provides intelligent and stimulating lectures and tutorials. It has an excellent library.*<br>• *I find tutorials quite helpful as we are given the opportunity to ask questions and engage better with the course content. I also feel less apprehensive about answering or asking questions in front of the smaller classes.*<br>• *Tutorials, or small seminar classes are the best way UCC engages students in learning. It is easier to learn in a small group with open discussions going on* |
| Quality of Staff | • *Most lecturers are passionate about their subject. They illustrate with example and make topics incredibly relevant and interesting.*<br>• *Some lecturers have the skill of delivering the information in a very good way to understand.*<br>• *Some lecturers are not only passionate about the subjects they lecture on but also passionate to transfer their knowledge to others, and I believe that these are really important factors, as it is these lecturers also that are most approachable for students.* |
| Communication | • *From my own experience of my course (which is quite small) we are invited to actively engage in the lecturers and challenge or provide our own perspectives on what we are learning. Encourages teamwork and discussion.*<br>• *UCC is very student orientated. It emphasises inclusion on all levels and this helps people feel like they are part of a community. Its reputation as a centre of excellence makes students feel proud of studying there also and this in turn encourages high levels of learning participation.*<br>• *Feedback is always promptly given and very helpful. All lecturers are very approachable.* |
| Encourages Academic Freedom | • *Takes a variety of approaches to a subject so that everyone can find one that they are passionate to learn more about.*<br>• *It provides them a lot of autonomy to learn for themselves.*<br>• *encourages students to learn and enjoy their experience at UCC* |
| Facilities provided | • *Encourage personal research and thought, and providing a wealth of resources to do this in the college library.*<br>• *Wide range of active clubs and societies*<br>• *Offering excellent services within the library, such as referencing classes. Promoting various talks and seminars that take place on campus* |

| | |
|---|---|
| Interactive Learning | • *Interactive modules: lecturers often post academic material on blackboard or else post information on where to find it. This is a great help as it lets you save a lot of time.*<br>• *Blackboard is an important tool in engaging students in learning*<br>• *As a distance learner, I feel the weekly breakdown of subject contents is perfect. The interactive and collaborative nature of the assessed discussion boards is excellent and really drives the learning packages.* |
| Student support services | • *Promotes active learning, offers a skills centre where students can learn to improve their academic skills*<br>• *Has adequate supports if one is struggling. One just needs to ask*<br>• *There is a good structure involved in mental health and stress management which I think is important in giving students a better opportunity to focus on their studies.* |

*Table 1 – Sample Open comments (randomized, all cohorts)*

2. **What could your institution do to improve students' engagement in learning?**

   **400** students provided responses to this question and the findings suggest that, on average, the students who responded confirm that UCC is doing many things well. Overall, there was a reasonable awareness of what student engagement means amongst the respondents.


*Fig. 3– Improvement Drivers (All Cohorts)*

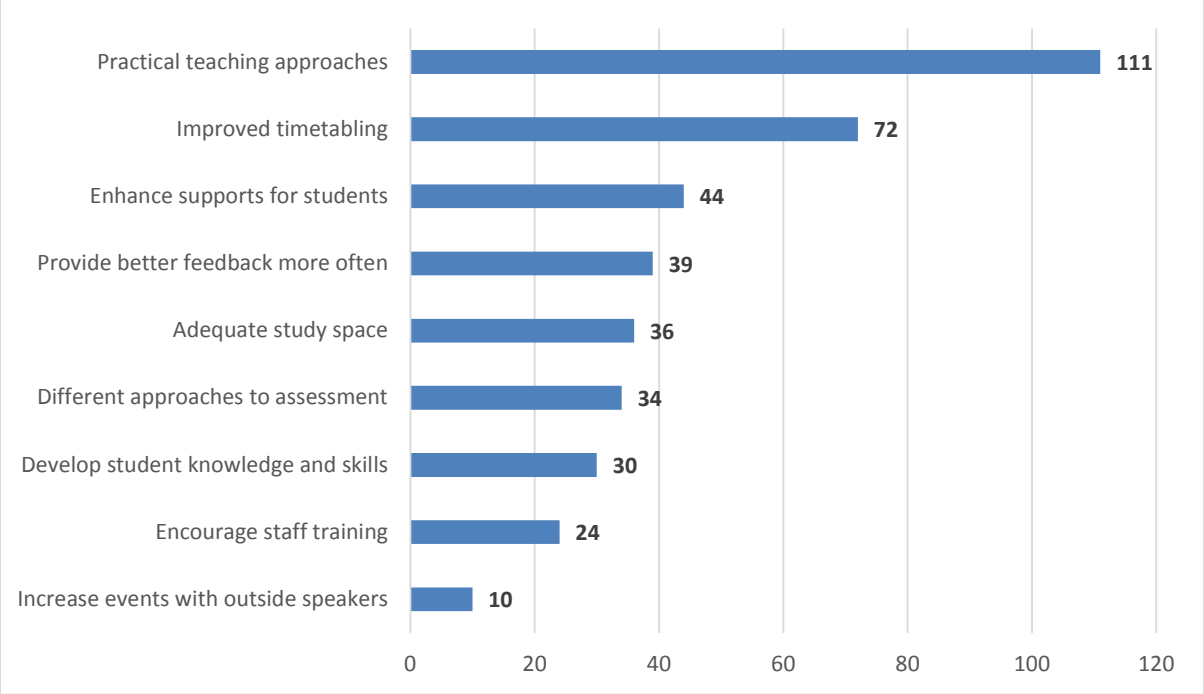


*Fig. 4– Improvement Categories (All Cohorts*

# *Sample Open Comments*

| | |
|---|---|
| Practical teaching approaches | • *Make lectures compulsory or have some emphasis on attending lectures.*<br>• *Gives relative and real life examples in lectures. Lecturers also ask tough questions, making us think more about the topic improving our problem solving skills*<br>• *Blended learning, group work, Greater interaction in class with tutor, smaller lectures, better preparation by some tutors, more engagement with literature* |
| Different approaches to assessment | • *For my course anyways , more continuous assessment, online homework and smaller projects instead of having mostly 100% exams and just a FYP -this type of learning doesn't suit most people*<br>• *Have more continuous assessment to motivate students to keep up with the material and continually evaluate their work.*<br>• *A way to hand in assignments online, without printing it and giving it to a certain person at a certain time.* |
| Enhance supports for students | • *As an adult learner, offer support outside of course nights especially for those who may need help while doing their assignments*<br>• *Have better online resources, and help students actively in issues relating to balancing work and health issues, as many of the courses can have a very heavy workload*<br>• *Carry on Mentoring programme past first year* |
| Provide better feedback more often | • *Better feedback of performance; after continuous assessment and exams. Feedback from continuous assessment should be given before exams. More focus on leadership skills of an individual student.*<br>• *More feedback to get an understanding of how we're progressing, what we need to work on before exams.*<br>• *Provide better and more prompt feedback on work. Set a mandatory turn around period for all academic staff to give feedback to students on coursework* |
| Increase events with outside speakers | • *Have more visiting speakers, trips to different institutions and museums in Ireland and abroad,*<br>• *By hosting more events on how students can engage more in a learning environment*<br>• *Practical lectures with real-world business experience. Variety of guest lecturers keeps it interesting.* |

| | |
|---|---|
| Encourage staff training | • *Resources to support innovative T&L and support those delivering programmes.*<br>• *Teach the teachers...have consultants etc. any learning done in how to teach rather than one size fits all approach*<br>• *Some lectures could deliver their material in a more interesting way by making full use of the technologies available in the lecture theatres.* |
| Develop student knowledge and skills | • *Possibly provide info sessions at the beginning of first year to help the transition from secondary level education into third level e.g. to help deal with the management of workload, academic writing, study etc.*<br>• *Support should be available for ICT and Academic writing through Peer-to-peer volunteering*<br>• *Allow a degree of "examination-free time" post exams in which students can apply their new founded knowledge to a professional/occupational field* |
| Adequate study space | • Increase library accessibility, create more places for open discussion /study group to take place.<br>• *More places to work with and plug in a laptop. More private study pods*<br>• *more student-focussed - e.g. better hours in library, easier way to return books,* |
| Improved timetabling | • *Academic workload can be too much in that in that assignments and research projects can take up all of your available time.... leaving very little time to keep up with study*<br>• *Take a break during double lectures Have more presentations Apply learning to the working world*<br>• *I would like the timetable to be crafted a little better, if we had all lectures together over 2/3 days it would encourage people to get their work done in that time frame. The lack of structure is difficult to maintain college work ethic when also trying to juggle family life.* |

*Table 2 – Sample Open comments (randomized, all cohort)*