Learner Support Centres
Annual Report

Academic Year 2017/18

Contents

Introduction

A key element of the vision of the University of Limerick (UL) is to provide an engaging student experience. The Centre for Teaching and Learning (CTL) manages five learner support centres, each of which provides a space where students can feel comfortable learning in small groups or in one-to-one situations.

The five learner support centres are as follows:

Science Learning Centre (SLC)	http://www.ulsites.ul.ie/slc/
Mathematics Learning Centre (MLC)	http://www.mlc.ul.ie/
ICT Learning Centre (ICTLC)	http://ictlc.ul.ie/
Regional Peer-Supported Learning Centre (PSLC)	http://pslc.ul.ie/
Regional Writing Centre (RWC)	http://ulsites.ul.ie/rwc/

The learner centres are dedicated to helping students at both undergraduate and postgraduate level to achieve their academic goals by supporting them to build academic confidence and self-esteem and to learn and study more effectively. The key services offered are summarised below.

SLC
- Drop-in
- Support tutorials
- At-risk initiatives
- Collaboration with academic depts

MLC
- Drop-in
- Support tutorials
- Diagnostic testing
- At-risk initiatives

ICTLC
- Drop-in
- Support tutorials
- At-risk initiatives
- ICT summer camps

PSLC
- PSLG across disciplines
- Workshops
- Seminars
- ICT summer camps

RWC
- 1-to-1 peer tutoring
- Workshops
- Writers' groups
- Writing in Disciplines

This report brings together in one document the annual reports of UL's five learner support centres for the academic year (AY) 2017/18.

1. Science Learning Centre

Annual Report 2017/18

Foreword from the Director

Student participation in Science Learning Centre (SLC) activities in 2017/18, measured in terms of visits to the Drop-in Centre and to specialist tutorials, amounts to nearly 4,000 visits in total. This is similar to last year's figure (4,054), which showed a sharp increase over the 2015/16 number (3,263).

Survey forms completed by students using the Drop-in Centre or support tutorials for first-year modules were used this year to gauge student satisfaction with the services provided by the SLC. Feedback from participating students was, in the main, very positive. The slower pace with which difficult concepts were explained and the near one-to-one tutor/student learning environment were frequently cited as being particularly beneficial. Credit must go in large part to our tutors, drawn mainly from our postgraduate population, for the general satisfaction levels indicated by students. Indeed, the openness and patience of SLC tutors was mentioned by many students.

Modules requiring support vary from year to year. Modules can switch between semesters or can be replaced. The close relationship between the SLC and module, programme and department leaders continues in order to ensure students' overall science experience is positive. This last academic year saw significant reductions in the numbers of students attending from certain formerly 'high attendance' modules. We would see this as an indicator of success as module materials and presentation modalities change to better match the backgrounds of the students while at the same time preserving academic standards. Of course, new modules are on the horizon, and this is part of the ongoing dynamic SLC–academic relationship.

When you read the detail of the report to follow, I believe you will agree with me that the learning centres, SLC included, play an important role in relation to student retention and shaping the early overall university experience of many of our students.

Dr Vincent Casey,
Director, Science Learning Centre

September 2018

Executive Summary

The Science Learning Centre (SLC) provides support (through the Drop-in Centre and support tutorials) to undergraduates whose degree includes a science component. A total of 3,944 visits from students on 24 different programmes were made to the SLC during 2017/18. The following is a breakdown by semester and service:

- Semester 1 drop-in: 736 visits from 284 individual students
- Semester 1 support tutorials: 1,176 visits (average attendance 19 per tutorial)
- Semester 2 drop-in: 479 visits from 157 individual students
- Semester 2 support tutorials: 1,522 (average attendance 21.7 per tutorial)

Thirty-one visits were from repeat students. Mature students accounted for 99 visits (from 38 individual students) to the Drop-in Centre in Semester 1. Mature students accounted for 70 visits (from 23 individual students) to the Drop-in Centre in Semester 2.

The SLC's Prepare and Repeat (PAR) Semester 2 chemistry revision sessions were availed of by 30 students (54 visits). In addition, the SLC provided drop-in support for students in the week preceding the repeat examinations. There were 27 attendances for the week.

The SLC's early support intervention (ESI) tutorials for a first-year chemistry module were attended by 76 students, including 34 students who were identified as being at risk of failing the module. The ESI tutorials attracted 210 attendances over the course of Semester 1. Statistics show that attending the tutorials benefits participants in terms of exam results.

Feedback from students who availed of SLC services during the year was positive. Common praiseworthy aspects cited by users of the Drop-in Centre included the tutors' friendliness, patience, knowledgeability and helpfulness, the benefit of having a place to go to ask questions, being able to asking questions without embarrassment, and the one-to-one or small-group learning environment. Suggested improvements included extending the hours, providing more tutors and covering more modules. Common themes that emerged from survey respondents who attended support tutorials (including ESI sessions) included pace of tutorial, clear explanation of difficult concepts, helpful exam questions and feeling comfortable asking questions. There were very few negative comments.

In collaboration with UL's Department of Physics, the SLC developed an outreach programme – SOPHia – to promote physics as a Leaving Certificate subject to second-level school students. The outreach project was run on a pilot basis in three schools; evaluations from participants indicate that the programme had a positive effect on the students' attitude to taking physics as a Leaving Certificate subject.

1.1 Overview

The Science Learning Centre (SLC) provides support to students whose degree includes a science component. The SLC aims to help first- and second-year students but also responds to requests from students at all levels, including postgraduates, when it can.

The SLC's director is Dr Vincent Casey and its manager is Dr Gráinne Walshe. SLC tutors are typically UL postgraduate students researching and teaching in biology, chemistry, physics or engineering. In some case, they themselves had taken the supported modules when they were undergraduates. The tutors work in the Drop-in Centre or on support tutorials or both.

Students can visit the Drop-in Centre without appointment or cost on a first-come, first-served basis. The support tutorials supplement regular timetabled lectures and tutorials. The SLC liaises with lecturers on the organisation and content of the support tutorials.

The SLC is open from week 3 to week 13 of each semester. Drop-in Centre hours are from 10.00 to 12.00 and 14.00 to 16.00, Tuesday to Thursday, with some extra hours on Mondays and Fridays in the final four weeks of the semester. Support hours depends on tutor availability and resources.

1.2 Semester 1

1.2.1 Timetable

Table 1.1: Typical subject timetable for the SLC Drop-in Centre, Semester 1

DAY	10–12 noon	2–4pm
Tuesday	General Physics Mechanics/Heat Electricity General, Inorganic, Environmental, Organic & Analytical Chemistry	General Physics Mechanics/Heat Electricity General Biology General, Inorganic & Organic Chemistry
Wednesday	General Physics Mechanics/Heat/ Electricity General, Organic, & Inorganic Chemistry	General Physics Mechanics/Heat/ Electricity General Biology General, Organic, Inorganic & Analytical Chemistry
Thursday	Mechanical Engineering and First-Year Physics Topics General, Organic and Inorganic Chemistry	General Physics Mechanics/Heat Electricity Optics General, Inorganic, Organic & Analytical Chemistry

1.2.2 Drop-in Centre

The total attendance in the Drop-in Centre during Semester 1 was 736 visits from 284 individual students. Mature students accounted for 99 visits (by 38 individual students). Figure 1.1 shows the variation in the number of student visits per week.

Figure 1.1: Variation of the number of student visits between weeks 3 and 13, Semester 1

Table 1.2: Visits per faculty to the Drop-in Centre in Semester 1

Faculty	Number of visits
Science & Engineering	488
Education & Health Sciences	236
Mature Student Access Certificate (MSAC)*	2
Arts, Humanities & Social Sciences	1
Unknown	9
Total	736

*The MSAC is included in the table because it is an interfaculty programme. The programme is unique in that it aims to support and prepare mature students for entry into undergraduate degree programmes.

Table 1.3: Drop-in Centre summary statistics, Semester 1, weeks 3–13

Total number of student signatures	736
Number of individual students	284
Number of modules	42
Number of tutors	14
Number of drop-in hours	160

1.2.3   Support Tutorials

The SLC ran 10 support tutorials in Semester 1 in the following modules:

- General Chemistry/Chemistry for Engineers
- Optics
- Bioprocess Engineering 1
- Physical Chemistry 2
- Inorganic Chemistry 2B
- Analytical Chemistry 1
- Analytical Chemistry 3
- Process Technology 2
- Physics for General Science 1
- Mechanics/Heat/Electricity

Table 1.4: Support tutorials summary statistics, Semester 1

Support tutorials	
Total number of student signatures	1,176
Number of modules	10
Number of tutors	11
Number of tutorial hours	62
Average attendance per tutorial	19

1.3   Semester 2

1.3.1   Timetable

Table 1.5: Typical subject timetable for the SLC Drop-in Centre, Semester 2

DAY	10–12 noon	2–4 pm
Tuesday	Physics Modules General, Inorganic, Environmental, Organic & Analytical Chemistry	Physics Modules General, Organic, Inorganic & Analytical Chemistry
Wednesday	Physics Modules General, Inorganic, Organic & Analytical Chemistry	Physics and Biology Modules General, Organic, Inorganic & Analytical Chemistry
Thursday	Mechanical Engineering and First-Year Physics Topics General, Organic and Inorganic Chemistry	Physics Modules General, Organic, & Inorganic Chemistry

1.3.2   Drop-in Centre

The total attendance in the Drop-in Centre during Semester 2 was 479 visits, with 157 individual visits. Mature students accounted for 70 visits (by 23 individual students). Figure 1.2 shows the variation in the number of student visits per week.
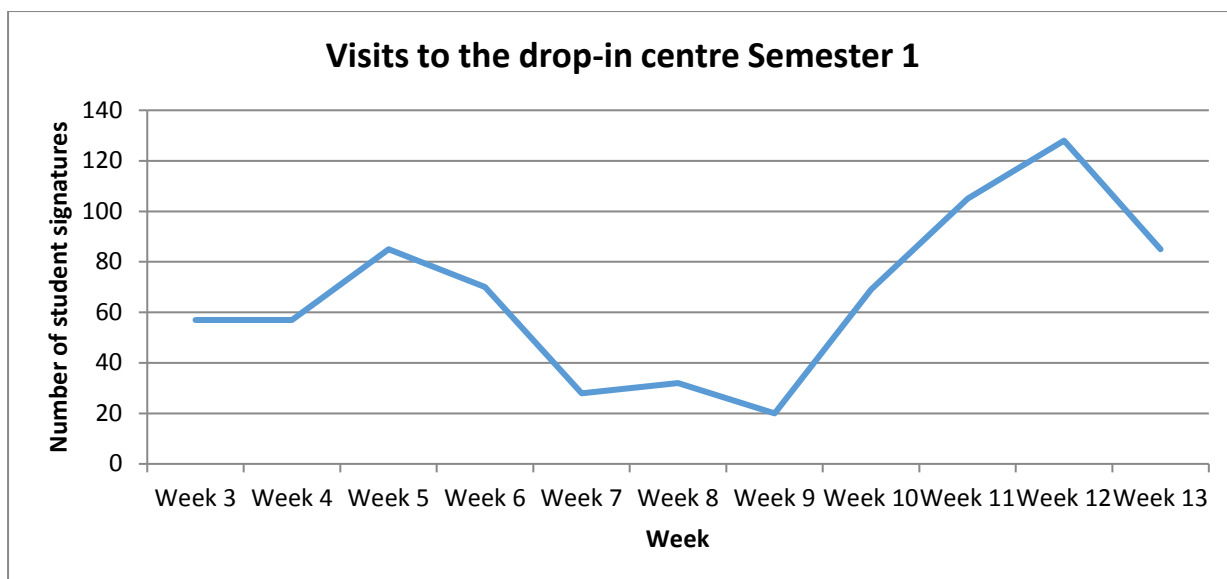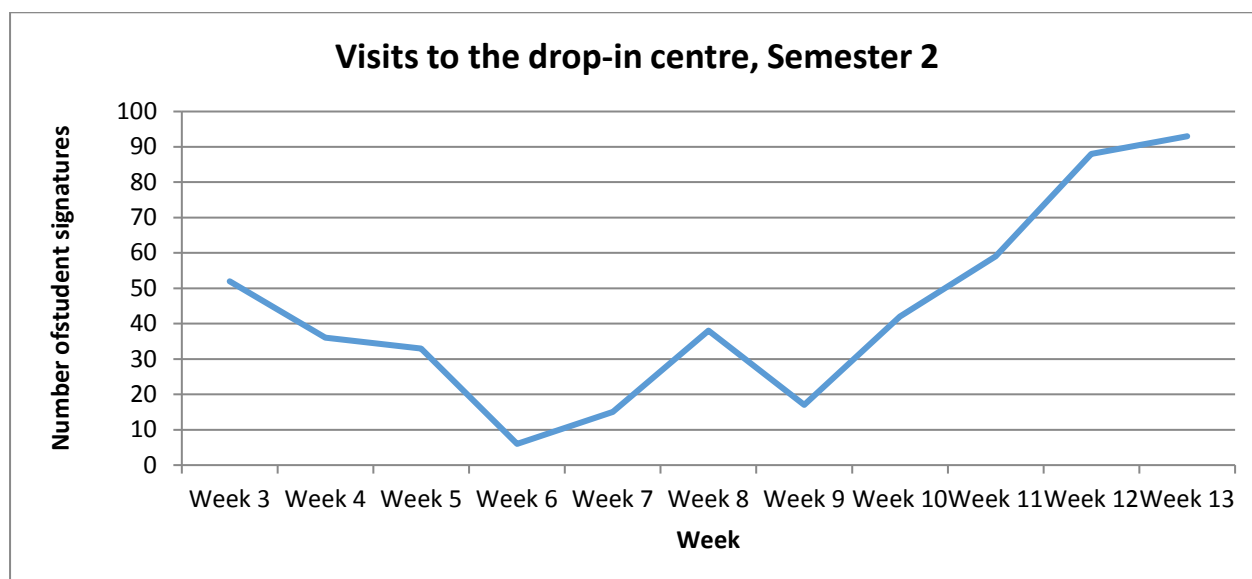

Figure 1.2: Variation of the number of student visits between weeks 3 and 13, Semester 2

Table 1.6 shows that most students were from Education & Health Sciences, followed by Science & Engineering.

Table 1.6: Students per faculty visiting the Drop-in Centre, Semester 2

Faculty	Number of visits
Education & Health Sciences	269
Science & Engineering	206
MSAC	2
Unknown	2
Total	**479**

Table 1.7: Drop-in Centre summary statistics, Semester 2, weeks 3–13

Total number of student signatures	479
Number of individual students	157
Number of modules	39
Number of tutors	14
Number of drop-in hours	156

1.3.3   Support Tutorials

The SLC ran 12 support tutorials in Semester 2 in the following modules:

- Batch Process Engineering
- General Chem. 2/General Chem. 2 (Physical)
- Inorganic Chemistry 1B
- Analytical Chemistry 2
- Analytical Chemistry for the Environment
- Process Technology 1
- Engineering Mechanics 1
- Physics for Engineers 2
- Wave/Light/Modern Physics
- Physics for General Science 2
- Electromagnetism
- Physics for Environmental & Biosciences/Introduction to Physics

The SLC also ran PAR revision sessions to support at-risk students with revising basic concepts they would need for their Semester 2 chemistry modules (see section 1.5 below).

Table 1.8: Support tutorials summary statistics, Semester 2

Support tutorials	
Total number of student signatures	1,522
Number of modules	12
Number of tutors	12
Number of tutorial hours	70
Average attendance per tutorial	21.7

1.4   Service for Students Repeating Examinations

The SLC provided drop-in support for students in the week preceding the repeat examinations. The departments of Biological Sciences, Physics and Chemical Sciences were asked for guidance as to which first-year modules were being repeated. The service ran for the full week in the morning and afternoon. Tutors were available to provide help with first-

year and some second-year biology, chemistry, physics and mechanical engineering modules at various times. There were 27 attendances for the week.

1.5   PAR Sessions for Chemistry Students

The SLC collaborated with the module leaders to provide four PAR sessions for first-year students of the following Semester 2 chemistry modules: General Chemistry 2, Inorganic Chemistry (three modules) and Physical Chemistry (two modules). The PAR sessions were intended to give students who had achieved a C3 or less in General Chemistry 1 an opportunity to revisit core chemistry concepts they would need for their Semester 2 chemistry modules.

At 54 visits overall by 30 students, attendance at the four PAR tutorials was reasonably high. The response rate of 38.8% by the students who had been identified as being at risk is a good rate of participation.

1.6   Early Support Intervention Tutorials

The SLC collaborated with module lecturers to run early support intervention (ESI) tutorials for a first-year chemistry module (General Chemistry 1/Chemistry for Engineers) that ran in weeks 6 to 17 of Semester 1. The aim of the tutorials was to support students identified as being at risk of failing to progress in the module. Of the 87 students identified as being at risk, 34 attended the tutorials. This represents a 39.1% participation rate from the at-risk group. In total, 76 individual students attended the SLC tutorials once or more often (including the 34 at-risk students), which amounted to 210 attendances over the course of the semester.

The impact of participation on student progression was measured by examining and comparing the percentage grade point average (GPA) for different cohorts of students. Overall the GPA was very slightly lower (62.3% as opposed to 63%) for those who attended the SLC. This is not unexpected, however, as a high proportion of those who attended were in the at-risk category. When the percentage GPA of those at-risk students who participated in the SLC tutorials is compared to those at-risk students who did not, there is a positive benefit indicated for participation. Of the 87 students identified as being at risk, those who attended the SLC (34 students) had a higher percentage GPA (60.3%) than the 53 students who did not attend (55.9%).

1.7   Student Feedback on SLC Services

1.7.1   Feedback on the Drop-in Centre

Students who visited the SLC Drop-in Centre in the final weeks of Semesters 1 and 2 were requested to fill out anonymous feedback forms. The vast majority of comments in the 79 collected forms were very positive, with students praising the tutors' friendliness, knowledgeability and helpfulness. Themes that emerged included having a place to go to ask questions, asking questions without fear of embarrassment, and the one-to-one or small-group context. Respondents praised the way tutors explained the concepts to them

clearly and slowly, and repeatedly, until they understood. Tutors helped them to become independent learners. Tutors were said to be understanding and patient.

Overwhelmingly, the changes respondents suggested making to the drop-in service were to do with wanting more: more hours, more tutors and more specified modules.

1.7.2 Feedback on Support Tutorials

First-year students attending weekly Semester 2 SLC support tutorials for six different modules were asked to fill out a survey questionnaire at the final session. The results from the 69 returned surveys showed that respondents were very positive about the tutorials – they appreciated the slower pace, felt that difficult concepts were explained in more detail, found the sample exam questions to be helpful and felt more confident about asking questions in a small-group setting. Comments included:
- Actually explained content. Wish they could have started earlier in the semester
- Allowed for time to be spent on specific topics that were most difficult
- Better more in-depth understanding and more focus on exam
- Better understanding of the topic
- Clearer; once gone over again it was easier to understand
- Covered material slowly
- Explained the topics more clearly and did good examples
- Gained a better/deeper understanding of physics by doing the questions
- Gave me a better understanding as things were taught at a slower pace

1.7.3 Feedback on ESI Tutorials

Thirty-nine surveys were returned from students who attended ESI tutorials. The results indicated that most students found the tutorials to be very helpful for learning chemistry. The main reasons given mirrored those outlined above: pace of tutorial, clear explanation of difficult concepts, helpful exam questions and comfortable asking questions. There were very few negative comments. Students wanted more of the tutorials and requested that they be held earlier in the day and semester. They also wanted the tutorials to cover more exam questions. Responses suggest that students have strongly academic rather than social motivation for attending the support tutorials. The respondents also indicated that they found the tutorials useful for enhancing their mathematical skills for science and their enjoyment of their course. The latter, in particular, indicates the wider benefits of feeling more on top of course material.

1.8 The SOPHia project

The SLC collaborated with UL's Department of Physics, which included working with the department's undergraduate physics students, to develop an outreach programme for promoting physics as a Leaving Certificate subject to second-level school students. Known as the SOPHia project (science outreach for promoting physics), the project was run on a pilot basis in three schools with support from Intel Shannon and the Institute of Physics in Ireland. Evaluations indicated that the school students involved in the programme

experienced a positive change in attitude in relation to taking physics as a Leaving Certificate subject. By being part of the Department of Physics' Athena SWAN (successful) application for a bronze award, the pilot project contributed in some small way to meeting the requirements of the HEA's strategy for promoting gender equality in higher education.

1.9   Reflection on Attendance

In total, there were 3,944 student visits to the SLC in 2017/18. This compares to 4,054 visits in 2016/17, which represents a small decrease of 2.7%. The table below compares the number of visits over the last three years.

Table 1.9: Number of visits to SLC, 2017/18

Academic year	Sem. 1 drop-in	Sem. 1 support tutorials	Sem. 2 drop-in	Sem. 2 support tutorials	Other (repeats service/ workshops)	Total visits
2017/18	736	1,176	479	1,522	31	3,944
2016/17	875	1,546	479	1,080	74	4,054
2015/16	725	1,118	422	941	57	3,263

In essence, therefore, attendance in Semester 1 decreased and attendance in Semester 2 increased (but not quite enough to compensate) compared to 2016/17. A few things contributed, including that one of the engineering modules that ran in Semester 1 2016/17 moved to Semester 2 in 2017/18, which possibly resulted in a decrease in attendance at the Drop-in Centre. There was also a very large decrease in attendance at support tutorials for one of the Semester 1 chemistry modules compared to the previous year. In addition, there were more student requests for support tutorials in spring 2018 than there had been in spring 2017. We ran 13 support tutorials in spring 2018 compared to 7 in spring 2017. Nonetheless, in 2017/18, the SLC had to refer on a number of student requests for support tutorials for some third- and fourth-year modules. In those cases, we consulted the lecturer concerned, who made their own arrangements for providing support.

Appendix A: Publications and Presentations

Kelly, R., Erduran, S., Walshe, G. and Guilfoyle, L. (2017) 'Step into science: engaging students, teachers and families in debates', presented at *European Science Education Research Association Conference*, Dublin, Ireland, 21–25 August.

Ní Eidhin, D. and Walshe, G. (2018) 'Gender equality in physics', presented at *EPONA Launch*, University College Cork, 22 March.

Walshe, G. and Johnston, J. (2017) 'Interdisciplinary science education: do the Irish and Scottish curricula facilitate the incorporation of mathematics in the teaching and learning of science?', presented at *European Science Education Research Association Conference*, Dublin, Ireland, 21–25 August.

Walshe, G., Casey, V., Clancy, I., Corcoran, D., McFall, E., Quinn, M. and Ní Eidhin, D. (2018) 'Addressing the gender imbalance in physics at third-level for undergraduates', presented at *VICEPHEC (Variety in Chemistry Education/Physics Higher Education Conference)*, University of Sheffield, 22–23 August.

Walshe, G., Casey, V., Clancy, I., Corcoran, D. Ní Eidhin, D. McFall, E. and Quinn, M. (2018) 'The SOPHia project: science outreach for promoting physics to female school students', presented at *IOP Higher Education Group Regional Community Meeting*, University of Glasgow, 12 June.

Walshe, G., Johnston, J. and McClelland, G. (2017) 'Integrating mathematics into science: design, development and evaluation of a curriculum model' in Hahl, K., Juuti, K., Lampiselkä, J., Lavonen, J. and Uitto, A., eds., *Cognitive and Affective Aspects in Science Education Research: Selected Papers from ESERA 2015 Conference*, available: https://doi.org/10.1007/978-3-319-58685-4_23 [accessed 03/10/2018].

Walshe, G., Newport, D., Barnett, J. and Casey, V. (2017) 'Impact of participation in a learning support unit for students of a first-year engineering module', presented at *Horizons in STEM Higher Education Conference: Making Connections and Sharing Pedagogy*, Edinburgh, 29–30 June.

2. Mathematics Learning Centre

Annual Report 2017/18

Foreword from the Director

The Mathematics Learning Centre (MLC) is situated in the Department of Mathematics and Statistics and is funded by the Centre for Teaching and Learning. Its facilities include a Drop-in Centre, support tutorials outside timetabled hours, an extensive range of online resources tailored specifically for UL students and twice-yearly examination revision programmes.

The MLC has always, and continues to, support mature students in a specialised manner by delivering a two-week bridging course in mathematics – entitled Head Start Maths – to bring students up to speed before they start their degree programmes and by providing them with a range of subsequent one-to-one supports. We work closely with the Mature Student Office to develop and facilitate a programme for mature students who wish to sit Leaving Certificate higher-level mathematics and provide one-to-one support throughout the programme, which is now drawing towards the end of its second year. The Foundation Mathematics modules for the various mature student access programmes and the International Foundation Programme are designed and delivered by the MLC.

We are involved in a number of outreach activities with post-primary students in the locality, including a Leaving Certificate helpdesk and the President's Volunteer Programme.

Research is a priority for the staff of the MLC. This year the manager and educational developer published three papers and presented at two conferences.

This report highlights the sterling and extensive work conducted by the MLC in what was a very busy 2017/18.

Dr Olivia Fitzmaurice,
Director, Mathematics Learning Centre

September 2018

Executive Summary

The Mathematics Learning Centre (MLC) provides a drop-in service, support tutorials and tailored online resources to students whose programmes include a mathematics or statistics module. A total of 7,967 visits were made by UL students to the MLC during 2017/18: 4,093 attendances from 1,071 individuals in Semester 1 and 3,874 attendances from 1,063 individuals in Semester 2. Three-quarters of users visited the centre more than once in Semester 1 while four-fifths did so in Semester 2. The majority of attendances were from students taking science and engineering programmes. The ratio of school-leavers to mature students among users (percentage) was 82:18 in Semester 1 and 89:11 in Semester 2.

The Drop-in Centre was attended 1,329 times by 376 individuals in Semester 1 and 855 times by 245 individuals in Semester 2. The MLC delivered 56 support tutorials in Semester 1, which attracted 1,407 attendances from 433 students. Forty-nine tutorials in Semester 2 recorded 1,180 attendances from 338 students. Exam revision programmes were attended by 679 students (1,357 attendances) in Semester 1 and by 840 students (1,839 attendances) in Semester 2.

Research carried out by the MLC during the year on first-year engineering students showed that, on average, students who engage with the centre on a very frequent basis pass their module whereas lower-ability students who do not engage with the centre do not pass.

The results of a survey of users in Semester 2 were very positive (albeit with a small sample size). Most or all respondents agreed that the centre's tutors were knowledgeable and friendly and that the centre made them feel more confident about exam results, more positive about maths as a subject and more confident in their own maths abilities.

Developed by the MLC manager and educational developer, the centre piloted a video-based Calculus 2 examination revision programme during the year to counteract the shortage of tutors in the centre. Available to students on Sulis, the 21 videos received 2,767 views, and survey feedback from users was very positive. However, it may not be feasible to extend the programme to other modules because the videos were very time-consuming to develop and would be very expensive to produce on a wider scale if hourly paid tutors were employed to develop them.

Noteworthy achievements during the year include teaching 75 second-level school students as part of the Leaving Certificate helpdesk; promoting maths at second-level, including contributing to the publication of 11 national newspaper supplements; delivering a Leaving Certificate higher-level maths course and the Head Start Maths programme to mature students; coordinating the President's Volunteer Programme for mathematics; and sitting on interview panels to select candidates for specialised maths programmes.

The primary goals for the MLC for the coming academic year are to establish the educational developer position on a multi-annual basis and source more part-time tutors with a view to maintaining as many of the centre's current services as possible.

2.1 Overview

The Mathematics Learning Centre ([MLC](MLC)) is situated in the Department of Mathematics and Statistics and is funded by the Centre for Teaching and Learning. Its facilities include a Drop-in Centre, support tutorials outside timetabled hours, an extensive range of online resources tailored specifically for UL students and twice-yearly examination revision programmes. All UL students studying courses that have a mathematics or statistics module can avail of the MLC's services free of charge. The MLC is staffed and supervised throughout the day during the semester. The Drop-in Centre's opening hours in 2017/18 were 10.00 to 12.00 and 14.00 to 16.00, Monday to Friday.

The MLC's director is Dr Olivia Fitzmaurice, its manager is Dr Richard Walsh and its educational developer is Dr Aoife Guerin. The vast majority of the MLC's programmes are coordinated, developed and delivered by the manager and educational developer along with help from a small number of hourly paid tutors.

2.2 Drop-in Centre

The MLC Drop-in Centre was consistently busy through the academic year. In Semester 1, 376 individuals attended 1,329 times in total. In Semester 2, 245 individuals attended 855 times in total. The week-by-week engagement with the Drop-in Centre over the full year is shown in Figure 2.1.

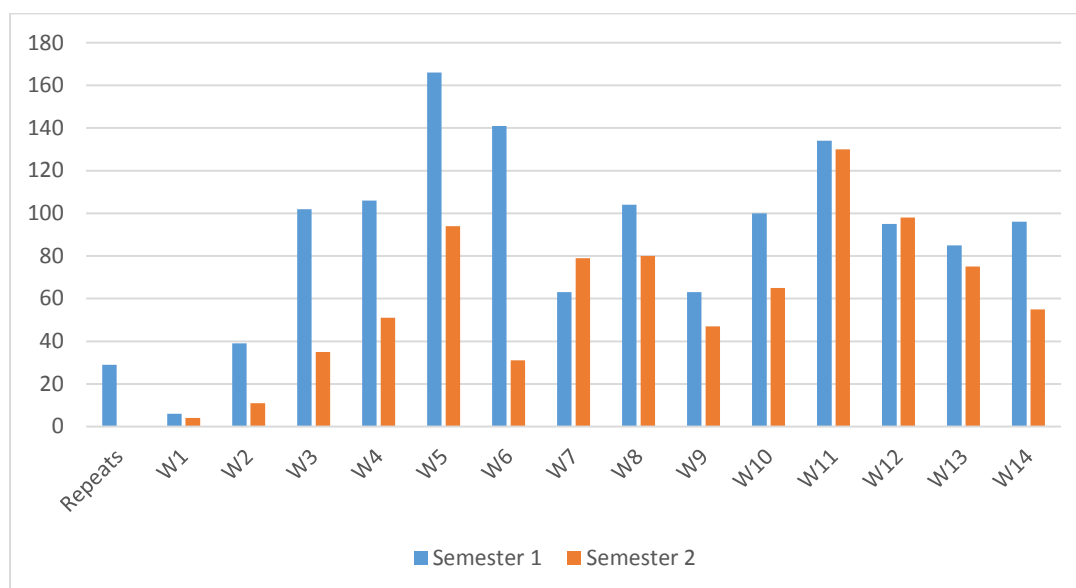**Figure 2.1: Attendance at the Drop-in Centre in 2017/18**

It is worth noting that attendance at the Drop-in Centre by Mature Student Access Certificate (MSAC) students decreased this year from 485 to 190. While MSAC students were the highest users of the Drop-in Centre every year for the past number of years, students on S&E programmes are now the highest users (see section 2.5.3 for details).

2.3   Support Tutorials

Student engagement with support tutorials on most modules was very strong during the year – see tables 2.1 and 2.2 for details. First-year and entry-level students accounted for 57% of attendances in Semester 1 and for 66% in Semester 2.

Table 2.1: Attendance at support tutorials in Semester 1

Module	No. of tutorials	No. of students	Total attendances
MA4001 Eng. Maths 1	7	46	112
MA4003 Eng. Maths 3	7	169	452
MA4103 Business Maths	7	33	91
MA4601 Science Maths 1	6	125	330
MA4603 Science Maths 3	8	19	57
MA4701 Tech. Maths 1	4	8	11
Head Start	17	33	354
Totals	**56**	**433**	**1,407**

Table 2.2: Attendance at support tutorials in Semester 2

Module	No. of tutorials	No. of students	Total attendances
MA4002 Eng. Maths 2	9	137	510
MA4004 Eng. Maths 4	8	68	176
MA4104/4114 Business Stats	8	26	36
MA4602 Science Maths 2	7	112	273
MA4604 Science Maths 4	9	28	96
MB4018 Differential Equations	8	17	89
Totals	**49**	**388**	**1,180**

2.4   Exam Revision

MLC exam revision programmes were attended by 679 students (1,357 attendances) in Semester 1 and by 840 students (1,839 attendances) in Semester 2. The distribution of attendances per module is shown in Figures 2.2 and 2.3.
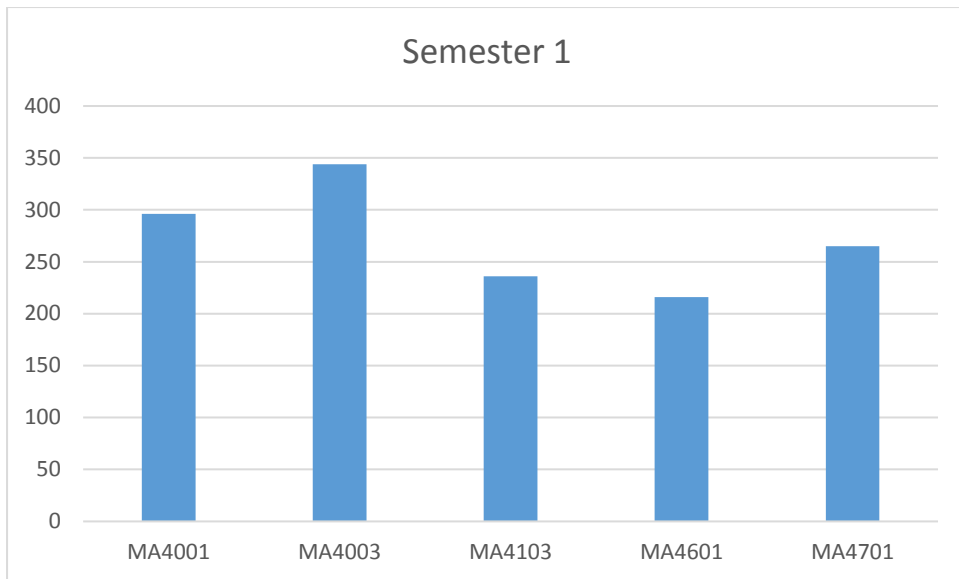
Figure 2.2: Attendance per module at exam revision programmes in Semester 1
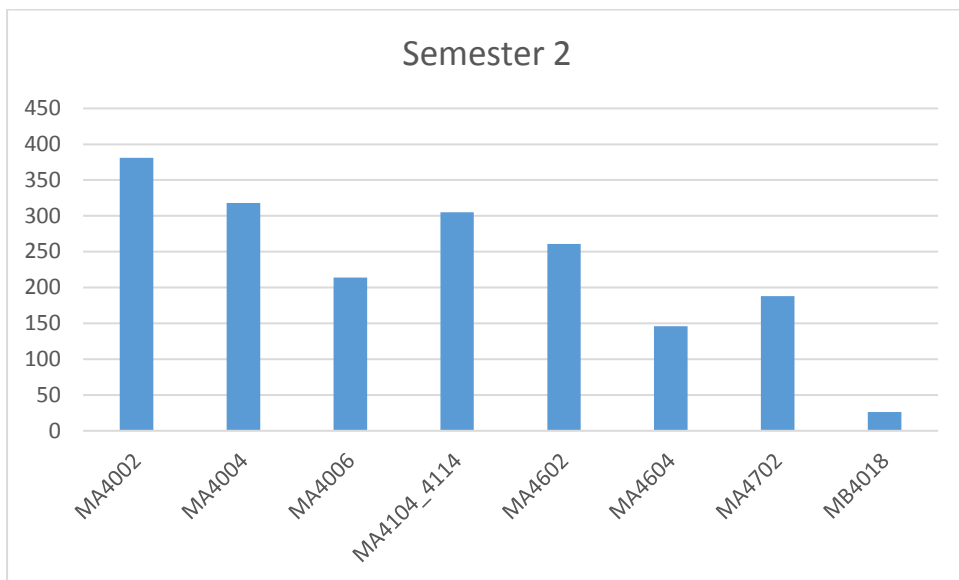
Figure 2.3: Attendance per module at exam revision programmes in Semester 2

2.5   Breakdown of Student Usage

2.5.1   By Faculty

Student usage of the MLC by faculty is shown in Figure 2.4 for Semester 1 and Figure 2.5 for Semester 2.
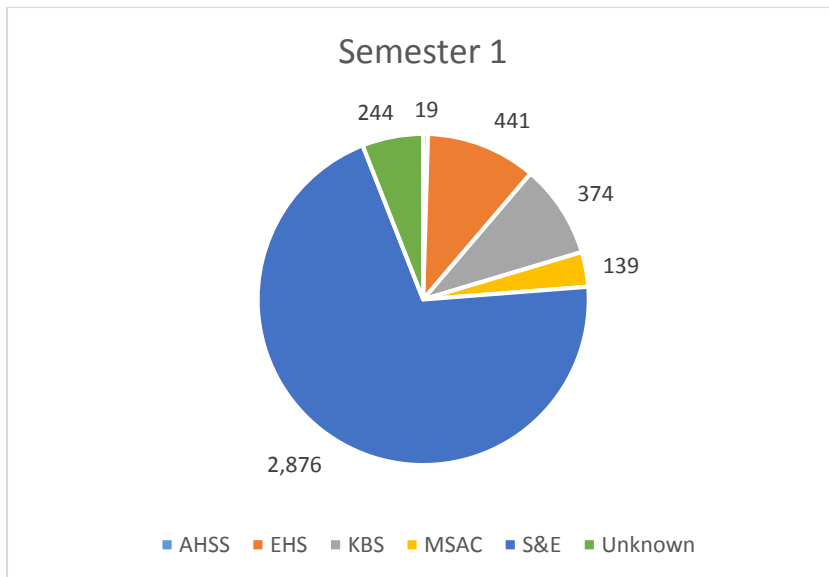
Semester 1

AHSS · EHS · KBS · MSAC · S&E · Unknown

244 19 441 374 139 2,876

Figure 2.4: Breakdown of usage by faculty in Semester 1
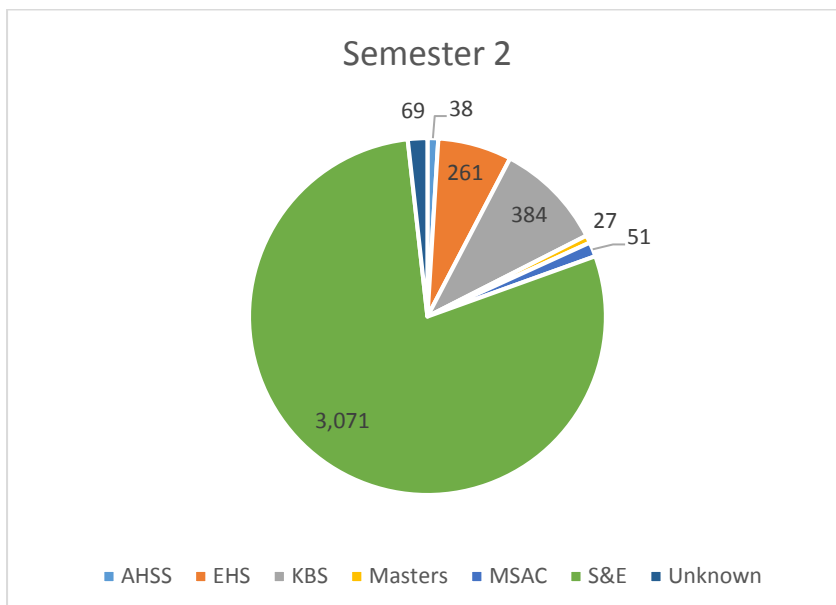
Semester 2

AHSS · EHS · KBS · Masters · MSAC · S&E · Unknown

69 38 261 384 27 51 3,071

Figure 2.5: Breakdown of usage by faculty in Semester 2

2.5.2   By Student Type

The approximate ratio (based on available data) of traditional to mature student users of the MLC was 82% to 18% in Semester 1 and 89% to 11% in Semester 2.

2.5.3   By Programme

Students who engaged the most with the MLS during Semesters 1 and 2 were studying on the programmes listed in Figures 2.6 and 2.7 respectively.
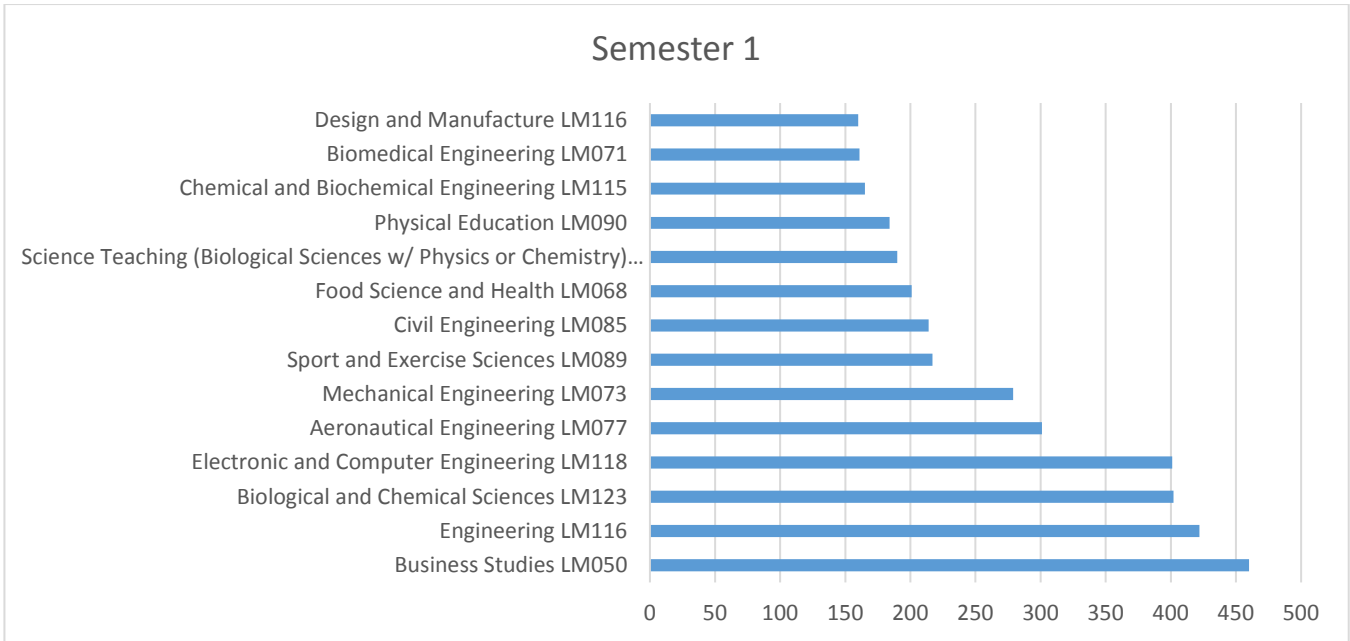
Figure 2.6: Attendance at MLC by degree programme, Semester 1
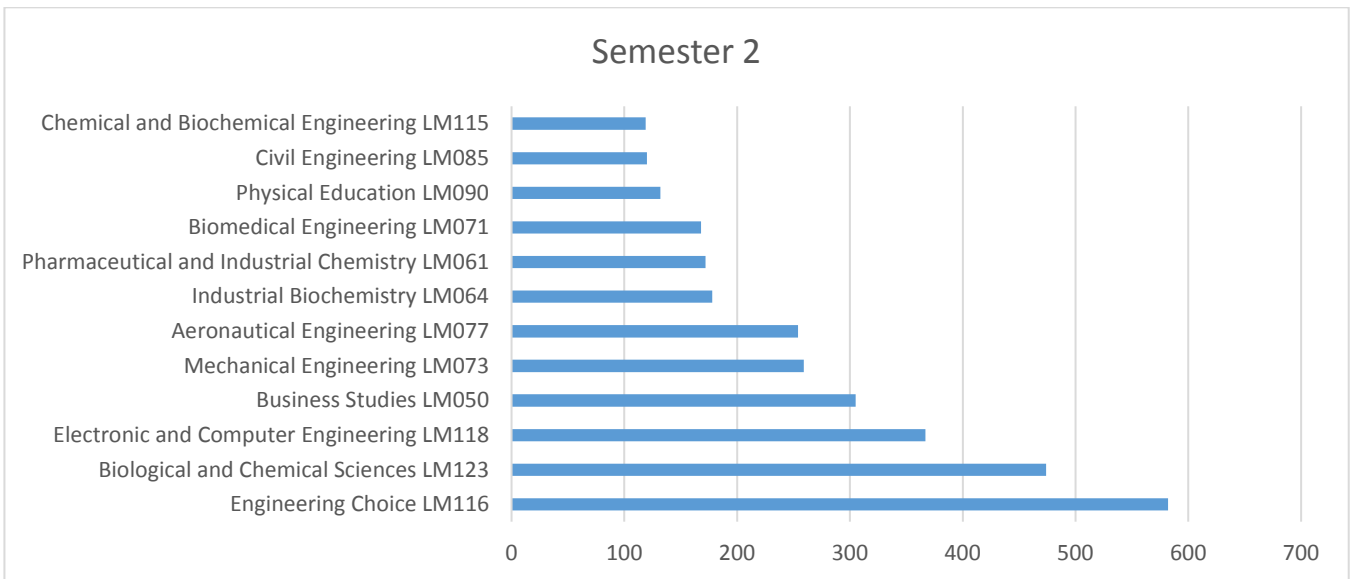
Figure 2.7: Attendance at MLC by degree programme, Semester 2

2.5.4 By Frequency of Visits

In Semester 1, 281 individual students visited the MLC once and 790 visited it more than once. Figure 2.8 shows the frequency of visits per student in Semester 1.
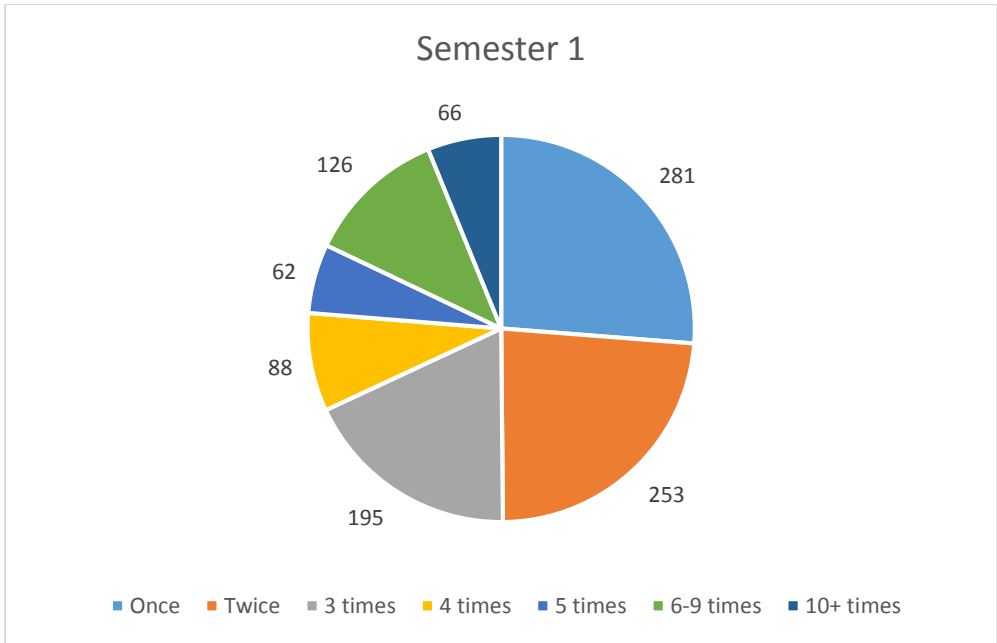
Figure 2.8: Frequency of visits in Semester 1

In Semester 2, 220 individual students visited the MLC once and 843 visited it more than once. Figure 2.9 shows the frequency of visits per student in Semester 2.
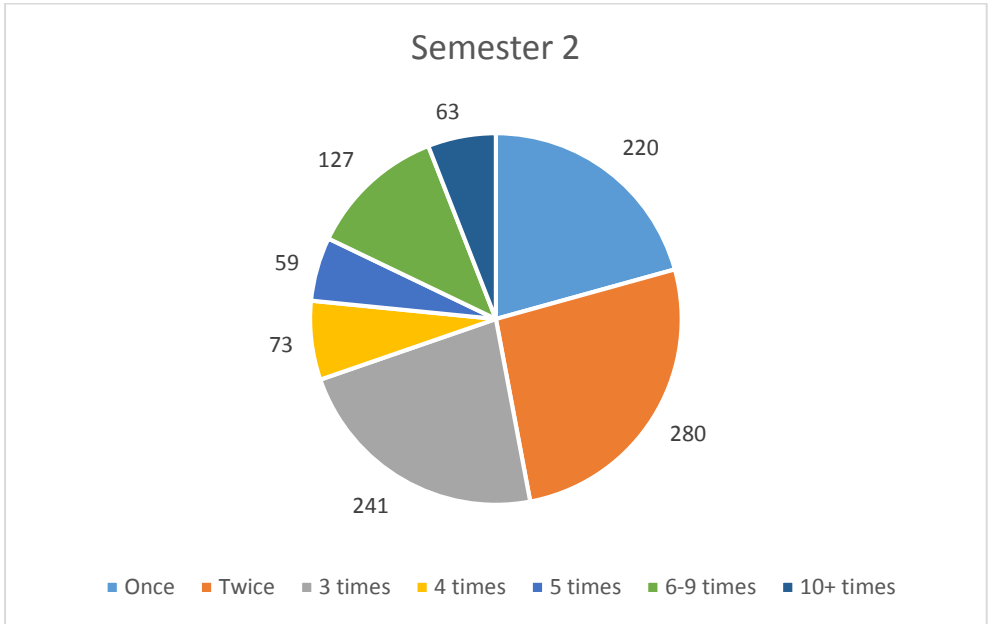
Figure 2.9: Frequency of visits in Semester 2

2.6   Impact of MLC on First-year Engineering Students

The MLC carried out research to determine the impact of the centre on first-year engineering student users. Figure 2.10 shows the average end-of-term score in Semester 1 for degrees of engagement with the MLC versus students' incoming ability level. The findings (n=584) show that, on average, any engineering student who engages with the MLC on a very frequent basis (eight or more times), regardless of their ability, will pass their

module. However, on average, low-ability students may not (pass mark unknown) progress if they do not engage or if they use the MLC's services on one to three occasions only. In fact, a low-ability student who uses the MLC very frequently, on average, performs almost as well as a medium-high-ability student who does not use the centre.
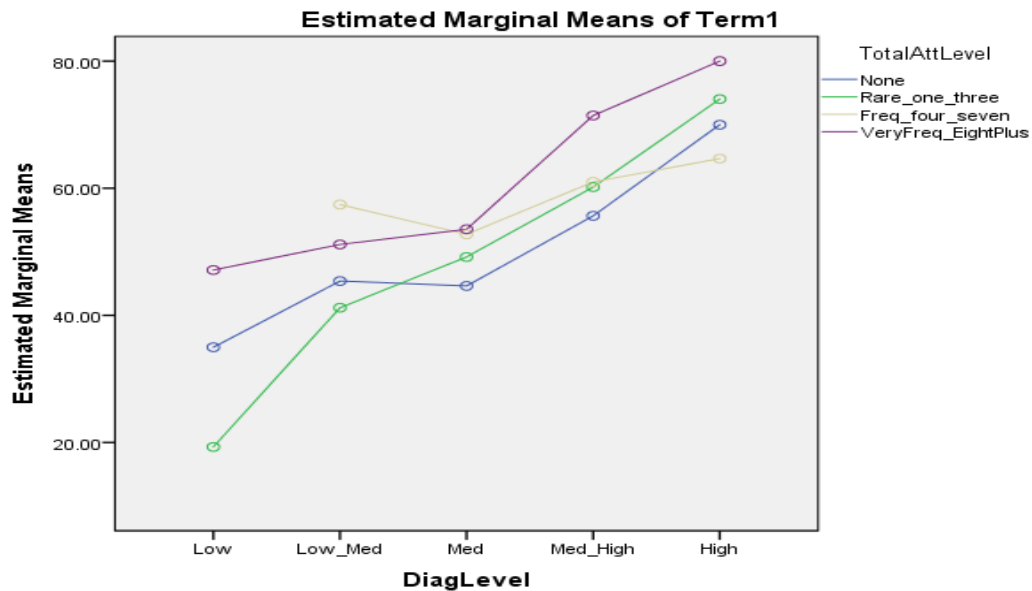
Figure 2.10: End-of-term score in Semester 1 for varying degrees of engagement with the MLC versus students' incoming ability level

2.7   Survey of Users

A paper-based survey was distributed to MLC users in week 14 of Semester 2. The sample size (n=9) was small because the survey was distributed too late in the semester and will be distributed much earlier next year. The following is a summary of the main survey findings:

- Eight respondents were uncertain or agreed that they found maths very difficult
- Six respondents stated they were uncertain/agreed/strongly agreed that they worried about failing their maths module
- All nine respondents agreed/strongly agreed that the MLC made them feel more confident that they would pass or get a good grade
- All nine respondents agreed/strongly agreed that the MLC tutors are knowledgeable and friendly
- Five respondents agreed that the MLC gave them a more positive opinion on mathematics as a subject
- All nine respondents agreed that the MLC made them feel more confident about their mathematics abilities

These two comments were made:
- "I would not have a chance of passing maths without the help from the MLC."
- "I would fail without the maths learning centre."

2.8   Calculus 2 Videos

In a 2017/18 pilot initiative, the MLC manager and education developer created an online examination revision programme for the Calculus 2 module to ensure existing services were maintained despite the shortage of tutors in the centre. Twenty-one videos were developed and uploaded to Sulis (UL's learning management system) for students to view online. The videos received 2,767 views. The feedback from an anonymous survey (n=22) conducted with students who used the videos was very positive.

It took the MLC manager and education developer a number of weeks to produce, review and finalise the videos, and the main inhibitor to producing similar videos for other modules is that they were so time-consuming to develop. The education developer is currently on a short-term contract, and unless this position were to be put on a sounder footing (i.e. a multi-annual contract – see section 2.10), it would be impossible for the MLC to develop, maintain and update annually (where necessary) such videos for a number of modules.

2.9   Other Achievements

Other achievements by the MLC during 2017/18 include the following:
- The MLC continued to coordinate all aspects of the mathematics modules for the MSAC (five modules) as well as delivering the two mathematics modules on the International Foundation Programme.
- MLC staff taught 75 second-level school students for 11 weeks (2.5 hours every Thursday evening) as part of the Leaving Certificate helpdesk, which the MLC teaches on behalf of the Faculty of Science and Engineering.
- In conjunction with EPI-STEM National Centre for STEM Education, the MLC manager and educational developer formed part of a team that continued its work on promoting mathematics at second-level by publishing two mathematics supplements for Junior Cycle students entitled *Go Figure* and nine supplements for Senior Cycle entitled *Sum It*. The supplements are distributed by the Irish Independent to second-level schools nationwide.
- The Leaving Certificate higher-level mathematics course for mature students was run for the second year in conjunction with UL's Mature Student Office and the Limerick and Clare Education and Training Board. In the first pilot year, three mature students achieved honours grades, two of whom went on to study mathematical sciences and financial mathematics in UL, which previously would not have been available to them. More students are expected to undertake the higher-level paper this year.
- The MLC's Head Start Maths programme (two-week mathematics bridging course for mature students) had another successful year: 32 students attended 17 two-hour sessions over two weeks.
- The MLC continued to coordinate the President's Volunteer Programme for mathematics this year; the programme involves UL undergraduate students tutoring second-level students from the Access Campus. Twenty-two volunteers received awards from the president this year, which takes the total of mathematics

volunteer awards to 211 since the programme began between the MLC and the Faculty of Science and Engineering.

- The MLC manager contributed to writing a chapter of the self-assessment report for the CTL's quality review in March 2018.
- The MLC manager and educational developer sat on interview panels to select candidates for the Professional Master of Education (Mathematics), the MSAC and the Leaving Certificate higher-level mathematics course for mature students.
- The MLC manager supervised a Final Year Project in mathematics education, and the manager and educational developer both began supervising master's research projects for the two-year Professional Master of Education (Mathematics).

2.10   Goals for Next Year

With 7,448 attendances at the MLC in 2015/16, 10,023 in 2016/17 and almost 8,000 in 2017/18, it is clear that the need to provide maths support to students is ever-present and that the level of support should not be reduced.

With mathematics being the biggest predictor of student success in terms of completing degree programmes at third level, it is imperative that the MLC educational developer position be regularised. In 2017/18, the MLC manager and educational developer delivered up to 40 hours per week of MLC-related teaching between them – this despite the manager's teaching falling outside of his management role. It would not be possible for the manager to deliver 40 hours of teaching per week on his own. Hence, one of the MLC's three primary goals for the coming academic year is to establish the educational developer position on a multi-annual basis. The second goal is to source more part-time tutors with a view to maintaining as many of the centre's current services as possible. Without these people, the MLC's current level of provision is not sustainable. The need for mathematics support at third level and its popularity with students is a national trend. Other MLCs in Ireland, and abroad, in fact, have responded by hiring full-time positions for their MLCs in addition to the managers.

The third goal is in line with a recommendation from the CTL's quality review group, which is to develop more online resources to ease the physical pressure on the learning centres. As seen above in section 2.8, the amount of work required to develop and maintain such resources is substantial. This will not be possible unless the educational developer role is put on a multi-annual footing and more part-time tutors are employed.

Appendix A: Publications and Presentations

Guerin, A., Walsh, R. and Fitzmaurice, O. (2017) 'The impact of mathematics learning support on student performance', presented at *11th Annual Irish Mathematics Learning Support Network (IMLSN) Workshop*, North West Regional College, Derry/Londonderry, 15 December.

Walsh, R. (2017) 'A case study of pedagogy of mathematics support tutors without a background in mathematics education', *International Journal of Mathematical Education in Science and Technology*, 48(1), 67–82.

Walsh, R. (2017) 'A case study of pedagogy of mathematics support tutors without a background in mathematics education', presented at *42nd Annual ATEE Conference*, Dubrovnik, Croatia, 23–25 October.

Walsh, R. and Guerin, A. (2018) 'A framework and rubric for guiding the training of mathematics tutors in third-level education', *International Journal of Mathematical Education in Science and Technology*, available: https://doi.org/10.1080/0020739X.2018.1507052 [accessed 03/10/2018].

Walsh, R., Fitzmaurice, O. and O'Donoghue, J. (2017) 'What subject matter knowledge do second-level teachers need to know to teach trigonometry? An exploration and case study', *Irish Educational Studies*, 36(3), 273–306.

3. ICT Learning Centre

Annual Report 2017/18

Foreword from the Co-directors

The ICT Learning Centre (ICTLC) is a student support unit providing a number of academic enrichment and intervention schemes within UL. The centre operates under the auspices of the Centre for Teaching and Learning (CTL), which is overseen by the Dean of Teaching and Learning. Schemes target students on ICT-related programmes and so form an important part of UL's ICT retention initiatives. The main schemes currently offered by the ICTLC include a drop-in service, targeted topic and skills workshops, core programming language workshops, peer-supported learning groups (PSLG), in-lab pair programming (PP) and support and prepare and repeat (PAR) sessions.

During 2017/18, the ICTLC had a busy and fruitful programme of activities. This involved the continued and successful delivery of our supplementary academic learning supports (SALS) as well as playing active roles in other activities, such as the first CTL quality review and new outreach workshops to promote UL ICT courses.

This annual report gives detailed descriptions of all academic enrichment and intervention programmes offered by the ICTLC over the two semesters of AY 2017/18 as well as other support services and activities related to student engagement, motivation, professional and transferrable skills development and outreach. The report provides quantitative data pertaining to the number of students who avail of these services and their distribution per course and year of study. The data show that, during 2017/18, the centre offered a number of different enrichment and intervention schemes, which involved a total of 4,049 student visits to the ICTLC, of whom more than 84% were first-year, second-year, graduate diploma or higher diploma students.

Professor Hussain Mahdi and Dr Michael English,
Co-directors, ICT Learning Centre

September 2018

Executive Summary

In Semester 1, each week from week 3 to week 12, the ICTLC operated 18 hours of drop-in and 6 hours of PSLG support. In excess of 39 hours of targeted support/workshop sessions were given. Lab support with pair programming more than doubled from the previous year: 60 hours of such collaborative support was provided to two first-year, first-semester computer programming modules. A total of 394 students availed of our supports during the semester.

In Semester 2, each week from weeks 3 to 12, the ICTLC operated 18 hours of drop-in and 4 hours of PSLG support. In excess of 37 hours of targeted support/workshop sessions were given. Additionally, 24 hours of retention-focused lab-based PAR learning sessions were provided to review difficult modules from Semester 1. This support was provided in the core Computer Science and Information Systems (CSIS) programming module to students who achieved a grade of C3 or lower in their Semester 1 exams. In total, 225 students availed of our supports during the semester. In partnership with the Peer-Supported Learning Centre, ICTLC ran four two-hour introductions to programming and robots workshops for one second-level and two primary schools; 113 students and 9 teachers attended.

The ICTLC manager was a member of the internal quality team for the CTL's first quality review and was highly engaged in the process. The manager co-authored the chapter entitled 'Student engagement and support' for the self-assessment report. This work was in collaboration with all CTL learning and affiliated units and spanned both semesters up to and including the visit of the external quality review group in March.

Following the successful trial in 2016/17 of a new, advanced two-day Cybercamp Plus, this year Cybercamp Plus became a fixture in each week of our summer camps. Each of the two weeks involved a three-day Cybercamp followed by a two-day Cybercamp Plus. In total, 114 students from 46 schools took part in UL Cybercamp 2018 and UL Cybercamp Plus 2018. The camps received funding awarded by the Higher Education Authority under its Information Technology Investment Fund. In addition to the summer camps, drop-in support was provided for ICT students during the two weeks prior to their repeat exams.

3.1   Overview

The mission of the ICTLC is to support and promote active learning among the students of ICT-related programmes through the use of proven learner support approaches, tutoring innovation, research and evaluation. The centre aims to support learners to be confident and effective ICT practitioners. To achieve this, the ICTCL has the following objectives:

- Enhance and broaden students' ICT skill set
- Support students, teachers and academic departments in increasing retention rates within ICT-related courses
- Encourage active and student-centred learning in ICT disciplines
- Promote ICT as a career path to current and potential students
- Undertake research to evaluate and improve the ICT learning services and supports

The centre provides intensive support that seeks to engage students through innovative tutoring and learner-focused support, thereby augmenting existing teaching and learning activities within the curriculum. This is achieved in collaboration with academic staff members.

The ICTLC is overseen by two directors, Professor Hussain Mahdi and Dr Michael English, both of whom are academic staff members of the Faculty of Science & Engineering. The ICTLC is managed by Mr Clem O'Donnell.

For further information and details regarding the centre's activities, please visit our website at http://ictlc.ul.ie.

3.2   ICT Learning Centre Services

This section describes all services and activities provided by the ICTLC.

3.2.1   Services for Undergraduates and Postgraduates

- **Drop-in sessions:** Experienced tutors are available at scheduled times to support students' learning of specific ICT subjects. See Appendix A for a list of the subjects supported during 2017/18.
- **ICT targeted module sessions:** Additional learning support sessions are scheduled to augment student learning in specific ICT modules that are deemed to be difficult. See Appendix A for a list of modules supported by targeted sessions during 2017/18.
- **Peer-learning initiatives – Peer-Supported Learning Group and in-lab Pair Programming sessions:** PSLG is a proactive learning method that targets difficult modules. It fosters cross-year support between students on the same course and encourages cooperative learning under the guidance of trained student peers who are at a more advanced stage of related studies. The ICTLC utilises the PSLG model developed and supported by the Peer-Supported Learning Centre (PSLC) (http://pslc.ul.ie). Over the past four years, the ICTLC has introduced the collaborative learning method of pair programming into specific first-year computer programming labs.

- **Targeted skills workshops:** The centre runs specific skills workshops to introduce ICT skills, tool/application knowledge and appropriate learning support to various student groups as requested by departments and teaching staff.
- **Core programming training courses:** These are courses designed by the ICTLC to augment students' learning of the core taught programming languages. Fundamental and intermediate courses are scheduled each semester for students who need to refocus their engagement with the material.
- **Prepare and repeat sessions:** Implemented in Semester 2, these sessions focus on difficult first-year, first-semester modules that have a follow-on module in the second semester. This support targets students who achieved a C3 or lower in Semester 1. This additional support was designed to help targeted students gain a better understanding of the Semester 1 module material and thus support their learning of the follow-on module in Semester 2. Each PAR session involves a review of a core subject concept followed by a tutor-guided practice lab exercise. In the final part of each session, with tutor support, students complete a number of related exercises independently, which are assessed by the lab tutors with immediate feedback provided to the students.
- **Summer support for students:** Drop-in sessions for students sitting exams in the summer semester were provided during the two weeks prior to the exam period.
- **Supporting students in competition:** An important part of engaging with our target student group is supporting students' involvement in ICT competitions. Involvement enhances student motivation and enquiry, encourages students to engage with their peers in other third-level colleges and facilitates networking with industry professionals. The centre provides mentoring to interested students and runs internal competitions to select the teams that will represent UL at these competitions.
- **Online learning support material:** The centre's website (http://ictlc.ul.ie) hosts a repository of ICT learning resources (including video and interactive content) specifically tailored to our students' learning needs. It also provides up-to-date details on the centre's services and related timetables and activities.
- **Study space and ICT learning library:** The centre offers a quiet supervised study space complete with 15 workstations running relevant software for our students. The centre has a reference library holding in excess of 200 relevant books.

3.2.2 Services for Second-level/Primary School Students

The ICTLC is actively involved in both raising awareness of ICT as a study path and providing insights into software and electronics subjects, including what they entail at third level. In partnership with the PSLC, the ICTLC runs workshops and ICT summer camps that focus on fostering problem-solving and teamwork within an ICT context.

- **UL Cybercamp:** The aim of the camp is to engage students between 13 and 17 years of age in ICT subjects. These three-day camps include introductory activity-based sessions on programming, robotics, electronics and music technology. The camps have been successfully running since summer 2010.

- **UL Cybercamp Plus:** Initiated in 2017, these two-day advanced camps introduce students between 13 and 17 years of age to both web and Java development. Cybercamp Plus is suited to students who have previously attended our Cybercamp.
- **Outreach workshops:** These are two-hour, problem-based learning workshops aimed at introducing both primary and post-primary students to computer programming, computer games development and robotics using Lego Mindstorms robots.

3.2.3   Collaboration with Other UL Student Support Services

The ICTLC collaborates with the Mature Student Office, Disability Support Services and the Access Office. In 2017/18, this included delivering an introductory talk at the mature students' welcome programme and providing a workshop for second-level school pupils as part of the Access Office's Orientation Day programme. The ICTLC continues to work with the other learning support centres in UL, particularly the PSLC, to maximise the type of learning support we offer to UL students.

The ICTLC is involved in UL's First Seven Weeks initiative, which targets first-year students. By recognising that successful early adjustment at college is linked to subsequent success, the programme's focus is to ensure that all new students to UL receive targeted support during their initial weeks at UL. Week 5 focuses on the learner support centres. During this week, the ICTLC further promotes and introduces new students studying ICT-related subjects to ICTLC supports and to those available in partner centres.

3.2.4   Role of the Centre in the CTL Quality Review

The ICTLC manager was a member of the internal quality team for the CTL's first quality review in 2017/18 and was highly engaged in the process. Along with the MLC manager, the ICTLC manager co-authored the 'Student engagement and support' chapter of the CTL self-assessment report. The work involved collaborating with all CTL learning and affiliated units and spanned both semesters up to and including the visit of the external quality review group in March.

3.2.5   Summary of ICTLC Centre Services

Table 3.1 summarises the ICTLC's services by mapping the objectives of the centre to the services and initiatives it provides.

Table 3.1: Services provided by the ICTLC and their correlation with the centre's objectives

ICTLC services and initiatives	ICTLC objectives				
	Enhance and broaden students' ICT skill set	Increase retention in ICT courses	Promote active, student-centred learning	Promote ICT as a career path	Performance evaluation and research
Drop-in sessions	✓	✓	✓		✓
Targeted module sessions	✓	✓	✓		✓
Peer-learning initiatives: PSLG and pair programming sessions	✓	✓	✓		✓
Targeted skills workshops	✓	✓	✓		
Core programming courses	✓	✓	✓		✓
Prepare and repeat sessions – retention focus		✓			✓
Summer support workshops		✓	✓		✓
Student competition support	✓		✓	✓	
Online learning support material	✓	✓	✓		
Study space and library	✓	✓	✓		
Co-op student placement	✓	✓	✓		
Services to second-level school students (ICT camps)				✓	
Gather and collate, analyse and evaluate data/feedback on the effectiveness of existing services and new innovations in ICT teaching and learning					✓

3.3   Student Participation in ICTLC Supports and Services

Table 3.2 gives the numbers of student visits and individual students who availed of any of the ICT retention initiatives run by the ICTLC throughout 2017/18.

Table 3.2: Student participation for 2017/18

Semester	No. student visits	No. individual students
Semester 1	2,357	394
Semester 2	1,278	225
Summer semester	414	126
Total	**4,049**	

Table 3.3 gives a list of all programmes of study that have been supported by our ICT initiatives and the number of students engaged from each programme; the table highlights the wide range of ICT-related study programmes that have been supported by the centre's services. Further evaluation of the impact of our supplementary academic learning supports (SALS) on progression will be undertaken when the relevant data are available.

Table 3.3: Programmes from which students participated in ICTLC initiatives, 2017/18

Prog. code	Programme title	No. students
LM121	Computing Technologies (Common Entry)	104
LM110	Computer Games Development	64
LM710	Higher Diploma in Software Development	52
LM051	Computer Systems	45
LM116	Engineering Choice	44
LM118	Electronic and Computer Engineering	44
LM124	Mathematics (Common Entry)	35
LM058	Financial Mathematics	26
LM077	Aeronautical Engineering	12
LM120	Aircraft Maintenance and Airworthiness	12
LM000	Erasmus	8
LM122	Creative Media and Interaction Design (Common)	6
LM050	Business Studies	2
LM113	Digital Media Design	2
LM060	Mathematical Sciences	1
LM066	Environmental Science	1
LM080	Electronics	1
LM082	Construction Management and Engineering	1
LM088	Mathematics and Physics	1
LM117	Science Choice	1
LM123	Biological and Chemical Sciences (Common Entry)	1
LM338	MSc in Software Engineering	1
LM346	MEng in Computer and Communications Systems	1
Total		**465**

3.3.1   Semester 1

There were 2,357 recorded visits to ICTLC SALS, which include drop-ins, PSLG sessions, targeted sessions and in-lab pair programming initiatives. A total of 394 individual students were supported during Semester 1.

Drop-in times (18 hours per week for nine weeks) were available in the centre for core computer science and electronics subjects. See Appendix A (1) for a list of the subjects supported during drop-in times in 2017/18.

Targeted sessions (39 hours) catered for key software subjects including Java Programming, Operating Systems and Data Structures and Algorithms. See Appendix A (2) for a list of these sessions offered during 2017/18.

The centre hosted **PSLG sessions** (six hours per week for eight weeks) for the core first-year CSIS Java Programming module, with another first-year and second-year undergraduate programming module being catered for in our partner PSLC. The collaborative learning method of **in-lab PP** was introduced into first-year programming labs in CSIS and was continued in ECE. In total, PP support more than doubled: 60 hours were delivered in first-year programming labs. See Appendix A (3) for a list of the modules on which PP and PSLG support were offered during 2017/18.

Table 3.4 shows the breakdown of student visits per ICTLC support type during Semester 1.

Table 3.4: Student participation in ICTLC services during Semester 1

Service	Student visits
Drop-in	967
Targeted sessions (including skills workshops and core programming courses)	471
Peer-supported learning groups and in-lab pair programming	919
Total	**2,357**

Student Attendance by Year and Programme of Study during Semester 1

The data presented in this section pertain to the distribution of students' attendance by year of study (Figure 3.1) and programme of study for all initiatives provided by the ICTLC in Semester 1. The data highlight the focus of these supports on early-stage students in a wide range of ICT-related study programmes.
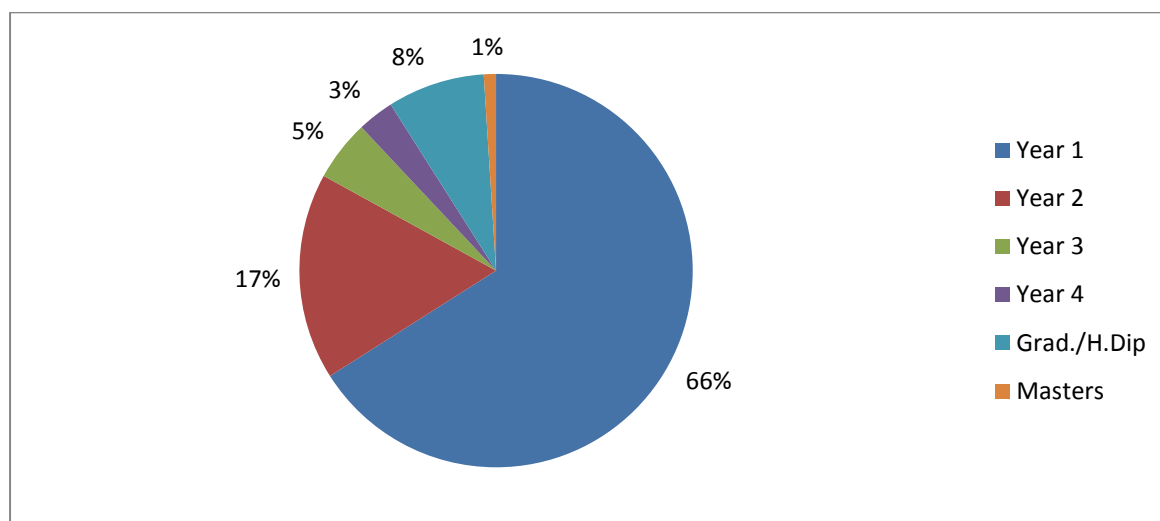
Figure 3.1: Student attendance by year of study, Semester 1

Our SALS services are primarily designed to address the academic needs of students on ICT programmes, particularly during the early stages of study. Figure 3.1 shows that during Semester 1, 66% of the students who avail of SALS services are first-year undergraduate students enrolled in an ICT programme; 83% of our attendees are in their first or second year of undergraduate study, showing the focus of our SALS services on early-stage students. While all UL students can avail of the SALS, our services and resources focus on those students in core ICT programmes. During Semester 1, over 84% of the students availing of SALS were enrolled in a core ICT programme, with the students from Computing Technologies (LM121), Games Development (LM110), Engineering Choice (LM116) and Software Development (LM710) making up 60% of SALS participants.

3.3.2   Semester 2

There were 1,278 recorded visits to ICTLC SALS, which included drop-ins, PSLG sessions, targeted sessions and PAR sessions. In total, 225 individual students were supported during Semester 2.

Drop-in times (18 hours per week for 10 weeks) were available in the centre for core computer science and electronics subjects (Appendix A).

Targeted sessions (37 hours) during the semester catered for key software subjects, including Java Programming, Database Systems, Computer Graphics, and Data Structures and Algorithms (Appendix A).

The centre hosted **PSLG sessions** (four hours per week for nine weeks) for the core first-year CSIS Java Programming module, with another first-year undergraduate programming module being catered for in our partner PSLC (Appendix A).

Additionally, 24 hours of lab-based, retention-focused **PAR learning sessions** were provided by the ICTLC targeting the core CSIS programming module in the first semester of first year. In total, 41 students (76%) out of the 54 contacted availed of PAR learning support.

In March, on request by the Access Office, we ran a two-hour 'Introduction to Robots' **workshop** for an all-girls secondary school as part of the Access Office's Orientation Day programme. In total, 22 students and three teachers attended. During April and May, we ran three two-hour workshops on Computer Game Development and Robots for two primary schools with a total of 91 students and seven teachers attending.

UL students participated in two **ICT-related skills competitions** during Semester 2. At the 2018 Games Studio Competition, which was held as part of the 2018 Games Fleadh at LIT Tipperary, the UL 'Spacial Awareness' team won the 'Best in Use of Artificial Intelligence' category. The team members comprised one third-year and four second-year BSc in Computer Games Development students. In addition, our 2018 National Robocode first-year programming competition team of three first-year undergraduate students achieved a very credible fourth place. They were selected and mentored after an internal competition was run by the ICTLC to identify the best team from ICT-related courses.

Table 3.5: Student participation in ICTLC services during Semester 2

Service	Student visits
Drop-in	720
Targeted sessions (including workshops and retention/programming courses)	500
Peer-supported learning groups	58
Total	**1,278**

Student Attendance by Year and Programme of Study during Semester 2

These data present the distribution of students' attendance by year of study (Figure 3.2) and programme of study for all the initiatives that have been provided by the ICTLC in Semester 2. Again, the data highlight the wide range of ICT-related study programmes being supported by the centre's services and the continuing focus of these supports on early-stage students in these programmes.
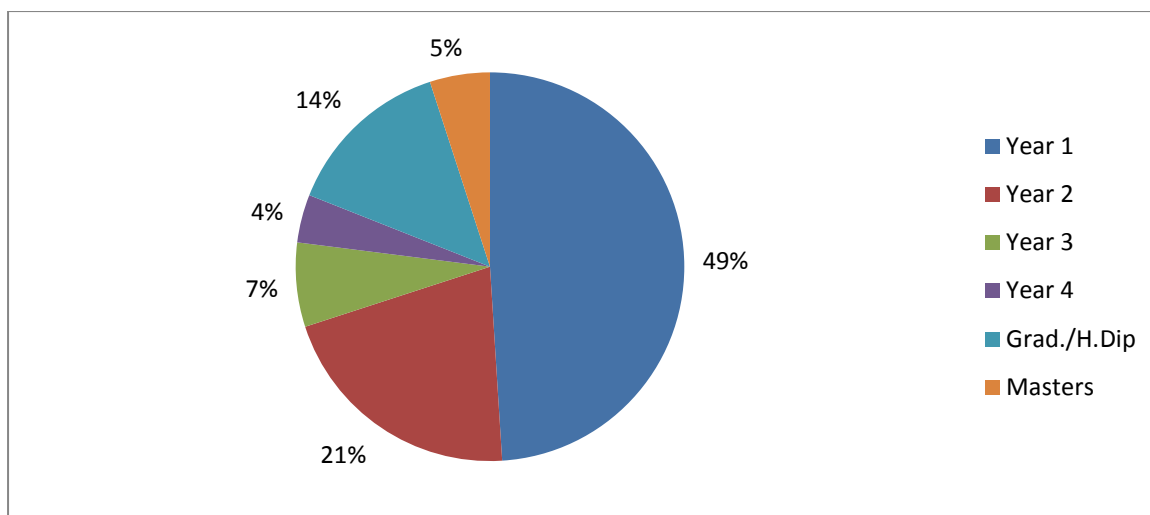
Figure 3.2: Student attendance by year of study, Semester 2

Figure 3.2 shows that during Semester 2, 49% of the students who avail of our SALS services are first-year undergraduate students enrolled in an ICT programme. Around 70% of attendees are in their first or second year of undergraduate study, showing the continued focus in the second semester on early-stage students. Nearly 98% of the students availing of SALS were enrolled in a core ICT programme, with the students from Computing Technologies (LM121), Games Development (LM110) and Computer Systems (LM051) making up nearly two-thirds of SALS participants in the second semester.

3.3.3 Summer Semester

There were 423 recorded visits to the ICTLC, including those attending the UL Cybercamp 2018, UL Cybercamp Plus 2018 and support drop-in sessions for repeat examinations.

During June and July, two **Cybercamp** and **Cybercamp Plus** camps took place; 78 and 36 students attended, respectively, from 46 schools. Female students (34) accounted for 30% of the total student intake. For more information on the camps, visit http://pslc.ul.ie/cybercamp/.

Table 3.6: Student participation in ICTLC services during summer semester 2017/18

Service	Student visits
Cybercamp and Cybercamp Plus 2018	114
Repeat exam drop-in	108
Total	**414**

3.4   Outline of Plan of Activities for 2018/19

The plan for 2018/19 is to continue to offer the support services detailed in section 3.2. We will continue to provide these services with particular focus on addressing the national issues of transition and retention in higher education. Our activities will focus on strengthening learner support services and maintaining their impact on student performance by data analysis, evaluation and active research.

3.4.1   Learner Support Services

While endeavouring to strengthen our learner support services, we will place an emphasis on the following:

- Expanding our successful in-lab pair programming support by introducing this methodology into first-year Semester 2 programming labs in CSIS to better support students in the common-entry ICT course, namely the BSc in Computing Technologies (LM110).
- Maximising the attendance at PSLG sessions for the aforementioned CSIS common-entry ICT course. On a trial basis, a series of guidelines will be introduced during ICTLC drop-in support times where staff can limit their drop-in time to one student based on that student's attendance rates at these valuable peer-led learning sessions. The tablet-based 'Student interaction' system linked to the ICTLC attendance system will give ICTLC staff an awareness of a given student's attendance at supports. This will allow staff to direct individual students to the most appropriate learning support for their needs. Details of this scheme will be presented at the learning centre committee meeting for discussion and approval.
- Based on the performance of first-year programming students during Semester 1 of 2018/19, offering PAR support to these students early in Semester 2 of 2018/19.
- Actively participating in implementing the related recommendations that were the outcome of the CTL's quality review in March. This includes integrating a session for the learner centres on all orientation programmes for international students and ensuring that all centres' websites and communications have standardised CTL branding.
- Ensuring that UL is represented successfully at both the 2019 National Games Studio competition and Annual Robocode programming competition for first-year students.
- Continuing our ongoing analysis to determine which of our services have the most impact based on student feedback and expanding these services, where possible.
- Working closely with the CTL to coordinate our service offerings with those offered by other UL learner support centres, such as the PSLC, MLC and SLC.
- Continuing to promote our services to all target students in UL, making use of all available on-campus means, such as the First Seven Weeks initiative and advertising media.

3.4.2   Research Activities

Our research activity for the coming year will focus on the proposed expansion of the pair programming programme with the aim of publishing results in a relevant conference.

Appendix A: ICT Initiatives Offered by the ICTLC

1   Subjects Supported in Drop-in Sessions

- Programming language (all levels), including Java, C, C++, PHP, SQL, C# and Python
- Object-oriented design and development
- Web development
- Mobile application development in Android
- Electronics subjects
- ICT media subjects, including MAX/MSP
- Mathematics and statistic software including Matlab, R and Lisp
- General ICT course subjects

2   Subjects Supported in Targeted Sessions

- Information Modelling & Specification (CS4123)
- Operating Systems (CS4023)
- Java Programming modules (CE4701, CE4702, CS4141, CS4222, CS5151, CS5052) including exam review sessions
- Introduction to the MAC OS
- Introduction to Object Oriented Programming in Java using Greenfoot (workshop for Mature Student Access Certificate (MSAC) students)
- Database Systems (CS4416)
- Data Structures and Algorithms (CS4115)
- Software Testing and Inspection (CS4004)
- Computer Graphics (CS4815)
- Computer Networks (EE4013)
- Java Fundamentals Programming (Core Programming Language Course)
- Java Intermediate Programming (Core Programming Language Course)
- PAR sessions – Java Programming (CS4141/CS4222)

3   Peer-Learning Initiatives

- CS4141 (Introduction to Programming (CSIS)) – in-lab P support
- CE4701 (Computer Software 1 (ECE)) – in-lab P support
- CS4141 (Introduction to Programming (CSIS)) – PSLG
- CS4222 (Software Development (CSIS)) – PSLG

University of Limerick

4. Regional Peer-Supported Learning Centre

Annual Report 2017/18

Foreword from the Director

The Regional Peer-Supported Learning Centre (PSLC) specialises in promoting proactive peer-supported learning schemes, particularly those related to UL's academic enrichment programme known as Peer-Supported Learning Groups (PSLG). The centre operates under the auspices of the Centre for Teaching and Learning (CTL), which is overseen by the Dean of Teaching and Learning. PSLG is a group-based, student-led collaborative learner support scheme that targets difficult subjects/modules in all-study programmes offered by UL.

Over the last few years, the PSLC has been actively involved in setting up and maintaining a number of PSLG schemes every academic year. In 2017/18, the majority of these PSLG schemes (71%) targeted first- and second-year students in ICT-related courses, particularly those offered by the Faculty of Science & Engineering (S&E). To this effect, the PSLC has been working closely with the ICT Learning Centre (ICTLC) in running PSLGs focusing on computer programming, software and electronics-related modules.

This report describes the academic enrichment and intervention programmes offered by the PSLC over the two semesters of 2017/18. During that academic year, seven PSLG programmes were run to support seven modules from the S&E and Kemmy Business School (KBS) faculties, offering support to over 1,600 students. Other support services and activities related to student engagement, motivation, professional and transferrable skills development and outreach included a seminar series held for the Department of Electronics and Computer Engineering (ECE) undergraduate and master's students on presentation and report-writing skills. This report also includes details on the centre's outreach and transition activities, such as our involvement with the UL Cybercamp and Transition Year (TY) Week run by S&E, and Cybercamp Plus, which was piloted this year. In addition, brief mention is made of the collaboration with the Student Engagement & Success (SES) Unit and its new Pathway to Progression – Peer-to-Peer (P2P) programme.

The report provides data showing the impact of the described schemes on the academic performance and, hence, the progression of students who availed of the schemes compared to students who did not avail of any of the schemes on offer, with particular focus on first- and second-year students. Presented figures show that, overall, students who avail of the support schemes provided by the centres have a greater chance of achieving a C3 or higher grade in the module assessment. The report also highlights issues of concern regarding recent student and faculty participation in PSLG, suggests a number of routes to tackle these issues, and seeks the active involvement of the CTL and associated academic bodies in the process.

Professor Hussain Mahdi
Director, Regional Peer-Supported Learning Centre

September 2018

Executive Summary

PSLC initiatives during 2017/18 to retain students included piloting new peer-learning programmes while supporting and maintaining existing programmes, offering targeted seminars and workshops and providing a quiet, informal study area for group meetings and discussions. Services for second-level school students included UL Cybercamp and Transition Year (TY) Week. UL Cybercamp was attended by 78 students from 41 schools and UL Cybercamp Plus was attended by 36 students from 21 schools.

Seven PSLG schemes were run to support seven modules in the S&E and KBS faculties. To facilitate these schemes, the PSLC conducted two all-day training workshops for 19 additional PSLG leaders, one in each semester. Sixteen leaders conducted 19 sessions per week from weeks 4 to 12 of Semester 1, and 12 leaders conducted 16 sessions per week from weeks 4 to 12 of Semester 2.

Those attending PSLG sessions for their supported module achieve a C3 or higher grade as their final grade for those modules. Students attending at least one session achieve a C3 or higher grade than their non-attending counterparts.

Three main seminars were run for ECE students (postgraduate and undergraduate).

The PSLC continued to be used as a study area: 157 students made use of the room and 608 visits were logged. The centre also offered students the opportunity to use the room to practise presentations, during which the manager was available to listen and offer constructive feedback.

To maximise its support to students, the PSLC continues to collaborate with UL support services such as the Mature Student Office, Disability Support Services and the Access Office.

4.1 Overview

4.1.1 Overview of the Peer-Supported Learning Centre

The Regional Peer-Supported Learning Centre (PSLC) promotes proactive peer-supported learning schemes, particularly those related to UL's academic enrichment programme known as Peer-Supported Learning Groups (PSLG). The PSLG is a group-based, student-led collaborative learner support scheme that targets difficult subjects/modules in all-study programmes offered by UL. Since 2008, the PSLC has been actively involved in setting up and maintaining a number of PSLG schemes covering modules across all faculties in UL.

The programme operates regular weekly scheduled module-oriented sessions that have academic/subject focus yet support social learning through small-group discussions and cooperative learning. These sessions are supplemental to teaching; the subject content for discussion is drawn from existing course materials (lecture notes, workbooks, textbooks, etc.). The sessions are facilitated by trained PSLG leaders (students who took the same modules in previous years). Leaders facilitate and encourage the group to process the material rather than teach the participants. By doing this, the leaders nurture interdependent learning, encouraging active collaborative group learning. Over the last couple of years, the PSLG programme has been part of UL's President's Volunteer Award (PVA), a highly successful volunteer initiative that sees leaders volunteering their time to work with students; the volunteers are awarded through the PVA.

The PSLC has been operating an average of 10 PSLG programmes per academic year. Recent trends in retention rates for ICT courses across Ireland have shown that more support is needed in the areas of computer engineering and programming. In response to this, the PSLC has expanded its PSLG offerings for ICT-related modules in recent years. The majority of these PSLG schemes (59%) have targeted first- and second-year students in ICT-related courses, particularly those offered by the S&E. To this effect, the PSLC has been working closely with the ICTLC in running PSLGs that focus on modules related to computer programming, software and electronics.

The objectives of the PSLG sessions include:
- Nurturing independent learning
- Encouraging cooperation among students
- Facilitating students to develop long-lasting study groups and learning communities
- Helping to build a student's confidence and self-esteem (something of particular importance for first-year students)

The PSLC director is Professor Hussain Mahdi and its manager is Mr James Murphy. For further information and details regarding on the centre's activities, please visit our website at http://pslc.ul.ie/.

4.1.2 Peer-Supported Learning Centre Retention Initiatives

Services for Undergraduates and Postgraduates

- Piloting new peer-learning programmes in UL while supporting and maintaining existing programmes
    - Identifying new student leaders for incoming modules
    - Training new leaders in PSLG: how to implement the programme, the concepts the programme is based on, facilitating discussion with small groups
    - Administration of programmes: data gathering, advertising, supporting the leaders through observation and constructive critiques, and reporting on the impact of the programme on student performance
- Seminars and workshops
    - Workshops for ECE students on presentations and report writing with a view to creating presentations and technical reports for industry and particularly for FYP projects
    - Short, on-demand workshops and courses for specific IT skill sets based on the expertise of the current manager in these areas; examples include workshops on using Office tools and creating mobile apps for Android
- Study area
    - Used by ECE students and those attending PSLG sessions when not in use for seminars, workshops or PSLG sessions.
    - The centre offers a quiet, comfortable, informal environment convenient for group meetings and discussions.
    - It has a number of networked PCs and an overhead projector for the students' use.

Services for Second-level School Students

- UL Cybercamp: see section 4.2.2 for details
- Transition Year (TY) Week

4.2 Student Participation and Performance Data

4.2.1 Services for Undergraduates and Postgraduates

Supporting and Maintaining Existing Programmes

During 2017/18, seven PSLG schemes were run to support seven modules in the S&E and the KBS faculties. To facilitate these schemes, the PSLC conducted two all-day training workshops for 19 additional PSLG leaders, one in each of Semester 1 and Semester 2. For Semester 1, 16 leaders conducted 19 sessions per week from weeks 4 to 12, and for Semester 2, 12 leaders conducted 16 sessions per week from weeks 4 to 12 for all modules except AC4001 and AC4002, which ran from weeks 5 to 10 in each semester. Details of the modules supported and the departments of origin are given in table 4.1.

Table 4.1: List of modules supported by PSLG programmes in 2017/18

Module code	Module title	Department	Faculty	Year
CE4701	Computer Software 1	ECE	S&E	1
CE4703	Computer Software 3	ECE	S&E	2
CS4141	Introduction to Programming	CSIS	S&E	1
CE4702	Computer Software 2	ECE	S&E	1
CS4222	Software Development	CSIS	S&E	1
AC4001	Principles of Accounting	A&F	KBS	1
AC4002	Managerial Accounting	A&F	KBS	1

Key: ECE = Electronic & Computer Engineering; S&E = Science & Engineering; CSIS = Computer Science & Information Systems; A&F = Accounting & Finance; KBS = Kemmy Business School

Data Analysis
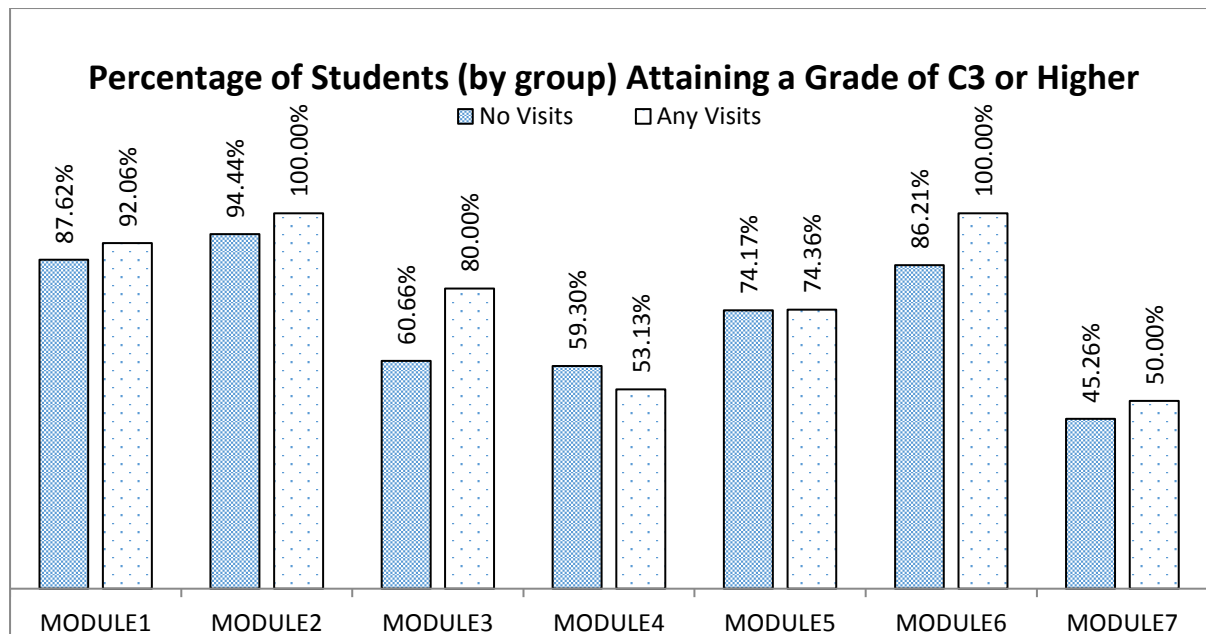
Figure 4.1: Comparison of students attaining a grade C3 or higher for those attending PSLG versus those not attending by module

Figure 4.1 presents the modules supported during 2017/18, with the percentage achieving a C3 grade or higher for each group by module (those attending and not attending PSLG support). These data are based on end-of-semester results only and do not include repeat grades. Normally we expect an increase in the number of students achieving a C3 or higher grade after the repeat exams have been sat.

The overall trend for the entire year, as per previous years, is that those attending PSLG sessions for their supported module achieve a C3 or higher grade as their final grade for those modules. Students attending at least one session achieve a C3 or higher grade at ~6.4% higher rate than their non-attending counterparts. The corresponding rate in 2016/17 was ~11.2%. However, we also made the following observations:

a) While we have managed to maintain the number of students attending at least once, the trend showed a reduced rate of students attending multiple sessions. In

2017/18, approximately 83% of those attending did so between one and three times with ~64% of these students attending only once. This is compared with 72% attending between one and three times last year (with 58% of these attending only once). This, we believe, is one of the factors that has affected the rate of attending students achieving a C3 grade or higher in 2017/18, as reported above.

b) When surveyed, students mentioned timetable issues as one of the main reasons for not attending more sessions. While we will continue to work with the faculty and staff to encourage students in targeted modules to attend the sessions, to improve on both the number of students attending and their rate of attending, we believe that help from the CTL and academic bodies may be required here to solve the problem going forward. Mainstreaming the supports into the first-year timetable will have a significant impact on attendance at and the impact of the PSLG programmes on supported modules.

c) Uptake of new modules is at lecturers' discretion, and current means of reaching out to faculty members do not appear to be working. This year saw the number of programmes supported drop for the first time since 2013 despite our increased efforts to contact department and faculty members and recruit new modules to support. While we will continue to contact academic staff in relation to recruiting new programmes, we believe that help from the CTL and the academic system will be required to remedy this going forward.

Seminars and Workshops

In 2017/18, three main seminars were run for ECE postgraduate (PG) and undergraduate (UG) students. This is an ongoing seminar series that is held to give students the necessary skills to present and write technical reports for their future careers, with a particular focus on how to use these skills to help with FYP reports and presentations.

For the UG students, two seminars were held (one in Semester 1 and one in Semester 2) for final-year ECE students on report writing and presentation skills:

- Semester 1: A seminar on presentation skills: how to create effective PowerPoint presentations, tips on what makes a good slide, how to effectively use images and tables, tips on general presentation skills, tone of voice, how to get the audience's attention, how to combat nerves, etc. Thirty-three students attended, with feedback indicating that 94% found it 'very helpful' while the remaining 6% found it 'helpful'.
- Semester 2: A seminar on writing technical reports with a particular emphasis on writing the FYP final report. The seminar covers the general structure of technical documents, layout, using Endnote to make citations easier to implement, practice on writing abstracts and introductory sections. Twenty-nine students attended, with feedback indicating that just under 80% found the seminar very helpful while the remainder found it helpful. The only negative comments related to Endnote and how students would have liked more time to practise it during the seminar. While physical space and resources limit our ability to facilitate this in the seminar itself, we are looking at running a short additional seminar on Endnote for the coming

academic year.

For PG students undertaking master's programmes, a seminar was held in Semester 1 to assist with writing technical documents, the content of which was adapted from the UG Report Writing Skills seminar. All 11 PG students attending found the presentation to be very helpful.

Study Area

The PSLC continued to be used as a study area for students, with 157 students making use of the room in 2017/18. A total of 608 visits were logged for this time period. The centre also offers students the opportunity to use the room to practise presentations, with the manager being available to listen and offer constructive feedback.

4.2.2   Services for Second-level School Students

The centre continues its partnership with ICTLC, ECE, CSIS and Lero in running UL Cybercamp – an informal three-day workshop series that teaches second-level students various ICT concepts, from Java programming to robotics. It runs in UL each July for two weeks.

This year, 78 students from 41 schools around the country attended the UL Cybercamp; 30% were female (up from 26% last year). For Cybercamp Plus, our extension of the UL Cybercamp, 36 students from 21 schools attended; 22% were female. For more details on the UL Cybercamp, see our website http://pslc.ul.ie/cybercamp/.

As part of the S&E TY Week programme, the centre offers a seminar on presentation skills and/or Java programming to the attending TY students. In 2017/18, two such seminars were planned, one in each academic semester. Due to Storm Emma, the Semester 2 session was cancelled. Nine students attended the autumn session, during which they were introduced to programming and shown how to build a simple Java game using the Greenfoot IDE.

4.2.3   Collaboration with Other UL Student Support Services

The PSLC collaborates with UL support services such as the Mature Student Office, Disability Support Services and the Access Office to maximise its support to students. At the beginning of each semester, we contact and are contacted by these offices regarding supports we are offering and enquiries about help for particular students.

The centre also works with the other learning support centres in UL, particularly the ICTLC, to maximise the type of learning support we offer to students. One part of this collaboration is the First Seven Weeks initiative for first-year students each autumn semester. Week 5 focuses on the learner support centres. During that week, the PSLC actively promotes and introduces new students a range of subjects, from accounting to engineering, to the centre's supports and to those available in partner centres.

The PSLC also partnered with the SES Unit during the year to help with its Pathway to Progression – Peer-to-Peer (P2P) programme. The centre offered advice on setting up and implementing the programme and provided training to some of the student leaders involved. The pilot supported three modules and covered subjects such as the Irish

language, computer science and physics. The centre hopes to continue this partnership with SES and help it to expand and grow the P2P programme.

4.2.4 Research Activities

We will further develop our research activities, including a study, in collaboration with Dr John Heneghan and Dr Antoinette Flynn, on the impact on PSLG participation on both the targeted students and leaders of our programmes with a particular focus on our leaders and students of the supported KBS modules.

4.2.5 Feedback from Students and PSLG Leaders

The PSLC performs two feedback surveys per semester, one aimed at the students attending the session and the other at the students leading the sessions.

The attendees' survey examines how the students interacted with the PSLG programmes and how they felt the programmes impacted them in the areas of performance, developing peer groups of friends, understanding the module material and developing module independent skills such as problem-solving, communication skills, study techniques, presentation, group work and critical thinking. With just 38 students of the attending student population replying, feedback from the attendees was low.

The results from the survey, however, were very positive. Of the 38 students:
- 72% found the PSLG to be very helpful and 28% found it to be helpful
- 72% thought they would achieve a higher result in their final exam as a result of attending the PSLG sessions
- 72% felt they now had a better understanding of the module material after participating in the scheme

The survey comprises Likert-scale quantitative and open-ended qualitative questions. To the open-ended question *'What did you think were the strengths of the PSLG sessions?'*, the responses from the students included the following (all direct quotes):
- "Went through questions and exam layout"
- "Content was explained very well and made it easier to grasp what was going on"
- "Explanation of difficult material/topic"
- "Getting the student to write the code by hand and working through the code line by line"
- "Meeting people from higher year and getting their insights"
- "Working at a level same as your own with other students"

To the question *'How would you describe the PSLG sessions to future students?'*, the students' responses included (all direct quotes):
- "Highly recommended a great addition to coursework provided by Nik the lecturer. Helped to solidify material already studied"
- "Great benefit"
- "That they were very helpful"
- "To go as they are very helpful and it is a bit of revision"

- "You're getting help from someone who understands you because they've done the module themselves"
- "Very helpful, subject explained in more simple terms by other students"
- "Getting a student's perspective who has done what you are doing can give great insights"
- "Helpful and worthwhile"

Finally, and perhaps most importantly, to the binary question *'Would you recommend PSLG sessions to other students?'*, 100% of the respondents indicated that they would.

The survey of the leaders follows a more reflective model – the leaders were asked to reflect on the positives and (if any) negatives of their participation in the programme, to make suggestions on potential improvements, whether they would be interested in continuing with the programme and to promote participation among their peers. In 2017/18, 100% of the leaders completed the survey and all indicated that they would continue to act as leaders in the future, where possible to do so. The third year of many of the courses supported involved a Cooperative Education ('Co-op') placement for one or the other of the academic semesters, and this was the main barrier to the leaders' continuation. The leaders' sole negative comment related to student attendance at the beginning of the semester, although attendance, in the main, improved as the semester went on.

Here are some of the positives responses (all direct quotes):
- "Thank you for the opportunity, I learnt a lot"
- "Brilliant experience, would do again!"
- "It improved my confidence in myself and the material. I learnt as much as the students"
- "Enjoyed the experience, will do again"

4.3   Outline of Plan of Activities for AY 2018/19

The plan for 2018/19 is to continue to offer the support services detailed in section 4.2 of this report. We will focus on strengthening our learner support services, promote our programmes and further develop our research activities.

4.3.1   Learner Support Services

While endeavouring to strengthen our learner support services, we will place an emphasis on the following:
- Continue to work with faculties, departments and academic staff to expand our offering of proactive, collaborative and student-centred learning initiatives in order to nurture independent and engaged learners and promote social inclusion.
- Continue and expand the promotion of our services to all target students in UL, making use of all available on-campus means, such as the First Seven Weeks initiative and advertising media. We hope to increase the number of visitors to both our website and Facebook pages to increase our reach to students and to deliver information to them more efficiently and quickly. With this in mind, we will be

examining the possible use of other media, such as Snapchat and Twitter, to make the PSLG sessions more attractive and interactive.

- Continue to work closely with the CTL to coordinate our service offerings with those of other UL learner support units, such as the ICTLC, MLC and SLC.
- Continue to assist SES with the new P2P programme, which offers an alternative peer-driven model to our PSLG to students in need.
- Continue to expand and develop our outreach activities in relation to targeting second-level school students to get them excited and informed about computing and ICT-related fields, such as our work with our collaborating partners on the UL Cybercamp Plus.
- The centre has built, developed and currently operates 10 websites and web-applications from its webserver to support activities within the PSLC and ICTLC. To reduce the workload, we have moved some of the sites over to Drupal for ease of update and maintenance. We will consider moving the remainder of the sites and applications to more intuitive and easy-to-use CMS and, potentially, migrate the site to a hosting farm to strengthen uptime of the servers and remove the need (and cost) of a physical server on site.

4.3.2   Issues of Concern

Our PSLG performance analysis reported annually over the last number of years has shown the beneficial impact of participation in the PSLG programmes on students' academic performance and progression rates. For both students who are doing well in the module and those who are struggling, PSLG helps with understanding of the module material and passing exams and also in the development of a host of 'soft skills' that are career-independent, such as time management, organisation, team building and team work. It is also noted that the integration of students into their university is more complete for those who develop peer groups within their course of study.

AY 2017/18 was a challenging year for the centre – problems that emerged in the past couple of years coalesced and escalated to affect PSLG student attendance and staff recruitment and, consequently, had a negative impact on student success and progression levels. While the centre has been dealing with these issues on its own, we believe that actions driven by the CTL and other associated academic bodies would be crucial at this stage in reducing/eliminating them to ensure the sustainability of this successful programme. We, therefore, seek discussion with and action from the CTL and academic bodies along the lines of the following recommendations:

- Help with identifying modules that would benefit most from PSLG support
- Assistance with the recruitment of these modules, where appropriate
- Mainstreaming of PSLG support into the student timetable for these modules

In the meantime, we will continue to work with academic staff to promote our PSLG programmes to students of all ability levels and will encourage all students to attend so that they can gain the maximum benefit from the programme and from each other.

UNIVERSITY OF LIMERICK

REGIONAL
WRITING
CENTRE

Get on the 'write' track
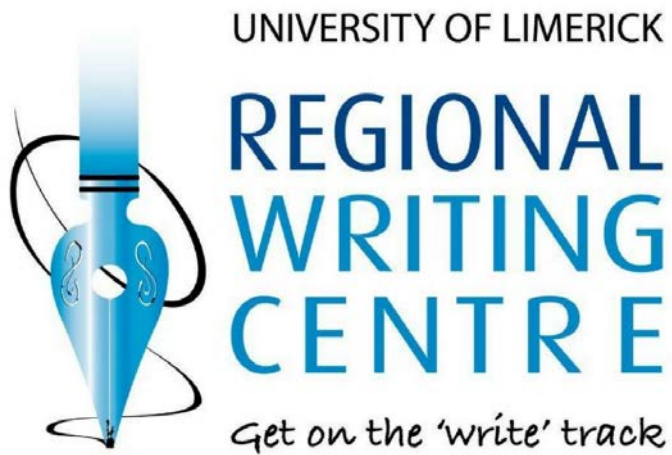
5. Regional Writing Centre

Annual Report 2017/18

Foreword from the Co-directors

The Regional Writing Centre (RWC) helps students to develop their academic writing skills. Forms of support include one-to-one peer-tutoring in writing, writing workshops, writers' groups and online resources for writers.

One-to-one peer support is one of the RWC's defining features. Our peer tutors talk to students about writing assignments in progress and can address any aspect of writing or the writing process in a session. RWC peer tutors have proven writing abilities and have received training in peer-tutoring to enable them to mentor undergraduate and postgraduate students by helping them to identify and improve their academic writing.

The RWC is a centre for learning, not a proofreading or writing service. Peer writing tutors help writers to understand their writing situation and to examine their unique writing process – what they do from the time they receive an assignment until the time they hand it in. The tutors help writers to identify strategies they can employ. Peer writing tutors help writers evaluate the contribution made by those strategies and, when it is determined that they are not working, identify and choose strategies that are more productive. The RWC improves writers, not writing. We believe that everyone can write.

The RWC is also available to academic staff to (a) help them develop their students' writing and (b) help support them in their own writing. Forms of support for academics include discussions on integrating writing as a learning tool into their curricula; provision of learning-development initiatives in academic writing, including writers' groups, one-to-one consultations and PhD writers' week; and online resources for writers.

The RWC organises and participates in a number of activities and events centred on writer development and support, including:
- UL One Campus, One Book initiative
- How I Write, Ireland interviews
- Learning Centres Week, First Seven Weeks programme initiative
- National Essay-writing Competition for Secondary School Students
- Writing-talk (blog)

Dr Íde O'Sullivan and Lawrence Cleary,
Co-directors, Regional Writing Centre

September 2018

Executive Summary

The RWC provides support through peer-to-peer meetings, workgroups and tutorials to undergraduates, postgraduates and staff across the disciplines.

Fourteen peer-to-peer tutors undertook 879 consultations. The quick-query facility was used to answer 82 questions. Tutor training and induction took place in both semesters as well as a workshop for writing tutors' continuing professional development (CPD).

Non-discipline-specific workshops as part of the Writing Across the Curriculum initiative catered for 339 students. Writing interventions for specific disciplines as part of the Writing in Disciplines initiative provided workshops for 1,289 students. The time spent on Writing in Disciplines consultations amounted to 162 hours. Modules in writing designed and delivered by the RWC were attended by 394 academics, researchers and students.

The RWC collaborated during the year with the Irish Network for the Enhancement of Writing (INEW) and the Directors/Coordinators of Irish Academic Writing Centre/Writing Support Provisions and hosted a three-day European Writing Centre Association (EWCA) Summer Retreat.

Innovative approaches to writer development included One Campus, One Book (featuring Liz Nugent's *Lying in Wait*); How I Write, Ireland; First Seven Weeks (in collaboration with the other UL learning centres); and the seventh annual National Secondary School Essay-writing Competition.

RWC co-directors Dr Íde O'Sullivan and Lawrence Cleary continue to contribute to the research agenda of the RWC by engaging in academic discussions on writing in academic contexts and writing centre development.

5.1   Overview

The Regional Writing Centre (RWC) is available to all students (undergraduate and postgraduate) who seek support to enhance and develop their academic writing skills. The RWC is also available to academic staff both to help them develop their students' writing and to support them in their own writing.

The RWC's co-directors are Dr Íde O'Sullivan (also CTL Senior Educational Developer) and Lawrence Cleary (also CTL Educational Developer), and its Co-operative Administrative Assistant is Jordan Lynch. RWC tutors are all peer tutors and are just that – undergraduate and postgraduate students specialising in their own studied discipline. They provide feedback on written work and help writers establish a structure as well as giving tips on strategies for writing. Specific tutors are available by appointment.

In addition to peer-to-peer tutor support, the RWC offers discipline-specific and generic workshops on essay, report and FYP writing tailored for a specific audience; group workshops and seminars; writers' groups; and online resources.

Our writers' space is available Monday to Wednesday from 09.00 to 13.00.

5.2   Key Highlights of RWC Activities in 2017/18

- 14 peer tutors in academic writing facilitated 879 one-to-one peer tutoring consultations in academic writing.
- 23 'Writing Across the Curriculum' workshops were delivered, facilitating learning for 339 undergraduate and postgraduate students.
- The two RWC co-directors collaborated 32 times with academic staff to develop 25 'Writing in Disciplines' activities to help integrate writing into their modules. This work impacted 1,289 students (undergraduate and postgraduate), up slightly from the previous year.
- The RWC continued to provide supports for the MSO, Access and first-year students.
- Modules designed and delivered by the RWC were attended by 394 academics, researchers and students, representing more than a 100% increase in uptake.
- The fifth annual UL One Campus, One Book initiative featured Liz Nugent's *Lying in Wait*, and 62 people joined us for related activities.
- The seventh Annual National Secondary School Essay-writing Competition attracted over 82 entries from across Ireland. Two students from Galway and another from Westmeath travelled to UL to receive awards for best entries.
- 12 PVA (President's Volunteer Award) volunteers assisted the RWC with the National Secondary School Essay-writing Competition and the Writing-talk initiatives, an increase of 25% over the previous year.
- Both co-directors presented research – Íde in London and Lawrence in Valencia – and both continued to publish – Íde with AISHE and Lawrence with Connecting Writing Centres across Borders and the WLN Blog. See Appendix A for details.
- External consultations and collaborations continued during the year with IT, Tralee and with INEW Directors/Coordinators of Irish Academic Writing Centre/Support in St Angela's College in Sligo.

- Dr Íde O'Sullivan served as co-chair on the CTL's quality team to present the quality review group with the information they needed to make recommendations that would form the basis of a quality improvement plan, upon which CTL staff are now working.
- Lawrence Cleary organised and hosted a three-day EWCA summer retreat for EWCA members; the retreat was attended by the board and associates from the US, Germany, Luxembourg, Ireland, The Netherlands and Austria.
- Dr Íde O'Sullivan fulfilled the role of course director for the Graduate Certificate, Diploma and MA programmes in Teaching, Learning and Scholarship.

5.3 Details of RWC Activities in 2017/18

5.3.1 Peer-Tutoring in Academic Writing Initiative

Peer-Tutoring Consultations in Academic Writing

A total of 879 one-to-one peer-tutoring consultations in academic writing took place, 235 fewer than in the previous year (see Appendix B for demographic details).

Quick Query

Students asked 82 quick queries of RWC peer writing tutors, three times the number reported last year. The method of eliciting and responding to requests for quick questions about writing were modified for the summer and autumn of 2017.

Tutor Training

- Peer-tutoring induction (Semester 1): 10 participants
- Peer-tutoring training day (Semester 1): 12 new peer tutors
- Peer-tutoring induction (Semester 2): 14 participants
- Peer tutor training (Semester 2): 0 new peer tutors
- Peer-Tutoring in Academic Writing module (AW4006) (Semester 2): 12 participants
- Peer-tutoring debrief: 18 participants
- Writing tutors' CPD: 5 participants

5.3.2 Writing for Publication/Professional Progression

Table 5.1 lists initiatives to support staff and postgraduates in their own professional writing: writing for publication/professional progression.

Table 5.1: Initiatives to support writing for publication/professional progression

Initiative	Uptake
Faculty writers' group	4 participants for 49.5 hours
MA in Teaching, Learning and Scholarship Writers' Group	6 participants for 144 hours
PhD writers' weeks	August 2017: 8 participants January 2018: 8 participants June 2018: 8 participants
PhD writers' group	Semester 1: 5 participants Semester 2: 10 participants Met weekly for 4 hours for a total of 142 hours
Writers' space	129 visits for 271 hours (up from previous year)

5.3.3 Writing Across the Curriculum

Writing Across the Curriculum (WAC) initiatives are non-discipline-specific workshops.

Table 5.2: Writing Across the Curriculum initiatives and numbers of students attending

Writing intervention	No. students
SEMESTER 1	
Language Centre workshop on integrity	59
Law Scholarly Writing at third level	44
Law MSO: Putting the Ease Back into Academic Writing	17
Understanding the Assignment: Planning and Organising Your Writing Assignments	44
Structuring Your Writing Assignment	26
Citing and Referencing	19
Revising and Editing	15
Getting 'A's on Academic Papers: What's the Trick?	6
Total number of students for Semester 1 interventions	**230**
SEMESTER 2	
Inbhear Day	25
F7W Writing Strategies (30.01.2018)	5
F7W Writing Strategies (01.02.2018)	24
FYP Workshop (06.02.2018)	7
FYP Workshop (08.02.2018)	6
FYP Workshop (13.02.2018)	1
FYP Workshop (15.02.2018)	9
Strategies to Develop Your Writing	10
Academic Writing Workshop (06.03.2018)	2
Academic Writing Workshop (08.03.2018)	2
Academic Writing Workshop (13.03.2018)	0
Academic Writing Workshop (20.03.2018)	2
Academic Writing Workshop (22.03.2018)	2
Kickstart Your Summer Writing – Postgraduate	8
Kickstart Your Summer Writing – Faculty	6
Total number of students for Semester 2 interventions	**109**

WAC Summary

- Semester 1: 8 workshops attended by 230 students
- Semester 2: 15 workshops attended by 109 students
- Workshop hours = 29

5.3.4 Writing in Disciplines (WID) Initiatives

WID initiatives are collaborations between writing and subject specialists.

Table 5.3: WID initiatives and numbers of students attending per semester

Faculty	Writing intervention	# students
SEMESTER 1		
AHSS	Grammar for the MA in Creative Writing	22
	Research Methodology for MA Comparative Literature and Cultural Studies	3
	Reflective Writing Workshop	58
	Total students from AHSS	**83**
KBS	Project Management (Aoife)	29
	Ulearning: Master's in Workshopping – work done for the Enterprise Improvements Project (action research based)	5
	Total students from KBS	**34**
EHS	Paramedics – Finding Information, Year 1 Practitioner entry students	18
	Paramedics – Academic Writing workshop, Year 2 Practitioner entry students	14
	Paramedics Workshop (Aoife)	25
	Physiotherapy, Year 4 (Aoife)	28
	Clinical Therapies (Aoife)	67
	Clinical Therapies with Carol-Ann Murphy	62
	Psychology, Year 1 (Aoife)	92
	Master's in Education (Aoife)	8
	EN4041: Introduction to Academic Writing workshop	198
	Total students from EHS	**512**
S&E	ME4001	280
	ME6051	25
	Total students from S&E	**305**
Total students over all faculties, Semester 1		**934**
SEMESTER 2		
AHSS	FYP workshop	128
	CU6032: Thesis Writing: Language, Literature and Cultural Studies	13
	Total students from AHSS	**141**
IWAMD	MA in Music Therapy	10
	Total students from IWAM&D	**10**
S&E	FYP for Engineers workshop	112
	Total students from S&E	**112**
EHS	BSc Psychotherapy (Year 1) Introduction to Academic Writing	40
	Total students from EHS	**40**
KBS	MSc in Strategic Quality Management	1
	Total students from KBS	**1**
CPE	Diploma in Aircraft Maintenance (19.01.2018)	20
	Diploma in Aircraft Maintenance (20.01.2018)	17
	Diploma in Drug and Alcohol Studies	14
	Total students from CPE	**51**
Total students over all faculties, Semester 2		**355**
TOTAL STUDENTS FOR 2017/18		**1,289**

Table 5.4: Number of consultations per discipline

Faculty	WID consultations	Hours
Arts, Humanities and Social Sciences	7	89.85
Kemmy Business School	2	0.50
Education and Health Sciences	12	12.25
Science and Engineering	4	23.05
Irish World Academy of Music and Dance	1	7.00
Lero	1	1.00
Centre for Teaching and Learning	1	2.00
Continuing and Professional Education	4	26.75
Totals	**32**	**162.40**

WID Summary

- WID initiatives: 25 (Table 5.3)
- Students in attendance: 1,289 (Table 5.3)
- WID consultations (meetings with staff to consult on writing development initiatives): 32 (Table 5.4)
- Hours invested in WID activities: 162.4 (Table 5.4)

5.3.5   Design, Delivery and Development of Modules in Writing

Table 5.5 lists the modules per faculty, including the number of credits they are worth, the semester in which they took place and the numbers of students attending.

Table 5.5: Module and number of participants attending

Faculty	Module	No. of participants
Arts, Humanities and Social Sciences	AW4006: Peer-Tutoring in Academic Writing (6 credits) (Semester 2)	12
S&E	ME6051: Advanced Technical Communication for Engineers (3 credits) (Semester 1)	25
	ME4001 (Mini module): Introduction to Engineering (Semester 1)	280
Interdisciplinary/ CTL	TL6001: Teaching, Learning and Scholarship in Higher Education – Dissertation A (Semester 1)	3
	Tl5091: Preparing an Effective Research, Writing and Publication Strategy (Semester 1)	13
	TL6002: Teaching, Learning and Scholarship – Dissertation B (15 credits) (Semester 1)	3
	TL8013: Developing Ideas and Arguments: Writing into Academic Communities (3 credits) (Semester 1)	36
	TL5122: Writing for Publication: Scholarly Dialogue and Presentation (6 credits) (Semester 1)	11
	TL5132: Feedback and Revision in Scholarly Writing (9 credits) (Semester 1)	11
Total participant numbers		**394**

5.3.6 RWC Initiatives in Collaboration with Others

- Irish Network for the Enhancement of Writing (INEW), 13 April 2018, meeting of the Directors/Coordinators of Irish Academic Writing Centre/Writing Support Provisions to discuss practices and innovations, St Angela's College, Sligo
- Three-day European Writing Centre Association (EWCA) Summer Retreat, 22–23 June 2018, meeting of members of the board and associates from US, Germany, Luxembourg, Ireland, The Netherlands and Austria. Hosted by Lawrence Cleary, RWC Co-director and CTL Educational Developer.

5.4 Innovative RWC Approaches to Writer Development

5.4.1 UL One Campus, One Book

The fifth annual UL One Campus, One Book initiative featured Liz Nugent's *Lying in Wait.* On 28 February 2018, Liz read a short passage from *Lying in Wait* and engaged in a discussion about the book with the audience. The discussion and Q&A session was led by Dr Sheila Killian of the Kemmy Business School. Despite the harsh weather conditions and heavy snow, 31 people attended. Liz welcomed questions about the novel itself and her experiences during the writing process. She also signed copies of her book for attendees at the close of the event. See https://ulsites.ul.ie/rwc/ul-one-campus-one-book-initiative-comes-close for more details.

5.4.2 How I Write, Ireland

How I Write, Ireland interview, 5 April 2017: In front of a live, public audience of 31, Lawrence Cleary spoke with Liz about her writing process and strategies. See video and transcripts of the interview at http://www.ulsites.ul.ie/rwc/how-i-write-ireland.

5.4.3 First Seven Weeks Initiative

The First Seven Weeks is a collaboration of UL learning centres to promote student uptake. Week 5 was on 'Learning Support at UL', and 155 participants visited the learning centres.

5.4.4 Seventh Annual RWC National Secondary School Essay-writing Competition

The RWC held its seventh Annual National Secondary School Essay-writing Competition for Transition- and fifth-year second-level school students.

The competition required students to explore the following topic in an essay of 800 to 1,000 words: *'Affordable student housing is essential and could be a solid investment for the government. So why are we handing it over to the vultures?', asks Journal.ie reporter Éilis Ryan (http://www.thejournal.ie/readme/affordable-housing-is-essential-why-are-we-handing-control-of-it-over-to-the-vultures-3213138-Jan2017/ [article accessed 18/09/17]) What is the best way to guarantee the availability of affordable student housing?'*

Six students volunteered a total of 61 hours to judge and select the best essay in each category. Their hours counted towards their pursuit of a PVA.

The overall winner was Sarah McHale, Coláiste Bhaile Chláir, Co. Galway. The runners-up were Michael Flynn, Athlone Community College, Co. Westmeath and Cara Crudden, Calasanctius College, Co. Galway. Professor Fiona Farr, Dean of Teaching and Learning, greeted the winners and handed them their awards. The essays and photographs can be found online via links at http://www.ulsites.ul.ie/rwc/201617-secondary-school-essay-writing-competition-details.

5.4.5 Writing-talk Advocates

Writing-talk, UL (a PVA initiative) was launched in Semester 2 on studentvolunteer.ie, a blog that invites students and staff to help others write by sharing their own experiences of writing. See current entries at https://writingtalkul.wordpress.com/.

Five entries were accepted onto the blog this year. Four UL students put six hours towards their PVA pursuits.

5.5 External Consultation

Dr Íde O'Sullivan travelled to the Institute of Technology Tralee to deliver Writing for Research: Dissertation/Thesis writing to 16 IT, Tralee students.

Íde was awarded €1,500 for travel to University of Gothenburg in April 2018 to collaborate on a report on a short-term scientific mission.

Appendix A: Publications and Presentations

- O'Sullivan, Í. and Farrell, A. (2017) 'Shape shifting: exploring alternative approaches and institutional models towards cohesive teaching, learning, research and writing development', presented at *EATAW 2017* (European Association for Teaching Academic Writing), Royal Holloway University of London, 19–21 June.

- Cleary, L. and Lenihan, A. (2017) 'The value of talk', presented at *Shannon Consortium 10th Anniversary Symposium, Shaping and Reshaping the Landscape of Teaching and Learning Limerick: Perspectives from the Shannon Consortium*, University of Limerick, 30 May.

- Cleary, L. (2017) 'A corpus analysis of Halliday's interpersonal metafunction in first-year, First-semester writing as a way of affirming or negating their characterisation of their own writing as factual', presented at *I Congreso Internacional sobre Análisis de Corpus del Discurso Académico*, Valencia, Spain, 22–24 November.

- O'Sullivan, Í., Tighe-Mooney, S., Lenihan, A. and Farrell, A. (2018) 'An introduction to tutoring in the writing centre', *AISHE Academic Practice Guidelines no. 06*, available: http://www.aishe.org/wp-content/uploads/2018/06/6-Tutoring-in-the-Writing-Centre.pdf [accessed 03/10/2018].

- Cleary, L. (2017) 'Why good academic writers perform poorly in the workplace: teaching for transfer across contexts of writing (part 1 of 2)', *Connecting Writing Centers Across Borders (WLN Blog)*, 30 October, available: https://www.wlnjournal.org/blog/2017/10/why-good-academic-writers-perform-poorly-in-the-workplace-teaching-for-transfer-across-contexts-of-writing/ [accessed 03/10/2018].

- Cleary, L. (2017) 'Why good academic writers perform poorly in the workplace: teaching for transfer across contexts of writing (part 2 of 2)', *Connecting Writing Centers Across Borders (WLN Blog)*, 6 November, available: http://www.wlnjournal.org/blog/2017/11/why-good-academic-writers-perform-poorly-in-the-workplace-teaching-for-transfer-across-contexts-of-writing-part-2-of-2/ [accessed 03/10/2018].

Appendix B: Peer-Tutoring in Academic Writing (Demographics)

Autumn 2018		Undergraduate Students					Taught Postgraduates					Postgraduate Research Students					Staff	English First Language		Mature		INTN'L
	Total	Traditional	Mature	Total	L2	INT	Traditional	Mature	Total	L2	INT	Traditional	Mature	Total	L2	INT	Total	Yes	No	Yes	No	
AHSS	172	85	50	135	9	10	5	25	33	11	11	1	3	4	2	2		150	22	270	-98	23
KBS	84	30	6	36	1	2	16	29	45	11	17	3	0	3	3	3		69	15	35	49	22
EHS	103	38	17	55	7	1	3	34	37	4	4	0	11	11	6	3		86	17	62	41	8
S&E	42	26	5	31	2	2	1	5	6	3	3	1	4	5	1	1		36	6	14	28	6
Sub-Total	401	179	78	257	19	15	25	96	121	29	35	5	18	23	12	9		341	60	192	209	59
MSAC	10	1	9	10	3	1	0	0	0	0	0	0	0	0	0	0		7	3	9	1	1
EXC/SA	17	17	0	17	9	0	0	0	0	0	0	0	0	0	0	0		8	9	0	17	0
ERASM	41	40	1	41	40	0	0	0	0	0	0	0	0	0	0	0		1	40	1	40	0
Total	469	58	10	68	52	16	0	0	0	0	35	0	0	0	0	9		357	112	391	156	60

Peer-tutoring Autumn, 2017

AHSS 172, KBS 84, EHS 103, S&E 42, MSAC 10, EXC/SA 17, ERASM 41

AHSS · KBS · EHS · S&E · MSAC · EXC/SA · ERASM

Targeted Groups

357, 391, 60

English First Language · Mature · INTN'L

Figure 5.1: Semester 1

	Total	Undergraduate Students					Taught Postgraduates					Postgraduate Research Students					Staff	English First Language		Mature	INT'L	L2
	Total	Traditional	Mature	Total	L2	INT	Traditional	Mature	Total	L2	INT	Traditional	Mature	Total	L2	INT	Total	Yes	No	Total	Total	Total
AHSS	179	114	36	150	12	6	5	17	22	5	6	3	4	7	0	0	0	145	34			
KBS	61	38	7	45	2	0	5	6	11	4	4	0	5	5	3	1	0	52	9			
EHS	111	47	10	57	6	0	13	24	37	4	2	1	16	17	3	3	0	98	13			
S&E	55	28	7	35	7	2	1	12	13	7	7	2	5	7	4	2	0	37	18			
Total	406	227	60	287	27	8	24	59	83	20	19	6	30	36	10	6	0	349	57			
MSAC	3	0	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
EXC/SA	18	17	1	18	7	0	0	0	0	0	0	0	0	0	0	0	0	11	7			
ERASM	13	12	1	13	12	0	1	1	0	2	0	0	0	0	0	0	0	27	14			
Total	34	29	5	34	22	0	1	1	0	2	0	0	0	0	0	0	0	58	24	155	33	81
	440																					

Peer Tutoring Spring 2018

179 · 61 · 111 · 55 · 3 · 18 · 13

AHSS · KBS · EHS · S&E · MSAC · EXC/SA · ERASM

Targeted Groups

81 · 33 · 155

Mature · INT'L · L2

Figure 5.2: Semester 2