Peer Support for the Development of Information and Digital Literacy Skills at the Institute of Technology Tallaght

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Peer Support for the Development of Information and Digital Literacy Skills at the Institute of Technology Tallaght

LILAC Conference
UCD Dublin
March 21-23, 2016

Gerard Ryder
Philip Russell
Institute of Technology Tallaght
Background

• Institute of Technology Tallaght (ITT Dublin) - range of courses / approx. 5000 FTEs

• Non-traditional learners

• Peer learning – student-centered strategy

- Strategic Plan (2009-2014)
- Learning, Teaching & Assessment Strategy (2011)
- National Strategy for Higher Education to 2030 (2011)
Learning to Learn (L2L) at Third Level

• **Rationale**
  - academic skills deficit
  - first year retention issues

• **Launched September 2012**
  – mandatory 5 credit module for all first year students

• **Modules aims**
  - enhance transition to third level
  - facilitate student engagement

• **Delivery** - first semester across all disciplines
Learning Outcomes

Identify and engage in the learning process / create a personal learning plan

Study effectively as an independent learner / work collaboratively in a team

Manage time efficiently - plan and organise learning tasks

Use critical thinking / analytical skills to solve a variety of problems

Recognise importance of academic integrity, avoid plagiarism through good practice and referencing

Assessment

Learning journal: students reflect on their learning programme of study 40%

Project or group project, including a written research-based report and presentation 40%

Online assessment quizzes from the Library SCORM tutorials (integrated with Moodle to facilitate grading) 20%

Delivery

Lectures / in-class exercises

Group discussion

Small group tutorials

Introductory IT workshops

Moodle VLE

Online library tutorials
Collaborative Approach

**How To resources:**
- How to Avoid Plagiarism

**Reinvent resources:**
- Why do this module?

**What our users say:**
- “Great tutorial - very good explanation of plagiarism and how to avoid it. Thought the quiz was very useful - meant I could check that I understood the material in the tutorial – thanks” 2nd year Science student
- “This tutorial is an extremely useful resource for my business students. I will also add to my teaching on Moodle. Thanks” Business lecturer
- “I felt the library tutorial was a great way to find out how to organize and apply the skills necessary in order to complete a literature review. Very easy to use and very helpful” 3rd year Humanities student
- “The study techniques and essay and report writing tutorial has hopefully improved my English writing and report structure” 1st year Engineering student
WHAT DO WE KNOW ABOUT OUR STUDENTS & HOW THEY LEARN?
The First Year Experience: Our students' lives are complex.

- Societies
- Clubs
- Modules
- Peers
- Exams
- 'life'
- Part-time work
- Social life
- Volunteering
The First Year Experience

- Study Methods
- Literacy Skills
- Social Interaction
- Peer Support
The Peer Assisted Learning Programme

Modules
Peers
Exams
'life'

Engineering Society
Peer Support
Peer Support: 2 different approaches

Wk 1: Induction week Interview
- Induction/ First Week Interview
- Lab Report Session
- Library/ Critical Thinking
- Mid Term Interview
- Report Writing/Poster Session
- Revision

Wk 2: Mid Term Interview
- 1. Start with the experience of the students
- 2. Look for Patterns
- 3. Add new information & theory
- 4. Practice skills & plan for action
- 5. Apply in action

Wk 3: Final Feedback

‘Spiralling induction’

Semester 1
- Learning To Learn Module

Semester 2
- CREO Support
- Electrical Circuits
- General Advice

‘Subject Experts’
- Open Questions
- Run by the peers
- Unstructured Peer Support Sessions
AN EVER EXPANDING LEARNING SPIRAL
Feedback Cycles

In context

A variety of media

Initial Exercise

Feedback

Self/Peer Reflection

Chance to resubmit

Final Report

In context

A variety of media

Initial Exercise

Feedback

Self/Peer Reflection

Chance to resubmit

Final Report
Reflective

PART A  09/12/11

Activity V

> Submissions: I had a good feeling in doing each required submission. I also had much fun in doing each. I only had problems with the "mixed learning journal" submission, where we had to read the articles and answer the questions. Because of the different word order and the unknown vocabulary this took me very long and was hard to do. Thank god I have a good dictionary :)

> Improved on: I think because of the submissions I really improved on my English skills, especially the writing skills and my listening skills, because I had write a lot of essays, reports and project as well as I had to listen to Irish, French, Spanish etc people. So I now understand different accents better. Referring to the last point, I also improved my skills to adapt to different cultures and to work with those who's language, motivation and what I can expect from different cultures.

> To improve: I think I still have to improve on my oral English skills and especially on my reading skill because I hardly understand academic written papers and reports. I also still have to improve on my learning styles. On the hand I know how to learn best and I also should be able to cope with other styles. The last thing I really want to improve is my vocabulary to write, speak better and to understand needs.
RECENT FOOD INFRASTRUCTURE IN TALLAGHT

Supermarkets

Supermarkets in Tallaght already have some project for a more sustainable food infrastructure. For example Tesco has marked some products with the slogan “Buy me – I’m Irish” to show the customer local products. These products are often not really more expensive than imported products, but they are much harder to find. Tesco also has just a small rage of organic products. At Lidl and Dunnes the organic section is bigger, but all in all there is still a low fraction of natural and local products. Figure 1 shows a “Buy me – I’m Irish” product, figure 2 a full rack of Irish beef, figure 3 the organic section at Dunnes and figure 4 a typical apple, which is sold in Ireland.
An initial activity – relevant to their programme of study
Sustainable Food in Tallaght

**Do’s**
- local food
- organic food
- organic fertilisers
- organic pesticides
- fair-trade products
- recycling and compost
- seasonal food
- mandatory use of private/community gardens
- more vegetables and fruits
- less red meat
- CO₂ dependent taxes
- fat/sugar dependent taxes

**Don’ts**
- import food ("food-miles")
- transport causes greenhouse gases
- oil-based fertilisers
- oil-based pesticides
- slave-drive farmers
- buy packaged food
- consume products rich on sugar and fat
- waste food by buying much more than necessary
- store food for long time (energy costs)
BUT............

STUDENTS STRUGGLE WITH BASIC LITERACY SKILLS
Developing a Literacy Process

**Choose Subject**
- Scan Example Paper(s)*
- List of Keywords/Initial structure
- Develop list of questions

**Start the literature search**
- Use the keywords to search sources*
- Rate sources
- Take notes to answer questions

**Develop a rough first draft**
- Group facts, figures etc into the structure
- Construct Paragraphs
- Read and evaluate

**Reorganise and re-write**
- Rewrite paragraphs to make sense
- Make sure you get your argument across
- Check references and citations

* - take note of the sources you found and where you found them
Developing a Literacy Toolkit

- Cornell Note Taking
- SQ3R
- Reflection
- Mind-mapping
- Creativity
- Essay writing
- Hexagonal Mapping
- Study Planning
LEARNING EXPERIENCES
Semester 1 – Embedded Peer Support

Students line up for the trebuchet Challenge. The project for the Learning to Learn Module.

The peers and project team from left to right: Philip Russell; Conor Farrell; Brian Conlan; Gerard Ryder; Paul Quinn; Sarah Talbot; Clinton McCurdy.

Student apply what they learn in the Learning to Learn Module to communicating their progress in the Trebuchet project.

The 3D Print Challenge night. Representatives from the 3D Printing shop in Rathmines Dublin and others from DCU, UCD, HP stood in to judge team designs. Part of the social dimension provided through the Engineering Society.

Peer Support during the Learning to Learn module helps students get to grips with the skills they need to succeed in their academic studies.
<table>
<thead>
<tr>
<th>Activity Rating</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>The peer support network</td>
<td>3.5</td>
</tr>
<tr>
<td>Exam questions and revision/revision plan</td>
<td>4.0</td>
</tr>
<tr>
<td>The report (report writing/mindmaps/formatting the report)</td>
<td>3.5</td>
</tr>
<tr>
<td>The poster show</td>
<td>4.0</td>
</tr>
<tr>
<td>Group work</td>
<td>4.5</td>
</tr>
<tr>
<td>The trebuchet project</td>
<td>4.0</td>
</tr>
<tr>
<td>Research/Referencing/plagiarism</td>
<td>4.0</td>
</tr>
<tr>
<td>Library Skills</td>
<td>3.5</td>
</tr>
<tr>
<td>SQ3R/Ebola</td>
<td>3.5</td>
</tr>
<tr>
<td>Lab reports/lab skills and writing.</td>
<td>4.5</td>
</tr>
<tr>
<td>Learning styles</td>
<td>3.5</td>
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<tr>
<td>Why engineering/5 year plan</td>
<td>3.5</td>
</tr>
<tr>
<td>Study plan</td>
<td>3.5</td>
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<tr>
<td>Learning Skills</td>
<td>3.5</td>
</tr>
<tr>
<td>Induction week activities</td>
<td>4.0</td>
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## Student Comments

<table>
<thead>
<tr>
<th>Did you find the peer assisted learning activities useful?</th>
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<tbody>
<tr>
<td>Yes, because it helps students who are struggling with their subject to come up with an idea or ideas of how to solve a problem or how to get the answers to the questions</td>
</tr>
<tr>
<td>Yes, it was great to get to know each other and to integrate with others in the class</td>
</tr>
<tr>
<td>Yes, it helped me understand the college system better and what was in store for me in the future of the course. The peers were very helpful in answering any questions that the class had about the course and its modules</td>
</tr>
<tr>
<td>Yes, it was good as it gave us more help from people who had just gone through the same thing.</td>
</tr>
<tr>
<td>Yes, you can find the answers to questions without necessarily having to go to a lecturer</td>
</tr>
</tbody>
</table>

## What were your impressions of the PAL programme?

- Very good creates a link between all engineering students.
- Very good idea, good motivation to help fellow engineering students, have a better chance than you did and make their studies much less stressful.
- Fantastic Opportunity for myself and the upcoming first year class to socialise, learn and engage together.

## What support do you need as a PAL volunteer?

- Linking contact between our year and years ahead of us; discuss project ideas and formats with them.
- Maybe try to get a link between 2\textsuperscript{nd} Year and 3\textsuperscript{rd} Year
- Possibly we need more preparation and more set questions rather than being handed an exam paper and asking – ‘What questions are you struggling with’
- Plan is good, i.e. weekly meeting to assign tasks etc.
- Good feedback and preparation
- Set up a block for study between peers and students for practice and advice.

## Peer tutor Comments
Issues Identified

- Organisation of the sessions, finding a common time in the timetable was a serious issue. This needs to be sorted out at the start of a semester through the timetabling process.
- First years needed most support when peers were unavailable.
- Very poor attendance, 3 or 4 max present but mostly 1 or 2.
- Good contact between first & second years.
- Second years needed support in this semester.

<table>
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<tr>
<th>What support do you feel you gave to the first year students?</th>
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<tr>
<td>Personally I focussed on the Solid Modelling side of the support as I feel that Solid Modelling is one of my strongest subject areas. This support was provided by simply allowing the student to meet me once a week in order for them to ask me questions regarding the software. The students would come with issues that they had developed from the class time and then hopefully I would be able to tell or show them how to fix the problem or how to go about a certain problem. – Paul Quinn</td>
</tr>
<tr>
<td>I supported the first years in problems they were having with Electrical Engineering. This module deals with the basic structures of DC and AC motors and generators. I attempted to answer any questions they may have had, as well as working them through tutorial questions and exam papers. I felt I gave the first years the opportunity to come to me with any questions or concerns they may have had throughout the year, be it with Electrical Engineering and other academic work, or with general college questions and problems. – Sarah Daly</td>
</tr>
</tbody>
</table>

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<tr>
<th>How could the scheme be developed next year?</th>
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<tbody>
<tr>
<td>Possibly some support on methods to convey an idea across to other students. Sometimes I feel that what I am trying to explain is rather complex and I feel that maybe some pointers in how to convey these complex explanations in a simple way would be extremely beneficial. – Paul Quinn</td>
</tr>
<tr>
<td>If at the very beginning of the year, possibly through the induction week, the PEER supporters could assess the free time slots available to them. Once the format of the programme had been established for that particular semester, push the advertisement and awareness for the whole programme – Facebook, through the Engineering Society, posters, Moodle Forums etc. – Sarah Daly</td>
</tr>
</tbody>
</table>

Peer tutor Comments
"Higher education providers should address identified shortfalls in students’ skills during their first year in higher education. This can be done by expanding the availability of induction and preparation courses for first-year students, covering skills such as self-directed learning, time management, information literacy and critical analysis”. (National Strategy for Higher Education to 2030, 2011)

Thank You
Questions

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Sultan F. et. Al. (2013) Helping students with difficult first year subjects through the PASS program, Journal of Peer Learning, 6(1).