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Dublin School of Architecture (Former DIT)

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“Can The Use Of Online Learning And Reflective Journals Improve Students’ Performance And Engage Them In Independent Learning For A Practically Taught “Timber Jointing Module”?”

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Can The Use Of Online Learning And Reflective Journals Improve Students' Performance For A Practically Taught Timber Jointing Module?

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Link: <http://ojs.aishe.org/index.php/aishe-j/issue/current>



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J.Byrne 2015



Can The Use Of Online Learning And Reflective Journals Improve Students' Performance For A Practically Taught Timber Jointing Module?

- This question relates to a problem that we have with the first year students coming onto a fairly new Timber Product Technology Programme.
- Level 7 Degree Programme started in Sept. 2011.
- First Graduates in Nov. 2014.

The research question broken down.

- To establish students' prior background knowledge on starting this module and gauge any increase throughout the duration of the module.
- To explore the use of reflective journals to find out if they can encourage the student to become a reflective practitioner and self directed in their learning.
- To determine if an increase in background knowledge can improve the students' abilities in practical skills.
- To determine how early promotion of independent learning influences learners attitudes to their learning.

Action Research Project

- Prior knowledge testing and re-testing: 3 cycles
- Reflective Journals: 3 cycles.
- Practical coursework: 3 cycles.
- Student and staff surveys.
- Staff observations.

The Classroom



View from front of class



View from back of class

How can I use e technology to teach in this workshop environment?

Solution: Create a Website

- Website was used to try and engage the first year students with online learning.
- Methods of reflection and the benefits associated with it were also explained on the website.
- Students work on reflective journals both from previous year and current year as worked progressed were included on the website.

Prior knowledge testing and re-testing.

- Students were given 20 short answer questions on approximately 4 topics.
- Material in a wide range of different formats was uploaded to the website.
- Students were directed to this and were expected to engage with this resource in their own time.
- Students were re-tested on these topics after 4 weeks.
- This cycle was carried out 3 times.
- There were no marks awarded for these tests towards their module assessments.

Home Page

[Home](#)

[Week 1 to 4](#)

[Week 4 to 8](#)

[Week 8 to 12](#)

[Exam papers and Answers](#)

[Reflective journals](#)



JOINTING TECHNIQUES & FURNITURE 1

Jointing Techniques & Furniture 1

Welcome to my site for Jointing Techniques & Furniture 1.

On each page you will find some useful information, class notes, Power Point presentations and videos relating to your practical module.

Please email me links to any other videos or information that you may think will be of interest to the rest of your class. I can also post information on shows or upcoming events if you provide me with the details.

Material related to this module will be uploaded at various stages throughout the year. You will be notified by email when new material has been added. Please view this material as part of your learning for this module as it will help you build up your background knowledge.

Weeks 1 to 4

Home

Week 1 to 4

Week 4 to 8

Week 8 to 12

Exam papers and Answers

Reflective journals



WEEK 1 - 4 SHARPENING, HAND TOOLS, NAILS & SCREWS

On this page you will find a mix of PDF files, Power Point Presentations and videos on sharpening techniques.

Have a look at the Chisels notes then test your knowledge with the Power Point Presentations no cheating!! I will be adding material on a weekly bases.

Chisel Sharpening with Tormek - Regrind the Bevel



Sharpening Stones : Look at the PDF file below.

Watch the three Tormek Demonstration Videos in order from top to bottom.

Week 1 to 4



Chisels : Open the first file on chisels and then take the test using the Power Point Presentation.



[Chisels.pdf](#)

Size : 346.485 Kb
Type : pdf



[Test - Now I know my Chisels.pptx](#)

Size : 788.343 Kb
Type : pptx



[Hammers.pdf](#)

Size : 279.988 Kb
Type : pdf



[Drill Bits, screwdrivers.pdf](#)

Size : 306.572 Kb
Type : pdf



[Nails & screws.pdf](#)

Week 4 to 8



WEEKS 4 - 8 - FURNITURE JOINTS, DRAWER CONSTRUCTION, ADHESIVES & MANUFACTURED BOARDS

On this page material will be uploaded on topics that were assessed in your second prior knowledge test.

These topics include:


Furniture Joints


Drawer Construction

Adhesives

Manufactured Boards

Furniture Joints is uploaded in slide share so you just have to click the arrows at the bottom of the screen opposite.

 [Adhesives.pptx](#)
Size : 843.335 Kb
Type : pptx

 [Questions on Adhesives.ppt](#)
Size : 741 Kb
Type : ppt

A screenshot of a SlideShare presentation player. The main content area displays the title 'Furniture Joints' in a large, 3D, orange-to-yellow gradient font. Below the title, it says 'J. Byrne 2013' and '1'. At the bottom of the player, there is a control bar with a 'slideshare' logo, navigation arrows (back, forward, stop), a 'SHARE' button, and a progress indicator showing '1 / 35'.

Week 4 to 8



[2 Drawer Construction.pptx](#)

Size : 797.148 Kb
Type : pptx

[3 Drawer Construction Modern.pptx](#)

Size : 477.283 Kb
Type : pptx

[Manufactured boards TPT.pptx](#)

Size : 5884.466 Kb
Type : pptx

...a material but also a property of materials - bonds flexible but ultimately solid it has a great deal of unt potential as these furniture pieces show.

The combination of warmth and air makes the plastic contract, after which it becomes solid again as it tightens around whatever it surrounds. Think of the speed and simplicity, too: no more complex joinery techniques, ugly nails or screws, at least assuming the aesthetic results.

Click the link below to bring you to this site on plastic

Read more: <http://dornob.com/ingenious-joinery-plastic-shrink-wrap-furniture/#:~:z2IAxUwDjZ>



Week 8 to 12



WEEKS - 8 -12 - VENEERS, TIMBER DEFECTS, K.D.FITTINGS, LOCK & HINGES

On this page material will be uploaded on topics that were assessed in your third prior knowledge test.

These topics include:

Veneers

Timber Defects

Knock Down Fittings

Locks & Hinges


[Locks & Hinges](#)

In these files you will find some

[Knock Down Fittings](#)


In these files you will find some information on the different types of K.D.Fittings. I have included the most popular but there are 100's of different K.D. Fittings Click on the link below to bring you to Hafele one of Irelands main K.D. fittings stores.

<http://www.hafele.ie/hircat/templates/hafele/intro.asp>

 [Locks.pptx](#)
Size : 185.499 Kb
Type : pptx

Week 8 to 12

material finish.



PLAYLIST Favorite videos

PLAY ALL

00:00 / 15:04 YouTube

- [Timber conversion, seasoning & defects.pdf](#)
Size : 1178.485 Kb
Type : pdf
- [Timber conversion, seasoning & defects Test.pptx](#)
Size : 1269.294 Kb
Type : pptx
- [Timber conversion, seasoning & defects Test.pptx](#)
Size : 1270.573 Kb
Type : pptx

Read through the PDF on Timber Conversion, Seasoning and Defects then test your knowledge by taking the test in the animated PowerPoint opposite.

This topic is also covered in your materials class so it can be a good aid to studying.

- [1 Veneer Terms.ppt](#)
Size : 202.621 Kb
Type : pdf
- [2 Examples of veneers.ppt](#)
Size : 943 Kb
Type : ppt
- [3 Laying Veneers.pdf](#)
Size : 137.196 Kb
Type : pdf
- [Veneer Terms.pdf](#)
Size : 508.424 Kb
Type : pdf
- [Veneer Terms Test.pptx](#)
Size : 1110.063 Kb
Type : pptx
- [Veneers patterns.pdf](#)
Size : 1607.926 Kb
Type : pdf
- [Veneers patterns Quick Test.pptx](#)
Size : 7190.482 Kb
Type : pptx
- [Manual of Buhl Work & Marquetry.pdf](#)
Size : 4088.858 Kb
Type : pdf
- [6 Bouille Work.ppt](#)
Size : 8093 Kb
Type : ppt

Exams Page

Home

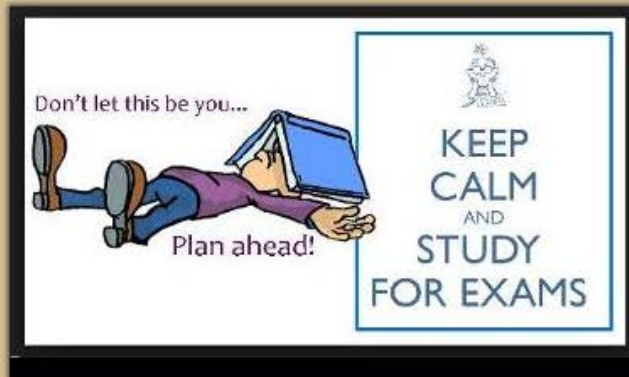
Week 1 to 4

Week 4 to 8

Week 8 to 12

Exam papers and Answers

Reflective journals



MODEL ANSWERS FOR EACH EXAM

On this page you will find the model answers to any prior knowledge tests and re-tests. These will be uploaded after you have taken each test. For material associated with your reflective journals, please go to the Reflective Journals Page



[Prior Knowledge 1 Sharpening Hand tools Nails - Screws.pdf](#)
Size : 8.5 Kb
Type : pdf



[Reassessing Prior Knowledge Test 1 Model Answers.pdf](#)
Size : 23.915 Kb
Type : pdf



[3 Prior Knowledge 2 model answers wk 8.pdf](#)
Size : 67.427 Kb
Type : pdf



[4 Reassessing Prior Knowledge 2 model answers wk 8.pdf](#)
Size : 96.765 Kb
Type : pdf

What is Reflection?

“Reflection is an important human activity in which people recapture their experience, think about it, mull it over and evaluate it. It is this working with experience that is important in learning”.

(Boud, Keogh & Walker, 1985, p. 19)

- Students were shown that keeping a reflective journal can be a very effective tool in developing learning because it can deepen the learning experience. (Schön, 1983: Kolb, 1984: Gibbs, 1998: Finlay, 2008: Visser, 2010).

Reflective Journals

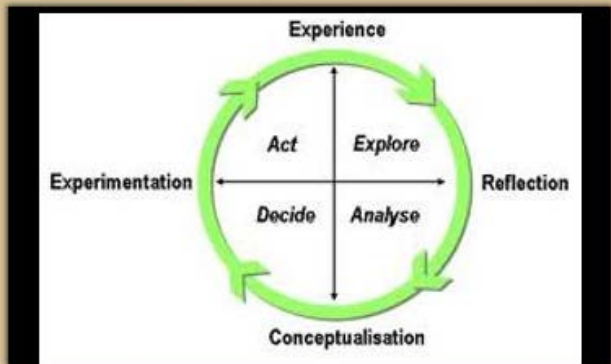
- In the academic year 2012/13, my colleague and I introduced using “Reflective Journals” to our then cohort of first year students on the TPT programme.
- We wrote a paper on our experience (Byrne & Ryan, 2013) on using reflective journals which we presented at the [International Conference on Engaging Pedagogy \(ICEP\) at the IT Sligo in December 2013.](#)

Coursework	Item	Practical	Journal
1	A frame (six joints)	15%	5%
2	Trinket box with veneered lid	30%	10%
3	Table with turned legs & drawer	30%	10%

Putting it into practice.

- Scaffolding was used to instruct the students on the use of the journals in relation to their practical work.
- The students need to be shown what to do, actively engage in what they have been shown, receive constructive feedback and then reflect on all three aspects before attempting a similar task.
- Students were instructed to approach each timber joint in a planned sequenced way; this ensured that they developed their “cognitive skills” of reason, remember, relate and their essential “thinking skills” (De Bono, 1995).


Reflective Journals & Coursework.




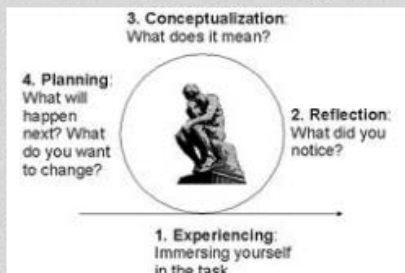
REFLECTIVE JOURNALS

On this page you will find material related to your coursework & reflective journals. The Power Point presentation that I showed you in class is uploaded into Slide Share so again you just have to click on the arrows at the bottom of that screen.

I will also provide you with some sample work from last years students.

 [Sequence of Events 1.docx](#)
Size : 27.271 Kb
Type : docx

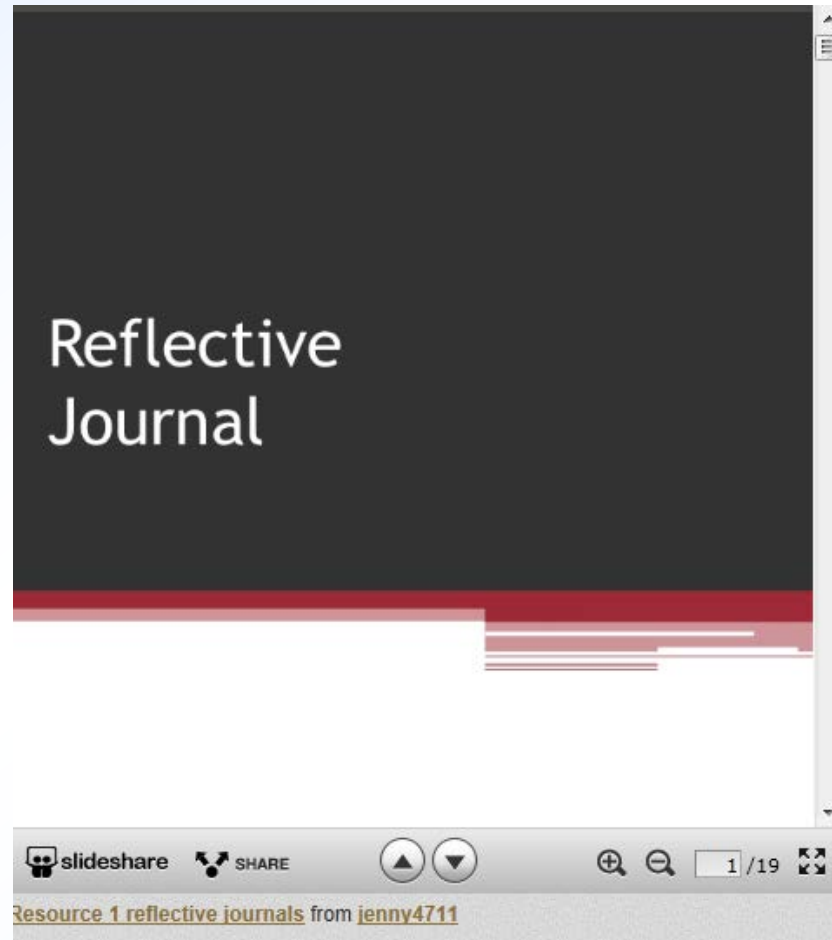
 [Sequence of Events 2.docx](#)
Size : 27.561 Kb
Type : docx



Reflective Journal

Reflective Journal on Slideshare™

Introducing new
Technology

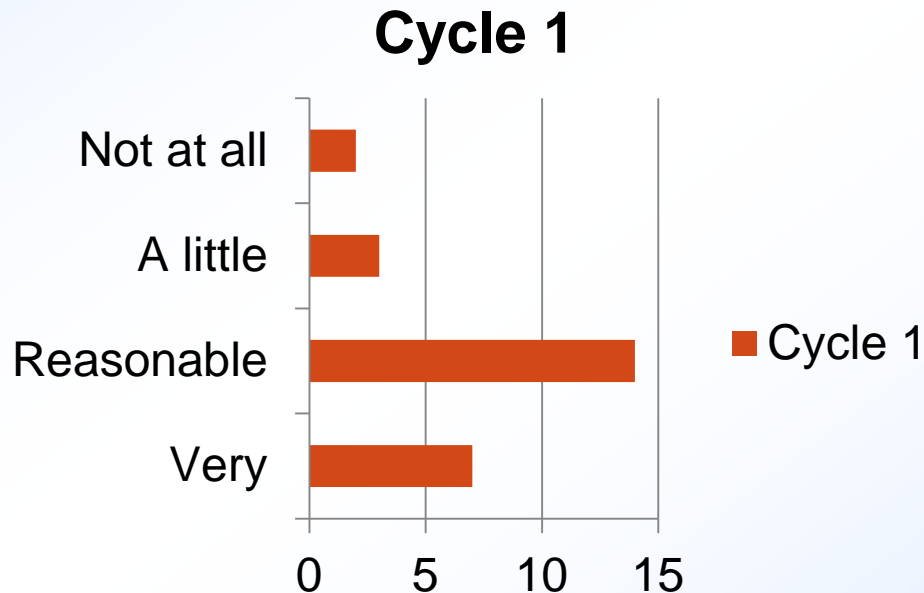


Methodology & Observations.

- Students were also instructed on the importance of creating estimated timescales and actual time scales and the planning of their work on a daily basis.
- Samples of student's journals were displayed on the website.
- Sharing their work in this way gave these students more confidence and they seemed to engage more in peer learning in the classroom environment, by offering opinions and advice to each other.
- Students from the previous year did not show these traits.

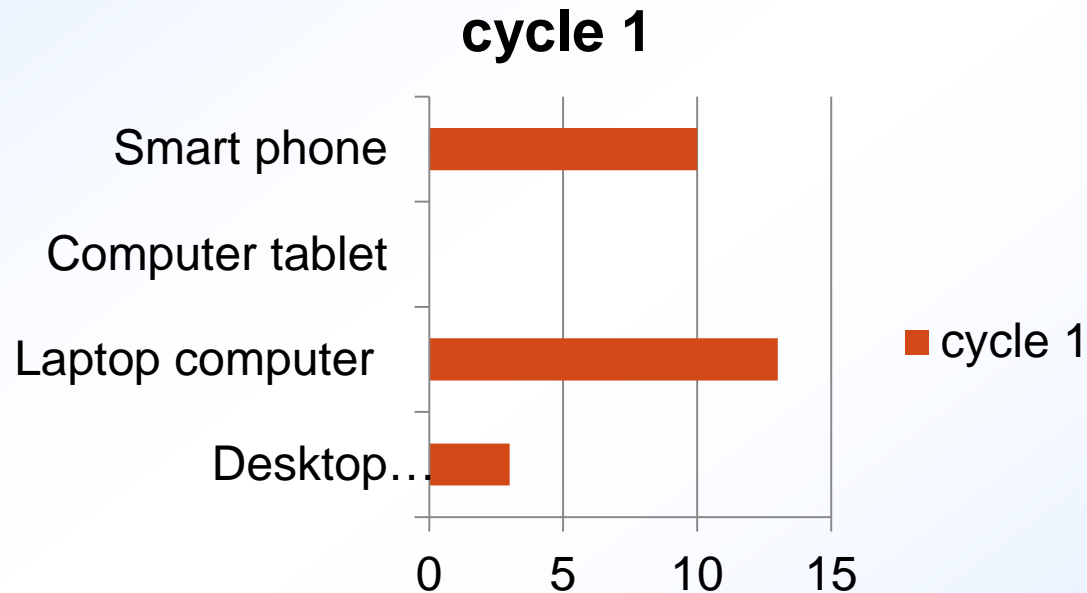
Results from 1st Survey after Week 4 testing

- Question. How confident are you about your online skills?



Results from 1st Survey after Week 4 testing.

- Question. Which of the following devices do you most often use to connect to the internet?

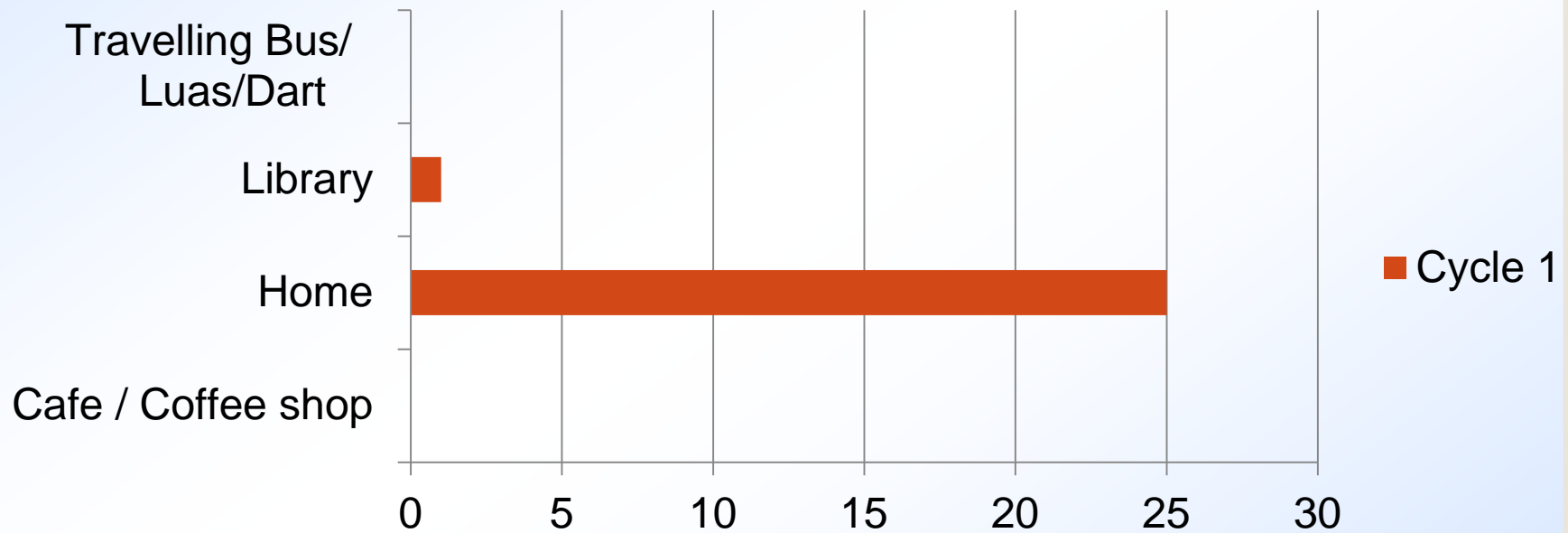


- 50% on their Laptop followed by 38% on their Smart phone

Results from 1st Survey after Week 4 testing.

- Question. Where do you most prefer to be when you access the internet?

Cycle 1



- 96% at home with one student preferring the library.

Site Traffic for website from 24th Oct to 23rd Nov 2013

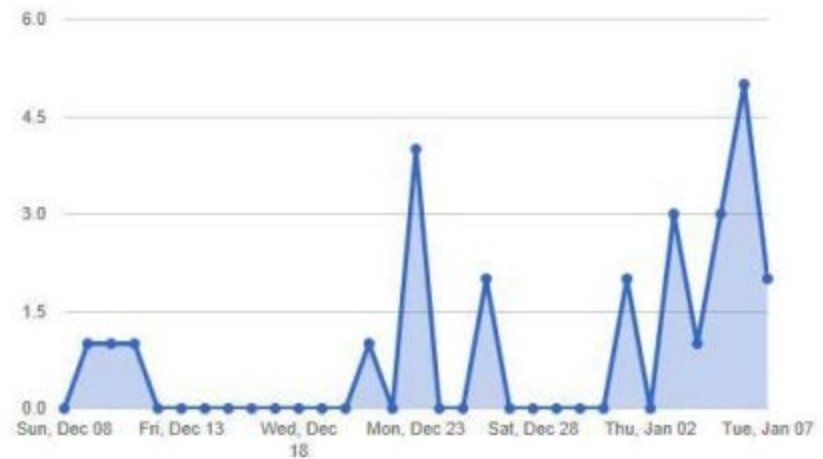
Site is password protected so only these students have access to it.

Students asked questions in the practical classes about material that they had viewed online.

Site traffic for Jointing Techniques & Furniture 1

Discover information about the number of visitors your site gets.

Total site traffic for the last 30 days



Visits

26

in the last 30 days

Visitors

16

in the last 30 days

Unique visitors change

-81.2%

in the last 30 days

Pageviews

63

in the last 30 days

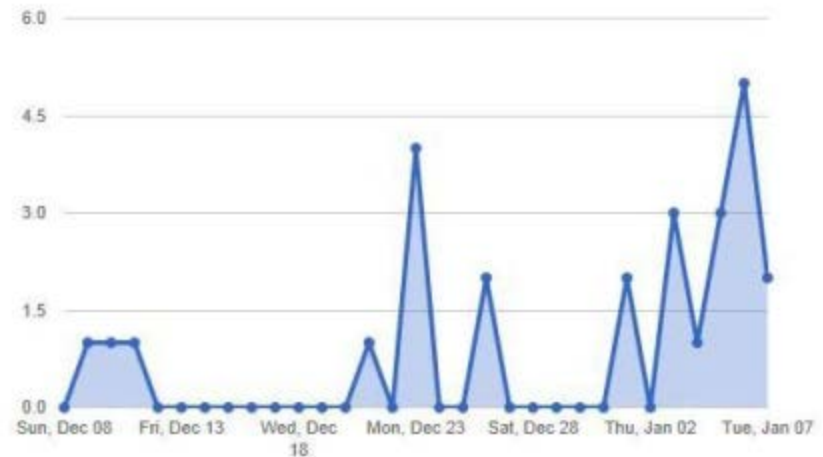
Site Traffic for website from 24th Oct to 23rd Nov 2013

Students still accessed the site after testing was finished as material provided could be used for another Theory based Module.

Site traffic for Jointing Techniques & Furniture 1

Discover information about the number of visitors your site gets.

Total site traffic for the last 30 days



Visits
26
in the last 30 days

Visitors
16
in the last 30 days

Unique visitors change
-81.2%
in the last 30 days

Pageviews
63
in the last 30 days

Results

- These first year students had a better grasp on using the correct terminology in their journals than the previous year's students.
- Journals were used to give formative feedback; as a result, errors were corrected in subsequent journals which resulted in students receiving higher marks at the next stage.
- Reading the journals also helped lecturers to identify problem areas that some students wrote about. We were able to revisit these areas and give further instruction as needed.

Results: Final class average results from both years 12/13 and research year 13/14.

Table shows an increase of 22% on the class average for the previous year in Journal work.

Cohort of 12/13 26 students	Class Average	Possible	Out of 100%
Reflective Journal	11%	20%	54%
Practical Work	49%	80%	61%
Cohort of 13/14 22 students	Class Average	Possible	Out of 100%
Reflective Journal	19%	25%	76%
Practical Work	49%	75%	65%

References

- Boud, D. (2001) *Using Journal Writing to enhance reflective practice*. Sydney: University of Technology Sydney.
- Boud, D., Keogh, R. & Walker, D. (1985) *Promoting reflection in learning: a model*. New York: Nichols.
- Boud, D., Keogh, R. & Walker, D. (1985)(eds.) *Reflection: Turning Experience into Learning*. New York: Nichols.
- Boud, D. Lewis, D. & Allan, B. (2005) *Virtual Learning Communities. A Guide for Practitioners*. England: Open University Press.
- Byrne, J. & Ryan, A. (2013) “*Using Reflective Journals to Promote and Enhance Self directed Learning*” International Conference on Engaging Pedagogy (ICEP), IT Sligo.
<http://icep.ie/2013-proceedings/> <http://icep.ie/wp-content/uploads/2013/12/ByrneRyan.pdf>
Downloaded 16 March 2014
- De Bono, E. (1995) *Teach Yourself to Think. Five easy steps to direct productive thinking*. England: Penguin Books.
- Finlay, L. (2008) *Reflecting on ‘Reflective practice’*. UK. Pg 4-7 Downloaded 10 Sept. 2013
<http://www.open.ac.uk/cetl-workspace/cetlcontent/documents/4bf2b48887459.pdf>
- Gibbs, G. (1998) *Learning by Doing: A guide to Learning and Teaching Methods*. London: Further Education Unit.

References (Cont.)

- Kolb, D. (1984). *Experiential learning: Experience as a source of learning and development*. New Jersey: Prentice-Hall Inc.
- Prensky, M. (2001). *Digital natives, digital immigrants part 1. On the Horizon*. MCB University Press, Vol. 9. 1-6. <http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf> Accessed 08 May 2014
- Schön, D. A. (1983) *The Reflective Practitioner: How Professionals Think in Action*. New York: Basic Books.
- SlideShare™ free website that allows people to display Power Point Presentations either privately or publicly Accessed 18 March 2014 <http://www.slideshare.net/>
- Visser, W. (2010). *Schön: Design As A Reflective Practice. issue 2 of Collection, on "Art + Design & Psychology,"* pp. 21-25. Downloaded 19 April 2013 http://hal.archivesouvertes.fr/docs/00/60/46/34/PDF/Visser_Collection2_Schoen.pdf

End of Presentation

- Thank you for watching.
- Have you any questions?

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