Appendix 1 SUBJECTS AND/OR RESEARCHERS

Researcher's Name: PATRICK WALSH (use block capitals)

Title: Mr

Faculty/School/Department: Information Services Department

Title of Study:

How can DIT academic staff use Webcourses data and reporting to make better informed decisions around student learning?

2.1 Please specify the types of subjects involved in this study, e.g. healthy subjects, in-patients, clinic attendees, minors, and indicate the number of each type.

NB. Names of Student Subjects receiving payment in commercially sponsored research must be notified to the Research Ethics Committee.

This study will analyse the activity and engagement of D.I.T students within D.I.T's Learning Management System namely Blackboard (often referred to as webcourses). All data and reports generated from webcourses will be strictly anolymised. Student engagements within webcourse will analysed to see how it compares to their assessment, module results within webcourses. The lecturers, students and webcourses modules within this study have yet to be identified until approval has been granted by the DIT Ethics committee. This study will target lecturers who frequently use Webcourses with their student cohort in their respective modules. No student or academic staff member will be receiving payment for this study

2.2. How will you be recruiting subjects for the study?

Once approval has been granted by the DIT Ethics committee I will look at approaching lecturing staff who frequently use webcourses.

I am a staff member in D.I.T and I would know some staff who use it. I will be using the snowball sampling /referral sampling technique to identify these staff. No formal approach has been made to any of these staff members as of yet until approval has been granted by the REC.

Prior to approaching these lecturers I will email Heads/Assistant Head of Schools so that they are informed that lecturers within their Departments may be contacted. If at this point any objection is raised by the Head or Assistant Head of School all future correspondence will cease and participants will not be approached.

Lecturers interested in this research project will be provided with an information sheet and a consent form. In addition I will provide these lecturers with a copy of the information sheet and consent form which will be distributed to their student cohort. All students within each of the chosen modules to be researched will also be provided with an information sheet and a consent form.

I will ask the lecturer to email his/her student cohort the student information sheet a few days before one of his/her classes, thus giving the students time consider if they wish to participate or not .Students will be given the consent form at the start of class and asked if they can return them to the lecturer at the end of class. Any student who is not available to attend class on the day will have another opportunity to fill out the consent form at a later class "subject to the lecturer agreeing to this". I will then arrange to pick up any additional consent forms from the lecturer at the second class.

2.3. Specify the number of subjects to be used in this project, the selection criteria and the exclusion criteria.

This research will be looking to explore the activity of four to five DIT course modules utilising Blackboard. Criteria for selection will be based on frequent users of the Webcourses system and I will be utilising the snowball/referral sampling technique to identify these staff .Lecturers who do not use Blackboard in their teaching practice will not be approached as there will be little or no data on the system to analyse.

2.4. Specify whether any of the following procedures are involved:

•	Any invasive procedure	NO
•	Physical contact	NO
•	Any procedure that may cause mental distress	NO
		(Delete yes or no as necessary)

Outline the procedures involved in your study.

(If samples are to be taken state **type**, **frequency** and **amount** and whether this is part of their normal treatment. If Radiological Investigations are part of the procedure please indicate the number and frequency of exposures and total calculated dosage.)

- 1. Seek approval from the DIT Ethics Committee
- 2. Selection and identification of course modules using the referral sampling technique.
- 3. Information sheet will be sent on to the lecturers.

 Lecturers who are interested will be advised that they will need to sign and return the consent form to myself .I will then ask them to email on the information sheets to their student cohort in advance of one of their classes.
- 4. I will provide the lecturer with consent forms to distribute to their student cohort at the start of one of his/her classes. Students will be advised to return the consent form at the end of class. Subject to the lecturers agreement, students may have a second opportunity to return consent form at a follow up class.
- 5. For the purposes of a workshop, I will contact the LTTC to create a test module within Webcoures and also to create some test accounts for this module so that I can generate some "dummy data" within webcourses. I will be using this data to demonstrate analytic features within webcourses..
- 6. Lecturers will be asked to attend a workshop during the course of their modules in which I will be demonstrating the analytic features of webcourses. These features will include Module Reports, Performance Dashboard and Retention Centre. No real student data will be used for this workshop. The reports will be using "dummy data" using some student test accounts as described in step 5.
- 7. Access to course modules to be granted based on the consent forms I receive back from lecturers and students. This access will be granted for a period of 24hrs which should be sufficient time for me to run reports within webcourses and de-identify all data. Lecturers will be able to grant me access for this period through their own webcourses login. This facility is available through the "Enrolment option" on webcourses and the lecturer can specify the actual date in which I will be given access. This date will be at the end of the module at a time to be agreed with the lecturer.

All data will be extracted and analysed on the one day so that I can compare student engagement with their assessment , module results within webcourses. As soon as the reports have been run , the data will be immediately analymised so that the identify of students is protected.

The process of de-identifying student/staff data within the reports will involve removing any

direct identifiers such as first name, surname,DOB, student numbers, course code and any other data source that can be used to disclose a student's/lecturers identity. The direct identifiers will be replaced by random student identifiers such as StudentA, StudentB or alternatively Student1 or Student2. The course/module codes will be replaced with course/module code1, course/module code 2 etc. The focus of this study is not the student(s), the objective is to evaluate the analytics/reporting features within Webcourses.

- 8. This data will be analysed, secured and saved on encrypted DIT hardware which is accessible only via my own username and password.
- 9. Interviews will be held with course tutors towards the end of the first quarter of 2014 to explore their pre/post conceptions of learning analytics and discuss findings of data analysis. It is important to note that during the course of these interviews that no information relating to student records will be disclosed to the course tutors. Staff participants in these recordings will be anolymised. Staff participants will be referred to as participant one, participant two etc and no direct identifier will be used during the course of this these interviews which might disclose a staff members identity. Staff members will be advised of this prior to the interviews. These recordings will be stored on an encrypted, secure file location.
- 10. All research carried out will adhere to the guidelines set out by the D.I.T Ethics Committee and the Interim Policy on the 'Good Conduct' of Research in DIT.
- 11. First draft of research paper will commence in late March, early April of 2014 and submitted in May 2014.
- 12. Final paper to be submitted before July 1st 2014.

2.5. State the procedures which may cause discomfort or distress and the degree of discomfort or distress likely to be endured by the subjects.

Protecting student/staff identify and protection/storage of data may be a cause for concern for the participants.

In order to circumvent this,

All data analysed during the course of this research project will be anonymised.

Data stored on DIT hardware such as laptops or desktops will be stored in a safe location whereby only the researcher will have access to it. In addition, this data will be encrypted using DIT Mc Afee Endpoint Encryption software. Any data saved to a USB or memory key relating to the research project will also be encrypted.

The steps taken to safeguard this data have been explained in steps 7,8 and 9 above.

2.6. State the potential risks, if any (to both the investigator, subjects, the environment and/or participants), and the precautions being taken to meet them.

Please refer to section 2.5 of this document

It is a requirement that a formal signed Risk Assessment Form be provided-see <u>SECTION 10</u> (i) to (v)

2.7 Is written consent to be obtained? YES
(Delete yes or no as necessary)
If so, please use the CONSENT FORM (section 3)
If a form other than the Research Ethical Committee consent form is to be used, please attach a copy.
2.8. Are subjects to be included under the age of 18? Yes
(Delete yes or no as necessary)
If yes, please fill in the CONSENT FORM (section 4) for Research Involving 'less powerful subjects' and those under 18 years of age
2.9. Is neonatal material to be used in this study?
(Delete yes or no as necessary)
If yes, please fill in <u>SECTION 8</u> for Research Involving Neonatal Material
2.10. Will any payments be made to subjects?
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(Delete yes or no as necessary) If YES give details: 2.11. Is any proportion of this payment being paid by a commercially sponsored organisation and if so by whom? N/A
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