

## **USING TURNITIN PLAGIARISM DETECTION TOOL TO PROMOTE ACADEMIC INTEGRITY**

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### **Abstract**

This case study investigates whether the availability of the Turnitin plagiarism detection tool for students to self assess their referencing skills increases their individual and group understanding of academic integrity and facilitates the development of referencing skills. Fifty five student midwives evaluated the tool and its impact on their information literacy through online questionnaires and focus group discussion. Although online questionnaires suggested that the students did value access to Turnitin reports, focus group data suggests that the ambiguity of these reports can cause unnecessary anxiety for some students. Moreover the information provided by Turnitin appears to contribute very little to the development of accurate referencing skills. These findings, which may be transferable to other contexts, will inform the continued development of a supportive learning environment which actively promotes academic skill development.

### **1. Background to the project**

1.1. The context of this case study is a Health professional programme which has dedicated modules in each year of the course to underpin and support the concepts of life long learning and personal development. These modules focus on improving student learning and include structured activity to develop information retrieval, evaluation and correct referencing skills within the context of an integrated curriculum of Problem-Based Learning. This case study offered us the opportunity to explore the added value of a plagiarism detection tool (Turnitin) which offered the facility of individual originality reports whereby students could check the comprehensiveness of their referencing in a set assignment.

1.2. It can be argued from an academic literacy perspective (Lea and Street 1998) that the problem of student plagiarism is often a problem of students misunderstanding what is required of them rather than being dishonest.

1.3. This case study investigated the student experience of using the Turnitin Tool and whether the availability of this tool to self assess their referencing skills increased their understanding of academic integrity (University of Bradford 2005) and appropriate referencing of sources.

## **2. Methodology**

### **2.1. Participants**

The participants in this case study were fifty five Student Midwives. Thirty were undertaking modules at level one, twenty five at level two.

### **2.2. Study Design**

Both year groups have a 3000 word assignment as a summative assessment. This requires retrieval and accurate referencing of all sources as part of the assessment criteria. This assignment was chosen as a suitable trial for the plagiarism detection tool. Students were able to use the Turnitin assessment tool prior to submission to facilitate self correction of referencing in draft work. In year 1 this was a requisite part of assignment preparation; in year 2 it was recommended that students use the tool. Students in year two had also had the opportunity to use the tool in year one but this experience had not been evaluated.

### **2.3. Data Collection and Analysis**

An online questionnaire created in SurveyMonkey.com was used to gather quantitative data on student evaluation of the tool. This was completed by the students at time of online final submission – 4<sup>th</sup> May 2007 for year one and 14<sup>th</sup> May 2007 for year two.

Focus groups were conducted on 4<sup>th</sup> and 14<sup>th</sup> May 2007 to explore students' experiences. A question guide was used to prompt discussion of the students' current understanding of academic integrity and their perceptions of the value of the Turnitin tool in promoting this understanding. The first focus group on 4<sup>th</sup> May was undertaken with seven year 1 students and facilitated by both researchers. Two focus groups (of 5 and 6 students, each facilitated by one researcher) were conducted with year 2 students on 14<sup>th</sup> May. Students were encouraged to attend the focus groups by the provision of a buffet lunch and a prize draw of a £50 book token.

The focus groups were recorded and transcribed, then analysed using Nvivo qualitative data analysis tool to identify:

- How have students used the tool?
- In what ways has using the tool impacted on their understanding of appropriate use of sources and academic integrity?

The researchers listened to the recordings together and identified key concepts in the data. All illustrations of these concepts were gathered into Nvivo nodes. These nodes were reviewed. This process resulted in memos which summarised our thinking on each concept.

#### 2.4. Ethical considerations

Completing the questionnaires and participating in the focus groups was on a voluntary basis. Students' were reassured that the study would have no impact on their progress on the course. However use of the Turnitin tool is a recommended practice on this course and the researchers had access as tutors to copies of the reports obtained by students and the students were made aware of this.

The researchers were aware that as course tutors they were insiders and therefore subject to bias, however qualitative data analysis is an

interpretive experience where deep understanding of the context is a benefit as well as a bias that is acknowledged (Kvale 1996). By producing a rigorous research trail and a published report, the researchers hope that this course evaluation will not only inform the continued development of this course but that the findings might be transferable to other contexts and will contribute to debate on the effective use of plagiarism detection tools.

This case study was part of a course evaluation strategy and was therefore for the benefit of students; however the research approach was considered by the School of Health Ethical panel. The ethics panel gave permission for the conduct of the study, ensuring that all participant information sheets and consent forms conformed to current best practice guidelines (NRES 2007).

### **3. Results/findings**

#### **3.1. On Line Questionnaire**

3.1.1. Fifteen out of thirty first year students completed the questionnaire. Fifteen out of twenty five second year students completed the questionnaire.

3.1.2. During the course of this project changes were made to the Turnitin tool within the Virtual Learning Environment so that Turnitin results are now shown in a Turnitin assignment inbox rather than in the common Blackboard gradebook. This change made it easier for the module leader to see all similarity indexes at a glance.

3.1.3. Unfortunately the technicalities of introducing a new interface meant that all settings reverted to default and this had the effect of removing students' access to the originality reports for a period of time.

3.1.4. This happened at least twice during the project but the research team were not made aware of it immediately as we were not informed of this activity by the technical team and

students just presumed that Turnitin was taking a long time to process their essays.

3.1.5. This situation has impacted on students' responses for Level 1 student questionnaire

3.1.6. Responses

3.1.6.1. Did you encounter any problems accessing Turnitin via the VLE? 7 out of 15 said yes. Whilst 13 out of 15 Level 2 students stated that they did not encounter any problems. The majority of Level 2 students submitted without problems, as their submission date coincided with the period when access to originality reports was unproblematic

*'I was locked out of it before my originality report came back'*

*'The tool was very slow in processing my essay and did not return the reply before the deadline'*

*'Problems retrieving doc.'*      **(Level 1 students)**

3.1.6.2. How many times did you submit your assignment to turnitin?

- 7 submitted once;
- 7 submitted twice;
- 1 three or more

3.1.6.3. How user friendly was the Turnitin tool?

- 10 found it easy to use,
- 5 needed help.
- Students found it easy to use, but one supplementary comment suggested that:

*"Easy to navigate but confusing layout when the report comes back- you don't know what you're supposed to be looking at" (Level 2)*

- Most students said that they would definitely use the Turnitin tool again to generate a report for their own use 86.7% (level 1) 80% (level 2).
- Most thought that the tool should be used by students to check their own work rather than be used by tutors 73% (level 1), 80% (level 2).

### 3.2. Focus Groups

3.2.1. The transcripts were analysed using the original research questions as a framework. However the way the students answered these questions took us away from the original focus on student learning towards an understanding of the emotional impact receiving such reports can have. These emotions can be summarised as confusion, anxiety and ambivalence.

#### 3.2.2. *How did students respond to reading the reports?*

- Confusion over getting reports back, but this was attributable to technical problems with the system being changed during the course of the project.
- On a deeper level, students were confused by the content of the report and how to interpret and act on it.
- They found the integrity percentage confusing

*"It said 17% and I thought well what does that mean? It's back and its 17% or has it read 17% of it! It was all too much, I couldn't understand it."*

- Students were hoping for help with referencing, but again this was confusing because the report does not refer back to an original source

*"...but all the stuff that come back, it was I don't know, like it was from different universities....but you can't reference somebody else's work that is in another university... I referenced it but its' come back from some other source as well, so is that plagiarism?"*

- Students did not realise the significance of shared sources. They were confused by the links to works of other students and this made some students think that they needed to make inappropriate changes to their work
- Some students did read reports and seemed to understand them but found the content irrelevant to their needs

*"It was kind of confusing. I was a bit confused about how I was supposed to use it and in the end all I did was just look at it and went OK I don't know what it is telling me, so I will just send it (her assignment) anyway"*

*" It didn't help me with my referencing it just showed me what was similar. I would have preferred it to point out what I had not referenced correctly or not (referenced) at all"*

- There was the potential to increase anxiety levels in less confident students. More able students were able to interpret the meaning of the results in a sophisticated way only to conclude that they were meaningless.

*"When you see that 20% you think Oh my God that's quite bad... it's saying 20%... its only when you look at it and think Oh that's not talking any sense so I will ignore it."*

### *3.2.3. What does academic integrity mean to students?*

- At least one student used the Turnitin report to manipulate text.

*"I changed things....I'd sometimes when I was doing my essay and I thought that what I was copying out of the book ... I would put it in my own words, but I may not have done that, but I thought I need to make sure that I have, so just make a few changes in the words."*

- Students did not seem to relate positively to the words academic integrity

*"It means it's your own work"*

*"I think it's like pussyfooting around the word 'plagiarism'*

*"If you use the term academic integrity, then it wouldn't make people stop and think. But if you use the word plagiarism, then you wouldn't want to...then you would make sure that your references are correct...you know how serious it is and you wouldn't want to. Where as if you use the term then I think a lot of people won't understand what it means."*

*"If you don't sort of like scare people into .... then they wouldn't realise that they were doing it."*

- Students prefer the use of the words plagiarism rather than academic integrity as it aids them in realising the seriousness of the concept.
- They felt that knowing about this tool would be a deterrent to would be plagiarists.

*"Once you have got your feedback from it and you are aware of how it does work, then you are aware of how a plagiarised essay will come up so in that sense you can learn from it"*

*"I don't think that people realise that there are these tools and think that they submit some mates work from the year before and get away with it, you know what I mean?"*

#### *3.2.4. What prior learning has impacted upon students understanding of referencing?*

- Students felt that they had not developed appropriate skills during 'A' level or access courses.
- At school assessment was mainly by exams. Exam conditions were not seen as an appropriate context to test referencing skills.

*"I didn't use references you just had one book and you copied out to the book. I wrote a lot of essays at A level but you didn't really have to reference, you just had to cite it in the text"*

- Students who had experience of access to Higher Education courses also expressed limitations in the approach to teaching referencing. They felt that referencing was not taken particularly seriously. They were only advised to include a bibliography at the end of their work.
- Students felt they should have been taught to reference properly.

*"I think the referencing we had at college it's not 'I've got to get this right and what not' they actually don't really mark it really, well nothing to the degree that you do now"*

### *3.2.5. How can academic integrity be best promoted?*

- Students were asked whether academic integrity is just about being honest or skill that you learn.

*"I think it's both, as if you are honest anyway you are going to try not to copy other people's work and the skill is how to do that in the correct way."*

- The following student makes the point that interacting with texts and acknowledging sources is an important part of learning your discipline

*"..also promoting that being able to reference and reference correctly is also a beneficial way of learning. I think that I understand a lot more when I am writing an essay and I am using references and I am backing up with evidence... because I've got to be able to interpret what I am reading to reference it properly and not copy it...it makes you learn more and makes you have to try harder to understand to be able to interpret it and to be able to reference correctly and not to copy it straight out of a book. So it is a benefit to you as it makes you understand your subject a lot more." (year 2 student)*

- There seemed to be a difference in understanding between years 1 and 2 in relation to academic integrity.
- In year 1 some students felt that the necessity to reference everything meant that they couldn't put their own ideas across, whereas there was evidence in year 2

that engaging with texts was encouraging independent thought.

- Students felt that it takes a while to learn, and that they have to learn from their mistakes, but by the second year they are feeling more confident about their referencing skills.

*"I don't think it's something that you can learn from day one, it's like, professional growth"*

#### **4. Discussion**

- 4.1. Students require a great deal of support and feedback to develop appropriate referencing skills. This should start much earlier in their academic careers with similar standards at 'A' level and in access courses
- 4.2. Students, particularly those who are academically immature and feel that using sources of literature is a matter of copying what is said and putting into their own words may use the Turnitin report to modify text to 'make it their own' and this can be seen as lack of good academic practice. To some extent paraphrasing and playing with the ideas of others can be seen as a step on the way to developing good writing skills. However in order to avoid assisting students to deliberately manipulate the work of others, particularly fellow students, it may be advisable to avoid access to Turnitin reports in advance of assignment deadlines.
- 4.3. The way the University deals with referencing should facilitate students understanding of reading texts to stimulate thinking rather than just to replicate facts.
- 4.4. Although Universities may try to create a non blame culture by using the term academic integrity, students themselves seem to prefer a much more direct approach to the issue of plagiarism i.e. making the university policy clear on plagiarism, whilst at the same

time having tutors that are supportive of students gaining appropriate skills. Universities therefore need to take a strong stand and assure all stakeholders that plagiarism will be detected and dealt with.

## **5. Conclusion/outcomes**

5.1. This project has highlighted several implications for practice development in the promotion of student referencing skills. This is the policy that we have suggested for our own Division in light of the results of this study.

5.1.1. We feel that for the first written assignment (perhaps an early formative essay) students should submit electronically via Turnitin and should have access to their personal report. This report could be used as a focus of discussion re referencing and plagiarism in a dedicated module, or with a personal tutor. It will enable students to appreciate what the tool can do and may prevent future temptations to plagiarise.

5.1.2. All subsequent assignments should be submitted via Turnitin. Students will not have access to the reports as we feel this is of dubious value. If they are available in advance of submission they may encourage manipulating the work and therefore the system, and if only available on submission they have no developmental value to the student.

5.1.3. Our focus group data suggests that the ambiguity of these reports can cause unnecessary anxiety for some students. Moreover the information provided by Turnitin contributes very little to the development of accurate referencing skills; for example it is more likely to link the work to a citation by another student than to provide the primary source.

5.1.4. Module leaders will have access to these reports and will check the originality percentages for their module. The reports will only be read in full if plagiarism is suspected by the marker or if the percentage copied from internet sources is in the red zone. Marking of work will continue to be undertaken using paper copies, as there is no way to make electronic submissions via Turnitin or Blackboard anonymous.

## **6. Next steps**

- 6.1. This study has highlighted the need for student induction into the appropriate use and citation of texts. There is evidence from focus groups in year 2 that they are developing skill in academic practices. These students benefit from a Life Long Learning module which focuses on the development of academic skills in the context of a specific curriculum
  
- 6.2. Future research might investigate whether this development is universal throughout the university population or whether it is best facilitated through integrated self development modules.

## **7. References and bibliography**

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