

Research article

## Plagiarism: Do Students Know What It Is?

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### Abstract

*The ability of students to plagiarise coursework assessments has been a topic of much debate in recent years. The consequences of plagiarism for students may be devastating, since their failure to learn and use appropriate study skills will affect both their university experience and their subsequent career. This project set out to investigate students' perceptions of what constitutes plagiarism. A scenario-based questionnaire was given to undergraduate bioscience students from Level 0, that is, Foundation level, to Level 3. Analysis of the completed questionnaires showed student uncertainty about several aspects of plagiarism, including downloading of material from the Internet. Students were unclear about the distinctions between collusion, plagiarism and permissible group work. Thus, despite the media attention given to plagiarism, students are not always aware of the boundaries between plagiarism and acceptable practice. Since the penalties for plagiarising may be severe, it is essential that guidelines are provided early in the programme. A case-study approach is more likely to engage the students than issuing them with a set of penalties should they be caught.*

*As a result of these findings guidelines have been produced, aimed at addressing misconceptions. Future work is planned to adapt the exercise to an interactive format within a managed learning environment.*

**Keywords:** plagiarism, collusion, questionnaire, scenario, guidelines

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### Introduction

During the last fifteen years, there has been a steady change in emphasis from examination-based assessment to the continuous assessment of coursework (Brown, 2001). One of the prime reasons for this shift of emphasis has been the need to assess both subject-specific and generic skills in order to ensure fulfilment of learning outcomes, and the recognition that examinations often assess only a limited range of skills. Thus, an undergraduate programme in the Biosciences involves a variety of assessments such as essays, laboratory reports, posters, problem-based learning, projects and dissertations in addition to more formal examinations. The opportunity to plagiarise from books and journals in written coursework has always existed but the extensive development and use of the Internet as a source of learning materials has enabled students to download and plagiarise information much more easily (Evans, 2000; Park, 2003).

Higher Education Institutions (HEIs) in the UK have recognised that extensive plagiarism exists (Szabo and Underwood, 2004) and many take great pains to inform their students of the penalties which will be incurred if students are caught plagiarising. Other approaches taken by individual universities and university departments include investment in electronic detection of plagiarism (Mottley, 2004) including use of the JISC plagiarism detection service (JISCPDS, now called Turnitin UK) (<http://www.submit.ac.uk>) and in the design of assessments that offer less chance for plagiarism (Carroll, 2002). However, it is possible that there is a disparity between the views of the students, the tutors and the University on what constitutes plagiarism, and that there is a consequent need, and indeed a requirement to inform students of the precise range of activities covered by the term (Parlour, 1995). Furthermore, tutors need also to assess their students' understanding of plagiarism in the context of the range of assignments and activities in which they are involved (Stefani and Carroll, 2001).

Case studies and scenarios have been used successfully to engage students in the learning process (Davis and Wilcock, 2006; Kreber, 2001). Embedding such an approach within the relevant subject area would seem to be useful both to evaluate student perception and to raise their awareness of plagiarism. In addition, the multiple choice question (MCQ) format is familiar to new students and allows them to choose from a range of answers. Finally, information about plagiarism is best provided during the early stages of the students' programmes of study, prior to their undertaking any assignments.

The student population within HEIs in the UK is becoming increasingly diverse (Dearing, 1997; HEFCE, 2000, Farrelly, 2003). This diversity embraces academic background, age, social class, ethnicity and nationality, mode of study. As a result of this, academics must become aware of the range of pre-university student experience and how this may impact on the students' awareness of plagiarism. The aims of this study were to determine what students believe constitutes plagiarism by using a case scenario-based questionnaire, and to produce guidelines for students on what plagiarism actually means, based on the results of the questionnaire.

## **Methods**

A questionnaire was devised which contained three MCQs and six case-study scenarios based on actual experience within Bioscience (see Figures 1 and 5-10. A complete version of the plagiarism questionnaire is provided as supplementary material). The MCQs included questions on the definition of plagiarism, why plagiarism is wrong and what constitutes collusion. The case studies covered the citing of information derived from a passage in a text book (Case scenarios 1,2), incorporation of information from websites into student assignments (Case scenario 3), students working together, including joint preparation and sharing of information for assignments (Case scenario 4, 6), and finally the citing of diagrams obtained from textbooks and websites (Case scenario 5). Details of the MCQ and case studies are given in the results section.

Figure 1: Multiple Choice Questions

**Introduction**

The purpose of this questionnaire is to find out what **you** think plagiarism is. Ultimately, your answers will help us to produce guidelines that will help you to avoid plagiarism, and any serious consequences that may arise if you plagiarise in your assignments. The questionnaire is in two sections:

Section A contains a few multiple-choice questions.  
 Section B contains a number of scenarios. Read through them and answer the questions.

Please complete this on your own; the answers are **anonymous**.

In each case you should circle the answer(s) that you feel are correct. Circle as many answers as you think appropriate

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1. Plagiarism is:

- a) Using someone else's words as if they were your own
- b) Using someone else's ideas as if they were your own
- c) Using someone else's results as if they were your own
- d) Sharing work with someone else and pooling ideas
- e) Getting your ideas from a text book

2. Plagiarism is legally and ethically wrong because:

- a) You may get caught and lose marks
- b) It is dishonest
- c) Assignments that are plagiarised fail to demonstrate your knowledge of the work
- d) You don't learn anything by copying someone else's work
- e) It steals other people's ideas

3) You may be accused of collusion if you:

- a) Submit an assignment produced as a joint effort, under your name only.
- b) Copy a completed assignment that your friend has emailed to you
- c) Work in a group as instructed to produce a poster as a joint effort
- d) Lend a completed assignment to a friend, who then copies any part of it.
- e) Pass off someone else's work as your own, for your own benefit

All the students involved in this study were registered on undergraduate programmes within the School of Biology, Chemistry and Health Science at Manchester Metropolitan University. The questionnaire was given to Foundation students (n=45), Level 1 undergraduate students (n=105) during their induction programme, and Level 2 and 3 students (n=28). It should be noted that the questionnaire was targeted at students who were new to MMU, that is, Foundation and level 1 students. Level 2 and 3 students were included for comparison but the number of students involved was considerably lower.

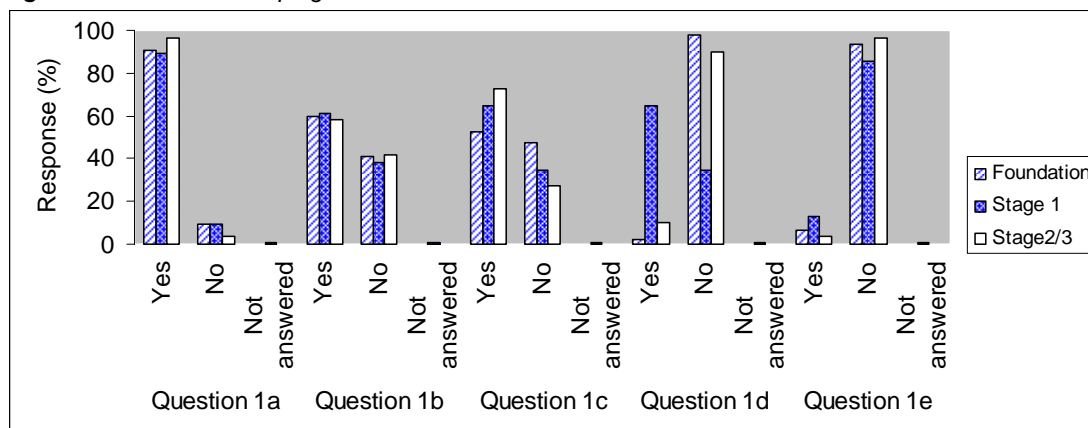
Students were given one hour to complete the questionnaire individually during a classroom session. The results were analysed using a Microsoft Access database from which trends could be deduced. In addition, the student comments were collated and analysed in order to identify misconceptions.

The questionnaire was sent to two mentors at other HEIs for comment.

## Results

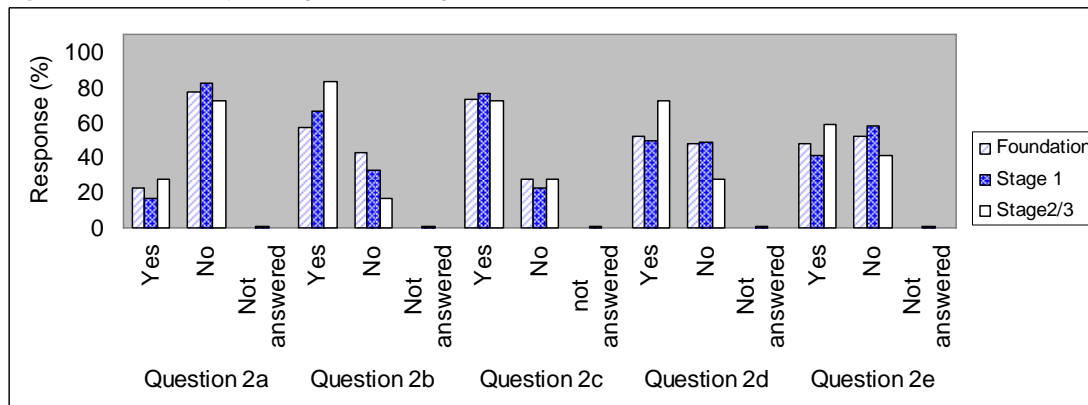
The MCQs are shown in Figure 1. MCQ 1 concerned student understanding of the definition of plagiarism. The results were recorded as yes/no/not answered and are displayed in Figure 2.

**Figure 2** MCQ 1: What is plagiarism?



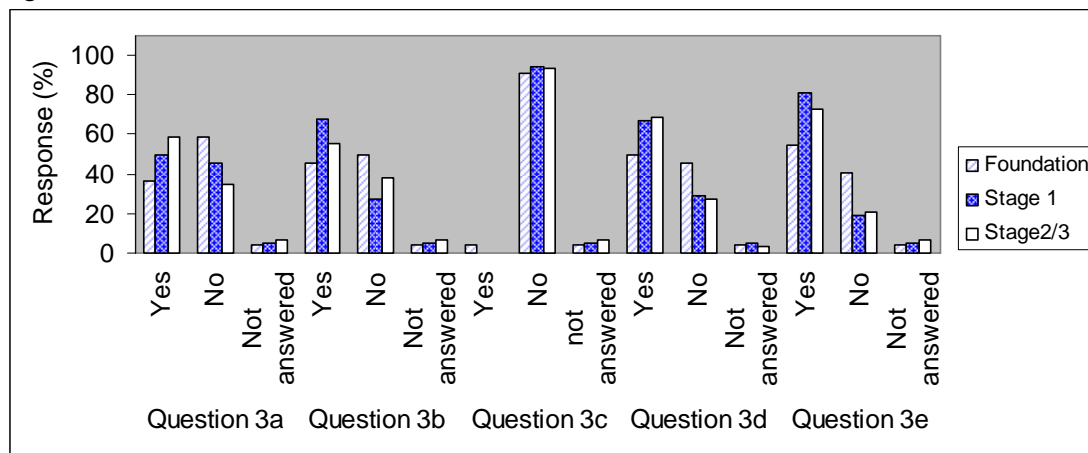
The results indicate that students know that the act of using someone else's words (Qu.1a) as if they were their own does indeed constitute plagiarism. Students at all levels gave similar answers. However, students were less certain about the concept of using someone else's ideas (Qu.1b), with 40% of students not acknowledging that this was plagiarism. Similar uncertainty was shown with regard to the concept of using someone else's results as their own (Qu.1c) and of sharing work with someone else and pooling ideas (Qu.1d). Getting ideas from a textbook (Qu.1e) was not seen as plagiarism.

**Figure 3** MCQ 2: Why is plagiarism wrong?



The results of MCQ 2, which concerned the ‘legality and ethics’ of plagiarism, are shown in Figure 3. These results show that between 17.1% (Level 1) and 27.6% (Level2/3) of students thought that plagiarism was wrong because they might get caught or lose marks (Qu.2a). A majority of students (between 56.8% of Foundation students and 82.8% of Level2/3 students) felt that plagiarism is dishonest (Qu.2b). All groups gave similar responses to Qu.2c, the majority believing that assignments that were plagiarised failed to demonstrate their knowledge. Foundation and Level 1 students were equally divided over whether copying another student’s work contributed to their own learning. Similar results were shown with Qu.2e, with respect to whether or not plagiarism is stealing ideas from other people.

Figure 4 MCQ 3: What is collusion?



The student responses to MCQ 3 are shown in Figure 4. A number of students failed to enter a response to the questions around collusion, perhaps indicating general uncertainty about what is acceptable practice. Students were not sure whether submitting an assignment that was produced jointly but with only one name cited, would constitute collusion (Qu.3a). Differences in responses to Qu.3b were seen between the groups, with half the Foundation students thinking that copying a friend’s assignment would not lead to accusations of collusion. Students at all levels were aware that working as a group when instructed to do so, e.g. to produce a poster, was not considered collusion (Qu.3c). Question 3d produced mixed responses, with around 40% of Foundation students thinking that lending a completed assignment to a friend, who then copies it, would not leave them open to the accusation of collusion. Similarly, Qu.3e produced mixed responses, with 40% of Foundation students thinking that passing someone else’s work off as their own would not lead to accusations of collusion. A number of students were uncertain of the meaning of collusion and several expressed this as a comment on the questionnaire.

The results of Case scenarios 1-6 were analysed by the percentage of students responding Yes/No/Not answered. The ‘yes’ responses are shown in Table 1.

**Table 1** Percentage of students responding 'Yes' to Case scenarios 1-6

Scenario	Response	Foundation students (n=44)	Level 1 students (n=105)	Level 2/3 students (n=29)
1	Student A was guilty of plagiarism	77.3	86.7	100
	Student B was guilty of plagiarism	29.5	36.2	27.6
	Student C was guilty of plagiarism	15.9	12.4	6.9
2	Student D was guilty of plagiarism	25.0	38.1	31
	Student E was guilty of plagiarism	59.1	93.3	89.7
	Student F was guilty of plagiarism	13.6	4.8	10.3
3	Student G was guilty of plagiarism	79.5	95.2	100
	Student H was guilty of plagiarism	31.8	54.3	51.7
	Student I was guilty of plagiarism	6.8	3.8	6.9
4	a) Your friend is guilty of plagiarism	77.3	96.2	100
	b) You are guilty of plagiarism	25	40	37.9
	c) Copying the work was reasonable, since you had both worked together in class	9.1	1.9	6.9
	d) Your friend will be subject to a disciplinary procedure	61.4	91.4	86.2
	e) you will be subject to a disciplinary procedure	34.1	65.7	51.7
5	a) The student is guilty of plagiarism if he cited the web reference at the end of the essay	15.9	22.9	31.0
	b) The student is guilty of plagiarism if he cited the web reference on the figure itself and at the end of the essay	15.9	7.6	0
	c) The student is guilty of plagiarism if he cited the web reference in both places and has re-written the legend	9.1	7.6	7.3
	d) The student is guilty of plagiarism if he made no reference to where he obtained the figure	72.7	93.3	96.6
6	a) The students are guilty of plagiarism when they decide to work together	11.4	8.6	6.9
	b) The students are guilty of plagiarism when they share the results of their research	15.9	24.8	10.3
	c) The students are guilty of plagiarism when they write the essay together	45.5	75.2	79.3
	d) The students are guilty of plagiarism when they memorise the essay	40.9	41.9	37.9
	e) The students are guilty of plagiarism when they write the essay in class	22.7	31.4	31

Case scenario 1 is shown in Figure 5. The results (Table 1) showed that the majority of students thought that student A (Qu.1A) was guilty of plagiarism, the proportion increasing from Foundation level (approximately 70%) to Level 2/3 students (100%). There was some uncertainty amongst all three groups over whether student B was guilty of plagiarism (Qu.1B). Most students did not feel that student C had plagiarised (1C). The most common comment on the questionnaire was that student A was guilty of plagiarism because they had copied 'word for word' without referencing.

Case scenario 2 is shown in Figure 6. Students showed uncertainty as to whether student D has plagiarised (Table 1). This uncertainty is reflected in the proportion of Foundation students who omitted to answer this question (20.5%). Most students felt that student E was guilty of plagiarism, although 27.3% of Foundation students did not think the student was guilty (Qu.2E). The majority of students thought that student F had not plagiarised, with, again, the greatest uncertainty coming from the Foundation students, 25% of whom failed to answer the question (Qu.2F). The most frequent comment was that student E had plagiarised because s/he had 'copied word for word'. A few noted that no reference was given. Some students commented that student D was guilty of plagiarism because s/he had just changed the word order.

Case scenario 3 is shown in Figure 7. The student responses (Table 1) showed that the majority of students felt that student G had plagiarised, this proportion increasing from Foundation (79%) to Level 2/3 (100%; Qu.3G). Overall, students were divided over whether student H had plagiarised (Qu.3H). Clearly, they felt that student I was not guilty of plagiarism (Qu.3I). As with earlier scenarios, the most frequent comment was that student G had plagiarised because s/he had 'copied word for word' and not referenced. Some students thought that student H was guilty of plagiarism even though the sources were referenced, because the entire essay was downloaded. In answer to the question as to what is appropriate in the use of Internet sources (Qu. 3.3), the most frequent comments showed some understanding of what is good practice, though, occasionally, students wrote that they were 'not sure'. One Level 3 student commented that the student 'probably understood the information provided and then wrote their essay in their own word, but might use some quotes to support work, at the same time referencing the work'.

**Figure 5** Case Scenario 1: Using information from textbooks

The following paragraph is taken from 'Introduction to Transfusion Science' by (Overfield, Dawson and Hamer, 1999)

*'The genes responsible for particular blood group antigens may be carried on the autosomal chromosomes or on the sex chromosomes. When they are carried on the sex chromosomes they are linked to the X-chromosome. As the genes may also be dominant, co-dominant or recessive, they can be inherited in a variety of possible ways. Most blood groups fall into the category of autosomal dominant or codominant, though X-linked dominant inheritance is occasionally seen, for example in the blood group system Xg<sup>a</sup>. The mating of heterozygous individuals may result in a homozygous recessive trait being inherited. For example, H+ parents, each of whom has the genotype Hh, may produce an offspring who has the genotype hh, and this is the genetic basis of the rare Bombay phenotype. Family pedigrees are sometimes used to trace the inheritance of a particular gene.'*

Students were asked to write an essay on the inheritance of blood groups and the following paragraphs were written by students A, B and C:

**Student A:**

*'All of us have a blood group that is passed down through families. Most blood groups fall into the category of autosomal dominant or codominant, though X-linked dominant inheritance is occasionally seen, for example in the blood group system Xg<sup>a</sup>. The mating of heterozygous individuals may result in a homozygous recessive trait being inherited. For example, H+ parents, each of whom has the genotype Hh, may produce an offspring who has the genotype hh, and this is the genetic basis of the rare Bombay phenotype.'*

**Student B:**

*'Blood groups are determined by the presence of genes which code for antigens on red cells. Most blood groups fall into the category of autosomal dominant or codominant, though X-linked dominant inheritance is occasionally seen, for example in the blood group system Xg<sup>a</sup>. The mating of heterozygous individuals may result in a homozygous recessive trait being inherited. For example, H+ parents, each of whom has the genotype Hh, may produce an offspring who has the genotype hh, and this is the genetic basis of the rare Bombay phenotype.'* (Overfield, Dawson and Hamer, 1999)

**Student C:**

*'Red blood cells have membrane cell surface antigens which are characteristic of a particular blood group. Overfield, Dawson and Hamer (1999) have stated that 'Most blood groups fall into the category of autosomal dominant or codominant, though X-linked dominant inheritance is occasionally seen, for example in the blood group system Xg<sup>a</sup>. The mating of heterozygous individuals may result in a homozygous recessive trait being inherited. For example, H+ parents, each of whom has the genotype Hh, may produce an offspring who has the genotype hh, and this is the genetic basis of the rare Bombay phenotype.'*

**Question 1:** Please read the above examples carefully and circle whether you feel any of the students are guilty of plagiarism

Student A	Yes	No
Student B	Yes	No
Student C	Yes	No

**Question 2:** If you believe that any of the above are examples of plagiarism, please give your reason below:

- Student A
- Student B
- Student C

**Figure 6** Case Scenario 2: Paraphrasing from a textbook

The following is a short paragraph from a textbook:

*'T lymphocytes (both CD4+ and CD8+) respond to the foreign histocompatibility antigens on the surface of the donated cells. The immune system produces cytotoxic T lymphocytes (CTL) directed against the foreign histocompatibility antigens on the grafted cells'* (Overfield, Dawson and Hamer, 1999)

Students D, E and F have all read the text when producing their essays on bone marrow transplantation. Their individual essays contain the following phrases:

Student D : 'The surface of the donated cells have foreign histocompatibility antigens to which T lymphocytes (both CD4+ and CD8+) respond.'

Student E: 'T lymphocytes (both CD4+ and CD8+) respond to the foreign histocompatibility antigens on the surface of the donated cells'

Student F: 'Histocompatibility antigens on the surface of the graft cells stimulate CD4+ and CD8+ lymphocytes. These cells recognize and respond to the foreign MHC antigens.'

**Question 1:** Please read the above examples carefully and circle whether you feel they are examples of plagiarism:

Student D	Yes	No
Student E	Yes	No
Student F	Yes	No

**Question 2:** If you believe that any of the above are examples of plagiarism, please give your reason below:

Student D  
Student E  
Student F

**Figure 7** Case Scenario 3: Copying from the internet

Students were asked to submit an essay entitled 'autoimmune disease'. All the essays were subjected to electronic detection of plagiarism, based on detection of key phrases. The following incidents of plagiarism were detected:

**Student G:**  
 This essay was found to be downloaded entirely from a single website that was not referenced. The student had listed 12 other references including books, journals and Internet sources.

**Student H:**  
 This essay was found to have been downloaded entirely from 3 Internet sources all of which were referenced.

**Student I:** This essay listed 12 references from books, journals and Internet sources. Electronic detection of plagiarism revealed that the Internet sources listed had been used appropriately.

**Question 1 :** Please read the above examples carefully and circle whether you feel they are examples of plagiarism:

Student G	Yes	No
Student H	Yes	No
Student I	Yes	No

**Question 2:** If you believe that any of the above are examples of plagiarism, please give your reason below:

Student G  
 Student H  
 Student I

**Question 3:** What do you understand by the phrase 'used appropriately' in relation to student I?

**Figure 8** Case Scenario 4: lending work to another student.

**Scenario 4**  
 The deadline for handing in a practical is Monday 30<sup>th</sup> September. You have completed your report by the 28<sup>th</sup>. Your friend, who partnered you in the practical class, calls round on Sunday evening- he has just remembered the deadline and is panicking because he has lost the results. You agree to lend him your practical report. Without your knowing, your friend copies the whole report and hands it in the following day. The tutor notices that the two pieces of work are identical, he speaks to both of you about it. Your friend denies copying your work.

**Questions:** please circle any statements which you think are correct:

- Your friend is guilty of plagiarism
- You are guilty of plagiarism
- Copying the work was reasonable, since you had both worked together in class
- Your friend will be subjected to a disciplinary procedure
- You will be subjected to a disciplinary procedure

Case scenario 4 is shown in Figure 8 and the student responses in Table 1. Almost all Level 1 and Level 2/3 students felt that the copying 'friend' was guilty of plagiarism (Qu.4a), though this figure was lower for Foundation students (77.3%). The students were generally uncertain as to whether the donor 'student' was also guilty (Qu.4b). Few students felt that copying the work was reasonable (Qu.4c). The majority of students felt that the 'friend' would be subject to a disciplinary procedure (Qu.4d) though, again, Foundation students were less certain, with a number of students (27.3%) not agreeing, and 11.4% not answering the question. Many students across the levels failed to recognise that they themselves would also be subject to such a procedure (Qu.4e).

Case scenario 5 is shown in Figure 9 and the student responses in Table 1. The majority of students felt that plagiarism would be avoided if they cited a web reference for a figure at the end of the essay (Qu.5a), though the proportion of Foundation students was lower. Similarly, most students felt that citing the reference on the figure itself and in the reference list (Qu.5b), or in both places with a re-written legend (Qu.5c) would avoid plagiarism. Most students felt that failure to reference the source of the figure anywhere was plagiarism (Qu.5d).

**Figure 9** Case Scenario 5: referencing figures

#### Scenario 5

Student J has produced an essay on nuclear pores. He has read the appropriate literature and written the essay, giving references to the literature where necessary. He has obtained a picture, with written title and legend, of nuclear pores from an internet website and has downloaded it entirely into his essay. In which of the following cases would this student be guilty of plagiarism?

- He has cited the web reference in the reference list at the end of the essay
- He has cited the web reference on the figure itself and in the reference list
- He has cited the web reference in both places and has re-written the legend.
- He has made no reference to where he obtained the figure

Case scenario 6 is shown in Figure 10 and the student responses in Table 1. Few students felt that working together on the question did not constitute plagiarism (Qu.6a). An increasing number of students, compared to Qu.6a, felt that sharing the results of their research for the essay may constitute plagiarism, although the majority still felt that this was acceptable practice (Qu.6b). Level 1 (75.2%) and Level 2/3 (79.3%) students felt that writing the essay together constituted plagiarism (Qu.6c) although this point was less clear with the Foundation students (45%). Students were divided over whether memorising the essay constituted plagiarism (Qu.6d). Approximately 20-30% of students felt that writing the essay in class is the point at which this practice became plagiarism (Qu.6e). Twenty five percent of Foundation students did not answer this question. The phrasing of this question led to some confusion, with some students circling more than one stage. For future use of the questionnaire, the students will be requested to circle one answer only.

**Figure 10** Case Scenario 6: preparing examination answers with another student

### Scenario 6

A group of students have been given an essay title 'The use of spectrophotometry in the biosciences'. They have been told to research their essay, and that they will write the essay under examination conditions during a lecture period. Two students, K and L, have decided to work together to research different aspects of the subject. They get together to share what they have found. They then sit down and write an essay together which they memorise. The essays that they write in class are almost identical (with around 80% of the sentences and phrases being word-for-word). At what stage do you think the students are guilty of plagiarism?

- a) When they decide to work together?
- b) When they share the results of their research?
- c) When they write the essay together?
- d) When they memorise the essay?
- e) When they write the essay in class?

### Discussion

The plagiarism study proved effective in demonstrating the perceptions of plagiarism among bioscience students at MMU. In addition, the completion of the specific exercise has raised awareness of plagiarism amongst the students themselves.

The MCQs showed that students at all levels were aware that plagiarism should be avoided but were not always clear as to why certain actions constitute plagiarism. For Question 1, all levels gave similar responses with the exception of 1d (working in groups and pooling ideas) where Level 1 students gave a different response to all other groups. While Level 2/3 students had greater experience, most Foundation students also correctly interpreted this question. This may be due to pre-entry guidance sent to these students. In the light of the results from the second MCQ, and acting on the comments of our mentors who saw the questionnaire after its first use, Question 2 was altered to clarify the response being elicited from the students. The question now reads: 'Plagiarism is morally wrong because...'. It is interesting to note that 27.6% of level 2/3 students felt that plagiarism was wrong because they might get caught. This might indicate first, a need to emphasise the ethical, rather than, or as well as, the punitive aspects of plagiarism throughout the undergraduate programme, second, to encourage the students to submit their work to electronic plagiarism detection software as a formative exercise prior to submission as is happening elsewhere (Dordoy and Winship, 2005).

The mixed response to Question 3e, where more than 40% of Foundation students failed to see that passing someone else's work off as their own would result in accusations of collusion, has highlighted the general uncertainty of the difference between plagiarism and collusion. Tutors should define these terms for students and show how they relate to the more general term 'cheating' (Carroll, 2002).

For Case scenarios 1 and 2, the students showed uncertainty about the extent to which original sources could be used *verbatim*. If plagiarism is to be prevented, tutors should themselves be clear as to the correct use of original material and this should be communicated to students at an early stage. In addition, awareness of plagiarism should be reinforced throughout the undergraduate student cycle.

The uncertainty demonstrated by the response to Case scenario 3 (downloading from the Internet), particularly with regard to extensive but referenced Internet sources, shows that students need to be made aware of the boundaries between overt plagiarism and other forms of bad practice in assessment.

The response to Case scenario 4 shows that students should be made aware that they are laying themselves open to accusations of plagiarism or collusion if they lend work to fellow students and a future case scenario could be written to emphasise this point more directly.

The response to Case scenario 5 (concerning the referencing of figures) indicates again that students need to be aware of good practice in the production of assignments. While it is good practice to include the reference on the figure itself and in the reference list, and to produce a legend that is appropriate to the essay being written, it is only plagiarism if the student fails to source the figure.

Case scenario 6 explored the boundaries between plagiarism and collusion. Students were uncertain as to the point at which plagiarism had occurred. This finding demonstrates that they also need to be guided on good and bad practice in the performance of group work.

As a result of this exercise, guidelines, based on the questionnaire, were written (see Appendix). The guidelines take students through the MCQ and scenarios, pointing out where plagiarism and/or collusion have occurred and discussing relevant good practice. The guidelines were sent to our mentors. Their comments included the following statements: 'Great idea using actual scenarios to give feedback' and 'It looks really good and is an excellent outcome of a great project', and on the scenarios: 'I thought the scenarios were excellent (and quite difficult!)'. The plagiarism exercise now forms part of the student induction process in this School, and the guidelines are available to all first year students via the institution's managed learning environment (WebCT). This does not mean that plagiarism is only discussed during the induction process since good practice is strongly emphasised during the first year programme, by including the requirement for a bibliography in all coursework assignments, which, in later years, develops into in-text referencing. This emphasis on referencing source material throughout the programmes is evidenced by the fact that, generally, students at levels 2/3 gave more 'correct' responses than those at Foundation and Level 1. The use of the questionnaire at this early stage in the student cycle does, however, raise awareness of what is, and is not, acceptable practice. Next year, the students will complete the exercise on-line through WebCT and this will

enable them to have instant feedback on their responses. The questionnaire is also being revised for postgraduate home and overseas students on taught MSc programmes within the School. The increasing numbers of overseas students on taught MSc. programmes requires recognition of strong cultural differences with regard to plagiarism. It is felt that the questionnaire could be useful in helping these students to understand, and conform to, good practice within the UK.

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### References

- Brown, G. (2001) Assessment: A Guide for lecturers LTSN Generic Centre Assessment Series No3  
[http://www.heacademy.ac.uk/resources.asp?process=full\\_record&section=generic&id=3](http://www.heacademy.ac.uk/resources.asp?process=full_record&section=generic&id=3) (accessed 10 May 2006)
- Carroll, J. (2002) *A Handbook for Deterring Plagiarism in Higher Education*, Oxford, UK: Oxford Centre for Staff and Learning Development, Oxford Brookes University)
- Davis, C. and Wilcock, E. (2004) Teaching Materials using Case Studies. *The Higher Education Academy/UK Centre for Materials Education/Guides*. Available at: <http://www.materials.ac.uk/guides/casestudies.asp> (accessed 10 May 2006)
- Dearing, R. (1997) *The National Committee of Inquiry into Higher Education*. <http://www.leeds.ac.uk/educol/ncihe/> (accessed 10 May 2006)
- Dordoy, A. and Winship, I. (2005) *Using the plagiarism detection service*. <http://northumbria.ac.uk/static/5007/UsingPDS.pdf> (accessed 12 May 2006)
- Evans, J.A. (2000) The New Plagiarism in Higher Education: From Selection to Reflection *Interactions* 4(2)  
<http://www.warwick.ac.uk/ETS/interaction/vol4no2/evans.ht#refs> (accessed 10 May 2006)
- Farrelly, P. (2003) The Future of Higher Education. *Face to Face*, **21**, 1-3  
<http://www.f-a-c-e.org.uk/docs/summer03.pdf> (accessed 10 May 2006)
- HEFCE (2000) Diversity in Higher Education: HEFCE policy statement.  
<http://www.hefce.ac.uk/pubs/HEFCE/2000/0033main.rtf> (accessed 10 May 2006)
- JISC plagiarism detection service (JISCPDS) (<http://www.submit.ac.uk>) (accessed 10 May 2006)

- Kreber C (2001) Learning experientially through case studies? A conceptual analysis. *Teaching in Higher Education*, **6**, 217-228
- Mottley, J. (2004) Is Google suitable for detecting plagiarism? *Centre for Bioscience Bulletin*, **12**, 6  
<http://www.bioscience.heacademy.ac.uk/publications/bulletin.htm>  
(accessed 10th May 2006)
- Park, C. (2003) In other (people's) words; plagiarism by university students- literature and lessons. *Assessment and Evaluation in Higher Education*, **28**, 471-488
- Parlour, J. (1995) *Thou shalt honour thy sources*. Times Higher Education Supplement <http://www.thes.co.uk> (accessed December 2005; password required)
- Stefani, L. & Carroll, J. (2001) A briefing on plagiarism. LTSN Generic Centre Assessment Series No. 10.  
[http://www.heacademy.ac.uk/resources.asp?process=full\\_record&section=generic&id=10](http://www.heacademy.ac.uk/resources.asp?process=full_record&section=generic&id=10) (accessed 10 May 2006)
- Szabo, A. and Underwood, J. (2004) Cybercheats: is information and communication technology fuelling academic dishonesty? *Active Learning in Higher Education*, **5**, 180-199