Short Guide
Preventing and Designing out Plagiarism

Plagiarism is a major issue for all those involved in teaching and learning in Higher Education. It is unlikely it will ever stop. Although detecting and punishing students who plagiarise is likely to be necessary, it is better to try and reduce plagiarism through educating students and assessment design.

Three Simple Steps to Preventing Plagiarism*

Step 1:
Reduce the risk of plagiarism that has resulted from students finding answers.

You encourage 'making' by:
- Requesting a new format (a poster instead of an essay);
- Requiring your students to critique, plan, defend or justify rather than just describe or explain; and
- Giving your students individual data sets.

You encourage faking by:
- Setting the same task each year;
- Setting a task that only has one answer;
- Setting a task that requires students to show concrete knowledge; and
- Allowing last minute changes of topic.

Step 2:
Ask yourself: if I need to request evidence of how my students did the coursework, could I do that? To reduce the risk of plagiarism, you should ask to see activity.

Evidence of doing coursework includes:
- Drafts - paper or electronic;
- Copies of research papers used;
- Records of meetings; and
- Observations of effort required (organising the work, researching the topic, writing it, or / and a group working together).

There will be no evidence of doing if you:
- Award all the marks to the final product; and
- Where supervision is required, bypass supervision, yet mark the final result.

Step 3:
If you can't do 1 or 2, then build in checks to confirm who wrote / did the coursework.

You can collect evidence of authenticity by:
- Setting up brief vivas for a percentage of your students submitting;
- Setting a post-hand-in written task to be done under exam conditions. This should examine either the understanding of the final product or the process used to make the final product (e.g. 'What were the two key resources you used and why were they important?');
- Asking your students to alter the final product under exam conditions;
- Comparing exam performance and coursework performance; and
- Including group work with peer assessment. In group work collusion is required to carry out plagiarism so as such the temptation is reduced. Peer assessment provides a mechanism to resolve group issues and an opportunity to reward certain group members.

*Adapted from the leaflet 'Reduce the risk of plagiarism in just 30 minutes!' produced by the ASKe Centre for Excellence in Teaching and Learning at Oxford Brookes University.

How might you implement this in lab and field work?

Encourage making:

- Run different practical classes each year (e.g. on a 3 or 4 year rolling cycle). If this is not possible change the colour of lab manuals from one year to the next and for groups doing the practical at different times in the same year, so it is harder to bring in and copy during the practical from previously done work (see Tierney, 2006);
- Appear to change the practical, for example by labelling a solution twice as strong as it is so the numbers come out differently. Or perhaps use a different plant species;
- If you have a small group of students set a different practical for each student in the group;
- Set the practical so that the students are measuring an unknown;
- If surveying a habitat, try visiting a different field site or going at different times of the year; and
- Change the way a practical or field trip is assessed each year. For example varying between a report, a poster or a presentation could help to reduce plagiarism between years or lab groups.

Evidence of doing:

- Assess students while they carry out practical or field work and not just their write up; and
- If the work is an IT based practical, require a search function.

Confirm authenticity:

- Getting students to prepare a lab report at home but actually write it under exam conditions during or at the end of a lab session may help to avoid collusion.

Educating students about plagiarism

In a Centre for Bioscience funded project, 'Plagiarism: do students know what it is?' Dawson and Overfield (2006) found students were unsure of the boundaries between plagiarism and acceptable practice. It is therefore important students are taught about plagiarism at the beginning of their course and this is reiterated regularly.

For ideas of how to go about teaching plagiarism to bioscience students see Willmott and Harrison (2003) or have a look at the University of Leicester's online tutorial for students - there is a version specifically for bioscience students.

Electronic detection of plagiarism

A simple way to reduce the number of students plagiarising is to inform them detection software such as TURNITIN will be used to check all their work.

- TURNITIN from JISC PAS can show how much of an essay is directly copied from sources available on the internet;
- Demonstrate TURNITIN to students, get them to run their own essays through to illustrate how TURNITIN works; and
- Sometimes just searching for a sentence or paragraph in Google can find the source of a student's essay or report. Make students aware you will do this and it may prevent them copying in the first place.

The accidental plagiarist

Not all students who plagiarise do so intentionally. Lack of understanding of what plagiarism is, past experience, local academic norms, not understanding how to reference and quote sources correctly, or a combination can mean that students plagiarise without realising. As Dawson and Overfield (2006) found, students are often unsure of the boundaries between plagiarism and acceptable practice.

International students with different cultural backgrounds may have problems understanding what plagiarism is. In addition, the temptation to 'borrow' phrases or sentences may increase when writing in a second or third language. Consider making some allowances, at least until they have had an opportunity to settle in.

It may be useful to get students to sign a 'declaration of academic integrity' with each piece of work they submit, stating this is their own work. Encourage students to think about plagiarism and the issues surrounding it.

Cash for coursework

Although prevention is better than punishment it is worth being aware students can submit original material, to the exact requirements of the coursework you've set, without actually doing the work. This is often called contract cheating and involves paying ghost writers to do the work for them. There are many websites offering such services and a Google search for 'academic ghost writers' in March 2008 returned 1,050,000 hits. As the work is original it will not be found by detection software. Students can often specify the grade they wish the work to get, so it will not stand out as considerably better than the rest of their assignments. However using practices such as vivas or post-hand-in written tasks based on the coursework may help reduce the problem.

Another way for students to produce coursework involves students buying it from online auctions. The coursework is sold by students from different universities. The sellers will often state what grade they received for their work and students can pick a title the same or similar to one that has been set.

> '27.6% of level 2/3 students felt that plagiarism was wrong because they might get caught' Dawson and Overfield, 2006

Further resources

Websites

- Centre for Bioscience webpages on Assessment, Feedback and Plagiarism. www.bioscience.heacademy.ac.uk/events/themes/assess.aspx

- Centre for Bioscience event information on 'Preventing and Designing out Plagiarism' held at the University of Leicester in April 2008. www.bioscience.heacademy.ac.uk/events/plagiarism080408.aspx

- JISC Plagiarism Advisory Service provides generic advice and guidance on all aspects of plagiarism prevention and detection to institutions, academics and students. www.jiscpas.ac.uk

- PiSA - Plagiarism in Statistics Assessment. mathstore.gla.ac.uk/headocs/Bidgoodetal.pdf

- University of Leicester's online plagiarism tutorial for students. www2.le.ac.uk/offices/ssds/slc/resources/writing/plagiarism/plagiarism-tutorial/

- Oxford Brookes' information on Deterring plagiarism in HE. www.brookes.ac.uk/services/ocsd/4_resources/plagiarism.html

Publications

- Badge, J.L., Cann, A.J. and Scott, J. (2007) To cheat or not to cheat? A trial of the JISC Plagiarism Detection Service with biological sciences students. Assessment & Evaluation in Higher Education. 32, 433-439

- Carroll, J. and Appleton, J. (2001) Plagiarism: A Good Practice Guide. JISC/Oxford Brookes University

- Dawson, M.M. and Overfield, J.A. (2006) Plagiarism: Do Students Know What It Is? Bioscience Education E-Journal. Volume 8 Appendix: Guidelines on Plagiarism (for students) available at www.bioscience.heacademy.ac.uk/journal/vol8/beej-8-1.htm

- Reed, R. and McKie-Bell, F. (2007) Using Feedback to Enhance Referencing Skills. Centre for Bioscience Bulletin 22, 4

- Tierney A. (2006) Tackling Plagiarism in the Level One Biology Class. Practice and Evidence of Scholarship of Teaching and Learning and Higher Education. 1, 13-21

- Willmott, C.J.R. and Harrison, T.M. (2003) An exercise to teach bioscience students about plagiarism. Journal of Biological Education. 37, 139-140