Innovative assessment methods for studio-based design modules

Abstract

Assessment as a means evaluation or appraisal, has in fact been in use in almost all of the subjects as part of the curriculum design. The choice of the assessment approach is due to the nature of the subject and its reflection of the module aims. Design as an inter-disciplinary subject, usually reflects culture and social issues that occurs in lifestyle, aesthetics, economics, and technology has been developed from practice over a hundred years. There are 8 types of assessment methods in art and design education. In which course work, project and portfolio have been chosen to assess studio-based modules in Lancaster University. For example, the assessment of Lica 243: Design Interaction: Material is 100% course work, including 2 annotated portfolios. However, 7 out of 28 submitted portfolios from last year were found to have plagiarism. Which indicated that portfolios may not be the best approach to assess studio-based design works. This paper explores novel assessment methods by identifying the assessment methods in studio-based modules in other subjects and their fulfilments in design subjects. The possibility of curriculum development and the influence on department policy is thus the focus of attention. An insight into the assessment methodology for design studio-based course is thus provided.

Keywords: Plagiarism; assessment; studio-based modules, art and design

Introduction

Plagiarism as an academic misconduct behaviour has long been existing in Higher Education throughout writing and practical assignments. Assessment is the key in detecting plagiarism and an indication of the improvement of future teaching and learning activities. This paper particularly looks at the plagiarism issue in a studio-based module (Lica 243: Design Interaction: Material) within design subject. The reasons students plagiarize is reviewed; current assessment methods for Lica 243 is evaluated; novel assessment methods in studio-based modules are put up; possibility of curriculum development and the influence on department policy is then discussed in order to improve teaching and learning approaches in the future.

Definition of plagiarism

Plagiarism has been defined as ‘The wrongful appropriation, purloining, publishing, expressing, or taking as one's own the thoughts, writings, inventions, or ideas (literary, artistic, musical, mechanical, etc.) of another’ by Oxford dictionary (Kock and Davison, 2003, p.512). It is an act of “stealing” (Weyland, 2007, p.375) it is a particular kind of academic dishonesty and a transgression of standards (Carroll, 2007, p.14; East, 2010, p.69).

More specific definition also includes ‘Translating a source directly from another language into English and using it as though the content originated with the student’ and ‘Hiring a ghostwriter or purchasing a paper and submitting it as one's own original work.’(Collins and Amodeo, 2005, p.533).
The Lica 243: Design Interactions Studio: Materials course is a practice-based course, which requires students to complete making artifacts in the studio and to reflect the design/making process in annotated portfolios. The course aims to develop students’ practical skills through the examination of materials. Students should develop skills in research, critical analysis, evaluation and reflection; effectively communication and problem-solving. The assessment of Lica 243: Design Interaction: Material is 100% course work, including 2 annotated portfolios (Practical design exercises weights 25% and end of module design exercise weights 75%). 7 out of 28 submitted portfolios in Weihai campus for the end of module design exercise from last year were found buying artifacts from Chinese online shop.

**Reasons that students plagiarize**

The fast development of the internet and technologies made the increasing availability of the electronic materials (Brown and Howell, 2001, p.103; Power, 2009, p.643), which are changing social norms amongst young people (Dee and Jacob, 2012, p.398). For example, some students believe that cutting and pasting electronically is a behavior of "sharing," instead of stealing (Walker, 2009, p.48). However, this behaviour already shifted the authorship and the ownership of ideas or texts (Williams, 2007, p.352). This leads to another reason students conduct plagiarism. Students do not understand what is plagiarism: they may be confused about the act (Collins and Amodeo, 2005, p.530), the constitutes (Dee and Jacob, 2012, p.400) or aspects (Walker, 2009, p.50) of plagiarism. It is interesting to notice that most students are aware that the plagiarism policy are written in the students’ handbook, but they are often do not read it (Power, 2009, p.655). Students are more likely to plagiarize if they believe that the tutors are not going to assess their work seriously (Brown and Howell, 2001, p.144) or they will not get punished harshly if they get caught (Walker, 2009, p.48). After all, students and lectures under different interests that ‘lecturers understand plagiarism as a breach of trust undermining academic traditions, while students’ priorities success as more important than avoiding plagiarism.’ (East, 2010, p.72). Laziness of youngsters is the main reasons for plagiarism that dominates public conversations (Williams, 2007, p.352).

Apart from the general reasons mentioned above, there are some special reasons why art and design students in BJTU plagiarize. Plagiarism on ideas is not easy to find out, as when the ideas get plagiarized, it is usually not observable or demonstrable (Weyland, 2007, p.375). This maybe the reason in the hearing of Lica 243 last year, a couple of praised students still declared they designed their objects even those objects are almost identical from the artifacts sold online. The students’ behavior is likely to be influenced by their peers’ attitude and behavior as well (Dee and Jacob, 2012, p.400). Individual believe will match the group, and the group’s value will match the society value (East, 2010, p.73). This explains the high rate of plagiarism in Lica 243, a quarter of students were buying designs online and made up the design/ reflection processes in their portfolio is definitely not an individual behavior. Another reason may be that students believe that their lectures do not know how to detect plagiarism (Walker, 2009, p.49). Students in BJTU may familiar with the plagiarism detecting software for text, such as Turnitin. But there is no software that can detect plagiarism in images and designs objects yet. Another reason may be, as design students, they may be encouraged in ‘imitating’ or
‘developing’ other design/ art works (Mullin, 2009, p.106) in their past learning experience, or they have been told it is OK to do it in other design modules (Mullin, 2009, p.106). To deal with this confusion, an explanation of what level of borrowing from other design/ art works is acceptable to design students is necessary (Kock and Davison, 2003, p.513). Furthermore, BJTU students might lack of language and professional skills. Although students in BJTU have done multiple assignments in English before, most of the assignments are based on writing. This studio-based module is a challenge for the oversea students as they have to learn the terms, the use of multiple machines (Laser Cutter, 3D Scanner, 3D Printer and Arduino) and design software including: Adobe Illustrator, Mesh mixer, Slicer, Processing and Arduino which made them struggle in completing their individual assignments.

The assessment of Lica 243

Assignment is defined as ‘evaluation or appraisal; [...] making a judgment, identifying the strengths and weaknesses, the good and the bad, and the right and the wrong in some cases.’ (Rust, 2002, p.1). The assessment methods in LU/BJTU programme contains: exam; course work; essay(s); presentation; dissertation; report, project and portfolio.

The assessment of Lica 243 is 100% course work, including 2 annotated portfolios: a course annotated portfolios weights 25% (group work) and an automation annotated portfolio weights 75% (individual work). Portfolio is ‘primarily associated with arts-based disciplines, portfolio work draws together a body of work developed within a defined brief.’ (Wilson, 2012, p.1). All of the portfolios in this module need to be designed based on the making of artifacts, the automaton portfolio requires students to create a 3D artifact individually, those portfolios bring together a collection of individual artifacts within a single body of work and serves to highlight the reflective process resulting from the creation of these artifacts. Annotations can be text, images, and/or doodles reflecting upon the process of creating the artifacts.

In the process of completing the course annotated portfolios (1-5 weeks, taught by myself, the LU tutor), students are divided into 10 groups (29 students, 2-3 students in a group) due to the limitation of the materials and the number of machines available. Students work intensively on weekly basis to design and develop artifacts by using different materials and different machines to learn how materials and technology informs (constrains, influences) the development of design artifacts.

The automaton portfolio (6-10 weeks, taught by BJTU tutor) requires students to create a 3D artifact that has moving parts and can be powered by the motor or hand individually, by using the knowledge they have learned in the first half of the term and design an annotated portfolio to record and reflect the making process.

The plagiarism cases were found only in the assessment of the automaton portfolio assignment. It is interesting to notice that, in terms of working load, students actually have more working load and challenges to learn in the first half of the term (1-5 weeks) than in the second half of the term (6-10 weeks). In terms of the flexibility of the assignment, they have much more flexibility in the automaton portfolio assignment than the course annotated portfolio assignment. however, more flexibility and less working load induce a high plagiarism rate somehow.
I think the reasons may be due to the arrangement of the teaching settings. As this course has been taught by 2 different tutors, they may have different understanding of the department policy and have different requirements for the students. For example, in the first 5 weeks, I required students to complete their portfolios in sections following the weekly exercises activities. I also asked students to bring the artifacts they have completed to the class to display. Therefore, I have kept a close eye on the students’ progress. In the second assignment, the tutor may prefer individual tutorials as everyone’s project was different, this may encourage those lazy or shy students to conduct plagiarism.

Another reason may be group work versus individual work. In the first half of the semester, I had to divide the students into groups due to the availability of the material and equipment. Although the groups were very small (2-3 students), it can still encourage students to share their learning experiences. For example, when students comfort a problem in object making process, they can raise ideas together to solve the problem. They might communicate better as when doing the group work outside the lecture sessions, they can communicate in Chinese. These aspects are all contribute to reduce the tendency for students to plagiarise.

In the aspect of assessment setting, the only difference is in the time period completing course exercise annotated portfolios, the activities are designed on weekly basis, and students’ artifact/portfolio are assessed formatively on weekly basis accordingly. However, this arrangement has not been found in the automaton portfolio assignment. Thus, more formative assessment can be added in this time period in the future teaching practice.

**Rationale for Lica 243 assessment design improvement**

There are 4 types of assessment in the art and design relevant subjects which have been identified by the literature. They are assessment staging theory (Davis-Soylu, Peppler and Hickey, 2011, p.217); embedded assessment (Dori, 2007, p.280); learning-oriented assessment (Carless, 2015, p.964) and performance assessment (Wesolowski, 2012, p.37).

The assessment staging theory is an assessment method for the stage actors, the assessment has been designed in 3 stages to help the actors and actresses to improve their performances (Davis-Soylu, Peppler and Hickey, 2011, p.217). Staging One: Theater-in-the-Round. In this stage, actors and actresses perform on the stage in which audience can view the show in 360 degrees (Davis-Soylu, Peppler and Hickey, 2011, p.218). The audience are their teachers and other actors and actress, and they can provide perform-specific feedback (Davis-Soylu, Peppler and Hickey, 2011, p.218). Staging Two: Thrust Staging. In this performance, the stage allows the audience to view the show in 2 or 3 sides (Davis-Soylu, Peppler and Hickey, 2011, p.219), and the exhibition is for the local community (Davis-Soylu, Peppler and Hickey, 2011, p.219). Staging Three: Proscenium, this is the most formal performance and only gives the audience a front view. Audience are from the ‘real-world’ have to view the show in a much greater distance (Davis-Soylu, Peppler and Hickey, 2011, p.220). This assessment theory can be adapted for the automaton
portfolio assignment, detailed adaption methods and adjustments will be discussed in the later sections.

Embedded assessment is ‘an ongoing process that consists of more authentic tasks and emphasizes the integration of assessment into teaching, combining characteristics of formative and summative assessment.’ (Dori, 2007, p.280) The purpose of this assessment is to provide guidance on the adjustments of the teaching plan (Dori, 2007, p.280). This is an effective assessment method, however, in the context of LICA 243 automaton portfolio assignment, the application of this assessment method is difficult. As in this assignment, students are expected to make 3D artifacts with moving parts that can be powered by a motor or by hand, everyone’s project is different, it is hard to have the same authentic tasks for everyone. Furthermore, more formative assessment also means more workload for the tutor, one tutor supervising 29 individual projects with multiple formative assessments in each case is not realistic.

Learning-oriented assessment is an ‘assessment where a primary focus is on the potential to develop productive student learning processes.’ (Carless, 2015, p.964). The focus is on summative assessment design that encourages deep rather than surface learning (Carless, 2015, p.964). The design of the Lica 243 automaton portfolio assessment is already learning-oriented. First, this module is highly practice-oriented, it aims to explore how materials and technology informs (constrains, influences) the development of design artifacts. The automaton portfolio is a record and a reflection of the making process. This requires students’ critical evaluation of the related knowledge (both theoretical and practical) and then encouraged deep learning. Moreover, although this is an individual assignment, students are expected to complete this assignment based on the knowledge and experiences they have already gained in the course annotated portfolios. Students should already gained their abilities on time management, communication skills, team work and problem-solving, which are all contribute to deep learning.

Performance assessment is ‘a measurement of students’ performance.’ (Wesolowski, 2012, p.37). This kind of assessment is commonly used in performance art (Davis-Soylu, Peppler and Hickey, 2011, p.217), music performance (Wesolowski, 2012, p.37) and social workers professional training (Collins and Amodeo, 2005, p.527). Although this module requires students to operate certain machines to produce a body of practical work. However, the operation behavior itself is not the focus of the assessment in this module. Furthermore, the artifact can only to be made through the understanding and interactions with machines and material, which can be reflected on the automaton portfolio.

Plagiarism issues of Lica 243 happened in the completing of automaton portfolio assignment, the key in prevent or reduce the plagiarism in terms of assessment design is to add more formative assessment before the summative assessment. The settings of stage theory can be adapted in the assessment innovation in Lica 243. As students have 6 weeks (week 6 to week 12) to complete this assignment individually, a peer assessment can be added in the end of week 6 or early week 7, this is the most informal assessment. In which, students can be divided randomly into groups (3-4 students in a group, 8 groups in total). They can present their research, design ideas or making plans within their group, and get feedback from their peers. In this
stage, other students in the group can help identifying plagiarism on ideas. As they are doing projects under the same criteria, they probably search by using the same or similar keywords from the same source. If someone’s idea is too close to the online source, the peers are likely to recognize it and point it out. In this assessment, the tutor does not join the discussion, however he still needs to be around in case students have some questions.

Towards the end of week 9 or the early week 10, a presentation can be conducted. Each student can be given 10 minutes to present to the tutor and the whole class. In which they report the rational of making the artifact, the progress of the manufacturing, and the difficulties they had so far. This stage is a formative assessment also, just the audience expands to the tutor and the whole class. Students should have made some parts of the artifact already in this stage, and the tutor can provide profession-related specific feedback to each case. It also gives the tutor an idea of making standard and the similarities of the projects. For example, if a few objects are highly similar to each other or the making is way too sophisticated compared to the rest of the class, it is easy to draw tutor’s attention regarding to plagiarism. Furthermore, if a group of students all decided to plagiarize (I think this may be the case in last year), the rest of the class could immediately recognize the source of the artifact, and therefore prevent plagiarism in this stage. Furthermore, by presenting to the class, students can receive help regarding to the use of technology from their classmate. The tutor then can provide further instructions on some common issues.

The third stage is in week 12, while handing in the automaton portfolio, students need to put their artifact on exhibition. The audience can be invited from within and outside design discipline. The displayed artifacts get assessed by the tutor and share a percentage of the final mark also. In this way, students have to actually make the artifact work (the moving parts powered by a motor or by hand). As there were cases that students glued the artifact’s parts together and lied in the automaton portfolio last year. However, this might encourage students to purchase their artifacts online than making it. As they might want to impress the audience and standout from the class.

The improvement of department policy

The Lica 243 teaching session is an all-day-long session (8.00-4.30) designed including a lecture (8.00-9.00), a practical session (9.00-4.00) and a reflection (4.00-4.30), due to its nature of studio-based module. Lecturers are in charge of the lecture session and the reflection session, while a technician is in charge of the practical session and guide students to operate relevant machines. This module had been taught by 2 different lecturers from both Lancaster and BJTU. This arrangement may make it hard to maintain the department policy and teaching standard. In the future, one tutor should be assigned for this module. Although it is not good for the collaborations between Lancaster and BJTU, it can allow students to work with the same tutor in the entire time and the standards, value and concepts are easier be addressed in different ways (Finn, FitzPatrick and Yan, 2017, p.66).

The student handbook should state all types of plagiarism clearly. Plagiarism on images, objects and ideas needs to be added in the student handbook and a clear
guideline on how to avoid it is of importance also (Brown and Howell, 2001, p.105). For example, the statement of the acceptable level of 'borrowing' from other people's art and design work, and the copyright policy of images and objects. Lectures and tutors can address this in their teaching sessions, encourage discussions on plagiarism cases especially before the deadline of the assignments.

Web-based tutorials may rise the students’ awareness and reduce plagiarism (Dee and Jacob, 2012, p.400). In the case of Lica 243, a short tutorial video can be added on Moodle, which shows the visual examples of the plagiarism cases and with detailed explanation of why they are plagiarism and how to avoid it. This video can be played to all-level students. Consequences can be included in the end of the tutorial video to make students believe that if they plagiarized, they will get caught and received a harsh punishment. I believe this will largely reduce the plagiarism rate, and at least, if some students get caught, they cannot use the unintentional plagiarism as an excuse.

Apart from the method of ‘adding formative assessment' (detailed discussion provided in the previous section), compulsive tutorial can be added to the curriculum design. This is the method for the lazy or shy students. Each student can have a total 1 hour one-to-one tutorial time throughout the time period in 6-12 weeks, tutors can divide it into sessions (3 sessions maybe) and each student can have their fixed time slots. This enable tutor to keep an eye on student's progression. However, the working load maybe too much for the tutor.

As mentioned in the previous section, students might find the assessment is too hard to cope with due to the lack of language and professional skills. As BJTU students are doing a degree not in their first language, they have language coursers and language supports in the first and second year. However, Lica 243 is a module taught in their third year. In which they do not have any language tutors or supports, that might make the students struggle. If we can assign some subject-related language teacher for design students that may help largely. Furthermore, the specific assigned language teachers can work with the module lectures from the first year. The lectures can provide some subject-related reading material, and able to prepare students subject-related language skills from their first year. Students can be less struggle in their third year by then. In terms of enhance students’ professional skills, more machines and materials need to be purchased. As studio-based modules require large amount of time to practice, the lack of machines means each student have less time on making artifacts. This also pressured them and encourage plagiarism.

Another concern is the students’ time management skills. From my own teaching experience, the students in Weihai campus do have more reliance on teachers than students in the UK. Instead of making activity plans for the students, workshops or excise related to time management can be held regularly in Weihai campus. This kind of training can be done by the language teachers or subject tutors. Lancaster can even send some trainers over once a year to do workshops.
Conclusion

In the teaching practice of a studio-based module Lica 243: Design Interaction: Material last year, a high rate of plagiarism was found in its automaton portfolio assessment. This essay provided suggestions on how to reduce plagiarism on studio-based modules by reviewing the general and specific reasons why students plagiarize; evaluate the current assessment design for Lica 243; identifying the assessment methods in other subjects including assessment staging theory, embedded assessment, learning-oriented assessment and performance assessment and their fulfilments in design subjects. The possibility of curriculum development and the improvement on department policy were addressed on the aspects of student handbook and Moodle improves, adding formative assessment and compulsory tutorial as well as the methods on language skill and time management skills enhancement.
Reference list


Appendix 1:

Reflective commentary and future plans

1. **What you have taken from this SPACE in relation to your teaching and/or student learning**

   SPACE provided me with an opportunity to look at a particular issue in my teaching, and allowed me to look at the solutions in depth. Issues exist in TNE which might be different from cultures to cultures. However, it is necessary to maintain the same teaching and assessment standard (quality assurance) as the home country.

   In my case, I do think students need more language support and more skills training such as time management and critical thinking in the Weihai campus. More formative feedback needs to be provided before the summative submission.

2. **How do you plan to share your learning with colleagues/through the literature?**

   My module has been taught by myself and a BJTU tutor. I think more communication/discussion need to be raised between LU and BJTU staff. The reality is we are all ‘flying faculty’ and have our own teaching/research load in the ‘home campus’. It is difficult to raise face-to-face meetings. However, we can have a discussion forum on Moodle, or create a WeChat group including the LU and BJTU staff, where literatures regarding to teaching and learning can be shared and issues occurred in TNE can be discussed.

3. **What research questions emerge for you from your SPACE?**

   - The role of formative assessment play in the studio-based modules?
   - The influence of formative feedback on students’ decisions?
   - In what extent the formative feedback can prevent students from plagiarise on artefacts and ideas?

4. **How do you plan to research the ideas emerging from your SPACE?**

   I have proposed an idea of ‘adding formative assessment’ by 3 stages before the final submission of the individual project. In my future studio-based module teaching, I could suggest my faculty to test this method. However, it will be difficult if my faculty insist that the module has to be taught by LU and BJTU tutors together.
SPACE module marker feedback sheet

Lancaster University Postgraduate Certificate in Academic Practice Scholarship of Practice: an Academic Curriculum Enquiry (SPACE)

Participant: Click or tap here to enter text.

Department: Click or tap here to enter text.

First Marker: Click or tap here to enter text. Date: Click or tap to enter a date.

Moderation:
The marking team engage in a marking exercise at the start of the process to improve calibration and parity between markers, and a sample of submissions are second marked. Any issues arising in the marking process are referred to a third marker and/or the External Examiner.

Agreed provisional level after moderation:
(Subject to formal ratification at the Programme Assessment Board)
☐ _Pass: The work has fulfilled all the criteria commensurate with the Pass threshold
☐ _Pass with minor amendments: The work has almost fulfilled all the criteria commensurate with the Pass threshold, but there are small items, which need amendment or inclusion as indicated in the feedback below
☐ _Refer for additions or improvements: The work has not yet adequately fulfilled the criteria and needs to be added to or improved as advised in the feedback below

Criteria for assessment of the SPACE paper

1. Examine and evaluate a pedagogical issue which is grounded in your own practice;

2. Critically evaluate research literature, with reference to how the student learning experience can be enhanced;

3. Review and critically develop issues and perspectives explored in previous modules of the programme to produce a coherent and scholarly piece of work;

4. Critically reflect on your work in terms of its institutional, national, or international context, and its relation to wider debates within higher education;

On successful completion of this module, you should be able to:

5. Demonstrate critical reflection on practice;
6. Write the assignments at FHEQ level 7 (Masters level), referencing appropriate academic literature;

7. Demonstrate ongoing commitment to professional development.

Particular Strengths and areas for potential development
You are not required to respond to these comments within this assignment, but you may want to reflect on ways in which you might develop the emerging ideas or issues in your practice.

Areas requiring a response
The following items need amending, as indicated in the feedback below

Date by which this needs to be completed: Click or tap to enter a date.
Date of oral assessment: Click or tap to enter a date.