

Language, Independence And Engagement: a focus on process

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Introduction

Students' learning experience and academic development can be impeded by low resilience, a limited cultural experience, minimal English language skills and a lack of confidence needed for independent learning. If not tackled directly, these factors can have profound implications for student retention, progression and achievement. It is therefore important to develop learning strategies to support student learning, in particular, strategies pertinent to enhancing language and communication skills, independent learning and engagement.

This paper focuses on how a strategy based on process documentation was implemented and developed across different types of modules from Foundation, Undergraduate and Postgraduate levels. Process documentation refers to a collection of varied documents used in the design, development and production process which track and monitor decision-making, creative thinking, experimentation and problem-solving.

Innovation

Students were required to produce their process documentation as a major part of their coursework. This emphasis on process documentation enabled the monitoring of development in the students' work. The documentation offered some evidence of the student response to tutor feedback and to their self-reflection. This strategy for learning was integrated into assessment. Process documentation was a requirement for both individual student work and teamwork in these modules.

Purpose Of Research

Traditionally students are asked to create a multimedia product and to submit supporting design and implementation documentation. For this research, a different approach to design documentation was adopted. This approach evolved from

experience of the assessment of working practices, such as those developed and employed by Professor Bruce Christie in the MSc Multimedia Systems course and Paul St George in the Creative Stream modules, Chris Dyson in the BSc Multimedia course and others within our subject area of Multimedia Systems in the Department of Computing, Communications Technology and Mathematics and in my own working practices. Here the students were asked to deliver different types of design documentation referred to as process documentation, across a range of modules from Foundation, Undergraduate and Postgraduate levels.

Discussion of the learning and assessment strategy

This emphasis on process documentation aims to promote a supportive co-operative learning approach, facilitating learning across the broad spectrum of skills and abilities. Process documentation included various strategies and formed a large and significant part of the assessment. These strategies enabled regular dialogue between tutors and students and encouraged supportive learning between students. Process documentation was developed and implemented in two phases.

Phase one

During the first phase of this research, two modules were organised so that process documentation formed an integral part of the assessment. The modules were 1) Academic Skills (Appendix 1) – certificate level for Foundation Degree Multimedia and Foundation Degree Computing, and 2) Sound Recording and Production for BSc Multimedia – Honours level. Students were expected to produce three different versions of each assignment, with evidence of tutor or peer support, a rough draft, an edited draft and then a final version. The assignments ranged from a report, a Personal Development Portfolio (PDP) exercise, an archive of recorded ambient sound, a creative audio composition, or a scripted dialogue.

A review was conducted at the end of Phase One. Findings indicate that some students were unaware of the essential requirement to submit their process documents and only handed in the final application or the assignment.

Consequently, requirements that needed to be communicated effectively to students were that:

- process documentation is an essential part of the deliverable;
- regular attendance is essential for feedback;
- all team members need to be committed;
- students needed to identify, communicate and record gaps in their knowledge;
- they needed to identify, communicate and record problems and solutions;
- the task was to develop competencies as well as produce a product.

An open and honest approach between tutor and student would encourage dialogue, debate and experimentation.

Additional benefits related to plagiarism. Plagiarism is often difficult to regulate and prove. Often tutors suspect various working practices that do not enable the students' development of their own competencies or confidence. Requiring process documentation could address these issues.

Phase two

During the second phase, in the Advanced Authoring Modules, Advanced Interactive Authoring BSc Multimedia Honours, and Advanced Interactive Authoring MSc Multimedia Systems, students' working practices were enhanced by tracking and monitoring design decisions using an individual workbook containing a form of technical log book and stage checks. The stage check required the student to meet with the tutor to discuss the work in progress regularly. At regular intervals each individual student presented a stage check document to the tutor, following guidelines given by the teaching staff. The tutor was asked to date and sign off the document during the workshop. The stage check document would record the discussion between student and tutor and any action taken. Student progress developed along four streams: creative design, technical skills, production, and business experiences. In response to the review of phase one, an emphasis was placed on the following aspects: teaching teams, creative topic, teaching methods, deliverables e.g. the design documentation.

Teaching teams

The aim was to utilise the complementary skills of the academic staff, together with regular meetings, in order to dynamically respond to the problem-solving needs of the students. In phase two, the teaching team included Chris Dyson and Sharon Munroe, with additional support from Pia Jönsson on the Video Production module. The senior technician Robert Matthews played a key role with technical assistance.

Creative topic

In these modules, the students were given assignments to create a multimedia application based on the topic of 'A conversation', with a focus on the digital moving image. They were asked to consider how multimedia could facilitate the presentation of debate and dialogue. This dialogical approach to multimedia design could benefit users both in communities and in business. The relevance of this topic is informed by research undertaken by Kesler (2004).

Teaching methods

Intensive formative assessment supported students delivering the product and process documentation. Short lectures and demonstrations of not more than 15 minutes in length in the workshop setting and technical worksheets were provided.

Additional documents to stimulate experimentation, debate and dialogue were offered.

The deliverables were:

- a multimedia interactive application (team-based), worth 50% of the marks;
- a workbook of the development of the individual's working practices; this could be supported by a CD-ROM of their experimentation (individual), worth 30% of the marks;
- a guide to their working practices (as summarised by the team), worth 10% of the marks
- a team presentation within the workshop setting, worth 10% of the marks. (Each student was assessed individually.)

The individual workbook as design documentation

Traditionally design documentation was report based, developed from iterative software development and business practices. However, creative working practices can require a different emphasis. Here a workbook format serves as an on-going self-reflective creative design journal to reflect the iterative working practices of individuals or small teams. In the workbook the students can chart design decisions, technical methods and problem solving across four areas of creative design, technical skills, business and production experience. They are asked to focus on two major skill areas for development of their skills, but show evidence of a general understanding of all four key areas.

This individual workbook includes stage check documents, creative sketchbooks, stage review self diagnostic tests and quizzes, technical log sheets, self reflective journals including reports on their small teams of mentor/apprentice. Other methods of working practices were encouraged and included, such as team meeting reports and additional CDs containing their individual experimentation. These types of working practices had been developed and built on throughout the three levels of the BSc degree course.

The workbook encourages experimentation, risk-taking, and the communication of this exciting journey. Harrison (2005: 22-29) describes a creative process that includes experimentation and risk-taking. She notes: "By recognizing an alternative solution, an educator encourages the pupil to continue to take risks and to challenge a task without feeling defeated."

Stage check documents are an essential part of the workbook. Every two weeks, each document was signed and commented on by the tutor thereby tracking process and providing 'a window of opportunity' for self-reflection and nurturing of the 'internal editor' (see Appendix I). The stage check documents were supported by and referred to a range of supporting documentation as indicated above.

Initial findings indicated that the use of workbooks as process documentation enabled:

- learning strategies to be an essential part of the assessment;
- transparency and self-reflection in working practices;
- identification of problems and methods of seeking appropriate solutions from peers, tutors and other documented sources;
- encouragement of confidence and skill acquisition;
- an enhanced dialogue between tutor and student;
- rewarding and encouraging co-operative work within teams-

There was also additional evidence of co-operative practices between individuals across teams.

Secondary findings indicate additional benefits of complex skill learning, diversity of assessment, enriched mentor/apprentice team and the nurturing of the 'internal editor'.

Complex learning and the coordination of different skills

The individual workbook with its problem-solving approach gives opportunities for complex learning, as knowledge, skills and attitudes can be integrated and coordinated in a context which simulates working practices and offers transferable skills into real working life. Similarly this is evident in other disciplines, for example, in the context of essay assessment. Harrington et al. (2003: 57- 61) indicate that "a complex skills approach can inform essay writing right across the ability range by improving students' understanding of the assessment criteria, developing students' ability to participate in knowledge production and developing a meta-awareness about assessment criteria that may promote a transferable and autonomous approach to learning." Similarly in this context of multimedia production, the practice of complex skills became linked with the structuring of the knowledge. "Complex skills .. put the knowledge back into skills" (Harrington et al. 2003).

Diversification of assessment:

A variety of documentation and assessment formats within the workbooks were encouraged thus enabling students to demonstrate their true, potential and varied skills.

Benefits of mentor/apprentice team

As a learning strategy, the mentor/apprentice roles can encourage communication, cooperation and good management of the student team. The self-reflective writing that describes work done within mentor/apprentice sub-teams offers the benefits of self and peer assessment, and offers the assessor an insider's view of the shared experience of the student team. Wilson-Medhurst (2005) used a method of reflective writing to support student development. Here, similarly, reflective writing allows the student to describe, reflect and analyse lessons learnt and to develop

strategies for the future. This self-reflective process facilitates self-awareness and development across many skill-sets and different social groupings. The workbooks often described instructive dialogue within and across these dyads or sub teams.

The nurturing of the 'internal editor'

The 'window of opportunity' at the time of the stage check, offered to the student for the purpose of dialogue with the tutor, can be used to nurture the 'internal editor'.

The 'internal editor' is just as poignant in visual and software design - as in the writing process. The writing and creative process requires us to internalise our sense of the Other, to imagine a reader/user outside our self. Thus we build a sense of an internalised editing and critical faculty. A creative learning process nurtures this use of imagination and internalisation. Furthermore visual arts and awareness-centred educational theory focuses on enhancing the creative and empathic imagination (Raney, 2005). In the context of multimedia production for potential target users or audience, the capacity to empathise with and internalise the 'Other' is an essential part of the creative design process.

Conclusion

The aim of focussing on process documentation was to:

- encourage experimentation and risk-taking;
- track process;
- enable regular dialogue between the student/tutor dyad;
- make transparent learning challenges;
- promote self-reflection and nurture the 'internal editor'

Using a range of learning strategies, with an emphasis on assessment as a learning strategy and by using process documentation to monitor students' progress, the outcome aims were realised.

This approach enhanced language and communication skills, independent learning and engagement thus enabling skill competencies and achievement across the wide-ranging skills required by multimedia and other related disciplines.

This approach can bring together the working practices of both the traditional software development model and the creative design production working methods and thus may establish new methods of working practices for multidisciplinary areas such as multimedia. Furthermore the approach may be of relevance to disciplines other than multimedia and digital art, specifically architecture, design, environment sciences and arts, where complex skills and multi-disciplinary approaches are required.

Within these multimedia courses, developments could include the implementation of this approach from foundation to higher level modules, thus building up the development of complex skills in incremental stages. Challenges faced included disciplined time management so that all students were able to discuss their stage check with the tutor within workshop time, allocation of limited media and technical resources.

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Biographical note

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Teaching Academic Skills in a Higher Education Orientation Module

What is the 'internal editor'?

What are we teaching?

The teaching process initially offers the students a route to survive the course and how to achieve the set assignments. However, as teachers, we understand that these performance goals are a starting point, but are not sufficient for the student to gain deep and transferable skills. We may be transferring knowledge in terms of content, but this is not enough, we aim to teach the art of learning.

Imagine a student's first draft. The student has gathered together and collated a cut and paste collage of information as a first draft. The student may have added headings, used a style guide, and substituted unfamiliar words for familiar ones. The text gives a superficial appearance of coherence. The student hopefully has referenced the sources appropriately and according to citation conventions.

Typically a first-year undergraduate in Computing or Multimedia student aims to write and record information about a taken-for-granted world. They will tend to disregard and eliminate contradiction and conflict. What are we looking for beyond the surface text, underlying the display of information?

On closer inspection of their learning, we find that there is not much deep understanding. How can a tutor engage a student to develop some strategies for deep learning? We teach methods of reading, taking notes, debating and structuring our thoughts. We build confidence and competencies.

Have we engaged our students? How can we build our students' self esteem, so that they have enough confidence to use these competencies for independent learning? Are they hungry for new ideas and exploration? Are they able to develop strategies for deep and self-directed learning? Can they tolerate uncertainty, feelings of inadequacy so they can readily approach 'uncharted seas', embarking on research paths? How do we as teachers, approach this enabling role?

We can enable our students by building a sense of an 'internal editor'. Faced with a rough draft of an essay, a writer critically re-reads it, re-structuring and improving the work, as if reading the work for the first time. The writer is not external to the process but tries to understand the work at a distance, with some objectivity, as if through the eyes and ears of someone else. The writing process requires us to internalise our sense of the Other, to imagine a reader outside ourself. Thus we build a sense of an internalised editing faculty.

How do we create these critical facilities, how do we build the 'internal editor'?

In a face-to-face situation where the student brings an early draft to the tutor; the tutor can read and listen to the student's work, understanding it, reflecting it back, questioning and developing other perspectives and imaginings, noting and explaining conflicts and contradictions. The tutor can nurture the student's self esteem but simultaneously facilitate critical awareness. This process enables the students to practise the role of editor, so that the process can be internalised and made their own.

After this tutor/student session, having internalised this mental process, students will be able to edit their work independently. Their own 'internal editor' will be able to gauge the sense of what they are communicating, and how they can use their imagination and capability to acknowledge differences of belief, perspectives, framing and contradictory worlds. Their 'internal editor' recognises that deep learning enables the communication of contradiction, difference and new shifts of understanding and change through individual awareness.

This approach to learning emphasises critical awareness in the service of direction and purpose. It is both modernist and post-modernist in outlook.

A modernist approach to education encourages the individual to use their intrinsic, own direction and rational self as a problem solver in the production of their work. A post modernist approach extends this objective by encouraging the documentation of their work in process. Within the process documentation and opportunity for dialogue, the gaps, silences, contradictions are made evident and thus can be addressed within the dialogue between tutor and student.

The student can develop from the initial research stage through to deep learning and on to innovative exploration, making use of both the outcome orientation of the modernist approach and self-reflexivity of the post-modernist approach.

The teaching environment of one-to-one, face-to-face dialogue between tutor and student is a fertile field for this essential nurturing process, for the development of the 'internal editor', the refinement and further development of the self-reflective process.

Related Works

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Appendix 2

Contextual information: MULTIMEDIA as a subject area

The Multimedia Systems subject area within the department of Computing, Communications Technology and Mathematics offers a Foundation degree in Multimedia, Undergraduate degrees in Multimedia, Multimedia Technology and Applications, Computer Visualisation and Games, and Computer Animation, and postgraduate degrees in Multimedia Systems and IT Consultancy and employment links with GameLab London.

Our approach to teaching multimedia is based on the development of four cohesive key areas: skills in creative design practice, technical competencies, business/contextual knowledge, and production management. Given our rapidly changing political and technological environment, the content of the curriculum is constantly changing, therefore our curriculum needs to focus on learning strategies so that our students effectively update their skills across all four key areas within this evolving environment.

In the wider arena, an approach to teaching strategies has been moving away from a focus on content, calculator skills and language accuracy, towards complex skills that integrate the intellect, innovation and attitudes of resilience. Within the subject area and many other disciplines, it is these cogent and complex skills that are required to satisfy an advancing digital, computer-networked world.

Today curriculum design aims to achieve quality and standards of the production, independent and complex learning skills and therefore successful employability in a world of rapid evolution. This approach has learning requirements common across other disciplines and subject areas.

Appendix 3

Some quotations from the Workbook assignment:

"I felt that the work I had to demonstrate within the workbook was a great way of remembering the techniques and skills I have learnt throughout the project..."

"The stage checks helped because it allowed me to address my problems I was having and overcome them in a way that I can learn and pass them on to my fellow students."

"Throughout the project, I made sure that I showed my work to my tutors and expressed if I was finding anything difficult and therefore gaining experience from my teachers."

"I feel more confident with Director MX and Illustrator and Photoshop because I have acquired skills that I wish to use in the future which I have stated in my workbook."

"The workbook I feel is good but could have been better, I feel that I could have expressed some of the things I was finding difficult in the software and should have expressed this more in a detailed way. I explained what I learnt and how problems had arisen and how as a team worked throughout the project. I had made an additional book which showed some of the things that inspired me.... the book would make you understand how we started from scratch and how far we have come."