
Designing assessment for autonomous learning

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Abstract

This paper aims to disseminate and evaluate an autonomous learning framework developed through collaborative research with first- and second-year undergraduate students at De Montfort University. Central to the framework is the involvement of students in the assessment of their peers and themselves using dialogue about the assessment and feedback of embodied and ephemeral outputs, such as that of a dance performance.

The research is practice-based and includes the evaluation of published literature concerned with self and peer assessment; action learning and research; and interpretation as it is considered in phenomenological hermeneutics.

The autonomous learning framework addresses the issue of student dependence on the tutor for feedback on embodied and ephemeral assessment outputs and develops students' understanding of assessment criteria and mark descriptors. Integral to the autonomous learning framework is the development of reflexive and meta-cognitive learning and emotional intelligence. This is achieved through the incorporation and combination of self-assessment; learning sets; tutor assessment and feedback; video; and dialogue.

The paper concludes with an evaluation of assessment design in relation to the promotion of autonomous learning.

Keywords

Autonomous learning, assessment, feedback, self-assessment, peer learning

Introduction

Autonomous learning is understood in a variety of ways. The definition of autonomous learning that has informed research discussed in this paper is:

'... the ability to think and act critically and independently, to self-manage study and learning, and realistically to appraise one's strengths and weaknesses as a learner. It is not simply one transferable skill among others; rather it is a disposition towards learning that is integral to the acquisition of all other skills and knowledge (Crome et al., 2009:112).

With this definition in mind, the project began with the evaluation of published literature concerned with self and peer assessment (Brown and Knight, 1994; Freeman and Lewis, 1998; and Falchikov, 2005), action learning and research (Brockbank and McGill, 1998; Kember, 2000; and McGill and Beaty, 2001) and interpretation as it is considered in phenomenological hermeneutics (Gadamer, 1989; and Koegler, 1999). These areas of

research appeared to be most suitable for developing frameworks for autonomous learning in students.

Figure 1 shows the tools that have been utilised to aid reflexive and meta-cognitive learning, that is self-assessment, peer learning and tutor feedback. Development of reflexive and meta-cognitive learning and emotional intelligence in the student can promote autonomy.

Reflexive and meta-cognitive learning relates to the learners' automatic awareness of their own knowledge and their ability to understand, control and manipulate their own processes of acquiring knowledge and understanding through thought, experience and the senses (Vickerman, 2010). **Emotional intelligence** relates to knowing one's emotions, managing emotions and motivating oneself. This definition is based on the work of Salovey and Mayer (e.g., Mayer et al., 2000). Emotional intelligence is currently under investigation and not covered further in this paper.

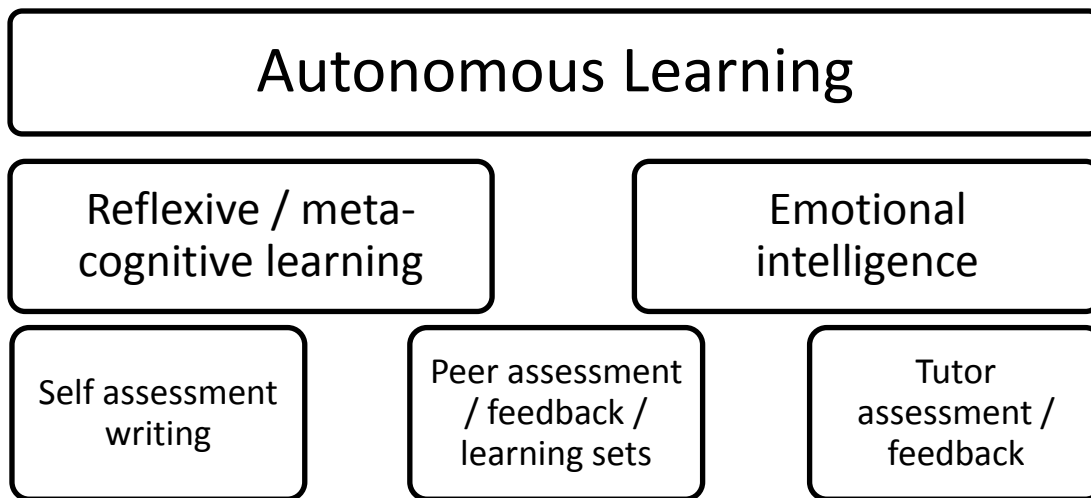


Figure 1. Developing autonomous learning through the use of self-assessment, peer learning and tutor feedback.

Feedback is seen to be central in developing autonomous learning, as students need to be able to understand their work and what to look for in their work. Feedback teaches students to look at their work in different ways and to bridge the gap to help them become more able and willing to think and act critically and self-manage their studies. However, this will only work if the feedback strategies are effective and students are able to engage with and manage the feedback.

The research described in this paper is informed by literature and based in the practice of two different creative subject areas (dance and media production) that are considered to be taught in non-traditional learning environments and, in the case of dance, where embodied and ephemeral assessment outputs are required. Central to this practice-based research is capturing the student voice and their evaluation of the tools used and autonomous frameworks developed.

Current context

In order to fully understand how the autonomous learning frameworks presented in this case study were constructed, it is useful to have some description of the subject areas they

were created in, before considering the philosophical ideas and self and peer assessment strategies that have been contributed to this research.

In this project media production students are undertaking experiential learning to create a variety of multimedia products. Multimedia production is a rapidly changing industry and students need to be able to investigate and explore ways of working that help them to best achieve as well as being aware of current standards and best practice. Their research is supported through interactive lecture sessions and practical work completed in computer laboratories, with emphasis on product testing. The students are assessed through a portfolio of media products and reflective written work, and expected to regularly request and engage with feedback from peers, tutors and themselves.

Dance practice in this case study involves teaching undergraduate students about the nature of dance practice through weekly practical dance classes with a variety of lecturers and reflection in and on that practice. In the classes included in this research, the study of dance practice means learning movement technique, developing an awareness of the tacit knowledge of the self, and engagement with meta-cognitive and reflexive learning. The classes are assessed through written reflections and the practical demonstration of practice.

The embodied and ephemeral nature of the practical demonstration means that students are unable to see their work and are dependent on their teachers for comments to improve. Representations of those performances can be captured through film, discussion and writing, for example. Assessment outputs such as product testing but also verbal presentation, viva, and moot are similar in this regard. However, such representations are unable to capture students' experience in their entirety in the context of a conventional, hierarchical position of the assessor's subjectivity.

The fact that we are only able to judge the point of view of another and not actually experience it means that the feedback and measurement of a student's work can only be based on that judgement, which may not accurately align with that of another person. Boud et al., (1993:11) assert:

'In working with others, we attempt to share meaning and we can reach commonly accepted interpretations of the world which operate within that context, but these can never fully define the experience of the participants.'

The key point here is that the shared meaning of embodied and ephemeral assessment outputs is an accepted one rather than an accurate one. This is very different to the traditional perception of assessment, which is regarded as the right judgement of a piece of work. The perception of assessment as being an accepted shared meaning challenges the hierarchical position of the assessor who puts a judgement on to students' work. Therefore, it is not necessarily advantageous for the students to be placed to be dependent on teachers for judgements of their work. To arrive at that accepted assessment of a work, dialectic interchange needs to be facilitated between the student and others, whether they are the work, other students, or lecturers, for example.

Dialectic interchange is a term coined from Kogler (1999) to describe the process of interpretation between the self and other that challenges the conventional, hierarchical ideas of a subject-object relationship. That could be between the lecturer and the student's work, for example. The importance of a dialectic interchange is to disclose what is hidden by subjectivity:

'Although subjects can interpret only on the basis of a largely implicit, pre-reflective background understanding, the confrontation with another's meaning sets into motion a process of becoming reflectively aware of hitherto hidden assumptions and practices.' (Koezler, 1999:272).

Koezler (1999) continues German philosopher Gadamer's discussion of disclosure. Gadamer was heavily influenced by Heidegger in his discussion of phenomenological hermeneutics (Gadamer, 1989). Gadamer's consideration of interpretation, like Heidegger, places the emphasis on the text rather than the subjectivity of the author and on interrogation over reproduction. Interpretation of a text is achieved through a dialectical process or interaction, like a game or play. This describes the shift away from the lecturer's subjectivity as having a hierarchical position as assessor, with assessment necessarily involving the student in a more democratic interchange.

This calls for a change in perception of the tutor–student relationship: the student needs to be more autonomous in their approach to learning with facilitation from the teacher to do so. Reflective questioning of a learning experience over a period of temporal distance, time away from the class or lab, for example, allows the student to disclose knowledge and understanding of their discipline and themselves. It is important that the idea of disclosure is not about achieving a final or accurate sense of truth, but rather about revealing something new, situated in a shifting cultural and historical context (Gadamer, 1989). This is particularly informed by a variety of dialectic interchange the student can be exposed to – self and work; student and experience; self and peers; student and video; self and lecturer; student and writing. The outcome is that engagement with the assessment output by both students and lecturers is more democratic as it challenges the traditional subject–object hierarchy maintained in traditional approaches to learning and assessment.

Walser (2009) writes about four modes of self-assessment – behaviour, knowledge, standards and proficiency, all of which are required of the students in this case study. Perhaps more relevant is Walser's acknowledgement that there is a lack of research on self-assessment from the student perspective (Walser, 2009:300), which this research in part addresses.

Falchikov has undertaken substantial research on peer learning and student involvement in assessment. However, both product tests and performances are notably absent from the extensive list of assessment outputs considered (Falchikov, 2005:139–140). This case study goes some way to address this common feature of assessment and feedback literature. Despite this gap, Falchikov (2005) summarises our ambitions as higher education lecturers similarly to Brown and Knight (1994:52). In addition to assessing:

'... as teachers in the twenty-first century, many of us also have the aim of helping our undergraduates develop in to critical, thoughtful autonomous learners. Assessment is a commanding tool, one which may be used as an instrument of power or a powerful aid to learning. The more students are involved, the greater the potential of assessment to improve learning and encourage personal, academic and professional development' (Falchikov, 2005:151).

The benefits of self and peer assessment are described by Freeman and Lewis (1998) and suggest why they are useful in developing autonomous learners. Self-assessment supports a practical understanding of assessment criteria; reflective practice; and integrated learning (Freeman and Lewis, 1998: 122). This removes some of the dependence students have on

their lecturers for feedback and to engage with subject areas that integrate cognitive and physical areas of learning.

In large classes, peers may be better placed to assess each other if facilitated effectively, such as in a learning set, as is the case in this research. A community of learning can be established, improving collaborative skills and possibly summative assessment outcomes (Freeman and Lewis, 1998:126). Embedding peer assessment into a self-assessment process, similar to the autonomous learning frameworks presented here, can also encourage a learning community (McMahon, 2010:283). Although these aspects of peer assessment were not the aim of this case study, research findings included the development of collaborative learning.

Further advantages of using peer assessment are described more recently by Vickerman (2010:222) as:

- Giving a sense of autonomy and ownership of the assessment process and improving motivation
- Encouraging students to take responsibility for their own learning and development
- Treating assessment as part of learning so that mistakes are seen as opportunities rather than failures
- Practising the transferable skills needed for life-long learning particularly related to evaluation skills
- Using external evaluation to provide a model for internal self-assessment of a student's own learning (metacognition)
- Encouraging deep rather than surface learning

These are precisely the qualities we want our students to develop. Some of the difficulties experienced by students about the value of a peer's feedback can be

'...minimized with anonymity, multiple assessors and moderation by tutors'
(Vickerman, 2010:221).

All of these have been included during the development of the autonomous learning frameworks in this article.

Furthermore, Falchikov (2007:134) stresses that:

'...students need support in order to learn how to become thoughtful and reliable assessors and partners in assessment, whether marks are required or not. Training is essential to help develop necessary skills, as is practice in assessing.'

This was certainly evident in our research and has informed pedagogic practice.

Simply providing feedback does not necessarily mean that students use it. Cartney (2010) examined the role of peer assessment in encouraging students to engage with their feedback. Cartney's research involved groups of five peers producing a formative essay assessment output. This is a different scenario to that experienced by students written about in this article, as learning set sizes are smaller and the assessment outputs are generated through practical research. However, the conclusion about online feedback is interesting to note: in Cartney's research, students preferred verbal feedback rather than online, as technologies for media sharing or discussion were not embedded in to the programme (Cartney, 2010: 558). This echoes one of the findings from our research,

whereby dance students provide handwritten or verbal feedback in class and media production students discuss their products verbally in class, but also regularly utilise online media sharing, such as blogs and wikis.

Boud (2001:177) summarises our position with regard to peer assessment perfectly:

'The challenge of peer learning is not to make it foolproof. It will always be demanding for students and it will confront them with difficulties they will need to address. Some unnecessary difficulties can be eliminated by well-designed activities. However, it is only when students encounter and engage seriously with the issues it highlights that they begin to realize the learning outcomes it promotes. Learning with and from each other is not easy; learning how to do this is a central outcome of higher education.'

Our desire to support students in becoming more autonomous, while engaging with the learning and assessment of their embodied and ephemeral outputs, enabled us to create specific frameworks from the context of practice-driven and scholarly research.

Project outline

This practice-based research project worked with first- and second-year undergraduate students in dance and second-year students in media production over three academic years. There were typically 60 students enrolled on the dance practice module and around 30 students for media production. To capture the student voice for evaluation of the frameworks developed, students from these cohorts volunteered to take part in workshops and group interviews. In accordance with recommendations from the University's ethics committee, all students were made aware, prior to their agreement to participate, of their role in the study; and told that the findings would be disseminated and presented in a variety of ways.

It should be acknowledged that self and peer assessments were valued strategies for the promotion of autonomous learning before the start of the project, and had been used with the students participating and contributing to the research. The aims of the project were to listen to the student voice to evaluate how effective *our* assessment strategies and autonomous learning frameworks were for *our* students, and to determine ways of improving the frameworks to make them more effective in developing the students as autonomous learners. Capturing and learning from the student voice is central to this practice-based approach.

While all efforts were made to remain objective and open in our questioning, approach and discussions, it is possible that students discussed autonomous learning in direct relation to self and peer assessment, as these were strategies that they associated with the lecturers. However, the discovery of students' desire to engage with anonymous and interactive feedback to support their autonomy was an unexpected finding.

The first stage of the project highlighted anonymity and interactivity as important to students' autonomous engagement with feedback; written peer feedback was analysed and self-assessment was promoted through the autonomous learning frameworks. This section presents a summary of the students' views presented during the workshop.

Does anonymity affect the way you give feedback?

When peer feedback can be provided anonymously the feedback can be more critical, and this is the type of feedback that students want to engage with. Even with anonymity, the giving of – and interpretation and use of – feedback is different for written and non-written outputs, especially when the non-written outputs are considered to be a type of performance (i.e. for public consumption). A student’s emotional response to the feedback is dependent on the confidence in the assessment output produced. For example if they perceived themselves to have done particularly well, or particularly poorly, the emotional response will be stronger.

Does peer feedback affect your interpretation of your work?

As perhaps would be expected, the level of detail provided in the feedback will determine the level of engagement with that feedback. Students prefer detailed feedback, but the dance class environment does not facilitate the time to prepare this in writing.

What’s the purpose/function of discussing feedback with your peers?

Students value peer and self-assessment as resources for the development of autonomy, but the skills they need for this to be learned and taught in the first instance. A class work ethic needs to be established from the start of the academic session so that feedback is valued and used. Students acknowledge that they need to reflect on their reactions to peer feedback and request exposure to tasks that would enable them to develop their emotional intelligence of these experiences.

The different groups of students involved in the workshop demonstrated that they used feedback in different ways (Table 1). Three purposes or functions for engaging with feedback have been identified: the initial engagement or reception of feedback; understanding and prioritising feedback; and developing a strategy to use feedback for development and improvement. Each group of the student body involved with the workshop revealed how they managed different purposes or functions for engaging with feedback they received. This management was divided into two modes – students operated individually, or through peer discussion.

Table 1. Engagement with peer feedback.

Purpose/function	Individually	Peer discussion
Initial engagement	All students	No students
Understanding and prioritising	Yr 1 dance practice Yr 2 media production	Yr 2 dance practice
Develop strategy for improvement	Yr 2 dance practice Yr 2 media production	Yr 1 dance practice

Second year (Year 2) media production students felt less of a need to discuss feedback with their peers for understanding their feedback and prioritising areas to work on. This was

most likely due to the fact that much of their work is not ephemeral or embodied. There were also notable differences between dance practice students working at different levels of study (Year 1 and Year 2). Second year (Year 2) dance practice students are less dependent upon their peers to help them develop strategies for improvement.

Dance framework

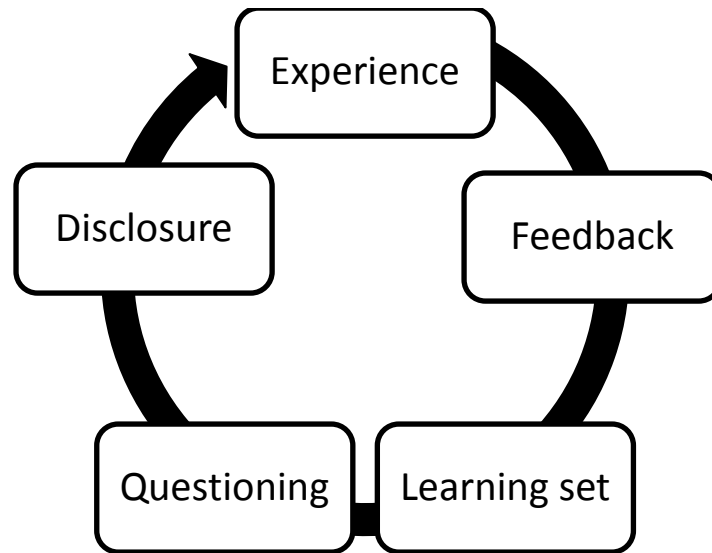


Figure 2. Autonomous learning framework, dance.

This autonomous learning framework attempts to incorporate an approach to producing embodied, ephemeral assessment outputs that might better equip students to engage with and demonstrate their tacit experiential knowledge. In order to change the potential of the student's work to be assessed more reliably and validly, we need to look at how we facilitate their engagement with the subject matter.

The framework is most easily described by starting with **experience**. When teaching dance practice, this is the act of dancing, or the observation of dancing that can also involve reflection. During these moments there is a dialectic interchange between the student and the performance.

Feedback can be written, verbal, or visual. It can come from peers, perhaps anonymously, from the lecturer, video, or the students themselves to create a dialectic interchange between the self and a variety of others. The structure of the feedback can be created using the assessment criteria or specific points of development students are addressing. The inclusion of a formative mark is something that students struggle to provide and receive. An indication of degree classification seems to be sufficient at this stage and students are given the choice of opting in or out of receiving marks.

The **learning set** ideally comprises three peer learners to allow the time and space within the class for all members to contribute to discussions and so that students have someone to talk to should another member be absent. The learning set facilitates an interactive understanding of feedback and the impact of giving it to others with a view to becoming more critical. Reference to the assessment criteria and mark descriptors may be made during the students' conversations as they use dialogue to clarify their understanding of their work and their learning. The dialectic interchange is between the self and peers.

Questioning prompts reflection, not about students' strengths and weaknesses, but rather about what is and is not present in their work, feedback, and how they engage with those issues. A dialectic interchange takes place between the student, the feedback and the experience of dance practice. This stage of the framework is completed outside of the class.

The ideal final stage is **disclosure**, where it is hoped that the student will engage with meta-cognitive and reflexive learning. This is where knowledge and understanding is revealed to the self rather than being put on to the student and their work from the point of view of the lecturer's subjectivity. The student learns something for themselves, autonomously. The student has the potential to learn about the tacit and embodied nature of dance practice and themselves through their assessment of their engagement with it through a variety of dialectic interchange. This is demonstrated through reflective writing and informs the development of practice in class.

Self-assessment and reflection occur throughout this framework. Reflective questioning of the experience of dancing over a period of temporal distance, time away from the experience of observed or performed dance, allows the student to disclose knowledge and understanding of their subject area and themselves. This is particularly informed by a variety of dialectic interchange the student can be exposed to:

- self and performance
- self and experience
- self and peers
- self and video
- self and tutor
- self and writing.

Media production framework

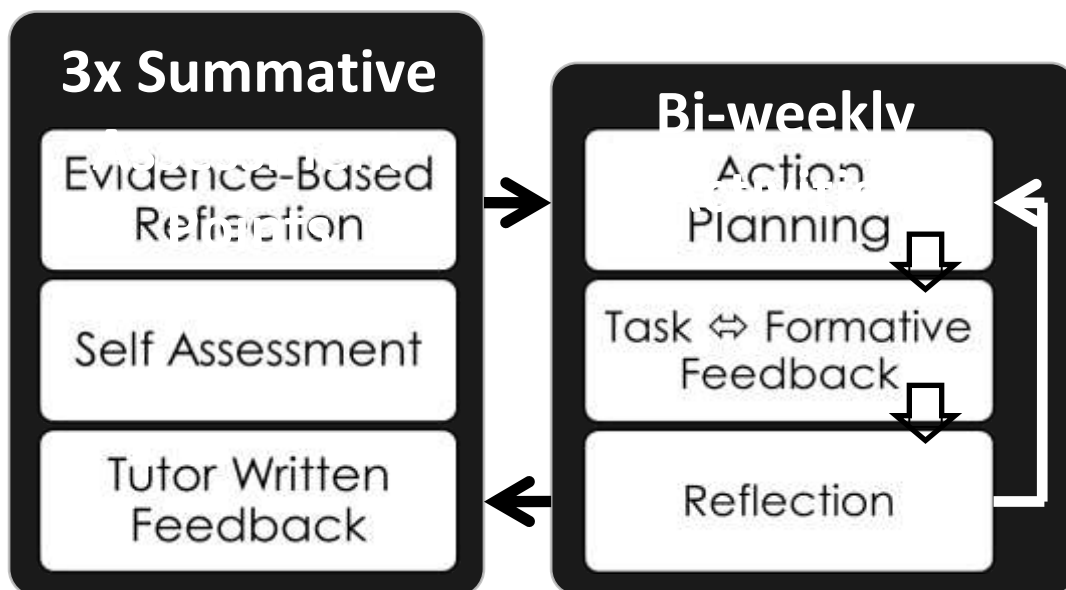


Figure 2. Autonomous learning framework, media production

As the media production subject area is wide and rapidly changing, an experiential learning environment is provided. A structure for learning is presented through the introduction of bi-weekly activities to create media products. Action planning questions are provided to help students plan their production and provide a rationale for their approach. A short time after the activity students reflect upon their production and the processes they undertook using another set of questions provided as prompts. This facilitates students to form their own opinions and judgements about the subject, their skills and work through their practice.

From the first activity students are encouraged to request feedback on their work from tutors and peers and other recorded means (such as product testing). Due to the practicalities of the computer labs, the feedback is not usually provided anonymously and often involves dialogue. Students need to be guided on how to give useful feedback to their peers, as well as how they might record and use any feedback they receive to improve their work and make decisions about it and the subject area.

There are three summative assessment points over the year that provide students with temporal distance from the work and the opportunity to make informed judgements about the subject, based on evidence that they have collected along the way. This is supplemented with a self-assessment that allows the tutor to focus on the gaps between tutors' and students' interpretation of the evidence provided. Tutor written feedback highlights examples in the work of both well-produced evidence and lack of evidence, rather than making specific comments about the work itself.

Conclusions

Working with students from creative subject areas, in non-traditional teaching and learning environments, producing embodied and ephemeral assessment outputs, has provided an insightful discussion and practical application of self and peer assessment methods. The additional consideration of Gadamer and Kogler's work with phenomenological hermeneutics has particularly prompted thinking concerned with the relationship established between the student, lecturer, assessment output and feedback. The resulting autonomous learning frameworks that have been developed for dance practice and media production students in this case study share a common philosophical underpinning and pedagogic ethos to use features of self and peer assessment, reflective practice and action learning. However, these features have been adapted and tailored to suit the needs of students preparing to learn and be assessed in different subjects with contrasting learning outcomes. Therefore, the conclusion is that one framework does not fit all.

The environment of the dance class has raised a particular issue with regards to the time available to provide detailed, useable written feedback. The ephemeral nature of the student's demonstration of practice restricts the opportunity for observation by the assessor and any repetition of the performance will inevitably vary. This also poses the particular problem of the student being assessed not being able to see their work in the same way as their assessor does in the moment it is executed. The way in which a student engages with the audience and intricacies of movement can be lost in recording. Therefore, dance practice students have challenges to overcome when engaging with self-assessment and need to be much more trusting of peer assessors.

These challenges provide a likely explanation as to why the students participating in the group interviews suggested the use of anonymous peer assessment and requested a high

level of detail in the comments provided for them. In this context, it is all the more important for students to engage with a variety of dialectic interchange.

This also appears to explain why media production students did not feel the need to discuss their feedback with their peers. Even though the assessment was a performance, the feedback tends to be more detailed due to the practicalities of the computer laboratory environment. Another key issue is that their output (product) *does not change when you view it later*. The framework facilitates engagement with peer feedback, and requires students to use that feedback as individuals. However, students discussing feedback with peers is optional. While it is encouraged in a formative environment, there is little need for it to be structured into the assessment design.

Recommendations

The autonomous learning frameworks presented in this paper attempt to incorporate an approach to learning for embodied, ephemeral and performative assessment outputs that might better equip students to engage with and demonstrate their tacit experience, knowledge and understanding. This can obviously be extended to include subject areas and assessment outputs beyond those discussed in this paper, such as the moot in law courses, teaching observations as part of a teacher training programme or verbal presentations as part of a history degree. Assessment design should consider the student voice for each module's learning outcomes and the hidden curriculum (frameworks for promoting autonomous learning, trust and relationships between peers, and between peers and tutors, dealing with the emotional aspects of learning and assessment).

While this is essentially arguing the case for constructive alignment, normally it is the tutor who determines how to constructively align and the students have no input. How to develop students as people is therefore different to constructive alignment. Students are expected to engage with the hidden curriculum, but it is not assessed. However, it should still be considered as part of the design process. In developing the frameworks it is often not the assessment outputs that are different, but how the students are prepared for the assessments.

Thus, rather than aiming to present a single framework that can be statistically valid and universally applied across subject areas, the recommendation of this research is that for autonomous learning frameworks to be effective, the individual needs of the students and the class need to be investigated and addressed. Frameworks may even need to be adapted for different cohorts.

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