Technology and presentation skills teaching: activity theory as a tool for the design and evaluation of strategies for the use of video as a learning tool in presentation skills teaching

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ABSTRACT

This study presents the results of an investigation into first year undergraduate law students' attitudes toward the use of video review and video feedback as a learning tool to support self-regulatory learning in presentation skills teaching. The students who participated in this study were all enrolled on a first year undergraduate presentation skills module. The module is part of a qualifying law degree at a post-1992 university in England. The first oral presentation performance they delivered in class was recorded using iPads. The students were then provided with access to their individual performance and the tutor's feedback via a link to a central server. The students were asked to review the video away from the classroom. Nine students were interviewed for this case study and a theoretical framework based on activity theory was used to analyse the data and consider the design implications. The research suggests that more opportunities for peer and tutor communication and peer collaboration need to be introduced if self-regulatory behaviours are to be fostered in students. In methodological terms the research concludes that activity theory offers a useful tool for designing and evaluating technology enhanced approaches to legal skills teaching.

Keywords: Self-regulatory learning; legal education; activity theory; self-reflective learning; video; presentation skills
1. INTRODUCTION
1.1 BACKGROUND

A common theme in the technology-enhanced learning (TEL) literature is the concern that rather than promoting innovation the use of e-learning in higher education 'has tended to replicate or supplement existing academic practices' (Kirkwood, 2009, p. 113). The problem has recently been discussed in the context of legal education following the Legal Education and Training Review (LETR) (Legal Education and Training Review Independent Research Team, 2013) in June 2013 (Newbery-Jones, 2015). For Newbery-Jones (2015) there is a need not only for innovative approaches but innovative approaches that make use of technology specifically designed to enhance law students' own reflective practices in experiential learning situations. Newbery-Jones's comments reflect a constructivist approach where 'learning is seen more as student-centred in which the students are supported and guided in their own construction of their understanding within their socio-cultural situation and collaborate actively with others on their learning' (Bonzo & Parchoma, 2010). These approaches have been widely employed in law teaching where technology has been used to promote learning and shift the emphasis 'from a teaching model towards a learning model, for which the learner's active participation results in the construction of knowledge' (Burke, 2015, p. 190). Institutions have supported this approach by investing in technology enhanced active learning spaces such as those at Nottingham Trent University (including its law school) (McNeil, Borg, Kennedy, Cui, & Puntha, 2015). While designs vary between institutions, the common feature of these technology enhanced active learning classrooms is a table shape and room layout which allows small groups of students to work collaboratively on networked computers and whiteboards (Beichner, 2014). This investment is based on the argument that the 'proper marriage of space, technology and pedagogy can help to achieve learning outcomes, facilitate learning and ensure learner success' (Burke, 2015, p. 199).

Providing the technological means for constructivist learning does not, of course, mean that constructivist learning will happen. For example, virtual learning environment (VLE) systems such as Moodle may offer a range of opportunities for constructivist approaches. However, it has been observed that 'the main interaction with the VLE that most lecturers experience is to upload content: face-to-face delivery ... being replicated on-line' (Blin & Munro, 2008, p. 487). This may be seen as a problem where, with the best of intentions, technology merely replicates traditional delivery. For example, Newbery-Jones (2015) describes a multimedia platform which used social media to support student transition into higher education. As Newbery-Jones observes, although the approach used new technologies, the 'didactic method, through which the content and core messages were delivered, was no different to the delivery of content via written handbooks or traditional learning modalities, such as lectures' (Newbery-Jones, 2015, p.13).

Like Newbery-Jones (2015), this article argues that the answer lies in the 'custom-designed development of e-learning tools that are specific to the task required' (Newbery-Jones, 2015, p. 20) and that support students' own reflective learning. However, it is suggested that providing the resources for bespoke design of e-learning tools is not, in itself, enough. Designers of learning activities need to have a clear framework by which TEL initiatives can be designed, evaluated and, if necessary, redesigned and that this framework should be informed by research on self-regulated learning. This article will argue that activity theory can offer such an analytical tool by providing 'a matrix in which to reflect on our own practice, to arrange what seem to be disparate threads into a framework' (Kaptelinin & Nardi, 2006, pp. 11-12). It will be argued that activity theory is particularly suited to TEL initiatives because of
its emphasis on examining the mediating role that tools (such as a new technology) have on a human activity (including learning activity) (Kaptelinin & Nardi, 2006).

This article will explore the case for activity theory as a useful framework for the design and evaluation of TEL innovations in legal education particularly in relation to the support and development of self-regulated learning. It will report on a case study where activity theory was used to evaluate and redesign a legal presentation skills teaching initiative which made use of video recording of student performances and tutor feedback with the aim of promoting self-regulatory learning.

1.2 ORAL PRESENTATION SKILLS

The decision to investigate self-regulatory learning in an oral presentations skills class was informed by the recommendations in the LETR (Legal Education and Training Review Independent Research Team, 2013). Recommendation six of the LETR states that legal services education and training schemes should include learning outcomes aimed at ‘the demonstration of a range of written and oral communication skills’ (Legal Education and Training Review Independent Research Team, 2013, p.287). The LETR acknowledges that oral presentation skills (as distinct from advocacy) are already being taught at undergraduate level on qualifying law degree programmes. However, as the LETR observes at paragraph 4.73, ‘the issue is not necessarily that these skills are not taught, but that they may not be taught well enough’. While oral communication skills have been a feature, both formally and informally, at the academic stage of legal education for many years, this recommendation shifts the emphasis from it being an additional activity to an essential element of legal services education. Indeed, the LETR cites research (2013, paragraph 4.73) from Brown (2006, p.218) which observes that ‘there are no evidence-based studies of the efficacy of training’. Rather than relying on learning oral presentation skills purely though professional experience as a lawyer (what Brown describes as ‘craft-knowledge’ (Brown 2006, p.218)) the LETR supports Brown's assertion that undergraduate legal training should perhaps take the opportunity to develop a more research informed approach to designing skills training.

The development of programmes that promote effective oral communication training is, of course, not inconsistent with the continuing professional development that underpins the term 'craft-knowledge'. On the contrary, developing the skills to be able to learn from experience is something that the LETR itself acknowledges (2013, paragraph 4.87). Reflecting on the research into the regulation of legal training, the LETR observes that regulation has tended to adopt ‘a rather patchwork approach to self-management and reflection’ (2013, paragraph 4.88) and tends to ignore the reality of the way in which professionals develop competencies. The report underlines that an ‘emphasis on self-evaluation and self-management skills can help counteract the artificial perception that competence is 'acquired' in a relatively linear, additive, fashion and then done’ (Legal Education and Training Review Independent Research Team, 2013, paragraph 4.90). It is argued here that focusing on an activity in the undergraduate law curriculum that relies less on substantive knowledge (oral presentation skills) and more on learning from experience offers a useful arena in which students can break away from this linear view of learning and reflect more on their skills development.

1.3 SELF-REGULATED LEARNING

Experiential learning, based on the work of Kolb (Kolb, 2014), has a long tradition in legal education. Approaches based on the concept that learning occurs through experience fit well
with the development of learning initiatives with a practical focus such as law clinics, internships, simulations and problem based learning (Burke, 2015). However, it has been argued that the experiential approaches advocated by Kolb give insufficient attention to reflection (Newbery-Jones, 2015) and that reflection, particularly in the context of legal skills teaching, 'must go beyond mere observation and include an in-depth reflection on one's practice' (Newbery-Jones, 2015, p. 6). This view echoes an early criticism of Kolb that it fails to 'uncover the elements of reflection itself' (Boud, Keogh, & Walker, 1985, p. 13). These perceived shortcomings of Kolb's version of experiential learning have been compensated for by an emphasis in legal education literature on the role of reflection based on Schon (Schon, 2008) and Boud (Boud et al., 1985). However, even these more in-depth approaches to reflection may be insufficiently tailored to the needs of legal skills teaching (Gibbons, 2015). It is argued that successful design of oral presentation skills teaching initiatives and legal skills teaching in general needs to be informed by the wider education literature which emphasises the importance of self-regulated learning.

Self-regulated learning is rooted in psychology but has become a significant feature in educational literature. In particular, it has been prominent in the literature on oral presentation skills (De Grez, Valcke, & Roozen, 2009a), formative assessment (Nicol & Macfarlane-Dick, 2006) and mobile learning (Liaw & Huang, 2013). Nicol and Macfarlane-Dick (2006) adopted the following as a working definition:

Self-regulated learning is an active constructive process whereby learners set goals for their learning and monitor, regulate, and control their cognition, motivation, and behaviour, guided and constrained by their goals and the contextual features of the environment. (Pintrich & Zusho, 2002, p. 64)

The advantage of this definition for Nicol and Macfarlane-Dick's research into formative feedback was that 'self-regulation applies not just to cognition but also to motivational beliefs and overt behaviour' (Nicol & Macfarlane-Dick, 2006, p. 202). Rather than being limited to a focus on reflection, this approach recognises the importance of the students' 'active monitoring and regulation of a number of different learning processes' (Nicol & Macfarlane-Dick, 2006, p. 199). As such, it is well suited to examinations of teaching oral presentations skills that involve cycles of preparation, performances, observation, feedback and reflection.

1.4 THE ROLE OF FEEDBACK

Research into the development of oral presentation skills is both modest and fragmented (De Grez et al., 2009a). However, a number of recent studies have focused on the role of both peer and tutor feedback in the development of presentation skills and ongoing self-regulatory learning (Chen, 2010; De Grez, Valcke, & Roozen, 2014; Langan et al., 2008). These themes resonate with undergraduate law oral presentation skills teaching which aims to foster both basic oral presentation technique and the self-management skills to continue that learning beyond the undergraduate programme. While the literature on this aspect of presentation skills is modest, there are links with the wider work on the role of feedback in higher education.

Feedback is acknowledged to be an important mechanism for improving student learning in higher education but there is dissatisfaction with current approaches to feedback (Molloy & Boud, 2013). An approach gaining ground in the literature is that the effectiveness of a feedback episode is contingent on the 'seeking behaviour' of the learner (Bok et al., 2013; Molloy & Boud, 2013), where the learner is "active in seeking, generating and using feedback
to change their task performance" (Molloy & Boud, 2013, p. 228). The value of mobile technology in promoting these approaches to learning has been a prominent theme in the literature (Liaw & Huang, 2013; Sharples, Taylor, & Vavoula, 2007). Student self-regulated learning also forms an important part of oral presentation skills instruction literature (De Grez et al., 2014; Nicol & Macfarlane-Dick, 2006). Although there is literature on the benefits of the use of video in presentations skills teaching (Bourhis & Allen, 1998; Winne, 2004), the relationship between the video recording of performances and feedback, student access to the recordings on mobile devices and self-regulation of learning has not been explored.

1.5 CASE STUDY

The present case study is situated in a law school in a post-1992 university in England. In 2012 the school started using iPads to record student presentations and the tutor feedback on those presentations (given orally by the tutor immediately after the performance). The iPads were used in conjunction with software designed to store the recordings on a university server. The students were then provided with access to their individual performances and the tutor feedback away from the classroom using their chosen personal electronic device. This teaching initiative offers an opportunity to investigate whether the availability of recordings of performances and tutor feedback on mobile devices supports the development of student self-regulatory and self-reflective behaviour.

This research focuses on the first occasion that a new cohort of students performed in class and the first time they had access to the recording created. This allowed the earliest stages of the development of the activity to be examined and, in particular, whether clearer access to the students' perceptions of the use of video for self-reflection before video review became a more routine part of the teaching process. This research aims to both evaluate the current pedagogical design and consider ways in which that design can be developed. It uses activity theory as a theoretical framework to assist in the analysis of this data.

2. RESEARCH QUESTIONS

- To what extent do the reported experiences of law students in a presentation skills class demonstrate that the use of video recorded performances and feedback support the development of self-regulatory seeker behaviour?
- What implications do these reported experiences have for the redesign of the pedagogical activity to better support the development of self-regulatory seeker behaviour?
- How can activity theory be used to evaluate the design of a self-regulated learning strategy?

3. LITERATURE REVIEW

3.1 VIDEO RECORDING IN PRESENTATION SKILLS TEACHING

Oral presentations are a common feature of student activities and assessments (Falchikov, 2013). They are used particularly in professional oral communication skills teaching (Barry, 2012) in disciplines such as law (McCrimmon, 1994), engineering (Magin & Helmore, 2001) and medicine (Taylor & Toews, 1999). In the context of undergraduate law teaching in UK higher education there is, as has already been acknowledged, little published research on how effectively oral presentation skills are being taught (Brown, 2006).
While the academic literature does not suggest that presentation classes are routinely recorded, the benefit of using video in presentation skills training has been well recognised. Bourhis and Allen observed that video helps students to enhance their presentation skills acquisition ‘by virtue of being able to see and hear their own speaking performances and to analyse them at a time and place removed from the actual communication event’ (Bourhis & Allen, 1998, p. 259). More recent studies support the idea that video recording does indeed develop students’ ability to reflect on their performances and develop a more self-regulated approach to their skills acquisition (Miles, 2014). There are parallels here with the use of video for video enhanced reflection in foreign language learning (Hung, 2009), where students review videos of their oral language skills in order to ‘critically reflect upon their language learning process’ (Hung, 2009, p. 186).

3.2 SELF-REGULATORY LEARNING AND PRESENTATION SKILLS TEACHING

The most prominent line of recent scholarship on presentation skills teaching has looked to social cognitive theory; a theoretical approach well suited to understanding the development of complex behaviours such as presentation skills (Bandura, 2005; De Grez et al., 2009a; De Grez, Valcke, & Roozen, 2012). People develop complex behaviours such as presentation skills through the observation and performance of modelled patterns of behaviour, ultimately reaching a point where they can self-regulate their performance (Bandura, 1986; De Grez et al., 2009a). By this analysis self-regulated learning consists of three cyclical phases: forethought, performance and self-reflection (De Grez, Valcke, & Roozen, 2009b; Schunk, 2001; Zimmerman, 2000). It is beyond the scope of this study to consider the social modelling that is central to a social cognitive theory approach to presentation skills teaching. However, an analysis of self-regulated learning focusing on performance and self-reflection is relevant to the video review process in this study. Recent studies suggest that while students are well motivated to develop presentation skills (De Grez et al., 2012), more than motivation is required. Self-regulatory learning, and the self-reflection that underpins it, requires students to engage with their performances and the feedback they receive on those performances.

3.3 SELF-REGULATORY LEARNING, FORMATIVE FEEDBACK AND ENGAGEMENT

There is a link with the wider literature on the relationship between self-regulated learning, formative feedback and student engagement. The key purpose of formative feedback should be 'to empower students as self-regulated learners' (Nicol & Macfarlane-Dick, 2006). The literature supports the view that initiatives that promote formative use of feedback by students can produce significant learning gains (Black & Wiliam, 2009; Gibbs & Simpson, 2004; Parkin, Hepplestone, Holden, Irwin, & Thorpe, 2012). This process can only operate if students are actively using feedback to monitor and regulate their own learning. On its own, ‘feedback, regardless of its degree of detail, will not cause improvement in learning’ (Maclellan, 2001, p. 316). Successful feedback requires the student to be cast as an active ‘seeker’ (Bok et al., 2013) in the feedback process. Fostering this seeking behaviour in students presents its own difficulties. Factors such as the perceived trustworthiness of the feedback provider, the relationship between the provider and the learner and the motives of the learner are all relevant here (Bok et al., 2013). Particular attention needs to be given to the way feedback is perceived by the learner. Factors such as fear, confidence and reasoning processes play an important part in determining whether and how a learner engages with feedback (Eva et al., 2012). These findings suggest that the style of feedback is central and that feedback
should be ‘delivered from a clear position of beneficence that allows the learner to maintain their self-concept’ (Eva et al., 2012, p. 25). One potential means of enhancing student engagement with feedback is to provide that feedback via video (Crook et al., 2012). Indeed, the interest in delivering feedback via video or audio files can be traced in the recent literature (Lunt & Curran, 2010; Marriott & Teoh, 2012; Nortcliffe & Middleton, 2011; Thompson & Lee, 2012).

### 3.4 FEEDBACK AND MOBILE LEARNING

Offering feedback by video has been facilitated by the development of mobile technologies that allow students to access video files on their personal mobile devices. Indeed, this is one manifestation of mobile technology being incorporated into higher education programmes as ‘institutions and students begin to recognize the importance of bridging the gap between formal classroom and out-of-classroom informal learning to achieve pedagogical goals’ (Jalil, Beer, & Crowther, 2015, p. 1). For the purposes of this study, mobile technology is computer technology that is transportable, such as smartphones, tablet computers, laptop computers, and netbooks (Gikas & Grant, 2013; Valk, Rashid, & Elder, 2010). Whether through access to a VLE site or via email, students are able to ‘use mobile devices to access their feedback and use the technology to have a personal dialogue about feedback with their tutors regardless of location’ (Hepplestone & Chikwa, 2014, p. 51).

The relationship between the video recording of performances and feedback, student access to the recordings on mobile devices and self-regulation of learning has not been explored in the academic literature. This research seeks to explore this gap to examine whether providing students with mobile access to their presentations performances and feedback helps them develop as self-regulatory learners. Indeed, it is hoped this limited investigation will open avenues to further research on how to develop self-regulatory learner behaviour.

### 4. THEORETICAL FRAMEWORK

#### 4.1 ACTIVITY THEORY

This study seeks to capture student perceptions as to the value of video in the presentation skills learning process but within a narrow period of time (their first oral presentation and their reflection on that performance and the associated feedback). While the period under analysis is narrow, it is argued that this particular snapshot can offer insights into the cultural-historical development of the presentation skills learning process. In particular, it is hoped that limiting the analysis to the period when the teaching approach is new to the students will help to foreground the role of technology in developing self-regulatory behaviours.

The theoretical framework for this project is based on activity theory. Activity theory can be traced back to the work of Vygotsky who, adapting Marx, argued that humans develop through a series of social and cultural interactions with the world mediated by tools and signs (Kaptelinin & Nardi, 2006). In ontological terms the approach is non-dualist, where reality is located in the individual’s perception of the world leading to multiple interpretations. Analysis of activities (the activity being the unit of analysis) from this ontological perspective offers a means of understanding both individual human beings and the social context of which they are a part (Kaptelinin & Nardi, 2006). For Engeström these activities can be analysed as activity systems. The mediating role of a new tool in an activity system ‘often leads to an aggravated secondary contradiction where some old element…collides with the new one. Such contradictions generate disturbances and conflicts, but also innovative attempts to
change the activity’ (Engeström, 2001, p. 137). Engeström (Engeström, 2014) defines collective activity through an expanded framework that illustrates the interactions between tool-mediated activity and rules, community and division of labour (Figure 1).

Activity theory offers a tool that can be used to design and evaluate technology enhanced learning interventions (Kaptelinin & Nardi, 2006). It has been used in legal education as a tool to design authentic technology enhanced simulations (Barton, McKellar, & Maharg, 2007). Although not in a legal education context, activity theory has also been used to explore learners' perceptions of the value of video in oral skills teaching (Hung, 2009). Indeed, Hung's investigation of 'video enhanced reflection' (Hung, 2009, p. 174) in language teaching uses activity theory to help understand student perceptions of 'the mediating role played by video technology' (Hung, 2009, p. 174) when used to record students' oral foreign language presentations. The study concluded that 'the mediation of video in the language learning activity allows for cognitive reinforcement and affective engagement in the learning process' (Hung, 2009, p. 186). However, it is submitted that Hung's analysis is limited to the mediation of the relationship between the subject (the students) and the object (enhanced language learning). A more detailed expanded framework is needed to understand how reflection on performance and reflection on feedback captured on video can support self-regulated learning.

4.2 THE TASK MODEL FOR MOBILE LEARNERS

The task model (Jalil et al., 2015, p. 1; Taylor, Sharples, O'Malley, Vavoula, & Waycott, 2006) offers an analytical tool capable of exploring the semiotic issues relating to student self-reflection and use of feedback in conjunction with an examination of the mediating role of technology in the feedback activity. The task model is based on a two-layered activity system designed to explore the dialectical relationship between technology and semiotics (Taylor et al., 2006). For the purposes of this study the semiotic layer looks at the students' learning behaviour which is mediated by cultural tools and signs made up of their performance and
feedback. The technological layer represents the students' engagement with technology within this activity. Essentially, it is argued that as 'the learners appropriate the technology into their learning activities, their learning behaviours in turn will be shaped by that technology' (Jalil et al., 2015, p. 3). This process offers the opportunity to explore the role of video in the development of self-regulated learning. It is hypothesised that the benefit of a video system for recording the performance and feedback derives from the way in which learning is delivered. That is to say whether learners can use the video to conveniently access learning materials and whether they can control their learning and style of interaction with that material. The task model for mobile learners can be represented as a two-layer activity system diagram (Figure 2) (Jalil et al., 2015; M. Sharples, Taylor, & Vavoula, 2005; Taylor et al., 2006)

The two-layered activity system is designed to support the description and analysis of 'complex interactions between people and computer-based technology to inform the design of socio-technical systems' (Jalil et al., 2015, pp. 3-4). While the research in this paper does not involve high levels of complexity, it is submitted that the task model can usefully inform the analysis and design of more limited interactions between people and mobile technology. Indeed, the two-layer activity system has provided the theoretical framework for research similar to that being explored in this paper (for example, student attitudes to e-books as a learning tool (Liaw & Huang, 2014)).

The advantage of the task model for the current research comes when the semiotic and technological layers are fused to allow the researcher to examine 'the holistic system of learning as interaction between people and technology' (Sharples, Taylor, & Vavoula, 2010, p. 233) and so view the technological tool as something more than a physical object (Sharples et al., 2010). For this research, the task model allows investigation of the dialectic relationship
between the technological tool in this activity (the availability of the student performance and feedback on a mobile device) and the semiotic elements in the system (the cognitive environment in which meaning is made as a result of reviewing performance and feedback). The value of such an investigation is not solely evaluative, it also 'sets requirements and constraints for the subsequent design processes' (Jalil et al., 2015, p. 4) which allow the activity to be redesigned.

4.3 ACTIVITY THEORY AND FEEDBACK

When considering the semiotic layer of the task model activity system it is worth considering the wider literature on the use of activity theory in research on feedback, of which there is only a modest amount. There has been research on the power relations between teacher and learner in the design, undertaking and assessment of class activities (Crossouard, 2009). This research looked at the 'challenge' of assessment rather than the mediating influence of how feedback is delivered. Pryor and Crossouard (Pryor & Crossouard, 2010) use activity theory as a model to explore the way that formative assessment can be used to deconstruct the contextual power relations between teacher and learner and support more active learning. While this does contain elements of self-regulatory behaviour, the emphasis is on providing a model for educators to use in designing formative assessment tasks rather than the way delivery of feedback might support self-regulatory behaviours. Activity theory has been used as a qualitative analysis framework to explore the complexities of formative assessment (Asghar, 2013). Although this small scale study does offer some insight into how activity theory might be used to explore the influence of feedback as the mediating tool in an analytical model, its main aim is to use activity theory as a 'useful reflective framework to analyse and understand the complexity of formative assessment practices' (Asghar, 2013, p. 29).

4.4 THEORETICAL FRAMEWORK AND RESEARCH QUESTION

- To what extent do the reported experiences of law students in a presentation skills class demonstrate that the use of video recorded performances and feedback support the development of self-regulatory seeker behaviour?
- What implications do these reported experiences have for the redesign of the pedagogical activity to better support the development of self-regulatory seeker behaviour?
- How can activity theory be used to evaluate the design of a self-regulated learning strategy?

The delivery of the student presentation performance and the tutor feedback to the student's mobile device involves both technological and semiotic elements. In order to understand the impact of video on self-regulatory behaviour we need to understand how the technology being used; the mobility of both the technology and the learner; and the student interaction with the video contribute to the students' cognitive learning environment. The task model for mobile learning offers a suitable framework for this task.
5. METHODOLOGY

5.1 APPROACH

The study seeks to capture student attitudes to the use of video in the presentation skills learning process but within a narrow period of time (their first oral presentation and their reflection on both that performance and the associated feedback). This study will be part of a wider study of the development of the activity through a process of evaluation and redesign. Kaptelinin and Nardi (2008) emphasise that analysing user attitudes to a target activity at various stages of its life-cycle offers a means of evaluating the effect that the target technology has on the target goal and considering how design changes might develop the activity. It is argued that this early snapshot can offer a particularly valuable insight into the development of the presentation skills learning process. Limiting the first piece of research to the period when the teaching strategy is new to the students will help to foreground the role of technology in developing self-regulatory behaviours.

A case study approach offers a way to exploit this theoretical framework and investigate the role of video in self-regulated learning in a real-life context (Yin, 2009). This approach is particularly useful in situations such as this where 'the boundaries between phenomenon and context are not clearly evident' (Yin, 2009, p. 18). The approach is therefore appropriate where, as is the case here, the aim of the research is to consider the range of factors that may give rise to contradictions within the activity system.

The students involved in the study were taught by one of the researchers as part of an undergraduate presentation skills module. The research is therefore insider research (Trowler, 2011). While ethical issues have been safeguarded through appropriate ethical research practice, it is nevertheless acknowledged that the power relationships between interviewer and interviewee may distort the data (Kvale & Brinkmann, 2009; Mercer, 2007). In particular, students may well emphasise behaviours that have been encouraged by their tutors and minimise the role of behaviours that they consider not in tune with the course design. In particular, students are likely to be positive about viewing their performances and feedback away from the classroom. The research team maintained an awareness of this issue both in the interviews and in the data analysis. While students were given the opportunity to comment on their views of the value of using videos of their performance and feedback, particular attention was given to their descriptions of how they actually made use of the material.

5.2 DATA COLLECTION

Nine students volunteered to engage in semi-structured interviews shortly after reviewing their presentation and feedback recordings (the questions used are set out in the appendix). Consideration was given to using focus groups which might have offered a more comfortable environment for first year students. However, semi-structured interviews seemed, in epistemological terms, to offer the most appropriate means of accessing each individual's perception of the non-dualist world. All students are undergraduate law students in their first year of study (Table 1). All participants take the core presentation skills module. Most of the participants had not had this type of training before. However, Tina (who has a first degree from another country) commented that 'in my last university course there was a course' like this one. Similarly, Ruth had had some presentation skills training while studying on an access course. Both Brian and Mike had had some experience of presentation training in the
workplace. None of the students had experience of using video in their presentation skills training.

Table 1. Participant list

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Gender</th>
<th>Length of interview (Mins:Secs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Len</td>
<td>Male</td>
<td>9:59</td>
</tr>
<tr>
<td>Vanessa</td>
<td>Female</td>
<td>13:10</td>
</tr>
<tr>
<td>Emma</td>
<td>Female</td>
<td>8:26</td>
</tr>
<tr>
<td>Callum</td>
<td>Male</td>
<td>11:33</td>
</tr>
<tr>
<td>Gavin</td>
<td>Male</td>
<td>15:54</td>
</tr>
<tr>
<td>Tina</td>
<td>Female</td>
<td>10:10</td>
</tr>
<tr>
<td>Mike</td>
<td>Male</td>
<td>19:30</td>
</tr>
<tr>
<td>Ruth</td>
<td>Female</td>
<td>13.48</td>
</tr>
<tr>
<td>Brian</td>
<td>Male</td>
<td>13.34</td>
</tr>
</tbody>
</table>

5.3 DATA MANAGEMENT

The field notes and audio recordings of the interviews were initially reviewed using a 'reflexive, iterative process of data management' (Halcomb & Davidson, 2006, p. 41). This process started with the field notes prepared during the interviews which were based around the planned questions. These notes were reflected upon immediately after each interview and then reviewed and amended while listening to the audio recordings. The recordings were also reviewed further through the writing up stage and detailed extracts of the students' responses were transcribed. This process allowed emphasis to be given to generating understanding of student perception of the activity while maintaining accuracy of the student comments used to illustrate the study findings (Halcomb & Davidson, 2006).

5.4 DATA ANALYSIS

In the initial analysis of the data the factors in the task model were used to group the students' interview answers (Jalil et al., 2015). These groupings were then reviewed against the research questions and comments relating to self-regulated learning behaviours categorised.

6. RESULTS AND DISCUSSION

6.1 TOOLS

- Technological (mobile learning technology)
- Semiotic (content of the presentation video and feedback)

The task model considers tools in both technological terms (such as mobile devices and instructional videos) and semiotic terms (Jalil et al., 2015, p. 2). However, the semiotic cognitive learn-space (Jalil et al., 2015) is considered in rather abstract terms in the literature. For the purposes of this study the semiotic tool is the content of the video that provides the student with recorded feedback and the opportunity to review their presentation performance.
Technological tools

All participants reported being able to access and watch their performance and the feedback via a link sent to them immediately after their performance.

Semiotic tools

All participants expressed the view that feedback offered a means to improve. Brian stated, for example, that the purpose of feedback is to ‘recognise your weak spots, recognise what you are doing well and help you to build on what you are doing to progress’.

When feedback and its delivery was explored in more detail differences among the participants' approaches emerged. Vanessa, Ruth and Callum all commented on the difficulty of taking on board the oral feedback delivered by the tutor immediately after the presentation. Ruth commented that ‘at this specific time you are happy to finish and don’t listen’. However, other participants did not express this view with Brian going as far as saying that when feedback is ‘immediate I can relate to everything straightaway’.

Vanessa felt that the feedback ‘made more sense’ on the video. Callum stated that ‘you have more time to reflect because…you haven’t got the feeling of having just performed…so you can reflect better on it and take it in more’. However, the experience of engaging with the video was not without difficulty. Vanessa felt that ‘it’s very weird watching yourself ‘cos it feels like you are just sitting there watching’.

There was also recognition of the role of feedback and the review process in the development of their skills. For example:

- Len commented that ‘this is how I did it the first time and then after the next video - this is how I did it the second time and evaluate the differences’.
- Vanessa said that ‘you’re seeing the video at first and thinking, this isn’t good until you get to the feedback, then you think ah if I do this and this and this then I should be getting better’.
- Ruth stated that ‘watching the video I understand my mistakes and I want to improve’ and ‘we get the opportunity to compare the first try with the second, the third, the last’.

6.2 SUBJECT

- Technological (technology user)
- Semiotic (learner)

The subjects of the activity system are the participants who are using mobile technology to support their learning. However, it is important not to view mobile learning purely in technological terms. Mobile needs to be seen in broad terms of movement (Jalil et al., 2015) both in terms of location (students viewing the video away from the classroom) and time (students viewing the material at a time of their choosing). This movement of learning through time has wider significance in developing the skill to be able to revisit and apply learning gained in an earlier context (Jalil et al., 2015; Sharples et al., 2005). As has already been shown in the discussion above, a number of the participants recognised how both the technological
characteristics and the semiotic characteristics of the tools in the system might contribute to future development of their skills (in Len’s words ‘this is how I did it the first time and then after the next video - this is how I did it the second time and evaluate the differences’). However, for the tools to function in this way the subject must be engaged in this process and able to use the technology effectively.

The most likely reason for students not engaging with the recordings relates to the students as learners rather than as technology users. Both Vanessa and Emma were clear that they would not have watched the video had they not been asked to do so for the research. However, it is interesting to note that Vanessa stated that she had shifted her position after watching the video saying, ‘it starts as a more embarrassing thing but then becomes about how to improve’. Vanessa went as far as saying ‘I think I would start recording myself or filming myself and seeing how it looks and saying OK I can do this [tutor’s name] said this in the last video so maybe I can incorporate that’. Brian said that he ‘was nervous about clicking on’ the video link and Tina had to watch with the sound turned down first.

As has already been observed, a number of the participants voiced the view that reviewing the feedback and performance would be valuable in the ongoing development. However, only two participants discussed their deeper understanding of their learning process. Mike felt that the video of the performance and feedback was ‘very important in terms of imprinting it on your memory to watch it back so you don’t come away with a kind of false memory of what it was really like - you know - you can go back to the kind of objective memory and say these are the lessons I have learnt’. The theme of the objectivity of the video was something Brian took further when he said that ‘everything you verbally told me [as tutor] I could relate to it. I was able to see myself as an external person’. Brian summed this up by saying that ‘the video was able to give me my own advice really’.

6.3 OBJECT

- Technological (access to information)
- Semiotic (knowledge and skills); plus
- Changed object (revised knowledge and skills)

The pedagogical design of this skills activity is based on the idea that the technological object (access to the information) will provide access to learning material which will help students to self-reflect and engage with formative feedback away from the classroom. The changed object sought is not only the development of students’ presentation skills but also the development of self-regulatory behaviour that operates beyond the activity under investigation. There is certainly evidence that a number of the participants felt there was value in self-reflection using the video. As we have seen, Mike and Brian report this in terms of objectivity. Brian said that ‘it allows you to almost treat yourself as a different person’ when you review the recordings. Other participants also identified reflection as important. Callum stated that ‘I think I would try and watch both [video and feedback] because you get that reflective process where you take in, out of the moment, what’s been said to you’.

It is important to note that some participants saw the video system less in terms of reflection and more in terms of better appreciating the tutor’s views. Len commented that feedback is there ‘to see what someone else sees in your performance and how they feel you can improve’. Vanessa’s comment (above) about choosing to use video independently in the future was also set in the context of trying out suggestions made by her tutor.
6.4 COMMUNICATION

- Technological (communication channels and protocols)
- Semiotic (conversation and division of labour)

The task model is essentially social-constructivist in that its advocates view 'learning as an active process of building knowledge and skills through practice within a supportive community whereby they can share information and artefacts with peers' (Jalil et al., 2015, p. 10). The sharing of information and artefacts with peers is not a formalised feature of the presentation skills module. The module design does not offer a mechanism for response to feedback or discussion with peers within its current rules.

As has already been discussed, students comment on the different ways that the tutor feedback is received on video as opposed to live. However, while students may gain more from the video, it is difficult to view that as communication in a genuine sense.

A number of the participants raised the issues of sharing their videos. For example, Gavin watched the video with his wife. Vanessa watched her video with her room-mate and commented that she would 'probably ask someone else to look at it' if asked to reflect on a recording for class. Mike emphasised that peer feedback was as useful as tutor feedback. While the module design focuses on communication between tutor and student, the participants reported informal communication extending beyond that relationship.

6.5 CONTEXT

- Technological (physical context)
- Semiotic (community)

This element of the system draws on a number of the same points as communication above but offers a slightly different perspective. The current module design envisages the students presenting to a group within the classroom. Oral feedback is provided by the tutor in the classroom. The recording is then shared with the student but the student is expected to review and make use of the recording on their own. As has already been shown, a number of the participants went outside of this context and shared their recording within their own community. However, the context element of the system highlights that the physical context (for example the room used and the audience present in the room) and the community made up of the class and tutor were not fully exploited in a module design which emphasises the direct relationship between the tutor and the individual student.

6.6 CONTROL

- Technological (human computer interaction)
- Semiotic (social rules)

From a social-constructivist perspective 'the most successful learning comes when the learner is in control of the activity' (Jalil et al., 2015, p. 8). However, this is of course a matter of balance. Where too much control resides with the learner there is a risk that 'they will possibly fail to perform meaningful activities, develop false conclusions, become frustrated and unsynchronized when in a group' (Jalil et al., 2015, p. 8). Equally, when too much control is in
the hands of the teacher 'the learners will become unmotivated and passive as well as not understanding what and why they are doing' (Jalil et al., 2015, p. 8).

It is possible to have aspects of the activity that are too closely controlled by the tutor and other aspects where the students have too much control. The task model can help to identify these issues and contribute to balancing them in the redesign process. In the activity under investigation, opportunities for communication within a peer community are limited by the control element of the system which provides the rules of the activity. Although the module design had envisaged a collaborative environment where individuals would be able to develop their skills through discussion with their peers and the tutor, the analysis suggests that the tutor control of the activity operates against this happening in practice. Essentially, the level of tutor control of the activity results in a learning experience that is more instructivist than had been anticipated in the module design - the student performs to the class but the key feedback is provided by the tutor. There are limited opportunities in the activity to respond to the tutor or share the learning experience with peers. On the other hand, the students are given control by being provided with the video of the presentation and feedback. This is a resource that, based on the interview data, the students recognise as a useful learning tool. However, without more direction from the tutor, it seems likely that a high proportion of students will not make full (or any) use of the video. It may be that further tutor designed rules may be important to getting the self-reflection process started. For example, Vanessa commented that she originally only watched the video because of the research interview. However, she had changed her view through the process of watching the video saying 'it starts as a more embarrassing thing but then becomes about how to improve.'

7. CONCLUSION

Adopting the task model for this analysis has highlighted that, in design terms, the pedagogical approach to using video under investigation in this paper has not looked beyond the tool mediation of the relationship between subject and object. This is the same criticism that was levelled at Hung (Hung, 2009) in their design of the activity that made use of video in foreign language teaching. In relation to this study, the task model highlights that the design of the module under investigation and its approach to the use of video does not take sufficient account of the control, context and communication elements of the expanded activity framework.

The research has highlighted a number of contradictions in the task model activity system which are likely to operate as a brake on the development of self-regulated seeking behaviour. The central problem is that while the video performance and recorded feedback are available and easily accessible to the students, the system does not operate in a way that supports the active use of the videos. The issues focus in particular on the control element of the activity system. There are two aspects to this. The first is that the rules within the module do not require the students to engage with their videos at an early stage. The data revealed that although students understood the advantages of reviewing their videos, they were not always keen to do so. The second aspect is that the feedback system in use within the module was rigid and relied on the tutor providing feedback that the student was expected to make use of to develop their skills. While the activity may envisage an ongoing cycle of performance, feedback and further performance, there were no opportunities built into the activity to allow further discussion of performance and feedback either with the tutor or with the student's community of peers.
The type of student control that is likely to enhance learning requires the student to be ‘able to test ideas by performing experiments, ask questions, collaborate with other people, seek out new knowledge as well as plan new actions’ (Jalil et al., 2015, p. 8). Such control is not evident in this activity.

The results of this research need to be fed back into the pedagogical design of the module. It is suggested that more opportunities need to be given for students to communicate with both their tutor and their peers as part of the self-reflection process. The research suggests that this needs to be supported by introducing rules within the system which provide the initial impetus to encourage self-reflection within a collaborative system rather than leaving the individual to decide whether or not to watch the video. At present, it might be argued that rather than encouraging seeker behaviour, the student would need to already be taking a self-regulatory approach in order to make use of the video material. This research focused on a snapshot of a formative element at an early stage of an oral presentation skill module. However, the presentations did contribute to each student’s final portfolio that formed the main summative assessment of the module. This approach was informed by the view that ‘greater attention should be given to preparing students for the learning that they will engage in throughout their lives and that assessment in higher education has an important role to play in aligning assessment not only with immediate learning requirements, but with the long-term’ (Boud & Falchikov, 2006, p. 411). It is argued that redesigning the activity to support the development of self-regulatory learning in a collaborative environment will help create an activity that aligns with their learning beyond the module.

This case study examined a teaching strategy that had been designed with the intention of using technology to help students become more active and self-directed in how they learned from experience and feedback. Through analysis of the data it is clear that simply providing a new tool (in this case a recording of performance and feedback which can be accessed outside of the classroom) does not mean that it is used in the way anticipated or intended. As one student observed, she did not think she would have looked at the recording initially unless she had been prompted to do so in preparation for the research interview. If the tool is not used by the student then the strategy will not achieve its intended object. The use of activity theory as a ‘thinking space’ in this study has therefore been of assistance in identifying a flaw in the strategy design and planning enhancement to that design.

Returning to the LETR, it was suggested in its report that undergraduate legal skills teaching needed to be underpinned by a more effective and research informed approach (Legal Education and Training Review Independent Research Team, 2013, paragraph 4.73). The research set out in this article has provided one example of how that recommendation may be realised in the context of one oral skills unit and using activity theory. It is noted that the analysis of the data led the researchers to conclude that the gap in the design was in the management of activities outside of the classroom. Technologies such as those used in the activity under investigation offer valuable opportunities for learning to take place beyond the classroom but the research highlights the need for module design which encourages this process. This seems to support the LETR’s assertion that attention is needed in the way in which the skills of self-evaluation and self-management are understood and developed (Legal Education and Training Review Independent Research Team, 2013, paragraph 4.90).

If, as is argued by Newbery-Jones (2015), it is desirable for there to be ‘custom-designed development of e-learning tools that are specific to the task required’ (Newbery-Jones, 2015, p. 20) then designers of learning activities need to have a clear framework by which TEL initiatives can be designed, evaluated and, enhanced. It is suggested here that the activity
theory approach used in this study could be an effective means of testing TEL strategies both before and after implementation. The framework model is particularly strong in illuminating the mediating role of the tool (the video of performance and feedback) and the likely effects on the human activity that it seeks to affect. Where law schools are investing in technology to enhance self-regulating behaviours in students it is argued that such a robust and theoretically grounded approach to evaluation is all the more important.
APPENDIX - LIST OF INTERVIEW QUESTIONS

Preliminary:

1. What are your views on purpose of feedback from tutors?
2. Have you ever had presentation skills training before?
3. Ever had training or coaching where film is used?
4. Have you watched the video and feedback?
5. If you weren't giving this interview, would you have watched the video?
6. What device did you use?

The presentation session:

7. How did you feel before the first presentation?
8. What concerns did you have?
9. How did you find doing it?
10. What did you think of your performance?
11. How did you feel about getting feedback in class?
12. How did you feel about the feedback as you received it?

The Video:

13. How did you feel watching the video?
14. What did you feel about your performance having watched it on video?
15. Did the video change your views?
16. How did you feel about listening to the feedback?
17. Was listening to it back change your view of the feedback?
18. Do you think you would watch videos of future performances?
19. For the feedback or the performance or both?
20. Why?
The Future:

21. How will you prepare for your next speech?

22. Has watching the video changed what you are going to do to prepare?

23. In what ways?
BIBLIOGRAPHY


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