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An exploration of the use of technology to enhance the presentation skills of international students with reference to Puenteadura's SAMR model

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Giving a presentation is often one of the more challenging tasks asked of our students and even confident speakers can give a presentation lacking in focus. Presenting in a language other than their mother tongue may cause some to feel overwhelmed. Consequently, students often dedicate most of their time to developing strategies such as preparing detailed notes; memorizing their presentation by heart, and finally, focusing almost exclusively on the content of their presentation as they strive to cover as much information as possible. Delivery often comes as an afterthought to many students with little consideration being given to the pace and timing of their presentation.

While recent research has suggested that using technology more fully in the preparation and practice stages can help to address these issues for students, from a teaching perspective, making decisions about using technology in the classroom can often be a challenge for busy teachers who must select from a constantly changing array of tools and applications. However, if teachers can present a rationale for using technology based on sound educational theories, then this should go some way to alleviating the pressure felt by some to use the latest new tool simply for the sake of it.

By encouraging students to experiment with and incorporate appropriate technology effectively into such a task as presenting, teachers can increase their students' awareness of the importance of timing, delivery and visual aids. This in turn can lead to increased confidence for non-native speakers of English, and should also lead to a more engaging presentation for the audience. This article offers an overview of some of the theories which can be used to frame the use of technology for education with particular reference to Puenteadura's SAMR model and illustrates how it could be applied in the context of student presentations.

INTRODUCTION

There have been numerous discussions about how technology can ‘transform’ the teaching and learning experience. There are many advocates of technology in the classroom and many who oppose, for good reason what can sometimes appear to be the blanket adoption, or what Selwyn (2011) terms ‘unquestionable acceptance’ of all the latest technology for teaching purposes simply for the sake of it. For this reason, a number of educators have set out to theorise the use of technology in the classroom by providing frameworks and models which offer guidance to those in a position to experiment with and implement technology into their own classes. One such model is Puentedura’s SAMR model. This article will begin with a brief overview of some of the theories which can be used to frame the use of technology for education. Following this is an explanation of the SAMR model and how it can be used to inform the use of technology for improving presentations. Finally, this model will be applied to a contextualized example from the classroom illustrating how such technology could be implemented effectively on a pre-sessional business course.

LITERATURE REVIEW

Overview of relevant theories from education

While a wide range of theories from education and language learning can be drawn on to underpin one’s use of technology in the classroom, in the current literature, as highlighted by Laurillard (2008), references to theories which focus on learning as being an active process are most prevalent. Although Warschauer (2005:10) reminds us that ‘the term sociocultural theory means many different things to different people’, Hampel illustrates its relevance by focusing on drawing together a number of theories such as those proposed by Vygotsky and Piaget. She asserts that Vygotsky’s socio-cultural theory and Zone of Proximal Development, requiring learners to interact and cooperate with others in order for learning to take place, is still relevant to pedagogy today and that Computer Mediated Communication (CMC) focuses on the communication aspect of learning, providing ‘an excellent tool for socio-cultural,

situated learning' (2003:25). Stickler and Emke assert that learning does not follow the 'transmission model' of knowledge being passed one-way from an expert to a novice, but suggest that if pedagogy can be built on a theory of socio-cultural learning, then this would indicate that collaboration '[...] becomes essential as each learner advances through his/her ZPD' (2011:149). It would seem then that learning is not a linear process involving teachers conveying information to students. A further study by Warschauer (2005) on Computer Assisted Language Learning, (CALL), also focuses on Vygotskian theory and the idea that, in addition to being social, learning is also mediated. A metaphor given by Bateson (1972, cited in Warschauer 2005) of a blind man who uses a stick (or tool or artifact) is used to convey this idea that human activity is mediated by tools or signs. Applying this to the realm of technology then, how does the use of a tool such as a computer transform human action? In order to analyse learning it is necessary to consider not just the person or the tool, but what activities can be carried out, or transformed, when assisted by these tools.

Piaget's Constructivism is another theory frequently quoted in the literature and 'combines theories from cognitive science with sociocultural principles' (Hampel 2003:24) with the key focus being on how knowledge is put together, or constructed, by learners pooling their knowledge. While not all are advocates of such an approach, Fox (2001) for example, claims it is simply common sense for learners to build this knowledge together, Selwyn (2011) on the other hand suggests that it is worth defining educational technology in the following terms: artifacts (tools); activities; context. The idea of context here is important because as Walker and White (2013:15) note 'communication is always situated' and no two contexts are exactly the same. This applies particularly to an English for Academic Purposes (EAP) environment because it is highly contextualized with specific learner aims and outcomes. With regard to the use of technology for educational purposes then, the theories underpinning the rationale for new tasks and activities made possible by the technology must be carefully considered. A more recent theory related to socio-cultural theories has been put forward by Siemens with

his rationale for this being that earlier theories of learning '[...]do not attempt to address the challenges of organizational knowledge and transference' (2005:5). His theory of Connectivism (2005), attempts to more accurately theorise the learning process in a digital age where information is constantly changing. One of the key aspects highlighted through this theory is that 'the ability to synthesize and recognize connections and patterns is a valuable skill' (2005:3).

Taking all of these theories into consideration should help teachers to evaluate their pedagogical practices. However, in line with 'newer' technology come 'newer' models and frameworks. Warschauer predicted that 'teachers [...] should [...] have successful strategies for evaluating and adapting new waves of software that will surely come' (2002:457). One way of evaluating and deciding on how best to do this is to refer to a taxonomy of sorts called SAMR.

SAMR as a framework for evaluating activities

Puentedura's SAMR (Substitution, Augmentation, Modification, Redefinition) framework (2014) is one such model which has been adopted by some educators looking for a more technologically-oriented model. It refers to the application of technology for educational purposes and comprises of 4 such 'levels' of evaluation. These levels can be used to guide the teacher when deciding on a particular use of technology in a particular learning context. The lowest level, *Substitution*, refers to the use of newer technology to execute a task being substituted for older technology, so for example, instead of using a paper and pen to write an essay, students could type their essay on the computer. The next level, *Augmentation*, refers to the use of technology to improve the learning outcomes and perhaps make an activity more student-centred. These first two levels Puentedura refers to as *enhancing* learning. Moving up to the *Modification* level sees technology being used to do something new that could not be done without this technology. For example, students might be asked to carry out a research project requiring access to the internet and instead of just writing up their findings, they can

pool their findings on a wiki, share their thoughts with their peers and collaborate to produce a final group report. This can be done outside of the classroom so learning is not restricted to the physical space traditionally associated with learning. Neither is it limited to being done during class time. The final *Redefinition* level could be reached by then asking students to use their pooled information to make a short video reporting on their findings. This task would seem to include many of the features considered to be good pedagogical practice because students are actively engaged in collaboration, with the use of the tool (digital devices) to mediate their learning and to help them reach their full learning potential. Puentedura claims these two higher levels *transform* learning.

The SAMR model is not without its opponents however, and Green (2014, cited in O'Hagen 2015), found that a very similar model identifying three functions of technology use: *replacement, amplification, and transformation* (RAT) had already been put forward by another researcher in 2005. Linderoth (2013) in an open letter, calls the model 'simplistic', a claim echoed by Love (2015), and both note the lack of peer-reviewed literature available. However, Linderoth (2013) concedes that perhaps one such benefit of SAMR being a simplified version of these theories is that, at a practical level, it is accessible to busy teachers, which they can apply day to day in class. It is this theme of practical application and guidance for teachers which will be explored in more depth in the next section.

TECH TOOLS FOR PRESENTATIONS

PowerPoint has long been used as the main presentation software tool, however, particularly in the business world where time is increasingly at a premium and books such as McCormack's *'Brief: make a bigger impact by saying less'* (2014) are becoming more common, surely there must be a way, and a need, to harness this software in a more transformative, powerful and innovative way. Steve Jobs once claimed 'I hate the way people use slide presentations instead of thinking' (cited in Anderson & Williams 2012:1), a sentiment seemingly echoed by Beyer whose study on student presentations was prompted by the

question, 'PowerPoint is a tool they are expected to use, but do they use it effectively?' (2011:122).

It would seem that the majority of presenters only scrape the surface when experimenting with the functionality that is offered by presentation tools. Automated timing for slide transitions instead of the presenter controlling the progression of the slides with a clicker is a little-used function of presentation software such as PowerPoint and Prezi. Adding this simple twist to a regular slide presentation can transform it into a more dynamic and engaging experience because the presenter must remain focused with no time to digress, while questions can be saved until the speaker has finished. As Evans (2013) notes in his study of Hong Kong business employees, communicating succinctly is a key concern for many who use Business English as a lingua franca. It is perhaps no surprise then that the business world in particular for whom the lightning business pitch can be extremely high stakes, has taken to this speedy presentation format. Pecha Kucha, sometimes referred to as 'the art of concise presentations', is a unique format which uses the automated transitions to create a highly visual, brief presentation consisting of 20 slides with 20 seconds for each slide, giving an overall presentation time of 6 minutes and 40 seconds. Two designers, Klein and Dytham have been credited with its inception back in 2003 as a response to the many long-winded presentations they had been subjected to at design functions (Klein & Dytham 2016).

Another of the many tools available for presentations is *Movenote*, up until recently a free, cross-platform application allowing users to record themselves with the inbuilt camera on their laptops and other mobile devices. It would seem particularly apt for presentation practice as users can see a video of themselves on one side of the screen while the other half is taken up with their PowerPoint slides. Various functions include record, pause, edit and timer modes. A further function allows the user to invite another person to watch their recorded presentation who can then offer either text-based comments and feedback or a videoed message.

Teaching Scenario: Presentation skills for pre-sessional business students

Pre-sessional business students preparing for Masters programmes in a UK university have only a few weeks to work on their academic language and skills in order to prepare for their future studies. The aim of the course is to help them to make the transition successfully into their new academic environment. As time is short on this type of high stakes course, it is imperative that the course mirrors as closely as possible the types of task expected of students once they have progressed to their departments so as to fully prepare them and realistically evaluate their abilities. As such, students must focus on developing a wide range of skills, but one of the key skills to attend to is presenting in English.

On such a course, students can prepare a variation on the Pecha Kucha format, the aim being to raise awareness of creating presentations which are clear, concise, visual and engaging in order to maximize effectiveness. The rationale for setting such a task for these business students is partly to address issues of confidence, but also to raise awareness of the importance of quality presenting in the field of business. As Stevens (cited in Christianson & Payne 2011:1) discovered, employers 'strongly expressed a need for stronger skills in public speaking [...] and presentation skills, highlighting the ability to use software tools like PowerPoint'. The Pecha Kucha format has been embraced by educators of business students in particular (Levin & Peterson 2013; Oliver & Kowalczyk 2013; McDonald & Derby 2015; Anderson & Williams 2012), because many students struggle firstly, to select appropriate information and secondly, to judge how much information to include on each slide. Presenters must be concise and organized and as Beyer, Gaze and Lazicki note, 'it forces students to be more familiar with their material and reduces the mistakes often seen with traditional PP slides' (2012:28).

Presenting is one of the key transferable skills for business students as they will undoubtedly find themselves being asked to present a marketing pitch or to explain, clearly and confidently, ideas to their colleagues and employers (Evans 2013). Focusing on such skills would

therefore seem a worthwhile exercise which can improve students' employability. The challenge of having to present in English, includes not only thorough preparation and organisation, but also practice, as many students tend to stumble at the point of delivery. Less confident students will often script what they want to say on detailed notecards, learn their talk by heart, or even write all their information word for word on a PowerPoint slide which then acts as their prompt during the presentation itself, while over-confident speakers may feel tempted to 'wing it', leaving themselves open to giving a presentation full of digressions and lacking in structure and organisation. Time dedicated to research and construction of slides ultimately leaves little time for the practice.

In order to address these issues, students work in pairs to produce a 3-minute business pitch of an innovation to present to their classmates. They prepare only 6 PowerPoint slides and, in order to stick to the strict time limit, they need to be shown how to make use of the automated transitions function in order to set each slide to thirty seconds. This means each student has only ninety seconds and three slides to engage the audience and convey their message confidently and effectively. Although many students can take time to come up with an idea, the restriction on the number of slides they are permitted to use should help them to focus and plan their six-slide storyboard. Because the presentation is so short, the much avoided practice stage will not be so unpalatable, however, in order to emphasise the importance of this key stage, students should be encouraged to experiment with various apps available. The Movenote application outlined above for example, allows them to use the video function to highlight potential areas of weakness in delivery such as use of eye-contact and gestures as well as pronunciation, and students can record their delivery for one slide, edit, delete and re-record until they are satisfied with their efforts before moving on to the next slide. Once they have recorded themselves, their partner can then offer constructive criticism using the video feedback function. There is also the facility for this feedback to be recorded and sent back to their partner. Finally, the pairs present live to classmates having engaged

with the task at all stages in order to present a slick, confident pitch. It allows them to become more autonomous i.e. independent from the teacher, because using the tools they are able to reflect on their own presentation performance and benefit from a 'critical friend' peer review, thus building on the elements of Socio-culturalism, Constructivism and Connectivism discussed earlier.

Discussion

Taking such ubiquitous software as PowerPoint but using it in a more innovative way can help students to develop their organizational skills in terms of timing, brevity and clarity. Applying the SAMR model to this exercise would suggest that students are moving between stages during the task, initially using software to prepare PowerPoint slides at Puentedura's *Augmentation* level. By adding automated timing restrictions to their presentation this appeared to map on to Puentedura's *Modification* level, because it transforms the task from a straightforward task to prepare a presentation, to an exercise in thinking carefully about content, structure, visual impact and conciseness, all the elements we hope students will consider when preparing a presentation, but often do not. Finally, by adding additional steps into their brief such as using technology more fully in the preparation stage, this further encourages students to practise, but not learn by heart, exactly how much they can say in the time that they have for each slide, thus taking the exercise to the *Redefinition* level. Student pairs are engaged in asynchronous discussion as they review each other's sections of their joint presentation, leading not only to peer review, but effectively adding a collaborative element, where collaboration refers here to the element of each student working with another person, but also taking responsibility for the whole product, not just their own part. While this task would seem to take the exercise further up the SAMR scale, as noted above, because it involved a number of different elements and different functions offered by the technology available, the students are constantly moving up and down the levels, at times the technology is back at the substitution level, for example, while students redesigned their PowerPoint

slides, but at times they are at higher levels engaging with each other. The technological tools enable them to complete a more thorough and meaningful practice stage asynchronously and independently of the teacher. While a final live run through would also be extremely useful, it is often not as easy to execute due to timetable clashes.

CONCLUSION

To conclude, Selwyn remarks that ‘we cannot assume that technological change is an inevitable force for good education’ (2011:3) and technology should not be used simply because it is readily accessible. Puentedura’s SAMR model can serve as food for thought when considering one’s rationale for incorporating certain technological tools. There would appear to be some benefits of applying such a model to tasks and activities in the sense that it helps to build teacher awareness of potential uses of technology, but this should be balanced with an awareness that the students and their learning come before the technology. Some reservations expressed by educators about using this model suggest that just because a particular use of technology may only be perceived to be at the *Substitution* level, this does not mean that learning is not successfully taking place, and there should not be a blind ambition on the part of the teacher to climb to the top *Redefinition* level (Lee, 2014), because learning is not linear. It is likely that students are, at different times, working at different levels and moving up and down.

Finally, teachers should not feel obliged to use technology if they believe there is a better way of helping students using a non-technological approach. As Selwyn (2011:9) comments: ‘it is... important to recognize that educational technologies do not always change things for the better.’ Losh talks of ‘digital rhetoric’ which considers the affordances and constraints of technology as it continues to change at such speed, we may need to analyse ‘...interesting failures and unlikely successes when it comes to teaching, learning, thinking and deciding with technology’ (2014:7). By reflecting on our teaching experiences, good or bad, and feeding this back into our practice, we can try to theorise about what we are doing and why,

so that the pedagogical underpinnings are not lost in the hyperbole of the latest apps. In sum, SAMR is perhaps best viewed as a framework for teachers to help them reflect but not to prescribe what they do (Lee 2014).

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References:

Anderson, Joe and Susan Williams 'Pecha Kucha for Lean and Sticky Presentations in Business Classes', *Working Paper Series*, 12.1 (2012), 1-9

Beyer, Alisa, 'Improving Student Presentations: Pecha Kucha and Just Plain PowerPoint', *Teaching of Psychology*, 38.2 (2011), 122-126

Beyer, Alisa, Catherine Gaze and Julia Lazicki , "Comparing Students' Evaluations and Recall for Student Pecha Kucha and PowerPoint Presentations", *Journal of Teaching and Learning with Technology*, 1.2 (2012), 26-42

Christianson, Mark and Sylvan Payne, 'Helping Students Develop Skills for Better Presentations: Using the 20x20 Format for Presentation Training', *Language Research Bulletin*, 26 (2011) ICU. Tokyo

Evans, Stephen, "'Just wanna give you guys a bit of an update": Insider perspectives on business presentations in Hong Kong', *English for Specific Purposes*, 32.4 (2013), 195-207

Fox, Richard, 'Constructivism Examined', *Oxford Review of Education*, 27.1, (2001) 23-35

[Hampel, Regine, 'Theoretical perspectives and new practices in audio-graphic conferencing for language learning', *ReCall* 15.1 \(2003\), 21-36](#)

Klein, Astrid and Mark Dytham, 'Pechakucha', < <http://klein-dytham.com/pechakucha/> > [accessed 4 January 2016]

Laurillard, Diana, 'Technology Enhanced Learning as a Tool for Pedagogical Innovation', *Journal of Philosophy of Education*, 42.3-4 (2008), 521-533

Lee, Royan, 'The Problem with SAMR', *The Spicy Learning Blog*, <http://royanlee.com/?p=3375> [accessed 5 January 2016]

Levin, Michael and Lori Peterson, 'Use of Pecha Kucha in Marketing Students' Presentations', *Marketing Education Review*, 23.1 (2013), 59-64

Linderoth, Jonas, 'Open Letter to Dr Ruben Puentedura', *Spelvetenskapliga betraktelser* <http://spelvetenskap.blogspot.co.uk/2013/10/open-letter-to-dr-ruben-puentedura.html> [accessed 5 January 2016]

Losh, Elizabeth, *The War on Learning: Gaining Ground in the Digital University* (Massachusetts: MIT Press, 2014)

Love, Charlie, 'SAMR: A model without evidence' *Charlie Love.org* Available from: <http://charlielove.org/?p=10025> [accessed 5 January 2016]

[McCormack, Joseph, Brief: Make a Bigger Impact by Saying Less \(New Jersey: Wiley, 2014\)](#)

[McDonald, Robert, and Joseph Derby, 'Active Learning to Improve Presentation Skills: The Use of Pecha Kucha in Undergraduate Sales Management Classes', *Marketing Education Review*, 25.1 \(2015\), 21-25](#)

O'Hagan, James 'A critical review of Puentedura's SAMR' *e-o'Hagan.com* <http://www.e-ohagan.com/a-critical-review-of-puenteduras-samr/> [accessed 5 January 2016]

'Movenote', <https://www.movenote.com> [accessed 10 April 2017]

[Oliver, Jason and Christine Kowalczyk, 'Improving Student Group Marketing Presentations: A Modified Pecha Kucha Approach', *Marketing Education Review*, 23.1 \(2013\), 55-58](#)

[Puentedura, Ruben, 'Technology in Education – An Integrated Approach' Keynote](#)

<https://www.youtube.com/watch?v=kpPCzPBAXGA> [accessed 5 January 2016]

Selwyn, Neil, *Education and Technology: Key issues and Debates* (London: Bloomsbury Publishing Plc. 2011)

Siemens, George, 'Connectivism: A Learning Theory for the Digital Age', *International Journal of Instructional Technology and Distance Learning*, 2.1 (2005)
http://www.itdl.org/journal/jan_05/article01.htm [accessed 5 January 2016]

Stickler, Ursula and Martina Emke, 'Literalia: Towards Developing Intercultural Maturity Online', *Language Learning and Technology*, 15.1 (2011), 147-168

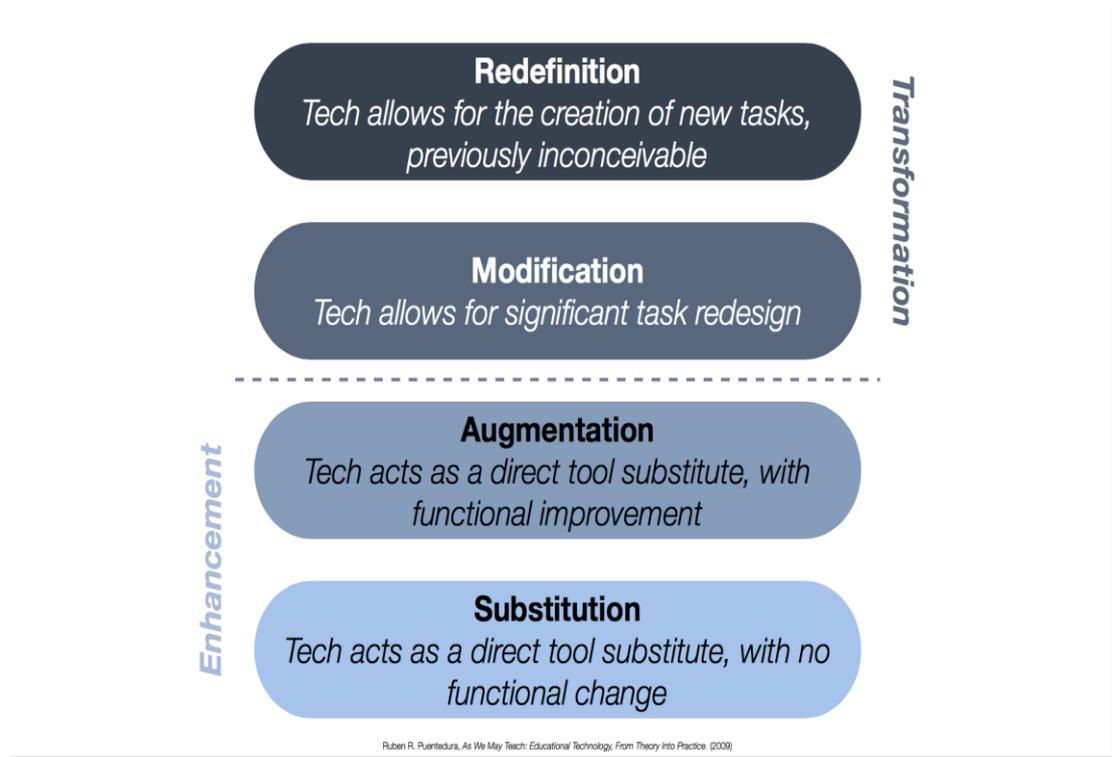
Walker, Aisha and Goodith White, *Technology Enhanced Language Learning: Connecting Theory and Practice* (Oxford: Oxford University Press, 2013)

Warschauer, Mark, 'A Developmental Perspective on Technology in Language Education', *TESOL Quarterly*, 36.3 (2002), 453-475

- 'Sociocultural Perspectives on CALL' in *CALL Research Perspectives* ed. by Joy Egbert and Gina Petrie (New Jersey: Lawrence Earlbaum, (2005), 41-51

APPENDIX

Puentedura's SAMR Model:



Puentedura, Ruben, (2009) 'As We May Teach: Educational Technology, From Theory into Practice',

<http://www.hippasus.com/rrpweblog/archives/2014/11/28/SAMRLearningAssessment.pdf>

[accessed 5 January 2016]