

The University Challenge - Technology to Tradition: Teaching with Artefacts

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Abstract

Show and tell is a technique widely used in early education. A more sophisticated name within higher education is teaching with artefacts, introduced in the theoretical foundation. Examples of artefacts, or representations, the preferred term in teaching, are numerous and varied. The use of an artefact, particularly when engaged in e-teaching, adds a dimension and richness to a technology-based session. The opportunity to incorporate artefacts in student feedback is a further potential enhancement. A range of benefits are evident from the theoretical foundation and the opportunity for creative and novel examples is encouraged in the subsequent discussion.

Keywords – artefacts, knowledge mobilisation, audio feedback

1. Introduction

Month after month of the University Challenge television quiz style Zoom layout sessions with screen share power point slides, break-out rooms which bring a sigh of relief and an opportunity for all participants to escape or provide an opportunity for reflection became familiar during 2020 and continue to be widely used in 2021. The personal reflections of these sessions, with feet on the off-screen radiator and a mind wandering to random topics frequently speculated on: “what’s for supper?” My determination to use the time more productively progressed to reflecting about what inspired me the most during my own education. The answer was stories and stuff!

This thought process took me back several years when a batch of modular feedback from students was being mulled over in a school meeting. Responding to a question raised by the Head of School: “how do you do it?” resulted in an expression of surprise. The data

summary was: “One lecturer is out on her own.” As a very late career researcher the propensity to be light-hearted increases exponentially in these situations. The explanation I provided was: “I switch on the screen and projector, pull out the high stool and climb aboard, pour a whiskey, light a cigarette and relate business stories with artefacts” The expressions of other staff were mainly of disbelief, of course this was an illustration of the style adopted by the Irish comedian and satirist, Dave Allen, who died in 2005. Come hither, for a while to explore teaching with artefacts.

An initial focus on the literature related to artefacts provides the focus of the discussions. The purpose being to review the use and benefit of artefacts during e-teaching as an antithesis to technology, incorporating examples to vary the relentless humdrum of power points, encouraging participation, response and engagement from students. Artefacts are a way of bringing the world into the classroom and has additional relevance when circumstances limit the opportunities to take students out into the world – so must bring the world in to them.

Intended Outcome

The intended outcome of the session is to generate a range of examples of artefacts that participants in the session will be able incorporate into their teaching as additional, memorable and potentially novel examples.

Target Audience

Teachers of management education at any level and with any length of experience are the intended audience as it is the technique and potential learning that have potential benefits beyond any specific segment.

2. Theoretical Foundation/Teaching and Learning Implications

Artefacts is derived from two latin words, arte, meaning by skill and factum which can be interpreted as to do or to make, it is, however, a challenge to source a precise definition in the literature. Friedman (2007) proposes that an artefact is anything that can be created by

humans to undertake a practical purpose. The focus of an artefact is usually on quality rather than production or a process and both living patterns and working habits are largely organized around the artefacts which are regularly used. According to Agostinho (2011) it is the visual feature of an artefact that is the main strength, it is an overall snapshot or summary to aid understanding. Joyce, et al. (2020) state that artefacts increase in quality when students are tasked with questions to investigate. The quality further improves when data analysis is introduced in relation to the artefact and has further value when explanations, arguments and solution designs are the learning outcome. Teaching practice using artefacts enables a sharing of ideas and application to management settings.

The use of artefacts has the potential to translate theoretical knowledge for practitioners from the abstract nature of higher education to specific tasks and supports student learning, suggests Risan (2020). The specific role of the artefact is dependent on the way in which they are mobilised by educators in lecture theatre settings and the extent to which they relate to subject matter. This can be complex, have diverse potential and requires creative work. Knowledge mobilisation is made relevant when the artefact is introduced, the relevance and specific relations with other elements leads to solving a task. However, “it is not necessarily clear how linkages are to be made between the artefact and the knowledge that is valued in higher education.” (Risan, 2020:4). This is the gap that is addressed in this paper.

Relating artefacts to teaching practice, the term representation is widely used when referring to visible aspects to enhance procedures. Hatch and Grossman (2009) refer to representations as a high-leverage practice which elicit student thinking and effective tool in supporting the launch of student discussions. The use of a representation is shown to encourage recognition, interpretation and reflection from a student perspective by revealing crucial details from complex practice to constituent parts. This is achieved via learning from practice which is developed over time and incorporated into a teaching repertoire.

Sharpe, et. al (2004) also use the term representation and propose that they need to be credible, drawn from real life and emphasise the context within which their stories were created. They have the potential to encourage interaction, commentary and annotation which may result in adaptation and use in student collaboration or individual work.

Audio feedback is classified as an artefact which is personal and a demonstration (Henderson and Phillips, 2014) and is also viewed as being mobile and professional (Kirkwood and Price, 2014). The tone, timeliness, connectedness, perceived relevance and informality are additional positive traits identified in relation to audio feedback by Harrison, et. al (2015). These aspects are expanded by Cann (2014) and this study provided evidence of repeated listening to audio feedback due to accessibility and greater comprehension as the audio representation has to be listened to from start to finish rather than the skim reading approach which may be adopted with written feedback. Concluding the audio feedback with an open question encourages ongoing interaction with the content. There is also a need for academic staff to overcome technical inertia and adopt this method more widely.

Contribution to Effective Teaching and Learning in the field of Management

As a result of the repeated references made, in the theoretical foundation section, to the transfer of knowledge, particularly for practitioners, the use of artefacts is a practice that has previously been identified as contributing to management teaching and learning. The technique adds to the repertoires of practice that involves a series of opportunities for long-term engagement (Hatch and Grossman, 2009). This session builds on this initial insight and provides ideas to enhance example in technology-based teaching to introduce captivating content.

3. Session Description

Artefacts in the theoretical foundation are broadly depicted, far beyond the valuable ornament and include the core textbook and a handout, through to more exotic items. As

previously noted, in teaching, artefacts are also referred to as representations. To encourage your individual thought processes for this session, memory lane is useful and asking what do you remember most from school? Examples could include:

- The Bunsen burner in the chemistry lab
- The supply and demand curve, with a break-even point arrow
- The apple that you dropped out of a third-floor science lab window to observe gravity
- The globe on the geography teacher's desk

Please listen carefully to the tone of my voice when I talk about this example as it links with audio feedback.

- The black and white geography textbook, with a picture of the Andes and a gaucho on a horse which captivated my imagination. It took me forty years to visit that region.

What I use now is the modern and colourful textbook, an umbrella, as an anchor to teach research methods and an empty coffee jar with lights in to illustrate group think – along with many more, including my i-pad, a stress ball and in 2020 a colourful facemask to illustrate communication theory.

4. Conclusion

During e-teaching and casting around to make rapid changes part way through delivery to energise the University Challenge gallery view of students, using artefacts within arms reach proved to be effective, evidenced by the student responses. Examples are listed in the introduction to the session, but there are numerous others. Incorporating artefact selection into lecture preparation expanded the type and variance of sources. Audio feedback resulted in excellent student and external examiner feedback and was presented as an institution-wide example of good practice.

Table 1: Session Sequence and Activities

Sequence	Topic	Duration	Involvement
1	Introduction to artefacts/theory and examples	05 mins	Presenter
2	Participants to identify one artefact they could exhibit and prepare a very brief oral presentation of how it could be used to illustrate a management related issue – including a drawing of the selected artefact. Depending on numbers attending this could be individually or in pairs/small break-out groups	10 mins	Participants Presenter to facilitate Resources: paper and coloured felt tip pens, or draw on i-pad
3	Ask for or gently cajole volunteers to briefly explain their selected artifact and how it could contribute to teaching management theory and/or practice. Questions and comments – with a focus on how the increased use of artefacts have the potential to enhance management teaching and learning	20 mins	Participants
4	Benefits of audio feedback	05 mins	Presenter Resources: example of assessment feedback used on turnitin
5	Who uses audio feedback? Who would consider, or how does use audio feedback as an artefact? How does audio feedback improve learning?	10 mins	Participants and author to facilitate a group discussion
6	Any questions/Conclusion / summary / feedback Vote: who is now considering using artefacts as an additional resource when e-teaching Thank everyone for attending	05 mins	Presenter and Participants
7	Built in for potential over-run	05 ins	

In a pilot study with two ex-colleagues to rehearse the proposed session, outlined above, the feedback provided referred to tone of voice, eye movement and personalisation. This naturally alternated between the computer screen and the artefact, resulting in a more conversational impression, rather than pure lecturing, which the sample suggested was far more inclusive. The technique was subsequently developed to encourage students to participate with their own examples; this was partially successful and is an area for further

research as the growth in technology as a teaching medium continues to expand and adapt to the emergent challenges of the 2020 decade through in the introduction of a personal activity.

References

- Agostinho, S. (2011). The use of visual learning design representation to support the design process of teaching in higher education. *Australasian Journal of Educational Technology*, 27(6) 961-978.
- Cann, A. (2014). Engaging Students with Audio Feedback, *Bioscience Education*, 22:1, 31-41, DOI: [10.11120/beej.2014.00027](https://doi.org/10.11120/beej.2014.00027)
- Friedman, K. (2007). Behavioural Artefacts: What is an Artefact? Or Who Does It? *Artefacts*, Vol. 1, Iss. 1: 7-11. DOI: 10.1080/17493460600610764
- Harrison, C.J., Molyneux, A.J., Blackwell, S. & Wass, V.J. (2015). How we give personalised audio feedback after summative OSCEs, *Medical Teacher*, 37:4, 323-326, DOI: [10.3109/0142159X.2014.932901](https://doi.org/10.3109/0142159X.2014.932901)
- Hatch, T. and Grossman, P. (2009). Learning to Look Beyond the Boundaries of Representation. *Journal of Teacher Education*, Vol. 60, No. 1: 70-85.
- Joyce, J., Harrison, J.R. & Gitomer, D.H. (2020). Modifications and accommodations: a preliminary investigation into changes in classroom artifact quality, *International Journal of Inclusive Education*, 24:2, 181-201, DOI: [10.1080/13603116.2018.1453876](https://doi.org/10.1080/13603116.2018.1453876)
- Kirkwood and Price (2014). Technology Enhanced Learning and Teaching in Higher Education : What is Enhanced and How Do We Know? *Learning Media and Technology*, 39(10): 6-36.
- Risan, M. (2020). Creating theory-practice linkages in teacher education: Tracing the use of practice-based artefacts, *International Journal of Educational Research*, Volume 104, 101670, ISSN 0883-0355, <https://doi.org/10.1016/j.ijer.2020.101670>.
- Sharpe, R., Beetham, H. & Ravenscroft, A. (2004). Active Artefacts: Representing our Knowledge of Learning and Teaching, *Educational Developments* Issue 5.2 June 2004 ISSN 1469-3267: 16-21, www.seda.ac.uk