

# Some pedagogical observations on using augmented reality in a vocational practicum

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## Abstract

The use of augmented reality (AR) in vocational education and training can still be considered as being in its infancy, although interest in it is growing in response both to its potential for teaching and its adoption as a practical tool in various industry sectors. One example of early-stage AR use is illustrated from a practicum for training apprentices in the chemical industry; this involves the use of various AR objects for learning a simple production operation. Although this application had been conceived of purely in terms of substitution for existing instructional methods, it also gave learners greater control of the learning process and created opportunities for collaborative learning. Pedagogically, AR can be considered as a mildly disruptive technology that favours learner managed learning, a factor that is aligned with its ability to support localised decision-making in industry.

## Practitioner Notes

What is already known about this topic

- Augmented reality (AR) tends to favour exploratory, learner managed and increasingly, collaborative learning.
- Evaluations of AR for vocational learning are on balance positive, with improved understanding, fewer errors and faster task completion or improved learning performance all reported.
- AR is still in the early stages of adoption in vocational education and training (VET), with trials and small-scale applications dominating.

What this paper adds

- Introducing AR even for simple learning tasks affects the pedagogical approaches that are used.
- Effects include greater learner control of the learning process and encouragement of reflection-in-action.

Implications for practice and/or policy

- AR is a mildly disruptive technology that needs to be considered in terms of its pedagogical implications as well as its effectiveness as a learning tool.
- The directions favoured by AR in education and training appear consistent with changing skill and learning demands in industry.

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