

A systematic evaluation of SCRIPT (Standard Computerised Revalidation Instrument for Prescribing and Therapeutics) eLearning: from theory to practice

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Background: The GMC EQUIP study found that Foundation trainee doctors made the majority of prescribing errors, and that they often felt underprepared to prescribe following undergraduate medical education. Subsequently, enhanced training in prescribing and therapeutics for postgraduate doctors was recommended. In response to this, Health Education West Midlands (HEWM) commissioned the development of SCRIPT (www.safeprescriber.org), a web-based eLearning programme designed to improve prescribing skills in Foundation trainees, and subsequently reduce medication-related errors. SCRIPT is mandated for trainees in the West Midlands. Of 41 modules, 16 are compulsory for Foundation Year 1 doctors and 15 must be completed by Foundation Year 2 doctors. A pre-test is completed at the beginning of each module, with identical post-test at the end. The learning management system allows the development team to extract detailed information about learning and use at individual and cohort level.

The development of SCRIPT is ongoing; content is updated in-line with current guidelines and academic literature on a weekly basis.

Objectives: We are conducting an evaluation of SCRIPT using Kirkpatrick's model of training evaluation to ensure SCRIPT is successful in achieving its intended objectives and to provide recommendations for system design, or integration into the Foundation training programme.

Methods: This multi-method evaluation comprises six projects:

Evaluating attitudes to SCRIPT through focus groups with trainees and interviews with clinical tutors conducted at three hospital sites across the West Midlands.

Evaluating change in trainees' knowledge through using SCRIPT, by comparing pre- and post-test scores.

Evaluating change in trainees' prescribing behaviours in clinical practice through focus groups and interviews conducted at three hospital sites across the West Midlands.

Evaluating organisational results, comparing the rate of medication errors in a region using SCRIPT compared to a similar region not using SCRIPT.

Conducting a Return On Investment (ROI) analysis to examine the cost-benefits of implementing SCRIPT
Investigating the effect of individual, temporal, and environmental (e.g. system functionality) factors on learning behaviours, prescribing knowledge and behaviours.

Results: So far, analysing learning behaviours has found that a number of factors appear to influence frequency of module completion and completion time. For example, the majority of modules were completed in late February and early June, directly prior to trainees' biannual progression reviews. We have also identified factors that indicate suboptimal use of SCRIPT and strategies have been used to overcome these.

Additionally, we are evaluating trainees' change in knowledge, in relation to their medical training background and their perceptions of preparedness to prescribe following undergraduate education.

Furthermore, our focus groups are allowing us to identify themes regarding attitudes towards SCRIPT and perceived changes to prescribing behaviours within and between Foundation trainee cohorts.

Conclusion: Systematic evaluation of SCRIPT eLearning is essential to ensure that it is achieving its objectives and provide recommendations for future development. Completed and ongoing projects suggest that Foundation trainees do not always use the programme as intended. It may be possible to implement changes to SCRIPT and its integration into the Foundation training programme to overcome these challenges.