DESIGN AND EVALUATION OF WORKED EXAMPLE VIDEO PODCASTS AS FEEDBACK ON A CALCULATIONS SKILLS ASSESSMENT

- **Introduction**
  - The ability of healthcare professional to accurately perform video podcasts is an important for the safe and effective use of medicines
- **Purpose**
  - The aim of this study was to develop an educational resource that could help first year pharmacy students that find it difficult to perform calculations
- **Rationale**

Students that fail to benefit from tutorials, books, lectures and typed solution before an exam may not find them useful as exam feedback

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- **Experimental Design**
  - A series of 30 video podcasts (**Fig. 1**) and typed solutions (**Fig. 2**) were prepared as online feedback on a 30 item MCQ examination.
  - Instructional design of podcasts was informed by the cognitive theory of multimedia learning
  - A mixed methods evaluation was used to assess cognitive and affective attitudes towards podcasts compared to typed solutions.

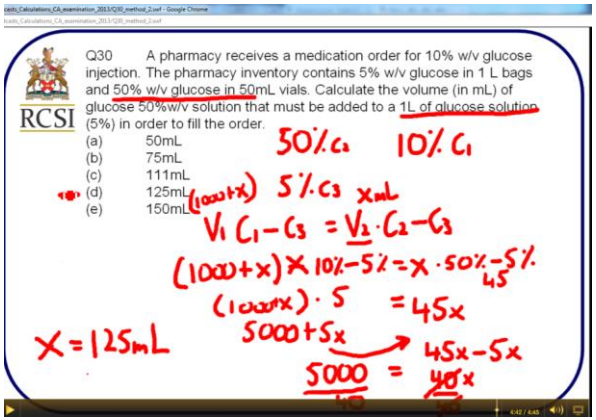

Fig. 1: Example video podcast

Q30. A pharmacy receives a medication order for 10% w/v glucose injection. The pharmacy inventory contains 5% w/v glucose in 1 L bags and 50% w/v glucose in 50 mL vials. Calculate the volume (in mL) of glucose 50%w/v solution that must be added to a 1 L of glucose solution (5%w/v) in order to fill the order.

(a) 50 mL
(b) 75 mL
(c) 111 mL
(d) 125 mL
(e) 150 mL

2013 CLASS GRADE: CORRECTLY ANSWERED BY 28%
SOLUTION
ANS
5% ⟍
10% ⟋ 40 parts 5% 1000mL = 40 parts
50% ⟋ ⟍ 5 parts 50% x mL = 5 parts

1000mL/40 parts = x mL/5 parts
1000mL/40 parts x 5 parts = x mL
125mL of 50% Glc to 1000mL of 5% Glc (final volume 1125mL)

Fig. 2: Example typed solutions

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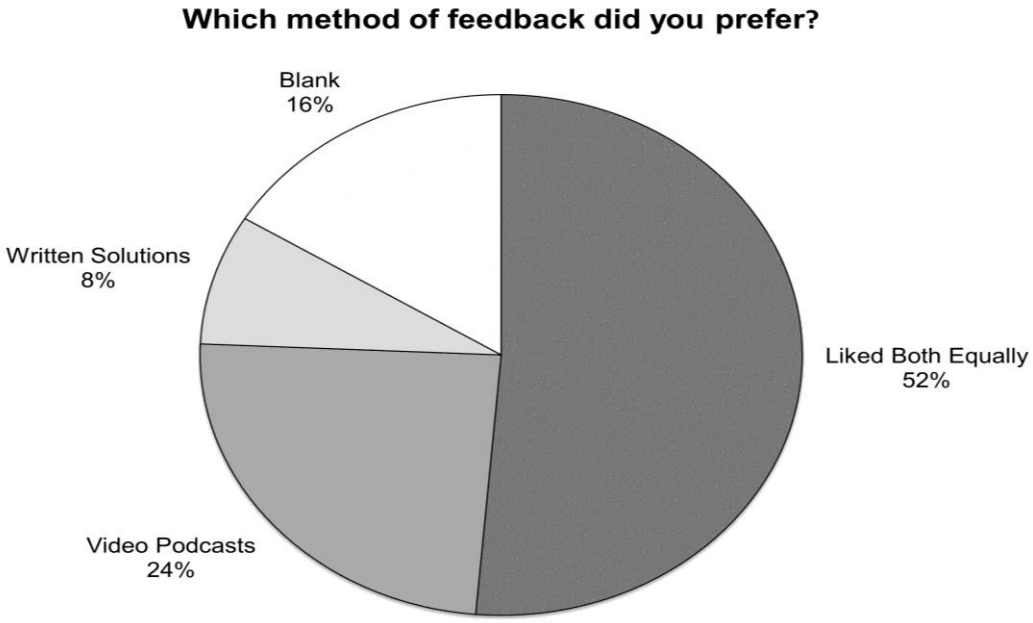
- **Results**
  - The majority of students liked video podcasts and felt they were beneficial to learning



- **Conclusions**
  - Students had positive cognitive and affective attitudes towards video podcasts
  - Consideration of instructional design principles assists development of video podcasts and may contribute to positive student attitudes.

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