Workshop: Introduction to Adaptive Comparative Judgement: A Holistic Assessment tool for Design Problems

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Abstract

This workshop is an interactive session where participants will experience an exciting approach for holistically assessing design problems, Adaptive Comparative Judgement (ACJ). ACJ is an adaptive software tool that can be used by students and faculty to assess students' work holistically and reliably. This tool can be used to reduce the grading load associated with project work and reduce the time taken to grade and provide feedback to students. The goal of this workshop is to introduce participants to the ACJ approach. The process underpinning the ACJ software tool will be explored, and participants will be taken through the procedure of setting up an ACJ session and given the opportunity to experience the process of assessment using the ACJ tool. Following this hands-on experience of ACJ, participants and facilitators will discuss the possible benefits and challenges of using ACJ in a formative and summative assessment capacity with first-year engineering students. Workshop attendees will require a device that is wireless fidelity enabled.

Introduction

The initial stages of this workshop will focus on introducing participants to ACJ which is a holistic assessment tool that can be used to assess design problems or portfolios. The process of ACJ is based on multiple pairwise comparisons of items of work using a software program such as RM Compare [1]. The facilitators will unpack how the software intentionally and adaptively pairs portfolios to refine statistics to achieve a reliable rank order of group performance [1], [2]. Throughout this time the facilitators will also explore the reliability and validity of ACJ as an assessment tool.

Setting up an ACJ session

The process of setting up an ACJ session will be broken down and the key elements to be considered will be explained. This period will focus on elements such as file formats, how the number of judgements to be made or judges is calculated for a session, and the number of rounds to be completed. A round is completed when each item of work has been presented once. The more rounds that are completed, the more confidence there is in the positioning of an item of work in the rank [1].

Interaction with the ACJ tool

Following the interactive discussion on setting up an ACJ assessment session, participants will be taken through the interface for ACJ (see Figure 1) and the process of making judgements and providing feedback on items of work. Feedback on items of work can be collated and provided to students to facilitate formative assessment [3]–[5]. Participants will then be invited to engage in an ACJ assessment session.

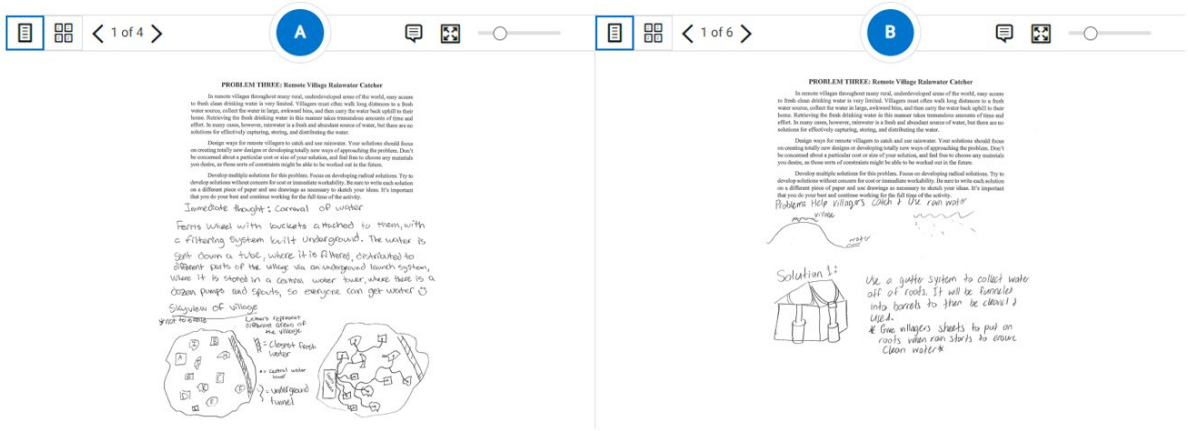

Figure 1. Sample ACJ judgement screen

Discussion

Having engaged with the ACJ tool, participants of the workshop will be invited to take part in an interactive discussion on the perceived advantages and disadvantages of using ACJ as an assessment mechanism with first-year engineering students. Previous research in Technology and Teacher Education has demonstrated that students see ACJ as being advantageous for gaining feedback, inspiration, and ideas while also enabling them to be more creative and innovative when designing as they are not limited by specific assessment criteria [1], [3], [4], [6]. Through this interactive discussion, the facilitators and participants will also explore what questions remain to be answered through research around the use of ACJ in engineering education.

Conclusion

The workshop will conclude with a summation of the ACJ system, the key factors to be considered when setting up an ACJ assessment session and an overview of the main advantages and disadvantages identified through the preceding discussion.

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