Video in Assessments for Soft Skill Development and Evaluation

Olga Petrovska
Swansea University
Swansea, United Kingdom
olga.petrovska@swansea.ac.uk

Lee Clift
University of Strathclyde
Glasgow, United Kingdom
lee.clift@strath.ac.uk

Filippos Pantekis
Swansea University
Swansea, United Kingdom
filippos.pantekis@swansea.ac.uk

Abstract

This poster captures our experiences of incorporating video components into assessments on Software Engineering programmes. We highlight their dual role as a tool for developing soft skills and a mechanism for verifying the attainment of learning outcomes. Our approach focuses on various types of video production tasks in varied contexts, contributing to ongoing efforts to promote soft skills development in software engineering education [1, 2].

CCS Concepts

• **Social and professional topics** → **Computing education**; **Student assessment**.

Keywords

video, student assessment, hidden curriculum, soft skills, software engineering, education

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1 Introduction

Although technical skills are critical for software engineering students, the importance of soft skills should not be overlooked. Including video components into assessments is one of the ways to help students develop their soft skills whilst pursuing key learning objectives of a respective module.

2 Videos in Context

Depending on the context and the planned learning outcomes, videos can be incorporated into a wide range of assessments. We discuss three ways to include video components: 1) in programming-focused assessments to evaluate students' ability to explain and justify their coding choices, 2) in complex authentic assessments where students need to communicate their design choices, develop software solutions, and effectively pitch their work, and 3) in group projects that explore social and ethical aspects of computing.

Video in Programming-Based Assessments. Videos can offer additional insight into students' understanding, compared to traditional coding assignments [3]. Considering this and aiming to address potential overreliance on Generative AI, we introduced an additional video component in several undergraduate programming modules across different year groups, which students submit alongside their code. The videos serve as asynchronous vivas in which learners walk through their code, explaining and justifying their choices. They make students re-visit their work and reflect on it, which supports the learning process. At the same time, instructors can refer to these submissions to better understand student progress and uncover potential learning gaps.

Video in Authentic Assessments. Master's Degree Conversion students undertook an open-ended mobile application design project with complete freedom over the topic selection and development tools. As part of the assessment, students were required to produce a video presentation that demonstrated their application design, showing the rationale underlying their design decisions, including target market and user analysis, as well as similarly existing applications. This video component was framed as a professional 'pitch' presentation, mirroring industry practices where developers must effectively communicate design concepts to stakeholders and management. The assignment structure intentionally bridged academic learning with professional competencies, requiring students to combine technical design skills with communication abilities, a skill highly valued in the software development industry.

Group Video-Based Projects. First-year undergraduate students enrolled in the Professional Issues module worked on a group project spanning over several weeks to produce a video reel that addressed various ethical and social issues related to technology. This task gave them an opportunity to develop a set of soft skills such as teamwork, communication, analytical thinking, planning and prioritisation, and visual storytelling. Each week, students switched their roles in the video production process (e.g., a script writer, a director, a video editor), allowing them to see it from different perspectives and learn from each other.

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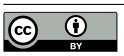

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