

An Empirical Study of Students' Learning Attitude, Problem-solving Skills and Learning Engagement in an Online Internship Course During Pandemic

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Abstract : Most of the real-life problems are ill-structured. They do not have a single solution but many competing solutions. The solution paths are non-linear and ambiguous, and the problem definition itself is many times a challenge. Students of professional education learn to solve such problems through internships. The current pandemic situation has constrained on-site internship opportunities; thus the students have no option but to pursue this learning online. This research assessed the learning gain of four undergraduate students in engineering as they undertook an online internship in an organisation over a period of eight weeks. A clinical interview at the end of the internship provided the primary data to assess the team's problem-solving skills using a tested rubric. In addition to this, change in their learning attitudes were assessed through a pre-post study using a repurposed CLASS instrument for Electrical Engineering. Analysis of CLASS data indicated a shift in the sophistication of their learning attitude. A learning engagement survey adopting a 6-point Likert scale showed active participation and motivation in learning. We hope this new research will stimulate educators to exploit online internships even beyond the time of pandemic as more and more business operations are transforming into virtual.

Keywords : ill-structured problems, learning attitudes, internship, assessment, student engagement

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