

Using Diagnostic Assessment as a Learning and Teaching Approach to Identify Learning Gaps at a Polytechnic

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Abstract : Identifying learning gaps is crucial in ensuring learners have the necessary knowledge and skills to succeed. The Learning and Teaching (L&T) approach requires tutors to identify gaps in knowledge and improvise learning activities to close them. One approach to identifying learning gaps is through diagnostic assessment, which uses well-structured questions and answer options. The paper focuses on the use of diagnostic assessment as a learning and teaching approach in a foundational module at a polytechnic. The study used diagnostic assessment over two semesters, including the COVID and post-COVID semesters, to identify gaps in learning. The design of the diagnostic activity, pedagogical intervention, and survey responses completed by learners were analyzed. Results showed that diagnostic assessment can be an effective tool for identifying learning gaps and designing interventions to address them. Additionally, the use of diagnostic assessment provides an opportunity for tutors to engage with learners on a one-to-one basis, tailoring teaching to individual needs. The paper also discusses the design of diagnostic questions and answer options, including characteristics that need to be considered in achieving the target of identifying learning gaps. The implications of using diagnostic assessment as a learning and teaching approach include bridging the gap between theory and practice, and ensuring learners are equipped with skills necessary for their future careers. This paper can be useful in helping educators and practitioners to incorporate diagnostic assessment into their L&T approach.

Keywords : assessment, learning & teaching, diagnostic assessment, analytics

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