

Industry Expectation of Higher Order Cognitive Skills from Entry Level IT Professionals in Sri Lanka

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Abstract

Equipping themselves with Higher Order Cognitive Skills (HOCS) is essential for the IT professionals in the accelerating digital transformation across industries. This study investigates the gap between academic training and industry expectations related essential HOCS with entry-level IT professionals. Main objective is to determine the industry's expectations for HOCS among entry-level IT professionals in Sri Lanka and translate these expectations into actionable guidance for universities and training providers. The research maps the critical HOCS IT professionals by using quantitative survey data from 30 IT industry experts. Findings reveal that analytical reasoning, adaptive problem-solving, and critical thinking are top priorities for entry-level professionals in the IT sector. Based on the expertise idea, only 34% of students had the threshold considered "proficient" in HOCS. 45% of newly joined IT graduates demonstrated weaker problem-solving skills when handling complex IT problems. However, over 60% of IT employees exhibited limited ability to analyse complex problems, evaluate alternatives, or justify decisions with logical reasoning. Industry experts underlined that the capacity to synthesise complex information, evaluate alternative solutions, and adapt swiftly to technological changes are distinguishing characteristic features of high-performing IT professionals, while technical proficiency remains foundational. These perceptions provide a new idea to reform the framework for academia to realign curricula to emphasise industry high prioritised HOCS development, ensuring graduate readiness for dynamic IT careers. Finally, this study discoursed on insufficient understanding of industry-defined priorities of HOCS.

Keywords: adaptive problem solving, analytical reasoning, entry level IT professionals, higher-order cognitive skills