UNRAVELING TRANSDISCIPLINARY STUDIES THROUGH MIXED-RESEARCH TO BRIDGE THE GAPS OF 'SCIENCE-SOCIAL SCIENCE' FOR SUSTAINABLE DEVELOPMENT EDUCATION FOR ALL WITH EXEMPLARY OUTPUT

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Abstract - In the advent of digital era with many newly invented emerging technologies, many underpriviledged groups are still being deprived of the opportunities to experience transdisciplinary studies including STEAM education supported by technology-enhanced learning (TEL). This paper reports part of a bigger scale study using mixed-research methods to address these gaps by developing self-regulated learning (SRL) module that enhance thinking skills and environmental literacy in support of United Nation (UN)'s Education for All (EFA) to promote equality and inclusivity. But this article only reports on findings from qualitative data collection and analysis. These included literature research, Case Study [i.e.Exemplary-Case Analysis (ECA)] as well as document analysis on transdisciplinary learning output from research samples. The review of literature revealed that proper knowledge management (KM) platforms and digital tools are needed amidst landscape changes in digital era using transdisciplinary approaches to prepare future ready workers. Exemplary project-based programme (PbP) with evidences of practices are illustrated as output from Design and Development (D&D) of curriculum guided by SCAMPER technique. These efforts are in line with UN's EFA also 'Sustainable Development Goals' (SDGs) especially goals No. 4 (Quality Education), No. 5 (Gender Equality), No. 10 (Reduced Inequalities) and No. 17 (Partnerships for the Goals). Document analysis on selected case exemplars are illustrated using ECA to show how environmental literacy and thinking skills of participants were enhanced through PbP. Policy recommendations for sustainable growth are deliberated on the way forward for inclusive education including tapping of local wisdom and grooming hidden talents of underprivileged groups. These include promoting lifelong SRL through nonformal or informal sustainable development education as part of the Corporate Social Responsibility (CSR) of educational institutions.

Keywords - Sustainable Development education, Transdisciplinary studies, Mixed-research, Equality and Inclusivity, Environmental literacy and thinking skill development