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Educational Equity through Cross-Disciplinary Innovation: A Study of Fresh Developed E-Learning System from a Practitioner-Teacher

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Abstract : To address the notion of educational equity, undergo the global pandemic, a digital learning system was cross-disciplinarily designed by a 15-year-experienced teaching practitioner. A study was performed on students through the use of this pioneering e-learning system, in which Taiwanese students with different learning styles and special needs have a foreign language- English as the target subject. 121 students are particularly selected from an N= 580 sample spread across 20 inclusive and special education schools throughout districts of Taiwan. To bring off equity, the participants are selected from a mix of different socioeconomic statuses. Grouped data, such as classroom observation, individual learning preference, prerequisite knowledge, learning interest, and learning performance of the population, is carefully documented for further analyzation. The paper focuses on documenting the awareness and needs of this pedagogical methodology revolution, data analysis of UX (User Experience), also examination and system assessment of this system. At the time of the pilot run, this newly-developed e-learning system had successfully applied for and received a national patent in Taiwan. This independent research hoped to expand the awareness of the importance of individual differences in SDG4 (Substantial Development Goals 4) as a part of the ripple effect, and serve as a comparison for future scholars in the pedagogical research with an interdisciplinary approach.

Keywords: e-learning, educational equity, foreign language acquisition, inclusive education, individual differences, interdisciplinary innovation, learning preferences, SDG4

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