A Comprehensive Review: An Innovative Pedagogy for Future Education

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Abstract: *Pedagogical practices with high quality could affect students positively. In recent years, pedagogy in education is learner-centric or teacher-centric. Accordingly, different pedagogical approaches have been used by various traditional studies with an aim of creating an effective education system. Hence, this study intends to comprehensively examine various recent pedagogical practices to find its impact on students. It also attempts to discuss pedagogical statistics in global viewpoint and assess distinct approaches for teaching and learning. The study has also reviewed the Malaysian perspective regarding the pedagogical practices. Finally, it discusses the innovations to be employed in future for an effective education. Various teaching and learning styles are explored which could be opted by educators that suits them, and also employ the learning methods to students based on their ability. Innovations to be made in future pedagogy is also described that could serve as a guideline for researchers to focus for further implementation*

Keywords: Pedagogical practices.

I. INTRODUCTION

Pedagogy is the method of teaching with its associated educational values, justifications, evidence and theories (Subramani & Iyappan, 2018). It is an approach to be know and skills to be expertise for creating and justifying several decision types related to teaching. Pedagogy is widely employed in educational domains, although the nature and extent of its usage differs for each country (Black & Wiliam, 2018). Applying efficient pedagogical strategies assist students to accomplish better learning and understand their overall education ability. Several studies attempted to use various pedagogical approaches in varied cases. Accordingly, writing autonomous stimulus (undertaking writing activities through choice and pleasure) has been expected to improve writing skills. On the other hand, controlled motivation (undertaking writing for external possibilities) has been probable to impede them. Thus, it is significant that educators employ pedagogical practices in a way that assists the autonomous motivation of students to write rather than fostering controlled motivation. Besides, there exists few experimentally tested PD (professional development) programs for teachers concentrating on the pedagogical methods that are valuable to the autonomous motivation of students to write. A theoretical framework has been presented in writing named CASIS (collaboration autonomy support structure involvement and significant activities). It also possesses empirical indication of its efficiency for students, in-service and pre-service teachers.

II. PEDAGOGY

Pedagogy is defined as the association between culture and learning methods. It has been determined in accordance with the beliefs of educators regarding the way in which learning happens. It needs significant classroom interactivity between learners and educators. The main intention of the practice is to assist the students in developing better learning thereby to build positive attitudes and skills (Jumanovich & Eshboevna, 2019)

Recent Pedagogical Practices

Pedagogy affords new functional viewpoint for interpreting various earlier evolving triad communications between infants and adults regarding the new objects that were mutually attending. Correspondingly, a pedagogical method to PETE (Physical Education Teaching Excellence) have been explored to assist the PSTs (Pre-Service Teachers) in

learning the ways to enable suitable experiences in PE (Physical Education). Pedagogical principles have been shared to subsidise new understanding that helps the PST's LAMPE (Learning about Meaningful PE).

The introduced principles comprise of making prioritisation of important participation explicit, designing and debating learning by meaningful PE, assisting in the engagement of PST with significant features as teachers and also as learners, setting learning activities through meaningful participation features and assisting in replicating PE skills. A method named S-STEP (Self- Study of Teacher Education Practise) has been employed to find the pedagogical strategies that permitted PST's learning regarding PE (Ní Chróinín, Fletcher, & O'Sullivan, 2018). It has been concluded that the research subsidised to new comprehension of the ways to assist PST for learning so as to teach with the prominence on enabling useful PE experiences.

Figure 1. Teaching through technology (Nancy, Parimala, & Livingston, 2020)
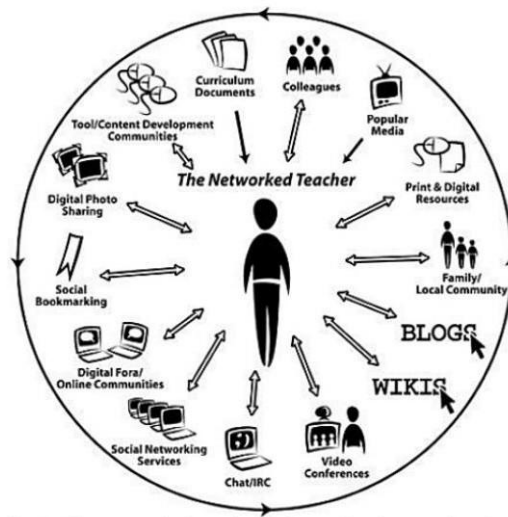
Pedagogy statistics as a career in a global perspective From global viewpoint, teaching about nation, community and world varies in different manners from conventional methods to study of world geography, foreign policy, cultures, U.S history or world civilisation. In education, global viewpoints focus on universal culture, common things shared by humans, appreciation and knowledge of people's viewpoint and perspective consciousness as it performs on cultural variations. The fourth component in global education literature has been the recognition that individuals make choices influencing other people worldwide and vice-versa. These interdependencies and interconnections among students, other people and communities have made global educations to encompass goals for participation, long-term engagement and decision Figure1. Teaching through technology (Nancy, Parimala, & Livingston, 2020)

III. PEDAGOGY IN RECENT EDUCATION

Pedagogy in recent education could be either student centered or teacher centered with high-tech or low-tech strategy. Student centered approach paves way for learners to actively participate in their learning process. Though the teacher delivers content, they take many mentoring or coaching role for helping students in learning process. Assessments have also been frequently provided to evaluate the trends and knowledge. On the other hand, teacher centered approach concentrates on educator to afford lectures thereby share content by direct instructions. This fixes the teacher knowledge and convey that particular knowledge to the students. Recently, technology played a

IV. MODELS AND PARAMETERS OF DIFFERENT EDUCATION PEDAGOGY

Various education pedagogical approaches considered different models and parameters in various domains and they are presented in table-1. These have been suggested with an aim of improving the academic and physical performance of students for their better future.

## V. REVIEW OF RECOMMENDED TEACHING AND LEARNING STRATEGIES IN PEDAGOGY

Various theories exist for providing ways for better learning. Accordingly, Howard Gardner developed Gardner's Theory of Multiple Intelligence in 1983 (Sener & Çokçaliskan, 2018). This theory stated eight ways for learning. The learning styles are listed

- Linguistic Verbal: learners have good speaking and writing skills
- Naturalistic: this kind of learner like nature and its surroundings.
- Musical: this student has ability in music
- Intrapersonal: this student is self-evaluative and highly reflective
- Bodily kinaesthetic: this learner possesses better hand and eye co-ordination

6 Innovative pedagogies for present education

Each pedagogical method affords a situational problem that depicts the tension arising during the teacher's design and execution of pedagogical practices for improving teaching and learning. Four signature pedagogies have been utilised in different HE contexts that includes, PBL (problem based learning), CBL (case based learning), GBL (game based learning) and TEL (technology enhanced learning). Each of these methods are discussed along with the tensions that raised with deep

Figure 2. Learning styles for students
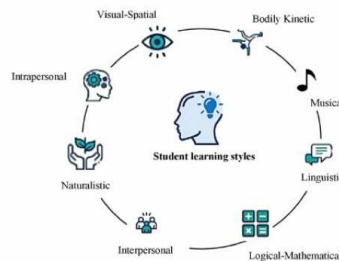
VII. IMPLICATIONS

The present study has made an enormous effort to review the existing literature regarding the pedagogy practice in teaching style in a Malaysian perspective. From the review, it has been acknowledged that many educators are unaware of the pedagogy practice and its contributions to enhance the learning capability of the students. Pedagogy can enhance the overall teaching quality that makes the student more receptive during their class hours. This will in turn improve the participation level of the student and their level of contribution during the learning process. A well-structured pedagogy will obviously assist the impart education to the students by utilising the range of learning styles. It also enables the students to have a deep and appropriate understanding of the subject.

VIII. LITERATURE GAPS AND FUTURE RECOMMENDATION

The main gaps identified through the evaluation of conventional works are discussed in this section with future suggestions for the decision makers. Evaluation of education stakeholders' perceptions for applying critical pedagogy in their organisations and assessing the perception of the teachers after they engage in group discussions by considering teachers who are clear idea of critical pedagogy should be considered as a future work (Santoso, 2021). The considered existing paper had interviewed small number of Higher Education teachers and the responses fetched from the teachers were inadequate. Opinion or perception of few respondents will not help in representing the situation of the entire country.

Table 2. Various pedagogical approaches

S.no	Author	Approach		Outcomes
1.	(Malmia et al., 2019)	PBL (Problem Based Learning)	Surface Structure	Few educators would have returned to conventional moral pedagogical method due to insufficient PBL experience or practical limitations (for instance: class size, time restrictions). This is true when specific learning purposes like knowledge and operations of various kinds of assessment gets misinterpreted.
			Deep structure	Pre-service teachers have been expected to study the ways to be a critical thinker regarding the traditional performance evaluation quality. For instance: writing a test denotes a performance evaluation. However, it is not needed for students to connect it to real-world when it is not intended to do that way.
			Implicit structure	This structure enables the evaluation course to develop professional values, dispositions and attitudes of pre-service teachers.
2.	(Sousa & Rocha, 2019)	GBL (Game Based Learning)	Surface structure	To alleviate this tension, additional general game features have been adopted that created avatars for leader board, online activities etc. This transformation created new dilemma in addition to interesting interactions. Moreover, students also attempted to disconnect the attitudes they expressed through online from that discussed inside classroom so as to not explore their avatars. Concurrently, students involved with courses in different form as avatars. For instance: paying close attention to one another with respect to opinions and personalities to reveal their avatar etc.
			Deep structure	Assumption has been made that students learn through games and hence graduate students must get a chance to experience the ways in which gaming could help the learning process. For instance: though microblogging has been aimed to attain playful involvement with design idea, students expect detailed rules like word limit.
			Implicit structure	This structure aimed to develop the professional values and attitudes of graduate students, disposing learning principles of a game.
3.	(Talukdar, 2020)	CBL (Case Based Learning)	Surface structure	Utilising case studies for formal teaching and evaluation of reasoning skills to graduate students has been innovative and highpoints tension in pedagogy of school psychologists as CBL is employed in other areas.
			Deep structure	There exists tension between the ways to assist students in employing content knowledge regarding analysis and diagnosis in addition to the ways assisted in getting reasoning skills needed to theorise cases.
			Implicit structure	This found it hard to employ structured tool for data organisation, desire to utilise many free flowing method irrespective of the point that they have less probability to take into account all information through CBL.
4.	(Daniela, 2019)	TEL (Technology Enhanced Learning)	Surface structure	With no outcomes in learning associated with artifact design, this work focussed on contents that leads students in developing insufficient skills and knowledge in outlining visual presentations.
			Deep structure	To demonstrate students in understanding specific content oriented knowledge, understanding the media sound is needed which is being utilised and also principles have been designed through the chosen media.
			Implicit structure	Transformation has to be accomplished from surface level technology to high pedagogical practices which needs the learning and teaching value with technology. Issues associated with citing sources, cyber-bullying, copyright and plagiarism have to be taken in guided actions and authentic discussions that results in approaches to adopt digital citizenship. These conversations and learning experiences should make students have opportunities in developing comprehensive understanding of incorporating technology into learning and teaching and also ethical and moral factors that impact integrity and quality of digital work.

VIII. CONCLUSION

The study aimed to perform comprehensive analysis of recent pedagogical approaches to assist in developing effective education by improving the student's learning. It enumerated pedagogical statistics in global perspective and assessed various approaches for teaching and learning. With the intention of reviewing the Malaysian perspective regarding the pedagogical practice, the present study has underlined that teachers handling various subjects are lacking behind in terms of knowledge and awareness of pedagogical teaching practice. They need to be trained to employ the innovative teaching techniques of Pedagogy to enhance the education system of Malaysia.

Comparative analysis was undertaken to find the models and parameters used by the traditional studies. Models Issue 113like Phenomenological methodology, Online survey, interview and qualitative analysis, Grounded Theory Analysis, UTAUT, Quantitative analysis, Hybrid teaching model, Evidence based principles like digital play, real-world processes and tools etc, were applied by traditional systems

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