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EXPLORING INNOVATIVE EDUCATIONAL METHODS IN CATERING TO VARYING LEARNING STYLES AMONGST STUDENTS FROM UNDERSERVED COMMUNITIES

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ABSTRACT

Learning Styles are preferential ways in which students absorb, retain, process and comprehend information; more often than not, resulting in curated educational content. The research and discourse around these topics, most specifically in regards to access continue to be underdeveloped. Primarily, this paper seeks to find links between student achievement, learning style preferences and curated content. The study of learning styles is important to develop teaching methods and curriculum, but are often factors not taken into consideration in underserved communities, resulting in a uniform teaching style has been found to exclude students with learning styles that are incompatible with that particular teaching style. Teachers and curriculum-developers need to cater to students with different learning styles, especially if they belong to economically backward communities and regions, by modifying their methods of instruction and teaching in innovative and cost-effective manners. This paper aims to provide policy recommendations that seek to improve teaching methods and strategies to facilitate long-term learning and holistic education for all children.

Keywords: Learning styles, Educational methods, Students, Underserved communities

INTRODUCTION

Learning styles refer to a range of theories that aim to account for differences in individuals' learning. Despite differing in the categorization and definition of different learning styles, a common concept in these theories is that they seek to explain the differences in learning abilities of individuals, that arise due to a plethora of reasons (Coffield, et. al., 2004). Since the 1970s, multiple ways of classifying learning styles have emerged. Coffield, et. al., have identified 71 different learning style models in 2004. (Coffield, et. al., 2004). In his book, 'Experiential Learning', David Kolb classified students into four groups- Accommodators, Convergers, Disruptors, and Assimilators according to their behavior in the classroom (Kolb, 1984). In 2006,

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a similar classification was made by Peter Honey and Alan Mumford who divided people into Activists, Theorists, Reflectors and Pragmatists (Honey & Mumford, 2006). Even though this assessment was based on the behavior shown by employees and not students, the system introduced by them is most widely used in the United Kingdom to assess Learning Styles. Walter Burke Barbe introduced the concept of 'Learning Modalities' which assess Learning Styles according to the preferences of students and classified them into Visual, Auditory and Kinesthetic Modalities (Barbe, 1979). This was later elaborated upon by Neil Flemming who divided Learning Styles into Visual (preference for seeing objects and learning), Auditory/Aural (learning through listening), Physical (learning through carrying out physical tasks), and Social (learning through observing the behavior of others) (Flemming, 2014). This classification known as the VARK classification has further been expanded to include Verbal (learning through speaking), Logical (learning by interpreting logical statements) and Solitary (learning through self-introspection, usually done in private). The VARK classification is one of the most popular ways of classifying learning styles due to its practical classification of how individuals understand and retain subject matter.

It is extremely important to understand the learning styles of different students in the classroom. This helps educators and curriculum developers understand and account for the difference in learning styles in their curriculum and teaching methods to make the classroom environment more conducive to all students. This is even more important in the context of the education system of many countries, including that of India. The curricula and teaching methods conventionally used are extremely homogeneous and fail to cater to the diversity in learning styles amongst students. This leads to the needs of some needs being catered to, whilst some students get excluded to varying degrees from the process of learning itself. This has far-reaching consequences. Different levels of understanding of the subject matter lead to differences in academic performance. This has an extended impact on their self-actualizing potential, especially in countries like India and China where academic performance is one of the most important metrics to judge not only the competence but also the employability of individuals. For example, if a linear teaching method is used, which is focused only around aural communication, the classroom would be less conducive and the subject matter less interesting for students who have different learning style preferences. This would also create an unequal playing field amongst those students when they compete against each other based on their academic performances in school and beyond. Moreover, learning style preferences of students might also be dependent on the backgrounds and socio-economic conditions of students, which makes the cognizance of these differences in the classroom even more important. Therefore, curricula and teaching methods must be formulated in such a way that they carter to the learning styles of all students in the classroom (Boneva & Mihova, 2014).

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BACKGROUND

Coffield, et. al., researched in 2004 that examined 13 models around learning styles to evaluate the most effective teaching techniques. The conclusions of the same stated that students become more motivated to learn when they know more about their strengths and weaknesses as learners. Therefore teachers should respond to students' strengths and weaknesses and modify techniques that could facilitate more comprehensive learning. The usage of relevant teaching techniques was also found to make students more independent in their learning. The usage of teaching methods to cater to different learning styles might hamper the communication between teachers and students in a classroom. For example- students who prefer solitary learning tend to learn better in the absence of classroom engagement. However, the negative consequences of lower levels of communication between the teacher and students were found to be counterbalanced because of the use of relevant teaching techniques (Coffield, et. al., 2004). Research conducted at Indiana University in 2010 concluded that the knowledge of the socio-economic background, gender and learning style preferences of students would enhance the effectiveness of teachers in classrooms and facilitate lifelong learning. Students were classified based on their biological attributes, degree of privilege, positioning for learning and preferences. It stated that all teachers should respond to students' readiness, knowledge, understanding, and skills related to learning. Readiness is said to be impacted by cognitive proficiency, earlier school and life experiences, and attitudes about school and learning. Thoughtful pre- and on-going assessment of student's backgrounds and readiness could be used to determine teaching methodology and set up adequate challenges for students (Center on Education & Lifelong Learning, 2010).

Research on learning styles in developing countries is relatively underdeveloped. Moreover, the different classifications of Learning Styles in the limited research add hindrances in making comparisons and reviewing different literature. Husseyenpur, et. al., researched in 2015 in Iran to find links between the socio-economic background of students and their Learning Style Preference. Learning styles and were classified into 'Participative' and 'Independent' depending on the students' involvement in group and class activities (Husseynpur, et. al., 2015). Similar research was conducted by Akhtar, Z. in Pakistan in 2011 (Akhtar, 2011). This research found certain links between the socio-economic background of students and their learning style preferences. More importantly, however, they also concluded that students in developing countries also reacted differently to different teaching methods that cater to different learning styles. The research concluded that teachers and curriculum developers should be more cognizant of different learning style preferences amongst students to ensure engagement and knowledge retention, especially in schools where students come from diverse socio-economic backgrounds.

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DISCUSSION

Research conducted amongst students of all age groups has proven that learning styles are an important academic characteristic (Lubber & Sailer, 1998). The level of compatibility between learning styles and teaching methodologies have an impact on not only academic achievement but also on perceptual and long term preferences of students in education and learning, even beyond formal structures and systems. The cognizance of learning styles has also been found to create new challenges for educators (Enochs, et. al., 1986). Proponents of the learning style movement since the 1970s have argued that the variability in student performance results not so much from discrepancies in intelligence but that such deviations are due to different styles of learning. Research conducted since the 1908s has supported this view, and investigations of learning styles amongst Kindergartners have demonstrated increased academic achievement among students taught as a function of their learning styles (McDermott, 1984). Soroko in 1988 found that the relationship did continue through to post-secondary education. His research on the learning styles amongst accounting concluded that the learning process is hindered when the teaching style does not meet the needs of a particular learning style (Soroko, 1988).

A second argument for studying student learning styles is found in the student's perceptual preferences. It has been noted that learning styles can be viewed as the student's preferred mode of using the information that surrounds him or her (James & Galbraith,1985). When students are taught with instructional resources that match and mismatch their preferred modalities, they achieve statistically higher test scores when teaching and learning modalities match than when they don't. Using compatible teaching methodologies followed by multisensory methodologies is most beneficial in increasing teaching effectiveness. When children are taught using multisensory resources, but first through their most preferred modality, which is then reinforced through their secondary or tertiary modality, their scores tend to increase even more (James & Galbraith,1985). Learning style preferences are a derivative of the student's preferred mode of using the information that surrounds him or her (Miller, et. al., 1987). For example- students who prefer comprehending information visually tend to have a visual learning style preference. Thus, learning styles influence a student's perceptual preferences and ultimately affect their academic achievement.

Researchers have argued that learning styles are especially important for specific portions of the student population that differ from ‘mainstream’ students by the virtue of their backgrounds and academic history. This includes nontraditional students, re-entering students, external degree students, academically underprepared students and adult learners (Holtzclaw, 1985). Students from different socio-economic backgrounds tend to have different learning style preferences because of differences in upbringing and surroundings (Akhtar, 2011). The present educational

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structures are not accommodative of those styles that lie beyond the mainstream. This implies that students who have a preference for those styles face an inherent disadvantage in the formal education system of most countries. Communities that have been historically marginalized, and excluded from the formal structure of education face the worst consequences of invisibilization of learning style preferences. For example- Students from Dalit and Tribal Communities in India often find formal educational structures incompatible because those education structures have been developed along with the needs of those communities who have had control over curriculum development and teaching methodologies historically. The invisibilization of differences in learning styles in the formal education system perpetuates the oppression that students from such communities have historically faced. The resulting inequality in access to 'learning' inside the classroom results in the loss of economic opportunities in the long run, which are often means of social and economic emancipation in capitalist economies where academic performance is considered to be the determinant of productivity and competence.

The final argument for investigating learning styles is the problem they create for educators. These include modifying instructional materials, varying instructional techniques, and using different teaching methods for different students, according to their learning style preferences. Even when educators realize the need for recognition of learning styles, adapting to those needs has been difficult. Some educators have argued that the goal of education should be to determine the students' learning styles and match instructional materials to those styles while others emphasize the need to teach students how to manage and monitor their selection and use of various learning styles so in order to establish coherence between learning styles and teaching methodologies (Corbett & Smith, 1984). Compatibility between learning and teaching styles also affects the relationships that students have with their teachers. Coherence between the learning style and teaching methodology not only ensures a comprehensive understanding of the subjective matter but also creates healthier relationships between teachers and students, which is important to make the classroom environment conducive and facilitate learning.

CONCLUSION

The academic performance of students is dependent on multiple factors. Education systems across the world have developed cognizance about such factors that are social, economic and cultural factors. However, the psychological factors that influence learning, including learning style preferences of students have been ignored by policymakers, curriculum developers and teachers alike. The undeniable conclusion one reaches is that the role a student's learning style plays on her or his academic achievement requires educators to discover methods for meeting the individual differences. The teaching methods used and the curriculum followed in many countries including India, especially in Public Schools is standardized. The lack of

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contextualization leads to an imbalanced impact of teaching and education. The students whose learning style is compatible with the teaching methods used in the classroom benefit more out of their education than those students whose learning style is not as compatible. There is a need to change teaching methodologies and curriculum to make learning more conducive to all students, especially those who come from marginalized social and economic backgrounds.

Extended research of learning styles to determine links between backgrounds and preferences is required to modify the curriculum. The research needs to be cognizant of diversities existing amongst heterogeneous populations. Education boards and Ministries at the State and Federal levels in countries like India should take up the onus of conducting such research and including the results and conclusions of the same in the curriculum. Research should also be centered around finding relationships between learning style preferences and identity markers of students such as socio-economic background and gender to develop contextualized curriculum and teaching methodologies. Conducting instruction through the computer or the web can also be beneficial to some students with certain learning style preferences. E-learning and the implementation of technology-enabled education are in-general beneficial in today's environment. Using computers in education has received significant attention in recent years with the introduction of smart classes with the growth in usage of Smart-Classes, even in Public schools in India (Manohari & Shenbagavadivu, 2018). Computer Associated Instruction (CIA) Programs should be designed in a way that they can account for and equally reach out to students with different learning style preferences.

Holistic learning and understanding are seen to be the end goal of formal education in society. Presently, there is growing acceptance that cognizance of learning style preferences is the key to educational improvement (Singh, 2015). Teachers should formulate appropriate teaching strategies and develop curriculum content by understanding students' preferred learning styles. This will lead to learners' ability to improve their learning and perform better in the subject previously deemed difficult. To achieve the desired learning outcome, parents and teachers should provide teaching and counseling interventions that are compatible with the students' learning styles. This is imperative to not only facilitate short term learning and academic understanding but also to ensure equal access to self-actualization opportunities in the long term.

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