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Exploring the Use of Multiple Intelligences in Second Language Acquisition

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Abstract

Second Language Acquisition (SLA) refers to the study of individuals who learn a language beyond their native language. The terms first language, native language and mother tongue are often used synonymously, generalized as L1 as opposed to L2. L1 is acquired in early childhood, without any formal instruction, from people who speak the language. Acquisition of L2 can be viewed primarily as a consequence of simultaneous multilingualism where acquisition of L2 occurs along with a child's L1 and sequential multilingualism where an additional language is learnt after L1 has already been established.

The complexity in the study of SLA arises due to its multidisciplinary nature, theory and approach that researchers from different academic disciplines take towards SLA. Influences from theoretical linguistics, cognitive and social psychology has yielded new insights and resulted in a scattered picture of theories, methods and findings (Ellis, R. 2010). On the other hand, Multiple Intelligences (MI) theory by Howard Gardner looks at the possibility of individuals having eight different intelligences in varying degrees. The paper aims to understand and explore Second Language theories and approaches from linguistic, psychology and socio-cultural perspectives while looking at the possible use of MI for second language acquisition.

Keywords: second language acquisition, multiple intelligences, linguistic, psychological and socio-cultural framework of SLA

Literature Review

Fries, C. (1945) developed a pedagogy of language based on behaviorism that claimed repetition and practice as integral to language learning habits. Further, Skinner (1975), by applying behaviorism to language, argues that language learning happens through stimulus- response reinforcements resulting in habit formation. However, Chomsky (1959) in "Review of B.F. Skinner Verbal Behavior" writes a critique of Skinner's stimulus- reinforcement language learning. According to Chomsky, children are born with an innate faculty that guides them in acquiring language, known as Language Acquisition Device (LAD).

Selinker, L. (1972) coined the term "Interlanguage" to refer to the intermediate stage in L2 learning where a transition from L1 to L2 occurs. Schumann, J. (1978) in an attempt to study L2 production notices that early "interlanguages resemble pidgins," simplified language utterances for communication. At a theoretical level, Stephen Krashen in *Second Language Acquisition and Second Language Learning* developed the Monitor model where he claims the difference between learning and acquisition and considers acquisition to be a subconscious process. He also stresses the importance of comprehensible input to acquire L2. As an extension to Krashen's idea of comprehensible input, Swain, M. (1985) in "Communicative competence: Some roles of comprehensible input and comprehensible output in its development" argues that in addition to comprehensible input, learners need to produce output to develop L2 communicative abilities.

Cook, V.J (1991) in the "Poverty-of-the-stimulus argument and multi- competence" argues that a bilingual mind is not a combination of two monolingual minds, rather L1 impacts L2 and vice- versa. There has been both positive and negative evidence of multilingualism on cognitive development. Positive evidence of multilingualism suggests enhanced creativity, semantic development and analytic skills while negative evidence suggests that "simultaneous bilingualism in childhood may result in a narrower range of lexical development in either language" (Saville-Troike, M., & Barto, K. ,2016). Nevertheless, as Cook says, multicompetence is a state of mind where one perceives the world from multiple lenses.

Frameworks of Second Language Acquisition (SLA)

SLA can be classified primarily from three perspectives – linguistic, psychological and social context (Saville-Troike, M, 2016). Robert Lado's work on Contrastive Analysis (CA) is one of the earliest approaches to SLA as a field of systematic study. Early proponents of CA assumed language acquisition to be a habit formation that takes place through stimulus- response-

reinforcement (Skinner, B.F, 1957). This view of language acquisition is due to the influence of Behaviorism and Structuralism in 1940s and 1950s. Another assumption of this theory is that the transfer from L1 to L2 in language learning could be positive or negative. However, two major limitations of CA include its failure to explain the "logical problem of language learning- how learners know more than they have heard or have been taught" (Saville-Troike. M, 2016, p.37) and its inadequate analysis of errors ultimately gave rise to Error Analysis (EA).

Stephen Krashen's Monitor theory draws distinction between acquisition and learning. According to him, learning and acquisition are two different ways of gaining knowledge and are stored separately. Learning involves a conscious intent to learn L2 while acquisition is subconscious and it emerges spontaneously when learners engage in L2 interaction. Other hypotheses in Monitor theory include the Natural Order hypothesis, the Input hypothesis and the Affective hypothesis. According to Input hypothesis, language acquisition takes place when there is enough comprehensible input provided to the learner. According to Krashen, the construct "*i*" defines a learner's current level of proficiency and "i+1" is a level beyond the learner's proficiency and constitutes the comprehensible input. However, major drawback of this theory is the ambiguity of what "i+1" signifies and what "comprehensible input" precisely means (Liu, D., 2015).

Major models in psychological framework of SLA that focus on learning process are Processability theory and Competition model based on Information Processing (IP) framework and Connectionism. According to Information Processing (IP) framework, second language learning is the acquisition of complex cognitive skills that can be reduced to simpler component skills where lower- order component skills are pre requisite for higher order skills. The two steps involved in IP include controlled processing and automatic processing. Learning of L2 involves a development from controlled processing to automatic processing, restructuring L2 representations to attain L2 proficiency.

Social contexts or Social framework of SLA, both micro-social and macro-social contexts, affect language learning. The micro-social focus deals with the potential effect of immediate surroundings on language learning, while macro-social focuses looks at the potential effect of larger areas like cultural, political, national and international. Lev Vygotsky's Socio-cultural

theory (SCT) is essential in understanding the relevance of social relationships and contexts, both micro and macro, to second language learning.

According to Vygotsky (Lantolf, J, et al.2015), SCT does not "separate the individual from the social and argues that the individual emerges from social interaction and is always fundamentally a social being" (209). A key point in this approach is that interaction, which can be interpersonal or intrapersonal, facilitates language learning and acts as a causative force in acquisition. From the perspective of SCT, "learning occurs when simple mental functions are transformed into complex mental functions through symbolic mediation. Symbolic mediation is the link between a person's current mental state and higher order functioning which is facilitated by language. Interpersonal interaction is an important context for symbolic mediation between learners and experts" (211). Vygotsky calls this level as the Zone of Proximal Development (ZPD), an area where learner can learn language through assistance and collaboration with experts like a teacher/instructor, native speakers or peers.

Apart from the above mentioned frameworks, there are factors beyond the domain of language that determine the extent to which learners are successful in acquiring L2. Some of the factors that affect language acquisition include learner differences arising from age, sex, aptitude, motivation levels, anxiety, personality and learning styles.

Multiple Intelligences (MI) theory and SLA

Gardner defined the term intelligence in his book *Intelligence Reframed: Multiple intelligences for the twenty-first century* (1999) as "a biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture" (33-34).

The following is a brief overview of the eight multiple intelligences proposed by Howard Gardner from Thomas Armstrong's book *Multiple intelligences in the classroom* (1994).

- "Linguistic Intelligence- use language effectively
- Logical- mathematical Intelligence- use numbers effectively
- Spatial Intelligence- perceive the visual-spatial world accurately
- Bodily-kinesthetic Intelligence- use one's whole body to express
- Musical Intelligence- perceive and express musical forms.
- Interpersonal Intelligence- understand others' feelings and emotions.

- Intrapersonal Intelligence- self-knowledge.
- Naturalist Intelligence- sensitivity to nature" (6-7).

These eight intelligences work together in complex ways and do not exist in isolation. For example, a child playing football requires bodily-kinesthetic intelligence and spatial intelligence in order to orient the movement of the ball. MI theory stresses the rich diversity of intelligences in every individual and children develop proclivities or inclination towards specific intelligences from a young age.

A primary requisite to adopt MI theory in the curricula is to think of the way in which teachers can translate the material to be taught from one intelligence to another. Thomas Armstrong in his book *Multiple intelligences in the classroom* suggests a procedure to create lesson plans using MI theory as the organizing principle which includes asking key MI questions, considering the possibilities of which materials and methods seem most appropriate, brainstorming, selecting appropriate activities that seem to work in the educational setting, setting up a plan and finally implementing the plan. However, this implies that teachers need adequate training in use of MI technique, curriculum directors need to implement MI theory and there needs to be a close association between the institution (school), teachers and parents in order to keep track of students' development with respect to MI profiles.

Unlike traditional schools of thought where verbal-linguistic intelligence is emphasized, MI theory opens up avenues for innovative learning techniques and can be a creative way of acquiring second language. A musically inclined learner might respond to sentence structure or vocabulary presented in the form of a song or with a rhythm. For example, story- telling, journal writing, and brainstorming could be good strategies for a linguistically inclined learner where as visualization, idea sketching for a visually inclined learner. With the emergence of learner-centered teaching, innovative methods of teaching came into existence like the Total Physical response that relies heavily on the body-kinesthetic intelligence, Suggestopedia that largely uses music, the Silent way that harps on students' emotions and feelings (intrapersonal intelligence) and so on. These teaching methods could be put to use by combing them with appropriate tasks or activities.

Intrapersonal interaction, communication that occurs within an individual's own mind, can be viewed as a socio-cultural phenomenon. Intrapersonal communication can take many forms like

engaging and decoding the print while reading a book, interpretive problem- solving processes and private speech. This intrapersonal and interpersonal interaction could be perceived as aspect of intrapersonal and interpersonal intelligences respectively.

As mentioned earlier in the paper, Krashen stresses the importance of enough comprehensible input, beyond the current developmental level of a child in order to acquire L2. It can be possible that MI theory can enhance comprehensible input by presenting it in many ways that match the proclivities of a child. Also, better stimulus/comprehensible input in a pluralized form can produce comprehensible output, which is an essential factor in L2 proficiency.

Conclusion

This paper provided a comprehensive understanding of the theories in Second Language Acquisition from the perspective of linguistic, psychology, and socio-cultural theory. Linguistic, psychological and socio-cultural focused on the what, how and why perspectives of L2 acquisition respectively. The paper also explored the possibility of incorporating MI in second language acquisition.

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