

Implications of Theories, Models, Concepts on Self-Efficacy for Language Learning

Manasee Mishra

*Research Scholar , Department of English
Centurion University of Technology and Management, Odisha*

Prajna Pani

*Department of English, School of Management ,
Centurion University of Technology and Management, Odisha*

Abstract- Bandura's self-efficacy theory is the most influential theory for positive language learning outcomes. Self-efficacy is supported by Socio-educational model and language learning, four strands model, behaviouristic approach, socio-constructivism, social cognitive theory, PISA approach to learning, self-regulated theory. This paper aims at offering an analysis of the theories, models and concepts related to self-efficacy towards language learning. A strong self-efficacy in respective language skills provides an indication that the individual would have a strong sense of confidence in the skills concerned (Bandura, et al., 1986). Communication in English emphasises on four language domains: speaking, reading, writing, and listening. Self-efficacy is important in English language learning because it helps the students of English class to visualise them being successful at various challenging English tasks whereas low self-efficacy students of English are more likely to imagine themselves disaster (Heider, 1958). Thus, the paper aims to review the concepts of self-efficacy in the area of language learning to identify the aspects affecting learner's communication efficacy.

Keywords – Self-efficacy, Socio-educational model, Language Learning

I. INTRODUCTION

Self-efficacy is a situation-specific form of self-confidence or as the belief that one is competent to do whatever is necessary in a specific situation (Bandura, 1977b, 1982, 1986). Self-efficacy is viewed as human's beliefs about their capabilities, and such beliefs play a crucial role in motivating human behaviours (Bandura, 1986). Self-efficacy is one's beliefs on their own capabilities (Bandura, 1997). According to Bandura (1997), one's self-efficacy has a greater predicting power over the way they behave than their actual capabilities. In other words, self-efficacy helps to determine individual's ability to make use of their knowledge and skills that affecting the degree of their engagement for the completion of certain tasks. Self-efficacy belief is different from related constructs such as self-concept and competence belief, as self-efficacy belief is more task-specific (Zimmerman, 1995), and is formed through individuals' interpretation of four sources: mastery experience, vicarious experience, verbal and social persuasions, physiological and affective state (Bandura, 1986). Self-efficacy is not about the skills individuals have to accomplish a task, but judgments of what individuals can do with whatever skills they have (Bandura, 1986).

Bandura (1986) has mentioned four sources of self-belief:

1. **Mastery Experiences:** Past successes or failures affect our current level of self-efficacy in a special context.
2. **Vicarious Experiences:** Observation of successful individual's performance leads us to believe in our own ability to do it especially when these others are similar to ourselves.
3. **Verbal / Social Persuasion:** Constructive comments, encouragements received from others boost individuals to succeed.
4. **Emotional and Physiological State:** When you are physically fit or in a positive mood your efficacy will be enhanced.

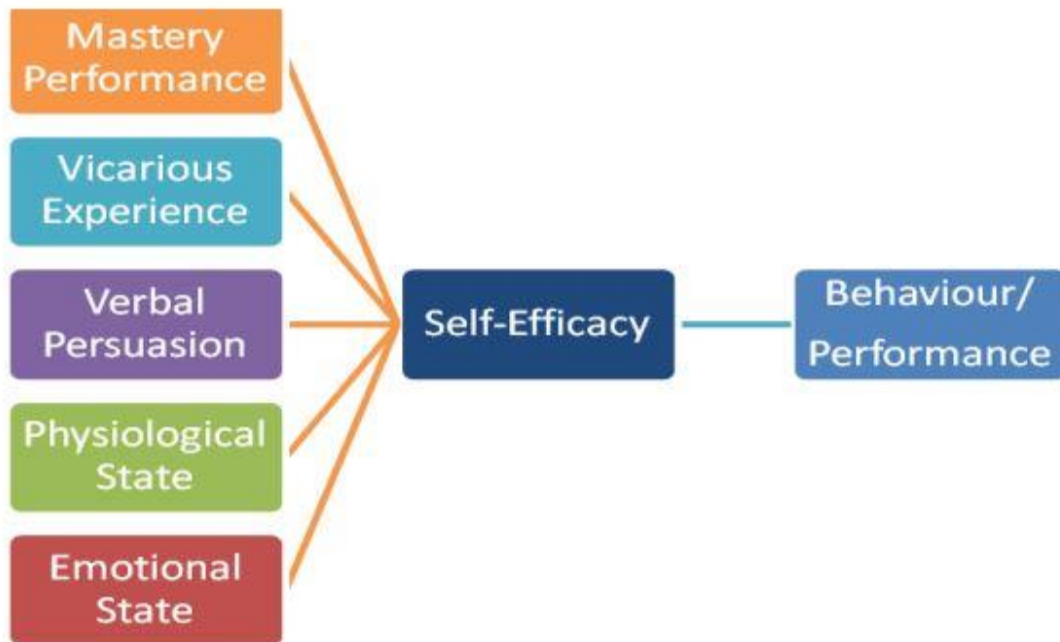


Figure 1.1: Sources of Self-efficacy (adapted from Bandura, 1997)

Mastery Experiences: The most influential step for accomplishing goal is through mastery experiences. Victorious achievement on a task perks up self-efficacy and fruitless attainment can undermine self-efficacy. Having a direct experience on a particular task, increase self-efficacy. The most reliable sources of efficacy information are typically accomplishments that we have experienced ourselves, for which we have “tangible” evidence of success (Bandura, 1997; Schunk & Usher, 2012). Bandura (1997) added that each success builds confidence, and, each failure weakens it. On the other hand, a high sense of self-efficacy belief formed by past success can promote the willpower necessary to persist against problems. The difficulty level of a task also helps to promote self-efficacy. The level of struggling and difficulties prepares a man to face problems calmly. Similarly, in this context of language learning, learners expand their English learning skill by constant focus, well-built desire to bring fluency in English communication skill. Students’ interpretation about their hard work as successful is a suitable illustration of mastery experience that develops their self-efficacy. Meanwhile, if they focus on their disastrous experience that decreases their self-efficacy (Pajares et al., 2007).

Vicarious Experiences: Observing successful individuals boost up to achieve a task successfully. Observation provides potential to do the activities needed for success in that area. This experience is one of the important predictor of writing self-efficacy.

Verbal Persuasion: People develop self-efficacy from social persuasion and positive belief upon them. They overcome their self-doubt by getting verbal encouragement. Students’ self-efficacy can also be produced by inspiring words they receive from others, such as teachers, peers, friends, neighbours or family members, about their perceived abilities and the value of tasks. Attention, comprehension, coaching, reciprocation, consistency, giving constructive feedback on performance are common types of social persuasion.

Emotional and Physiological States: Minimising stress and bumping up mood during difficult times or challenging situations advance the sense of self-efficacy. Emotional responses to a situation open up the door towards self-efficacy. Bandura notes that it is not the sheer intensity of emotional and physical reactions that is important but rather how they are perceived and interpreted. Moods, emotional states, physical reactions and stress levels are all impactful factors on people’s belief about their personal capabilities to a particular situation.

Self-efficacy is not a perceived skill; it is the conviction of what one can do with one's skills under certain conditions. It is not the belief about one's ability to perform specific tasks but the belief about one's ability to coordinate and demonstrate skills and abilities in changing and demanding situations. Self-efficacy beliefs are not judgments about one's skills, objectively speaking, but rather about one's judgments of what one can accomplish with those skills (Bandura, 1986). In other words, self-efficacy judgments are about what one thinks one can do not what one has. These judgments are a product of a complex process of self-appraisal and self-persuasion that relies on cognitive processing of diverse sources of efficacy information (Bandura, 1990). Self-efficacy is viewed as people's belief in their capabilities to perform in ways that give them control over events that affect lives and regulate human function through cognitive, motivational, emotional, and choice processes (Kasdin, 2000). Bandura (1993) states, that a strong personal efficacy belief enhances motivation and performance of people. Lack of self-efficacy creates nervousness, frustration and low confidence. Those who develop the quality of low self-efficacy, they feel confused about their action. Sometimes they feel it is better to leave the challenge rather than to live in pressure.

Self-efficacy is explained in the theoretical framework of social cognitive theory by Bandura, the father of the theory of self-efficacy (1986, 1997). Social-cognitive theory is based on the principle that people are not entirely self-directed, nor do environmental forces primarily control them; rather there is a reciprocal relationship between person, environment and behaviour (Bandura, 1986, 1993). A student's behaviour is wholly reliant upon the environment. It is an indispensable quality of an individual to get success in his life. According to Bandura, self-efficacy is one's belief on the capabilities to organize and execute the courses of action required to produce given attainments. It has a correlation with aspiration, motivation, outcome expectations and intention certainty. Self-efficacy beliefs also determine people's thinking, feeling, motivating and behaviour. Humans' beliefs on their capabilities are situation specific constructs. Promotion of action requires strong positive self-efficacy. False efficacy in the way of over confidence, arrogance etc. is detrimental in nature where as higher student self-efficacy should push forward oneself towards greater success. The relationship between self-efficacy and task performance involves confidence and anticipation in accomplishing specific tasks.

Self-efficacy determines the action to do. This theory states that the level and strength of self-efficacy will determine 1) whether or not behaviour will be initiated, 2) how much effort will result, and 3) how long the effort will be sustained in the face of obstacles. When one person has a strong sense of perceived efficacy, he puts his greatest effort to accomplish his task despite he faces many obstacles than the person who has lack of self-efficacy.

Self-efficacy not only influences one's learning attitude and English communication skills but also improves self-beliefs, expectations, personality, positive attitude, behaviour etc. The effort doesn't display the positive result when there is absence of any of these above necessary skills. In Bandura's opinion, self-efficacy is not stable. It depends upon the person and varies in nature also. It is not with that I believe I will do but with what I believe I can do.

Self-efficacy beliefs are specific in nature. It is difficult to make it global or general. Because students who are effective in social situations, they may be academically poor. For this reason, self-efficacy is discussed in my research in the context of engineering students of selected colleges in Odisha (India). Self-efficacy here comprises self-regulated learning, self-efficacy for academic achievement, self-efficacy for English language achievement, and self-efficacy for career decision-making.

Self-efficacy is not like self-esteem. It is what I believe about myself and how much I believe on my belief. It is not a motive, drive or need for control. It is a belief that I can perform the behaviour that produces the outcome. Self-efficacy is not a personal tendency. It is defined and measured not as personality trait but as about the capability to coordinate as successfully as one can to attain the desired goal. This belief is developed from time to time and through experience.

It is researched by the educators that students' beliefs about their academic capabilities play a vital role in their motivation to achieve. The level of self-efficacy refers to its dependence on the difficulty of a particular task. Self-efficacy measures focus on performance capabilities rather than on personal qualities. Self-efficacious students like to undertake more challenging tasks than the less efficacious students. They

show more interest in all type activities and on experience. Self-efficacious students like to undertake more challenging tasks than the less efficacious students. They show more interest in all type activities and on the completion of their targets.

Pajares (1996) found that female students exhibited higher self-efficacy in areas related to language. This notion is also consistent with a study by Yaakob et al. (1993) on the psychological factors in English language learning that concluded females have a higher positive attitude towards the language and a liking for it. Though the number of male engineering students is higher still the level of self-efficacy to communicate in English is more among the female engineering students.

Self-efficacy is important in English language learning because it helps the students of English class to visualise them being successful at various challenging English tasks whereas low self-efficacy students of English are more likely to imagine themselves disaster (Heider, 1958). People with low English efficacy have no confidence on their capabilities, shy away from difficult tasks which they have to face in English language and they view these tasks a personal threat. They have low aspiration and weak commitment to the goals which they have to follow or pursue in English language. They are slower to recover their sense of efficacy following failure or setbacks in learning English language. They are not more proficient in English language as they are not master of pronunciation as well as they have no more information about the use of intonation, grammatical structure, sentence formation etc. (Honenfeld, 1978).

1.1. Theories, Models, Concepts

1.1.1. Socio-Educational Model and Language Learning

Gardner's socio-educational model is the leading theory of motivation in the area of language learning (MacIntyre, 2002). The model proposes that there are two primary individual differences variables in language learning: ability and motivation. Focusing on integrative motivation (Gu, 2009), it presents a dynamic model in which attitude and motivation affect language achievement, and language achievement itself affects attitude and motivation in an almost cyclical fashion (Gardner, 2001b). The model has a large acceptance in the language learning area, but some critics have been argued that because of its popularity, the model has been dominant in the area and this, results in fewer explorations in other motivational frameworks. Students with higher levels of ability (intelligence and language aptitude) will tend to be more successful at learning than the students who are less "endowed". Students with high levels of motivation will do better than the students with lower levels. In the model, both ability and motivation are related to the formal and informal language learning contexts. The formal contexts refer to any situation where instruction is realised (the language classroom). Motivation and ability will be equality involved. Informal contexts are any other situation where the language can be used or experienced (i.e., listening to the talks, watching movies etc.). Motivation determines if the individual takes part in informal context. Both contexts lead to linguistic and non-linguistic outcomes. As per this model, learning acquisition contexts, refer to the setting where the language is being learned, the combination of formal language training and informal language experience. In the early 1990s, three papers were published that were critical of Gardner's socio-educational model. The critics intended to expand the socio educational model and include additional motivational variables.

Socio-educational model has become a permanent fixture in the field of second language learning. This model identifies how certain factors (social and cultural milieu, individual learner differences, and learning contexts/settings) affect second language acquisition (1968). Within the category of "individual differences," four variables are believed to be influential. These include intelligence, language aptitude, learner anxiety, and learner motivation. Of these, motivation has assumed an especially prominent role within educational research (Dörnyei, 2001). Gardner and MacIntyre again work on concerning anxiety, willingness and other affective variables from 1991-1995. Gardner also worked with Tremblay on expectancy and self-efficacy, and defined it as the capability to reach a definite level of performance or achievement by his/her beliefs. They measured performance expectancy and established that anxiety could cause a loss of self-efficacy. They also restated causal attributions or assumptions to know about the future by reviewing past events as adaptive attributions (high-self-efficacy) and maladaptive attributions (low self-efficacy).

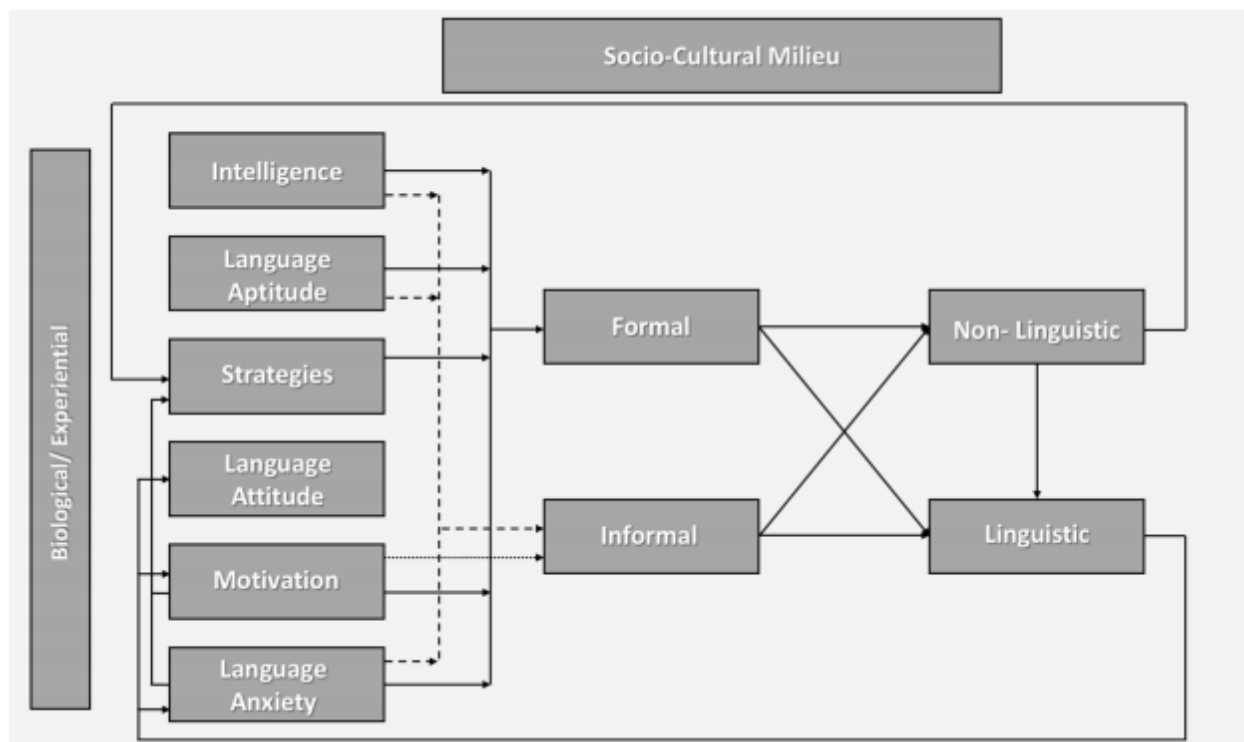


Figure 1.2: The Socio-educational Model (adapted from Gardner & MacIntyre, 1993)

Locke and Latlam (1990) introduced goal setting theory that is also involved and considered that a specific goal setting individual can perform better than the non-specific one. Again, they included the scale of Goal specificity and Goal frequency to determine the level of motivational behavior. They invented the model Linear structural relations (LISREL). This model indicated that the Goal Salience (Specificity and Frequency), Valence (a level of incentive value predicting the outcome) and Self-efficacy increased motivational behaviour, and the attitudinal-motivational relationship is related to the valence and self-efficacy.

1.1.2. Four Strands Model

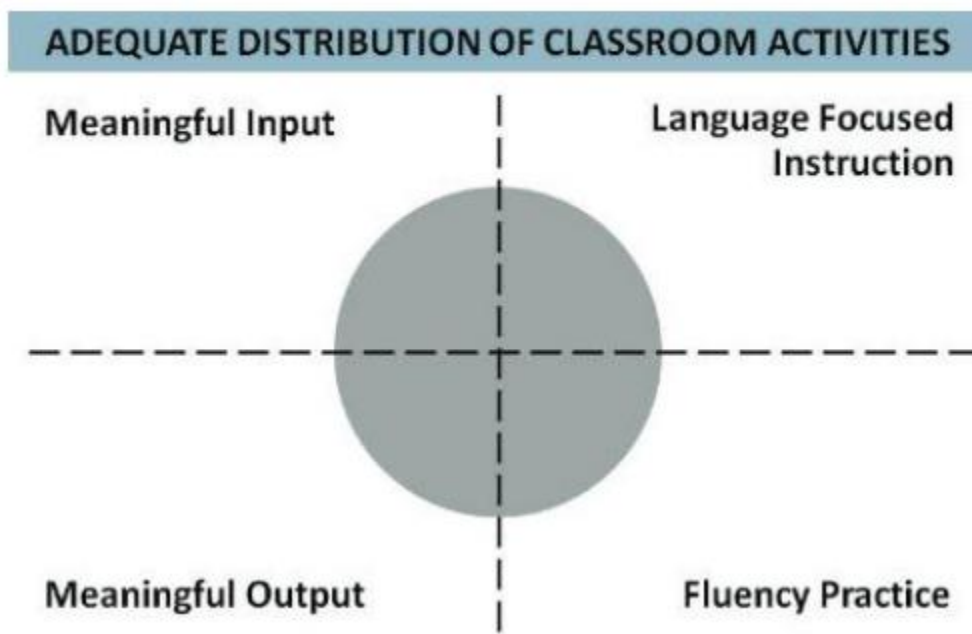


Figure 1.3: Nation's Four Strand Model (see Nation, 2001; Nation & Newton, 2009)

Paul Nation (2001) suggests that a balanced distribution of activities in four learning areas, called “the four strands,” provides the best conditions for output-oriented foreign language learning results. The suggestion to devote an equal share of activities to meaningful input, language structure, meaningful output, and fluency practice is based on empirical data from observations and output testing. Meaningful input means learning by reading and listening. A learner's understanding completely depends on his listening and reading ability. Meaningful output includes learning through speaking and writing. Speaking and writing involve pronunciation, spelling, correct grammar usage, vocabulary. Both meaning focused input and meaning focused output strands of a course similarly the fluency development strand is strongly message focused. Therefore, the four strands contain three message focused or communicative strands, and one language focused strand. The model holds a number of advantages and challenges as well. This strand focuses on form, meaning and its use but language learning must be started by the learner. It is a model for structural curriculum planning in a task oriented learning environment. It provides a model for textbook and lesson/sequence analysis. It calls for new types of task-oriented exercises, ranging from the elicitation of forms from meaningful input to a combination of output and fluency practice. It should not, however, be considered as sequence model for classroom proceedings to be read clockwise.

Nation and Newton (2009) and Nation (2009) focused on the effective method to use this four strands model for listening, speaking, reading, and writing. Time-on-task is the main principle of this model. The four strands of this model are supplement to one another for successful language learning. Development of fluency in learner boosts the learner to work with changes. Thus, fluency in reading helps the language learner to use the phrasal knowledge while reading. The fluency development strand of a course requires focusing separately on fluency in listening, fluency in speaking, fluency in reading, and fluency in writing. Thus, the fluency development strand of a course can develop both receptive and productive knowledge of collocations.

1.1.3. Behaviouristic Approach

Behaviourism focuses on observable behaviours which are changed as the symptoms of learning. According to Brown (1987), the behaviouristic approach focuses on the immediately perceptible aspects of linguistic behaviour - the publicly observable responses. Learning only occurs when there are changes in behaviour and observable as an evidence of changing. Feeling and mental process are not accepted in Skinner's human behaviour's theory; however, he still accepted the existence of mind. Behaviourists consider learning a language as a set of mechanical habits which are formed through a process of imitation and repetition. Humans learn a language through repeating the same form and text until it becomes a habit. So, it was proposed that learners would repeat words they heard and tried to use it in their conversation until it became a regular basis in life. Behaviourists therefore think that learning a language especially second language (L2) should be learnt through extensive drill and practice. According to Ellis (1990), learning could be affected by manipulating the environment to provide the required experience. This leads to the theory formation of habit. It is related to the environment where learning process actually takes place. These habits formation and the environment are recognized as Stimulus-Response (S-R) by Pavlov and Skinner (1953).

1.1.4. Socio-Constructivism

Socio-constructivism requires a third dimension to the interaction between the learners and environment, that is, people (learners or tutors). This theory emphasises that all cognitive functions including learning are reliant on interactions with others (e.g. teachers, peers, and parents). It highlighted that learning should involve learning to learn from others and with others, and to mediate others' learning not only for their own sake but also for a collective learning. Therefore, the main elements of socio-constructivism are social, reflective, authentic, scaffold, progressive and experiential. The social dimension has led to the rise of concepts such as learning organizations, learning schools and learning communities where learning is not only contextualized in the formal settings of schools or universities but also in the wider social community.

1.1.5. Pisa Approach to Learning

The PISA findings show that there is a positive association between student performance and their approaches to learning, such as their motivation to learn, their beliefs about their own abilities and their learning strategies. These learning approaches are not only associated with success but can also be viewed as an educational outcome on its own: once students leave school, they have to manage most of their own learning. To do this, they need to be able to establish goals, to persevere, to monitor their learning process, to adjust their learning strategies as necessary and to overcome difficulties in learning. Students who leave school with the autonomy to set their own learning goals are better equipped to become successful lifelong learners. PISA, reading literacy is implicated as the capacity to understand, use and reflect on written texts, in order to achieve one's goals, to develop one's own knowledge and potential, and to participate in society.

1.1.6. Social Cognitive Theory (SCT)

Social cognitive theory (SCT) is based on the view that personal factors (in the form of cognition, biological, and affective states), behavioural factors, and environmental factors dynamically interact in a process of triadic reciprocity (Bandura, 1986, 1997).

Bandura's Social Cognitive Theory (1986) proposes that people are driven not by inner forces, but by external factors. This model suggests that human functioning can be explained by a triadic interaction of behavior, personal and environmental factors. This theory takes into account the influences of cognition, affective responses, and the social environment on learning in general. Environmental factors are the situational influences and environment in which behaviour is performed while personal factors include instincts, drives, traits, and other individual motivational forces.

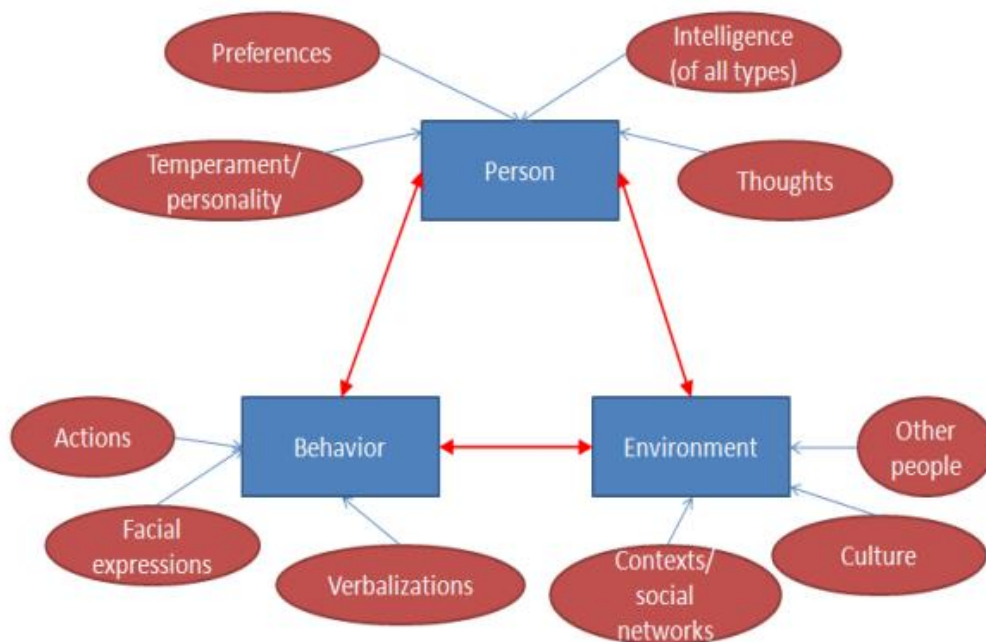


Figure 1.4: Social Cognitive Theory Model (adapted from Bandura)

Several constructs underlie the process of human learning and behaviour change. To increase levels of self-efficacy it may be important to provide resources and support to raise individual confidence. Others have suggested that to raise self-efficacy behaviour change should be approached as a series of small steps.

Social cognitive theory and self-efficacy theory assume that we have the capacity for self-regulation and self-initiated change, and studies of people who have overcome difficult behavioural problems without professional help provide compelling evidence for this capacity (e.g., Prochaska, Norcross, DiClemente, 1994). In the domain of second language acquisition, self-efficacy may be conceptualized as a language learner belief in her or his capabilities to organize and execute the courses of action required to speak the target language. Self-efficacy for speaking a target language is conceptually distinct from WTC as the latter refers to one's intention to initiate communication when free to do so (MacIntyre, 1994; McCroskey & Richmond, 1987), whereas self-efficacy refers to beliefs. Social learning theorists see self-efficacy as influencing future effort, persistence, learning, and achievement (Bandura, 1977, 1982, 1989a; Schunk, 1989a, 1989b; Zimmerman, Bandura & Martinez-Pons, 1992). As per Rotter's social learning theory, individuals can learn through interaction with the environment.

1.1.7. Self-Regulation Theory (SRT)

Self-regulation refers to the capacity to moderate the thoughts and emotions that govern human behavior (Leventhal et al., 1984). Given the extent to which emergent desires could influence behavior, self-regulation suggests that individuals consciously attempt to control behavior in an effort to mediate outcomes (Baumeister & Vohs, 2007). Self-regulation has direct linkages to motivation (Bandura, 1991); the motivation to achieve success is presumably linked to self-discipline and adherence to the strategies that promote goal achievement. According to Baumeister and Vohs (2007), standards (e.g., value-driven expectancies), motivation (e.g., adherence to standards), and willpower (e.g., impulse control) are primary determinants of self-regulated outcomes. A failure to self-regulate can lead to undesirable or high-risk behaviours, and could have significant social, economic, or health-related impacts (Baumeister & Vohs, 2007). Like self-efficacy and self-determination skills, enhanced self-regulation abilities could potentially facilitate aspects of the behaviour-change process and promote well-being, adaptation, and survival. Current social cognition research highlights the predictive utility of social support for the self-regulatory behaviours associated with exercise adherence (Bill, Winett & Wojcik, 2011). Tseng et al. (2006) developed the Self-Regulatory Capacity in Vocabulary Learning Scale (SRCvoc), a Likert Scale on the effort of English Vocabulary learning of Taiwanese students. His questionnaire includes five subscales. They are commitment control (commitment to achieve the goal set), metacognitive control (reflection on self-strategy), satiation control (overcome of the boredom), emotion control (overcome of negative mood), and environmental control (overcome of environment restrictions).

1.2. Conclusion

This study glimpses on new models and theories besides to Bandura's self-efficacy theory. This paper reviews new teaching and learning strategies for second language learning. First it focuses on socio-educational theory, an undying clash in the field of language learning efficacy. Secondly it glimpses on Nation's Four Strands Model that is based on time-on-task principle. Behaviouristic Approach focuses on environment and linguistic behavior. Socio-constructivism explores the relationship between learner and environment. Pisa Approach to Learning finds a positive relation between students' performance and their strategies for learning a language. Further research is recommended in order to determine the effect of other theories, concepts and models such as CEOS theory, message framing concept as well as a person's willingness to communicate with a specific person in English. In summary, "By learning how to use communication strategies appropriately, learners will be more able to bridge the gap between pedagogic and non-pedagogic communication situations" (Faerch & Kasper, 1983: 56).

References:

- Bandura, A. (1997). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2); pp. 191- 215.
- Bandura, A. (1986). *Social foundations of thought and action: A social-cognitive theory* Prentice-Hall, Inc, Englewood Cliffs, NJ; Retrieved from <http://search.proquest.com.ezaccess.libraries.psu.edu/docview/617099314>

- Bandura, A. (1990). Perceived self-efficacy in the exercise of personal agency. *Journal of Applied Sport Psychology*, 2, 128-163.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28, 117-148.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman and Company.
- Baumeister, R. F., & Vohs, K. D. (2007). Self-regulation, ego depletion, and motivation. *Social and Personality Psychology Compass*, 1, 1-14.
- Dornyei, Z. (2001). *Motivational Strategies in the Language Classroom*. UK: Cambridge University Press. pp 21-22.
- Færch, C., & Kasper, G. (1983). Plans and strategies in foreign language communication. In C. Færch, & G. Kasper (Eds.), *Strategies in interlanguage communication* (pp. 20-60). Harlow, England: Longman.
- Gardner, R. C. (2001). Integrative motivation and second language acquisition. In Z. Dörnyei & R. Schmidt (Eds.), *Motivation and second language acquisition*, Honolulu: University of Hawaii Press, pp. 1-19.
- Gu, M. (2009). *The discursive construction of second language learners' motivation: A multilevel perspective*. Bern: Peter Lang AG, International Academic Publishers.
- Heider, F. (1958). *The Psychology of Interpersonal Relations*. New York: Wiley.
- Kasdin, A. (Ed.). (2000). *Encyclopedia of psychology*. (Vol. 7). Oxford: Oxford University Press.
- Leventhal, H., Nerenz, D., & Steele, D. (1984). Illness representations and coping with health threats. In A. Baum & J. Singer (Eds.), *A handbook of psychology and health*, Vol. 4, pp. 219- 252. Hillsdale, N.J: Erlbaum.
- Locke, E. A. & Latham, G. P. (1990). *A Theory of Goal Setting and Task Performance*. Englewood Cliffs N T Prentice-Hall.
- MacIntyre, P. D., (1994). Variable underlying willingness to communicate a causal analysis. *Communication Research reports*, 11, B5 – 142.
- Manasee M. and Prajna P, *Pedagogical Implications: Factors Affecting Learners' communication Efficacy*, *International Journal of Literary Studies*, IAHRW, 2017.
- Manasee M. and Prajna P, *Learning to Learn Attitude, Self-Efficacy and Communication: Exploring the Triad*, *Asian Journal of Management*. 9(1): January- March, 2018. *Journal of Literary Studies*, IAHRW, 2017.
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Nation, I. S. P. & Newton, J. (2009). *Teaching ESL/EFL listening and speaking*. New York: Routledge/Taylor and Francis Group.
- Pajares, F. (1996). Assessing self efficacy beliefs and academic success: The Case for specificity and correspondence. Paper presented at the Annual Meeting of the American Educational Research Association, New York.
- Prochaska, J., DiClemente, C., & Norcross, J. (1992). In search of how people change: Applications to addictive behaviors. *American Psychologist*, 47(9), 1102-1114.
- Schunk, D. H., & Usher, E. L. (2012). Social cognitive theory and motivation. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (pp. 13-27). New York, NY: Oxford University Press.
- Tseng, W.T., Dörnyei, Z., & Schmitt, N. (2006). A New Approach to Assessing Strategic Learning: The Case of Self-Regulation in Vocabulary Acquisition. *Applied Linguistics*, 27(1), 78-102.
- Yaakob, N. F, Elias, H., & Mahyuddin, R. (1993). *Psychological factors influencing English language learning among university students*. Research report, Faculty of Educational Studies, University Putra Malaysia.
- Zimmerman, B. J., Bandura, A. & Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting. *American Educational Research Journal*, 29(3):663-676.