EDUCATIONAL PSYCHOLOGY: A TOOL FOR LANGUAGE RESEARCH

Noor Hanim Rahmat
Akademi Pengajian Bahasa, Universiti Teknologi MARA, Shah Alam, Malaysia
patanim@gmail.com

Abstract

Many researchers who studied language learning in the classroom have used theories of educational psychology as their foundation of knowledge. Understanding the theories of educational psychology and how they can be useful in classroom learning can help researchers answer the "why" in research. Some language researchers choose to study language teaching methodology, others prefer studies that look into the behavior of language learners. There are also some language studies that looked into the influence of the environment on language teaching and learning. This paper reports findings of past studies in the language classroom that used educational psychology as basis for understanding behaviour in teaching and learning.

Keywords

Language Learning, Educational Psychology, Classroom Teaching, Classroom Learning, Behavior

1. Introduction

Language teachers would agree that that are many factors that influence language learning among students. According to Miller (20101), among some of the factors are the comprehensible input of the learners, the learning environment prepared by the teachers, and even the teaching strategies used by teachers. On-going research helps improve the teaching and

learning of language. The range of language research in the past can be categorised into many types. Some language researchers choose to study language teaching methodology, others prefer studies that look into the behavior of language learners. There are also some language studies that looked into the influence of the environment on language teaching and learning. The strength of a research is the how the researchers justifies the content. While many chose past studies to strengthen their literature review, there are many who base their theoretical frame work on educational psychology theories.

1.1 Educational Psychology

According to Santrock (2009), psychology is the scientific study of behavior and mental process. Educational psychology is the branch of psychology that specializes in understanding teaching and learning in educational settings. There are three branches of educational psychology and they are (a) developmental, (b) cognitive and (c) behavioural psychology (figure 1).
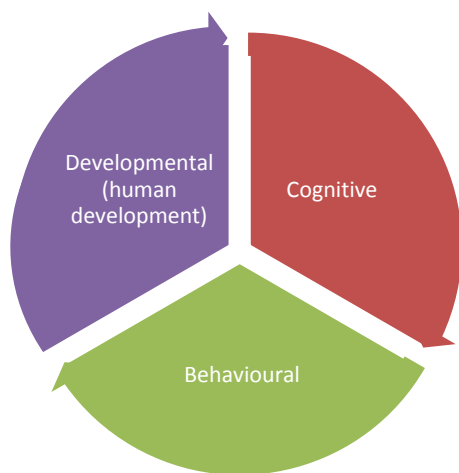

Figure 1: *Three branches of educational psychology (Santrock, 2009)*

1.1.1 Developmental Psychology

Developmental psychology examines the influences of nature and nurture on the process of human development, and the processes of change in context and across time. Many researchers are interested in the interaction between personal characteristics, the individual's behavior and environmental factors, including social context and the built environment.

1.1.2 Cognitive Psychology

Cognitive psychology is the study of mental processes such as "attention, language use, memory, perception, problem solving, creativity, and thinking". According to Prakash (2012), when teachers understand the mental processes of their students, they can apply appropriate

teaching and learning principles to suit a variety of learning sitations. The main focus in cognitive psychology is the mental processes that affect behaviour.

1.1.3   Behavioural Psychology

Behavioural psychology is a branch of psychology that focuses on the study and alteration of people's behaviours, including their actions, emotions and thoughts. According to Farooq (2012), knowledge of behavioural psychology enables teachers to solve learning problems I the classroom. Many classroom studies are based on behavioural psychology.

1.2 Scope of Educational Psychology in Language Research

The scope of educational psychology is the learner, the learning process and also learning situations and strategies (figure 2). According to Nezhad & Vahedi (2011) and , Al-Wahaibi,and Almahrezi (2009) , educational psychology plays a major role in understanding teaching and learning issues.   In order to make classroom teaching and learning effective, the teacher/researcher needs to understand (a) the learner, (b) the learning process to be used in the classroom and also (c) the learning situations and strategies used. Understanding the scope of educational psychology can help improve teaching and learning of languages as well as improve language research.
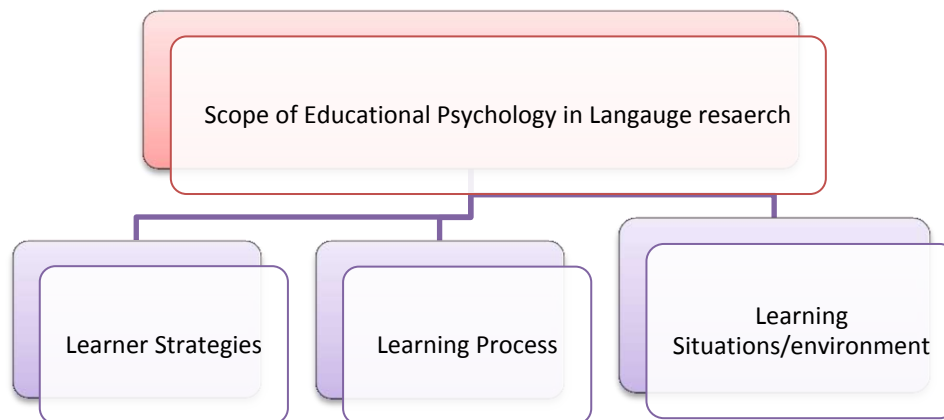

Figure 2: *Scope of Educational Psychology*

1.3 Objective of Review

The scope of this paper is to explore how education psychology can be an important tool for language research. According to Chery (2017), language researchers can study (a) language learning strategies or (b) language as a learning process (figure 3). The scope of researcher areas for the language researchers can range from understanding the strategies used by language learners. The scope of the researcher can also be focused on looking at language as a learning

process. The former focuses on the learners' strategies and the later focuses on the process of language learning. This paper hopes to answer the following question;

(a)   How does learner strategies influence language learning?

(b)   How does learning process influence language learning?

(c)   How does learning situation influence language learning?

2. Theoretical Framework

This paper is presented using the basis of Figure 3. Language learning is rooted from three major theories and they are; language learning strategies, language learning process and environment influence on language learning.
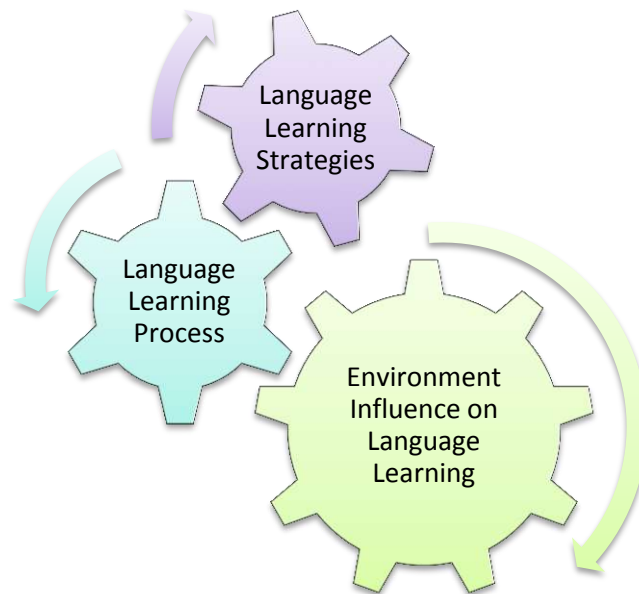

Figure 3: *Theories of language Learning and Educational Psychology*

Based on Figure 3, language learning strategies employed by the learners may facilitate or even hinder learning. Next, the language process planned by the teacher can impede or even assist classroom teaching and learning. Finally, the surrounding can have either a positive or negative impact of learners during the language learning activities.

2.1 Language Learning Strategies

The root of language learning lays in the six language learning strategies (Oxford, 1990).Learners use strategies when they learn a language. The strategies are, cognitive, metacognitive, memory related, compensatory, affective, or social strategies. Six groups of L2 learning strategies have been identified by Oxford (1990).

2.1.1 Cognitive Strategies

The strategies enable learners to manipulate the language material in direct ways such as through reasoning, analysis, note-taking, summarizing, synthesizing, outlining, reorganizing information. These sub-strategies help learners develop stronger schemas (knowledge structures)

2.1.2 Metacognitive Strategies

Some examples of metacognitive strategies are identifying one's own learning style preferences and needs, planning for an L2 task, gathering and organizing materials, arranging a study space and a schedule, monitoring mistakes, and evaluating task success, and evaluating the success of any type of learning strategy) are employed for managing the learning process overall.

2.1.3 Memory-related strategies

Memory-related strategies help learners link one L2 item or concept with another but do not necessarily involve deep understanding. Various memory-related strategies enable learners to learn and retrieve via sounds (eg, rhyming), images (eg a mental picture of the word itself or the meaning of the word), a combination of sounds and images (eg keyword method), body movement (eg total physical response), mechanical means(eg flashcards), or location (eg a paper or blackboard)

2.1.4 Compensatory Strategies

Some examples or compensatory strategies are; guessing from the context in listening and reading, using synonyms and "talking around" the missing word to aid speaking and writing, and strictly for speaking, using gestures or pause words) help the learners make up for missing knowledge.

2.1.5 Affective Strategies

Affective strategies help in identifying one's mood and anxiety level, talking about feelings, rewarding oneself for good performance, using deep breathing or positive self-talk.

2.1.6 Social Strategies

Some examples of social strategies are; asking questions to get verifications, asking for clarification of a confusing point, asking for help in doing a language task, talking with a native-speaking conversation partner, and exploring cultural and social norms) help the learner work with others and understand the target culture as well as language.

2.2 Language Learning Process

Next, teaching language is a process of discovery. Theories by Brunner and Vygotsky support language learning as a social process through the theory of social constructivism.

2.2.1 Constructivism by Brunner

Influenced by Vygotsky, Brunner (Santrock, 2009) emphasizes the role of the teacher, language and instruction. He thought that different processes were used by learners in problem solving, that these vary from person to person and that social interaction is the root of good learning. Brunner (Santrock, 2009) also builds on Socratic's tradition of learning through dialogue. He encourages the learner to come to enlighten themselves through reflection. Careful curriculum design is; therefore, essential so that one area builds upon the other. Learning must then be a process of discovery where learners build their own knowledge. This is done with the active dialogue of teachers, as well as learners building on their existing knowledge. Brunner (Santrock, 2009) initiated curriculum change based on the notion that learning is an active, social process. This is the process where students construct new ideas or concepts based on their current knowledge. Brunner (Santrock, 2009) provides the following principles of constructivistic learning;

- Instruction must be about experiences and contexts that make the student willing and are able to learn (readiness)
- Instruction must be structured so that it can be easily grasped by the student (spiral organization)
- Instruction should be designed to facilitate extrapolation and /or fill in the gaps (going beyond the information given)

2.2.2 Social Constructivism by Vygotsky

Social constructivism was developed by Vygotsky who linked language learning to culture. He emphasized the role of language and culture in cognitive development and in how we perceive the world, and claimed that they provide frameworks through which we experience, communicate, and understand reality. Language and the conceptual schemas that are transmitted by means of language are essentially social phenomena. Knowledge is not simply constructed, it is co-constructed.
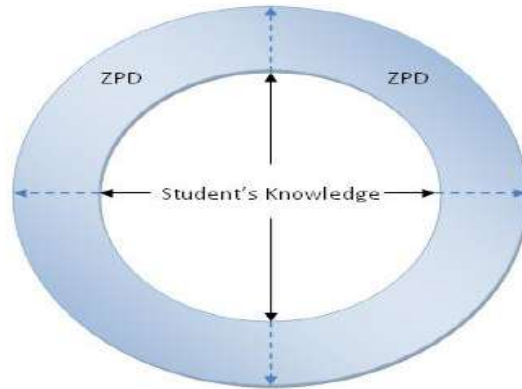
Figure 4: *Zone of Proximal Development by Vygotsky*

A popular concept in social constructivism is "zone of proximal development" (figure 4). Students working alone would not gain as much knowledge when they work with their peers. The difference between what students can do alone without help, and what they cannot do is known as the "zone of proximal development". In addition to that, to ensure the development in the "zone of proximal development", learning and teaching should contain these features;

(a) Inter-subjectivity

This refers to the process where of common understanding between two individuals that initially had differences. This common understanding will set the basis for communication among learners. The good communication encourages each partner to adjust to the other's differing views.

(b) Scaffolding

During scaffolding, learners learn to do away with support given to them. Initially, learners were given full support, as time goes on, the teacher reduces the support for the learners. The learners will finally adjust to limited or no support for learning.

(c) Guided Participation

Guided participation stems from the support received from partners during learning. The interaction allows the exchange of ideas between the expert and the less expert learners.

2.2.3 Social Cognitive Theory

The theory by Bandura's on Social Cognitive theory (Santrock, 2009) emphasizes on the symbiotic relationship between behavior, environment and person as well as cognitive factors.
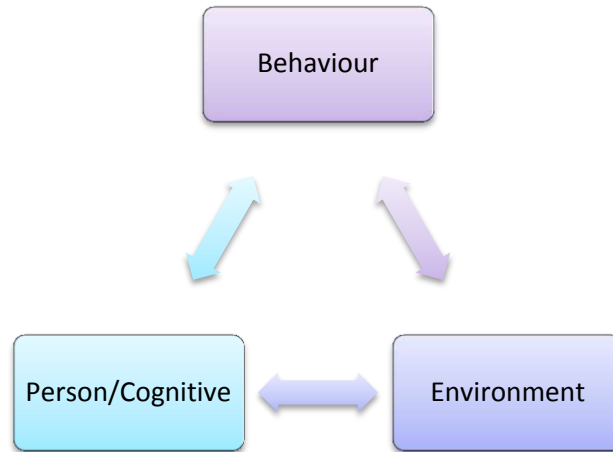
Figure 5: *Bandura's Social Cognitive Theory*

Cognitive factors include learners' perception on his success or failure towards learning. Learners' behavior is influenced by his/her environment. This means a positive environment will create a positive outcome and vice versa. Finally, the behavior of the learner will result from the existing environment coupled with his/her cognitive perception of the learning process. A study by Rahmat, Arepin, Mohd Yunos, and Syed Abdul Rahman, (2017) was done to report on the influence of the environment on the learning of writing. The study revealed that writing behavior (perceived difficulties) among learners is influenced by the classroom teaching (environment), the perception of the writer (cognitive). Many language learners perceive writing as difficult because they may not like writing activities, or they do not enjoy the learning process in the classroom.

3. Related Language Research

3.1 Language Learning Strategies

This section of the paper discuses past studies that used educational psychology as the basis for research. In addition to that, this section's discussion is focused towards answering the three research questions;

(a) How does learner strategies influence language learning?

(b) How does learning process influence language learning?

(c) How does learning situation influence language learning?

3.1.1 Influence of Learner Strategies on Language Learning -Reading

A study was done to find out how language learning strategies influence reading comprehension among learners (Syed Abdul Rahman, Rahmat, and Mohd Yunos, 2015). The study was done to find out perceived reading difficulties among adult learners. Strategies such as cognitive, metacognitive and social strategies are reported to have impact on the reading comprehension of learners.
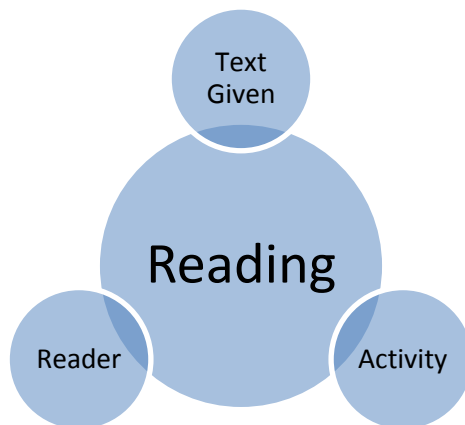
Figure 6: *Relationship between Reading –The Reader, the Text and the Activity (Snow; 2002)*

Figure 6 shows the relationship of the three main elements in the model. When readers are given texts to read, the ability to comprehend and elicit meaning from the text is influenced by the text given, the activity designed by the teacher and also the readers' schemata. The schemata are influenced by their socio cultural context.
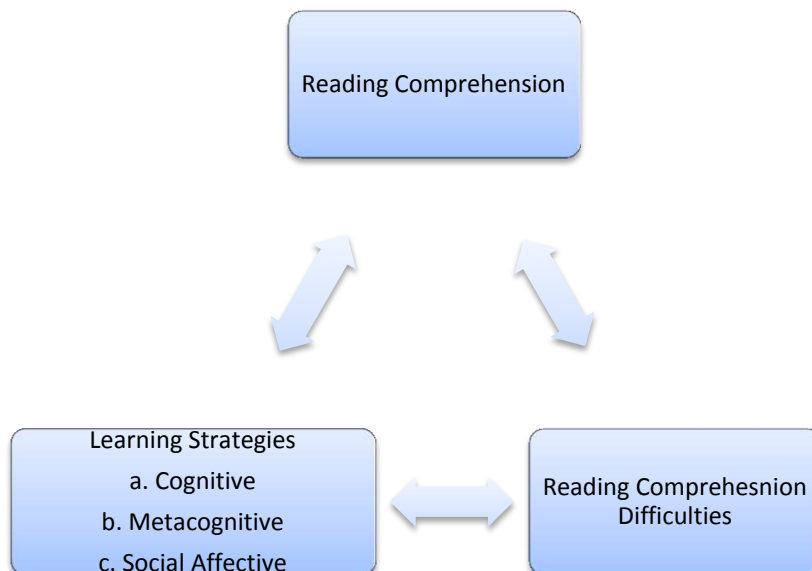
Figure 7: *Language Learning Strategies during Reading*

With reference to Figure 7, reading comprehension is influenced by what strategies learners chose. These chosen strategies will then affect the way they perceive the difficulties. The study thus revealed that;

(a) among male and female adult learners, there was a significant difference in the use of social strategies

(b) for adult learners, the most common strategy used for reading comprehension was cognitive strategy

(c) although there were no significant differences in the use of cognitive and metacognitive strategies, individual frequency received varying results.

3.2 Language Learning Process

3.2.1 Jigsaw Writing

Figure 8: *Jigsaw Writing*

Jigsaw writing (Figure 8) is a form of cooperative writing. Each member of the group works on his/her part. The decision to break essay writing into parts is done from the mind map of initial stages and these acts as a scaffold towards the forming of the whole essay by each group member. This technique is a method of organizing classroom activity that makes students dependent on one another to succeed. This form of writing is done based on the theories of;

(a) Social Constructivism

The group effort in cooperative writing reveals that writing is easier done in groups. Learners enjoy the companionship and social engagement throughout the writing process. According to Zhao (2014), based on the constructivism theory, learning is not merely an accumulation of knowledge among peers. Learners do not accept knowledge passively; they learn to transform what they have learnt into knowledge they can use.

(b) Scaffolding

Scaffolding is a concept by Vygotsky (Santrock, 2009). Scaffolding is best achieved when the support is matched to the needs of the learners.

(c)   Scroll Writing

In this writing class, students used sections of the mahjong paper (a large piece of paper) to write their assigned paragraphs. When everyone has completed their paragraphs, the sections are joined together thus forming a long essay in the form of a scroll.

3.3 Influence of Environment on Language Learning

3.3.1 Movies in the Writing Classroom

The theory of constructivism claims that humans are better able to understand the information that they have constructed by themselves. According to Ozer (2004), learning is a social advancement that involves language use, the real world, and interaction and collaboration among learners. In the constructivist classroom, the teacher is the facilitator and a guide. He or she guides and also provides direction to the learners. The learners are made to be accountable for their own learning. A study by Rahmat (2014) looked at how movies can help learners construct their own learning in the writing classroom (Figure 9). Movies are used to enhance the material's role in the writing classroom so learning becomes fun and authentic. The activities allow students to enjoy learning. The issues in the movies help learners make their writing authentic when they refer to real issues they can identify with.
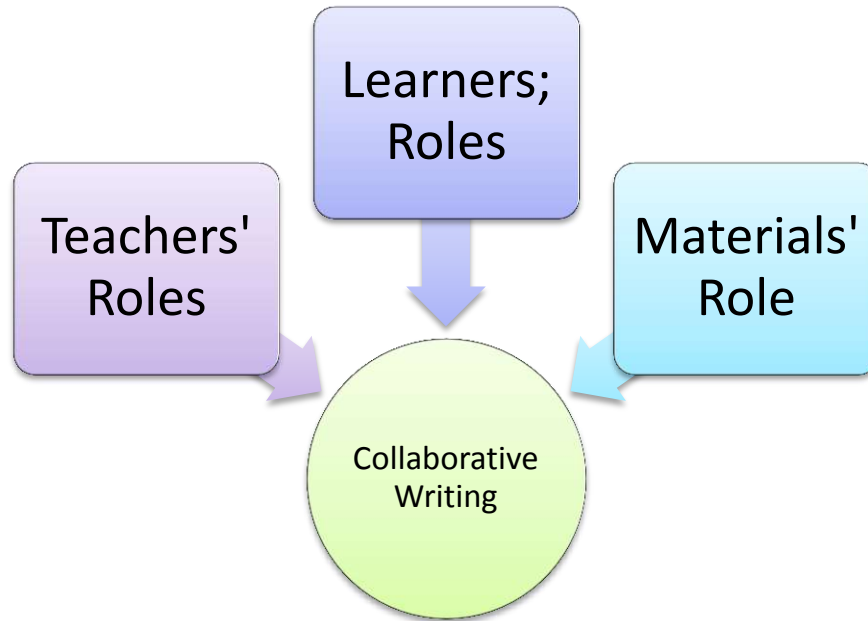
Figure 9: *Collaborative Writing*

4. Conclusion

To summarise, the knowledge of educational psychology can help to enhance studies in language in many ways. Firstly, theories in educational psychology can help to help readers understand how learning strategies influence reading skills. Next, the learning process in the writing classroom can be enhanced teaching and learning. Finally, understanding concepts of educational psychology can help improve the use of materials in the language classroom.

Future language studies can incorporate the concept of educational psychology to improve teaching and learning activities. Theories can also be the basis of many language innovation in classroom teachings. The theories helped researchers to justify the "why" in their research write-up.

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