

Study on Factors Affecting Learning Strategies in Reading Comprehension

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Abstract—This paper presents the literature on reading competence and analyzes the influence of factors on students' strategy use. The necessity of integrating social and individual factors in the studies of learning strategy, especially individual factors affecting the improvement of reading competence is made explicit, and this is followed by the description of situational factors and individual factors such as motivation, age, sex, personality and so on.

Index Terms—factors, learning strategies, reading comprehension

I. INTRODUCTION

Learning strategies can promote student's study including reading comprehension. The reader's background, classroom tasks and strategies he employs are among the major factors. Reading is by far one of the most important means of learning a second language. The process of reading is complicated. There are many factors that affect reading comprehension. The reader's background, classroom tasks and strategies he employs are among the major factors. During the reading process, the reader uses different kinds of strategy to facilitate comprehension. This paper will discuss the factors that affect the choice of learning strategies in reading comprehension.

II. LEARNING STRATEGY AND READING COMPETENCE

Reading is probably one of the most important means by which we require knowledge or information from the world around us. Thus researchers and teachers have paid much attention to the product rather than the process of reading. That is to say, the attention has been almost exclusively paid to the language to be comprehended rather than to the comprehender. There are three elements of successful reading comprehension: conceptual understanding, automated basic skills and strategies. Conceptual understanding includes knowledge of topics, text schemata and vocabulary. Automated basic skills include word decoding skills and the ability to construct propositions from strings of words. Strategies include varying one's approaches to reading depending upon one's goal and monitoring one's comprehension.

There is such a phenomenon that even if readers occupy the same conceptual understanding and automated basic skills they have different abilities to understand the same passage. Hence, researchers begin to keep their eyes on the learning strategies in reading comprehension. Theories about reading process can be conventionally classified into three major groups: bottom-up, top-down and interactive views of reading. In bottom-up theory, the emphasis is put on the linguistic aspects of the text, including words, phrases, sentences and syntactic structures of the text, the readers' comprehending simply means recognizing each word, phrase and sentence, finally arriving at the understanding of the written text. That's to say, what they should do is build up the small units to large ones, and reconstruct the meaning of text by recognizing the printed letters and words. The shortcoming of bottom-up theory is that if the reader can't understand the meaning of the text, he may not know the meaning of a word, a phrase, etc. In a word, the reader is passively led by the text. Then comes the higher level of top-down theory. Top-down theory is the results of Goodman's famous comment: Reading is a psychological guessing game (Carrel, 1989). Reading is an active process of prediction, selection and confirmation basing on his own background knowledge and the information presented in the text, in other words, with more correct predictions the reader will require less visual perceptual information in the comprehension process, so top-down theory is criticized for causing an over-reliance on background knowledge and neglect of basic text which requires the reader in comprehending. Finally, the interactive theory or schema theory is proposed to balance the above. It combines and expands upon the features of both bottom-up and top-down theory and does this within an information processing analysis of language comprehension. Carrel (2008) suggests a simplified graphic perspective presented as follows:

TABLE 1
A SIMPLIFIED INTERACTIVE PARALLEL PROCESSING SKETCH

Reading	Comprehension	linguistic aspects
		Graphic feature
		Letters
		Words
		Phrases
		Sentences
		Local cohesion
		Paragraph structuring
		Topic of discourse
		Inferencing
		World knowledge
		linguistic aspects
		Graphic feature

However, it is still incomplete. It seems that the theory is too powerful and doesn't exclude any conceivable results. Wenden (2007) divides them into 4 types of strategies. Ellis (2004) classifies them into 4 types while Block's study is more specific, her categories are 2 levels: general strategies and local linguistic strategies.

Different researchers result in almost different finds and therefore different taxonomy of learning strategies in reading comprehension. Since the factors influencing reading are various, it's necessary to take factors into consideration.

III. FACTORS AFFECTING LEARNING STRATEGIES IN READING COMPREHENSION

This section considers the internal process. How the learner deals with input data? It looks at the internal mechanisms, or the "black box". A complete account of SLA involves showing both how the input is shaped, which is concerned about the situational factors and how the learner works on the input to turn it into intake, which is concerned about the individual factors. It's acknowledged that second language learners vary on a number of dimensions to do with school's educational style, age, sex, motivation, learning style, personality and so on. Among them, situational factors and individual factors are the two main ones. A brief introduction of them is as follows to examine the relationship between factors and the use of learning strategy in reading comprehension.

A. Situational Factors

By no means does learning task take place in a vacuum. The importance of the appropriate situational conditions for learning can't be underestimated. We are not able to assess the quality of language learner outside of the contexts in which study occurs. There is no argument that individual factors are not definitely discarded although they are less observable externally than learning situations present to researchers. Characterization of learning situations must be come from research.

a) Second Language and Foreign Language

When we mention situational factors, it is natural for us to think of traditional distinction of two main parts-----second language and foreign language. Second language means that the language is spoken in the community in which it is being learned, while foreign language is not spoken in the local community. Second language learning will refer to the language spoken in the community and will also at times serve as the generic term used to refer to both second and foreign language learning. Foreign language learning will be used to refer exclusively to a situation where the language is not spoken. Ellis also makes a distinction between second language and foreign language: second language plays an institutional and social role in the community; in contrast, foreign language plays no major role in the community and is primarily learnt only in the classroom (Oxford, 2010).

b) Situational Factors and Reading Comprehension

As the source of variation in the use of learning strategies, Situational factors include many contents among which classroom setting, teaching methods and tasks etc. are the most influential.

It is found that there are a number of differences between the learning strategies used by learners in a classroom and in a natural setting. After studying the classroom learners we find that the classroom learners mention social/affective strategies infrequently. What causes such phenomenon? It is likely that in many classrooms the kind of method affords little opportunity for the use of social/affective strategies. Another reason is maybe that learners pay more attention to metacognitive strategies and cognitive strategies and that rarely use social/affective strategies.

What mentioned above has an indirect impact on learning strategy use in reading comprehension. Teachers' methodology is directly hooked with the uses of learning strategies. For example, if a teacher spends much time explaining the use of words, phrases and sentences in extensive reading class, his/her students tend to use bottom-up theory. What they learn is the meanings of words, phrases and sentences and they can't catch the veracity of content. In contrast, if a teacher tends to convey input to students with grammatical teaching method, his/her students undoubtedly make the best of translation strategy.

Research has shown that different tasks which students face decide the different uses of learning strategies. In the task of oral training, students are bound to apply all kinds of verbal strategies. There is evidence that task type has a marked influence on students' use of both cognitive and metacognitive strategies. For instance, reading task leads to

“translation”, “elaboration”, “inference”, “imagination” as cognitive strategies, and to “selective attention”, “self-management” and “advance organizer” as metacognitive strategies. The difficulty of task affects directly the learning strategy use. In daily life, when we are reading paper, magazine we needn't get more detailed information, so we needn't read one word by one word, we use skimming. But when we read a monograph on philosophy, we can't use skimming, otherwise, how can we grasp the gist?

Though situational factors don't discreetly play role, they interplay with each other. Learning strategies depend on situational factors greatly. Nonetheless, situational factors only constitute one variant influencing learning strategy use. There are such phenomena that some students learn better than others in the same learning environment and that there are still differences in strategy use in the same context. It is the individual factors that affect the students' use of learning strategies.

B. Individual Factors and Reading Comprehension

Individual differences constitute one source of variation in the use of learning strategies. Individual factors include motivation, learning style, age, cognitive style, intelligence, aptitude, personality, sex, attitude, nationality and learning belief and so on.

a) Motivation

There can be little doubt that motivation is a compelling factor in SLA. Its effects are obviously to be seen on the success of SLA. It seems easy to accept the assumption that learning is mostly likely to occur when we want to learn. However, the concept of motivation is with ease overlapped with other attributes. Thus a crucial but complicated motivation is always the object of research.

Motivation is an important factor in learning strategies. It's necessary to identify the types of motivation that assist in the successful acquisition of a second language. There are two types of motivation---integrative motivation and instrumental motivation. Integrative motivation has been identified as the learner's orientation with regard to the goal of learning a second language. When someone becomes a resident in a new society that uses the target language in its social interactions, integrative motivation is a key motivation that promotes the learner to develop that language to operate socially in that society. Oxford (2010) states that integrative motivation typically underlies successful acquisition of a native-like pronunciation. Instrumental motivation is normally characterized by the desire to obtain something practical or concrete from the study of a second language (O'Malley, 2005). Instrumental motivation is a usual characteristic of second language acquisition, when there is little or no social integration of the learner into a society using the target language. Rubin makes the point that both integrative and instrumental motivations are not necessarily mutually exclusive. Learners rarely select one form of motivation when learning a second language, but rather a combination of both orientation strategies (Rubin, 2007).

The strength of motivation can have a conductive effect on the quantity of learning strategies they employ. Oxford (1989) find that “the degree of expressed motivation is the single most powerful influence on the choice of language learning strategies.” For instance, learners with strong instrumental motivation of fulfilling course requirements and obtaining good grade in the course are likely to employ formal practice and general study strategies. If a learner learns the target language with the reasons of career, such as conversing with foreign businessmen, he/she must perform communication-oriented strategies. Wen (2001) analyzes the relationship between motivation and learning strategies. Her study indicates that motivation correlates with some strategies significantly and integrative motivation is correlated with strategies more closely. Recent researches in motivation have suggested a reciprocal relationship between motivation and strategy use. Motivation influences the choice of strategies. So in this study, we emphasize on the effects of motivation on learning strategies, especially in reading comprehension.

b) Age

Age is the variable that has been most frequently considered in discussion of individual differences. This is due in part to the ease with which age is measured. In addition to the empirical investigation of age's correlation with the route of SLA, the rate or success of SLA, there are considerable theories about the effects of age on SLA.

It's difficult to compare children with adults as second language learner because of the possible biological differences and different conditions for language learning. An adolescent or adult's formal language is related to cognitive development of an older learner's brain. Older learners are in situations which require much more complicated language. They can go about learning linguistic rules by consciously studying. They have to pay more attention to some rules when they use the language, on the other hand, meta-awareness as younger children don't wholly lack in, they often use informal language and they have little care about the correctness of language use because they think language is only a tool to convey meaning. Rosansky (1976) has debated that cognitive development accounts for the greater ease with which young children learn languages. On account of the absence of meta-awareness in their brains, they see only similarities, lack flexible thinking and are self-centered. Moreover, they have less social pressure on the misuse of language. For the above reasons they are cognitively “open” to another language without blocks. It is automated and unconscious for them to acquire the second language. Older learners are thoroughly opposite. They are sensitive to differences as well as similarities, to think flexibly and become increasingly decentral. They may hold strong social attitude to the target language use. Adults are too timid to naturalize the learning while young children are risk-takers. So there is greater opportunity for young learners to approach the target language by meaning-focused strategies and risk-taking affective strategies and they seldom compensate their inadequacy of knowledge on the target language with

the help of their mother tongue. Old learners prefer to form-focused strategies-----memorizing, rehearsing and proneness to cover their weakness in the target language with more communication strategies.

All of these postulations have been substantiated. Young children have been observed to employ strategies in a task-specific manner, but older children and adults use generalized strategies, which they employ more flexibly. Young children's strategies are often simple while adult learners' strategies are more complicated and sophisticated. For example, Holec (1981) finds that "rehearsal" for children consists of rote repetition, while for adults it involves "active, systematic and elaborative procedures. Ehrman (1988) report adults using more sophisticated strategies. These differences may help explain the reason that older children and adults usually learn faster initially than young children, and also why the advantage is more evident in grammar and vocabulary rather than in pronunciation. Learning grammar and vocabulary involves many learning strategies, which are at adults' disposal more flexibly.

c) Learning style

Learning style is individually characteristic, stable and habitual. It is used to describe perceptual individual approaches to learning, i.e. how to perceive, store, retrieve, or recall information. Cognitive style is a branch of learning style. Reid (2009) identifies six major learning style preferences: visual, auditory, tactile, group and individual differences. It is clear that the learning style preferences are not fixed according to the change of teaching environment and other factors. As a result, learning is best when the learning opportunity matches the learner's preference.

Learners' style preferences will influence the kinds of strategies they choose in order to learn new material. Raskin and Karp provide the following description: a field-dependent mode of perceiving, perception is strongly dominated by the overall organization of the surrounding field, and parts of the field are experienced as "fused". In a field-independent mode of perceiving, parts of the field are experienced as discrete from organized ground. For instance, a learner with field-dependent style, when reading, must have a tendency to concentrate on the main idea of written materials, overriding words or phrases. He/she reads extensively, inaccurately answers questions about details, and likes to often learn with peers or consult teachers. On the contrary, a learner with field-independent style tends to reside at the lexical level, deferring his/her comprehension of written materials, learning alone. He/she pays more attention to the meanings of words, phrases and sentences and can't read between the lines and can't cooperate with peers and teachers.

There are another four learning styles used by adults described by Willing: concrete learning style, analytical learning style, communicative learning style and authority-orientated learning style. The description suggests that each style might be associated with different learning style.

d) Personality

It's intuitive to hypothesize the connection of personality with the choice of strategy use. In the point of many language teachers, the personality constitutes a main factor contributing to success or failure in language learning. Researchers investigate considerably the multi-faceted personality traits.

There is immense evidence to prove the close relationship between personality and strategy use. Strong supports that extroverted learners will do better in requiring basic interpersonal communication. Griffiths (1991) holds that introverted learners will do better at developing cognitive academic language ability. However, the relationship between individual traits and reported strategy use is also puzzling in some case. For example, Griffiths, (1991) finds no significant relationship between extroversion introversion and proficiency. Researchers have studied several other personalities: empathy, dominance, talkativeness, but they can't find a clearly defined relationship between personality and strategy use. Certainly the major difficulties in studying personality are that the identification and measurement and the test used to measure the personality trait lack validity. Such results suggest that links between personality and strategy use remain to be investigated.

e) Other factors

Variations about individual differences, except the above referred, contain aptitude, inhibition, two hemispheres of a brain, etc. The influence of these factors on choice of strategy use is not as salient as those demonstrated. O'Malley (2005) summarizes that it is not impossible that learners with enhanced decontextualized language skills as one aspect of aptitude will be better able to talk about the used strategies. Oxford (1989) discovers that learners with high conceptual level are good at describing their strategies, while learners with low conceptual levels are not. Bialystok supports that learners' beliefs are not influenced by the aptitude. It is likely that learning strategies are relevant to that part of language aptitude shared with a strong intelligence factor.

Sex differences have also been investigated. It is true in every country that the second languages are more popular school subjects among girls. Oxford (2010) finds that female perform significant better than male on listening comprehension and dialect discrimination task. Bacon shows male and female use learning strategies in reading comprehension differently, male use more translation strategies than female, while female monitor their comprehension more. Furthermore, female use conversation input elicitation strategies more frequently than male, because they were more oriented towards social interaction. Bacon, (1992) concludes that female favor greater overall use of strategies than male. This discovery implies the inclination of using form-focused strategies by female.

Apart from the sex differences, sometimes a link between intelligence and second language learning has been reported. Griffiths (1991) finds that intelligence is related to the development of second language reading, grammar and vocabulary and it is unrelated to oral productive skills, which suggests that intelligence may be a strong factor when it comes to learn less important language analysis and rule learning, while it plays a less important role of communication

and interaction. In the point of objective facts, intelligence will influence the form and the use of learning strategies. The reason is that some learning strategies require higher intelligence level, of course the lower intelligent students will try to use such strategies, finally they have to abandon the strategies because of the not-well results. Wu supports that students with high intelligence level can form simultaneously a set of valuable learning strategies by understanding teacher's explanation and summarize their own experiences, and that students with low intelligence level can obtain mechanically learning strategies through repeating teacher's definite help and explanation and can't use them effectively according to the change of learning task and environment. It is important to keep in mind that intelligence is complex and individuals have many sorts of abilities, not all of which are measured by traditional tests. For instance, when students use advance organizers learning strategies in reading comprehension, they should be so intelligent to formulate some questions before reading, which can help them understand the whole passage. In contrast, students with low intelligence only keep their eyes on the lexical items.

IV. CONCLUSION

A wide range of individual differences have been identified as factors that influence the development and use of learning strategies in reading comprehension. Researchers should take individual factors such as motivation, age, learning style, personality, sex, intelligence differences into account to probe into the nature of strategy use and development. Individual differences are the closest determinants that raise kinds of learners' response. Besides, situational factors like classroom setting, teaching method, task, and so on also contribute to the diverse use of learning strategies. Learners' characteristics are not independent of one another: learners' varieties interact in complex ways, so researchers are not getting a true measure of a factor if it is isolated from all the others. So far researchers know very little about the nature of these complex interactions. It is clear that neither factors operate exclusively nor there is any claim that individual subjective factors have a more profound or more decisive influence than social objective factors or vice versa.

As a matter of fact, the other factors--attitude, learners' belief and proficiency are testified to have association with strategy use as well. The other aim of this chapter is to supply useful insights for strategy-based instruction, for a teacher or a strategy trainer should take these factors into consideration in order to make training effective.

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