Relationship between L2 Learners' Autonomy and Their Cognitive Style: Reflectivity in Focus

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Abstract

This study aimed to determine the relationship between L2 learners' autonomy and their cognitive style focusing on reflectivity. It was conducted with 140 Iranian M.A. EFL learners from Department of English at Islamic Azad University of Najafabad. In order to have a homogeneous sample, the second version of Quick Placement Test (QPT) was administered. Then, 85 lower and 50 higher proficiency students were selected based on the scoring level chart of the QPT. In order to estimate participants' autonomy, the Learner Autonomy Questionnaire was administered. Then, the Eysenck Personality Questionnaire was used to determine the participants' degree of reflectivity. To answer the research questions descriptive statistics and correlation analysis were employed. The results revealed that, 1) There was a weak positive relationship between low proficiency L2 learners' level of autonomy and their degree of reflectivity, 2) There was a strong positive relationship between high proficiency L2 learners' level of autonomy and their degree of reflectivity. Finally, the implications of the study for EFL teachers, learners and syllabus designers were discussed.

Keywords: Cognitive style, Reflectivity, Autonomy, Descriptive statistics, Correlation analysis, Iranian EFL learners.

Introduction

The inspiration of learner autonomy is by no means a fresh building block in the history of education. Learner autonomy, as a rather new field of study, has slowly come into existence since the 1970s as an outcome of a new wave of interest in studies on language learning: learners have gradually been viewed as producers of language and less as learners of a system imposed on them by society (Bocanegra & Haidi, 1999). Learner autonomy, according to Dafei (2007), is one of the most vital issues that decides whether an individual reaches his/her potential or falls short of that potential.

In recent years, interest in learner autonomy has grown considerably in the field of language education (e.g., Benson, 2003; Hurd & Murphy, 2005; Lamb & Reinders, 2008; little, 2001; White, 2003). Despite the fact that autonomy has been defined in a number of ways, it emerges from the concept of an individual's taking control of his or her own learning and is often manifested by the ability to take initiative, monitor progress and evaluate learning outcomes (Benson, 2001; Benson & Voller, 1997; Holec, 1981; Little, 2003).

Little (1995) believed that autonomous learners comprehend the rationale of their learning agenda, overtly accept responsibility for their learning, split in the setting of learning objectives, take initiatives in planning and doing learning activities, and frequently review their learning and assess its effectiveness.

Cotteral (2000) stated that many language teachers have recognized the importance of taking into account the principles of learner autonomy, the capability to take charge and control one's own learning. He proposed that teachers can encourage students to undertake independent learning outside the classroom.

As Celce-Murcia (2001) remarks, "learning styles are the general approaches that students use in acquiring a new language or in learning any other subjects" (p. 359). One of the factors which can be related to learning style is the personality type of different individuals and among all different personality types and learning styles the one which requires more attention is perhaps Reflectivity learning style. Brown (2007) stated that "a reflective person tends to make a slower, more calculated decision" (p. 127). Ehrman and Leaver (2003) view reflexives as the persons who prefer to first think and then respond. They often benefit from relatively complex thinking and tend to work accurately. However, their slowness can result in incomplete work on tests. (Kagan, as cited in Jamieson, 1992, p. 492).

Kagan (1965), classifies reflective person as "the individual who takes relatively longer respond and make fewer errors". Zelinker and Jeffrey (1976) believe that reflectivity may not always be the most optimal style. They found that "reflective children do better on tasks that require analyses of fine internal detail.

Background

"Over the last two decades, the concepts of learner autonomy and independence have gained impetus, the former becoming a catchphrase within the context of language learning" (Little, 1991, p. 2). It is a maxim that one of the most important products of more communicatively oriented language learning and teaching has been the best placed on the role of the learner in the language learning process (see Wenden, 1998, p. xi). It goes without saying, of course, that this shift of responsibility from teachers to learners does not exist in a vacuum, but is the result of a series of changes to the curriculum itself towards a more learner-centered kind of learning. What is more, this reshaping, so to speak, of teacher and learner roles has been beneficial to a radical change in the ancient distribution of power and authority that used to plague the traditional classroom. Actors in a new perspective regarded as having the "capacity for detachment, critical reflection, decision-making, and independent action" (Little, 1991, p. 4), learners, autonomous learners, that is, are expected to assume greater responsibility for, and take charge of, their own learning. However, learner autonomy does not mean that the teacher becomes redundant; abdicating his/her control over what is known in the language learning process. In the present study, it will be shown that learner autonomy is a permanent dynamic process agreeable to 'educational interventions' (Candy, 1991), rather than a static product, a state, which is reached once and for all. Besides, what permeates this study is the belief that "in order to help learners to assume greater control over their own learning it is important to help them to become aware of and identify the strategies that they already use or could potentially use" (Holmes & Ramos, 1991, cited in James & Garrett, 1991, p. 198). At any rate, individual learners differ in their learning habits, interests, needs, and motivation, and develop varying degrees of independence throughout their lives (Tumposky, 1982).

Dafei (2007) studied the relationship between learners' autonomy and their English proficiency. The statistical analysis revealed that the students' English proficiency was significantly and positively correlated with their learner autonomy, and there were no statistically significant differences among the students' autonomy when their English proficiency was the same. But significant differences existed among the students' autonomy when their English proficiency was not the same.

Negari and Solaymani (2013) investigated the relationship among attitudes to autonomous learning, thinking styles, and language learning strategy use of 92 Iranian EFL learners. Their findings revealed there was a significant relationship between self attitude to autonomy and all the subcategories of strategy use. Furthermore, they found there was a significant relationship between self-attitude to autonomy and most of the subcategories of

thinking styles (i.e. legislative, judicial, hierarchic, global, local, internal, external and liberal).

Dam and Legenhausen (1996) conducted a project on learner autonomy in 1992. The aim of Language Acquisition in an Autonomous Learning Environment project was to observe the language development process of a Danish comprehensive school class in an autonomous language learning and teaching environment. According to the findings of the project, 7th grade learners in an autonomous class were better than learners following a more traditional language programme in the terms of C-test scores. This project supports the view that autonomous learning environment can affect learners' success in a positive way.

As to the relationship between autonomy and academic performance, as cited in Dafei (2007), Corno and Mandinach (1983) claimed that learner autonomy could be regarded as a factor helping learners improve their language proficiency. They drew a conclusion that autonomous learners were the learners enjoying high language proficiency. Ablard and Lipschultz (1998) also found out those high-achievement students exploited different autonomous strategies. Risenberg and Zimmerman (1995) further pointed out that those with a high degree of learner autonomy showed high scores and those with low degrees of learner autonomy exhibited low scores if learner autonomy could increase the academic scores.

It is claimed that one's success in learning a second language in educational settings is primarily reliant on theories of second language acquisition. To that end, the researchers had to first understand what it is that is acquired, how it is acquired, and why it is acquired, and thus a lot of theories were started by second language acquisition researchers such as discourse theory, accommodation theory, neuro-functional theory, the monitor model, etc. The reason for this superfluity of theorizing is, perhaps, the complexity of the process of second language acquisition. Ellis (2003) believes, "second language acquisition is a complex process, involving many interrelated factors" (p. 4). Therefore, in order to deal with this complexity, language researchers offered theories that were generalized in nature and hence often not very productive. As Brown (2000) stresses, "these theories ruled out individual differences and sought only to explain globally how people learn, and what common characteristics there are in language learning" (p. 274). Even though these theories have contributed much to our overall understanding of second language acquisition, the fact still remains that some individuals are more successful at acquiring an L2 than are others (Jamieson, 1992; Brown, 2000). The researchers working in this area have come to examine learner variables and other individual characteristics as a means of explaining differences in one's ability to acquire an L2. While many studies have attempted to relate learning differences to variables such as gender, age, brain flexibility, and lateral cerebral dominance (Krashen, 1975; Walsh & Diller, 1981; Selinker, 1982), others have focused on variables such as integrative and instrumental motivation, attitude, anxiety, aptitude, ambiguity tolerance, field dependence/independence, and reflectivity/impulsivity (Stanfield & Hansen, 1983; Chapelle & Roberts, 1986; Carter, 1988; Oxford, 1989).

In one study conducted by Sedarat (1996), an attempt was made to discover some evidence indicating the influence of reflectivity/impulsivity on EFL listening comprehension. The result showed that reflective students are significantly better listeners than impulsive ones. Azizi (1990) attempted to see whether reflectivity/impulsivity has any effect on EFL writing. The results of the study demonstrated that reflective students gain better results in writing a composition than impulsive ones.

In another study, Keshavarz and Cheraghi (2005) found that reflective learners outperformed the impulsive ones on the total Nelson English Test and its integrative subparts. The result highlights the significance of cognitive styles in determining proficiency test performance. Pirouznia's study (1994) provides continuing evidence for the positive relationship between reflectivity and EFL reading comprehension. In her study, reflective

students were perfect and error detection and the mean differences between reflective and impulsive students across grade levels were significant.

Rozencwajc (2005) determined the relationships between the R/I style and the cognitive factors. He found out that there were four groups of individuals regarding the R/I cognitive styles, reflective individuals, impulsive individuals, fast-accurate individuals, and slow-inaccurate individuals.

Generally, an understanding of cognitive styles is crucial because they serve as a bridge between the domains of personality and cognitive abilities (Messick, 1994). Therefore, the present study examined the cognitive style of reflectivity within the context of learners attempting to self-regulate their learning. Therefore, based on what was mentioned above, the following research questions were addressed:

- 1. Is there any significant relationship between low proficiency L2 learners' level of autonomy and their degree of reflectivity?
- 2. Is there any significant relationship between high proficiency L2 learners' level of autonomy and their degree of reflectivity?

Methodology

Participants

In order to find the relationship between autonomy, cognitive style and reflectivity, which is the main goal of the present study, a sample of 140 Iranian M.A. EFL learners majoring in TEFL was randomly selected from the students of Islamic Azad University, Najafabad Branch. The participants were both male and female studying in the faculty of humanities and their age ranged from 23 to 45. To select a homogeneous group of learners, the second version of Quick Placement Test (QPT) was administered at the first phase of the study to the whole population. The results of the QPT were analyzed based on the associated rating levels chart. Then, those who received scores between 30 and 39 were considered as lower level learners and those with scores between 40 and 47 were regarded as higher level learners. Consequently, 135 participants, 85 lower and 50 higher proficiency students met the acceptable standard and contributed to the implementation of the study.

Instruments

The following instruments were used to collect the needed data:

Quick Placement Test (QPT), Version II

This is a paper and pencil test developed by Oxford University Press and Cambridge ESOL to find students' English level. The test takes approximately 30 minutes to administer. It consists of 60 questions in two parts. The first 40 questions assess grammar and the next 20 questions test vocabulary knowledge in different contexts. To date, the test has been validated in 20 countries by more than 6000 students (Beeston, 2000). The reliability reported for the QPT is close to 0.9 (Geranpayeh, 2003).

Learner Autonomy Questionnaire

In order to gather the required data, the learner autonomy questionnaire developed by Kashefian (2002) was employed. This questionnaire consists of two main parts: The first part is related to the demographic information of the participants. The second part incorporates 40 items in a five-point Likert scale, all of which about the role of autonomy in L2 learning. As to the internal reliability of the questionnaire, Cronbach alpha was used which turned out to be almost 0.72. For the validity, it was looked into by some professors of Najafabad University and confirmed to be valid for the purpose of the present study.

Eysenck Personality Questionnaire

In order to estimate learners' cognitive style and assess their reflectivity, the personality questionnaire was administered. It was a questionnaire prepared by Eysenck and

Eysenck (1975) to assess the participants' degree of reflectivity. It includes 30 items and in front of each item three options including *Yes*, *No*, and "?" were presented. A Farsi version of this questionnaire was prepared by Salimi (2001), and its impulsiveness scale was also validated with 1820 subjects. The reliability of the Persian Impulsiveness subscale was tested using Cronbach's alpha and Spearman-Brown's unusual-length split half reliability. Alpha reliability was found to be 0.86 and split half reliability was found to be 0.86, both of which are acceptable indicators of reliability. The same Farsi version of impulsivity subscale serves the impulsivity scale of the present research.

Procedure

Distribution of Quick Placement Test (QPT), Eysenck Personality, and autonomy questionnaires were conducted in university classes where there were enough facilities such as light, papers and pens, chairs, and a friendly atmosphere. To provide a quiet environment, the researchers explained the purpose of the study, presented instructions to complete the questions, and asked the students to cooperate.

In the case of Quick Placement Test, the participants were asked to provide the best answer for each question by choosing the correct option among different options and put a mark in front of each one on the answer sheet.

As for Eysenck Personality Questionnaire, the participants were instructed to answer each item by putting a circle around the *Yes* or *No* as quickly as possible. They were also instructed to put a ring around the "?", if they found it impossible to decide one way or the other for any reason. The questions were prepared in the participants' native language (Persian) in order to have better understanding of the nature of the questionnaire. Similarly, the Autonomy Questionnaire was given to the participants. Prior to the administration, the participants were provided with sufficient information about the purpose of the study by the researchers. Besides, they were also assured on the confidentiality of the results and the point that their responses and performance would be just for the purpose of conducting a research.

Finally, both quantitative and qualitative methods were applied to analyze the data. In order to investigate the research hypotheses, both descriptive and inferential statistics were used for different purposes. Descriptive statistics such as frequency, mean and standard deviation were used in order to check the underlying assumptions of the statistical procedures applied in the study. For the purpose of testing the hypotheses, inferential statistical procedure, the Pearson Correlation Coefficient, was applied.

Results

The present study employed a correlation design to examine the relationships between low and high proficiency of EFL learners' autonomy and their personality trait reflectivity. A total number of 140 students majoring in English at Islamic Azad University, Najafabad Branch were asked to take a placement test, from whom 85 were found to be low proficiency students and 50 were high proficiency learners. Table 1 shows the information about these two groups of learners.

Table 1. Descriptive Statistics of the Low and High Proficiency Learners on the OPT

Groups	N	Mean	Minimum	Maximum	Std.
					Deviation
Low	85	29.98	13.00	39.00	4.88
Proficiency					
High	50	43.00	40.00	48.00	2.32
Proficiency					

Results for the First Research Ouestion

As it was mentioned above, the first research question of the study asked whether there was a significant relationship between low proficiency L2 learners' level of autonomy and their degree of reflectivity. The results of Pearson product moment correlation formula are displayed in Table 2 below:

Table 2. Results of Pearson Correlation for the Relationship between Low Proficiency EFL

Learners' Autonomy and Reflectivity

	2		
	-	Reflectivity	Autonomy
Reflectivity	Pearson Correlation	1	.08
	Sig. (2-tailed)		.45
	N	85	85
Autonomy	Pearson Correlation	.08	1
	Sig. (2-tailed)	.45	
	N	85	85

The correlation between reflectivity and autonomy of the low proficiency learners was found to be a weak positive relationship because r turned out to be .08. This weak positive relationship between reflectivity and autonomy was, unsurprisingly, not statistically significant because the p value in front of Sig. (2-tailed) was larger than the level of significance (p= .45> .05). Thus, it could be inferred that low proficiency EFL learners' reflectivity was not significantly correlated with their autonomy. This is also graphically shown in Figure 1.

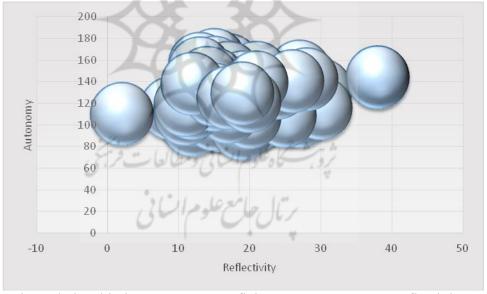


Figure 1. The Relationship between Low Proficiency EFL Learners' Reflectivity and Autonomy

As could be seen in the scatterplot in Figure 1, the hypothetical line formed by connecting the dots experiences a slight steady rise, which represents a weak positive relationship.

Results for the Second Research Question

The second research question of the study was formulated to uncover whether there was a significant relationship between high proficiency L2 learners' level of autonomy and

their degree of reflectivity. The results obtained through running Pearson product moment correlation formula are shown in Table 3 below.

Table 3. Results of Pearson Correlation for the Relationship between High Proficiency EFL Learners' Autonomy and Reflectivity

Ecamers Autonomy and Reflectivity					
		Reflectivity	Autonomy		
Reflectivity	Pearson Correlation	1	.51		
	Sig. (2-tailed)		.04		
	N	50	50		
Autonomy	Pearson Correlation	.51	1		
	Sig. (2-tailed)	.04			
	N	50	50		

As Table 3 shows, the correlation between reflectivity and autonomy of the high proficiency learners was found to be a strong positive relationship inasmuch as r was shown to be .51. Moreover, this strong positive relationship between reflectivity and autonomy of the high proficiency EFL learners reached statistical significance because the p value in front of Sig. (2-tailed) was smaller than the level of significance (p = .04 < .05). Hence, the conclusion from this part could be that high proficiency EFL learners' reflectivity was significantly correlated with their autonomy. This is also graphically represented by Figure 2 in the following.

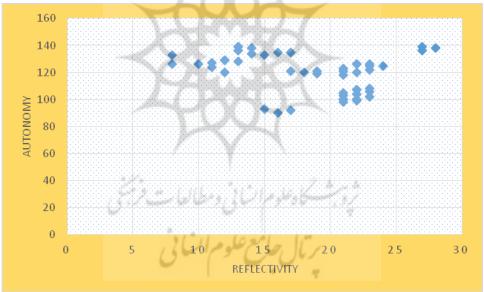


Figure 2. The Relationship between High Proficiency EFL Learners' Reflectivity and Autonomy

It could be seen in the scatterplot in Figure 2 that the hypothetical line formed by connecting the dots shows a relatively sharp rise, which indicates a strong positive relationship.

Discussion and Conclusion

Regarding the first research question, descriptive analysis revealed that reflectivity as a trait of human beings has a week positive relation with low proficiency L2 learners' autonomy. In other words, the results showed that to be a calculated decider has little or no bearing on low proficiency L2 learners' autonomy. It can be concluded that there is no

significant relationship between low proficiency L2 learners' autonomy and their degree of reflectivity. This finding is in line with Razmjoo (2009) who studied the relationship between dimensions of reflectivity/impulsivity, language proficiency and GPA among Iranian EFL university learners, it was found that there exists no significant relationship between reflectivity/impulsivity dimension and participants' performances on the TOEFL Proficiency test. He noted that reflectivity/impulsivity tendencies do not play a basic role in learning English as a foreign language among Iranian EFL learners.

The second research question, i.e. "Is there any significant relationship between high proficiency L2 learners' autonomy and their degree of reflectivity?" was affirmed. It was concluded that the higher proficiency, the more autonomy and reflectivity between L2 learners. This finding is in line with the findings of Pirouznia's (1994) study. She provided continuing evidence for the positive relationship between reflectivity and EFL reading comprehension. In her study, reflective students performed better than impulsive students at error detection and a significant mean difference between reflective and impulsive students across grade levels was found.

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