An Exploration into the Relationship between EFL Learners' Self-regulation and Willingness to Communicate

Mania Nosratinia
Islamic Azad University at Central Tehran, Iran

Zahra Deris
Islamic Azad University at Central Tehran, Iran

Abstract—This study investigated the association between Willingness to Communicate (WTC) and Self-Regulation (SR) among English as a Foreign Language (EFL) learners. In order to fulfill this purpose, male and female EFL learners ($n = 520$), between the ages of 19 and 34 ($M_{age} = 26$), majoring in English Language Teaching, English Translation, and English Literature at Islamic Azad University, Fars Province, were selected via random selection. These participants were asked to fill in two questionnaires: WTC Scale developed by McCroskey and Baer (1985) and SR Questionnaire developed by Brown, Miller, and Lawendowski (1999). The collected data were initially checked as to meeting the assumptions of normality, linearity, and homoscedasticity. Owing to the violation of the assumptions of linear correlation, Spearman's rank-order correlation was utilized to examine the way SR and WTC are associated. The analysis outcomes suggested a significant direct correlation between SR and WTC, $\rho = .56$, $n = 520$, $p < .05$, standing for a large effect size and a very small confidence interval. In addition, running a Kruskal-Wallis test revealed that there exists a statistically significant difference in WTC scores based on the level of SR, divided into three categories through employing the SD, $\chi^2(2) = 157.843$, $p = 0.000$. Subsequently, a post-hoc comparison using the Dwass-Steel-Critchlow-Fligner test reflected significant differences among the three groups on WTC scores. The study concludes with a discussion on the results and making a number of suggestions for further research.

Index Terms—individual factors, self-regulation, willingness to communicate

I. INTRODUCTION

Research findings in the area of second language acquisition have emphasized the significant role that learners play in the process of language learning (Lightbown & Spada, 2013; Zare, 2012). Most of the researchers have also gone through deliberate changes from focusing on teaching paradigms toward exploring individual characteristics (Carson & Longhini, 2002; Fahim & Zaker, 2014; Oxford & Anderson, 1995; Zaker, 2015). In the same vein, Dörnyei (2005) stresses the significance of studying and exploring the individual differences (e.g. creativity, autonomy, self-regulation, self-esteem, learning styles, and personality types) which are believed to play a major role in the process of language learning.

Self-Regulation (SR)

SR according to Pintrich (2000) is "an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior, guided and constrained by their goals and the contextual features in the environment" (p. 453). Moreover, from Zimmerman’s (2000) broader viewpoint, the term “SR” is applied to “self-generated thought, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals” (p. 14).

Pertinent to the context of learning, some modern scholars define the concept of SR as an innate capacity that fuels learners' efforts for searching and applying personalized strategic mechanisms which might enhance the effectiveness of their Second Language (L2) learning process (Tseng, Dörnyei, & Schmitt, 2006). SR is believed to enable learners to direct their own learning process (Tseng et al., 2006), set more relevant academic goals, learn more effectively, and achieve higher levels of success indifferent academic settings (Butter & Winne, 1995; Zimmerman & Risenberg, 1997). According to Schunk and Zimmerman (1998), learners with high levels of SR exhibit more active participation and lead a more efficient learning process in many different ways; this affects organizing and rehearsing the to-be-learned information, the impression they have about their own capacities and the value of learning, and many other relevant factors.

Boekaerts grouped the functions of SR into two categories with six elements, each representing one type of prior knowledge. In this model, the focus was on cognitive strategies in the research on self-regulated learning. Schunk (2001) formed a process model of SR that contains a three-phase cyclical nature of learning state as well as the accumulation of successive learning states regarding to the process. Each of these learning states contains three cyclical phases that

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affect each other while causing an impact on the subsequent learning state. In the same vein, Heckhausen & Kuhl (1985) used labels for naming these phrases which are: pre-action phase, action phase, and post-action phase. Schmitz, Klug, and Schmidt (2011) argue that the pre-action phase can pave the way for learning. In this phase, the assigned task and the situation are the source from which the students set goals, develop different attitudes towards learning, such as intrinsic and extrinsic motivations to teach, and develop self-efficacy for managing tasks (Ryan & Deci, 2000).

**Willingness to Communicate (WTC)**

One of the important concepts that might seem related to learners’ autonomous functioning is WTC (Yashima, 2002). The concept of WTC was first coined by McCroskey and his colleagues (McCroskey, 1992; McCroskey & Richmond, 1990; Zakahi & McCroskey, 1989). Recently, WTC is emerging as a concept to account for individuals’ L1 and L2 communication (Yashima, 2002). However, WTC in L2 was translated into a context-bound factor which refers to “a readiness to enter into discourse at a particular time with a specific person or persons, using a L2” (MacIntyre, Dornyee, Clement, & Noels, 1998, p. 547).

Some researchers (e.g. MacIntyre et al., 1998) have favored the idea that promoting WTC in language learning should be considered a fundamental goal because of its facilitative role in supporting autonomous learning and real-world capacities. MacIntyre et al. (1998) further add that WTC in an L2 context is a multifaceted factor which is influenced by factors like one’s personality (e.g. being extroverted or introverted), degree of self-confidence, enthusiasm for using the L2, and attitude toward the L2 culture and the communication context.

WTC in an L2 context is believed to assist language learning as it can increase the number of opportunities for using authentic L2 (MacIntyre, Baker, Clément & Conrod, 2001) which is a crucial element for language development (MacIntyre & Legatto, 2011). Moreover, from a sociocultural perspective, it has been stated that WTC can assist the realization of language learning’s social and political goals. As a result, promoting WTC should be regarded as one of the major goals of L2 education (MacIntyre et al., 1998).

Based on the points stated, there seems to be a theoretical association between SR and WTC which are believed to affect the process of learning. This point justifies the attempt to systematically investigate the interrelationship between these two factors. In order to accomplish this objective, the following research questions were posed:

- **Q1**: Is there any significant relationship between EFL learners’ self-regulation and willingness to communicate?
- **Q2**: Do EFL learners’ self-regulation levels have any significant effect on their willingness to communicate?

## II. Method

### Participants

To fulfill the objective of this study, five hundred and twenty undergraduate males and females EFL learners with the age range of 19 to 34 years old ($M_{age} = 26$), who were randomly selected, participated in this study. They were majoring in English Translation, English Language Teaching and English Literature at Islamic Azad University, Fars Province.

### Instrumentation

In order to accomplish the purpose of the study, the following two instruments were utilized:

- **Self-Regulation Questionnaire (SRQ)**
  
  The SRQ was developed by Brown, Miller, and Lawendowski (1999). Based on the findings of Kanfer (1970a, 1970b), Miller and Brown (1991) formulated a seven-step model of SR as a) getting pertinent information, b) appraising the information and juxtaposing it with norms, c) beginning to make changes, d) looking for possible options, e) preparing a plan, f) executing the plan, and g) evaluating the efficacy of the plan.

  The SRQ was developed as a first attempt to assess these seven sub-processes of SR, as articulated by Miller and Brown (1991), through self-report. The SRQ is a 63-item instrument whose items were developed to mark each of the seven sub-processes, forming seven rationally-derived subscales of the SRQ. Each subscale has 9 items, and it has been recommended to use the total sum score to estimate the SR capacity. The allocated time for answering the questionnaire is 65 minutes. The participants answer the items by indicating one of the five choices ranging from a score of 1 to a score of 5 on a Likert-type scale from *strongly disagree* to *strongly agree*. It has been suggested that the scores above 239 demonstrate high level of SR, scores from 214 to 238 show intermediate level of SR, and scores less than 213 show low SR level.

  According to Aubrey, Brown, and Miller (1994), the SRQ has a very high degree of reliability. They administered the SRQ twice among 83 individuals (the second administration after 48 hours). They found that that the test-retest reliability index for the SRQ was high ($r = .94$, $p < .0001$), supporting the reliability of the instrument. In this study, the reliability of the SRQ was estimated to be 0.85 using the Cronbach’s alpha.

- **Willingness to Communicate (WTC) Scale**
  
  The WTC Scale, developed by McCroskey (1992), was utilized to gather the data on participants’ WTC. The WTC scale is believed to directly measure one’s predisposition toward welcoming or not welcoming the initiation of communication and interaction. This direct measurement is based on assuming a conscious awareness about tendencies on the side of test takers.

  This scale has 20 items which can yield a total score of 20 to 100. The items are pertinent to dealing with strangers, acquaintances, and friends in four communication contexts (public speaking, meeting, group discussion, and interpersonal). Participants respond by determining the percentage of time they would choose to communicate with the
abovementioned interlocutors and situations. They choose options ranging from never (1 score) to always (5 scores). The allocated time for answering the questionnaire is 15 minutes.

Based on the studies conducted by McCroskey, the estimate of the internal reliability of the total scores on the WTC scale range from .86 to .95. McCroskey (1992) argued that reliability estimates using data collected in other cultural contexts have also confirmed the reliability of the scale. In this study, the estimated reliability index of the WTC scale was 0.84 using the Cronbach’s alpha.

The results of the extensive research indicate the predictive validity of the instrument. Regarding the WTC scale, it seems reasonable to expect one’s performance on the test to be related to their real communication behavior. Chan and McCroskey’s (1987) study on three college classes revealed that there is a direct relationship between participants’ WTC scores and their actual participation in the classrooms.

III. PROCEDURE

Before administering the questionnaires, the original SR questionnaire was piloted. It was distributed among 30 students of the undergraduate males and females EFL learners. They were randomly selected and were majoring in English Translation, English Language Teaching and English Literature at Islamic Azad University, Fars Province. These preliminary participants found 15 items (1, 3, 6, 10, 12, 15, 19, 20, 22, 25, 26, 31, 34, 48, & 55) of the original version of the SR questionnaire difficult to answer and asked so many questions about the meaning of the items. Therefore, to avoid any misunderstanding regarding cultural differences and the lack of vocabulary and grammar knowledge, the researcher modified these 15 items and made them understandable for the participants. The initial participants of this study were 800 male and female students majoring in English Translation, English Language Teaching and English Literature at Islamic Azad University, Fars Province. Before administering the questionnaires, the participants were fully briefed on the process of completing the questionnaires. Then, the two questionnaires of SR and WTC were administered to 800 participants. In every session of administration, a length of 80 minutes was devoted to administering these questionnaires. Thence, the completed questionnaires were collected and scored. From the initial 800 administered questionnaires, a number of 520 sets, properly answered for the two questionnaires, were considered for statistical analyses pertinent to the stated research questions.

IV. CONCLUSION

Before discussing the results, the internal consistency of the two instruments was estimated at the outset of the statistical analyses. The following tables report the internal consistency of the utilized instruments.

| TABLE 1: | THE INTERNAL CONSISTENCY OF THE SELF-REGULATION QUESTIONNAIRE |
| Reliability Statistics | Cronbach's Alpha Based on Standardized Items N of Items |
| Cronbach's Alpha | .850 | .854 | 63 |

| TABLE 2: | THE INTERNAL CONSISTENCY OF THE WILLINGNESS TO COMMUNICATE QUESTIONNAIRE |
| Reliability Statistics | Cronbach's Alpha Based on Standardized Items N of Items |
| Cronbach's Alpha | .838 | .845 | 20 |

As demonstrated above, the results indicated that the questionnaires of SR and WTC had high degrees of reliability as computed by Cronbach’s alpha coefficient (0.85 & 0.84 respectively). Therefore, it was legitimate to subsequently explore other features of the data and take the next step.

Testing the Preliminary Assumptions

In order to assess the normality of the distribution of scores, Kolmogorov-Smirnov test was run, results of which are presented in Tables 3 and 4.

| TABLE 3: | TESTS OF NORMALITY OF TOTAL SCORES OF WTC AND SR |
| Tests of Normality | Kolmogorov-Smirnov2 Statistic df Sig. | Shapiro-Wilk Statistic df Sig. |
| WTC | .089 | 520 | .000 | .971 | 520 | .000 |
| SR | .082 | 520 | .000 | .937 | 520 | .000 |

2: Lilliefors Significance Correction
As presented in Tables 3 and 4, the Sig. values of the scores are less than .05, except for one case. Therefore, the test suggests that the assumption of normality is violated. Due to the violation of the assumptions of normality of distribution, non-parametric formulas had to be employed in order to test the hypotheses. The following sections address this issue.

The First Research Question
As stated earlier, the first driving force behind conducting this study was to investigate the relationship between EFL learners’ SR and WTC in a systematic fashion. Therefore, the first research question of the study was:

Q₁: Is there any significant relationship between EFL learners’ self-regulation and willingness to communicate?

To answer this question, the data were analyzed using the Spearman’s rank order coefficient of correlation. Table 5 shows the result of this analysis.

The results obtained showed a significant and positive correlation between the two variables, $\rho = .56, n = 520, p < .05$. This signified a large effect size supplemented by a very small confidence interval (0.503 – 0.619).

The Second Research Question
The second goal of this study was to inspect the way SR levels interact with and affect WTC among EFL learners. Therefore, the following question was posed as the second research question of this study:

Q₂: Do EFL learners’ self-regulation levels have any significant effect on their willingness to communicate?

In order to answer this research question, a Kruskal-Wallis test was run. The results of this analysis are presented in Tables 6 and 7.

As reported in Tables 6 and 7, there exists a statistically significant difference in WTC scores based on the level of SR, divided into three categories through employing the SD, $\chi^2(2) = 157.843, p = 0.000$. The mean rank scores of SR were 128.13 for the
low-SR level, 286.64 for the mid-SR level, and 341.12 for the high-SR level. Accordingly, the results suggest that high-SR group shows the highest mean rank score followed by mid- and low-SR groups.

The above-mentioned results confirmed that EFL learners’ SR levels have a significant effect on their WTC. However, a post-hoc comparison test should be run to compare the groups two by two. This was achieved through running a Dwass-Steel-Critchlow-Fligner test. Table 8 shows the results.

<table>
<thead>
<tr>
<th>Group(i)</th>
<th>Group(j)</th>
<th>Statistic</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Mid</td>
<td>38.668</td>
<td>0.000</td>
</tr>
<tr>
<td>Low</td>
<td>High</td>
<td>20.228</td>
<td>0.000</td>
</tr>
<tr>
<td>Mid</td>
<td>High</td>
<td>-14.344</td>
<td>0.000</td>
</tr>
</tbody>
</table>

According to the results reported in Table 8, it can be concluded that:

a. There was a significant difference between the low-SR group and mid-SR group on WTC scores (Test statistic = 38.668, \( p = 0.0005 \));

b. There was a significant difference between the low-SR group and high-SR group on WTC scores (Test statistic = 20.228, \( p = 0.0005 \)); and

c. There was a significant difference between the mid-SR group and high-SR group on WTC scores (Test statistic = -14.344, \( p = 0.0005 \)).

V. DISCUSSION AND CONCLUSION

The findings of this study are useful for EFL teachers to encourage their students and teach them to self-regulate themselves and improve their ways of learning. This can help teachers to reduce their workload and also can help learners to increase their involvement in classroom activities. At the same time, if a teacher pays attention to all members of the class, encourages everybody to take part in classroom debates and activities, and gives enough time to...
students to participate, s/he can considerably enhance the students’ WTC. Lisa (2006) argues that a student-centered approach is much more effective than a teacher-oriented one; while enhancing learners’ WTC, the teacher’s attitude and teaching style can dramatically influence learners’ willingness to participate. With regard to the findings of the study, teachers can provide students with helpful guidelines to inform them of the ways through which WTC and SR can contribute to learning more independently, lastingly, and effectively. Moreover, another important role of the teacher in this regard is creating a situation in which everybody feels relaxed and expresses what they have in their minds. Making such a stress-free environment can considerably contribute to an increase in learners’ degree of WTC (Sun, 2008).

Based on the fact that language learning is a multifaceted issue (Stebbins, 1995), “not only language teachers, but also language learners are required to play their roles properly in order to facilitate and optimize this complicated process” (Nosratinia, Saveyi, & Zaker, 2014, p. 1090). As a result, the findings of this study carry a number of implications for L2 language learners. First of all, SR plays a salient role in the oral performance quality of language learners (Souresjani, 2013). So, improving WTC by the use of SR may have a great and significant role in helping learners to be autonomous language learners. Moreover, possessing higher levels of SR may enable learners to reflect on their language abilities and be more independent. Therefore, EFL learners should be looking for opportunities to monitor and assess their own progress and to focus on their own learning (Harris, 1997).

Classroom atmosphere can either facilitate or hinder learners’ participation in class activities. Although, it is believed that it is the responsibility of the teacher to create a friendly and positive atmosphere, EFL learners should also attempt to contribute to creating such an atmosphere by being supportive, understanding, and friendly toward other learners and the teacher. Indeed, in such a learning environment students feel free to speak up, ask and answer questions, challenge the teacher and other classmates, and have a more active participation in class discussions. Creating a sense of cooperation rather than competition can ease using the language (Zou, 2004).

Syllabus designers as providers of a great portion of the language learning setting should take L2 learners’ individual differences into consideration, especially their WTC and SR. L2 curriculum developers are recommended to engage in a cooperative process, involving L2 teachers and learners, where it would be easier to promote WTC and SR through designing appropriate materials and activities. Moreover, when relevant training hints or motives regarding WTC and SR are appropriately added in different parts of the materials, L2 teachers would be supplied with strong tools for optimizing language learning tasks; moreover, L2 learners would benefit from participating in more learner-relevant tasks and activities.

The present study intended to answer two research questions regarding the relationship between EFL learners’ SR and WTC. However, there were some limitations which could limit the generalizability of the findings. Taking into account these factors, the subsequent recommendations are presented for further research. Based on the existing difference amongst different age groups’ mental and internal capacities (Nosratinia & Zaker, 2014), similar studies could be carried out among other age cohorts in order to inspect the generalizability of the findings of the present study. Language proficiency is another factor which can be included in further studies. Also, the same research can be carried out to assess the effect of WTC and SR on language skills and sub-skills. Furthermore, it is suggested to replicate this study in a way that the number of male and female participants is equal. Therefore, gender might not act as an intervening variable.

REFERENCES


**Mania Nosratinia** is Assistant Professor of TEFL, Islamic Azad University, Central Tehran Branch. She has been teaching at undergraduate and graduate levels in the areas of English language teaching methodology, language testing, and research methodology in language studies. She has published in national and international academic journals and presented in several national and international ELT conferences. She has been elected as the honor researcher in The 9th Festival in Honor of the Islamic Azad University at Central Tehran Elites.

**Zahra Deris** holds an MA in TEFL from Islamic Azad University at Central Tehran and is an English teacher at a number of language schools. Her main areas of research interest include psycholinguistics and learners’ language learning variables.