Exploring Factors Affecting Online Self-Regulated English Learning

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Kim, Youngsu. 2019. "Exploring Factors Affecting Online Self-Regulated English Learning." *The Journal of Linguistic Science* 88: 25-47. This study aims at examining POLE and ATLE factors affecting the OSEL as well as the relationship between POLE factors and OSEL factors and the relationship between ATLE factors and OSEL factors. Using the data collected from three questionnaires, this study conducted a correlation analysis and regression analysis in order to investigate the relationships and the OSEL-affecting factors. The findings were: first, "acquiring a new perspective," "applying," and "drilling and practicing" among POLE factors, and "intrinsic motivation" among ATLE factors revealed positive relationships with all of the OSEL factors; second, "applying" among POLE factors and "intrinsic motivation" among ATLE factors acted as predictable factors of three to five OSEL factors, and "learning strategies" among ATLE factors served as a predicator of two OSEL factors. Based on the findings, pedagogical importance and implications of the current research and the roles of language instructors in an EFL learning setting were discussed. **(Changpyeong High School)**

| Key Words | online self-regulated learning, learning strategy, intrinsic motivation, extrinsic motivation |

1. Introduction

It is widely believed that intelligence plays a vigorous role in learners' academic

achievement, but Blair (2003) suggests that self-regulation is more important than intelligence when it comes to learning because learners can control their learning environment. These days, self-regulated learning is considered to be crucial in a non-linear education setting, such as the Internet-based learning environment (Lee, Johanson, and Tsai 2007), where learners can regulate their learning pace. Students can set their learning goals and apply their learning strategies flexibly at their own pace. As a result, students can enhance their self-regulated learning (SRL) skills, which helps decrease the learners' impulsiveness and instant satisfaction as well as expand the learners' attention span. Developing SRL skills also plays an important roles in an online learning environment (Barnard et al. 2009; Blair 2003).

Over the last decade, many countries have shown a gradual increase in the number of people using the Internet to support their language learning (Allen and Seaman 2010; Shea and Bidjerano 2010). Other studies (e.g., Cole and Todd 2003; Lin et al. 2002) showed that Internet-based learners performed better in their learning than those in a traditional learning environment, because learners self-regulated their learning using SRL skills (Fisher and Baird 2005). In addition, Allen and Seaman's (2010) study on online education supports the belief that it requires a considerable amount of self-reliance and autonomy as well as a great degree of persistence and determination.

Previous research (e.g., Barnard et al. 2009; Lee et al. 2007; Liang and Tsai 2010; Zheng et al. 2016) demonstrates the relationships between learners' perceptions, their approaches to learning, and their SRL. However, these studies have mainly been done with learners who mainly study science, not English, in several foreign countries. The focus of this research was on exploring the relationship between approaches to learning English (ATLE) and online self-regulated English learning (OSEL) as well as the one between the perceptions of learning English (POLE) and the OSEL in Korea, referring to Lee et al.'s (2007) and Zheng et al.'s (2016) studies. This study also focused on extending knowledge of POLE and ATLE factors that affect the OSEL. This study aims to answer the following two research questions:

1) What relationships are there between Korean high school English learners' perceptions and their online self-regulated learning, and between their

approaches of learning English and their online self-regulated learning?

2) What factors of Korean high school English learners' perceptions of and approaches to learning English affect online self-regulated English learning?

2. Literature Review

2.1 Self-Regulation and Self-Regulated Learning

Self-regulation is the ability to monitor and evaluate one's learning, and self-regulated learning (SRL) puts a great emphasis on the learners having autonomy and control of their learning to achieve their learning goals (Daniela 2015). The SRL is a multi-faceted and productive process where learners can regulate several factors needed for accomplishing their learning goals, such as motivation, cognition, and learning strategies. Several researchers (e.g., Nakata 2010; Zimmerman 2002) proposed a few steps of SRL procedure which has a close relation to various factors of learning performance. Nakata (2010) presented three phases of self-regulated language learning. First, instructors need to figure out the learners' background in the preparation phase. Second, they are required to give their students appropriate teaching and teacher feedback in the developmental phase. Third, students learn, check, and assess their learning process in the self-regulated phase.

Findings from earlier studies (e.g., Lynch and Dembo 2004; Wang and Newlin 2002) on aspects of self-regulated online learning indicated that online learners' performance in learning is considerably boosted by their confidence in their skills to acquire content, effectively use time, utilize technology, and set learning goals. The learners with abilities to manage their study time wisely, structuralize learning environment, and seek help are more likely to learn successfully (Puzziferro 2008; Wang and Newlin 2002). It has been shown that self-regulated online learners need new skills, including learning strategies and motivation, in order to learn effectively in a non-conventional learning environment (White 2003; Xiao and Hurd 2007). Barnard and his colleagues (2009) believed that self-regulated online learning might be different

from conventional learning and investigated online self-regulation by using an Online Self-regulated Learning questionnaire. Their questionnaire consisted of six factors: goal setting, time management, environment structuring, help seeking, task strategies, and self-evaluation. Several studies (e.g., Daniela 2015; Oxford 2001) have displayed that self-regulation, in general, had a positive relationship with factors such as motivation, self-efficacy, learners' beliefs, and teachers' support.

2.2 Learner Perceptions and Motivation

Perceptions of learning an L2 language in the field of SLA usually mean L2 learners' belief in what an L2 is and in what the language learning process is made up of (Vermunt and Vermetten 2004). Ellis and his colleagues (2008) argued that perceptions of learning are considerably similar to "personal epistemology: beliefs about the nature of knowledge and of coming to know." Previous research (e.g., Barnard et al. 2009; Liang and Tsai 2010; Zheng et al. 2016) has investigated the relationship between learners' perceptions and approaches of learning and their self-regulated learning, and the results revealed a positive relationship among them to an extent. Capitalizing on categorizations of some earlier studies, Tsai (2004) stressed domain-specific framework toward learners' perception and conducted several studies on learners' perception of learning by using seven categories: memorizing, preparing for tests, calculating and practicing problem problems, an increase of knowledge, applying, understanding, and seeing in a new way.

Among many components in English education, motivation has been regarded as one of the most significant components (Masgoret and Gardner 2003). In fact, motivation is one of the most key factors for explaining success or failure of learning a foreign language (Gardner 2005). In addition, learner motivation plays a pivotal role in student-centered learning through which L2 learners can acquire the language proficiently, combining their needs and goals. Motivation is also affected by learners' peers in a learning environment (Chang 2010), demonstrating that peer help in language learning positively influences a learner's degree of motivation and that L2 learning motivation is easily spread out from one person to another (Tanaka 2017).

Some researchers (Choi 2011; Cook 2001; Gass and Selinker 2001) insisted that intrinsic motivation, among several motivations, is much more important in foreign language learning. Choi (2011) demonstrated in her study that Korean college learners are aware of what factors are crucial in English learning and most of them are intrinsically motivated rather than extrinsically motivated, which almost corresponds with the suggestion (Gass and Selinker 2009) that learning strategies are clearly related to internal mental actions.

2.3 Learning Strategies and Learning Approaches

Language learning strategy is viewed as an acquired skill through learning, learning belief, motivation, teachers' instruction, peer influence, learning environment, language education policy, and so on (Ma 2014). It is widely believed that language learning strategy use is different depending on learners' achievement and proficiency level. Many researchers have revealed in their studies that more proficient learners employ more strategies and less proficient learners use a smaller number of strategies (Lau 2006; Tsai, Ernst, and Talley 2010). However, a few studies (Nisbet, Tindall, and Arroyo 2005; Park 2008) did not offer similar results in the link between strategy use and language achievement.

Studies on what learning strategies are used depending on age have also been conducted. Jiang and Smith (2009) explored Chinese learners studying English from three different age groups and the results showed that the groups employed similar learning strategies but there were also differences among them. Their research indicated that the oldest age group preferred "memorization" and "grammar-translation method," while younger age group adopted strategies such as communicative language learning. However, Japanese learners studying English demonstrated different strategies as they grew older (Schmitt 1997). His research revealed that younger learners preferred repetition while old learners employed more processing ways including imagery and association. Li (2005) revealed in an empirical study on learning strategies over 150 Chinese college students that they most frequently adopted memory, meta-cognitive and cognitive strategies, which were followed by compensation strategy, and social

and affective strategies were least employed.

3. Method

3.1 Participants

A total number of 377 Korean EFL high school students (207 first-year students and 170 second-year students; their ages ranged from 16 years to 17 years) participated in the current study. All the participants officially began taking English courses in the year of elementary school. Up until the survey day, they been studying English for an average of 7.5~8.5 years. With regard to online English learning, all the participants took Program A, 30 students (7.95%) Program B, 20 students (5.41%) Program C, 17 students (4.59%) Programs D and E each, 10 students (2.70%) Program F, 2 students Program G, and 1 student Program H (see <Table 1>).

<Table 1> Number of Online English Learners

Program	1st-year students	2nd-year students	Total	Percent (%)
A	207	170	377	100.00
B	17	13	30	7.95
C	8	12	20	5.41
D	4	3	17	4.59
E	2	15	17	4.59
F	2	8	10	2.70
G	2	0	2	0.05
H	1	0	1	0.03

One reason that all the participants took English Program A on TV or through the Internet was that the English Program A is included in the coverage of the College Scholastic Ability Test (CSAT). The students who took additional English lectures through other Internet websites said that they took the programs in order to improve their English proficiency. It was also surveyed that they took online lessons twice a

week on average.

3.2 Instruments

The current research used three questionnaires—the POLE, the ATLE, and the OSEL questionnaires—to investigate the relationships among their factors by using correlation analysis and the factors affecting the OSEL by using regression analysis. These three questionnaires were extracted and slightly modified from Zheng et al.'s (2016) and Lee et al.'s (2007) studies, and all the items were measured with a five-point Likert scale, ranging from one, meaning strongly disagree, to five, meaning strongly agree. The items of each questionnaire were translated into Korean for secure and correct measurement, shuffled for more objective appraisal, and finally grouped into several factors respectively through confirmatory factor analysis. Explanations of the three questionnaires were presented in detail below.

3.2.1 Perceptions of learning English (POLE) questionnaire

The POLE questionnaire was employed to explore how Korean high school students perceive English learning. It was extracted from a questionnaire in reference to learning science and modified by Zheng et al. (2016), originally composing of seven factors with 30 items. For the current study, however, a few items were fractionized to be more specific and the POLE questionnaire with 37 items was finally completed and grouped into seven factors by running confirmatory factor analysis. The seven factors were labeled based on the items' contents of each factor, referring to learning conceptions proposed by several researchers (Marshall et al. 1999; Tasi 2004; Zheng et al. 2016). The factors and the number of items of each factor are presented in <Table 2>.

<Table 2> The POLE Questionnaire

Factors	Number of items
Acquiring a new perspective	8
Applying	5
Preparing for tests	7
Drilling & practicing	7
Understanding	4
Memorizing	3
Increasing knowledge	3

3.2.2 Approaches to learning English (ATLE) questionnaire

The ATLE questionnaire, comprising of twenty items, was used to see how Korean high school students approach English learning. It was borrowed from Lee et al.'s (2007) questionnaire designed to investigate science learning, so questionnaire items were slightly modified by substituting "English" for "science." In addition, four items which seemed to be similar to other items were removed from twenty-four items of the original questionnaire and the twenty items were finally categorized into four factors by operating confirmatory factor analysis (refer to <Table 3>). The factors were labeled as intrinsic motivation, extrinsic motivation, deep strategy, and surface strategy, referring to Lee et al.'s (2007) study.

<Table 3> The ATLE Questionnaire

Factors	Number of items
Intrinsic motivation	9
Extrinsic motivation	5
Deep strategy	2
Surface strategy	4

3.2.3 Online self-regulated English learning (OSEL) questionnaire

The OSEL questionnaire was designed to confirm English learning through online

self-regulation. It was extracted from Zheng et al.'s (2016) questionnaire and three items were added in order to make it a little more specific for a total number of twenty-four items in the questionnaire. By applying confirmatory factor analysis, the twenty-four items were classified into five factors (refer to <Table 4>), which were named as goal setting, help seeking, environment structuring, time management, and task strategies.

<Table 4> The OSEL Questionnaire

Factors	Number of items
Goal setting	8
Help seeking	5
Environment structuring	6
Time management	2
Task strategies	3

3.3 Data Collection and Analysis

For the current research, three questionnaires were extracted from two studies (Lee et al. 2007; Zheng et al. 2016) and slightly modified to correspond to the purposes of the research. Data was collected by asking 377 participants to respond to three questionnaires — the POLE, the ATLE, and the OSEL — on a five-point Likert sale. For the data analysis, SPSS program was run. First, in order to analyze the relationships between the POLE factors and the OSEL factors, and between the ATLE factors and the OSEL factors, correlation analysis was carried out. Second, to predict POLE and ATLE factors influencing the OSEL, multiple-linear regression analysis (MRA) was conducted.

4. Results and Discussion

4.1 Relationships

4.1.1 Relationship between the POLE and the OSEL

To answer research question number one — what relationships are there between the POLE and the ATLE and the OSEL — correlation analysis between them was conducted using Pearson's correlation coefficients and computing significance levels. The POLE questionnaire already obtained seven factors, the OSEL questionnaire did four factors, and the ATLE questionnaire did five factors through confirmatory factor analysis.

<Table 5> demonstrates Pearson's correlation coefficients and significance levels among each factor of the POLE and the OSEL, or the relationships between learner perceptions on learning English and their online self-regulated learning. It is noticeable that "acquiring a new perspective" and "drilling and practicing" were all significant in relation with all of the OSEL factors, displaying the positive relationships. Also, "applying" was displayed to significantly and positively correlate with "goal setting (r=.132)," "help seeking (r=.198)," "environment structuring (r=.117)," and "task strategies (r=.109)" and insignificantly positive relationships with "time management (r=.057)." These results, which were more or less similar to Zheng et al.'s (2016) and to Lee et al.'s (2007) studies where "understanding and seeing in a new way" displayed significantly positive relationships with all factors of the OSEL, "drilling and practicing" negatively correlated with two factors and positively with three factors of the OSEL, and "application and communication" indicated positive links with all factors of the OSEL, seemed to suggest that English learners who perceive English learning as "acquiring a new perspective" and "drilling and practicing" are more likely to regard online self-regulated learning as positive. That is, it can be taken to mean in this study that these three factors are considered to play positively crucial roles in enhancing learner's online self-regulated English learning, to a great extent, as shown in the two earlier studies (Lee et al. 2007; Zheng et al. 2016).

On the other hand, the other four factors of the POLE were shown to be significant in relation with one to three factors of the OSEL: "preparing for tests" had a positive relationship with "environment structuring (r=.053)" and a negative relationship with "help seeking (r=-.159)," "understanding" positively correlated with "help seeking (r=

.105)" and "time management (*r*=.076)" and negatively with "environment structuring (*r*=-.084)," "memorizing" had a positive association with "goal setting (*r*=.083)" only; and "increasing knowledge" had positive relationships with "time management (*r*=.190)" and "task strategies (*r*=.095)." These above findings could be interpreted as that English learners who count learning as applying think that online self-regulated learning is positively associated with setting their goals, seeking help, learning environment, and setting their task strategies and that those who conceive learning English as preparing for tests look upon online self-regulated English learning as positive in terms of environment, but negative in terms of help seeking. In addition, those who conceive English learning as understanding showed that online self-regulated learning could help them study English and manage their time positively but that it could not be helpful in terms of environment.

<Table 5> Correlations among POLE Factors and OSEL Factors

Factors		GS	HS	ES	TM	TS
Acquiring a new Perspective	Person Co.	.122**	.152**	.136**	.095**	.098**
	Sig.	.000	.000	.000	.009	.001
Applying	Person Co.	.132**	.198**	.117**	.057	.109**
	Sig.	.000	.000	.000	.116	.000
Preparing for Tests	Person Co.	.023	-.159**	.053*	-.019	-.025
	Sig.	.229	.000	.011	.595	.403
Drilling and Practicing	Person Co.	.164**	.062**	.061**	.103**	.078**
	Sig.	.000	.007	.004	.004	.009
Understanding	Person Co.	-.032	.105**	-.084**	.076*	-.007
	Sig.	.217	.000	.001	.037	.806
Memorizing	Person Co.	.083**	-.022	.048	.052	-.013
	Sig.	.005	.450	.110	.150	.659
Increasing Knowledge	Person Co.	.049	.056	-.024	.190**	.095**
	Sig.	.099	.060	.412	.000	.001

Note. **p < .01, *p < .05; *N*=377

4.1.2 Relationship between the ATLE and the OSEL

In order to explore the relationships among each factor of the ATLE (Approaches

to Learning English) and the OSEL (Online Self-regulated English Learning), Pearson's correlation coefficients and significance levels were calculated using correlation analysis and the results are presented in <Table 6>.

No factors of the ATLE showed significant levels (p<.05) in relation to all of the OSEL factors, but each factor of the ATLE demonstrated significant levels with three to four factors of the OSEL. "Intrinsic motivation" displayed positive relationships with "goal setting (r=.242)," "help seeking (r=.104)," "environment structuring (r= .219)," and "task strategies (r=.110)" "Extrinsic motivation" had positive relationships with "help seeking (r=.107)" and "time management (r=.085)" and yet a negative one with "environment structuring (r=-.059)." "Deep strategy" had positive relationships with "help seeking (r=.100)," "environment structuring (r=.134)," and "task strategies (r=.109)." "Surface strategy" positively correlated with "goal setting (r=.131)," "help seeking (r=.146)," and "task strategies (r=.115)" but negatively correlated with "environment structuring (r=-.115)" Meanwhile, "intrinsic motivation" showed positive relationships with all factors of the OSEL, which implied an importance of intrinsic motivation in online self-regulated English learning as well as in traditional way of English learning .

One intriguing observation is that all of the ATLE factors positively correlated with "help seeking." It could be interpreted as that any English learner who is either intrinsically or extrinsically motivated, and who has either deep or surface strategy on how to study English, considerably tends to study it online through self-control in order to actively seek for help from online instructors. This tells us that any learner who is motivated and has learning strategies can self-regulate his/herself for seeking for help through online learning. Another noticeable observation could be that all of the ATLE factors both significantly and insignificantly positively correlated with "time management", which implies that English learners having motivations and strategies pay heed to the time of online self-regulated English learning. That is, the learners' approach to English demonstrated the importance of "time" in online self- regulated English learning. In addition, English learners who were deeply motivated and who approached English learning with deep strategies appeared to be more likely to view online self-regulated learning positively in terms of setting their goals and task

strategies. These learners used online self-regulated learning when they want to set their goals and task strategies. English learners who were intrinsically motivated seemed to think that online self-regulated English learning could not help manage their learning time, and the learners who had surface strategy in learning thought that they took online learning to obtain task strategies from it like the ones who were intrinsically motivated and who had deep strategies in online English learning. Overall, it can be maintained that motivation and learning strategies are substantially correlated with online self-regulated English learning, as presented in earlier studies (e.g., Choi 2011; Daniela 2015; Gass and Selinker 2001, 2009) where it was insisted that motivation, especially intrinsic motivation, positively correlated with academic learning and that learning strategies also positively influenced it.

<Table 6> Correlations among ATLE Factors and OSEL Factors

Factors		GS	HS	ES	TM	TS
Intrinsic Motivation	Person Co.	.242**	.104**	.219**	.013	.110**
	Sig.	.000	.000	.000	.729	.000
Extrinsic Motivation	Person Co.	.042	.107**	-.059*	.085*	-.033
	Sig.	.068	.000	.010	.020	.268
Deep Strategy	Person Co.	-.049	.100**	.134**	.035	.109**
	Sig.	.055	.000	.000	.333	.000
Surface Strategy	Person Co.	.131**	.146**	-.115	.066	115**
	Sig.	.000	.000	.002	.071	.002

**$p < .01$, *$p < .05$; N=377

4.2 POLE and ATLE Factors Affecting the OSEL

In order to see what factors of English learners' perceptions of and approaches to learning English affect online self-regulated English learning (OSEL), multiple-linear regression analysis (MRA) was conducted and the results were presented in <Table 7> and <Table 8>. Five criterion variables (CV, or dependent variables) were explained respectively. Specifically speaking, 10.2% of the variance of goal setting (GS) can be accounted for by predictor variables (PV, or independent variables). Similarly, 9.7% of

the variance in help seeking (HS), 13% of the variance in environment structuring (ES), 3.4% of the variance in time management (TM), and 6.7% of the variance in task strategies (TS) can be illustrated by the PVs respectively.

If we take a close look at the factors of the POLE and the ATLE that have effects on the factors of the OSEL in <Table 7>, it was shown that three among all five OSEL factors — the GS, the HS, and the ES — were significantly affected by some of the POLE and ATLE factors, showing that they had statistically significant coefficients, their intercepts being .837, 1.194, and 1.371 each, but the other two were not. To further illustrate, the GS was significantly affected by two of the POLE factors and one of the ATLE factors: applying (β=.120 and t=3.198), drilling and practicing (β=.112 and t=2.954), and intrinsic motivation (β=.182 and t=4.802), showing its power of .837 + (.071x_1 + .131x_2 + .031x_3 + .162x_4 - .009x_5 + .020x_6 - .010x_7 + .190x_8 + .021x_9 + .072x_{10} - .001x_{11}). The HS was significantly influenced by one of the POLE factors and three of the ATLE factors: applying (β= .171 and t=4.525), intrinsic motivation (β=.133 and t=3.498), deep strategy (β=.081 and t=2.155), and surface strategy (β=.089 and t=2.500), providing its power of 1.194 + (-.002x_1 + .182x_2 - .063x_3 + .018x_4 + .082x_5 - .019x_6 + .052x_7 + .135x_8 - .002x_9 + .098x_{10} + .087x_{11}). Lastly, three of the POLE factors and three of the ATLE ones that affected the ES factor of the OSEL were as follows: acquiring a new perspective (β=.101 and t=2.644), applying (β=.087 and t=2.355), preparing for tests (β=.090 and t=2.438), intrinsic motivation (β=.245 and t=6.577), deep strategy (β=-.149 and t=-4.059), and surface strategy (β=.112 and t=3.212), indicating its power of 1.371 + (.103x_1 + .090x_2 + .079x_3 + .064x_4 - .037x_5 + .056x_6 - .080x_7 + .244x_8 - .010x_9 - .176x_{10} + .108x_{11}).[1]

A noticeable thing is that "applying" of the POLE (Zheng et al. 2016) and "intrinsic motivation" (Choi 2011; Cook 2001; Daniela 2015; Gass and Selinger 2001) of the ATLE played important roles as predictable factors affecting the GS, the HS, and the ES of the OSEL. It can be inferred, as Zheng et al. (2016) suggested, that the English learners who perceive English learning as "applying" and who are

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1) Here, x_1~x_{11} stands for eleven factors of the POLE and ATLE.

intrinsically motivated when they learn online are likely to be more adequate for self-regulation online learning, so that English educators and instructors need to be aware these factors may play essential roles in the OSEL and try to apply these two factors to it. To sum up, it can be said that these factors are highly important ones in the OSEL.

Learning strategies (Gass and Selinger 2009), whether they are deep or surface, were shown to play key roles as ATLE factors that have influences on the HS and the ES of the OSEL. These results may imply that online self-regulated English learners can use "deep strategy" and "surface strategy" for help seeking and for environment structuring. A few other of the ATLE factors were also indicated to play roles as factors affecting the OSEL: "drilling and practicing" which was revealed to affect the GS, and "acquiring a new perspective" and "preparing for tests" which were shown to influence the ES. In fact, it was shown that "applying" played one of the most important predictable factors with regard to online self- regulated learning in Zheng et al.'s (2016) study. However, it is interesting that this study demonstrated that no factors of the POLE and ATLE affected the TM among the OSEL factors and that the TS among them did not display a statistically significant coefficient on the whole even though it was affected by three of the POLE and ATLE factors: increasing knowledge, deep strategy, and surface strategy.

Overall, the learners who perceive English as "applying" seem to be more suitable for online self-regulation English learning as Zheng et al. (2016) indicated, but "preparing for tests" was revealed not to serve as an integral role in online self-regulation learning, which was quite different from what is generally expected. This research also indicated that "intrinsic motivation" (Cook 2001; Daniela 2015; Gass and Selinger 2001) and "learning strategy" (Gass and Selinger 2009) as an approach to learning English were more decisive to the OSEL, as some researchers (White 2003; Xiao and Hurd 2007) suggested that online learners need intrinsic motivation and learning strategies.

<Table 7> Results of Multi-Linear Regression Analysis on OSEL Factors

Criterion Factors	R	R^2	Advanced R^2	Std. Error of the Estimates	df	Sig. F Change
GS	.319	.102	.088	1.076	11	.000
HS	.311	.097	.083	1.056	11	.000
ES	.360	.130	.117	1.012	11	.000
TM	.185	.034	.020	2.122	11	.007
TS	.258	.067	.053	1.824	11	.000

Note. GS: goal setting, HS: help seeking, ES: environment structuring, TM: time management; TS: task strategies

<Table 8> Coefficients of POLE and ATLE Factors affecting OSEL Factors

Criterion Factors	Predictable Factors	B	SE	β	t	Sig.
GS	(Constant)	.837	.368		2.276	.023*
	Applying	.131	.041	.120	3.198	.001**
	Drilling & Practicing	.162	.055	.112	2.954	.003**
	Intrinsic Motivation	.190	.039	.182	4.802	.000**
HS	(Constant)	1.194	.361		3.311	.001**
	Applying	.182	.040	.171	4.525	.000**
	Intrinsic Motivation	.135	.039	.133	3.498	.000**
	Deep Strategy	.098	.045	.081	2.155	.032*
	Surface Strategy	.087	.035	.089	2.500	.013*
ES	(Constant)	1.371	.346		3.968	.000**
	Acquiring a new perspective	.103	.039	.101	2.644	.008**
	Applying	.090	.039	.087	2.335	.020*
	Preparing for Tests	.079	.033	.090	2.438	.015*
	Intrinsic Motivation	.244	.037	.245	6.577	.000**
	Deep Strategy	-.176	.043	-.149	-4.059	.000**
	Surface Strategy	.108	.033	.112	3.212	.001**
TM	(Constant)	.313	.725		.431	.667
TS	(Constant)	.435	.623		.698	.486
	Increasing Knowledge	.219	.080	.107	2.752	.006**
	Deep Strategy	.213	.078	.103	2.721	.007**
	Surface Strategy	.272	.060	.164	4.511	.000**

**p < .01, *p < .05

5. Conclusion

The current study examined the relationship between perceptions of learning English (POLE) and online self-regulated English learning (OSEL) and the one between approaches to learning English (ATLE) and the OSEL, and some factors affecting the OSEL, by using three questionnaires. This research displayed empirical evidence that there were factors influencing the OSEL as well as significantly positive relationships between some POLE factors and some ATLE factors and some OSEL factors to a great extent as seen in earlier studies (e.g., Barnard et al. 2009; Lee et al. 2007; Zheng et al. 2016).

With regard to the learner perceptions to English, learning motivation and strategy, and online self-regulated English learning, the results were that the learners who perceive English as "applying" and who are intrinsically motivated and have deep or surface strategies, were likely to be more suitable for and be more successfully involved in online self-regulated English learning as a whole, even if there were other factors which had weak influences. These factors can be an essential prerequisite for in-depth understanding of English, or an L2. In other words, the current research suggested that language instructors should be aware that these factors ― applying, intrinsic motivation, and strategy ― may play highly essential roles in online self-regulated English learning, and make a lot of effort to effectively apply them to their instruction setting, using proper pedagogical methods, as online learning has been getting more and more important in an Internet-based and technologically advanced learning environment.

However, other factors may not have direct influences on online self-regulated English learning, showing that a few factors, not all, of the POLE and the ATLE might have either positive or negative relationships with the OSEL factors, and thus it is hard for these factors to serve as predictable factors of online self-regulated English learning. More intriguing is that "drilling and practicing" factor showed significantly positive relationships with all OSEL factors but did not act as a decisive predicator affecting the OSEL. In addition, "preparing for tests" showed more negative relationships with the OSEL factors, similar to Zheng et al.'s (2016) study, and it did

not serve as a predictable factor so much, like Zheng et al.'s (2016) research, even though English studying, whether it is done online or not, may generally be regarded as related to tests. It appears a little strange, but it can be mentioned that the OSEL will not work more positively for online learners who perceive English as "tests." More importantly, English instructors should try their best to make their learners intrinsically motivated (Cook 2001; Daniela 2015; Gass and Selinger 2001) as well as have their own learning strategies (Gass and Selinger 2009) while they do online learning as this study and other studies (e.g., White 2003; Xiao and Hurd 2007) indicated.

This study does not account for participants' gender and their English proficiency, so in a follow-up study researchers are recommended to investigate it, considering these limitations.

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<Appendix>

a. POLE Questionnaire Items

1. Learning English means memorizing the words, phrases or sentences in the textbook.
2. If there were no tests, I would not learn English.
3. Learning English means constantly practicing listening.
4. Learning English means acquiring new vocabulary and its appropriate pronunciation.
5. I am learning English when the instructor tells me new words or grammar rules.

b. ATLE Questionnaire Items

1. I find that at times studying English makes me feel really happy and satisfied.
2. I try to relate what I have learned in English subjects to what I learn in other subjects.
3. I am discouraged by a poor mark on English tests and worry about how I will do on the next text.
4. I see no point in learning English materials that are not likely to be on the examinations.
5. I feel that English topics can be highly interesting once I get into them.

C. OSEL   Questionnaire Items

1. I set short-term (daily or weekly) goals as well as long-term goals (monthly or for the semester).
2. I choose the location where I study to avoid too much distraction.
3. I read aloud instructional materials posted online to fight against distractions.
4. I find someone who is knowledgeable in course content so that I can consult with him or her when I need help.
5. I summarize my learning in online courses to examine my understanding of what I have learned.

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