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The Relationship and Attributive Impact of Self-Regulation, Language Learning Strategies, and Second Language Anxiety to Second Language Learning of Grade 11 Students: Inputs to Recommended Strategies for Second Language Teaching

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Abstract

Second language (L2) learning is a complex process for language learners, which is evident in the language performance of Filipino learners who are performing poorly in writing and reading in English. Based on several studies with findings that corroborate the influence of self-regulation, Language Learning Strategies (LSS), and L2/ESL anxiety on L2 learning, the present descriptive-correlational study aimed to determine the relationship and attributive impact of self-regulation, LLS, and L2/ESL anxiety on L2 learning in a defined Philippine university. The data were collected from 447 Grade 11 participants using questionnaires. The collected data were analyzed using mean, Pearson's correlation coefficient, and multiple regression analysis. The findings revealed that self-regulation has a weak positive significant correlation with L2 learning, while LLS and L2/ESL anxiety have no significant relationship with L2 learning. As for the attributive impact, the findings suggested that self-regulation is directly proportional to L2 learning, and LLS are indirectly proportional to L2 learning. As for L2/ESL anxiety, it has no significant impact on L2 learning. The findings became the basis of the recommended strategies for second language teachers.

Keywords: Self-regulation, Language Learning Strategies, L2/ESL anxiety, L2 Learning, Second language, Second Language Teachings, Recommended Strategies, Correlation, Multiple Regression

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Introduction

Second Language (L2) learning is a complex and challenging process for language learners (Ahsanah, 2020; Krashen, 1981, as cited in Demir & Zaimoglu, 2021), which is evident in the performance of Filipino learners. In 2018, the Organization for Economic Cooperation and Development (OECD) conducted a Program for International Student Assessment (PISA), and Filipino learners ranked last in reading among 79 countries in Asia. In addition, the Philippine Institute for Development Studies (PIDS) also mentioned that Senior High School Students (SHS) have difficulty writing in English. Furthermore, in 2020, Education First (EF) released a report about the Philippines' English Proficiency Index (EPI), indicating that the country dropped seven spots from its previous ranking (Baclig, 2020).

Carroll (1977) mentioned that several factors such as verbal intelligence, motivation, and auditory ability should be considered for language learning success. Similarly, Chomsky (2006) suggested considering the learners' differences in language learning. Learners process the information based on their affective, cognitive, social, and physiological characteristics together with their methods and approaches (Cesur, 2008, as cited in Yelgeç & Dagyar, 2020). Affective factors include motivation and self-efficacy. Cognitive factors, on the other hand, include learning style, proficiency, and metacognitive awareness. These factors are all examples of individual differences that make learning different from one learner to another (Boydak, 2008; Horwitz, 1986, as cited in Yelgeç & Dagyar, 2020).

Growing numbers of studies in English as a Foreign Language (EFL) settings suggest that self-regulation (Ardasheva et al., 2017; Bai & Wang, 2020; Choi et al., 2018; Fukuda, 2018; Seker, 2016; Shing & Rameli, 2020; Yabukoshi, 2018) and language learning strategies (LLS) (Mahib ur Rahman, 2020; Pongsukvajchakul, 2021; Salam et al., 2020; Tieocharoen & Rimkeeratikul, 2019; Zarei & Baharestani, 2014; Zarei & Rahmani, 2015) positively influence language learning. In addition, several studies in the EFL context were conducted to determine the contribution of language anxiety to language learning (Al-Khotaba, et al., 2019; Bosmans & Hurd, 2016; Demir & Zaimoglu, 2021; Ozer & Ispina, 2021; Zheng & Cheng, 2018). Thus, self-regulation, LLS, and language anxiety could predict learners' success in language learning. However, no local studies were conducted in an English as a Second Language (ESL) setting particularly in the Philippines. Moreover, no studies have determined which of the factors mentioned above is the strongest predictor of language learning.

Based on the given information, the present study aims to determine the relationship and attributive impact of self-regulation, LLS, and L2/ESL anxiety on the L2 learning of Filipino learners. The present study provides crucial insights into the performance of L2 learners that could serve as a basis for teachers in planning, selecting, and designing appropriate classroom activities to make L2 learning successful. Attributive impact refers to the predicting characteristics of self-regulation, LLS, and L2/ESL anxiety on L2 learning.

Review of Related Literature

The following literature and studies explain self-regulation, language learning, L2/ ESL anxiety, and the relationship of the said factors to language learning.

Self-regulation

One factor that could positively influence language learning is self-regulation, which refers to an individual's systematically planned actions, thoughts, and feelings to achieve a particular goal (Boekaerts, Pintrich, & Zeidner, 2005). However, self-regulation should be categorized neither as an academic nor a mental skill because it is a process that guides a person in altering one's thoughts to attain one's goals (Zimmerman, 2001, as cited in Gorgoz & Tican, 2020; Schunk, 2001, as cited in Ozer & Ispina, 2021).

In education, self-regulation refers to an active and constructive process in which learners can identify their learning goals. Self-regulated learners actively engage in the learning process while controlling their behavior, thoughts, and motivation (Pintrich, 2000, as cited in Tran & Phan Tran, 2021; Zeidner, Boekaerts, & Pintrich, 2000, as cited in Hawkins, 2018; Zimmerman, 2008; Zimmerman & Schunk, 2011, as cited in Hromalik & Koszalka, 2018). It refers to the process of learners wherein they control and manage complex academic activities in their learning experiences (Kaufman, 2004, as cited in Gorgonz & Tican, 2020; Pintrich, 2000, as cited in Tran & Phan Tran, 2021)

The self-regulation process is composed of four steps: *planning* is the articulation of what a learner would like to accomplish; *monitoring* is keeping track of the progress of what the learner has accomplished in their plan; *adjusting* is the implementation of particular strategies when the learner does not meet a specific goal; finally, *reflecting* is evaluating what worked and did not work in the plan (Gaumer Erikson & Noonan, 2016; Gaumer Erikson & Noonan, 2018; as cited in Gaumer Erickson & Noonan, 2021).

Self-regulation became an essential concept in education because of the emergence of a learner-centered approach in which learners are expected to be responsible for their learning (Uredi, 2005; Zimmerman, 1990, as cited in Yelgeç & Dagyar, 2020). Consequently, learners' ability to regulate their cognition and behavior is connected to educational outcomes and achievements (Zimmerman,1990; Zimmerman & Schunk, 2011, as cited in Broadbent, Fuller-Tyszkiewics, 2018). Self-regulation, as metacognitive knowledge, can be regarded as an indicator of intelligence that could determine academic achievement (Hrbackova & Safrankova, 2016, as cited in Gorgoz & Tican, 2020). For this reason, self-regulation is considered a vital learning competence that learners must possess to learn content knowledge (Gan et al., 2020, as cited in Ozer & Ispina, 2021). Thus, self-regulated learning plays a significant role in education, particularly in achieving life-long success and learning skills (Boekaerts & Cascallar, 2006, as cited in Gorgoz & Tican, 2020). Though a relationship exists between lifelong learning skills and self-regulation, the learner's choice and control that they exert are the defining aspects of self-regulation, which play a critical role in learning (Zimmerman, 2001, as cited in Al Fadda, 2019).

Self-regulated learners are motivated and responsible for their success and failure (Gaskill & Woolfolk, 2002, as cited in Gorgoz & Tican, 2020; Hirvela, 2007, as cited in Al Fadda, 2019; Pintrich, 1999, as cited in Gorgoz & Tican, 2020; Zimmerman 1986, 2015, as cited in Broadbent & Fuller-Tyszkiewics, 2018). These learners also have behavioral, cognitive, and motivational abilities to accomplish tasks and engage in the learning process (Cobb, 2003, as cited in Gorgoz & Tican, 2020; Zimmerman, 2001, as cited in Al Fadda, 2019). They also plan, monitor, adjust, and reflect on their learning processes to attain their learning objectives, and consider themselves autonomous, adequate, and sufficient in learning (Gorgoz & Tican, 2020; Hirvela, 2007, as cited in Al Fadda, 2019). These learners also create a conducive learning environment to achieve their goals. They manage their time well, choose the appropriate learning strategies based on their learning objectives, adjust their strategy,

and reflect on their choices if these choices help them attain their goals (Akdogan, Velipasaoglu & Musal, 2016, as cited in Gorgoz & Tican, 2020).

By providing feedback, collaborative work, and social modeling, teachers could help learners regulate their learning (Broadbent & Fuller-Tyszkiewics, 2018; McInerney, 2008, as cited in Ozer & Ispina, 2021; Zimmerman, 2015; Zimmerman & Schunk, 2011). Teachers could also motivate the learners by helping them in mastering skills, tasks, or goal orientations and using new strategies (Winne, 1995, Pintrich, 2000, as cited in Tran & Phan Tran, 2021).

Experts conducted several studies to determine the relationship between self-regulation to language learning.

In a study conducted by Bai and Wang (2020), monitoring and effort regulation were significant contributors to language learning. The said result is similar to Seker (2016) finding that self-regulation is an essential predictor of foreign language learning and has a significant relationship to language achievement. In Yabukoshi (2018), self-regulation has a potential relationship with language learning. Finally, Ardasheva et al. (2017) indicate that using self-regulated learning strategies has effectively increased language learning outcomes in the L2 classroom.

Researchers in the EFL setting conducted studies to understand the contribution of self-regulation in EFL learning.

Choi et al. 's (2018) study shows that the framework of self-regulated learning could be utilized in understanding the relationship among motivation, LLS, and vocabulary learning. Furthermore, Fukuda (2018) finds in their study that self-regulated learning, particularly effort regulation, coping with problems, and metacognitive strategies, are predictors of a learner's language proficiency. Finally, Shing and Rameli (2020) indicate that self-regulation significantly influences learners' language proficiency in English.

Language Learning Strategy

Like self-regulation, LLS positively influences language learning. LLS are planned behaviors or processes used by learners to improve their L2 learning (Oxford, 2001, as cited in Balci, 2017). For example, learners use a particular language learning strategy to solve a problem (Brown, 2000, as cited in Balci, 2017), to improve their understanding of the second language (Cohen, 2003, as cited in Zarei & Baharestani, 2014), and to understand, process, and retain new learnings (O'Malley & Chamot, 1990, as cited in Marashi & Assgar, 2019; Al-Khaza'leh, 2019).

Various researchers categorize LLS into different taxonomies. For example, O'Malley et al. (1985), as cited in Al-Khaza'leh (2019), posited that learners use three main language learning strategies: metacognitive, cognitive, and socio-affective. As for Rubin (1987), as cited in Al-Khaza'leh (2019), learning strategies, communication strategies, and social strategies are the three classifications of LLS. Oxford (1990), as cited in Al-Khaza'leh (2019), believes that communicative competence is the primary goal of LLS. So, Oxford divides LLS into two main taxonomies: direct (memory, cognitive, and compensation strategies) and indirect (metacognitive, affective, and social strategies). Stern (1992), as cited in Al-Khaza'leh (2019), divides LLS into five groups: management and planning strategies, cognitive strategies, communicative-experiential strategies, interpersonal strategies, and affective strategies.

Unlike the other taxonomies that focus on cognitive concepts, Oxford's LLS is considered the most comprehensive and consistent learner's language learning strategy, as she considers the four macro skills (reading, writing, listening, and speaking) as well as the communicative and linguistic

aspect of language learning. (Ellis, 1994, as cited in Balci, 2017; Hsiao & Oxford, 2002, as cited in Balci & Ügüten, 2018).

Oxford further discusses that learners use direct strategies (memory, cognitive, and compensatory) to deal with the target language and use indirect strategies (metacognitive, affective, and social) to manage their learning process (Erdogan, 2018).

Cognitive strategies involve analyzing, summarizing, and reasoning, which help learners understand their language materials. Memory strategies include mnemonics, rhyming, imagery, and grouping, which assist learners in storing and retrieving information. Compensatory strategies are the uses of synonyms and new words to aid learners in bridging their knowledge gaps. Metacognitive strategies involve planning and practicing, which guide learners to regulate their learning. Affective strategies are used for building confidence, aiding in thoughts and emotions expression, and for self-encouragement. Finally, social strategies involve interaction with others, such as asking questions, listening for feedback, and collaborating, and for understanding the target language (Hismanoglu, 2000, as cited in Pongsukvajchakul, 2021).

The strategies mentioned above can facilitate and improve learners' language learning (Karatas, Balyer, & Alci, 2015, as cited in Canbay, 2020). Moreover, researchers (Embi, Long, & Hamzah, 2001, & Wu, 2008; as cited in Mohammadipour, Rashid, Rafik-Galea, & Thai, 2018; Kayaoğlu, 2013; Yılmaz, 2010, as cited in Canbay, 2020) conducted studies to determine the differences between the performances of high-performing language learners and low-performing language learners. Studies found that high-performing language learners utilize LLS more frequently than low-performing language learners. Furthermore, Rahimi and Katal (2012), as cited in Canbay (2020), indicated that learners who are conscious of their learning and use various strategies are likely to be more successful. However, multiple factors such as attitude, motivation, personality, and anxiety could affect learners' LLS (Oxford, 1989, as cited in Zarei & Baharestani, 2014). It was also noted that teachers play a crucial role in guiding, facilitating, and modeling the appropriate use of LLS (Canbay, 2020; Hawkins, 2018). Similarly, the findings of Marashi and Assgar (2019) show that a teacher's effective classroom management has a positive correlation with the LLS being used by learners.

Several studies were conducted to determine the influence of LLS on language learning, and the findings related to LLS playing a crucial part in supporting and simplifying the language learning processes of learners (Mahib ur Rahman, 2020). For example, Pongsukvajchakul's (2021) study shows that learners utilized memory, cognitive, compensatory, and metacognitive strategies in writing English. Salam et al. (2020), show that successful language learners utilized cognitive and compensation strategies. As for the study conducted by Tieocharoen and Rimkeeratikul (2019) in Vietnam and Thailand, the findings show that Vietnamese learners frequently use more LLS compared to Thai learners. Zarei and Rahmani (2015) found that metacognitive and affective strategies were a predictor of EFL learning. Similarly, Zarei and Baharestani (2014) concluded in their research that cognitive strategies could be a predictor of language proficiency in an EFL setting.

L2/ESL Anxiety

Still, one of the psychological pressures that could negatively influence L2 learning is anxiety (Marashi & Assgar, 2019). Anxiety is an emotional state wherein an individual experiences a sense of weakness when danger is sensed (Aydin & Zengin, 2008, as cited in Yelgeç & Dagyar, 2020). Anxiety also includes feelings of low self-esteem and incompetence (Tuncel et al., 2020). Language teachers, researchers, and learners have been interested in this phenomenon (Horwitz, 2010; Koteková, 2013, as cited in Aydin & Ustuk, 2020) as a complicated individual difference that could affect or hinder

L2/ESL learning (Horwitz, 2010; Koteková, 2013, as cited in Aydin and Ustuk, 2020). Anxiety has three types: state, trait, and situation-specific anxieties. Trait anxiety is a behavioral pattern in which an individual shows anxiety in various circumstances (Philips, 1992, as cited in Gawi, 2020; Scovel, 1978, as cited in Aydin & Ustuk, 2020). State anxiety is when an individual experiences temporary anxiety in an actual situation (Spielberger, 1983, as cited in Aydin & Ustuk, 2020; Tuncel et al., 2020). Situation-specific anxiety is a type of apprehension connected to a particular event or situation (Phillips, 1992, as cited in Gawi. 2020; Shabani, 2012, as cited in Marashi & Assgar, 2019). Thus, L2/ESL anxiety is a type of situation-specific anxiety (Brown, 2000, as cited in Gawi, 2020; Horwitz, 2010, as cited in Aydin & Ustuk, 2020; Horwitz et al., 1986, as cited in Tuncel et al., 2020).

L2/ESL Anxiety or xenoglossophobia is the apprehension or tension of a learner when speaking, listening, reading, writing, or learning in a foreign or second language (MacIntyre & Gardner, 1994, as cited in Aydin & Ustuk, 2020; Zheng, 2008, as cited in Marashi & Assgar, 2019). In addition, L2/ESL anxiety refers to learners' beliefs, behaviors, feelings, and perspectives of L2/ESL learning, which is a unique part of the language learning process (Horwitz, E., Horwitz, M. & Cope, 1986, as cited in Ozer & Ispina, 2021). Horwitz (2010), as cited in Oruç and Demirci (2020); MacIntyre and Gardner (1994), as cited in Al-Khotaba et al. (2019), considered L2/ESL anxiety as a learners' adverse emotional reaction to different phases of L2/ESL learning.

L2/ESL anxiety is divided into three types: fear of negative evaluation, communication apprehension, and test anxiety (Horwitz et al., 1986, as cited in Toth, 2010). Communication apprehension is a type of foreign language anxiety connected with talking or conversing with people (Toth, 2010) in an ESL or L2 context, which could be observed when a person speaks in the target language in public. This phenomenon is also known as stage fright. Communication apprehension also includes receiver anxiety, which means the apprehension of misunderstanding or misinterpreting messages in an L2/ESL setting (Toth, 2010). Furthermore, test anxiety is a type of anxiety wherein individuals are worried about frequent testing on their language proficiency (Toth, 2010). Lastly, fear of negative evaluation refers to the fear of academic assessment based on the learner's L2/ESL performance (Toth, 2010).

Learners with any of the types of foreign language anxieties might experience their L2/ESL learning having a negative impact (Demirdaş & Bozdoğan, 2013; Cheng et al., 1999; Horwitz et al., 1986; MacIntyre & Gardner, 1994; Krashen, 1985; Öner & Gedikoğlu, 2007; Horwitz & Young, 1991, as cited in Yelgeç & Dagyar, 2020). Sparks and Ganschow (1991), as cited in Marashi and Assgar (2019), state that anxiety could be a factor of poor language learning among learners.

In the literature, several studies identify the influence of foreign language anxiety on language learning. Al-Khotaba et al. (2019) found that learners with low language speaking anxiety have higher achievement in their speaking tests compared to learners with high language speaking anxiety. Ozer and Ispina (2021) found that language anxiety is a significant predictor of foreign language achievement. Thus, the higher the anxiety of the language learners, the lower their foreign language success. Zheng and Cheng (2018) confirmed in their research that cognitive test anxiety negatively predicts a learner's language achievement. Bosmans and Hurd (2016) discussed that low levels of foreign language anxiety and good pronunciation skills have a significant relationship with each other. Finally, Demir and Zaimoglu (2021) found that learners' foreign language anxiety is negatively correlated with the learners' decision-making strategies.

Several studies also determined the influence of self-regulation, LLS, and language anxiety on language learning. The cited studies suggest that self-regulation and LLS positively contribute to L2 learning, and L2/ESL anxiety negatively contributes to L2 learning. These studies also suggest the

crucial role of teachers in helping learners regulate their learning and emotions and in modeling the appropriate use of LLS. However, most of the cited studies were conducted in an EFL setting. No studies have been conducted to determine which of the factors mentioned above could be the strongest predictor of language learning in an ESL setting.

When considering the influence of self-regulation, LLS, and L2/ESL anxiety on L2 learning, several essential theoretical assumptions should be noted. The Social Cognitive Theory (SCT) of Bandura highlights the crucial role of the self-system in an individual, which learners could use in controlling their feelings, thoughts, and actions (Schunk & Pajares, 2010). This theory examines how learners should be guided in monitoring and achieving their academic objectives. In addition, SCT explains that a learner's learning process lies in interaction, behavior, and environment. Therefore, its success is based on how learners regulate their behavior and cognition (Hiller, 2017). By planning, monitoring, adjusting, and reflecting on their learning process (Gaumer Erickson & Noonan, 2018), language learners manage and control their behavior and cognition to achieve their learning objectives (Aktan, 2012; Kauffman, 2004; Pintrich, 1999; Zimmerman, 1990; as cited in Yelgeç & Dagyar, 2020).

Another important theoretical consideration is cognitive theory, which focuses on the learner's active role in learning. Cognitivism emphasizes the importance of learners' thoughts in receiving, organizing, retaining, and using the information to learn a language. Thus, this theory places learners in the middle of the learning process by stressing that learning only occurs if learners comprehend what they are studying (O'Malley et al., 1990; Thompson et al., 1996, as cited in Al-Khaza'leh, 2019). Thus, cognitive theory views L2 learning as a conscious thinking process that involves the intentional use of LLS. Language learners deliberately use a particular language learning strategy in storing, retrieving, and using information to learn a second language (Cohen, 1999, as cited in Gorgoz & Tican, 2020).

Finally, Stephen Krashen's Affective Filter Hypothesis emphasizes how variables such as motivation, self-confidence, and anxiety play a vital role in L2 learning (Sutarsyah, 2017). This theory notes that for language learning to successfully occur, one must make sure that the input reaches the language acquisition device. A barrier that prevents the input from reaching the language acquisition device is called an affective filter. An affective filter acts like a gate that controls the number of messages delivered in a communication process. This filter opens and closes depending on the level of tension and anxiety surrounding the communicator. This process explains how learners with lower levels of anxiety have a less-affective filter to interrupt their language learning and why it is vital to provide stress-free learning environments for the learners to successfully practice and develop their language and communication skills (Schütz, 2019).

Based on the related literature, studies, and theories, Figure 1 presents the conceptual framework of the present study. The figure shows the possible relationship between self-regulation, LLS, and L2/ESL anxiety on L2 learning; and how these factors could predict second language learning.

The independent variables in Figure 1 are self-regulation, LLS, and L2/ESL anxiety, while the dependent variable is second language learning. The aforementioned independent variables could influence the L2 learning of learners. In particular, two of the independent variables—self-regulation and LLS could positively influence L2 learning. However, L2/ESL anxiety could negatively influence L2 learning.

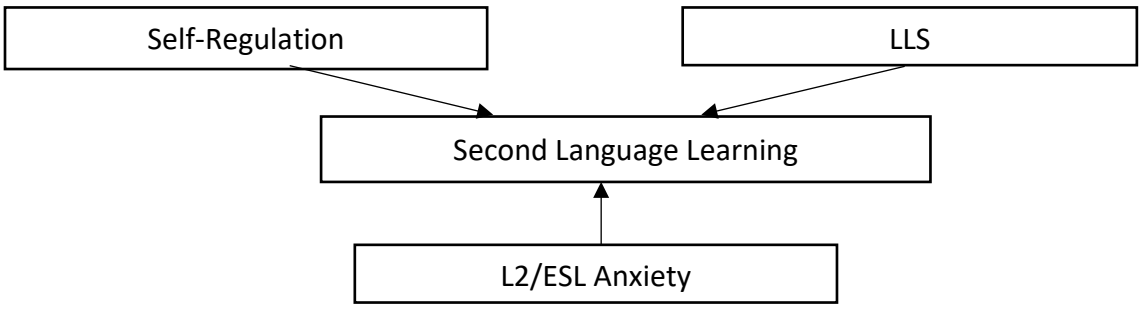

Figure 1. *Conceptual outline of the relationship of LLS, self-regulation, and second language anxiety to second language learning*

Based on the presented research gap, the present study aims to determine the relationship and the attributive impact of self-regulation, LLS, and L2/ESL anxiety on L2 learning.

The following questions were used as a guide in the conduct of the present study:

1.What are the extents of the self-regulating processes of the participants?
2.What are the frequency levels of the LLS used by the participants?
3. What are the participants' L2/ESL anxiety intensity levels?
4.What are the L2 learning performance levels of the participants?
5.What is the correlative relationship of L2 learning performance level to the following:
  5.1. self-regulation
  5.2. LLS; and
  5.3. L2/ESL anxiety of the participants?
6.What is the strongest predictor of second language learning among LLS, Self-Regulating processes, and Second Language Anxiety of the participants?

The present study also tested the following null hypotheses:

H_O=There is no significant relationship between the participants' L2 learning and their self-regulation.
H_O=There is no significant relationship between the participants' L2 learning and their LLS.
H_O=There is no significant relationship between the participants' L2 learning and their L2/ESL anxiety.

Methods

Research Design

To determine the relationship and attributive impact of self-regulation, LLS, and L2 anxiety on L2 learning, this study utilized a non-experimental quantitative research design. Specifically, it used correlational research design.

Sample and Setting

The participants in the present study were Grade 11 Senior High School (SHS) students, male or female, who had studied English for Academic and Professional Purposes (ENGLAPP) at a university in Pampanga and whose ages ranged from 16 to 18 years old. The participants attended their English classes online and onsite (in-person). Specific weeks were scheduled for their online classes.

Participants were selected through random sampling due to the quantitative nature of the present study.

The total sample size is 447, taken from Grade 11's total population of 1342 with a 95% confidence level and 5% margin of error using the Raosoft Sample Size Calculator.

Instrumentation

Three instruments were utilized to gather the needed data in the present study. Furthermore, these instruments were validated by three experts in language learning and education. The first instrument is the *Self-regulation formative questionnaire* (Gaumer Erickson, Monroe, Soukup, & Noonan, 2018), a self-report questionnaire with 22 items. In 2019, the said instrument had an internal consistency of α = .894, tested from 12,882 students in elementary, junior high, senior high, and post-high school (Gaumer Erickson et al., 2018). The self-regulation formative questionnaire assesses the participant's self-regulation process: plan (items 1-5), monitor (6-11), adjust (12-17), and reflect (18-22). The Grade 11 students used the following rating scale: 1 – Not very like me to 5 - Very like me.

The second adopted instrument is *the Strategy Inventory for Language Learning* (SILL) (Oxford, 1989, as cited in Park, 2011). SILL is a five-point Likert scale instrument with 50 items, which can be publicly accessed. This instrument had an internal consistency of α = .92 (Marashi & Assgar, 2019). It identifies the types of strategies used by the Grade 11 students: cognitive, memory, metacognitive, comprehension, affective, and social. The Grade 11 students used the following rating scale: 1-Never or almost never true of me, 2-Usually not true of me,3-Somewhat true of me, 4-Usually true of me, and 5-Always or almost always true of me. Items 1 to 9 assess the memory strategies of the participants. On the other hand, items 10 to 23 evaluate the cognitive strategies of the participants. Items 24 to 29 assess the Communication strategies of the participants. Furthermore, items 30 to 38 determine the metacognitive strategies of the participants. As for affective strategies, items 39 to 44 are utilized. Finally, items 45 to 50 identify the social strategies of the respondent.

The third adopted instrument is the *Foreign Language Classroom Anxiety Scale* (FLCAS), which can be publicly accessed (Horwitz et al., 1991). FLCAS is a five-point Likert scale instrument with 33 items and has an internal consistency of α = .94 (Marashi & Assgar, 2019). It is a self-report questionnaire for Grade 11 students to rate how anxious or nervous they feel in their English language classroom. Items 8, 10, and 21 assess the test anxiety of the participants. As for items 1, 3, 4, 5, 6, 9, 11, 12, 13, 14, 15, 16, 17,18, 20, 22, 24, 26, 27, 28, 29, 30, 32, and 33, these items assessed the communication apprehension of the participants. Finally, items 2, 7, 19, 23, 25, and 31 are for fear of evaluation of participants. The Grade 11 students used the following rating scale: 1-Strongly Disagree, 2-Disagree, 3-Neither agree or disagree, 4-Agree, and 5-Strongly Agree. Some of the items in FLCAS are reversed scored: 2, 5, 8, 11, 14, 18, 22, 28, and 32.

As for the participants' L2 learning performance level, their academic performance or grade in ENGLAPP was asked and cross-referenced to their academic records. In Senior High School, three subjects are focused on the development, use, and application of the English language: English for Academic and Professional Purposes (ENGLAPP), Oral Communication (ORALCOMM), and Reading and Writing (READ/WRITE). ORALCOMM develops and assesses the listening and speaking skills of the learners, while READ/WRITE develops and assesses the learners' reading and writing skills. ENGLAPP focuses on developing and assessing the learners' communication skills, including listening, speaking, reading, and writing. L2 competence is beyond learning a language's grammatical properties (Canale & Swain, 1980; Hymes, 1971; as cited in Alonso Alonso, 2018). It is evident when language learners can comprehend and communicate effectively using the target

language (Canale & Swain, 1980; Hymes, 1971; as cited in Alonso Alonso, 2018; Krashen,1981; as cited in Bailey & Fahad, 2021;). So, the academic performance or ENGLAPP grade represented the L2 learning performance of the participants.

Ethical Considerations

In conducting the present study, the researcher took precautionary measures to guarantee that no ethical codes were violated and that the rights of the research participants were given priority throughout the process. Notably, the present study ensured that no harm, intended or unintended, afflicted to the participants before, during, and after the conduct of the present study. The present study also sought the approval of the Holy Angel University-Institutional Review Board (HAU-IRB). Furthermore, the related literature and studies used in the present study were summarized and paraphrased. The references were given proper citations in the references section, which helped avoid any form of plagiarism that violated the intellectual property rights of the respective authors of the cited materials. Before collecting the data, informed consent was obtained from the parents or guardians of the participants, who are mostly minors. In addition, both parents or guardians and participants were informed of the following: the background of the present study, the procedure of the present study, provisions for injury or related illness, possible benefits for the participants, voluntary participation, confidentiality, data management, feedback, and researcher's contact information (name, contact number, and e-mail). Specifically, participants' participation is voluntary. If participants feel a little uncomfortable answering the questionnaire, they can withdraw before, during, and after the conduct of the survey without any consequences.

Data Analysis

To identify the participants' L2 learning, self-regulation, LLS, and L2/ESL anxiety, descriptive statistics such as percentage and mean were utilized in describing the participants' L2 learning performance level, extent of self-regulating processes, frequency level of the LLS used, and L2/ESL anxiety intensity level. Pearson's Product Moment Correlation Coefficient and Multiple Regressions Analysis were used to measure the relationship and the predicting quality of self-regulation, LLS, and L2/ESL anxiety on L2 learning of the participants Tables 1, 2, 3, 4, and 5 show how the data were interpreted for self-regulation, LLS, L2/ESL anxiety, and L2 Learning.

Table 1. *Interpretation of mean for Self-regulation*

Mean	Description
1.00-2.49	Limited Self-regulation
2.50-3.49	Moderate Self-regulation
3.50-5.00	Substantial Self-regulation

Table 2. *Interpretation of mean for LLS*

Mean	Description
1.00-2.49	Low LLS Use
2.50-3.49	Medium LLS Use
3.50-5.00	High LLS Use

Table 3. *Interpretation of mean for L2/ESL Anxiety*

Mean	Description
1.00-2.49	Low Intensity Anxiety
2.50-3.49	Medium Intensity Anxiety
3.50-5.00	High Intensity Anxiety

Table 4. *Interpretation of L2 learning performance based on Student's Handbook*

Grade	Description
97-100	Outstanding
94-96	Excellent
91-93	Superior
88-90	Very Good
85-87	Good
82-84	Satisfactory
79-81	Fairly Satisfactory
76-78	Fair
75	Pass
Below 75	Failed

Table 5. *Interpretation of Pearson's Correlation Coefficient*

Coefficient, *r*		**Strength of Association**
Positive	**Negative**	
0.0=|r|		No correlation
0.0<|r|<0.2	-0.0<|r|<0.2	Very Weak Correlation
0.2≤|r|<0.4	-0.2≤|r|<0.4	Weak Correlation
0.4≤|r|<0.6	-0.4≤|r|<0.6	Moderately Strong Correlation
0.6≤|r|<0.8	-0.6≤|r|<0.8	Strong Correlation
0.8≤|r|<1	-0.8≤|r|<1	Very Strong Correlation
1.0=|r|	-1.0=|r|	Perfect Correlation

Results

The tables below show the research findings from the collected data, which contains the participants' extent of self-regulating processes, frequency levels of LLS used, intensity level of L2/ESL anxiety, the variables' correlative relationship, and their attributive impact on L2 learning.

Table 6. *Extents of Self-regulating Processes of the Participants*

	Mean	**SD**	**Interpretation**
Self-Regulation	3.86	.50	Substantial Self-regulation

Table 6 depicts the extent of the self-regulating processes of the participants, with a mean of 3.86 (Substantial Self-regulation).

Table 7. *Frequency Levels of LLS Used by the Participants*

	Mean	**SD**	**Interpretation**
LLS	3.57	.57	High LLS Use

Table 7 depicts the frequency levels of LLS used by the participants. It has a mean of 3.57, which means high LLS use.

Table 8. *Participants' L2/ESL Anxiety Intensity Levels*

	Mean	SD	Interpretation
ESL Anxiety	3.16	.66	Medium Intensity Anxiety

Table 8 depicts the participants' L2/ESL anxiety intensity levels, with a mean of 3.16 (Medium Intensity Anxiety).

Table 9. *L2 Learning Performance of the Participants*

L2 Learning Performance	*f*	%
Pass	3	1
Fair	8	2
Fairly Satisfactory	9	2
Satisfactory	19	4
Good	32	7
Very Good	59	13
Superior	112	25
Excellent	114	26
Outstanding	91	20
Total	**447**	**100**

Table 9 depicts the frequency distribution of the participants according to their L2 learning performance. Among 447 participants, 114 have excellent performance in L2 learning. In contrast, 3 out of 447 participants have a passing performance in L2 learning.

Table 10. *Correlative Relationship of L2 Learning Performance to Self-regulation, LLS, and L2/ ESL Anxiety*

		L2 Learning Performance	Self-regulation	LLS	L2/ESL Anxiety
L2 Learning Performance	Pearson Correlation	1	.285**	.056	-.025
	Sig. (2-tailed)		.000	.236	.593
	N	447	447	447	447
Self-regulation	Pearson Correlation	.285**	1	.504**	-.063

	Sig. (2-tailed)	.000		.000	.186
	N	447	447	447	447
LLS	Pearson Correlation	.056	.504**	1	-.110*
	Sig. (2-tailed)	.236	.000		.020
	N	447	447	447	447
L2/ESL Anxiety	Pearson Correlation	-.025	-.063	-.110*	1
	Sig. (2-tailed)	.593	.186	.020	
	N	447	447	447	447

** Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

Table 10 depicts the correlative relationship of participants' L2 learning performance to their self-regulation, LLS, and L2/ESL anxiety. The relationship between L2 learning and self-regulation has a probability value of .000 and a correlation value of .285. These values mean that there is a significant positive weak relationship between self-regulation and L2 Learning. With a probability value of .236 and a correlation value of .056, L2 learning has no significant relationship with LLS. Similar to LLS, L2/ESL anxiety is not significantly correlated with L2 learning, with a probability value of .593 and a correlation value of -.025.

Table 11. *Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.302[a]	.091	.085	4.79517

a. Predictors: (Constant), FLCAS, Self-regulation, LLS

Table 11 depicts a weak correlation between the variables based on the correlation coefficient value of .302. The coefficient of determination indicates that the independent variable can explain 9.1% of the total variation of the dependent variable.

Table 12. *ANOVA*[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1025.421	3	341.807	14.865	.000[b]
	Residual	10186.184	443	22.994		
	Total	11211.605	446			

a. Dependent Variable: L2

b. Predictors: (Constant), FLCAS, Self-regulation, LLS

Table 12 indicates that the regression model predicts the dependent variable significantly well, with a probability value of .001.

Table 13. *Coefficients*[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	83.319	2.253		36.986	.000
	Self-regulation	3.440	.525	.343	6.548	.000
	LLS	-1.042	.462	-.119	-2.254	.025
	FLCAS	-.128	.344	-.017	-.371	.711

a. Dependent Variable: L2

Table 13 shows the attributive impact of self-regulation, LLS, and L2/ESL anxiety on L2 learning. Self-regulation and LLS significantly impact L2 learning with a probability value of .000 and .025, respectively. However, the degree of impact between self-regulation and LLS differs, such as self-regulation positively impacts L2 learning (3.44), while LLS negatively impact it (-1.042). On the other hand, L2/ ESL anxiety and L2 learning have a probability value of.711, which means L2/ESL has no significant impact on L2 learning. The impact can be described in the regression equation below:

L2 learning=83.32+3.44 (Self-regulation)-1.04 (LLS)-.13 (L2/ ESL anxiety

Discussion

The findings in this study answered the following research questions:

1. What were the participants' self-regulating processes?
2. What were the frequency levels of the LLS used?
3. What was the intensity level of L2/ESL anxiety among students?
4. What were the L2 learning performance levels of the participants?
5. What were the correlative relationships of self-regulation, LLS and L2/ESL anxiety on L2 learning performance of the participants?
6. What is the strongest predictor of L2 learning performance among self-regulation, LLS, and L2/ESL anxiety of the participants?

Self-Regulation

Table 6 presented the data for the first research question. It showed the extent of the self-regulating processes of the participants. Based on the findings, the participants' extent of self-regulating processes had substantial self-regulation (M=3.86). Learners with substantial self-regulation would plan their tasks in a detailed manner, which involved reflecting on their past experiences for what worked and did not work for them. They would closely monitor their plan to see if they could accomplish their task concerning the established set of goals. They reflected on the effort, progress, and learning they exerted and attained. By doing so, they could adjust or modify their next plan (Gaumer Erickson & Noonan, 2021).

The participants of the present study attended their English classes online and onsite. They were given asynchronous activities, which showed that the participants had to accomplish their activities without the physical supervision of their L2 teachers. The physical absence of the L2 teachers in the online class and the number of asynchronous academic activities of the participants could

explain why the participants had substantial self-regulation. These explanations are congruent with the findings of Hromalik and Koszalka (2018), in which community college students managed and used self-regulating strategies to improve their learning outcomes in their online language course, and Tran and Phan Tran (2021), in which EFL high school students substantially applied self-regulating strategies to accomplish numerous activities.

Language Learning Strategies

The second research question aimed to determine the frequency levels of the LLS used by the participants. The results in Table 7 showed a mean of 3.57 on the frequency levels of the participants' LLS, which demonstrated they have high LLS. Learners with high LLS can effectively learn the target language using various strategies. These groups of learners can remember and retrieve information by creating a word-meaning outline of the target language. They also receive and produce their message using the target language by forming internal mental codes. These learners replace words they do not understand with synonymous words or phrases. Learners with high LLS also plan, adjust, and monitor how they acquire the target language. If these learners have difficulty comprehending meaning in the target language, they ask other people. Simply put, these learners know how to adjust their language-learning strategies to match their language-learning needs (Oxford, 1990).

The participants of the present study were in their senior high school years. The participants accomplished various academic language tasks as senior high school students. Their grade level and language tasks could be one of the possible explanations for why these participants used high LLS. Like the findings of Erdogan (2018), senior high school students had higher LLS compared to first-year students, sophomores, and junior students. Ellis (1994) explained that learners use certain LLS for a particular task. Prokop (1989), as cited in Chen (2014), elaborated that language learners change their LLS to accomplish the requirements of different language learning tasks.

L2/ESL Anxiety

The results in Table 8 for the third research question showed the participants' L2/ ESL anxiety intensity levels. Based on the analyzed data, the participants' L2/ ESL anxiety intensity levels had a mean score of 3.16, which showed that the participants had medium-intensity L2/ESL anxiety. Learners with medium-intensity anxiety sometimes avoid participating or interacting with other people using the target language. These learners also show symptoms like freezing up, forgetting their prepared materials, shaky hands, and avoiding eye contact (Ortega, 2014, as cited in Toubot et al., 2018). Learners with medium-intensity anxiety become nervous when speaking English in front of their classmates and English teacher in class. These learners also tend to panic when they are required to speak in English without preparation. They tremble, knowing that their teacher will call them to present their ideas using English, and feel embarrassed to volunteer in class because they are afraid that their classmates will laugh at them when they speak in English (Reyes, 2022).

In their online English class, the participants of the present study were required to use and speak English. In using the English language, they were evaluated by their L2 teacher in front of their classmates. Having to respond and be assessed using English could be one of the reasons for the participants' medium-intensity L2/ESL anxiety. This explanation is like the findings of Liu (2006) and Liu and Jackson (2008), in which learners experienced medium-intensity anxiety when they were assessed and asked to respond using the English language. Berowa (2018) explained that language learners with medium-intensity anxiety do not have negative feelings toward the target language. Instead, the language tasks involving the target language bring fear, pressure, or anxiety to language learners.

L2 Learning

The fourth research question aimed to describe the L2 learning performance of the participants. The results in Table 9 showed that most of the participants had an outstanding, excellent, and superior performance in their English class, while some participants had a passing, fair, and fairly satisfactory performance in their English class. Learners with outstanding, excellent, and superior performance in L2 learning could use English for various purposes and situations. Specifically, these learners can understand most conversations in the target language and can accurately recount the conversation's details. These learners can also correctly ask and answer questions related to current issues and critically interpret messages and themes not explicitly stated in the text. They can also write a comprehensive, logical, and grammatical composition. Learners with passing, fair, and fairly satisfactory performance in L2 learning can use English. Specifically, these learners can understand some conversations in the target language. They can also ask and answer questions in the target language. They can also write a composition (Department of Education, 2017).

Correlative Relationship of Self-Regulation and L2 Learning

Research question 5.1 aimed to determine the correlative relationship between self-regulation and L2 learning. The results in Table 10 regarding the participants' self-regulation showed that they had substantial self-regulation, and most of them have outstanding, excellent, and superior performance in their L2 class. Based on the analyzed data, the relationship between the two variables had an r-value of .285 and a p-value of .000, meaning they had a significant weak positive correlation. L2 learning positively correlated significantly with self-regulation. As the participant's self-regulation increased, L2 learning also increased. Based on the result of the study, the null hypothesis (there is no relationship between self-regulation and L2 learning) is rejected. This finding is in line with a plethora of EFL studies, which indicated that self-regulation had a significant relationship to language learning (Adigüzel & Orhan, 2017; Bai & Wang, 2020; Choi et al., 2018; Fukuda, 2018; Seker, 2016; Shing & Rameli, 2020; Yabukoshi,2018). Al Fadda's (2019) study, conducted in an ESL context, and blended learning environment, yielded the same result.

Correlative Relationship of LLS and L2 Learning

The results in Table 10 for research question 5.2 show the correlative relationship between LLS and L2 learning. The relationship between the two variables had a p-value of .236 and an r-value of .056. These findings showed no significant relationship between LLS and L2 learning. With this data, the present study failed to reject the null hypothesis: there is no significant relationship between participants' LLS and L2 learning. The result for research question 5.2 was in contrast to the findings of Pongsukvajchakul (2021), Salam, Sukarti, and Arifin (2020), Tieocharoen and Rimkeeratikul (2019), Zarei and Rahmani (2015), and Zarei and Baharestani (2014). The findings of the said studies indicated that language learning strategy is correlated with L2 learning. These studies were conducted in an EFL setting, while the present study was conducted in an ESL setting. The learning environment could be a possible explanation for why the current study's findings differ. This explanation is similar to Sie (2021) that the learning context played a role in the difference between EFL and ESL learners' use of LLS.

Correlative Relationship of L2/ESL Anxiety and L2 Learning

Research question 5.3 aimed to determine the correlative relationship between L2/ESL anxiety and L2 learning. The findings in Table 10 show that the relationship between the two variables has a p-value of .593 and an r-value of -.025, which meant no significant relationship between L2/ESL anxiety and L2 learning. The present study fails to reject the null hypothesis (there is no significant relationship between L2/ESL anxiety and L2 learning). The result contradicted the findings of Bosmans and Hurd (2016) and Demir and Zaimoglu (2021). The said studies were conducted in an EFL setting, and their results indicate a significant relationship between language anxiety and language learning. The learning environment could explain why the findings of the current study differ from those of Bosmans and Hurd (2016) and Demir and Zaimoglu (2021). In an EFL setting, English is only utilized inside the learner's language classroom, which provides the language learners with limited exposure and opportunity to practice English in different discourse situations. These limitations do not improve the EFL learners' communication skills, resulting in stress, embarrassment, or anxiety when using the language (Tanveer, 2008).

Attributive Impact of Self-regulation, LLS, and L2/ ESL Anxiety on L2 Learning

The results in Table 13 for research question 6 show the attributive impact of self-regulation, LLS, and L2/ESL anxiety on L2 learning.

Self-regulation was shown to be directly proportional to L2 learning, which meant that as self-regulation increases, L2 learning would also increase. This finding is similar to Seker's (2016) and Fukuda's (2018) results, in which self-regulation predicted language learning, proficiency, and achievement. Learners could effectively increase their language performance by using self-regulated learning strategies (Ardasheva et al., 2017). Moreover, the self-regulated learning framework could be used to comprehend language or vocabulary learning (Choi et al., 2018).

LLS proved inversely proportional to L2 Learning, which means that as L2 learning increases, LLS decrease. This finding showed similarities with previous studies, in which LLS were shown as predictors of language learning (Balci & Ügüten, 2018; Zarei & Baharestani, 2014; Zarei & Rahmani, 2015). However, the degree of impact proved contrary to the findings of the present study, in which high-proficiency language learners frequently used more LLS than low-proficiency learners (Tieocharoen & Rimkeeratikul, 2019). Learners' preference in choosing and using a language learning strategy could explain the difference between the aforementioned studies and the current study's findings. Hismanoglu (2000) and Oxford (2003), as cited in Pongsukvajchakul (2021), explained the difference in learners' use of LLS. The use of LLS was shown behavior specific. Learners choose and use LLS that they deem useful in enhancing their language learning.

As for L2/ESL anxiety, it has no significant impact on L2 learning. This result was contrary to the findings of Ozer and Ispina (2021), Zheng and Cheng (2018), and Demir and Zaimoglu (2021), which indicated that L2/ESL anxiety was a negative predictor of language learning. Specifically, high levels of language anxiety proved negatively correlated with language achievement. Some possible explanations for why the current findings differ from the aforementioned studies could be the level of language anxiety and self-regulation. Most participants in the present study indicated medium-intensity L2/ESL anxiety, while in the other studies, their participants consisted of high-anxiety language learners and low-anxiety language learners. The participants of the present also proved to have substantial self-regulating processes, which meant that learners have the will and skill to regulate their learning, not just cognitively but also through other motivational factors like anxiety (Erdogan, 2018).

The attributive impact of self-regulation, LLS, and L2/ESL anxiety on L2 learning could be described using the regression equation below:

L2 learning=83.32+3.44 (Self-regulation)-1.04 (LLS)-.13 (L2/ ESL anxiety)

Input to Recommended Strategies in Second Language Teaching

Based on the findings, the present study has shown that self-regulation and LLS significantly impact L2 learning. However, the findings also confirm the degree of impact between the two independent variables differed in that self-regulation was shown in this study as directly proportional to L2 learning, while LLS proved indirectly proportional to L2 learning.

Since self-regulation is a process (Zimmerman, 2001, as cited in Gorgoz & Tican, 2020; Schunk, 2001, as cited in Ozer & Ispina, 2021) and LLS is behavior specific (Hismanoglu, 2000; Oxford, 2003, as cited in Pongsukvajchakul, 2021), teachers could also play a crucial role in facilitating learners to regulate language learning and in using LLS (Gaumer Erikson & Noonan, 2022, & Hawkins, 2018).

Teachers could help learners regulate their learning by giving feedback, collaborative work, and social modeling. (Broadbent & Fuller-Tyszkiewics, 2018; McInerney, 2008, as cited in Ozer & Ispina, 2021; Zimmerman, 2015; Zimmerman & Schunk, 2011). Teachers could help learners in mastering their skills, task, or goal orientations by motivating them and using new strategies (Tran & Phan Tran, 2021).

Similarly, Gaumer Erikson and Noonan (2022) have suggested guided collaborative learning and independent practice with feedback in teaching students how to regulate their learning. Providing guided collaborative learning allows learners to explore and understand various perspectives in a nonjudgemental setting. By giving students independent practice with feedback, teachers could assist learners in reaching their personal endeavors or mastering skills.

As for the use of LLS by learners, teachers can model how to utilize LLS (Canbay, 2020). Hawkins (2018), as cited in Oxford (2011), suggested the use of informed strategy instruction in which language teachers would name the strategy, demonstrate when and how to use it, and guide language learners to consciously reflect and evaluate if the strategy works, or should it be used in another task.

Conclusion

Several studies in EFL settings have indicated that self-regulation, LLS, and L2/ESL anxiety contribute to L2 learning. However, no studies have yet been conducted to determine which of the aforementioned variables would prove to be the strongest predictor of language learning in an ESL setting. To address this gap, the present study aimed to determine the relationship and attributive impact of self-regulation, LLS, and L2/ ESL anxiety on the L2 learning of Grade 11 students.

The findings showed that Grade 11 students had substantial self-regulation, which means they could plan, monitor, adjust, and reflect on their L2 learning. They also had high LLS used, meaning they could effectively utilize various LLS in learning English. Grade 11 students had medium-level intensity L2/ESL anxiety. They sometimes could avoid or feel uncomfortable using the English language.

Most participants were classified as having outstanding, excellent, and superior performances in their L2 learning. These findings showed that Grade 11 students could communicate in English in different scenarios.

As for the relationship of the aforementioned variables to L2 learning, the findings of the present study showed that L2 learning had a weak positive correlation with self-regulation. Language learning and L2/ESL anxiety had no significant relationship with L2 learning. Such relationship between self-regulation and L2 learning, as found in the present research, proved confirmatory of the findings of other studies. However, the correlative relationship between LLS and L2 learning and the relationship between L2/ESL anxiety and L2 learning showed contrary findings in EFL settings. The learning environment seems to have a critical role in L2 learning. Learners in EFL settings are exposed to the English language inside their language class only, which provides limited opportunities to use it. In comparison, learners in ESL settings, as in the present study, had greater exposure to the English language inside and outside their classroom with opportunities to use it in various settings. These limitations to the use of the English language could have affected the communication skills of EFL students, which may lead to anxiety and preferences in choosing a language learning strategy.

As for the attributive impact of the aforementioned variables, self-regulation and LLS significantly impacted L2 learning. However, in this research, the degree of the effect differed in that self-regulation positively improved L2 learning, while LLS negatively impacted L2 learning. ESL/L2 anxiety proved to have no significant impact on L2 learning. The study's findings are similar to other studies conducted in EFL settings, in which self-regulation showed a significant impact on L2 learning. However, the studies in the EFL setting indicated that LLS positively impacted L2 learning, and L2/ESL anxiety negatively contributed to L2 learning, which differed from the current research findings. This difference could be attributed to the learner's substantial self-regulating processes. Self-regulated learners chose a language learning strategy according to their preference and thereby regulated their affective factors, such as anxiety.

These findings confirmed the Social Cognitive Theory of Bandura, which highlighted the importance of individuals' self-system in regulating their thoughts, feelings, and actions in accordance with their learning environment. Similarly, Cognitive Theory placed importance on the active role of learners in the learning process. However, the findings of the present study constructively challenged Krashen's Affective Filter Hypothesis, in which L2/ESL anxiety played a crucial role in L2 learning.

The present study determined the correlative relationship and attributive impact of self-regulation, LLS, and L2/ESL anxiety on L2 learning. By doing so, it was able to identify the strongest predictor of L2 learning among the said variables. The study's findings suggest that self-regulation proved to be the strongest predictor of L2 learning among the aforementioned variables. Self-regulation is acquired and not inherent in an individual. Self-regulation is a learning process that teachers must nourish and continuously reinforce. By teaching students how to regulate their L2 learning, teachers can improve the L2 learning performance of the learners. Self-regulation is also strongly correlated with LLS. Teachers can also improve how learners use LLS by teaching them how to plan, monitor, adjust, and reflect on their L2 learning.

The present study had a few inevitable limitations. It only included 447 Grade 11 students from a single university in one ESL country. Another limitation of the present study was that it only included quantitative data. The present study was not able to obtain in-depth information. Therefore, the present study's findings should be cautiously generalized to different settings and populations.

Recommendations

Based on the findings, conclusions, and limitations of the present study, the following recommendations are given:

For Second Language Teachers

Second-language teachers should use strategies and create activities to help students become self-regulated learners. Teachers can help students in using appropriate LLS by modeling. Teachers should provide corrective feedback by communicating clearly to language learners the language performance standards they need to acquire

For Future Researchers

To better understand the contribution of self-regulation, LLS, and L2/ESL anxiety on L2 learning, conducting mixed method research would provide a deeper understanding of the role of the aforementioned variables in L2 learning. The present study also recommends conducting a similar study in a different ESL setting, including a larger population from a wider demographic variety.

References

Adigüzel, A., & Orhan, A. (2017). The relation between English learning students' levels of self-regulation and metacognitive skills and their English academic achievements. *Journal of Education and Practice, 8*(9), 115–125.

Ahsanah, F. (2020). Gender and age differences in the use of LLS by junior and senior high school students. *Journal of English Teaching, 6*(1), 50–59.

Akdogan, D., Velipasaoglu, S., & Musal, B. (2016). Oz duzenlemeli ogrenme [Self-regulated learning]. *The Journal of Pamukkale Medicine, 9(*3), 254-260. doi: 10.5505/ptd.2016.05657.

Aktan, S. (2012). *Öğrencilerin akademik başarısı, öz düzenleme becerisi, motivasyonu ve öğretmenlerin öğretim stilleri arasındaki ilişki [The relationship between the academic success, self-regulating learning skills, and motivations of students and the teaching styles of teachers]*. (Unpublished doctoral dissertation). Balıkesir Üniversitesi, Balıkesir.

Al Fadda, H. (2019). The relationship between self-regulations and online learning in an ESL blended learning context. *English Language Teaching, 12*(6), 87–93.

Al-Khaza'leh, B. A. (2019). Exploring LLS of Saudi EFL learners at Shaqra University, Saudi Arabia. *Advances in Language and Literary Studies, 10*(4), 63–71.

Al-Khotaba, H. H. A., Alkhataba, E. H. A., Abdul-Hamid, S., & Bashir, I. (2019). Foreign language speaking anxiety: A psycholinguistic barrier affecting speaking achievement of Saudi EFL learners. *Arab World English Journal, 10*(4), 313–329.

Alonso Alonso, R. (2018). *Speaking in a Second Language*. Philadelphia: John Benjamins Publishing Company.

Ardasheva, Y., Wang, Z., Adesope, O. O., & Valentine, J. C. (2017). Exploring effectiveness and moderators of language learning strategy instruction on second language and self-regulated learning outcomes. *Review of Educational Research, 87*(3), 544–582. https://doi:10.3102/0034654316689135

Aydin, S., & Ustuk, Ö. (2020). A descriptive study on foreign language teaching anxiety. *International Online Journal of Education and Teaching, 7*(3), 860–876.

Aydın, S. & Zengin, B. (2008). Yabancı dil öğreniminde kaygı: Bir literatür özeti [Anxiety in foreign language learning]. *Journal of Language and Linguistic Studies, 4*(1), 81-94.

Bai, B., & Wang, J. (2020). The role of growth mindset, self-efficacy and intrinsic value in self-regulated learning and English language learning achievements. *Language Teaching Research.* https://doi.org/10.1177/1362168820933190

Baclig, C. E. (2020, November 20). Philippines drops further in global English proficiency rankings | Inquirer News. *INQUIRER.Net*. https://newsinfo.inquirer.net/1362951/philippines-drops-further-in-global-english-proficiency-rankings#ixzz7KVYU0c37

Balci, Ö. (2017). An investigation of the relationship between LLS and learning styles in Turkish freshman students. *English Language Teaching, 10*(4), 53–61.

Balci, Ö., & Ügüten, S. D. (2018). The relationship between EFL learners' language learning strategy use and achievement. *International Education Studies, 11*(2), 1–12.

Bailey, F., & Fahad, A. K. (2021). Krashen Revisited: Case study of the role of input, motivation and identity in second language learning. *Arab World English Journal*, 12(2), 540–550. https://dx.doi.org/10.24093/awej/vol12no2.36

Berowa, AM. (2018). Level of language anxiety toward English: A sample from Davao del Norte. *The Online Journal of New Horizons in Education*, *8*(3)

Boekaerts, M., & Cascallar, E. (2006). How far have we moved toward the integration of theory and practice in self-regulation? *Educational Psychology Review, 18*, 199-210. doi:10.1007/s10648-006-9013-4

Boekaerts, M., Pintrich P. R., & Zeidner, M. (2005). Handbook of Self-Regulation. Academic Press.

Bosmans, D., & Hurd, S. (2016). Phonological attainment and foreign language anxiety in distance language learning: A quantitative approach. *Distance Education, 37*(3), 287–301. https://doi:10.1080/01587919.2016.1233049

Boydak, A. (2008). *Öğrenme stilleri [Learning styles]*. Beyaz Yayınları.

Broadbent J., Fuller-TyszkiewicsM., (2018). Profiles in self-regulated learning and their correlates for online and blended learning students. *Educational Technology Research and Development, 66*(6), 1435-1455. http://dx.doi.org/10.1007/s11423-018-9595-9

Brown, H. H. (2000). *Principles of language learning and teaching* (4th ed.). White Plains, NY: Longman.

Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing.*Applied Linguistics*, 1, 1–47.

Canbay, F. (2020). The relationship between self-regulation and use of LLS in secondary school students. *PASAA: Journal of Language Teaching and Learning in Thailand, 60*, 1–22.

Carroll, J. (1977) *Characteristics of successful second language learners.* In M. Burt, H. Dulay, and M. Finnochiaro (Eds.), Viewpoints on English as a Second Language. Regents, pp. 1-7.

Cesur, M. O. (2008). *Üniversite hazırlık sınıfı öğrencilerinin yabancı dil öğrenme stratejileri, öğrenme stili tercihi ve yabancı dil akademik başarısı arasındaki açıklayıcı ve yordayıcı ilişkiler örüntüsü [A model explaining and predicting the relationship between university prep class students' LLS, learning styles and academic success in foreign language]*. (unpublished doctoral dissertation). Yıldız teknik üniversitesi, istanbul.

Chen, M. L. (2014). Age differences in the use of LLS. *English Language Teaching, 7*, 144-151. https://doi.org/10.5539/elt.v7n2p144

Cheng, Y. S., Horwitz, E. K. & Shallert, D. L. (1999). Language anxiety: Differentiating writing and speaking components. *Language Learning, 49*, 417–446.

Choi, Y., Zhang, D., Lin, C.-H., & Zhang, Y. (2018). Self-regulated learning of vocabulary in English as a foreign language. *Asian EFL Journal Quarterly, 20*(1), 54-82.

Chomsky, N. (2006). *Language and mind.* Cambridge University Press.

Cobb, R. (2003). *The relationship between self-regulated learning behaviors and academic performance in web-based courses* (Unpublished doctoral thesis). Virginia State University.

Cohen, A. D. (1999). *Strategies in learning and using a second language*. London: Taylor & Francis Group.

Cohen, A. (2003). The Learner's Side of Foreign Language Learning: Where Do Styles, Strategies, and Tasks Meet?. *Iral-international Review of Applied Linguistics in Language Teaching - IRAL-INT REV APPL LINGUIST. 41*. 279-291. 10.1515/iral.2003.013.

Department of Education. (2017). *K to 12 Basic Education Curriculum-Communication Skills*. Pasig City.

Demir, A. N., & Zaimoglu, S. (2021). The relationship between foreign language anxiety and decision-making strategies among university students. *Journal of Language and Linguistic Studies, 17*, 18–32.

Demirdaş, O. & Bozdoğan, D. (2013). Hazırlık sınıflarında öğrenim gören yabancı dil öğrencilerinin yabancı dil endişeleri ve başarıları [Foreign language anxiety and performance of language learners in preparatory classes]. *Turkish Journal of Education, 2*(3), 4-13.

Embi, M.A., Long, J., & Hamzah, M. I. (2001). LLS employed by secondary school students in Malaysia. *Jurnal Pendidikan*, 26, 3-20.

Ellis, R. (1994). *The study of second language acquisition*. New York: Oxford University Press.

Erdogan, T. (2018). The investigation of self-regulation and LLS. *Universal Journal of Educational Research, 6*(7), 1477–1485.

Fukuda, A. (2018). The Japanese EFL learners' self-regulated language learning and proficiency. *Journal of Pan-Pacific Association of Applied Linguistics, 22*(1), 65-87. https://doi.org/10.25256/PAAL.22.1.4

Gan, Z., Liu, F., & Yang, C. C. R. (2020). Student-teachers' self-efficacy for instructing self-regulated learning in the classroom. *Journal of Education for Teaching, 46*(1), 120-123. https://doi.org/10.1080/02607476.2019.1708632

Gaskill, P. J., & Woolfolk-Hoy, A. (2002). Self-efficacy and self-regulated learning: The dynamic duo in school performance. In J. Aronson and D. Cordova (Eds.), *Improving education: Classic and contemporary lessons from psychology* (pp.183-206). Academic Press.

Gaumer Erickson, A. S. & Noonan, P. (2016). *Research Guide: Self-Regulation. College & Career Competency Framework*. http://www.cccframework.org

Gaumer Erickson, A. S. & Noonan, P. M. (2018). Self-Regulation performance-based observation. Derived from Noonan, P. M. & Gaumer Erickson, A. S. (2018). College and Career Competency Sequence. *College & Career Competency Framework*. http://cccframework.org

Gaumer Erickson, A. S. & Noonan, P. M. (2021). Self-regulation assessment suite: Technical report. College & Career Competency Framework. http://cccframework.org

Gaumer Erickson, A. S. & Noonan, P. M. (2022). *Teaching Self-regulation*. Solution tree press

Gaumer Erickson, A. S., Monroe, K., Soukup, J., & Noonan, P. M. (2018). Self-regulation formative questionnaire. In P. Noonan & A. Gaumer Erickson. *The skills that matter: Teaching interpersonal and intrapersonal competencies in any classroom* (p. 177–178). Corwin.

Gawi, E. M. K. (2020). The impact of foreign language classroom anxiety on Saudi male students' performance at Albaha University. *Arab World English Journal, 11*(2), 258–274.

Gorgoz, S., & Tican, C. (2020). Investigation of middle school students' self-regulation skills and vocabulary learning strategies in foreign language. *International Journal of Educational Methodology, 6*(1), 25–42.

Hawkins, M. W. (2018). Self-directed learning as related to learning strategies, self-regulation, and autonomy in an English language program: A local application with global implications. *Studies in Second Language Learning and Teaching, 8*(2), 455–469.

Hiller, S. E. (2017). *Mastering Science with Metacognitive and Self-Regulatory Strategies: A Teacher-Researcher Dialogue of Practical Applications for Adolescent Students*. Nova.

Hirvela, A. (2007). Computer-mediated communication and the linking of students, text, and author on an ESL writing course listserv. *Computers and Composition, 24*(1), 36-55. https://doi.org/10.1016/j.compcom.2006.12.004

Hismanoglu, M. (2000). LLS in foreign language learning and teaching. *The Internet TESL Journal, 6*(8).

Horwitz, E. K. (1986). Preliminary evidence for the reliability and validity of a foreign language anxiety scale. *TESOL Quarterly*, 20(10), 559-562.

Horwitz, E. K. & Young, D. J. (Eds.). (1991*). Language anxiety: From theory and research to classroom implications*. Prentice Hall.

Horwitz, E. K, Horwitz, M. B., and Cope, J. A. (1986). Foreign language class anxiety. The *Modern Language Journal, 70*: 125-132.

Horwitz, M. B., Horwitz, E. K., & Cope, J. (1991). *Foreign language classroom anxiety*. In E. K. Horwitz & D. J. Young (Eds.), Language anxiety: From theory and research to classroom implications (pp. 27-36). Prentice Hall.

Horwitz, E. K. (2010). Foreign and second language anxiety. *Language Teaching, 43*(2), 154–167. https://doi.org/10.1017/s026144480999036x

Hrbackova, K., & Safrankova, A. P. (2016). Self-regulation of behaviour in children and adolescents in the natural and institutional environment. *Procedia-Social and Behavioral Sciences*, 217, 679–687. doi: 10.1016/j.sbspro.2016.02.119.

Hromalik, C. D., & Koszalka, T. A. (2018). Self-regulation of the use of digital resources in an online language learning course improves learning outcomes. *Distance Education, 39*(4), 528–547.

Hsiao, T.-Y., & Oxford, R. L. (2002). Comparing theories of LLS: A confirmatory factor analysis. *The Modern Language Journal, 86*(3), 368-383. https://doi.org/10.1111/1540-4781.00155

Hymes, D. (1971). Sociolinguistics and the ethnography of speaking. In E. Ardener (Ed.), *Social anthropology and language* (pp. 47–93). Routledge

Karatas, H., Balyer, A. & Alci, B. (2015). An investigation of undergraduates' LLS. *Procedia - Social and Behavioral Sciences,* 197, 1348-1354.

Kauffman, D. F. (2004). Self-regulated learning in web-based environments: Instructional tools designed to facilitate cognitive strategy use, metacognitive processing and motivational beliefs. *J. Educational Computing Research*, *30*(1-2), 139-161. doi.org/10.2190/ax2d-y9vm-v7px-0tad

Kayaoğlu, M. N. (2013). Poor and good learners' language beliefs and their influence on their language learning strategy use. *Novitas-ROYAL (Research on Youth and Language), 7*(1), 36- 54.

Krashen, S. (1981). *Second language acquisition and second language learning*. Pregarnon Press

Krashen, S. D. (1985). *Applications of psycholinguistic research to the classroom*. James, C. (Ed.), Practical applications of research in foreign language teaching. National Textbook Co.

Koteková, D. (2013). Confidence in the fundamental role in learning a foreign language. *Journal on Efficiency and Responsibility in Education and Science, 6*(2), 84–104. https://doi.org/10.7160/eriesj.2013.060203

Liu, M. (2006). Anxiety in Chinese EFL students at different proficiency levels. *System*, 34(3), 301-316. https://doi. org/10.1016/j.system.2006.04.004

Liu, M., & Jackson, J. (2008). An exploration of Chinese EFL learners' unwillingness to communicate and foreign language anxiety. *Modern Language Journa*l, 92(1), 71-86. https://doi.org/10.1111/j.1540-4781.2008.00687.x

Mahib ur Rahman, M. (2020). EFL learners' LLS: A Case Study at Qassim University. *Advances in Language and Literary Studies, 11*(5), 6–11.

Marashi, H., & Assgar, F. (2019). EFL teachers' effective classroom management and learners' anxiety and learning strategies. *Iranian Journal of Language Teaching Research, 7*(2), 65–82.

McInerney, D. M. (2008). The motivational roles of cultural differences and cultural identity in self-regulated learning. In D. H. Schunk & B. J. Zimmerman (Eds.), *Motivation and self-regulated learning: Theory, research, and applications* (p. 369–400). Lawrence Erlbaum Associates Publishers.

MacIntyre, P. D. & Gardner, R. C. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning, 44,* 283-305.

Mohammadipour, M., Rashid, S. M., Rafik-Galea, S., & Thai, Y. N. (2018). The relationships between LLS and positive emotions among Malaysian ESL undergraduates. *International Journal of Education and Literacy Studies, 6*(1), 86–96.

O'Malley, J. M., Chamot, A. U., Stwener-Manzanares, G., Kupper, L. & Russo, R. (1985). Learning strategy applications with students of English as a second language. *TESOL Quarterly,* 19(3): 557-584.

O'Malley, J. M., & Chamot, A. U. (1990*). Learning strategies in second language acquisition.* Cambridge University Press.

O'Malley, J. M., O'Malley, M. J., Chamot, A. U., & O'Malley, J. M. (1990). *Learning strategies in second language acquisition*. Cambridge University Press.

Öner, G. & Gedikoğlu, T. (2007). Ortaöğretim öğrencilerinin İngilizce öğrenimlerini etkileyen yabancı dil kaygısı [Foreign language anxiety affecting learning English of secondary school students]. *Gaziantep Üniversitesi Sosyal Bilimler Dergisi, 6*(2), 144-155.

Ortega, L. (2014). *Understanding second language acquisition*. Routledge.

Oruç, E., & Demirci, C. (2020). Foreign Language Anxiety and English Language Achievement in Higher Education: The Mediating Role of Student Engagement. *Online Submission, 7*(3), 199–212.

Oxford, R. L. (1989). Use of LLS: A synthesis of studies with implications for strategy training. *System, 17*(2), 235-247. https://doi.org/10.1016/0346-251X(89)90036-5

Oxford, R. L. (1990). *LLSs: what every teacher should know* New York: Newbury House Harper Collins.

Oxford, R. L. (2001). Language learning styles and strategies. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language* (pp. 359-366). Heinle&Heinle.

Oxford, R. L. (2003). Language learning styles and strategies: an overview. *GALA, 1*-25.

Ozer, O., & Ispinar Akçayoglu, D. (2021). Examining the roles of self-efficacy beliefs, self-regulated learning and foreign language anxiety in the academic achievement of tertiary EFL learners. *Participatory Educational Research, 8(*2), 357–372.

Park, G. (2011). The validation process of the SILL: a confirmatory factor analysis. *English Language Teaching, 4*, 21-27.

Pintrich, P. R. (1999). The role of motivation in promoting and sustaining self-regulated learning. *International Journal of Educational Research, 31*(6), 459-470. doi.org/10.1016/s0883-0355(99)00015-4

Pintrich, R. R. (2000). The role of goal orientation in self-regulated learning. In M. Boekaerts, P. R. Pintrich & M. Zeidner (Eds.), *Handbook of self- regulation* (pp. 451- 501). Academic Press.

Phillips, E. (1992). The effects of language anxiety on students' oral test performance and attitudes. *The Modern Language Journal. 76*, (1), 14-26.

Prokop, M. (1989). *Learning strategies for second language users: An analytical approach with case studies*. The Edwin Mellen Press.

Pongsukvajchakul, P. (2021). LLS used in English writing by Thai undergraduate students. *Shanlax International Journal of Education, 9*(2), 54–59.

Rahimi, M. & Katal, M. (2012). Metacognitive strategies awareness and success in learning English as a foreign language: an overview. *Procedia-Social and Behavioral Sciences*, 31, 73- 81.

Reyes, C. U. G. (2022). Dealing with the learners' language anxiety: a pedagogical inquiry. *British Journal of Teacher Education and Pedagogy*, *1*(1), 47–53. https://doi.org/10.32996/bjtep.2022.1.1.5

Rubin, J. (1987). Learner strategies: theoretical assumptions, research history and typology. *International Review of Applied Linguistics* 10: 209-230.

Salam, U., Sukarti, & Arifin, Z. (2020). An analysis of learning styles and learning strategies used by a successful language learner. *Journal of English Teaching, 6*(2), 111–121.

Sie, S. (2021). *Teachers' understandings of learning strategies and their perspectives of teaching LLS: a comparative study between ESL and EFL teachers* (Order No. 28867300). Available from ProQuest One Academic. (2617268525). https://www.proquest.com/dissertations-theses/teachers-understandings-learning-strategies-their/docview/2617268525/se-2

Scovel, T. (1978). The effect of affect on foreign language learning: A review of the anxiety research. *Language Learning, 28*(1), 129–142. https://doi.org/10.1111/j.1467-1770.1978.tb00309.x

Schunk, D. H. (2001). Social cognitive theory and self-regulated learning. In B. J. Zimmerman & D. H. Schunk (eds.), *Self-regulated learning and academic achievement: Theoretical perspectives* (pp. 125–151). Lawrence Erlbaum Associates Publishers.

Schunk, D. H., & Pajares, F. (2010). Self-Efficacy beliefs. In *Elsevier eBooks* (pp. 668–672). https://doi.org/10.1016/b978-0-08-044894-7.00620-5

Schütz, R. E. (2019). *Stephen Krashen's theory of second language acquisition*. https://www.sk.com.br/sk-krash-english.html

Seker, M. (2016). The use of self-regulation strategies by foreign language learners and its role in language achievement. *Language Teaching Research, 20*(5), 600-618. https://doi.org/10.1177/1362168815578550

Shabani, M. B. (2012). Levels and sources of language anxiety and fear of negative evaluation among Iranian EFL learners. *Theory and Practice in Language Studies, 2*(11), 2378-2383.

Shing, L. S., & Rameli, M. R. M. (2020). The influence of self-regulation towards academic achievement in English among Malaysian upper primary students. *Universal Journal of Educational Research, 8*(5A), 1-11. http://doi.org/10.13189/ujer.2020.081901

Sparks, R. L., & Ganschow, L. (1991). Foreign language learning differences: Affective or native language aptitude differences? *The Modern Language Journal, 75*(1), 3-16.

Spielberger, C. D. (1983). *Manual for the State-Trait Anxiety Inventory*. Consulting Psychologists Press.

Stern, H. H. (1992). *Issues and options in language teaching* (edited posthumously by Patrick Allen & Birgit Harley). Oxford University Press.

Sutarsyah, C. (2017). An analysis of student's speaking anxiety and its effect on speaking performance. *Indonesian Journal of English Language Teaching and Applied Linguistics, 1*(2), 143-152. https://doi.org/10.21093/IJELTAL.V1I2.14

Tanveer, Muhammad. (2008). *Investigation of the factors that cause language anxiety for ESL/EFL learners in learning speaking skills and the influence it casts on communication in the target language*. University of Glasgow, Scotland.

Thompson, A., Simonsen, M., and Hargrave, C. (1996). *Educational technology a review of the research.* Association for Educational Communications and Technology: Washington

Tieocharoen, W., & Rimkeeratikul, S. (2019). Learning strategies and teaching methods in Thai and Vietnamese universities. *Arab World English Journal, 10*(3), 99–112.

Toth, Z. (2010). *Foreign language anxiety and the advanced language learner : A study of Hungarian students of English as a foreign language*. UK: Cambridge Scholars Publishing.

Toubot, Abdalaziz & Hock Seng, Goh & Abdullah, Azizah. (2018). Examining levels and factors of speaking anxiety among EFL Libyan English undergraduate students. *International Journal of Applied Linguistics and English Literature. 7*. 47. 10.7575/aiac.ijalel.v.7n.5p.47.

Tran, T. Q., & Phan Tran, T. N. (2021). Vietnamese EFL high school students' use of self-regulated LLS for project-based learning. *International Journal of Instruction, 14(*1), 459–474.

Tuncel, F., Yapici, A., Akman, P., Elçi, A. C., Demiroglari, B., & Kutlu, M. O. (2020). Foreign language anxiety of adolescent students. *African Educational Research Journal, 8*, 164–169.

Üredi, I. (2005). *Algılanan anne baba tutumlarının ilköğretim 8. sınıf öğrencilerinin öz-düzenleyici öğrenme stratejileri ve motivasyonel inançları üzerindeki etkisi [The contributions of perceived parenting styles to 8th class primary school students' self-regulated learning strategies and motivational beliefs]*. (Unpublished doctoral dissertation). Yıldız Teknik Üniversitesi, İstanbul.

Winne, P. H. (1995). Inherent details in self-regulated learning. *Educational Psychologist,* 30, 173-188.

Wu, Y.L. (2008). LLS used by students at different proficiency levels. *Asian EFL Journal, 10*(4), 75–95.

Yabukoshi, T. (2018). Self-regulation and self-efficacy for the improvement of listening proficiency outside the classroom. *Language Learning Journal.* https://doi.org/10.1080/09571736.2018.1472626

Yelgeç, N., & Dagyar, M. (2020). A structural equation modelling of middle school students' metacognitive awareness, self-efficacy beliefs and foreign language learning anxiety. *International Journal of Contemporary Educational Research, 7*(1), 127–148.

Yılmaz, C. (2010). The relationship between LLS, gender, proficiency and self-efficacy beliefs: a study of ELT learners in Turkey. *Procedia Social and Behavioral Sciences, 2*, 682-687.

Zarei, A. A., & Baharestani, N. (2014). Language learning strategy use across proficiency levels. *Journal on English Language Teaching, 4*(4), 27–38.

Zarei, A. A., & Rahmani, H. (2015). The relationship between Iranian EFL learners' beliefs about language learning and language learning strategy use. *Journal on English Language Teaching, 5*(1), 1–10.

Zeidner, M., Boekaerts, M., & Pintrich, P. R. (2000). Self-regulation: Directions and challenges for future research. In M. Boekaerts., P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 750-768). Academic Press.

Zheng, Y. (2008). Anxiety and second/foreign language learning revisited. *Canadian Journal for New Scholars in Education, 1*(1), 1-12.

Zheng, Y., & Cheng, L. (2018). How does anxiety influence language performance? From the perspectives of foreign language classroom anxiety and cognitive test anxiety. *Language Testing in Asia, 8*(1). https://doi.org/10.1186/s40468-018-0065-4

Zimmerman, B. J. (1986). Becoming a self-regulated learner: Which are the key subprocesses? *Contemporary Educational Psychology, 11*(4), 307–313.

Zimmerman, B.J. (1990*).* Self-regulated learning and academic achievement: An overview*, Educational Psychologist*, 25 (1), 3-17.

Zimmerman, B. J. (2001). Theories of self-regulated learning and academic achievement: An overview and analysis. In Zimmerman, B. J., & Schunk, D. H. (Eds.), *Self-regulated learning and academic achievement* (pp. 1-33). Lawrence Erlbaum Associates Inc.

Zimmerman, B. J. (2008). Investigating self-regulation and motivation: Historical background, methodological developments, and future prospects. *American Educational Research Journal*, 45, 166–183. doi:10.3102/0002831207312909

Zimmerman, B. J. (2015). Self-regulated learning: theories, measures, and outcomes. *Elsevier EBooks*, 541–546. https://doi.org/10.1016/b978-0-08-097086-8.26060-1

Zimmerman, B. J., & Schunk, D. H. (2011). Self-regulated learning and performance: An introduction and an overview. In B. J. Zimmerman & D. H. Schunk (Eds.), *Handbook of self-regulation of learning and performance* (pp. 1–12). Routledge.