

## Self-regulation as Correlates to Students' Voices and Achievement in TOEFL® Score

**Monika Dini Kurniasari**

Sanata Dharma University, Indonesia

Email: [monikadini.md@gmail.com](mailto:monikadini.md@gmail.com)

### ABSTRACT

Students' engagement and persistence in test preparation require their use of self-regulated learning strategies to negate distraction and facilitate good preparation. This research aimed to investigate students' self-regulation strategies when taking a TOEFL preparation course, by measuring their attitudes towards the course and analyzing the correlation between their pre-test and progress test scores. The data collected comprised self-reported answers from a Motivated Strategies for Learning Questionnaire and the scores of a pre-test and progress test taken by the students during the course. The students were cognizant that hard work affected learning performance, valuing in particular overcoming difficult tasks or continuing to learn even when performance lagged. A strong positive correlation was also found between pre-test and progress test scores ( $r = 0.8422$ ), indicating high academic performance in the students. These findings emphasize the importance of developing students' methods of learning and practice. Students should be empowered to become regulated-learners, and should be made more aware of different self-regulated learning strategies to better evaluate, regulate, and improve their own performance.

**Keywords:** *SRL; TOEFL test; MSLQ*

### INTRODUCTION

The concept of self-regulated learning (SRL) presents a broad outlook on the process of learning. SRL embraces the intrinsic need to attain goals related to learning as well as achievement by working actively. Moreover, the active work should proceed by implementing strategies, thus leading to self-initiated and regulated actions. Several studies have been conducted on different predictors of academic performance (Smrtnik-Vitulic & Maya, 2011: 141). As a result, numerous factors have been researched and no conclusive evidence has been found of an all-inclusive prediction of academic performance.

Zimmerman and Martinez-Pons (1990: 58) suggest that components of self-regulation, such as cognitive strategy acquisition, should be taught from the early elementary school years. It is believed that the metacognitive benefits of comprehensive self-regulatory training become significant during

the middle school years and thereafter. Learners' stage from middle school on can be categorized as independent learning, which is an important part of self-regulated learning and becomes the answer for preparing students to be successful learners in learning environments.

This paper examines the relationship between self-regulated learning and Test of English as a Foreign Language (TOEFL) scores across educational levels. The positive role of self-regulated learning has been demonstrated in various studies, in terms of both its motivational and learning strategy aspects. Research into the motivational aspect of self-regulated learning normally has shown that academic (in this research, TOEFL) achievement was associated with internal motivation, as confirmed by Pintrich, Schunk, and Meece (2008: 5). A key point is that motivation bears a reciprocal relation to learning and performance; that

is, motivation influences learning and performance and what the students do and learn influences their motivation. When students attain learning goals, their attainment conveys to them that they possess the requisite capabilities for learning. These beliefs motivate them to set new, more challenging goals.

In this research, the ability of SRL was investigated, as measured by the Motivated Strategies for Learning Questionnaire (MSLQ), to predict academic achievement among students in the Business Communication Center (BCC) or Pelatihan dan Penelitian Ekonomi Bisnis (P2EB) of the Faculty of Economics and Business, Universitas Gadjah Mada. Thus, the hypothesis related to students' voices in a TOEFL preparation course is:

**Hypothesis 1:** There is a positive tendency of TOEFL preparation students towards their learning orientations and their use of different learning strategies.

In this research, the positive role of self-regulated learning can be reflected in students' scores in the pre-test and progress test in a TOEFL preparation course. The hypothesis related to the students' development in the TOEFL preparation course is:

**Hypothesis 2:** There is positive progress in the students' TOEFL test scores during the course.

### **The Concept of Self-Regulated Learning**

In this section, the conceptual basis of self-regulation is not restricted to a specific theory or group of theories. This section is divided into three parts. The first part presents some theories of self-regulated learning; the second deals with testing, especially TOEFL; and the third part discusses theories about the MSLQ.

#### ***Self-Regulated Learning***

Zimmerman (1996: 2) defines self-regulation as self-generated thoughts, feelings, and actions intended to attain specific educational goals, such as analyzing a reading assignment, preparing to take a test, or writing a paper. Learners should manage their self-regulation in order to have a better understanding. Wolters (2003: 63) argues that SRL can be described as a self-directed process by which learners transform mental abilities into academic skills. Zimmerman (1996: 22) further elaborates, saying, "I believe that learning is not something that can be done for students; rather it is something that is done by them."

Mbato (2013: iii) found that teachers' increased capacity to implement the approach enabled students

to grow in their capability to regulate both affective states (i.e. feelings, attitudes, support, motivation, volition, attribution, and self-efficacy) and strategies to meet the English language learning demands. For this to happen, however, teachers need to recognize that self-regulated learning develops at different rates in students and in a culture of collaboration rather than competition. Furthermore, teachers need to be aware of learners' possible end-of-course objectives and to think of how they might continue their learning independently after the course. All this is useful exposure, and should be reviewed, together with the classroom that the course materials are likely to generate, to see how far the total exposure meets the learners' needs. This may result in the development of self-regulatory skill.

Zimmerman (1996: 10) states, "A strategy becomes powerful when its implementation is self-monitored and its outcomes are self-evaluated favorably." It is argued that making practice a regular part of students' daily activities is designed to ensure that the developed skills become automatic. To manage these self-regulated learning experiences effectively, learners have to make self-directed choices of the actions they will carry out or the strategies they will bring to achieve their goals (Pintrich, 2004). Then, they will become learning habits when learners use them often in their learning strategies (Zimmerman, 1996:10). Self-regulated learning strategies have the potential to become research skills and habits through repetitive use and behavior. To acquire mastery of optimal researching techniques, students need to make multiple efforts to reveal the strategic components that are responsible for successes as well as those in need of further improvement. Self-regulation occurs when a student (as an individual) uses their own processes to strategically motivate, monitor, and control their behavior and the environment. In addition, the student can learn how to control their emotions and anxiety in ways that improve their learning. The construct of SRL encapsulates the adaptability of each learner in expressing his or her unique learning approaches and processes in order to achieve personal goals and outcomes (Ultanir, 2012). Furthermore, the attainment of educational goals, such as improved academic attendance, test scores, and motivation, is not exclusively under the control of teachers and schools. Setting and keeping track of the goal until it is met is important. Moreover, self-regulated learners see themselves as having the competence, self-efficacy and the independency in

learning. As agents of their own thinking, students construct their understanding of themselves and the world, they control their thoughts and behaviors, and they monitor the consequences of them. Students explore self-awareness, self-determination, and self-direction. Therefore, self-regulated learning is a good target for student intervention, especially for TOEFL test preparation students, since these students should have the capacity to learn to become self-regulated learners.

### ***English Language Education and TOEFL in Indonesia: A Brief Overview***

English has gained priority over other foreign languages (e.g. Mandarin, French, and Japanese) in the Indonesian education system, starting from the primary level to the tertiary level. Initially, English was an *additional* subject at the primary level, but since the implementation of the 2013 curriculum, the language has been aligned as a *local content* subject at the primary level (Ministerial Decree No. 159 Year 2014 About the Evaluation of 2013 Curriculum).

Recently, several private schools started implementing bilingual education, teaching a range of subjects (e.g. Maths, Physics, Biology, and Chemistry) in English. In addition, some (high class) tertiary institutions have begun using English as the medium of instruction in their courses. Marwan (2016: 264) reported that the results of the English language proficiency test (TOEFL prediction test) taken by fresh SMA/SMK graduates (N = 1042), collected in 2015 by a language center in Indonesia, showed that the majority of them demonstrated a poor level of English, with an average score of 353. Such a score indicates that these graduates did not successfully acquire the ability to communicate in English when they were at the lower secondary (SMP) and upper secondary (SMA/SMK) levels. Marwan (2016) further maintained that the English proficiency of these fresh graduates may paint a true picture of the English performance of similar graduates across the country.

The past five years have also seen the introduction of more demanding English proficiency requirements for graduates. For example, in some universities, such as Universitas Gadjah Mada and Sanata Dharma University, undergraduate students are now required to pass standardized tests of English proficiency (AcEPT and TKBI, respectively) prior to graduation. The minimum scores required to pass English assessments vary according to local tertiary

institutions and training programs; however, would-be non-English major graduates must pass with relevant scores in accordance with the given university's policy. In brief, English language proficiency has been richly promoted in the age of education reform in Indonesia.

### ***TOEFL***

According to Pyle (1996: 4) TOEFL, the Test of English as a Foreign Language, is probably the most frequently used examination in the admission process of foreign students to colleges and universities in the United States. Nowadays, it is also becoming a standardized test to measure the English language ability of non-native speakers wishing to enroll in English-speaking universities out of the United States, as well. The test is accepted by many English-speaking academic and professional institutions. Furthermore, Lim & Kurtin (1984: 1) describe TOEFL as a standardized test (the test was administered (firstly)) in Princeton, New Jersey, U.S.A. The test is used by many American and Canadian colleges and universities as part of their admission requirements for foreign students whose native language is not English. It is the student's responsibility to find the admission requirements of any school to which they wish to apply. If passing a TOEFL test is required, a student should plan on taking the test as soon as possible to allow time for these schools to receive and evaluate their score.

In this research, teaching learning processes in TOEFL test preparation is not merely the activity of transferring knowledge, but also broadening learners' repertoire and strategies in learning. TOEFL instructors, however, are not the center of learning. They need to expose less conventional approaches, as they are about to scaffold learners' understanding in TOEFL skills. Recognizing that learners may experience initial difficulties when engaging in independent learning, they should devote time to talking to learners about making learning plans that might increase the potential for self-regulation to develop. In this research, students were encouraged to experiment with their own ideas about learning the English language and this broadened their repertoire of strategies and approaches to TOEFL.

In Universitas Gadjah Mada's Faculty of Economics and Business, TOEFL-like tests are administered to prepare students, namely a pre-test, progress test, and post-test. There are three of these tests per TOEFL preparation course. In this research, TOEFL-like test refers to the TOEFL ITP, which

is standardized by the Educational Testing Service (ETS). The TOEFL ITP Assessment Series enables colleges, universities, English language learning programs, and other organizations to administer a convenient, affordable, and reliable assessment of English language skills. The TOEFL ITP tests can be used for placement, progress, evaluation, exit testing, and other situations. In this ITP assessment, students are tested for their proficiency in three different skills, these being reading comprehension, listening comprehension, and structure and written expression.

**Motivated Strategies For Learning Questionnaire (MSLQ)**

In Pintrich and his colleagues’ (Garcia and Pintrich, 1994; Pintrich and DeGroot, 1990) model, there are essentially two important aspects of self-regulated learning, namely motivational strategies and learning strategies. The motivational strategies are those students use to cope with stress and emotions that are sometimes generated when they try to overcome failures and become good learners, while the learning strategies are methods that students use to improve their understanding, integration, and retention of new information in the learning process. A self-reporting measure called the Motivated Strategies for Learning Questionnaire (MSLQ) was developed (Pintrich et al., 2014) to tap three motivational strategy components (value, expectancy, and affect) and two learning strategy components (cognitive and metacognitive strategies, and resource management strategies).

Zimmerman (2008) affirms that one of the best instruments to evaluate SRL is the MSLQ as a measure of self-regulation. The MSLQ was developed to assess and validate students’ use of SRL strategies. It can assess a student’s motivation, research habits, and learning skills during the TOEFL preparation course. The motivation section is based on three general motivational dimensions: expectancy, value, and affect. Expectancy indicates the student’s self-efficacy in terms of their belief in their ability, expectancy of success, judgment of ability to perform a task, and confidence in their ability to carry out a task. The value component focuses on why students engage in the specific academic tasks, while the affect component determines the student’s level of test anxiety.

Keyser and Viljoen (2013: 90) elaborate that the learning habits and skills section is based on three dimensions, namely cognitive strategies, metacognitive strategies and resource management.

Cognitive strategies refer to the student’s use of strategies in the processing of information. Metacognitive control strategies refer to strategies used by students in controlling and regulating their own cognition, such as planning, monitoring, and regulating learning activities. Resource management, meanwhile, comprises the strategies used in controlling resources like time, an appropriate place to research, regulation of effort, peer learning, and seeking help.

**METHODOLOGY**

This research implemented quantitative methods in collecting and analyzing the data. According to Aliaga and Gunderson (2002), quantitative research is explaining phenomena by collecting numerical data that are analyzed using mathematically based methods (in particular statistics).

**Participants**

In order to avoid extraneous variables due to variances in courses as well as experience in higher education, this research was conducted by focusing on a specific group of students taking a TOEFL preparation course. A total of 20 (twenty) students from a morning class in a TOEFL preparation course in the Faculty of Economics and Business, Universitas Gadjah Mada, took part in this study. The participants were between 23 and 33 years old; eight students (40%) were male while twelve (60%) were female. The participants were all Indonesian. At the time of the study, the participants had been learning TOEFL Preparation for at least two months in the BCC of the Faculty of Economics and Business, Universitas Gadjah Mada (Table 1). It should be noted that the language of instruction in the TOEFL preparation course was English.

**Table 1.**  
**Demographic background of the surveyed participants**

Mean Age	Mean English Language Learning Duration	Mean TOEFL Preparation Duration	Mean TOEFL ITP Scores
24 years 10 months	18 years	2 months	432

Note. (\*) TOEFL ITP Score ranges from 310-667



### Measuring Instruments

Students' self-regulated learning was measured using the MSLQ (McKeachie, Pintrich, Lin, & Smith, 1991), a self-reporting tool designed to assess college students' motivational orientations and their use of different learning strategies. Students rated themselves on a five point Likert scale from 'not very true to me' to 'very true to me'. A Likert scale is a psychometric response scale that is often used in questionnaires. It is the most popular and widely used type of scale in survey research. Univariate statistics are data with only a single variable, whereas multivariate statistics encompasses the analysis of data with many independent variables and many dependent variables (Tabachnick and Fidell 2007). The questionnaire was translated into the Indonesian language. In this research, self-regulation was measured on a 10-item instrument adapted from the Motivated Strategies for Learning Questionnaire ( $\alpha = .77$ ; Pintrich & DeGroot, 1990). Moreover, the academic achievement was measured on the basis of a student's TOEFL test score for the term of the course in which the research was carried out.

### Data Collection

The collection of data took place on December 8, 2016. The questionnaire was administered during tutorial hours. The participants' TOEFL pre-test scores were obtained on November 4, 2016. The progress test scores were obtained on November 28, 2016. Students were informed of the purpose and goals of the research and assured anonymity.

### Ethical Consideration

To ensure the research complied with ethical standards, permission to conduct the research was obtained from the Director of BCC of the Faculty of Economics and Business, Universitas Gadjah Mada, and participants signed informed consent forms as prescribed by the Faculty of Education and Teacher Training of Sanata Dharma University, Yogyakarta, Indonesia.

### FINDINGS

The survey responses are presented in a subsequent table. Hypothesis 1 of this study was tested using the results of the Likert scale answers in the MSLQ, along with correlation analysis. The data were analyzed using univariate and multivariate statistics of the questionnaire results and Pearson's correlation coefficient.

### MSLQ analysis

As stated by Keyser and Viljoen (2013: 90), it should be noted that not all dimensions of the MSLQ are significantly related to academic performance. Academic performance correlates significantly with the following SRL dimensions: self-efficacy, learning strategies, organization, metacognitive self-regulation, and effort regulation. The manner in which the MSLQ handles these dimensions is shown in Table 2.

**Table 2.**  
**MSLQ Components**

No.	SRL Dimensions	Indicator	Item Number
1	Self-efficacy	Interested in TOEFL preparation	1
		Diligent search for information about the TOEFL	2
2	Learning strategies	Making plans	3
		Independence in act	4
3	Organization	Allocating time	5
		Trying various strategies	6
4	Metacognitive self-regulation	The ability to throw a strategy that is not promising	7
		Courage to face failure	8
5	Effort regulation	Ability to rise from failure	9
		Persistent continue to try if the first attempt fails	10

Based on the MSLQ results, the students in the TOEFL preparation course in the BCC of Universitas Gadjah Mada's Faculty of Economics and Business had a well-managed self-efficacy, with a mean of 4.00 and mode of 4 in questions 1 and 2. This indicates that the students had good motivation and confidence in following the TOEFL preparation course.

**Table 3.**  
**The Results of MSLQ**

No.	Likert Scale Questions	M	Md
1	I attend TOEFL Test Preparation diligently.	4.00	4
2	I like looking for a vocabulary that I do not understand either through a dictionary or through the gadget.	4.00	4
3	I have scheduled activities at home, so I know when I have to learn.	3.65	4
4	If there are lessons in TOEFL Test Preparation that I less understand, I ask the instructor or people who understand.	3.80	4
5	I spend my spare time by repeating the TOEFL learning skills.	3.55	4
6	When facing difficulties in studying TOEFL skill, I tried to find alternative solutions.	4.25	4
7	If homework is given by the instructor, I would not put off doing it.	4.30	4
8	Although I know will not get a good performance, I will keep trying and learning.	4.70	5
9	If I was not able to complete the tasks in learning TOEFL at the first opportunity, I will do the tasks it until it works.	4.85	5
10	If I was not able to complete the tasks in learning TOEFL at the first opportunity, I will do the tasks it until it works.	4.50	4
Mean		4.09	

Learning strategies were assessed with questions 3 and 4. Most of the students could manage their learning strategies, with means of 3.65 and 3.80 (questions 3 and 4, respectively), and mode of 4. The lower means in this case suggest that the students had difficulties in managing their learning strategies.

Questions 5 and 6 looked at organization. With means of 3.55 and 4.25, and a mode of 4, it can be inferred that the students tried to organize their learning conditions in a good way, albeit with more success in trying to find alternative solutions

to problems than spending their spare time on the repetition of learned skills.

Meanwhile, with a mode of 4 and 5 in questions 7 and 8, respectively, it was revealed that the participants had good metacognitive self-regulation. The high means of 4.30 and 4.70 showed that they were aware of the importance of self-regulation to attaining their desired score in the TOEFL preparation course.

The last aspect to be analyzed in this study was effort regulation. Means of 4.85 and 4.50 were recorded for questions 9 and 10, respectively, along with modes of 5 and 4. This suggests that the students managed to regulate their effort according to the difficulties encountered. Most of them recognized that hard work might affect their result.

The highest value in the questionnaire, found in question 9, reveals that most of the students put in the effort required to overcome the obstacles hindering their completion of exercises in the TOEFL preparation course. The lowest value, recorded in question 5, suggests that only some of the students had the spare time to repeat the TOEFL learning skills.

### Correlation analysis

Pearson's correlation coefficient is traditionally used to measure the linear relationship between two variables (Hinkle, Wiersma, & Jurs, 1988). In this study, an online Pearson's coefficient correlation calculator was used to identify the correlation between pre-test and progress test scores. The statistical significance of the correlation coefficient is indicated by *p*, with a value of *p* < 0.05 considered statistically significant. Meanwhile, a value of *r* = 1 means a perfect positive correlation whereas a value of *r* = -1 indicates a perfect negative correlation. The results of Pearson's correlation analysis, with X representing the pre-test scores and Y the progress test scores, are shown in Table 4.

A strong positive correlation was found between pre-test and progress test scores (*r* = 0.8422). In other words, a high pre-test score (X) corresponded with a high progress test score (Y). The students' achievement in TOEFL scores shared an intercept of 0.70%. The value of *R*<sup>2</sup>, the coefficient of determination, was 0.7093.

**Table 4.**  
**The Pearson Correlation Coefficient**

No.	Participants	X	Y
1	A	423	437
2	B	420	463
3	C	497	493
4	D	463	443
5	E	310	390
6	F	467	430
7	G	410	443
8	H	457	467
9	I	457	450
10	J	473	467
11	K	430	460
12	L	463	477
13	M	410	417
14	N	343	390
15	O	470	457
16	P	407	403
17	Q	457	483
18	R	387	430
19	S	373	407
20	T	387	403
Correlation Coefficient			0.8422

## DISCUSSION

The results revealed that the five aspects (self-efficacy, learning strategies, organization, metacognitive self-regulation, and effort regulation) presented in the MSLQ are significantly and positively related to academic performance. The correlation analysis revealed a strong positive correlation with academic performance. As argued by Cleary and Zimmerman (2004: 538), self-regulated students are proactive learners who incorporate self-regulated processes (goal setting, self-observation, self-evaluation, self-reflection, and self-adoption) with learning strategies (management of study time, using resources, managing the environment) and self-motivational beliefs (self-efficacy, intrinsic interests).

In this research, self-regulation was measured using a 10-item questionnaire adapted from the MSLQ ( $\alpha = .77$ ; Pintrich & DeGroot, 1990). The highest mean score in the questionnaire was recorded in question 9, indicating that most of the participants

valued putting effort into facing the challenges of completing exercises in the TOEFL preparation course. This awareness of the benefit of hard work was also reinforced by the high mean of question 8. The lowest value in the MSLQ was found in question 5, meaning that only some students had more time to spend on repeating the skills learned in the course. Moreover, a significant positive correlation was found between pre-test and progress test scores ( $r = 0.8422$ ), indicating high academic performance in the students.

It should be noted that this research acknowledged that students' backgrounds and classroom context influence their use of motivational, cognitive, and learning strategies. In this context, students with well-developed self-regulation skills could monitor their understanding, regulate their effort, and seek help (from the instructor) when they needed it. Pintrich and Garcia (1994) maintain that a student's self-awareness of his or her current level of information is the key in their becoming a self-regulated learner. As further elaborated by Jacobson and Harris (2008), the strategy a student will use is not spontaneous, but is determined by the attributes of the strategies, self-regulating mechanisms, and beliefs about the efficacy of the goal-orientated behavior. Cognitive engagement, practice, and experience were also required when deciding which strategy to apply. Each student's use of SRL strategies therefore was unique in terms of individual preferences and circumstances.

## CONCLUSION AND SUGGESTION

The findings of this study show that self-regulated learning, and specifically factors such as self-efficacy, test anxiety, learning strategies, organization, metacognitive self-regulation, and effort regulation, should be brought to bear in the classroom. Identifying the factors that influence academic performance of students could improve the targeting of interventions and support services for at-risk students and their academic problems.

Understanding the distinctive features of students' SRL may contribute to understanding critical factors in students' academic achievements. The challenge remains for an integrated learning approach of SRL to be implemented in each academic domain or subject. Students must be empowered to become self-regulated learners, whereby they proactively set goals, monitor performance processes and outcomes, evaluate their performance, and then make adjustments to improve their performance, as

classified by Cleary and Zimmerman (2004: 538).

Teachers should be aware of the different types of prior knowledge from which students can draw and they should invite students to make use of such knowledge in their chosen subject or domain. Developing SRL strategies and making students more aware of the different SRL strategies that could be applied to TOEFL preparation might enhance students' academic performance.

Because of the limitations of this research, it is recommended that future researchers conduct a study regarding the effect of SRL on TOEFL preparation courses in Indonesia. The effects of SRL strategies should be explored further to identify the challenges presented to teachers in the implementation of such a course. Future research regarding the effect of SRL strategies on the students' TOEFL test scores is also recommended to see other positive implications for education.

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