



## SELF-DIRECTED LEARNING AMONG SECONDARY EDUCATION STUDENTS SPECIALIZING IN ENGLISH AT UM DIGOS COLLEGE, PHILIPPINES

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### Abstract:

Self-directed learning is essential in learning a second language since it allows students to accomplish as much as possible in their language learning. This study aimed to determine the level of self-directed learning among secondary education students specializing in English teaching. Furthermore, this study used a descriptive survey involving 133 major English students. Data revealed that the self-directed learning of English language students is high. However, no significant difference was found in the level of self-directed learning among English language students when analyzed by year level, gender, and socioeconomic status. Hence, the researchers highly encouraged self-directed learning as enhancement or innovation on set assessments that can help develop the optimum potential of the learners, as well as integration of the strategy to the teaching learning process based on the study result.

**Keywords:** self-directed learning, English language students, descriptive quantitative design

### 1. Introduction

Language learners' roles in learning English have been passionately debated for decades (Xuan, Razali, & Samad, 2018). As stated by Razali (2018), while educators serve as facilitators to inspire learners and assist them in developing the skills necessary for self-directed learning, learners take an active and engaging role in learning.

Researchers wanted to highlight Xuan, Razali, and Samad (2018) study concerning language learning. It says that language learners can manage their learning objectives,

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transmit new knowledge to larger contexts, overcome challenges (Tekkol & Demirel, 2018), are open to innovation and progress, have self-confidence and understanding, and are avid to learn, and are conscious of their learning strategies. This focus on SDL as researchers wanted to affirm if Xuan, Razali, and Samad (2018) study, and Tekkol and Demirel (2018), are valid here in the context of UM Digos College specializing in English.

Much research on self-directed learning has been conducted in international literature. In Turkey, self-directed learners are thought to be highly motivated, intent on self-improvement, and determined to continue their education (Tekkol & Demirel, 2018). However, in Malaysia, secondary school students vary in their levels of autonomy. Most learners were unaware of self-directedness and needed to be thoroughly explained how to organize self-directed learning (Adnan & Sayadi, 2021). Thus, students' ability to manage their education should be provided (Oosthuizen & Mentz, 2016). In Addition, most researchers prefer to adopt and use the 'Self-Directed Learning Readiness Scale' (Fisher, King, & Tague, 2001; Stewart, 2007; Slater, Cusick, & Louie, 2017).

The education sector in the Philippines makes language learning difficult for teachers, especially those with little exposure to English (Tacogue et al., 2022). SDL learners conduct education themselves. This has proven beneficial to students, especially when living far away. Apart from academic concepts, individuals can enhance their abilities to improve their education and overall quality of life. Students who engage in SDL need to increase their thinking abilities on specific topics. Factors influencing SDL are motivation, self-efficacy, support, and performance (Khalid, Bashir, & Amin, 2020).

Locally, only limited research on self-directed learning encouraged the researchers to conduct this study. Mainly, this study limits its participants to English language students in Digos City, specifically at UM Digos College. As a result, the results of this study cannot be used to generalize to English language learners. Given this study's inherent limitations and gaps, the researchers desire to determine the extent of self-directed learning among English language students in Digos City. However, more than one study could support the researchers' study. Alaon, Delos Santos, & San Jose (2021) present the benefits of Self-Directed Learning (SDL) to enhance students' English language skills. In their observation, they think a need for action exists for the forthcoming issue, especially since students who take English as a major are expected to have satisfactory speaking skills. Moreover, students who take a self-directed approach learn clinical pronunciation and experiment with new vocabulary.

Humanism is typically linked to ideas of autonomy and freedom, as well as the notion that individuals can make meaningful personal decisions within the limitations imposed by their environment and past experiences. Self-directed learning is based on autonomous, independent individuals who are willing to initiate learning for self-improvement, which can motivate students to create their own rules and leadership styles (Khodabandehlou et al., 2012), move toward autonomy and the fulfillment of their potential (Paradigms of Education, 2019), and improve students' capacity for making choices regarding their education (Guiter, 2014).

In the context of this theory, the instructor's responsibility is to help learners develop the emotional and intellectual means to become independent and self-directed learners, which is a step on the road to self-actualization (Veugelers, 2011). Students can encourage desirable and mindful individual learner development towards learners (Morris, 2019). It supports the idea that every learner has the right and freedom to make their own choices. Initiate their learning styles, formulating learning goals and independence. Using this theory, learning may be a common want with the extreme objective of accomplishing self-actualization. Meanwhile, McLeod (2019) defines constructivism as a method of instruction that maintains that people actively create their understanding and knowledge and that the learner's experiences shape reality. Teachers should emphasize helping learners develop effective study habits and learning strategies in this learning paradigm. Once students have acquired the necessary techniques and methods, they can engage in productive and independent learning (Wang, 2014). Autonomous learners frequently use their prior knowledge of grammar and vocabulary and previous experiences and learning to analyze texts and interpret them to improve their language skills.

In addition, constructivism is an approach in which learners can gain new knowledge through their previous learning (MacLeod, 2019). In the context of this theory, learners can construct knowledge from their own experiences and reconstruct it to their existing knowledge. This theory supports learner-centered and self-regulate learning where students depend on gaining new knowledge from previous learning that will also assess and build self-directed learning.

This study aimed to guide teachers, course content writers, and program directors on developing and implementing effective teaching strategies to improve student's English language learning. This study broadens their knowledge in understanding the situation of the students. These also help the students in applying self-directed learning strategies. As Khodabandehlou et al. (2012) stated, self-directed learning is necessary to empower students to achieve optimal language learning success by enticing them to express their ideas confidently, think thoughtfully, and use language learning strategies.

## **2. Research Objectives**

Generally, this study aims to determine self-directed learning in the English Language among students specializing in English at UM Digos College. Specifically, it aimed to answer the following:

- 1) To describe the demographic profile of students in terms of:
  - 1.1) year level;
  - 1.2) gender; and
  - 1.3) socioeconomic status.
- 2) To determine the extent is self-directed learning among English language students.

3) To assess if there exists a significant difference in the extent of self-directed learning among English language students' when grouped according to profile.

### 3. Methodology

#### 3.1 Respondents

The study respondents should be bona fide English Language students specializing in English officially enrolled for the second-semester academic year 2021-2022. In contrast, exclusion criteria include non-English Language primary students and those not enrolled in the institution. Additionally, the respondents can decide whether to stop or withdraw their involvement in the research for whatever reason. They are free to reveal or not reveal their reasons to the researchers for evaluation and reporting purposes. 133 major English students chosen using stratified random sampling participated in this study. This sampling ensures that all parts of a population are pretty represented (Shin, 2020).

#### 3.2 Instrument

This study used a Likert-type questionnaire administered to the respondents via online surveys through google forms. The survey was based on a questionnaire developed by Xuan, Razali, and Samad (2018), consisting of two parts, with 44 Likert-type items and three demographic questions. A six-point measurement scale was used to prevent neutral responses from the respondents. This permitted the researchers to assess the extent and determine how much differs from the average according to the respondents' demographic. The means are scaled and given levels as follows:

| Rating | Range     | Descriptive Levels | Interpretation  |
|--------|-----------|--------------------|---|
| 6      | 5.18-6.00 | Very High          | This shows that the item described is always exhibited.         |
| 5      | 4.34-5.17 | High               | This shows that the item described is frequently exhibited.     |
| 4      | 3.51-4.33 | Moderately High    | This shows that the item high described is sometimes exhibited. |
| 3      | 2.68-3.50 | Moderately Low     | This shows that the item described is seldom exhibited.         |
| 2      | 1.84-2.67 | Low                | This shows that the item described is rarely exhibited.         |
| 1      | 1.00-1.83 | Very Low           | This shows that the item described is never exhibited.          |

#### 3.3 Design and Procedure

Researchers collect data using a descriptive - survey design that is a self-assessment tool designed to evaluate the student's demographic profile in terms of (a) year level, (b) gender, and (c) socioeconomic status. Students used a Likert Scale to rate their opinions or perceptions of each item on Self-directed Learning. This quantitative research used a

descriptive survey design to determine the extent of self-directed learning among secondary education students at UM Digos College.

Before taking the survey, each respondent was provided an information form explaining the purposes of the study and the tasks they were required to fulfill. This was designed to guarantee that they were fully aware of any risks or unpleasantness that might occur during the study. They were also assured that their information would be kept private. After that, each respondent was requested to agree on the consent form indicating their willingness to participate in the survey. The data collection procedure comprised two steps, and first, respondents were asked to complete a Background Information Sheet, which included demographic information such as year level, gender, and socioeconomic status. Second, respondents read each item and checked the boxes indicating their rate on a six-point Likert scale (1 as "strongly disagree" to 6 as "strongly agree"). They were completed anonymously by respondents using Google Forms. The information they presented in the survey questions would be treated with confidentiality and used only for educational purposes.

To obtain reliable and valid results, statistical tools were used. The significance level used to test significance through all tests was based on an alpha level of .05. Frequency was used in presenting the profile of the students in terms of year level, gender, and socioeconomic status to address the problem. Moreover, the mean is used to determine the level of self-directed learning among English language students. At the same time, T-test was utilized to find out the statistical differences between the demographic profile of the respondents in terms of gender and the indicators of the level of SDL. Lastly, Analysis of Variance (ANOVA) was done to determine whether the absolute Frequency of two or more research variables differs significantly from each other or to test whether there is a significant difference between various groups.

## **4. Findings and Discussion**

### **4.1 Demographic Profile of the Respondents**

Table 1 provides details of the respondents' demographic profile, which constitute the three variables: year level, gender, and socioeconomic.

#### **A. Year Level**

Results showed that 27.068% of 36 third-year students dominate the education department specializing in English. Second, are 26.316% or 35 first-year students. Followed by 24.812% or 33 second-year students. Last is fourth-year level students, with 21.805% or 29 students. This means that more third-year students are enrolled in the education department specializing in English.

## B. Gender

Based on table 1, 69.173% or ninety-two were female. 30.827% or forty-one were males. There are one hundred thirty-three respondents as to gender. This means that there are more female respondents than males.

## C. Socioeconomic Status

Data revealed that 42.857% or 57 of the respondents had a level of low income but not poor, 55 or 41.353% were poor, only 1 or 0.752% were under the upper middle but not the rich and upper middle, 4 or 3.008% were in the middle status, and 15 or 11.278 are in the level of the lower standard. Hence, the result showed that most of the respondents had a low-income status but were not poor.

**Table 1: Demographic profile of the respondents**

| Profile Variables           | f          | %          |
|-----------------------------|------------|------------|
| <b>Year Level</b>           |            |            |
| 1st year                    | 35         | 26.316     |
| 2nd year                    | 33         | 24.812     |
| 3rd year                    | 36         | 27.068     |
| 4th year                    | 29         | 21.805     |
| <b>Gender</b>               |            |            |
| Female                      | 92         | 69.173     |
| Male                        | 41         | 30.827     |
| <b>Socioeconomic Status</b> |            |            |
| Upper middle but not rich   | 1          | 0.752      |
| Upper middle                | 1          | 0.752      |
| Middle                      | 4          | 3.008      |
| Lower middle                | 15         | 11.278     |
| Low-income but not poor     | 57         | 42.857     |
| Poor                        | 55         | 41.353     |
| <b>Total</b>                | <b>133</b> | <b>100</b> |

## 4.2 Level of Self-directed Learning among English Language Students

Table 2 shows that the English language students showed a high level of self-directed learning ( $\bar{x}=5.08$ ;  $SD=0.54$ ). This indicates that English Language major students frequently exhibit it. This high level was obtained from the high levels of motivation, awareness, and language learning strategies. To sum up, students generally have a similar motivation, awareness, and language learning strategies.

Such finding is in parallel with the research of Zhu, Bonk, and Berri (2022), which showed that the desire to learn more, advance one's knowledge, and pursue personal interests and how one views their learning process depends on their level of motivation (Littlejohn, Hood, Milligan, & Mustain, 2016). Furthermore, language learners showed awareness of the need to manage their active learning and asserted control over thinking, prioritizing, strategizing, and evaluating their learning (Lai, 2019). However, according to Shi (2017), the active application of language learning strategies puts students in charge

of their learning while also enhancing their capacity for independent and autonomous learning and enabling them to accept accountability for their progress.

**Table 2:** Level of self-directed learning among English language students

| Indicators                   | $\bar{x}$   | SD          |
|------------------------------|-------------|-------------|
| Motivation                   | 5.09        | 0.67        |
| Awareness                    | 5.00        | 0.60        |
| Language learning strategies | 5.16        | 0.53        |
| <b>Overall</b>               | <b>5.08</b> | <b>0.54</b> |

### A. Motivation

Table 2 shows that English learners' motivation to practice self-directed learning strategy is high ( $\bar{x} = 5.09$ ;  $SD = 0.67$ ). This means that the learners frequently exhibit a level of motivation.

This very high level of motivation was attributed to the idea that the respondents enjoyed learning the English language and were actively involved in it to become proficient. This outcome is in line with Entwistle's research (2022), which claimed that students have innate motivation and instructional style. The motivation construct should include both the motivation for language learning and the motivation for language classroom activities (Fontanilla, 2016). To effectively teach and learn the English language, motivation is critical. Additionally, having clear guidance and feedback regarding self-directed learning is motivating (Lan, 2022).

### B. Awareness

Table 2 shows that the English language students showed a high level of self-directed learning ( $\bar{x} = 5.00$ ;  $SD = 0.60$ ). This indicates that the awareness of English language learners is frequently exhibited.

In terms of awareness as a self-directed learning attribute, it illustrated that the respondents are aware of the functions English teachers perform as both providers of information and facilitators of learning. This outcome aligns with Xuan, Razali, and Samad's study (2018), which stated that awareness demonstrated that the teachers were regarded as facilitators of learning rather than information providers. In Addition, respondents are aware of their responsibility regarding their English language learning. The finding was supported by Geng, Law, and Niu (2019), who concluded that learners are aware that they are more responsible for their learning than any external authority, such as an instructor. This finding is also in line with the study by Lai (2019), which indicates that language learners demonstrated an awareness of the need to regulate their learning processes and claimed to be in control of organizing, concentrating, planning, and assessing their learning - behaviors that are part of the most definition of metacognitive.

### C. Language Learning Strategies

Table 2 shows that the level of language learning strategies of English learners to practice self-directed learning strategy is high ( $\bar{x} = 5.16$ ;  $SD = 0.53$ ). This means that the learners frequently exhibit the level of language learning strategies.

This high level of language learning strategies was supported by Lai, Saab, and Admiral's (2022) study, which indicates that strategies are essential in the process and outcome of language learning since they aid in comprehension, at the same time, make learning more straightforward, quicker, more pleasurable, more self-directed, more efficient, and more transferable (Jansen, Leeuwen, Janssen, Jak, & Kester, 2019). This is also supported by the study of Moradi (2018) stated that implementing SDL can be a helpful technique and a beneficial tool for encouraging them to engage in learning activities both within and outside of the classroom.

#### 4.3 Significant Difference in the Extent of Self-Directed Learning when Analyzed According to Year Level

Table 3 shows no significant difference in the extent of self-directed learning among English language students when analyzed by year level,  $F(3, 124) = .988$ ,  $p = .401$ . This indicates that the students' extent of self-directed learning has similar results, regardless of year level. Hence, with this result, it fails to reject the null hypothesis.

Those mentioned above were supported by Tekkol & Demirel (2018), which also revealed that no significant differences were observed in the student's extent of SDL and year level. The fact that SDL is not solely based on formal education and instead depends on a person's traits may be why it is not dependent on the year level. Additionally, Erdogan (2015) concluded that the two did not significantly differ from one another.

**Table 3:** Summary of ANOVA for differences in the extent of self-directed learning when analyzed by year level

| Indicators |                | Sum of Squares | df  | Mean Square | F     | Sig. |
|------------|----------------|----------------|-----|-------------|-------|------|
| Motivation | Between Groups | 1.670          | 3   | .557        | 1.214 | .308 |
|            | Within Groups  | 56.871         | 124 | .459        |       |      |
|            | Total          | 58.541         | 127 |             |       |      |
| Awareness  | Between Groups | .622           | 3   | .207        | .563  | .641 |
|            | Within Groups  | 45.692         | 124 | .368        |       |      |
|            | Total          | 46.314         | 127 |             |       |      |
| Strat      | Between Groups | .731           | 3   | .244        | .876  | .456 |
|            | Within Groups  | 34.477         | 124 | .278        |       |      |
|            | Total          | 35.207         | 127 |             |       |      |
| Overall    | Between Groups | .877           | 3   | .292        | .988  | .401 |
|            | Within Groups  | 36.710         | 124 | .296        |       |      |
|            | Total          | 37.588         | 127 |             |       |      |



#### 4.4 Significant Difference in the Extent of Self-Directed Learning when Analyzed According to Gender

Table 4 shows the level of self-directed learning when analyzed according to gender. The table below indicates that female respondents have an average of ( $\bar{x} = 5.097$ ,  $SD = 0.553$ ) and male ( $\bar{x} = 5.035$ ,  $SD = 0.526$ ). The results show no significant differences in the extent of self-directed learning when respondents are grouped into gender profiles,  $t=0.583$ ,  $p = 0.561$ . This indicates that both genders have almost similar results when grouped into gender.

**Table 4:** Independent samples t-test results showing the differences in the extent of self-directed learning when analyzed by gender

|                        | Grouping Variable | Mean  | SD    | t     | df  | P     |
|------------------------|-------------------|-------|-------|-------|-----|-------|
| Self-directed Learning | Female            | 5.097 | 0.553 | 0.583 | 126 | 0.561 |
|                        | Male              | 5.035 | 0.526 |       |     |       |

This result was supported by the study of Slater, Cusick, and Louie (2017). It was found that there was no difference in the extent of SDL between male and female groups, also indicating that gender does not influence the level of motivation, awareness, and language learning strategies. While most respondents were women, men were shown to have the same self-directed learning level in learning English. According to Tekkol and Demirel (2018), regarding the variable of gender, some studies found no significant effect, while others found one in favor of female students.

#### 4.5 Significant Difference in the Extent of Self-Directed Learning when Analyzed According to Socioeconomic Status

Table 5 shows no significant difference in the extent of self-directed learning among English language students when analyzed by socioeconomic status,  $F(3, 124) = .729$ ,  $p = .537$ . This indicates that the students' extent of self-directed learning has similar results, regardless of socioeconomic status. Hence, with this result, it fails to reject the null hypothesis.

This finding was supported by the research undertaken by Tekkol and Demirel (2018), which also showed that there were no significant differences observed in the student's extent of SDL and socioeconomic status. This may be explained by the fact that SDL is not linked to financial stability or income level but rather to the desire to learn and grow without regard to money. This was likewise supported by Acar (2014), who stated that variations in income levels have no impact on one's capacity for self-directed learning.

Overall, there is no significant connection between the theory of Humanism and constructivism in terms of year level, gender, and socioeconomic status of the learners. The study by Xuan, Razali, and Samad, provides insights that gender, year level (Carson, 2012), and socioeconomic status (Tekkol & Demirel, 2018) have no general agreements in terms of their outcomes, there is no correlation between these variables.

**Table 5:** Summary of ANOVA for differences in the extent of self-directed learning when analyzed by socioeconomic status

| Indicators |                | Sum of Squares | df  | Mean Square | F     | Sig. |
|------------|----------------|----------------|-----|-------------|-------|------|
| Motivation | Between Groups | 1.059          | 3   | .353        | .762  | .518 |
|            | Within Groups  | 57.482         | 124 | .464        |       |      |
|            | Total          | 58.541         | 127 |             |       |      |
| Awareness  | Between Groups | 1.128          | 3   | .376        | 1.032 | .381 |
|            | Within Groups  | 45.186         | 124 | .364        |       |      |
|            | Total          | 46.314         | 127 |             |       |      |
| Strat      | Between Groups | .274           | 3   | .091        | .324  | .808 |
|            | Within Groups  | 34.933         | 124 | .282        |       |      |
|            | Total          | 35.207         | 127 |             |       |      |
| Overall    | Between Groups | .651           | 3   | .217        | .729  | .537 |
|            | Within Groups  | 36.937         | 124 | .298        |       |      |
|            | Total          | 37.588         | 127 |             |       |      |

## 5. Conclusion

Based on the findings mentioned above, the extent of self-directed learning among English language students is excellent, which means that the SDL of the participants is highly attained and agreed upon. This is true for all indicators: motivation, awareness, and language learning strategies. On the other hand, the overall result failed to reject the null hypothesis, which means that there was no significant difference in the extent of self-directed learning among English language students when analyzed by profile.

## 6. Recommendations

Building based on the following findings and conclusions, the recommendation was given:

- 1) Since the level of self-directed learning is high, educators may continue to focus on helping students build their capacity for competent English language learning while moving them toward autonomy. Therefore, the institution must improve the assessments to help learners reach their full potential. Additionally, curriculum designers and content producers incorporate SDL tactics into textbooks, assignments, and exercises to help dependent learners lay a basis for independent understanding learning. This serves to enhance and develop students' potential as learners.
- 2) It was revealed that there is no statistically significantly different. Hence, researchers strongly advised that the SDL method be improved through integration with the teaching and learning process based on the outcome. SDL is significant to students' learning processes. When SDL is incorporated into the process, techniques, approaches, and teaching strategies will all be considerably more effective.

- 3) Since it was found that there is no significant connection between the theory of Humanism and constructivism in terms of year level, gender, and socioeconomic status of the learners. Thus, future researchers should conduct additional research with a broader participant pool and diversified scope because the respondents in this study were not selected randomly. Additional qualitative research, such as interviews or observations, is required to support this study's conclusions regarding the SDL level based on the student profile since the current study's quantitative survey research approach. To generate more broadly applicable empirical findings, future studies should additionally test participants in comparable foundation programs at other universities.

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### **Conflict of Interest Statement**

No conflicts of interest are disclosed by the authors. To ensure that the researcher has no personal motive for conducting this study, the data collected are impartially assessed to fulfill its objectives. Since the researcher intends to highlight the significance of self-directed learning for secondary students focusing on English, the initiative is not motivated by financial gain or professional reputation.

### **About the Authors**

The authors are students under the Teacher Education Department of the University of Mindanao Digos College. They are experts in the English language. In addition, the co-author of this study is the department chair of the mentioned department, who specializes in Applied Linguistics in her Ph.D. study in Sociolinguistics.

### **References**

- Acar, C. (2014). Investigation of science teacher candidates' self-directed learning skills in terms of several variables. *Unpublished Master Thesis, Pamukkale University, Institute of Educational Sciences, Denizli.*
- Alaon, C. L., Delos Santos, J., & San Jose, A. (2021). Improving Verbal Competence in English through Self-Directed Strategy. *SSRN*. <http://dx.doi.org/10.2139/ssrn.3823300>
- Carson, E. H. (2012). Self-directed learning and academic achievement in secondary online students. *UTC Scholar*. <http://scholar.utc.edu/theses/11/>

- Erdogan, D. G. (2015). Factors Effecting Lifelong Learning Inclinations of Prospective Teachers. *ResearchGate*.  
[https://www.researchgate.net/publication/322023704\\_Factors\\_Effecting\\_Lifelong\\_Learning\\_Inclinations\\_of\\_Prospective\\_Teachers](https://www.researchgate.net/publication/322023704_Factors_Effecting_Lifelong_Learning_Inclinations_of_Prospective_Teachers)
- Fisher, M., King, J., & Tague, G. (2001). Development of a self-directed learning readiness scale for nursing education. *ScienceDirect*, 516-525.  
<http://doi.org/10.1054/nedt.2001.0589>
- Fontanilla, G. V. (2016). English language learning motivation and self-identity changes of Filipino English majors in Philippine universities. *Asian Journal of English Language Studies (AJELS)*, 4. <https://ajels.ust.edu.ph/wp-content/uploads/2022/07/1-English-language-learning-motivation-and-self-identity-changes-of-Filipino-English-majors-in-Philippine-universities.pdf>
- Geng, S., Law, K. M., & Niu, B. (2019). Investigating self-directed learning and technology readiness in blending learning environment. *Springer Open*.  
<https://doi.org/10.1186/s41239-019-0147-0>
- Guitter, G. E. (2014). Self-Directed Learning (SDL): A Brief Comprehensive Analysis. *Weill Cornell Medicine-Qatar*. <https://qatar-weill.cornell.edu/continuing-professional-development/topic-of-the-month/archive/self-directed-learning-sdl-a-brief-comprehensive-analysis>
- Jansen, R., Leeuwen, A., Janssen, J., Jak, S., & Kester, L. (2019). Self-regulated learning partially mediates the effect of self-regulated learning interventions on achievement in higher education: A meta-analysis. *ScienceDirect*.  
<https://doi.org/10.1016/j.edurev.2019.100292>
- Khalid, M., Bashir, S., and Amin, H. (2020). Relationship between Self-Directed Learning (SDL) and Academic Achievement of University Students: A Case of Online Distance Learning and Traditional Universities. *Bulletin of Education and Research*, Vol. 42, No. 2, pp. 131-148. <https://files.eric.ed.gov/fulltext/EJ1281053.pdf>
- Khodabandehlou, M., Jahandar, S., Seyedi, G., and Abadi, R. (2012). The Impact of Self-directed Learning Strategies on Reading Comprehension. *International Journal of Scientific & Engineering Research*, 3(7). <https://www.ijser.org/researchpaper/The-Impact-of-Selfdirected-Learning-Strategies-on>
- Lai, C. (2019). Learning beliefs and autonomous language learning with technology beyond the classroom. *Taylor & Francis Online*, 291-309.  
<https://doi.org/10.1080/09658416.2019.1675679>
- Lai, Y., Saab, N., & Admiraal, W. (2022). Learning Strategies in Self-directed Language Learning Using Mobile Technology in Higher Education: A Systematic Scoping Review. *Springer Link*. <https://link.springer.com/article/10.1007/s10639-022-10945-5#ref-CR23>
- Lan, Y. (2022). The Role of Teachers' Grit and Motivation in Self-Directed Professional Development. *Front Psychology*. <http://doi.org/10.3389/fpsyg.2022.922693>

- Littlejohn, A., Hood, N., Milligan, C., & Mustain, P. (2016). Learning in MOOCs: Motivations and self-regulated learning in MOOCs. *Science Direct*, 40-48. <https://doi.org/10.1016/j.iheduc.2015.12.003>
- Morris, T. H. (2019). Self-directed learning: A fundamental competence in a rapidly changing world. *SpringerLink*. <https://link.springer.com/article/10.1007/s11159-019-09793-2>
- Oosthuizen, I., & Mentz, E. (2016). Self-directed learning research: An imperative for transforming the educational landscape. *ACADEMIA*. <http://www.dx.doi.org/10.4102/aosis.sdlr.2016.03>
- Saul McLeod (2019, July 17). Constructivism as a theory for teaching and learning. *Simply Psychology*. <https://www.simplypsychology.org/constructivism.html>
- Shi, H. (2017). Learning Strategies and Classification in Education. *Institute for Learning Styles Journal*, 24-36. <https://www.auburn.edu/academic/cla/ilsrj/Journal%20Volumes/Fall%202017%20Vol%201%20PDFs/Learning%20Strategies%20Hong%20Shi.pdf>
- Shin, T. (2020). Four types of random sampling techniques explained with visuals. *Medium*. <http://towardsdatascience.com/four-types-of-random-sampling-techniques-explained-with-visuals-d8c7bca072a>
- Slater, C. E., Cusick, A., and Louie, J. C. (2017). Explaining variance in self-directed learning readiness of first-year students in health professional programs. *BMC Medical Education*. <https://bmcmededuc.biomedcentral.com/articles/10.1186/s129090171043-8#citeas>
- Stewart, R. A. (2007). Evaluating the self-directed learning readiness of engineering undergraduates: a necessary precursor to project-based learning. *World Transactions on Engineering and Technology Education*, Vol. 6, No. 1. [http://www.wiete.com.au/journals/WTE&TE/Pages/Vol.6,%20No.1%20\(2007\)/13\\_Stewart25.pdf](http://www.wiete.com.au/journals/WTE&TE/Pages/Vol.6,%20No.1%20(2007)/13_Stewart25.pdf)
- Tacogue, S. M., Protacio, A. V., Alocada, J. S., Gevero, G. T., Diama, B. Y., Denoy, D. L., . . . Oronce, Jr, R. A. (2022). Learning in Isolation Exploring the Lived Experiences of Students in Self-Directed Learning in English. *Globus Journal of Progressive Education A Refereed Research Journal*. <http://doi.org/10.46360/globus.edu.220221010>
- Tekkol, I. A., and Demirel, M. (2018). *An Investigation of Self-Directed Learning Skills of Undergraduate Students*. <https://doi.org/10.3389/fpsyg.2018.02324>
- Van Woezik, T. E., Koksma, J.-J., Reuzel, R. P., Jaarsma, D. C., and Wilt, G. (2021). There is more than 'I' in self-directed learning: An exploration of self-directed learning in teams of undergraduate students. *Medical Teacher*, Volume 43 (Issue 5), Pages 590-598. <https://doi.org/10.1080/0142159X.2021.1885637>
- Veugelers, W. (2011). Education and Humanism: Linking Autonomy and Humanity. *Research Gate*. <http://doi.org/10.1007/978-94-6091-577-2>

- Wang, H. (2014). Learner Autonomy Based On Constructivism Learning Theory. *International Scholarly and Scientific Research & Innovation, Vol:8, No:5*. <https://zenodo.org/record/1092942/files/9998381.pdf>
- Xuan, L. Y., Razali, A., and Samad, A. A. (2018). Self-Directed Learning Readiness (SDLR) among Foundation Students from High and Low Proficiency Levels to Learn the English Language. <https://files.eric.ed.gov/fulltext/EJ1201752.pdf>
- Zhu, M., Bonk, C. J., Berri, S. (2022). Fostering self-directed learning in MOOCs: Motivation, learning strategies, and instruction. *Online Learning, 26(1)*, 153-173. <http://doi.org/10.24059/olj.v26i1.2629>

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