A RESEARCH STUDY ON LEARNERS' READING PRACTICES VIA SELF-DIRECTED LEARNING AND ITS IMPACT ON THEIR ACADEMIC SUCCESS.

Huang Yudong, Lubna Ali

[1] Lincoln University College, Petaling Jaya, Malaysia.

ABSTRACT

Overarching objectives of the study were shedding light on the association between independent study and academic achievement and evaluating the relative benefits of online and conventional higher education models for independent study. Both of these objectives were intended to be accomplished. A survey that the researchers themselves designed was used to collect data on students who were learning in regular classroom settings as well as online. All of the individuals who took part in this study were students who were majoring in education at two distinct educational institutions, one of which was an online college and the other of which was a more conventional four-year university. There is a substantial disparity between the SDL of students attending conventional universities and those attending online universities. Learners who attend universities online have a better association between SDL and academic performance, in contrast to those who attend conventional universities. The findings of the study lend credence to the use of SDL as a method of instruction for the purpose of promoting the development of students' ability to self-regulate the activities associated with the learning process. Students with high SDL abilities engaged in much more planning behaviours, which were proven to have a strong association with reading scores. This was in contrast to students with low SDL skills, who participated in significantly less planning behaviours. Both transition analysis and cluster analysis are approaches that may be used to differentiate between groups of learners that demonstrate various planning tendencies. Both of these procedures are referred to as "analysis." Based on these findings, it was discovered that the levels of students' SDL ability had a significant influence, although to varying degrees, on the learning behaviours and outcomes that were encouraged by the environment.

Keywords: Autonomous Learning, Comprehensive Reading, Learning Habits, Strategic Planning.

INTRODUCTION

Inculcate in their offspring a thirst for knowledge and the conviction that their horizons are infinite. Students are expected to take a more active role in their own education at the university level. If students form study groups and collaborate on projects, this might be achieved. It would seem that SDL is a given when pupils are

given the freedom to study whenever they wish (Boynak, 2019). The researchers can measure students' interest in studying, direct them towards certain learning goals, empower them with control over their education, and monitor their development via the use of independent educational evaluations. Furthermore, it is an approach to education that takes into account the unique abilities and areas of improvement of each student. The goal of self-directed learning is to promote students' personal development by their active participation in their own education, as opposed to the traditional classroom environment. For self-directed learning to be effective, students must possess several skills that enable them to assume control of their own education. A multi-talented individual can recall knowledge gained via introspective analysis and creative problem-solving, as well as find and evaluate relevant sources of information, organise and prioritise data, write reports, and effectively manage their time. Someone with SDL can study alone. In addition, it determines the most effective ways to meet each student's unique needs and preferences. It also reveals the many ways in which a student assesses his own learning progress. Prioritisation is given to the most important components of SDL competency. Once the learning criteria, implicitly conveyed objectives, and learning materials have been determined, the next steps are to define, plan, execute, and assess the learning results (Ponton et al., 2018).

BACKGROUND OF THE STUDY

In both their academic and professional pursuits, students should aspire to be self-directed learners who continue to study throughout their lives. It is also anticipated that students in higher education would take initiative in their own education (Slaughter, 2019). Collaboration allows students to succeed academically while simultaneously acquiring valuable work experience. It would seem that students who participate in SDL benefit greatly from the capacity to juggle employment and study. The self-directed learning strategy not only assists students in learning in a socially acceptable way, but it also directs them towards meaningful actions, assesses their knowledge thereafter, and provides a way to measure their desire to study. Furthermore, it is a method of teaching that relies on the students' inherent abilities to absorb new information. It is a method of education in which students work together to solve problems in an informal, non-institutional context. Taking charge of one's own education is at the heart of self-directed learning, which is characterised by a mix of procedure and personal traits (Anastasiou et al., 2024).

PURPOSE OF THE RESEARCH

With a particular emphasis on the ways in which students' reading habits affect the link between SDL and academic accomplishment, the objective of this study is to evaluate the effect that SDL has on students' academic proficiency. The purpose of this research is to determine whether or whether students' reading comprehension, critical thinking, and overall academic performance may be improved by the use of

SDL. This will be accomplished by investigating how students autonomously manage and guide it. The purpose of this study is to establish whether or whether students who participate in self-regulated learning techniques, such as setting personal objectives, monitoring their progress, and commenting on their reading, demonstrate superior academic accomplishment in comparison to students who engage in more passive form of learning. Reading will be emphasised as a fundamental practice over the course of the research project, with the ultimate goal of providing insights into the role that self-directed learning plays in developing higher academic performance.

LITERATURE REVIEW

SDL occurs when people, with or without external assistance, assess their own learning requirements, create a plan to meet those needs, locate relevant information and people to help them learn, select and apply effective learning strategies, and finally, assess their own progress towards learning goals (Bundesamt, 2023). For decades, researchers have acknowledged and studied the idea of SDL. Learning environments are an integral part of SDL, which has its origins in adult education and is most often used to describe learning activities that take place outside of a conventional classroom setting. In contrast, SRL, which has its roots in cognitive psychology, is mostly investigated in academic settings. In SRL, the instructor often sets the task, while in self-directed learning, the student takes the initiative. It is said that SRL is the micro-level idea, while SDL is positioned at the macro level. At the macro level, SDL is all about mapping out the learning trajectory; a self-directed learner may figure out what the researchers needs to know next and how to get it done. Modern learning pathways include technology, which has altered the environment of SDL as a consequence of digital education reform and the subsequent focus on it. Learners may be helped to successfully utilise SDL in an online learning system that is well-designed (Guo et al., 2020).

RESEARCH QUESTION

What is the effect of cognitive competency on academic performance?

RESEARCH METHODOLOGY

RESEARCH DESIGN

Using SPSS version 25, the quantitative data analysis was carried out. To determine the direction and strength of the statistical association, the odds ratio and 95% confidence interval were used. A criterion that is statistically significant was established by the researchers at $p < 0.05$. The data's essential features were extracted using a descriptive analysis. When analysing data transformed by computing tools for statistical analysis or data collected from surveys, polls, or questionnaires, quantitative methods are often used.

SAMPLING

Research participants filled out questionnaires to provide information for the research. Using the Rao-soft programme, researchers determined that there were 623 people in the research population, so researchers sent out 712 questionnaires. The researchers got 687 back, and they excluded 32 due to incompleteness, so the researchers ended up with a sample size of 655.

DATA AND MEASUREMENT

The research mostly used data obtained from a questionnaire survey. The participant's fundamental demographic information was solicited first. Subsequently, participants were provided with a 5-point Likert scale to assess the online and offline channels. The researchers meticulously examined many resources, particularly online databases, for this secondary data collection.

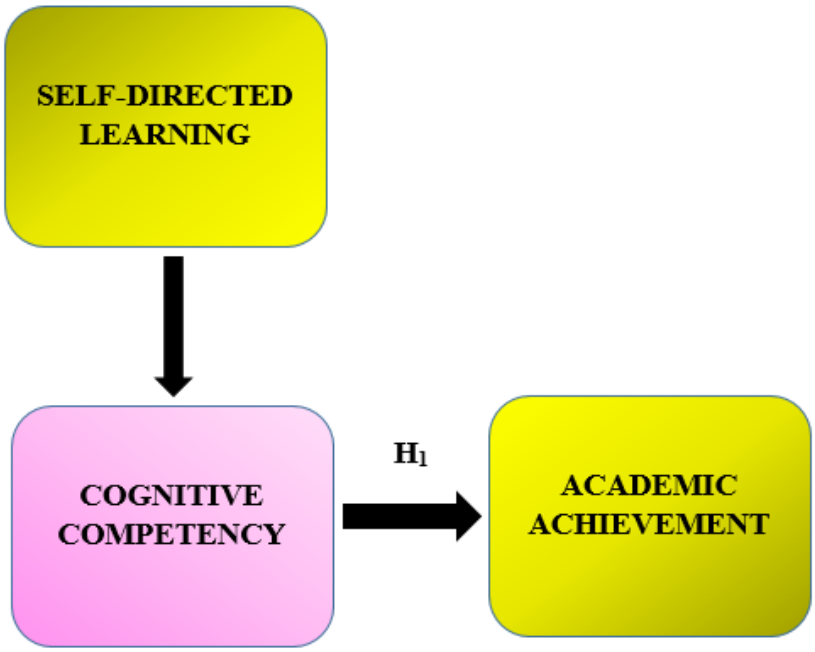
STATISTICAL SOFTWARE

The statistical analysis was conducted using SPSS 25 and MS-Excel.

STATISTICAL TOOLS

To grasp the fundamental character of the data, descriptive analysis was used. The researcher is required to analyse the data using ANOVA.

CONCEPTUAL FRAMEWORK



RESULT

Factor Analysis: One typical use of Factor Analysis (FA) is to verify the existence of latent components in observable data. When there are not easily observable visual or diagnostic markers, it is common practice to utilise regression coefficients to produce ratings. In FA, models are essential for success. Finding mistakes, intrusions, and obvious connections are the aims of modelling. One way to assess datasets produced by multiple regression studies is with the use of the Kaiser-Meyer-Olkin (KMO) Test. They verify that the model and sample variables are representative. According to the numbers, there is data duplication. When the proportions are less, the data is easier to understand. For KMO, the output is a number between zero and one. If the KMO value is between 0.8 and 1, then the sample size should be enough. These are the permissible boundaries, according to Kaiser: The following are the acceptance criteria set by Kaiser:

A pitiful 0.050 to 0.059, below average 0.60 to 0.69

Middle grades often fall within the range of 0.70-0.79.

With a quality point score ranging from 0.80 to 0.89.

They marvel at the range of 0.90 to 1.00.

Testing for KMO and Bartlett's: Sampling Adequacy Measured by Kaiser-Meyer-Olkin .980

The results of Bartlett's test of sphericity are as follows: approx. chi-square

df=190

sig.=.000

This establishes the validity of assertions made only for the purpose of sampling. To ensure the relevance of the correlation matrices, researchers used Bartlett's Test of Sphericity. Kaiser-Meyer-Olkin states that a result of 0.980 indicates that the sample is adequate. The p-value is 0.00, as per Bartlett's sphericity test. A favorable result from Bartlett's sphericity test indicates that the correlation matrix is not an identity matrix.

Table1: KMO and Bartlett's Test.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.980
Bartlett's Test of Sphericity	Approx. Chi-Square	3252.968
	df	190
	Sig.	.000

Using Bartlett's Test of Sphericity further established the general relevance of the correlation matrices. The sample adequacy value according to Kaiser-Meyer-Olkin is 0.980. The researchers discovered a p-value of 0.00 by using Bartlett's sphericity test. The correlation matrix was shown to not be a correlation matrix by a significant test result from Bartlett's sphericity test.

INDEPENDENT VARIABLE

Self-Directed Learning: With the guidance of an instructor, students engage in SDL when they decide for themselves what and how to study. The main goal of implementing student-centered learning is to encourage students to take an active role in their own education by using both individual and group strategies (Kulakow & Raufelder, 2024). With the help of their instructor, students engage in SDL, an approach to education in which individuals choose their own learning objectives and methods. The main idea is that students should be responsible for their own learning, which may be done either alone or in groups. To get to the bottom of people's motivations, they study the relationship between the mind and society. This approach emphasises the significance of the achievement context for motivational dynamics, students' beliefs and perceptions of actual events, and the use of this technique in the classroom. Key components of the social cognitive hierarchical success paradigm that motivate two main categories constitute students' motivation: their "beliefs about their capabilities to do a task," or "expectancy components," and their "motivational beliefs about the reasons for choosing to accomplish the activity," or "value components." These overarching topics include a wealth of literature on motivational ideas and systems. Their focus in this essay is on a handful of important ideas, such as students' self-confidence (the "expectancy components of motivation") and the significance they place on reaching certain objectives (Nadelson & Seifert, 2019).

FACTOR

Cognitive competency: Capacity to gather, process, and synthesise new information; think critically; communicate effectively; complete assignments; solve issues; and make sound judgements based on one's own knowledge, skills, aptitudes, and experience. A person's cognitive competency may be defined as their capacity to take in, process, and make sense of information. All sorts of mental capacities are included in it, including the ability to think, solve problems, remember, focus, and speak (Robinson, 2023). Cognitive competency may be defined in a variety of ways, some more general than others. Although the report acknowledges that cognitive competence encompasses more than just these two ways of thinking, it identifies critical and creative thinking as basic cognitive competencies. Thinking creatively entails looking outside the box, considering other angles, and coming up with fresh, workable ideas, whereas thinking critically involves reasoning and drawing conclusions. Here the researchers will go over what critical thinking and

creative thinking are, how they are defined, and what cognitive abilities are required (Renninger et al., 2023).

DEPENDENT VARIABLE

Academic Achievement: The word "academic achievement" refers to the extent to which a student has succeeded in their desired educational endeavours. A person is considered to have achieved academic brilliance if they have earned a bachelor's degree or above. Exams and other types of continuous assessment are common ways for educators to gauge their students' progress in the classroom. A person's or a school's "academic achievement" is the extent to which they have succeeded in reaching a predetermined objective. Graduation rates and grade point averages are two metrics that may be used to evaluate the effectiveness of a school. What constitutes a student's "academic achievement" is the degree to which their learning objectives have been fulfilled. Earning a bachelor's degree or higher is seen as a sign of academic success. Using examinations and other forms of ongoing evaluation to gauge students' growth in the classroom is standard practice. According to one theory, "academic achievement" refers to how far a school or person has come in terms of meeting an educational objective. One indicator of academic performance is the percentage of students who graduate from high school, while another is grade point averages (Robinson, 2023).

Relationship Between Cognitive competency and Academic Achievement: Students' ability to absorb, analyse, and apply information in academic contexts is heavily dependent on their cognitive abilities, which in turn are related to their academic accomplishment (Guo et al., 2020). Having the capacity to think critically, solve problems, reason, remember, and pay attention are all examples of cognitive competencies. Students are able to successfully complete a variety of academic assignments when they possess these cognitive abilities, which allow them to understand complicated ideas, correlate disparate bits of information, and draw meaningful conclusions. Students' ability to actively participate in class, think critically about what they've learnt, and remember what they've learnt all contribute to their overall cognitive abilities, which in turn boost their academic performance (Steinberg et al., 2024).

Since the above discussion, the researcher formulated the following hypothesis, which was analyse the relationship between Cognitive competency and Academic Achievement.

H_{01}: There is no significant relationship between Cognitive competency and Academic Achievement.

H_1: There is a significant relationship between Cognitive competency and Academic Achievement.

Table 2: H_1 ANOVA Test.

ANOVA					
Sum					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	39588.620	228	5348.217	980.245	.000
Within Groups	492.770	426	5.456		
Total	40081.390	654			

This inquiry will provide significant discoveries. F=980.245, with a p-value of .000 (below the .05 alpha criterion), indicates statistical significance. This indicates that the **"H_1: There is a significant relationship between Cognitive competency and Academic Achievement"** is accepted and the null hypothesis is rejected.

DISCUSSION

Findings from this research support the alternative hypothesis that self-directed practices do, in fact, improve reading comprehension competency among Iranian EFL students. By the end of the course, students who had mastered SDL strategies were able to do things like assess their own learning needs, create goals for themselves, make decisions, and generally assume responsibility for their own learning—in this course and beyond. They also worked better in groups, which fostered collaboration among students, and their learning was more purposeful and planned. In an ideal learning environment, students take the lead in their own education and shape their own paths to mastery. SDL empowers students to become self-directed, engaged, and productive learners. After a while, they stopped being bored with it. They are free to follow their own interests and make their own decisions.

However, issues emerge when pupils are not appropriately guided throughout the first phases of learning and when the teaching style does not correspond to the learner's level of self-direction. The other side is that it requires student-teacher partnerships. The t-test results show a statistically significant difference in the mean scores of the two groups, confirming the pupils' remarkable improvement after therapy.

CONCLUSION

At their core, quantitative methods rely on the use of mathematical models, equations, and other expressions reliant on assumptions. They shouldn't take them at face value, therefore. The consequences of disregarding this warning can be catastrophic. Due to the potential need for specialised assistance, quantitative methods may result in higher costs. Because quantitative methods are so expensive to adopt, not even the largest companies utilise them very often. Rather of relying on hard data, managers frequently rely on their subjective views and past

experiences when making decisions. Incomplete data, unclear definitions, poor sample selection, incorrect methodology, inappropriate comparisons, and poor presentation are all potential issues with quantitative methods. Because they do not account for subjective and intangible human characteristics, quantitative methods are ill-suited to studying qualitative phenomena. Methods like this fail to account for the intangibles that make a manager great: their attitude, enthusiasm, and ability. The strategies might nevertheless be put into play indirectly by assigning monetary worth to unfounded assertions. One way to find out how smart a manager is to give them a score that takes all those factors into consideration.

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