Self-regulated learning and Self-Perceived Employability: Causality Analysis in Final Year Students

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Abstract

Entering the era of disruption, changes in the workplace, intensified job competition, and the increasing number of unemployment have made the transition period from college student to the workforce challenging. Higher education plays a significant role in preparing students for this transition. Besides possessing job-related skills, assessing job suitability and the opportunities available (self-perceived employability) is also crucial for college students after graduation. Therefore, this research aims to examine the influence of academic ability (self-regulated learning) on self-perceived employability. The respondents consisted of 100 final-year college students (8th-semester 94%) from the Jabodetabek area, selected through purposive sampling. Data were collected by distributing questionnaires comprising instruments for self-perceived employability (16 items), career maturity (32 items), and the Motivated Strategies for Learning Questionnaire (MSLQ) (45 items). Data analysis using simple linear regression indicates a positive influence of self-regulated learning on self-perceived employability among final-year college students with an effective contribution of 33.8%.

Keywords: *Self-Perceived Employability; Self-Regulated Learning; College Students*

Introduction

In the last decade, the world is facing an era of disruption in various sectors of life. In the world of work sector, technological disruption affects the loss of several types of jobs and the emergence of new types of jobs, changes in organizational structures, and the transformation of remote and hybrid work (World Economic Forum [WEF], 2020). Traditional careers are gradually being replaced by modern, dynamic, and flexible careers (Petrović & Cizmić, 2015; in Dražić, Petrović, & Vukelić, 2018). The demands of the times and the perception that having an academic degree is a basic need to enter a professional career (Smelser, 2012; in Kasler, Zysberg, & Harel 2017) have influenced the increasing number of higher education graduates in recent years (OECD, 2015; Li, Pu, & Phakdeephirot, 2022). Changes in the job market and an increase in the number of graduates create fierce competition among job applicants.

College tudents are the closest group that will transition from college to the world of work. College students as prospective newcomers to the job market, must be aware of the conditions of the job

market and prepare themselves to face this. Students who have graduated must have strong skills, competencies, and confidence in their abilities (Jackson & Wilton, 2017). Self-perceived employability gives students confidence in their ability to enter the workforce, succeed in the face of competition, and survive in the workforce (Vanhercke, De Cuyper, Peeters, & De Witte, 2014). Therefore, two people with similar skills may behave differently due to their different levels of self-perceived employability (Duggal, Lim, Khatri, Thomas, & Shiva, 2023).

Self-confidence allows them to face the changing job market with calm and certainty, leading to improved mental well-being (Capone, Marion, & Park, 2021; Schettino, Marino, & Capone, 2022), proactive job-seeking behavior (Yizhong et al., 2017; Fernández-Valera et al., 2020), and increasing the number of interviews and job offers (Saks & Ashforth, 2000; Vansteenkiste, Verbruggen, & Sels, 2016). In addition, self-perceived employability can be their reference to market themselves effectively, get suitable positions, and help negotiate job terms that benefit them later so that research on self-perceived employability in students who will enter the world of work is important.

Research on self-perceived employability has been carried out in many foreign countries such as the UK, Australia, and Spain (Noori & Azmi, 2021). Meanwhile, in Indonesia, research related to self-perceived employability is still very limited. In previous studies, self-perceived employability was widely associated with self-regulation, such as in the research of Raihana and Soerjoatmodjo (2022) which found that self-regulation affects self-perceived employability with an effective contribution of eight percent. Another study by Sawitri and Dewi (2018) made self-regulation as a mediator between career aspirations and self-perceived employability, and Praskova, Creed, and Hood (2015) made self-regulation as a mediator between career calling and self-perceived employability. In this study, the self-regulation used is self-regulation in learning because it is more specific to the ability to support academics. This research wants to explain how academic abilities can help prepare students for the transition to the world of work.

Several relevant studies show that self-regulation strategies in learning affect employability (Rashidi, Abdul, & Hashim, 2023). Career maturity and self-regulated learning play a role in improving job readiness in vocational school students (Zufa, 2022). Self-regulated learning, personal goal setting, and career planning were found to be positively related to self-perceived employability in students (Putri, 2019). Then, self-regulated learning, academic self-efficacy, and career decision self-efficacy are related to self-perceived employability with self-regulated learning having an effective contribution of 32.9% (Cinches, Chavez, & Russell, 2021). As well as recent research, self-regulated learning affects self-perceived employability in first-year students in Poland (Fudali-Czyż, Mamcarz, Martynowska, Domagała-Zyśk, & Rothwell, 2022).

Based on the explanation above, research that explains how education prepares students to face the transition period to the world of work is still limited, especially through self-regulated learning. Having a high self-perceived employability in students will help them go through the transition period until they get a job. Therefore, this study aims to see the influence of self-regulated learning on self-perceived employability in final year college students.

Method

Respondent search using purposive sampling technique. The respondent criteria were final year undergraduate students studying in Jakarta, Bogor, Depok, Tangerang, Bekasi (Jabodetabek). The questionnaire was distributed online using Google Form. The number of respondents who filled out the questionnaire was 106 students, however, only 100 students (88% female, 12% male, average age 21.65 years) could be further analyzed, the other eight students were data outliers. The respondents were dominated by 94 students (94%) in the 8th semester, 4 students (4%) in the 10th semester, while 2 students (2%) in the 12th semester.

The self-regulated learning instrument uses the Motivated Strategies for Learning Questionnaire (MSLQ) instrument from Pintrich and Groot (1990) in the Indonesian adaptation version. Instruments are translated into Indonesian and back-translated by language service units on campuses and language institutions. The instrument was then modified to adjust the research context for students through a feasibility test from two psychologists. The MSLQ instrument consists of 45 statement items that measure motivation, the use of cognitive strategies, and metacognitive. The items of the statement are, "I prefer challenging coursework, so I can learn new things.", "Compared to other students in the class, I am confident that I can succeed." (add 1-2 examples of the statement item). Respondents were asked to respond in a 7-point Likert-style scale (1 = strongly inappropriate; 7 = very inappropriate). The reliability of the MSLQ instrument in this study has a constant coefficient of α Cronbach = 0.789 (reliable). On the MSLQ scale, categorization uses theoretical mean values and standard deviations. The score is divided into three categories, namely low, medium, and high. The higher the score, the better the student is able to manage his or her learning process and use more learning strategies.

Self-perceived employability is measured using the Self-Perceived Employability scale (Rothwell, Herbert & Rothwell, 2008) adopted from the research of Sawitri and Dewi (2018). Respondents were asked to answer 16 items of statements on a 5-point Likert scale, 1 to strongly disagree to 5 to strongly agree. The instrument measures the dimensions of self-confidence, labor market conditions, university reputation, and student fields of study (Rothwell et al., 2008). The reliability of the instrument has a Cronbach coefficient α 0.831 (reliable) with statements such as, "I see academic assignments as a top priority.", "I can easily find opportunities that require labor from the program I am engaged in." On the self-perceived employability scale, categorization uses a theoretical mean value. The score is divided into two categories, namely low and high. Higher scores mean students have a strong confidence in their ability to get a job that matches their qualifications. Statistical analysis to test assumptions and hypotheses using the help of SPSS 25 software. The assumption test was carried out before parametric analysis, namely the normality test (Kolmogorov Smirnov's significant p value), the linearity test, and the heteroscedasticity test. The hypothesis test used is the Pearson Correlation correlation test to see if there is a relationship between variables and a simple linear regression test to see if there is an influence between independent variables on bound variables, as well as to determine the magnitude of the influence (Rangkuti, 2019).

Table 1. Distribution of the participant's demographics

	N	%
Gender		
Male	12	12
Female	88	88
Age (m = 21,65)		
20	2	2
21	43	43
22	44	44
23	10	10
24	1	1
Semester		
8	94	94

	N	%
10	4	4
12	2	2
University status		
Public	77	77
Private	23	23
Part time job		
Yes	30	30
No	70	70
Internship experience		
Yes	95	95
No	5	5

Results

In table 2 below, it is known that the results of the descriptive statistical test on the variables of self-perceived employability and self-regulated learning from 100 respondents have a mean score of 62.33 and 233.66, median 62 and 233, mode 56 and 230, standard deviation of 6,241 and 19,912, variance of 38,951 and 396,489, range 28 and 82, minimum score of 48 and 195, maximum score of 76 and 277, last sum 6233 and 23366.

Table 2. Descriptive statistics of self-perceived employability and self-regulated learning

Statistic	Self-Perceived Employability	Self-Regulated Learning
N	100	100
Mean	62.33	233.66
Median	62	233
Modus	56	230
Standar Deviation	6.241	19.912
Varians	38.951	396.489
Range	28	82
Minimum	48	195
Maximum	76	277
Sum	6233	23366

The results of the normality test based on residual data on self-perceived employability and self-regulated learning have a Kolmogorov Smirnov (K-S) significance value of 0.200 which means that the data is normally distributed because the significance value of p > 0.05. Then, it was calculated from the results of the linearity test by looking at the significance of linearity, which is 0.00 (< 0.05) which means the relationship between the variable of self-regulated learning and self-perceived linear employability. Furthermore, the scatter plot heteroscedasticity test can be seen in Figure 1. The results show that the dots spread above and below the 0 axis, which means that there is no relationship between the predicted model and the error.
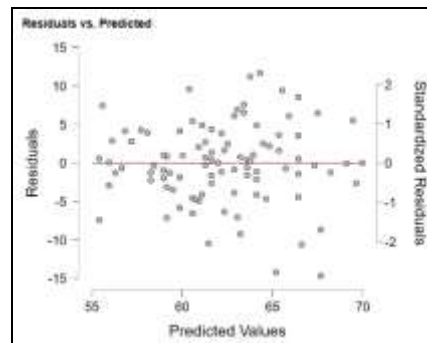

Figure 1. Heteroscedasticity's result

After the normal data is known, then a correlation analysis and simple linear regression are carried out. Correlation analysis was carried out to find out if there was a significant relationship between the variables. If a significant relationship is found, then the analysis can be continued to a simple linear regression analysis to see how predictions and causal relationships between variables are (Rangkuti, 2019). Based on the calculation results, the value of the correlation coefficient (R) is 0.581 which means the strength of the relationship between the variables is moderate and the significant p value is 0.000 (< 0.05). Furthermore, the coefficient of determination (R2) is 0.338, in other words self-regulated learning provides an effective contribution or influence on self-perceived employability of 33.8%.

Table 3. Coefficient of correlation's result

		Self-Perceived Employability	Self-Regulated Learning
Self-Perceived Employability	Pearson Correlation	1	0.581
	Sig. (2-tailed)		0.000
	N	100	100
Self-Regulated Learning	Pearson Correlation	0.581	1
	Sig. (2-tailed)	0.000	
	N	100	100

Then, a linear regression analysis was carried out. The results of the regression equation model show a constant value (a) of 19.778 and a regression coefficient value (b) of 0.182, then the regression equation is SPE = 19.778 (α) + 0.182 SRL + e which means that if self-regulated learning (SRL) increases by one (1) unit, then self-perceived employability (SPE) increases by 0.182. This means that the higher the student's self-regulated learning, the higher the self-perceived employability. The results of the hypothesis test showed a significance value of <0.01 (< 0.05) which means significant. It was found that

the t-calculated value > the t-table was 7,067 > 1,661. Based on the two decision-making bases above, H0 is rejected, namely self-regulated learning has a positive and significant effect on self-perceived employability.

Tabel 4. Simple regression linear's result

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	0.581	0.338	0.311	5.140

Tabel 5. Regression equation model

Model	Unstandardized Coefficients		Standardized Coefficients	t	p
	B	Standard Error	Beta		
(Constant)	19.778	6.043		3.273	0.001
Self-Regulated Learning	0.182	0.026	0.581	7.067	< 0.01

Discussion

The result of this study is that self-regulated learning has a positive and significant influence on self-perceived employability. Students with high self-regulation or proactive in improving their learning are more likely to have a higher self-perception of work ability than students who have little development of their learning strategies. These findings are consistent with previous findings (Fudali-Czyż et al., 2022; Hsu, Chen, & Shin, 2021) that self-regulated learning affects self-perceived employability. The higher self-regulated learning, will higher self-perceived employability.

Self-regulated learning consists of three components, namely, metacognitive, motivational, and behavioral self-regulation (Zimmerman, 1986). The metacognitive component means that learners who make plans, set goals, monitor, and evaluate learners in their learning (Zimmerman, 1990). Having specific learning goals can help students describe what they want to achieve in learning, one of which is increasing employability (Hsu et al., 2021). Through the metacognitive process, students will make plans in their learning to match the ultimate goal, which is to increase employability. The metacognitive process is a student process in achieving its goals, namely in the learning process students participate in learning in the hope of improving their knowledge and competence. They will pay attention to or monitor the conformity between the requirements of the job and their level of knowledge and abilities (Moos & Azeved, 2008; Hsu et al., 2021). So that if students succeed in mastering learning, then it will increase self-perceived employability. Students who improve their competencies have a greater chance of getting a job (desired outcome) after they graduate (Chow, Wong, & Lim, 2019).

The next component of self-regulation is motivation. The motivation component shows self-efficacy, self-attribution, and intrinsic motivation of learners towards learning (Zimmerman, 1990). Self-efficacy refers to the learner's belief in his or her ability to perform the necessary actions to achieve the goal. Learners, in this case students, who have intrinsic motivation in learning, will participate in learning activities for self-satisfaction rather than in response to external pressure or rewards (Ryan & Deci, 2000). It can be concluded that students have confidence in their abilities and learn on the basis of their own desire to achieve their goals. In the context of this research, students are motivated to learn to realize their career goals. They are confident in their ability to use learning strategies, overcome obstacles to achieve their goals, namely increasing employability so that self-perceived employability also increases.

The behavioral component shows that learners are actively involved in the process of choosing and shaping an environment that supports optimal learning (Zimmerman, 1990). Learners seek help, information, and an environment that is perceived as supportive of their learning. In this study, it can be concluded that students will actively use the resources they have to find information related to the world of work, try to connect with the world of work, for example, through internships or join organizations on campus so that students have knowledge related to the world of work. Students who have knowledge and experience about the world of work will increase self-perceived employability.

The results of this study tell that academic ability during college affects students' preparation for transition to the world of work, however, there are some limitations in this study. First, the sample size in this study is still relatively small and covers a limited area, thus limiting to generalizing findings. In the next study, researchers can collect a larger sample and cover a wider area to find more factors that affect self-perceived employability. Second, the self-perceived employability variable measures perception, so it may not show the reality of employability. In the next research, it can be carried out by a longitudinal method where measurements are taken before and after students graduate. Third, in this study, self-regulated learning is a way to improve self-perceived employability, in the next study it can be considered to add a self-regulated learning antecedent variable so that the research results are more comprehensive and explain the process of self-perceived employability.

The implication of this study is that if students who have career goals follow lectures to achieve a certain level of employability, according to the needs of the world of work, then they can use self-regulated learning strategies to achieve it. Self-regulated learning helps individuals in mastering the knowledge and skills taught in higher education, so that it becomes a provision for students in facing the transition to the world of work, which then increases self-perception of work ability and feasibility to get a suitable job.

Conclusion

This study wants to see how education, especially academic ability, can prepare students to face the transition period to the world of work, namely by examining the influence of self-regulated learning on self-perceived employability in final year students. The results of this study show that self-regulated learning positively affects self-perceived employability. It can be concluded that developing self-regulated learning during the lecture period helps students in achieving learning goals, namely, mastering science theoretically and practically to prepare themselves to enter the world of work, which will then increase the perception of students' work ability and get a suitable job. To improve self-regulated learning skills in students, efforts are needed facilitated by campuses and lecturers for students, for example, such as providing self-regulated learning skills training programs, academic support and guidance programs, and providing feedback in the learning process and lecture assignments. In fact, these programs can be carried out from the first year of students, so that their learning will be more meaningful.

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