Students' Self-Directed Learning and Its Relation to the Independent Learning-Independent Campus Program

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Abstract. The government plans to implement the Independent Learning-Independent Campus (IL-IC) program in universities. This program focuses on outcome-based education. Learning outcomes for students adjust to the needs of the business and industrial world. Thus, students' learning in obtaining knowledge and experience becomes crucial. This study aims to analyze students' self-directed learning (SDL). This study involved 245 students in the Department of Family Welfare Science, Faculty of Engineering, Universitas Negeri Jakarta. The data collected through the Self-Rating Scale of Self-Directed Learning (SRSSDL) instrument consists of 40 statements. The SRSSDL consists of eight factors: awareness, attitudes, motivation, learning strategies, learning methods, learning activities, interpersonal skills, and constructing knowledge. The data analyzed descriptively. The results of the research show that the students' SDL is in the medium category. The results of the per-dimensional analysis concluded that the interpersonal skills dimension had the highest average (86.38), while the learning methods dimension had the lowest average (67.65). This conclusion indicates that the learning methods used by lecturers can affect students' SDL. Thus, lecturers need to choose student-centered learning methods and encourage students to explore their knowledge. So, it can increase students' SDL. This increase can support the smooth participation of students in the IL-IC program.

Keywords: Self-Directed Learning; Independent Learning-Independent Campus;

1 Introduction

The government by the Minister of Education and Culture launched the Independent Learning-Independent Campus program. This program's goal is to align education for students in university with the needs of the business and industrial world. This program provides flexibility for students to take courses outside the study program and even outside the campus. Apart from this flexibility, in the IL-IC program, students also can take part in student exchanges, internships/work practices, teaching assistance, research, humanitarian projects, entrepreneurial activities, independent projects, and village development. University needs to prepare students to welcome this policy. University needs to know the level of student independence in learning, known as Self-Directed Learning (SDL). According to Rascón-Hernán et al. (2019), self-directed learning is an essential part of a series of teaching and learning processes in higher education involving students. It is necessary to have freedom for

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students to choose what to study and how to learn to strengthen and improve self-directed learning. This activity aims to prepare competent graduates.

Suknaisith (2014) argued that self-directed learning was proven to improve student learning outcomes. Nordin et al. (2016) added that it is essential for lecturers to recognize students' readiness for self-directed learning to maximize learning opportunities and create meaningful learning experiences for students. The results of Yang & Jiang (2014) study concluded that the main predictor of student competence in the Nursing Study Program is self-directed learning. Based on the things described, universities need to understand the degree of self-directed learning of their students to welcome the Independent Learning-Independent Campus program. On the other hand, self-directed learning is needed so that graduates have the readiness to face the business and industrial world. When entering the world of work, individuals are required to learn independently in understanding their duties and roles in order to complete their work properly. Self-directed learning can be developed with the help of lecturer (Cadorin et al., 2013). Student learning independence is inseparable from how students must also have the skills to evaluate projects both now and in the future. Therefore, students need to have self-directed learning so they do not always depend on others (Suknaisith, 2014).

Research conducted by Rascón-Hernán et al. (2019) shows that students have excellent self-directed learning readiness. Self-directed learning training is a crucial part of the teaching and learning process at the university. For strengthened self-directed learning training, use developing freedom in learning. Another study conducted by Cadorin et al. (2013) aimed to examine the factor structure of the Italian version of the Self-Rating (SRSSDLIta) using a cross-sectional research design. The results showed that the factors that make up the SRSSDLI have a Kaiser-Meyer-Olkin (KMO) value above $\alpha = 0.500$. Research conducted by Suknaisith (2014) on using self-directed learning strategies in which overall students' scores for their satisfaction regarding teaching strategies for self-directed learning are very high.

Research from Rashid & Asghar (2016) on "technology use, self-directed learning, student engagement and academic performance: examining the interrelations" shows the use of technology has a direct positive relationship with student involvement and self-directed learning. Moreover, no significant direct effect was found between technology use and academic performance. These findings point to the relationship between student use of technology and student engagement, self-directed learning, and academic performance. Another study conducted by Lee et al. (2020) on "self-directed learning and professional values of nursing students" aims to examine the relationship between self-directed learning and professional nursing values in nursing students. The results concluded that self-directed learning has a positive and significant effect on professional nursing values. Male nursing students more likely to have a higher level of self-directed learning. The results showed that self-directed learning is an adequate pedagogical method for instilling and strengthening professional nursing values in nursing students.

Based on the above analysis, it is necessary to conduct a study to determine the level of students' self-directed learning in university. This study aims to analyze students' self-directed learning (SDL) in welcoming the Independent Learning-Independent Campus Program.

2 Methodology

This study aims to analyze students' self-directed learning (SDL) in welcoming the Independent Learning-Independent Campus Program. One of the policies implemented in the Independent Learning-Independent Campus Program is to give students the right to take courses outside the study program. The population in this study were students of the Department of Family Welfare Science, Faculty of Engineering, Universitas Negeri Jakarta. This study uses a proportionate stratified random sampling technique. The number of samples involved in data collection was 245 students. The research runs from-April to May-2020. The data collected through the Italian version of the Self-Rating Scale of Self-Directed Learning (SRSSDL) instrument from Cadorin et al. (2013) and consisting of 40 statements. The SRSSDL consists of eight factors: awareness, attitudes, motivation, learning strategies, learning methods, learning activities, interpersonal skills, and constructing knowledge. The SRSSDL instrument uses a verbal frequency scale consisting of always, often, sometimes, rarely, never. The data analyzed descriptively. The data calculated and converted into an index (interval 1-100). Furthermore, the data divided into three categories, namely low (index <60), medium (index 60 - 80), and high (index> 80) (Yimer et al., 2014).

3 Result and Discussion

Self-directed learning is a condition of an individual who has the initiative to learn, sets learning goals and learning strategies, and evaluates or reflects themself in their learning activities (Asmar & Delyana, 2020). Independent students must have the initiative in learning, set learning goals, and how to achieve these goals. Students' self-directed learning is measured using the SRSSDL instrument, which has eight dimensions, namely awareness, attitudes, motivation, learning strategies, learning methods, learning activities, interpersonal skills, and constructing knowledge. Based on the results of the analysis, the average student learning independence was 77.98 and grouped into the medium category. The variance value of 91.60 and the standard deviation of 9.57 indicates that at the 95% confidence level, the average student learning independence is 77.98 ± 9.57 or ranges from 68.41 to 87.55.

Table 1. Statistic of Self-Directed Learning

N	**Valid**	**245**
	Missing	**0**
Mean		77.98
Median		78.50
Mode		80.00
Standard Deviation		9.57
Variance		91.60
Skewness		-0.59
Standard Error of Skewness		0.15
Kurtosis		2.58
Standard Error of Kurtosis		0.31

First, analyze each dimension in the SRSSDL instrument. The dimension that has the highest mean score is interpersonal skills with 86.38, while the lowest mean score is the learning method dimension with 67.65. Table 2 shows the mean score for each dimension.

Table 2. Mean Each Dimension

Dimension	Mean
Awareness	77.39
Attitudes	81.75
Motivation	80.49
Learning Strategies	78.06
Learning Methods	67.65
Learning Activities	73.20
Interpersonal Skills	86.38
Constructing Knowledge	70.00
Total	77.98

Awareness

The dimension of awareness shows how much the student's awareness to understand how they will learn. The mean score of the awareness dimension was 77.39. The results of the research in table 3 show that more than half of the students (50.2%) have a high responsibility in the learning process that they are going through. One-third of students (35.1%) have a high responsibility in identifying their weaknesses so that they can find out which parts should be improved through training. About 30.2% of students can determine the most suitable method for learning. This shows that they understand themselves and the material to be studied. More than half of the students were able to identify their learning needs (73.0%), update the learning resources to be used (77.1%), maintain their learning motivation (78.4%), and plan the learning goals (68.1%).

Table 3. Students' Awareness on SDL

Indicator	Low (%)	Medium (%)	High (%)
Identify learning needs	3.3	73.0	23.7
Select method for learning	4.9	64.9	30.2
Update learning resources	8.2	77.1	14.7
Responsible for learning process	2.5	47.3	50.2
Responsible for identifying weakness	3.3	61.6	35.1
Maintain motivation for learning	6.5	78.4	15.1
Plan learning goals	4.1	68.1	27.8

Attitudes

The attitude dimension shows how students' attitudes in the learning process can support their self-directed learning. The mean score of the attitude dimension was 81.75. More than half of the students (60.4%) feel very capable of maintaining good relationships with others. Almost three-quarters of students (71.9%) have effective verbal communication and can be used to communicate with other people. The average student has enough optimal attitude. This attitude characterizes by the ability to express ideas (69.4), express ideas through writing (68.6%), collaborate with others (64.9%), create good relationships with others (51.9%), be open-minded (51.0%), and appreciate criticism (50.6) grouped into medium category.

Table 4. Students' Attitudes on SDL

Indicator	Low (%)	Medium (%)	High (%)
Maintain interpersonal relationship	0.8	38.8	60.4
Verbal communication	6.1	71.9	22.0
Collaboration with others	4.5	64.9	30.6
Express ideas	6.9	69.4	23.7

Create interdisciplinary relations	6.5	51.9	41.6
Express ideas in writing	8.6	68.6	22.8
Appreciate criticism	1.6	50.6	47.8
Keep an open mind	0.8	51.0	48.2

Motivation

The motivation dimension shows what challenges motivate students to be independent in learning. The mean score of the motivation dimension is 80.49. The results of the analysis in table 5 show that more than half of students (51.4%) are highly motivated by the success of others. This fact does not make them jealous and prejudice against others. More than three-fifths of students (68.6%) are sufficiently able to take advantage of any opportunities. About (66.9%) are plenty able to organize independent learning activities, and (64.5%) are plenty to think about problems that come as challenges that must be faced. While (64.1%) sufficiently motivated to develop and improve learning methods used in self-directed learning. These results indicate that the dimensions of motivation possessed by students are still not optimal. Student motivation needs to be improved. According to Bodkyn & Stevens (2015), intrinsic motivation has a significant effect on self-directed learning. Great intrinsic motivation can improve student performance.

Table 5. Students' Motivation on SDL

Indicator	Low (%)	Medium (%)	High (%)
Learning new things	3.3	54.7	42.0
Consider problems as challenges	7.3	64.5	28.2
Motivated by other people's success	4.5	44.1	51.4
Organize self-learning activities	4.9	66.9	28.2
Make use of any opportunities	5.3	68.6	26.1
Motivated to develop and improve learning method	3.7	64.1	32.2

Learning Strategies

The learning strategy dimension shows the ability of students to find out which learning strategies are suitable for them to use. The average value of the dimensions of the learning strategy is 78.06. The results of the analysis in table 6 indicate that the student learning strategy is still not optimal and is in the medium category. More than three-fifths of students (71.0%) feel quite able to identify their strengths and weaknesses. Based on the analysis of themselves, they can determine the appropriate learning strategy according to these strengths and weaknesses. Students also feel quite capable of assessing their learning progress, assessing the extent to which their learning objectives are achieved, identifying suitable learning strategies, and positioning themselves when in a group.

Table 6. Students' Learning Strategies on SDL

Indicator	Low (%)	Medium (%)	High (%)
Identify strength and weakness	2.0	71.0	27.0
Assess learning progress	4.1	74.7	21.2
Assess the achievement of learning objectives	4.5	73.9	21.6
Identify learning strategies	5.7	74.3	20.0
Define role in a group	2.5	66.9	30.6

Learning Methods

The dimension of the learning method shows how learning methods are suitable for students that can support their self-directed learning. The average value of the learning method dimension is 67.65. This number is the lowest average value when compared to the other dimension. The results of the analysis in table 7 indicate that the dimensions of the learning methods possessed by students are still not optimal. More than three-quarters of students (77.1%) feel that they are enjoying the process of extracting information that aims to increase their self-directed learning. Less than a fifth of students always take notes and make summaries of new ideas, thoughts, and lessons learned and consistently improve concentration and focus when studying complex material. Only 6% of students always repeat the material that has been taught by the lecturer.

Table 7. Students' Learning Methods on SDL

Indicator	Low (%)	Medium (%)	High (%)
Summaries ideas, thoughts, and new learning	13.1	69.4	17.5
Enjoy exploring information	13.9	77.1	9.0
Increase concentration and attention	12.2	70.2	17.6
Revise new lessons	17.6	76.3	6.1

Learning Activities

The dimensions of learning activities indicate techniques suitable for learning. The average value of the dimensions of learning activities is 73.20. Based on the results of the analysis in table 8, only a fifth of students (28.6%) always think that simulation is the most effective technique used in learning. Less than a fifth of students consider that case studies are an effective technique used in teaching-learning (17.1%) and play a useful role in learning complex material (15.5%). Meanwhile, only about 15.9% of students thought that interactive material was always more effective than just listening to lectures.

Table 8. Students' Learning Activities on SDL

Indicator	Low (%)	Medium (%)	High (%)
Simulation as didactic technique	1.6	69.8	28.6
Case studies as didactic technique	9.0	73.9	17.1
Interactive didactic sessions	11.4	72.7	15.9
Role play for complex learning	9.8	74.7	15.5

Interpersonal Skills

The interpersonal skill dimension shows the ability of an individual to relate to others, both in verbal and nonverbal communication. The mean score of the dimensions of interpersonal skills was 86.38. Based on the results of the analysis in table 9, more than half of the students (52.3%) always think that peer support is impressive. More than two-fifths of students consistently contribute to group discussions (46.1%), consistently think that interacting with others can help develop beyond learning programs (46.1%), and always feel the need to share the information they have with others (43.3%)). Thus, the dimensions of interpersonal skills possessed by students are optimal.

Table 9. Students' Interpersonal Skills on SDL

Indicator	Low (%)	Medium (%)	High (%)
Take part in group discussion	2.1	51.8	46.1

Share information with others	1.6	55.1	43.3
Support peers	1.6	46.1	52.3
Interaction with others	2.1	51.8	46.1

Constructing Knowledge

The dimension of constructing knowledge is the last dimension, according to (Cadorin et al., 2013). The constructing knowledge dimension shows how students compose their insight. The mean value of the constructing knowledge dimension was 70.0. Based on the results of the analysis in table 10, almost three-quarters of students (73.9%) think that sometimes conceptual maps are an effective teaching technique used in teaching and learning activities. So using a concept map as a learning method is useful in understanding wide-range information.

Table 10. Students' Constructing Knowledge on SDL

Indicator	Low (%)	Medium (%)	High (%)
Conceptual maps as didactic technique	10.2	73.9	15.9
Conceptual maps for wide range information	13.5	73.0	13.5

The Independent Learning-Independent Campus Program brought to align education for students in university with the needs of the business and industrial world. This program provides flexibility for students to take courses outside the study program and even outside the campus. For this, the study program must prepare students' self-directed learning. Thus, when the government implemented the program, many students will participate in improving their quality as graduates. Students' self-directed learning shows that students can learn without depending on others. When in a new environment (outside the study program or off-campus), students are still able to learn and get lessons well.

According to Rascón-Hernán et al. (2019), self-directed learning is an essential part of a series of teaching and learning processes in universities that involve students. Besides, according to Suknaisith (2014), self-directed learning is proven to improve student learning outcomes. Independent students mean that they can continue learning even though they are not in college. This finding is following the research results of Salleh et al. (2019), who concluded that self-directed learning positively affects student-lifelong learning.

One of the profiles of a graduate student of the Family Welfare Science Department is prepared to become a teacher. A teacher must have four standard competencies, namely pedagogical, professional, personal, and social competencies. Self-directed learning is also related to the professional abilities possessed by teachers. It is about how teachers can still carry out their profession well despite facing various challenges. This value is in line with the results of research conducted by Lee et al. (2020) regarding that independent learning has a positive and significant effect on professional nursing values.

5 Conclusion

Students' self-directed learning shows that students can learn without depending on others. The students' self-directed learning of the Family Welfare Science Department grouped into the medium category. When viewed from each dimension of self-directed learning, the results have been optimal, but some are not yet optimal. Thus, the study program needs to

make an effort to optimize students' self-directed learning. So, students are ready to participate in Independent Learning-Independent Campus Program.

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