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# Student academic procrastination in online and offline learning

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**Abstract**. Students after attending offline lectures stated that they understood the lecture material better and it was more fun. The purpose of this study is to determine the academic procrastination of students in both offline and online learning, the level of academic procrastination of students, differences in academic procrastination in learning, factors that influence academic procrastination, and the magnitude of the influence of each factor forming it. The analysis technique used is Confirmatory Factor Analysis (CFA) with the Structural Equation Model (SEM) model. ANOVA analysis was used to determine the difference between online and offline learning on self-perception, self-efficacy, self-resilience, and academic procrastination. The results of this study show that there are differences in self-perception, self-efficacy, self-resilience, and academic procrastination owned by students for online and offline learning. Offline learning is considered better for students as evidenced by the fact that when compared to both learning systems (online and offline), offline learning has higher self-perception, self-efficacy, self-resilience, and academic procrastination than online learning.

**Keywords**. Procrastination, Learning, Online, Offline

## Introduction

Covid-19 has changed almost all aspects of life, including education. Almost all teaching and learning activities that are usually carried out face-to-face, have turned into virtual or online (Tim Detik, 2020). The world of education also has to adjust changes quickly, so that it has an impact on technical and systems that are not all ready (Pusdatin, 2020). On the other hand, covid-19 makes people aware of alternatives to education delivery that previously emphasized student attendance to school to learning that does not require direct or online attendance. In terms of changes in the implementation of learning, it is certainly not a big problem for students who are mostly generation Z (Mohr and Mohr, 2019). They are known as Digital-Natives who live in a digital environment and are connected through social networks so that they naturally develop digital competencies (Jones and Lea, 2018). Their digital literacy is arguably more reliable than previous generations (Gainer, 2012). Online learning is very attractive to many students as it offers flexibility in participation, ease of access, and convenience (Croxton, 2014).

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However, the reality is the opposite. Based on the survey results of students after attending face-to-face lectures, they stated that they understood the lecture material better and it was more fun. This is because students are not given the opportunity to adjust to the shift from offline to online learning so that students feel a very significant difference between the two (Muilenburg, L. Y., & Berge, 2005). In addition, students' low motivation to participate in learning, as well as students' dissatisfaction with educational services (Ghaderizefreh and Hoover, 2018). It is also found that the number of students dropping out during online learning is quite high (Gray and Diloreto, 2016).

When compared based on learning outcomes, students with offline learning have higher scores than students with online learning(Hale, Mirakian and Day, 2009). Internal and external factors certainly influence this. Students' self-perception has a significant effect on students' success in learning (Kennedy and King, 1995). In addition, belief in the ability to exert control over students' motivation, behavior, and social environment also plays a role in the success of learning. During the learning process, of course, students face various obstacles. The ability to respond to stress needs to be possessed by students during the learning process. However, the most common procrastination that occurs in education is academic procrastination (Day, Mensink and O'Sullivan, 2000). Which is often a problem for students in the learning process both offline and online.The purpose of this study is to determine the academic procrastination of students in both offline and online learning, the level of academic procrastination of students, differences in academic procrastination in learning, factors that influence academic procrastination, and the magnitude of the influence of each factor

## Literature review

### Self Perception

Students' attitudes during education affect their learning achievement (Wang and Degol, 2014). Among these attitudes are perception, self-efficacy, resilience, and academic procrastination. Self-perception is the picture we hold of ourselves and our traits and the judgments we make about those traits (Chevalier *et al.*, 2009). The judgments we make about those traits. Self-perception encompasses two, core perceptual processes: self-concept, or the picture we have in our heads about who we are; and self-esteem. about who we are; and self-esteem, or how we value and evaluate our those traits.

### Self Efficacy

Self-efficacy refers to an individual's belief in his or her ability to carry out the behaviors necessary to produce specific performance achievements (Bandura, 1994). Self-efficacy reflects the belief in the ability to exert control over one's motivation, behavior, and social environment. This cognitive self-evaluation influences all types of human experiences, including the goals people strive for, the amount of energy expended for goal attainment, and the likelihood of achieving a certain level of behavioral performance. If a person has a low level of self-efficacy towards a task, he or she is is less likely to exert effort; therefore, the person is less likely will achieve it (Shen *et al.*, 2013).

Unlike traditional psychological constructs, self-efficacy beliefs are hypothesized to vary depending on the domain of functioning and the circumstances surrounding the occurrence of the behavior. Self efficacy Theory (SET) has had a major influence on research, education, and clinical practice. Within a person's self-efficacy, there are 3 different levels. There are individuals who have a high level. But there are also those who have low levels of self efficacy with a low level.

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Self Efficacy can be divided into two types, namely high Self Efficacy and low Self Efficacy.

Efficacy is low. Someone who has high Self Efficacy tends to be immediately intervene in doing the task, while for people who have low Self Efficacy tends to procrastinate and even avoid the job. Those with high Self Efficacy will usually work on specific and more difficult tasks. and more difficult tasks. They do not consider the tasks or work they as a burden or threat to them(Shen *et al.*, 2013).

In addition, they will choose to develop their passions for an activity to achieve their goals. to be able to achieve their goals. When they are working on a difficult task, they will overthink and thinking about their shortcomings. It's a waste of time and a waste of effort. They minimize their efforts and will choose to hurry through the task.

**Self Resilience**

Resilience is the capacity to respond to stress in a healthy way so that goals are achieved with minimal psychological and physical costs; resilient individuals "bounce back" after challenge while also growing stronger (Epstein and Krasner, 2013). "Bounce back" after challenges while also growing stronger. Resilience is key to improving quality of care, quality of care, and sustainability of the health workforce (Jurgens and Helsloot, 2018).

Individuals who have high resilience will tend to be easygoing, easy to socialize, have good thinking skills including social skills. Socializing, have good thinking skills including social skills and the ability to assess things, have people around them who support them, have and the ability to assess things, have supportive people around them, have one or more talents, are confident in themselves and believe in their ability to do things. One or more talents, believe in themselves and believe in their ability to make decisions and have spirituality and religiosity (Steele, Spencer and Aronson, 2002) ). Virtue and strength are the basis for resilience (Crane *et al.*, 2019).

**Academic Procrastination**

Academic procrastination is the tendency to delay or postpone learning activities and behaviors. The terms student procrastination and academic procrastination are used interchangeably (Steele, Spencer and Aronson, 2002). Defines student/academic procrastination as as follows: deliberate procrastination in a practical course of study or learning in spite of of expected setbacks. Academic procrastination occurs at all levels of education. Research has shown that procrastination among among undergraduate students is more common, and some studies have shown that more than 70 percent of college students regularly procrastinate (Lowinger, 2016). Asian studies report less procrastination which may be due to the embarrassment that comes with this behavior. Putting aside or delaying tasks can not only affect a person's sense of well-being of a person, but it can also affect their communication with others. Procrastination may have positive outcomes that allows students to make better use of available study time (Schraw, Wadkins and Olafson, 2007). But other research has shown that procrastination is associated with less success in life and the emphasis of this study, similar to many other works, is in the form of procrastination, is in the negative form of procrastination.

**Method**

The type of research that has been conducted is associative explanatory research, namely research that aims to obtain information, data regarding the cause and effect of things

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that are not yet known. Researchers prepare several questions as a guide to obtain primary data in the form of information, information, as the initial data needed. This research also uses a predictive quantitative approach to determine the contribution between variables. The research was conducted at both public and private universities in Indonesia. This research was conducted in 2021 (at the end of online learning in Indonesia) and 2023 to look at offline learning.

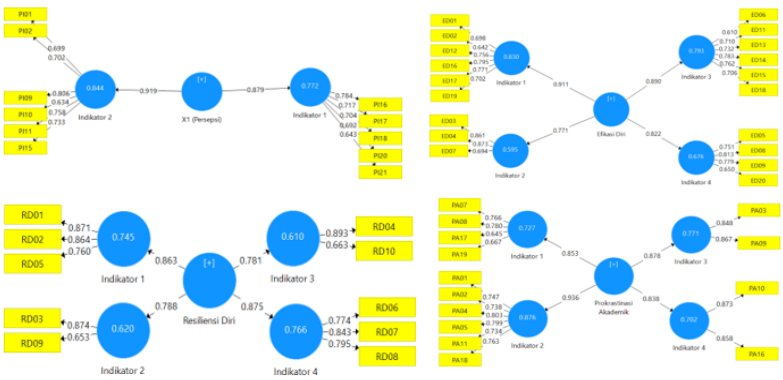
The population in the study were all students at both public and private universities in Indonesia. The sampling technique used in this research is the Simple Random Sampling technique. Data collection in this study was carried out by several complementary methods as follows: Interview; Documentation; and Questionnaire. Interviews are used to find initial information before conducting further research or in other words, this interview is useful for initial tracking of this research. The initial information is in the form of learning conditions in the classroom, both student conditions, learning situations, learning facilities, and learning methods. In addition to finding initial information, the data collection technique was also used to find other relevant data when meeting with the sample of this study.

This study used five raters with a rating scale between 1 and 5 with the criteria 1 (not appropriate), 2 (less appropriate), 3 (quite appropriate), 4 (appropriate) and 5 (very appropriate). The analysis technique used was Confirmatory Factor Analysis (CFA) with the Structural Equation Model (SEM) model. The use of this analysis technique, in addition to knowing the validity of an instrument, can also be used to determine the factors or breakdowns in an instrument (Hox, 2021). ANOVA analysis was used to determine the difference between online and offline learning on self-perception, self-efficacy, self-resilience, and academic procrastination.

**Findings**

This study used five raters with a rating scale between 1 and 5 with the criteria 1 (not appropriate), 2 (less appropriate), 3 (quite appropriate), 4 (appropriate) and 5 (very appropriate). The analysis technique used is Confirmatory Factor Analysis (CFA) with the Structural Equation Model (SEM) model. Prerequisite testing of the instrument before it is declared valid must meet the Keyzer Meyer Olkin (KMO) value greater than 0.05 and the Measures of sampling adequacy (MSA) value above 0.05 (Idris *et al.*, 2011). Validity testing is done by looking at Convergent Validity (CV), namely validity is said to be good if the loading factor value is more than 0.6 and significant at 5% (Ghazali and Nordin, 2019)

Figure 1. Convergent Validity Tests



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With descriptive statistics, an overview of the characteristics of the mean or mean ($\bar{X}$), frequency distribution and histogram. Descriptive statistics of this study include characteristics of respondents, self-perception, self-efficacy, self-resilience, and academic procrastination. The tendency of offline and online self-perception data can be known by comparing the average amount of research results (empirical) with the ideal average that has been determined. From the calculation results, the mean of the research results (empirical) is 39.00 for offline and 28.65 for online. For offline learning, the value is much higher when compared to the ideal mean. This shows that the overall self-perception skills offline tend to be high. As for online learning, the score is lower than the ideal mean. This shows that online self-perception skills overall tend to be low. To see the amount of data distribution from each score, it can be divided into five categories, namely:

**Table 1. Self Perception Variable Description**

| No. | Categories of SelfEfficacy | Offline | | Online | |
|---|---|---|---|---|---|
| | | Interval | Percentages | Interval | Percentages |
| 1 | Very Low | 16 – 27 | 4,0% | 12 - 20 | 12,3% |
| 2 | Low | 28 – 35 | 36,8% | 21 - 25 | 19,3% |
| 3 | Medium | 36 – 42 | 32,8% | 26 - 31 | 44,5% |
| 4 | High | 43 – 50 | 19,4% | 32 - 37 | 20,2% |
| 5 | Very High | 51 – 60 | 7,0% | 38 - 44 | 3,6% |
| **Amount** | | | **100%** | | **100%** |

The trend of offline self-efficacy variable data can be known by comparing the averag amount of research results (empirical) with the ideal average that has been determined. Ideal mean that has been determined. From the calculation results, the mean of the research results (empirical) is 73.88 for offline learning and 59.43 for online learning. The value is higher when compared to the ideal mean. This shows that self-efficacy offline and online, as a whole, tends to be high. But when comparing the empirical mean of both types of learning, the mean self-efficacy of offline learning is higher than online. To see the amount of data distribution of each score, it can be divided into five categories, namely:

**Table 2. Self Efficacy**

| No. | Categories of SelfEfficacy | Offline | | Online | |
|---|---|---|---|---|---|
| | | Interval | Percentages | Interval | Percentages |
| 1 | Very Low | 31 – 56 | 9,5% | 19 – 47 | - |
| 2 | Low | 57 – 67 | 20,9% | 48 – 55 | - |
| 3 | Medium | 68 – 79 | 42,8% | 56 – 63 | 75,0% |
| 4 | High | 80 – 91 | 21,4% | 64 – 71 | 19,8% |
| 5 | Very High | 92 – 95 | 5,5% | 72 – 76 | 5,2% |
| **Amount** | | | **100%** | **Amount** | **100%** |

The tendency of offline self-resilience data can be known by comparing the average amount of research results (empirical) with the ideal average that has been determined. From the calculation results, the mean of the research results (empirical) amounted to 39.32 for offline

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learning and 31.38 for online learning. This value is higher when compared to the ideal mean. This shows that the overall resilience skills offline tend to be high. But when comparing the empirical mean of both types of learning,then the mean of offline learning self-resilience is higher than online. To see the amount of data distribution from each score, it can be divided into five categories, namely:

**Table 3. Self Resilience**

| No. | Categories of SelfEfficacy | Offline | | Online | |
|---|---|---|---|---|---|
| | | Interval | Percentages | Interval | Percentages |
| 1 | Very Low | 14 – 29 | 10,9% | 18 - 24 | 6,6% |
| 2 | Low | 30 – 36 | 24,4% | 25 - 29 | 41,1% |
| 3 | Medium | 37 – 42 | 34,3% | 30 - 33 | 30,7% |
| 4 | High | 42 – 49 | 30,3% | 34 - 37 | 14,5% |
| 5 | Very High | 50 | - | 38 - 40 | 7,0% |
| **Amount** | | | **100%** | **Amount** | **100%** |

The tendency of offline academic procrastination data can be known by comparing the average amount of research results (empirical) with the ideal average that has been determined. From the calculation results, the mean of the research results (empirical) is 36.13 for offline learning while for online learning it is 38.65. This value is lower when compared to the ideal mean. This shows that academic procrastination in offline and online learning, as a whole, tends to be low. But when compared to the empirical mean of both types of learning, the mean academic procrastination of offline learning is lower than online. To see the amount of data distribution of each score, it can be divided into five categories, namely:

**Table 4. Academic Procrastionation**

| No. | Categories of SelfEfficacy | Offline | | Online | |
|---|---|---|---|---|---|
| | | Interval | Percentages | Interval | Percentages |
| 1 | Very Low | 14 – 17 | 7,5% | 14 - 26 | 10,2% |
| 2 | Low | 18 – 29 | 28,4% | 27 - 34 | 20,5% |
| 3 | Medium | 30 – 42 | 40,8% | 35 - 42 | 40,2% |
| 4 | High | 43 – 54 | 16,4% | 43 - 51 | 24,3% |
| 5 | Very High | 55 – 70 | 7,0% | 52 - 56 | 4,8% |
| **Amount** | | | **100%** | Jumlah | 100% |

ANOVA analysis was used to determine the difference between online and offline learning on self-perception, self-efficacy, self-resilience, and academic procrastination. On self-perception, self-efficacy, self-resilience, and academic procrastination. The ANOVA test results can be shown in the table below:

**Table 5. Anova Test Result**

| Variable | Sig |
|---|---|
| Self-perception | 0,000 |
| Self-efficacy | 0,000 |

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| | |
|---|---|
| Self-Reliability | 0,000 |
| Academic Procrastination | 0,003 |

The statistical results in the table above, the difference in perception, self-efficacy, self-resilience, academic procrastination in online and offline learning obtained a significance value of less than 0.05. Thus it can be concluded that the hypothesis stating "There is no difference in these variables in online and offline learning" is not proven. This means that there are differences in self-perception, self-efficacy, self-resilience, academic procrastination in online and offline learning.

**Discussion**

Online learning has gained popularity, and now serves as a mode of education that almost parallels offline learning in today's education system. However, despite the flexible learning opportunities and other advantages that online learning offers to students, it has resulted in high dropout rates, low retention, academic performance problems, and academic procrastination problems are still very common (Cerezo *et al.*, 2017). Students' attitudes during education affect their learning achievement (Wang and Degol, 2014). Among these attitudes are perception, self-efficacy, resilience, and academic procrastination. The purpose of this study will describe the differences in self-perception, self-efficacy, self-resilience, and academic procrastination in online and offline learning. Based on the analyzed research data, it can be discussed as follows:

Based on the analysis of this study, there are differences in students' perceptions of offline and online learning. Students have more positive perceptions towards offline learning than online learning (Dymek *et al.*, 2022). This finding is also supported by which states that online learning is considered less effective than face-to-face learning in terms of improving social skills and competencies. Students were considered less active during online classes compared to offline classes. Students who took online courses reported higher levels of boredom, anxiety and anger, but slightly more enjoyment (Stephan, Markus and Gläser-Zikuda, 2019). With students' perceptions tending to be negative towards online learning, it results in decreased academic achievement because self-perception directly affects students' self-regulation and motivation (Pekrun *et al.*, 2002).

Based on the results of this study, there are differences in self-efficacy in offline and online learning. Online learning offers a learning experience with technology, which provides accessibility, connectivity, flexibility, and the ability to encourage interaction between students compared to offline learning. However, online learning has some problems indicated because students' self-efficacy in this learning system tends to be lower (Peechapol et al., n.d.). Students with high self-efficacy tend to show superior knowledge in the selection of digital resources whereas students with low self-efficacy in information retrieval are more likely to show interest in learning materials through offline sources such as libraries, even with computerized database search learning techniques (Tang and Tseng, 2013).

Based on the results of this study, there are differences in self-resilience in online learning and offline learning. Self-resilience in offline learning is higher than online learning, meaning that the ability to respond to stress when learning offline is better than when learning online. This is also supported by the research of (Lilly Shanahan1, 2 *et al.*, 2022) in these studies, it is stated that online learning increases students' stress levels so that students' self-resilience tends to be lower.

Research has shown that procrastination among undergraduate students is more common, and some studies have shown that more than 70 percent of college students regularly procrastinate

(Lowinger, 2016). Asian studies report less procrastination which may be due to the shame that comes with this behavior. Although different results have been reported in other studies. Putting aside or delaying tasks can not only affect a person's sense of well-being, but it can also affect their communication with others. Procrastination may have positive outcomes that allow students to make better use of available study time (Melgaard *et al.*, 2021). But other studies have shown that procrastination is associated with less success in life and the emphasis of this study, similar to many other works, is in negative forms of procrastination. Most people view procrastination as a negative personality trait (Ucar, Bozkurt and Zawacki-Richter, 2021). added that the factors that resulted in the decrease in engagement and participation were distraction while attending classes from home (64%), the way the lecture was delivered (55%) and the role of the camera (64%).

**Recommendations**

Based on these findings, some recommendations can be given, among others the first, students tend to choose offline learning over online learning so that it can be a concern for educators to provide more offline learning portions. The second Although offline learning is preferred by students, it does not mean that online learning will not be an option so research like this needs to be done periodically.

**Conclusion**

Based on the explanation in the previous chapters, this research can be concluded as follows. The First, there are differences in self-perception, self-efficacy, self-resilience, and academic procrastination owned by students for online and offline learning. The second Offline learning is considered better for students as evidenced by the fact that when comparing the two learning systems (online and offline), offline learning has higher self-perception, self-efficacy, self-resilience, and academic procrastination than online learning.

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