

## Analysis of Self-Directed Learning of Grade X Students of SMA Negeri 15 Surabaya as a Basis for Recommendations for Guidance and Counseling Services

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### Keywords

Self-Directed Learning; learning independence; guidance and counseling.

### Abstract

This study aimed to describe the level of Self-Directed Learning (SDL) among tenth-grade students at SMA Negeri 15 Surabaya as a basis for developing guidance and counseling service recommendations. The research employed a quantitative descriptive survey involving 267 students selected through a saturated sampling technique. Data were collected using a 30-item SDL scale covering five indicators: awareness, learning strategies, learning activities, evaluation, and interpersonal skills. The instrument was found to be valid and highly reliable (Cronbach's Alpha = 0.92). Data were analyzed using descriptive statistics and categorized into high, medium, and low levels. The results showed that 77% of students were in the high SDL category, while 23% were in the medium category, and no students were classified in the low category. Although students generally demonstrated good learning independence, several aspects still require improvement, particularly self-awareness in selecting learning strategies, consistency in learning habits, information processing, self-evaluation, and interpersonal skills. Initial observations also indicated that some students tended to procrastinate, rely heavily on teachers, and show low learning initiative. Therefore, strengthening SDL through guidance and counseling services and active learning strategies is needed to support more balanced and sustainable development of students' learning independence.

## INTRODUCTION

Self-Directed Learning (SDL) is a process in which individuals take the initiative, with or without the assistance of others, to diagnose learning needs, formulate learning objectives, identify necessary resources, select and implement appropriate learning strategies, and evaluate learning outcomes (Knowles, 1975). The concept of SDL has subsequently evolved into a key theoretical framework in education, emphasizing individual autonomy, responsibility, and independence in the learning process (Loeng, 2020). SDL skills are considered essential for high school (SMA) students, especially in grade 10, who are in the transition phase from junior high school to higher education. At this stage, students should ideally be able to independently identify their learning needs, set realistic academic targets, choose learning strategies that suit their learning styles, and conduct critical and ongoing self-evaluation. Strong SDL skills not only positively impact academic achievement but also serve as essential provisions in preparing students to face the demands of lifelong learning in an ever-evolving era.

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However, actual conditions show a significant gap between these expectations and reality. Various studies in Indonesia have revealed that students' levels of independent learning (SDL) and learning independence are still suboptimal. Fitriani and Yusri (2022) found in their research that most adolescents in Indonesia exhibit low levels of independent learning, reflected in their lack of initiative in seeking learning resources independently and their high reliance on teacher guidance. Similar findings were presented by Fikriyah and Saripah (2023), who stated that the profile of independent learning in adolescents in Indonesia still requires serious attention, and this condition has direct implications for the need for more structured guidance and counseling services. Furthermore, research by Baharuddin et al. (2022) on high school students in Indonesia demonstrated that an SDL-based learning model significantly improved students' critical thinking skills, indicating that the potential for SDL in high school students is substantial, but has not been adequately facilitated in the daily learning process. Similarly, Haka and Sari (2021) found that the SDL abilities of grade X high school students were still relatively low, so they needed appropriate pedagogical stimulation so that they could develop optimally.

The phenomenon of suboptimal SDL can also be observed in the learning dynamics of grade X students at SMA Negeri 15 Surabaya. Based on the results of initial observations and interviews with Guidance and Counseling teachers at SMA Negeri 15 Surabaya, behaviors were found that reflect the need to strengthen SDL in students' daily habits, such as a tendency to delay completing assignments (procrastination), lack of structured study plans and schedules, and high dependence on peers to solve academic problems without first trying to find solutions independently. This condition is inseparable from the characteristics of Generation Z, namely a group of students born in the digital era and have a high dependence on technological devices. Excessive use of social media has been shown to negatively impact concentration ability and encourage academic procrastination behavior among high school adolescents (Tamala et al., 2024). Research by Munawwaroh et al. (2022) also confirmed that poor time management in high school students is significantly correlated with high levels of academic procrastination. On the other hand, the increasingly complex academic demands of high school, ranging from dense coursework, mounting assignments, to the pressure of preparing for college selection, further exacerbate this situation, leaving some students feeling overwhelmed in managing their learning process independently. If this situation is not promptly addressed, it is feared that it will impact the quality of learning and hinder students' overall academic development.

In this context, the role of Guidance and Counseling (BK) teachers is highly strategic. BK teachers possess the professional competence to help students develop independent learning through various planned and systematic services, such as classical guidance, individual counseling, and group guidance (Yoseta et al., 2024). Through these services, BK teachers can facilitate students in identifying learning barriers, increasing self-awareness of their needs and learning styles, and building the intrinsic motivation necessary to become independent learners. Hildayana and Bhakti (2023) confirmed that group guidance service strategies have proven effective in improving the self-directed learning skills of high school students. Furthermore, Nafi'ah et al. (2023) in their literature review concluded that basic guidance and counseling services play a crucial role in developing students' comprehensive SDL. Although numerous studies on SDL have been conducted, most have focused on the general population or university students, while research specifically mapping the SDL profile of 10th-grade high school students and providing the basis for developing operational BK service recommendations is still limited. This study fills this gap by identifying SDL indicators that are already strong and those that still need detailed strengthening in class X students of SMA Negeri 15 Surabaya. Therefore, this study aims to describe the level of Self-Directed Learning skills in class X students of SMA Negeri 15 Surabaya, as a necessary initial step in designing recommendations for targeted guidance and counseling services to improve student learning independence.

## METHOD

This study employed a quantitative approach with a descriptive survey design. According to Fraenkel and Wallen (1993), survey research is used to collect information from respondents through questionnaires or scales to describe various aspects of a population (Maidiana, 2021). The participants were all 267 tenth-grade students of SMA Negeri 15 Surabaya in the 2024/2025 academic year, distributed across nine classes. A census or saturated sampling technique was employed, in which all members of the population were included as research participants (Suriani & Jailani, 2023).

Data were collected during the second semester of the 2024/2025 academic year using a Self-Directed Learning (SDL) scale adopted from Henisa (2023) and adapted from Chairunnisa (2016). The adaptation process involved reviewing the original constructs and indicators developed by Williamson (2007), adjusting the language to suit high school students' comprehension levels, and evaluating item clarity and readability. The instrument consisted of 30 items measuring five indicators: awareness, learning strategies, learning activities, evaluation, and interpersonal skills.

The validity of the instrument was examined using the Pearson product-moment correlation technique, with all 30 items meeting the validity criterion ( $r \geq 0.176$ ,  $\alpha = .05$ ). Reliability testing using Cronbach's Alpha produced a coefficient of 0.92, indicating very high reliability (Nafi'ah & Bhakti, 2025). Responses were rated on a four-point Likert scale ranging from strongly agree (SA) to strongly disagree (SD). Data were analyzed using descriptive statistics, and SDL levels were categorized into high, medium, and low based on the Ideal Mean (M) and Ideal Standard Deviation (SDi) formulas.

## RESULTS AND DISCUSSIONS

Based on the results of the analysis of self-directed learning scale data that has been distributed to 267 high school students at SMA Negeri 15 Surabaya, the following description was obtained:

**Table 1.** Categorization References

Information	Score
Mean	75
Standard Deviation	15
$M - 1SDi$	60
$M + 1SDi$	90

The following are the criteria categories used based on the Self-Directed Learning scale score categories:

**Table 2.** Criteria for Self-Directed Learning Score Categorization

Height	$X > M + 1SDi$ $X > 75 + 15$ 90 and above
Medium	$(Mean - 1SDi) < Skor < (Mean + 1SDi)$ $(75 - 15) < X < (75 + 15)$ $60 < X < 90$
Low	$X < M - 1SDi$ $X < 60$

*Note.* M = Ideal Mean (75); SDi = Ideal Standard Deviation (15). Higher scores indicate higher levels of self-directed learning.

This study aims to describe the level of Self-Directed Learning skills of students at SMA Negeri 15 Surabaya. Based on the results of the analysis of the Self-Directed Learning scale data distributed to 267 students, the following results were obtained:

**Table 3.** Percentage Self-Directed Learning

SDL Level Categorization		
Category	Amount	Percentage
High	205	77%
Currently	62	23%
Low	0	0%

Based on the research results regarding Self-Directed Learning (SDL) presented in Table 3, it is known that of the total of 267 students, the majority are in the high category, namely 205 students with a percentage of 77%. Meanwhile, as many as 62 students or 23% are in the medium category, and there are no students in the low category (0%). These data indicate that in general the level of Self-Directed Learning of students is considered good, because the majority of students have high independent learning abilities. This is also reinforced by Diagram 1 which shows the frequency distribution of SDL categories, where the high category dominates compared to other categories.

However, the results still indicate that 23% of students fall into the moderate category, suggesting that strengthening efforts are still needed to optimize their self-directed learning abilities. Students in the moderate category still require guidance in learning planning, time management, and responsibility for their independent learning process to achieve the high category.

**Table 4.** Average value of favorable items

Indicator	No. Item	Average value	Category
Awareness	Item 3	3.11	Low
Learning Strategies	Item 8	2.67	Low
	Item 9	2.86	Low
Learning Activities	Item 14	3.16	Low
	Item 15	2.56	Low
	Item 17	2.99	Low
Evaluation	Item 19	2.48	Low
Interpersonal skill	Item 25	3.15	Low

Furthermore, the analysis of the favorable statement items showed that there were 8 statement items that had scores below the average ( $\leq 3.19$ ), namely in item 3 (3.11), item 8 (2.67), item 9 (2.86), item 14 (3.16), item 15 (2.56), item 17 (2.99), item 19 (2.48), and item 25 (3.15). These values indicate that in several Self-Directed Learning indicators there are still aspects that need to be improved. In particular, the lowest score was in item 19 with a value of 2.48, which indicates that students still experience difficulties in the self-evaluation indicator in critical thinking and analyzing information.

**Table 5.** Average value of unfavorable items

Indicator	No. Item	Average value	Category
Learning strategies	Item 7	3.19	High
	Item 10	3.20	High

Indicator	No. Item	Average value	Category
Evaluation	Item 21	3.21	High
Interpersonal skill	Item 30	3.20	High

In addition to analyzing the positive items, an analysis of the unfavorable statement items was also conducted. Unlike the positive items, high scores on the unfavorable items indicate a less favorable situation, as the statements presented negatively impact self-directed learning abilities. Therefore, a higher score on the unfavorable items indicates that there are still aspects of student learning independence that require attention.

Based on the analysis results of the highest unfavorable items, four items were obtained with the highest average values, namely item 7 at 3.19, item 10 at 3.20, item 21 at 3.21, and item 30 at 3.20. These items are included in the indicators *learning strategies*, *evaluation*, and *interpersonal skill*. The relatively high score on this unfavorable item indicates that there are still students who experience obstacles in using independent learning strategies, conducting self-evaluations of the learning process, and in interpersonal skills that support independent learning.

In more detail, on the indicators *learning strategies* (item 7), students still show a less than optimal tendency to use effective learning strategies independently. Furthermore, in the indicator *evaluation* (item 10 and item 21), these results indicate that some students still experience difficulties in evaluating learning outcomes and improving the learning strategies they use. Meanwhile, in the indicator *interpersonal skill* (item 30), a high score on the unfavorable item indicates that students still face obstacles in interacting or collaborating optimally to support the independent learning process. Thus, the results of the analysis of this unfavorable item indicate that although in general the level of Self-Directed Learning of students is in the high category, there are still several aspects that need to be improved, particularly in learning strategies, self-evaluation, and interpersonal skills.

Based on all these results, it can be concluded that students generally have a high level of *Self-Directed Learning* the high achievement level is evident from the majority of students being in the high category (77%), and no students being in the low category. However, the analysis of favorable items shows that there are still several indicators with scores below average, indicating that aspects of learning independence are not yet optimal. Furthermore, the analysis of unfavorable items with relatively high scores also indicates that some students still experience obstacles in the aspects of learning strategies, self-evaluation, and interpersonal skills. Therefore, although the ability *Self-Directed Learning* While students' performance is considered good, strengthening efforts are still needed to ensure optimal and equitable development of these abilities across all indicators. To clarify the findings, the following is a summary of the discussion per indicator:

**Table 6.** Discussion of Items with Low Scores on Each Indicator

Indicator	Low Items	Key Findings	Implications/Interventions
<b>Awareness</b>	Item 3: "I can choose the learning method that suits me best."	Students still experience difficulties in determining the learning method that best suits them (awareness of personal learning strategies is still low).	Interventions in the form of self-assessment and self-reflection training are needed to help students identify their learning needs. Teachers or counselors can use reflection journals, self-assessments, and goal setting. Self-awareness is a crucial component of self-regulated learning, which plays a role in students' ability to manage their learning process independently (Hadwin et al., 2022; She et al., 2023). Furthermore, research in Indonesia shows that students' low self-regulated learning is related to a lack of reflection and self-awareness in learning (Widiatmoko & Herlina, 2021).

Indicator	Low Items	Key Findings	Implications/Interventions
<b>Learning Strategies</b>	Item 8: "I still maintain my study habits even though I have other activities"	Students are not yet able to maintain consistent study habits when there are other activities (time management and priorities are still low).	Interventions in the form of time management training and learning strategies are needed, such as creating study schedules, setting priorities, and monitoring learning progress. Furthermore, implementing active learning models such as project-based or problem-based learning can improve student learning consistency. Interventions based on self-regulated learning have been shown to improve student persistence and learning outcomes (Xu et al., 2022; Heikkinen et al., 2023). Furthermore, research in Indonesia also shows that time management skills and learning strategy management are essential components of self-regulated learning, influencing learning success (Situngkir, 2024).
	Item 9: "I still study even though the teacher doesn't tell me to"	Students still depend on teacher instructions in learning (low learning initiative and independence).	To address students' dependence on teacher instruction, interventions are needed to strengthen self-directed learning, such as providing gradual independent assignments (scaffolding), practicing learning decisions, and providing feedback that encourages learning initiative. This approach is effective in increasing student independence and engagement (Schuler et al., 2024). Research in Indonesia also shows that increasing self-regulated learning can reduce passive behavior and student dependence on teachers in the learning process (Dilla et al., 2024).
<b>Learning Activities</b>	Item 14: "I can find important points when reading the lesson material"	Students are not yet able to identify important points from the material they read (their skills in understanding and summarizing information are still low).	Intervention is needed in the form of training in effective reading strategies, such as <i>highlighting</i> , <i>summarizing</i> , and <i>note-taking</i> to help students identify key points in learning materials. Teachers can guide students in using this strategy in a structured manner to improve their ability to understand information. Generative learning strategies such as summarizing and note-taking have been shown to improve students' comprehension and retention of information (Fiorella & Mayer, 2021; van der Stel & Veenman, 2021). Research in Indonesia also shows that the ability to record and process information influences student learning outcomes (Pratiwi & Handayani, 2022).
	Item 15: "I use mind mapping as a learning method to understand a wide range of information."	Students are not yet accustomed to using learning strategies such as mind mapping to understand complex information (the variety of learning strategies is still limited).	Interventions in the form of training in the use of visual learning strategies, such as mind mapping, are needed to help students understand complex and broad material. Teachers can integrate learning methods such as discovery learning to actively engage students in organizing information and constructing their own understanding. The use of visual strategies such as mind mapping has been shown to be effective in improving conceptual understanding and information organization skills (Fiorella & Mayer, 2021). Research in Indonesia also shows that the application of mind mapping can significantly improve conceptual understanding and student learning outcomes (Pratiwi & Handayani, 2022).

Indicator	Low Items	Key Findings	Implications/Interventions
	Item 17: "I ask appropriate questions during class."	Students are less active in asking questions during learning (participation and activeness in class is still low).	Interventions in the form of participatory learning strategies, such as group discussions, active question-and-answer sessions, and the use of question-prompting techniques, are needed to encourage students to be more confident in asking questions. Teachers can also create a safe and supportive learning environment so that students are not afraid to participate. Active engagement in learning has been shown to improve students' understanding and motivation (Bond et al., 2020; Fredricks et al., 2021). Research in Indonesia shows that students' active question-taking can be enhanced through interactive and collaborative learning models (Sari et al., 2022).
<b>Evaluation</b>	Item 19: "I have difficulty thinking critically or analyzing information"	Students still experience difficulties in thinking critically and analyzing the information obtained (their ability to evaluate and process information is still low).	Interventions such as training in critical and evaluative thinking skills, such as analyzing information, comparing sources, and drawing conclusions, are needed. Teachers can use methods like problem-based learning or case studies to train students' ability to evaluate information. Critical thinking skills are an essential part of self-regulated learning and contribute to in-depth understanding (Halpern, 2020). Research in Indonesia also shows that critical thinking training can improve students' analytical skills in learning (Nuryanti et al., 2021).
<b>Interpersonal Skill</b>	Item 25: "I assess and evaluate my learning methods"	Students are not yet able to evaluate the learning methods they have implemented effectively (self-reflection on the learning process is still low).	Interventions such as strengthening interpersonal skills and self-reflection, such as peer assessment activities, group discussions, and self-evaluations, are needed to help students evaluate their learning process more effectively. Teachers or counselors can also provide group guidance services to train communication and self-reflection skills. Interpersonal skills and self-reflection have been shown to play a role in improving students' self-directed learning (Morris, 2020; Yan, 2020). Research in Indonesia also shows that social interaction in learning can improve students' self-evaluation skills and learning outcomes (Fitriani et al., 2022).

Although the overall level of Self-Directed Learning among students at SMAN 15 Surabaya is considered high, observations and information from the guidance and counseling teacher confirm that some students still need attention in certain aspects. This is evident in behaviors such as procrastinating on assignments, being less active in seeking learning resources independently, and relying on teacher explanations to understand the material. Furthermore, some students also exhibit passive tendencies in learning, such as rarely asking questions and lacking initiative in developing their understanding of the material. This condition indicates that although SDL is generally in the high category, strengthening certain indicators is still needed to ensure that independent learning develops evenly across all students.

When compared with previous research, these findings align with research findings showing that secondary school students still have limitations in learning independence, particularly in terms of time management, learning initiative, and self-reflection. Research by Apriliana, W.A. (2022) indicates that students tend to have low time management skills, while Nurhidayanti et al. (2022) found that students still rely on teacher guidance in the learning process. This is also supported by international research findings showing that self-regulated learning practices in adolescents are still at a suboptimal level, particularly in aspects of reflection and taking learning

initiatives (Sáez-Delgado et al., 2023; Wu et al., 2024). Thus, these research findings reinforce that learning independence remains a common challenge for secondary school students.

On the other hand, the implementation of active learning strategies has been proven to improve students' self-directed learning skills. One effective approach is project-based learning (PBL), which provides opportunities for students to actively engage in the learning process. Research by Zhang and Ma (2023) shows that PBL has a positive influence on increasing motivation, learning initiative, and higher-order thinking skills. Furthermore, Zhang, Shi, and Zhang (2023) also found that PBL can improve the quality of student collaboration through meaningful group interactions and better cognitive awareness. This is in line with the recommendations in this study, which emphasize the importance of using active learning strategies, such as project-based learning and discovery learning, to enhance student learning independence at SMAN 15 Surabaya.

Another factor contributing to the suboptimal performance of several aspects of Self-Directed Learning is the teacher-centered learning environment. In this context, the teacher dominates the delivery of material, while students passively receive information. Several studies have shown that a top-down learning approach can hinder the development of critical thinking skills and independent learning by limiting students' opportunities for active participation, reflection, and learning initiative (Cameron et al., 2022; Dwyer, 2023; Woods & Copur-Gencturk, 2024). As a result, students experience difficulties in understanding complex problems and making independent decisions during the learning process (Yusuf, Y., 2024).

Students who possess strong self-directed learning skills tend to be more prepared to face various learning challenges, both in and outside of school. This is because they are able to manage the learning process independently, have strong reflection skills, and adapt learning strategies according to their needs. Research shows that self-directed learning plays a crucial role in supporting the mastery of higher-order thinking skills and problem-solving abilities (Finn et al., 2024). Furthermore, self-directed learning is also a crucial factor in developing lifelong learning habits, enabling students to continuously develop themselves in line with the demands of the times (Karataş, Şentürk, & Teke, 2021).

Given these issues, guidance and counseling services in schools need to be optimized as a preventative and developmental effort. Guidance and counseling services can help students increase their learning awareness, understand their potential, and develop independent learning skills. Furthermore, responsive services are needed to directly assist students experiencing learning difficulties, preventing their problems from becoming more complex (Bhakti et al., 2018). Guidance and counseling also play a role in helping students identify their strengths and weaknesses and optimally direct their interests and talents (Mufidah et al., 2022).

Efforts to develop Self-Directed Learning need to be supported by innovative strategies that are appropriate to student characteristics. Some steps that can be taken include: (1) creating a democratic learning atmosphere so that students feel valued; (2) encouraging student activeness in making decisions related to learning activities; (3) providing opportunities for exploration to develop curiosity; (4) respecting individual differences without comparing one student with another; and (5) building positive relationships between teachers and students (Pradika, 2021). Thus, the development of Self-Directed Learning at SMAN 15 Surabaya is expected to run optimally and sustainably.

## CONCLUSIONS

Based on the research results, it can be concluded that the level of Self-Directed Learning (SDL) of class X students of SMA Negeri 15 Surabaya is generally in the high category, with a percentage of 77% in the high category and 23% in the medium category, and no students were found in the low category. This indicates that most students have good independent learning skills, such as awareness of learning needs, the ability to set goals, and responsibility in

the learning process. In general, this condition illustrates that the potential for independent learning of students has developed quite well.

However, a more in-depth analysis of each indicator and statement item indicates that several aspects of Self-Directed Learning remain suboptimal. These weaknesses are particularly evident in indicators such as self-awareness in determining learning strategies, consistency in implementing learning habits, ability to understand and process information, critical thinking skills, and self-evaluation skills. Furthermore, the analysis of unfavorable items also indicates that some students still experience obstacles in using effective learning strategies, evaluating learning outcomes, and developing interpersonal skills that support independent learning.

These findings are reinforced by observations and information from guidance and counseling teachers, which indicate undisciplined learning behaviors, such as procrastination, dependence on teachers, and low initiative in seeking independent learning resources. Therefore, even though students' SDL levels are relatively high, systematic strengthening efforts through active learning strategies and optimization of guidance and counseling services are still needed. Appropriate interventions are expected to help students develop more optimal learning independence, evenly across all indicators, and support their readiness to face future learning demands.

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