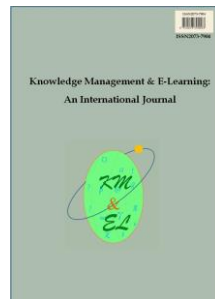

Student independence crisis in distance learning during the Covid-19 pandemic

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Student independence crisis in distance learning during the Covid-19 pandemic

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Abstract: This research aims to measure students' learning independence levels in distance learning during the COVID-19 pandemic and identify factors that influence students' learning independence. The quantitative method was used to obtain data from 179 high school students in Indonesia to assess students' learning independence. In addition, this study used multiple linear regression analysis to examine the factors that influence learning independence. The result

showed that student independence is at the “medium” level and strongly influenced by academic achievement, learning motivation, and time management. Furthermore, only 26.82% carried out their assignments independently, while the rest sought help from their families and copied the work of their friends. In this sense, the learning process becomes a family matter that will face challenges for the low-level income families, as most of their time is spent working to fulfill their family’s needs. Therefore, distance learning innovation is needed through diversifying learning methods and applying blended learning. The research results are useful in providing information about the impact of distance learning on students’ learning independence. Policymakers need to devise more creative and interesting learning policies to motivate students if distance learning becomes an option in the future.

Keywords: Students’ learning independence; Distance learning; Academic achievement; Learning motivation; Covid-19

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1. Introduction

The global COVID-19 pandemic has created enormous challenges in the educational sector, these include disturbances in the students' and teachers' teaching and learning processes. One of the significant impacts is the change from face-to-face to online distance learning. The abrupt shift in learning poses unique challenges for students, educators, and administrators (Limbu & Pham, 2023), as well as parents (Sharma, 2023). In addition to the psychological impact (Muawanah et al., 2023), distance learning also leads to a decline in the quality of education and student learning achievement (Shamad et al., 2023). In practice, online learning has led to an independence crisis for students because there is no direct control and guidance from the teachers. In addition, various factors caused the crisis, such as students not receiving constant online learning (Noori, 2021). The lack of student independence was also caused by the unsatisfactory quality of online learning. This is related to previous research findings that online learning quality significantly impacts students' loyalty (Pham et al., 2019). This student's independence crisis because of distance learning should become the primary care of the teachers and schools to prevent the decrease in students' independence.

One of the major impacts of COVID-19 was the decrease in the number of international students (50%) (Bairagi, 2020) although online learning has replaced the in-person learning process. Online learning during the pandemic has affected the learning process too, such as the lack of social interaction, the need for equipment and technical support (Iswanto et al., 2020; Maraqa et al., 2022; Ozfidan et al., 2021), the changing of the course design (Olson & Kenahan, 2021), and the implementation of emergency curricula in all educational institutions (Muzayanah et al., 2021). Moreover, this online learning system, which requires digital devices, signals, and internet data quotas, has created disparities between rich and poor students and those residing in urban and rural areas.

Furthermore, distance learning creates a space and time gap between students and teachers in conducting the education process. This model has several effects on the students, including psychological impact (Alomyan, 2021; Ayala et al., 2021), the emergence of learning boredom (Derakhshan et al., 2021), and independent learning (Bubb & Jones, 2020). Therefore, this article examined the students' independence crisis in distance learning during the COVID-19 Pandemic, especially students at Islamic Senior High Schools in three different cities in Central Java Indonesia.

Several previous studies concerning student learning independence during COVID-19 discussed at least three aspects. First, learning independence is analyzed based on its indicators (Winarti et al., 2021). Second, the practices of learning independence applied by students during the implementation of distance learning (Ilmi et al., 2020; Setiawan et al., 2022). Third, the relationship between independence and several other factors in the distance learning process, such as self-regulation (Agustina & Wahyuni, 2022; Armayanti et al., 2023), parental satisfaction (Lau et al., 2021), and learning outcomes (Anwar & Zebua, 2022). Meanwhile, this article fills the literature gap specifically in the students' independence crisis in distance learning during the COVID-19 Pandemic. In addition, this article provides the factors that contributed to the students' independence then which was examined based on the students' experiences during their participation in the distance learning process.

This research provides at least three significant contributions to the study of distance education. First, the condition of student learning independence during COVID-

19 can be clearly described through a very detailed quantitative analysis. Based on the results from the questionnaire's answer that was confirmed with a validity test, the results of descriptive quantitative analysis can provide adequate information about the level of student independence during distance learning. Second, the factors that influence student independence are identified. Furthermore, regression analysis proved the positive contribution of learning motivation, academic achievement, and time management variables to the level of student independence. Third, the crisis of student learning independence during COVID-19 is clearly illustrated by the existence of unauthorized practices such as cheating on friends' assignments and asking for family help by students to complete their assignments. In addition to contributing to the availability of references regarding student independence in distance learning, the findings of this study also provide criticism of inappropriate distance learning models, resulting in a crisis of learning independence. For this reason, this theme is important to be discussed deeply to provide new information on a distance learning model that can trigger student learning independence.

2. Literature review

2.1. Distance learning

Various concepts refer to distance learning, some have similarities, and others have differences. Distance learning is sometimes used interchangeably with distance education. The simple definition of the term distance education is a learning process where the physical place of teacher and students are separated (Keegan, 1996; Roberts, 2019). Furthermore, (Holmberg, 1994) emphasized that there are two elements of distance learning; firstly, the separation between teachers and learners whether it was practiced using online, printed, or media-based study. Secondly, the structure of learning material that is best suited for both teacher and students is an important element in this distance learning.

Distance education has developed from the first to fifth generation regarding the media used for the learning process, as follows; the first generation uses correspondence and single print media. The second generation is using radio and television broadcasting. The third generation uses a combination of correspondence and broadcasting media. The fourth generation is the use of tele-learning, interactive audio, and video conferencing. The fifth generation is the use of online delivery (Taylor, 2001).

Furthermore, another scholar highlights distance education as a learning environment in that the students do not need to be in the classroom and to attend in-person learning. There will be technological devices used in this education process such as desktop computers and laptops do online learning (Brown & Green, 2018). Type of online learning become the most widely used in distance learning (Lee & Nguyen, 2007).

Distance learning has been widely used for delivering subject material during the COVID-19 pandemic as the social distance policy enacted in many countries. During this outbreak, it was mentioned that as of October 2020, more than 1.6 billion children and youth across 188 countries had been affected by this pandemic (Tlili et al., 2022). To curb the Coronavirus, many activities involving a large number of people were stopped or postponed including education. In this sense, education has made adjustments to the rule, like changing in-person education to distance learning (Aldaghri & Oraif, 2022; Karahisar

& Unluer, 2022). This method of learning has the flexibility of time, location, effort, and cost. At the same time, teachers and students have to adjust to the technology being used for this type of learning (Vojteková et al., 2021).

2.2. Independent learning

Independent learning is associated with several positive outcomes. Self-directed learning empowers students to set goals, manage time, and take ownership of their progress (Sitaresmi et al., 2024; Whitebread et al., 2005; Yanti, 2024). It also cultivates critical thinking, problem-solving, and metacognitive skills, enabling them to analyze, adapt, and optimize their learning strategies (Sitaresmi et al., 2024; Whitebread et al., 2005; Yanti, 2024). Currently, distance learning is essential due to the inception of the COVID-19 pandemic. Students with independent learning attributes skillfully reflect, analyze, and evaluate issues. They possess the ability to promote independent learning, make decisions, and seek information with little guidance and support (Lakin, 2013).

Several studies have been conducted on independent learning and its relation to academic success. This term is also referred to as '*self-directed learning*' (Song & Hill, 2007) or '*independent learning*' (Lakin, 2013; Meyer et al., 2008). The concepts of self-directed learning (SDL), independent learning (IL), and self-regulated learning (SRL) have a similar connotation, which has been widely used concerning students' academic success. Furthermore, these three terms are often interchangeable and usually associated with learning practices adopted at the higher education level. According to (Aitken & Balapumi, 2012), online learning is rarely implemented at the primary and secondary levels. Previous studies also used the term independent learning to refer to an online distance or internet-mediated learning process (Veletsianos, 2010; Wang et al., 2013).

The students' independence during the distance learning process is related to how their participation in the learning process which is mostly conducted online. There are six indicators to measure how the students' involvement in e-learning, namely psychological motivation, peer cooperation, cognitive problem-solving, interaction with their teachers, community support, and learning management (J. Lee et al., 2019). In this sense, students need to initiate managing their learning activities without their parent's help. Therefore, students need to have more interaction with their teachers and friends, as well as various multimedia and online applications (Yu & Canton, 2020).

The Independent learning process received enormous attention during the COVID-19 pandemic. However, the majority of the studies only revolve around students' readiness (Owusu-Fordjour et al., 2020) and towards the adopted learning process. Meanwhile, some research reported parents' concerns over their children's failure in online learning. This is because they do not believe that their children can independently manage their learning process (Dong et al., 2020). Even though the research was conducted in China, there is a possibility of obtaining a similar result in Indonesia. Nevertheless, this theme missed the attention of educationists during the COVID-19 pandemic.

This research fills the gap in students' knowledge of independent learning during the COVID-19 pandemic. It involves the inclusion of related literature and provides supporting data for further academic policy formulation, such as the adoption of distance learning during an emergency period. Furthermore, the results generally cover the implementation of this method in high school students, especially those related to distance and online learning. As earlier explained, most of the literature on independent learning

rarely analyzes its implementation at the secondary level. Moreover, in the Indonesian context, there are specific differences in the curriculum and cultural psychology. Therefore, the results realized are different from those obtained from studies done in other countries because it was reported that higher education students have not yet fully adapted to independent learning. This research fills the gap associated with implementing independent learning in religious schools (madrasas) during the pandemic.

2.3. Factors affecting learning independence

During distance learning which eliminates face-to-face contact between teachers and students, students will learn independently due to several factors as shown by previous studies. For instance, factors that are confirmed to be related to student independence like learning motivation (Katz, 2002), academic achievement or cognitive ability (Mukhlisa et al., 2021), parenting patterns, and the education system (Muhasim et al., 2022), and self-regulated learning, one of the components of which is how students can manage their study time well (Rahayu et al., 2017). Furthermore, learning independence can be obtained if there is harmony between the relevance of goals, knowledge, self-confidence, and roles (Fernández-Toro & Hurd, 2014). Students' educational background and personality are also identified as factors that influence learning independence (Zhu & Qiu, 2021). Several factors can trigger the emergence of student learning independence, however, this research is limited to five factors related to student learning independence, including learning motivation, time management, parenting style, school education system, and academic achievement.

Motivation is defined as the inspiration that moves a person to act (Lahey, 2000), if a person is motivated, he/she will work diligently to achieve their goals (Oladele, 1998). Therefore, learning motivation can affect students' learning achievement (Muzayanah et al., 2023). Learning motivation is often associated with how the teacher's teaching style can motivate students. Motivation depends on the situation and time, student motivation related to specific tasks, and enthusiasm and level of student activity in learning (Noland & Richards, 2014). Moreover, situation and time are important in fostering learning motivation, thus the ability to manage time is needed, especially in more independent distance learning. This article identifies time management as time arrangement, an action or behavior process related to time, which is planned and implemented to achieve greater efficiency in learning tasks (Casamitjana Franco et al., 2013). Time management is closely related to how students' ability to control time during distance learning (Claessens et al., 2007).

The ability of children to learn independently during distance learning is also supported by parenting style for their children, especially in emergency conditions like during a pandemic time. For parents, online education has proven to be more demanding than traditional schooling due to barriers such as low internet availability, lack of technological devices, unstructured environment, and increased need for parental guidance and support (Sharma, 2023). Child-parent relationships and parenting styles influence students' ability to develop independent learning. Children who excel are usually born to parents who have a communicative and respectful parenting style (Harvey & Chickie-Wolfe, 2007). Several indicators of parenting style variables include parental discipline, kindness, and firmness in parenting (Carroll & Hamilton, 2016), as well as the amount of time parents, especially mothers, spend on activities with children (Fomby & Musick, 2018).

An equally important factor in supporting students' independence during distance learning is the education system implemented at school. Distance learning, which is mostly conducted online, requires digital devices, internet quotas, and adequate internet networks. A quality education system must have three principles, namely relevance, equality of access and outcomes, and appropriate respect for individual rights. There are at least five variables that an education system must have, namely learner characteristics, context, supportive inputs, teaching and learning, and outcomes (UNESCO, 2023). To anticipate the number of instrument items in the research that can make students tired, this study limits the support of the education system to student independence to the enabling input aspect only.

Furthermore, learning independence will be closely related to students' academic achievement. Academic achievement can be defined as the level of development achieved by students through learning for a certain period in the aspects of knowledge, skills, abilities, attitudes, and values (Tian & Sun, 2018). However, due to various limitations, this study only discusses academic achievement as the cognitive achievement of students (Tikhomirova et al., 2020) during distance learning. Academic achievement here is characterized by good grades and improved learning outcomes during distance learning.

This study aims to answer the following questions:

RQ1: How independent are students in distance learning during the COVID-19 pandemic?

RQ2: What are the factors that affect student independence in distance learning during the COVID-19 pandemic?

3. Method

3.1. Research design

This research adopted an associative quantitative approach with multiple regression analysis to examine the effect of the independent variable (X) on the dependent one (Y). Meanwhile, the influence of five independent variables, namely learning motivation (X_1), time management (X_2), parenting styles (X_3), the school education system (X_4), and academic achievement (X_5) to variable Y (students' learning independence) was tested, either simultaneously or partially. It is important to ascertain which has the greatest influence on student independence related to distance learning.

3.2. Population

The population of this study was students of Madrasa Aliyah (Islamic senior high schools) located in three districts in Central Java Indonesia. This population was selected for the following reasons: students at the senior high schools were at the independent age for their studying. Furthermore, those three districts were chosen based on their distinctive characteristics which are urban and rural areas. Thus, the findings of this research depicted the different levels of students' independence due to their location.

3.3. Sample design

The analysis was based on the madrasa aliyah students in Surakarta, Semarang Cities, and Grobogan Regency in Central Java, Indonesia. These three regions were selected as representatives comprising Surakarta and Semarang as urban areas, and Grobogan as a rural area. Furthermore, two Madrasa Aliyah were selected from each region, and 30 students were selected from each school through systematic random sampling. Classes XI and XII constituting Natural Sciences (Ilmu Pengetahuan Sosial/IPA) and Social Sciences (Ilmu Pengetahuan Sosial/IPS) majors were chosen as the research sample. However, of the 180 students, one student failed to answer the questions completely and did not meet the requirements, thereby reducing the number of respondents to 179. The demographic characteristics of respondents can be seen in Table 1.

Table 1
Demographic characteristics of respondents

Characteristics	Category	Total	Percentage
Gender	Male	78	43.58%
	Female	101	56.42%
Class	XI	76	42.46%
	XII	103	57.54%
Majors	Natural Sciences (IPA)	100	55.87%
	Social Sciences (IPS)	79	44.13%
Region	Rural	95	53.07%
	Urban	84	46.93%
Cell phone ownership	Yes	131	73.18%
	No	48	26.82%
Father's education	Elementary school	62	34.64%
	Junior high school	22	12.29%
	Senior high school	66	36.87%
	Diploma/Bachelor/Masters/Doctorate	29	16.20%
Mother's education	Elementary school	63	35.20%
	Junior high school	44	24.58%
	Senior high school	44	24.58%
	Diploma/Bachelor/Masters/Doctorate	28	15.64%
Parents' income monthly	Below 1.7 million Rupiahs	86	48.04%
	1.71– 2.7 million Rupiahs	44	24.58%
	2.71 – 3.7 million Rupiahs	26	14.53%
	Above 3.7 million Rupiahs	23	12.85%

3.4. Instrument

The instrument consists of 24 statement items, all rated on a scale of 4, and tested for construct validity by calculating the product-moment correlation. The one-shot method was applied in this study because data were collected during the pandemic COVID-19, and the social distancing policy was enacted. During this time, there were many prohibitions for people to move and to do in-person surveys. The validity test was applied to 179 respondents, with a 95% confidence level. The validity test depicted that most of the instrument items were valid as indicated by the product-moment correlation value > 0.146 (r table). Then, the invalid items are revised. In addition to the validity test, the instrument has also been through a reliability test which results in a Cronbach Alpha coefficient of

0.830 greater than 0.7. The instrument also met the data normality requirements indicated by the One-Sample Kolmogorov-Smirnov Test value of 0.20, greater than 0.05.

3.5. Analysis

The data was interpreted using two analytical tools, namely descriptive quantitative and linear regression analysis. Meanwhile, the descriptive quantitative analysis was used to measure the Madrasa Aliyah students' independence level in distance learning by calculating the average score of their answers. This was further categorized to obtain the criteria used to describe the student's level of independence which is shown in Table 2.

Table 2

Category of student independence level

Interval	Category
1.00 – 2.00	Low
2.01 – 3.00	Medium
3.01 – 4.00	High

On the contrary, the regression analysis was used to determine the factors that significantly influence the Madrasa Aliyah students' independence in distance learning. The linear regression model used to test the impact of variable *X* on *Y* is reported as follows. Furthermore, it is also used to ascertain the extent of influence each variable has by calculating the coefficient of determination. The coefficient of determination or R^2 is also used to measure the changes in the dependent variable. Multiple linear regression analysis was applied to test the hypothesis that student learning independence is influenced by learning motivation, time management, parenting style, school education system, and academic achievement.

4. Results

4.1. The level of students' independence in distance learning

To obtain an overview of students' learning independence during distance learning and its relationship with other variables, a questionnaire was developed based on indicators of these variables; Learning independence relates to the ability of students to reflect, analyze, evaluate problems, make decisions, and seek information with little guidance and support (Lakin, 2013). The learning motivation variable relates to how the teacher's teaching style can motivate students, situation- and time-dependent motivation, specific task-related student motivation, and students' enthusiasm and activity level in learning (Noland & Richards, 2014). Time management variable is closely related to student's ability to manage time during distance learning (Claessens et al., 2007). The indicators of parenting variables in this study include discipline, kindness, and assertiveness of parents in parenting (Carroll & Hamilton, 2016), as well as the amount of time spent by parents, especially mothers, in doing activities with children (Fomby & Musick, 2018). Facility support provided by schools to students during distance learning is used as an indicator of school education system variables (UNESCO, 2023). Finally, the academic achievement variable in this study is limited to indicators of students' cognitive achievement

(Tikhomirova et al., 2020) during distance learning. The research instruments are shown in Table 3.

Table 3
Research instruments

Variable	Questions
Student independence (Y)	1. I study from home with pleasure. 2. I pay attention to the learning schedule while studying from home so that all lessons can be followed. 3. I try to complete the tasks given by the teacher myself while studying from home. 4. While learning from home, I did a lot of creativity in doing the assignments given by the teacher. 5. While learning from home, I ask my parents or siblings for help to do the assignments given by the teacher. 6. While learning from home, I do individual assignments from teachers by copying from friends' assignments.
Learning motivation (X1)	1. While learning from home, I ask the teacher when there is a subject matter that I don't understand. 2. When experiencing difficulties in learning, I try to solve them by looking for other learning resources both online and offline. 3. While studying from home, I did all the assignments given by the teacher. 4. I studied hard to get good grades. 5. I learned because I was interested in the good way my teachers teach. 6. I study because my friends are fun and encourage me to learn. 7. I study diligently because the facilities at home make it easier for me to find learning resources. 8. I feel bored following learning from home.
Time management (X2)	1. I do assignments from teachers while studying from home according to the specified time. 2. While studying from home, I followed all subjects according to a predetermined schedule.
Parenting style (X3)	1. My parents reminded me it's time to learn from home. 2. My parents paid attention to the adequacy of the internet and network quota during my studying from home. 3. My father/mother accompanied me while I was studying from home. 4. My parents paid attention to the availability of mobile devices and laptops to study from home.
School education system (X4)	1. The school provided a free quota internet package for poor students as a facility to study from home. 2. During learning at home, the school provides learning media that are easy and practical to use.
Academic achievement (X5)	1. During my studying from home, I got good grades in every subject. 2. During my learning from home, my grades in most subjects improved compared to face-to-face learning at school.

The research questionnaire was filled out by 179 students from six randomly selected high schools to obtain information on students' learning independence during distance learning. Referring to the quantitative descriptive analysis, it can be identified the level of learning independence along with five independent variables. These are shown in Table 4.

Table 4
Student independence level

Variables	Mean	Category
Student independence(Y)	2.80	Medium
Learning motivation (X1)	2.92	Medium
Time management (X2)	3.04	High
Parenting style (X3)	2.61	Medium
School education system (X4)	2.52	Medium
Academic achievement (X5)	2.68	Medium

Table 4 shows the students' independence level in distance learning and the other 4 variables, namely learning motivation, parenting style, school education system, and academic achievement are in the “medium” category. Meanwhile, time management is in the “high” category. A cross-tabulation analysis was carried out on the region (where students reside, their cell phone ownership, and majors (IPA or IPS) to observe a detailed relationship between students' learning independence in distance learning and the surrounding conditions. The results of the cross-tabulation of student independence are shown in Table 5.

Table 5

The level of student independence based on region, cell phone ownership, and majors

Aspect	Category	Student independence			Total
		Low	Medium	High	
Region	Rural	5.3%	65.3%	29.5%	100%
	Urban	10.7%	59.5%	29.8%	100%
Cell phone ownership	Yes	8.4%	64.1%	27.5%	100%
	No	6.3%	58.3%	35.4%	100%
Major	Natural Science (IPA)	8.0%	56.0%	36.0%	100%
	Social Science (IPS)	7.6%	70.9%	21.5%	100%

Table 5 shows that students in rural areas tend to be more independent in distance learning than in urban regions. This is proven by the fact that only 5.3% of those residing in rural areas are classified under the “low” category, while 10.7% are from the urban region. While a cell phone is a vital device in distance learning, it does not guarantee independence in learning. Based on Table 5, the “high” category of independence was achieved by 35.4% of students who did not have cell phones, while those who had were only 27.5%. Conversely, 8.4% and 6.3% of the students owned and did not own cell phones, hence they were in the “low” category.

Similar to public schools, Madrasa Aliyah also provides students with the opportunity to either enroll in natural (IPA) or social science (IPS) classes. According to Table 5, 36.0% and 21.5% of natural and social science students were in the “high” category. The percentage of natural and social science students in the “low” category was similar, namely 8.0% and 7.6%, respectively.

4.2. Determinants of student independence in distance learning

Students' independence in distance learning requires serious attention due to the prohibition of face-to-face meetings and the fact that it is not adequately monitored. Moreover, for those with working-class parents, this process causes a decline in learning awareness and motivation. However, many factors influence students' independence, such as learning motivation, time management, parenting styles, the school education system, and academic achievement. These were tested using multiple linear regressions in the SPSS software, and the results can be seen in Table 6.

Based on Table 6, the multiple linear regression model obtained with SPSS is:

$$Y = 0.161 + 0.279X_1 + 0.121X_2 + 0.109X_3 + 0.009X_4 + 0.429X_5$$

Table 6

Multiple linear regression model

Model	B	Std. Error	Sig.	Correlation	R ²
Constant	.161	.132	.225		
Learning motivation (X1)	.279	.049	.000	.467	
Time management (X2)	.121	.032	.000	.344	
Parenting style (X3)	.109	.030	.000	.189	
School education system (X4)	.009	.030	.774	.038	
Academic achievement (X5)	.429	.037	.000	.595	.759

This means that when variables *X1* to *X5* are constant, the mean of student independence (*Y*) is 0.161. Furthermore, for every 1 unit increase in the *X1* variable, an increase of 0.279 units in the value of learning independence. Likewise, other independent variables contribute as much as the coefficient value.

To find out how much influence learning motivation, time management, parenting style, school education system, and academic achievement on student learning independence is seen from the coefficient of determination (R^2). Table 6 also shows the coefficient of determination (R^2) was 0.759. This means that 75.9% of the students' independence was influenced by learning motivation, time management, parenting styles, the school education system, and academic achievement.

Table 6 also shows a positive correlation between students' independence and learning motivation, time management, parenting styles, school education system, and academic achievement. According to Young (1982), any value greater than 0.7 indicates a high correlation. Meanwhile, those between 0.2 to 0.7 indicate a substantial correlation. In terms of a correlation coefficient, academic achievement had the highest correlation of 0.772. The variables with significant correlation include learning motivation, time management, and parenting styles with values of 0.683, 0.583, and 0.435, respectively. Conversely, the variable with the minimum correlation is the school education system, with a value of only 0.194.

The partial influence of independent variables is directly proportional to the correlation coefficient. This is because the extent of the impact, known as the coefficient of determination (R^2), is the square of the correlation value. Table 7 shows that academic achievement had the greatest influence on student independence with a contribution of 59.5%, followed by learning motivation, time management, and parenting styles of 46.7%, 34.4%, and 18.9%, respectively. On the contrary, the school education system has the least influence with a contribution of only 3.8%.

Although the results of this research imply that the students' independence was in the "quite good" category, irrespective of the indications of crisis encountered in distance learning, this was shown by the fact that many students sought help from their parents or relatives in completing school assignments. In addition, several students had to either copy from their friends or cheat. The detailed crisis of student independence in distance learning is shown in Table 7.

Table 7 shows that only 15.64% of students independently worked on their assignments during distance learning without asking their parents or relatives for help. This implies that the majority (84.36%) did otherwise. Furthermore, only 25.70% admitted that they had never copied or cheated and 26.82% claimed to have worked independently during the distance learning process. The data indicates that a crisis occurred, however, in

completing the assignments given by the teacher, the majority sought help from family members, cheated, or copied from friends.

Table 7

Crisis in student independence in distance learning (in frequencies %)

How students do school assignments?	Always	Often	Sometimes	Never
Asking for family's help	7.82%	19.55%	56.98%	15.64%
Copying friends' assignments	13.41%	15.64%	45.25%	25.70%
Doing independently	26.82%	39.66%	29.61%	3.91%

5. Discussion

The adoption of distance learning during the COVID-19 pandemic resulted in various challenges, one of which is student independence. This was confirmed by the research findings in which the study was conducted on 179 Madrasa Aliyah students in three areas in Central Java, Indonesia. On a scale of 4, the student independence was scored 2.80 or placed in the “medium” category. This result is consistent with the research done by (Bilda & Fadillah, 2020), which stated that learning independence is yet to attain its maximum score, especially for some indicators, namely self-confidence, and activity, which are qualified as “quite good” with 31.75% and 37.50% contributions respectively. Studies consistently report that only a minority of students (around 30%) actively participated in online learning, with many not regularly completing assignments or engaging with course materials (Catalano et al., 2021; Maqableh & Alia, 2021; Yan et al., 2021).

The crisis of student independence that occurs in distance learning is characterized by many students asking for help from parents and copying friends' assignments to complete their school assignments. Based on the results of this research, it was found that only 26.82% of students complete the task independently. On the other hand, other students still rely on the help of parents and friends to complete their assignments. This study revealed that students who exhibit independent learning tendencies are those with strong motivation for learning and high academic performance. Of students who have high learning independence, 54.08% of them are students who have high learning motivation and 45.92% have moderate learning motivation. None of them have low learning motivation. Likewise, if it was compared with learning achievement, only 18.37% of students with good independence have low learning achievement. Furthermore, students who lack independence often rely on their parents to complete their school assignments. There are only 37.80% of them who have high learning motivation and only 16.54% of students who have good academic performance. Moreover, of students who admitted to cheating friends in completing their school assignments, only 22.45% of the students had good academic performance.

The findings also strengthen the research carried out by (Romaniuk & Lukasiewicz-Wieleba, 2021), which stated that commitment, activity, interaction with teachers, work regularity, and quality, including the adequacy of grades assigned, are better during the traditional or face-to-face educational method. Approximately 20% of the respondents confessed to using unauthorized assistance during the exam. This condition is closely linked to the use of digital devices that are connected to the internet. Furthermore, the research carried out on higher education in Romania during the COVID-19 pandemic stated that besides the provision of certain benefits, online learning also encountered

various obstacles such as teachers that lacked technical teaching skills and styles that were not properly adapted to the online learning model, as well as good interactive and communicative sessions (Coman et al., 2020).

Students often seek quick answers for assignments using their gadgets, leading to decreased motivation. They sometimes misuse these gadgets when studying. This is consistent with the findings of this research which stated that cell phone ownership does not guarantee students' independence in distance learning. It is also indicated by the finding that the "high" independence category was achieved by 35.4% of students who did not have cell phones compared to 27.5% of those who had handphones. Conversely, the "low" independence category was achieved by 8.4% of those who own cell phones compared to the 6.3% who do not have a mobile device. Therefore, it was appropriate (Katz, 2002) to state that learning independence is certainly related to students' preferences for more open internet functionality.

The crisis encountered in distance learning is related to many aspects. This research found that students with high learning motivation and academic achievement had good learning independence. This is indicated by fairly large positive correlation values, namely 0.772 and 0.682 for academic achievement and learning motivation, which is consistent with the research carried out by (Hashemian & Soureshjani, 2011). Meanwhile, Alhadi and Saputra reported that learning motivation influences academic outcomes in junior high schools in Yogyakarta, Indonesia (Alhadi & Saputra, 2017). Unfortunately, low student motivation has become the main obstacle to distance learning (Sugilar, 2021). This occurs due to several factors, including costs, internet access, the absence of social interaction (Van & Thi, 2021), and an unsupportive learning environment (Yong & Thi, 2022). The lack of student learning motivation has greatly contributed to the crisis of student independence in distance learning.

Subsequently, adequate time management and parenting style also have positive contributions that stand at 0.344 and 0.189 respectively on students' independence in distance learning. The acquired data shows that parenting is an important element, therefore, during the COVID-19 pandemic, learning became a family matter. Furthermore, the data obtained from this research also shows that most students (84.36%) asked their parents for help when doing schoolwork. In conclusion, family involvement is one of the success factors in learning, at the same time the students' independence becomes low. This finding supported the previous research that mentioned parental support has a role in increasing student motivation during the COVID-19 pandemic (Hanesty et al., 2021). In addition, time management also has a major contribution to students' learning motivation (Mahmud & German, 2021). However, this also causes other problems, such as the parent's ability to offer adequate assistance and ensure their children are independent during learning.

According to demographic data earlier reported, most of the parents are poorly educated, namely, 34.64% (father) and 35.20% (mother) have a primary school education, while 12.29% (father) and 24.58 % (mother) had junior high school qualifications. Parents with a diploma or bachelor's degree were 16.20% (father) and 15.64% (mother). Furthermore, most families with low-income earners, for instance, 48.04%, earn less than 1.7 million per month, while a relatively 12.8% earn above 3.7 million monthly.

Referring to this research results, educational institutions should find effective and efficient communication, supervision, and mentoring services for students and parents. Therefore, the synergy between schools, teachers, and parents in assisting these learners is

a strategy that needs to be adopted in distance learning. The collaboration of these three educational components plays a significant role in increasing student independence in learning. Furthermore, academic achievement and learning motivation are the two variables that have the greatest influence on student independence, therefore it needs to be a main concern for the teachers and learners. Increasing this variable in distance learning requires diversified learning methods.

Besides learning diversification, teachers should develop another innovation, like the blended model combining face-to-face and online learning processes (Hrastinski, 2019). Blended learning is one of the efforts made by teachers to integrate technological elements into traditional classroom learning models. This approach provides better results than groups that only use the conventional method (Oweis, 2018). However, through this approach, learning is carried out anywhere and whenever without negating the aspect of the interaction between the two parties involved, considering that face-to-face interaction between teachers and students is one of the major principles in learning that should not be ignored.

This study provides novelty that has not been explained in previous studies. The crisis of student learning independence as a negative impact of distance learning is evidenced by the large number of students who seek the help of parents and friends to complete their tasks. This research has also proven that students who have low learning independence are those who have poor learning motivation and academic achievement. This shows how significant the contribution given by the variables of learning motivation and academic achievement to learning independence. In addition, although it has a low correlation, other factors such as students' ability to manage time, parenting, and the education system also affect learning independence. The results of this study certainly provide theoretical implications for the adequacy of references on the impact of distance learning on the crisis of student independence and the factors that influence it.

This study has practical implications for policymakers, at both primary and secondary education levels. Information about the crisis of student independence and the factors that influence it provides important considerations for the government to develop more innovative distance learning strategies to increase student motivation and learning independence. Several strategic recommendations can be implemented at schools, such as improving teachers' skills related to digital technology, so therefore they can develop creative and engaging learning media. The government can also encourage schools to advance e-learning management systems that can provide convenience in administrative and learning aspects while improving the ability of teachers and students to implement online learning.

6. Conclusion

Distance learning during the COVID-19 pandemic led to several challenges for students' independence. This is proven by the fact that most learners seek help from family and friends in completing their assignments. Several factors positively correlate with student independence, including academic achievement, learning motivation, time management, parenting styles, and the school education system. This study found that those five variables contributed to students' independence at 75.9%. Based on the results, increased academic achievement and student motivation will be accomplished through diversification and

blended learning. Furthermore, schools and parents should cooperate during distance learning.

This research has several limitations; firstly, the sample size is still very limited in terms of number, area, and level of education so the study cannot be generalized more broadly. Therefore, further studies are needed with a larger sample size at all levels of education. This is important to provide a broader picture of distance learning which will be useful for teachers and schools in providing innovative learning. Secondly, this research only covers the aspects of distance learning associated with learning motivation, academic achievement, time management, parenting patterns, and the education system. Thus, it needs further research using different perspectives and covers the impact of distance learning on the negative or positive side, not only for students, but also for teachers, schools, and parents. It is necessary to do further research to make a better and more effective strategy for distance learning. This is because there might be hybrid distance learning applied in the future.

Author Statement

The authors declare that there is no conflict of interest.

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