



## The Analysis of Students' School Burnout Level and Academic Achievement on The Science Management Subject

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DOI: <http://dx.doi.org/10.18592/tarbiyah.v11i2.7120>

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**Key Words:**

school burnout  
academic achievement  
management science

**Abstract:**

School burnout can be a vulnerable thing experienced by students during learning process. This study is purposed to describe the difference of students' academic achievement in management science subject based on school burnout level. This study is quantitative descriptive study. Students' school burnout level data was gathered using school burnout inventory using Google form questionnaire, while students' academic achievement data was attained from students' final score on management science subject. Data was taken from 83 respondents who were actively participate in management science subject. Data of students' school burnout then was categorized into low and high level of school burnout. The academic achievement from each group of school burnout level then was compared and analyzed using t-test on R software. The result showed that 52% students have low school burnout level and the other 48% have high school burnout level. The average of students' academic achievement from low and high levels school burnout group were 78.0 and 75.7 sequentially. The p-value generated from t-test was 0.1644, greater than 0.05. Thus, it can be concluded that there was no significant difference on students' academic achievement between low and high level of school burnout group.

**Received** : 25 July 2022

**Revision** : 15 December 2022

**Accepted** : 23 December 2022

**Published** : 31 December 2022

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**To cite this article:** Masruroh., Nawafilah, N.Q., Anggraini, E. (2022). The Analysis of Students' School Burnout Level and Academic Achievement on The Science Management Subject. *Tarbiyah: Jurnal Ilmiah Kependidikan*. 11(2), 38-48.

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### Introduction

School burnout can be one of the conditions that students experience in the learning process. School burnout can be defined as students' mental condition that has boredom and exhaustion so the students are not enthusiastic in doing the learning activity (Agustina et al., 2019; Kristanto, 2016). School burnout can also be defined as an emotional condition that showed by the students who exhausted and bored mentally because the increasing of academic demand (Zakiyyah, 2019). Beside of that, school burnout can be explained as a physical and psychic reaction because of the learning demand that causes a tension (Ginting & Daulay, 2022). This school burnout includes exhaustion that occurs in the mental, emotional and physic dimensions. School burnout can be defined generally as a condition where someone who is in the learning process experience exhausted physically, mentally and emotionally.

There are several components in school burnout that has confirmed by several previous researchers. Those components include emotional exhausted, cynicism, and decreased academic confidence (Muna, 2013; Rahman, 2020). Emotional exhaustion can be explained as an emotionally tension and boredom that occurs continuously in a long period of time because of the tension is increasing. It is considered as the main component in school burnout, while the secondary component is cynicism (Rahman, 2020). Cynicism can be defined as the lost of interest for something or someone that considered as the cause of the tension appear. The decreased academic confidence makes the students feel their-selves is not quite able to complete the academic demands.

School burnout can occur because of the exhaustion that triggers the boredom to emerge in the learning (Lestari, 2021; Zakiyyah, 2019). The emergence of school burnout can be influenced by several factors including the less rest time for the students because there are a lot of academic demands (Agustina et al., 2019) and the less of variations of the method used in the learning process (Agustina et al., 2019; Latifah, 2020).

School burnout can give the negative effect to the students, either academically, individually or socially (Rahman, 2020). The effect is such as the decreasing of learning motivation (Kristanto, 2016) and the emergence of laziness in following the learning activity (Lestari, 2021). Someone who experiences school burnout feels that his / her knowledge and ability have not make any progress during the learning process, it can trigger the decreasing of academic achievement occur (Kristanto, 2017). Furthermore, school burnout makes the students feel their energy is drain emotionally, so they are easily desperate and frustrate (Muna, 2013). Moreover, school burnout can cause academic stress to the students (Ginting & Daulay, 2022).

School burnout profile mapping needs to be done to know how high the students' school burnout especially in Science Management subject considering Science Management is the application of mathematics so the probability of school burnout to the students occur is tend to be high. Apart from Mathematic material that is considered as abstract knowledge (Abi, 2017) so it is hard to understand and disliked (Abidin, 2020; Ratnasari, 2017; Winarko, 2017; Wulandari et al., 2020), the learning duration is categorized long (Kristanto, 2017) also be the factor that

can make the students tired and decreasing the learning motivation. With knowing the students' school burnout profile map, the preventive and curative action that is needed in the learning to follow up the students' school burnout level can be done.

If school burnout that occurs to the students is ignored, it is feared it can affect their academic achievement. There are research results that support this where the higher school burnout then the lower students' academic achievement (Medina, 2021; Sativa & Purwanto, 2022). Even though, there are other research results which showed that the students' academic achievement with low school burnout is not better from the students with high school burnout (Kristanto, 2017). Windyarti's (2022) and Pratama's (2021) research result also showed the same thing where school burnout does not influence significantly toward the academic achievement. Considering various impacts that is caused by school burnout and there are many variations of research results about relation between school burnout and academic achievement then the analysis of the students' school burnout level and academic achievement especially on the Science Management subject is needed to be done.

Therefore, this research is aimed to get the students' school burnout profile and know the difference academic achievement among the students with the different school burnout level especially on science management subject. This research result is expected can be used as evaluation material for learning planning especially on science management subject and other subject generally in the next period, also it is expected can produce more research treasure about the

students' school burnout and academic achievement.

### **Research Method**

This research is descriptive quantitative research that is aimed to describe the difference academic achievement based on the students' school burnout on science management subject. The students' school burnout level data was collected using Indonesian language school burnout inventory (SBI) instrument that is customized with the research context. The instrument consists of 9 questions that include the aspect in school burnout, which are the aspect of emotionally exhausted, cynicism, and decreased personal achievement. This instrument had been tested the validity and reliability with the result of this overall instrument was stated valid and reliable (Rahman, 2020). This instrument was made in the form of Google form to ease the sharing. This instrument was made in Guttman's scale form with "yes" and "no" response choices. School burnout score was measured based on how many "yes" answer that the respondent gave. School burnout score were among 0 until 100.

The academic result data was obtained from the students' final score in science management subject which is combination of quiz, middle test, final test, assignment, and participation scores. The data was taken from 83 respondent which is the students of Informatics Engineering Department at Lamongan Islamic University who actively follows science management subject.

The students' school burnout data then differentiate to the high and low school burnout based on the criteria as follows:

**Table 1. The students' school burnout level criteria**

The School Burnout Level	Criteria
High school burnout (KbT)	Kb score $\geq$ Kb average
Low school burnout (KbR)	Kb score $<$ Kb average

(Kristanto, 2017)

The academic achievement data then grouped based on school burnout level profile in the Table 1. Then this data is compared and analyzed to know if there is or not the difference of the academic achievement between students' groups with high and low school burnout.

The hypothesis in this research were:

H<sub>0</sub>: There is no difference of Science Management score between the high and low school burnout groups

H<sub>a</sub>: There is a difference of Science Management score between the high and low school burnout groups

The used method to test the hypothesis in this research was T-test the two parties using two sample groups. The used criteria in this case if p-value  $>$  0,05 then H<sub>0</sub> is accepted, while if p-value  $<$  0,05 then H<sub>0</sub> is declined.

Before doing the test using T-test, prerequisite test is needed first, which are data normality test and variance homogeneity test. Normality test was done using Kolmogorov-Smirnov test with the hypothesis as follows:

H<sub>0</sub>: the data distributes normal

H<sub>a</sub>: the data does not distribute normal

The used criteria to test the normality was if p-value  $>$  0,05 then H<sub>0</sub> is accepted, then if p-value  $<$  0,05, then H<sub>0</sub> is declined.

The homogeneity test was done using Bartlett test with the hypothesis as follows:

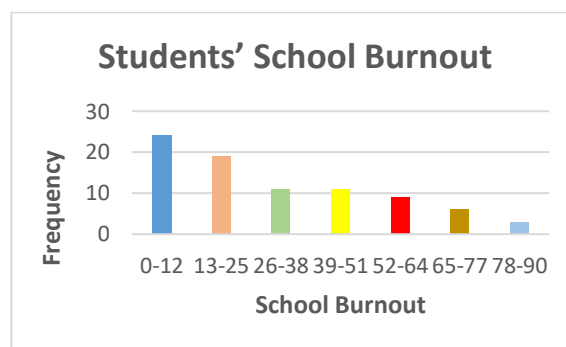
H<sub>0</sub>: the second sample variance data is same

H<sub>a</sub>: the second sample variance data is not the same

The used criteria to test the homogeneity was if p-value  $>$  0,05 then H<sub>0</sub> is accepted, if p-value  $<$  0,05 then H<sub>0</sub> is declined. In this research, R software was used, either in the T-test or prerequisite test.

### Finding and Discussion

After getting the students' school burnout level data on science management subject using School Burnout Inventory instrument in Indonesian language version, this data was used to mapping the students' school burnout profile based on its level. The students school burnout data on science management subject can be seen in the Figure 1.



**Figure 1. The Students' School Burnout Frequency Distribution Graphic**

The average score of the students' school burnout can be seen in the Table 2.

**Table 2. The Students' School Burnout Score**

The Total of Respondent (n)	The School Burnout Total sScore	The School Burnout Average
83	2589	31.19

Based on school burnout average school, it can be determined the students' school burnout level profile as in the Table 1. The students with school burnout

score less than 31 were categorized in the low school burnout level group (*Kejenuhan Belajar Rendah - KbR*), while the students with the score more than or equal to 31 were categorized in the high school burnout score group (*Kejenuhan Belajar Tinggi - KbT*). The students school burnout level profile is shown in the Figure 2.

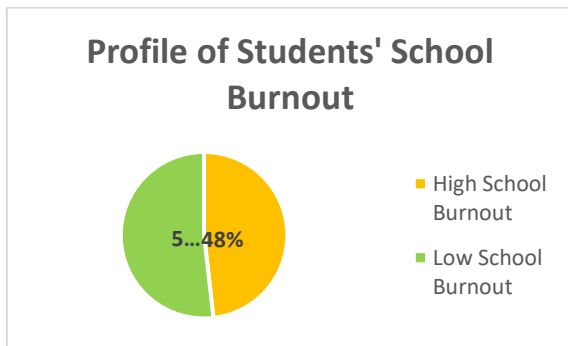


Figure 2. The Students' School Burnout Level Profile

Based on the students' school burnout level profile in the Picture 2, it was known the students who have lower school burnout was 52% or 43 students from the total of 83 respondent. While the students who have higher school burnout was 48% or 40 students from 83 respondent. Almost half of the respondent have high school burnout.

Next, the academic achievement data which is the students final score for science management subject then categorized based on school burnout level profile. The students' academic achievement data based on school burnout level can be seen in the Table 3.

Table 3. The Students' Academic Achievement Based on The School Burnout Level

The Academic Achievement Average	
High School Burnout	Low School Burnout
75.75	78.00

As in the Table 3, the students with low school burnout level group's average

score were higher than the students with higher school burnout level group's average score. Before going to the T-test to test the hypothesis if there is a significant difference of academic achievement between the high and low school burnout, the normality and homogeneity test was done.

The result of the normality test using Kolmogorov-Smirnov test can be seen the Figure 3.

```
> ks.test(Data_MS_KBT,75.75,7.7)

Two-sample Kolmogorov-Smirnov test

data: Data_MS_KBT and 75.75
D = 0.575, p-value = 0.9037
alternative hypothesis: two-sided

> ks.test(Data_MS_KBR,78,8.45)

Two-sample Kolmogorov-Smirnov test

data: Data_MS_KBR and 78
D = 0.48837, p-value = 0.9739
alternative hypothesis: two-sided
```

Figure 3. The Result of The Data Sample Normality Test

Based on the Figure 3, it was known that the P-value of the high and low students school burnout level for science management score sample data in sequence were 0.9037 and 0.9739. Both P-value was higher than the used significant level which is 0.05 so that  $H_0$  was accepted and the decision can be taken which was both data sample distributed normal.

The result of homogeneity test using Bartlett test can be seen in the Figure 4.

```
> bartlett.test(data_MS_KBR_KBT,alternative = "two.sided",)

Bartlett test of homogeneity of variances

data: data_MS_KBR_KBT
Bartlett's K-squared = 0.44554, df = 1, p-value = 0.5045
```

Figure 4. The Result of The Data Sample Homogeneity Test

Based on the Figure 4, it was known that the P-value of the high and low students group school burnout level for science management score sample data was 0.5045. The P-value was higher than the used significant level which is 0.05, so that  $H_0$  was accepted and the decision can be taken that both sample data have the same variance or can be said as homogeneous sample.

After the prerequisite test was fulfilled then T-test of two parties using two sample to test the hypothesis in this research can be done. The T-test result can be seen in the Figure 5.

```
> t.test(Data_MS_KBR,Data_MS_KBT,alternative="two.sided",conf.level=0.05)

Two Sample t-test

data: Data_MS_KBR and Data_MS_KBT
t = 1.4032, df = 81, p-value = 0.1644
alternative hypothesis: true difference in means is not equal to 0
95 percent confidence interval:
 -0.9403071  5.4403071
sample estimates:
mean of x mean of y
 78.00    75.75
```

Figure 5. The T-test Result

Based on the Figure 5, it was known that P-value of the high and low students group school burnout level for science management score sample data was 0.1644. The P-value was higher than the used significant level which is 0.05, so  $H_0$  was accepted and can be taken a decision that there is no difference science management score between the high and low school burnout groups.

Based on this research result, it was known that there is a little difference on the students' groups' average academic achievement. The group of the students with low school burnout level had the average academic achievement a little bit higher than the group with the high school burnout. It is appropriate with the research by Medina (2021) and Savita & Purwanto (2022) where the higher the school burnout, then the lower the students' academic achievement. It is

possible to happen considering school burnout can give a negative impact to the student. The impact such as the decreasing of learning motivation (Kristanto, 2016), lazy to follow the learning activity (Lestari, 2021), stagnation in the learning process (Kristanto, 2017), desperate, and frustrate (Muna, 2013), also the academic stress on the students is emerge (Ginting & Daulay, 2022). That impact more or less surely will be felt by the students who experience the school burnout so there is a little difference perform in the students' academic achievement.

Although there is a difference of the academic achievement between the group of students with difference school burnout, but there is no significant difference between the group of students. The difference academic achievement is not significant statistically. This research result confirms the previous research result where the school burnout does not impact the academic achievement significantly (Pratama, 2021; Windyarti, 2022). It can occur because even though the school burnout gives a negative impact for the students, but the negative impact can be reduced by some other things that can occur in the learning process such as the social interaction between the students or the students and the teacher. The research result by Kurniawan et al., (2018) shows that the students' high social interaction can reduce the school burnout level. The higher the social support that the students receive, the lower the school burnout (Rahmasari, 2016). Fatimah & Puspaningtyas (2022) also state the same thing where the school burnout occurs in the online learning, one of these is because the less of the social interaction between the students or between the students and the teacher. In this research,

science management lectures had been done offline so the better social interaction in the learning is possible to occur. The research result by Afifah (2019) also shows that the high social interaction can increase the students' learning concentration too. Therefore, the students who have high school burnout is probably still can concentrate during the learning process if there is a well social interaction so the academic achievement is not very different than with the students with low school burnout.

Beside of the social interaction, the other thing that relates to the students' school burnout is self-control. The research result by Vitasari (2016) and Anggraini (2019) show that the high self-control is followed by the low school burnout. The students with well self-control can control the response to some situations and conditions that occur including the school burnout that they feel. The well self-control also has a positive impact to the students' academic achievement (Chasanah, 2020). The students with well self-control will keep try to follow the learning process as well as possible to get a good academic achievement even though feeling the school burnout.

### Conclusion

The research about the analysis of students' school burnout level and academic achievement on Science Management subject had been done with the result of 52% students have low school burnout and 48% students have high school burnout. From this research, it can be concluded that there is no difference of Science Management score between the high and low school burnout groups statically even though there is a difference academic achievement average between the groups.

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