

## THE RELATIONSHIP BETWEEN EXTRACURRICULAR ACTIVITIES WITH ACADEMIC PERFORMANCE FOR THE COLLEGE STUDENTS AT STIKES RS HUSADA: A QUANTITATIVE STUDY

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### ABSTRACT

*Students as agent of change play a crucial role in contributing to the nation's progress. Recognizing this responsibility, students must develop their skills and abilities not only through lectures and academic activities but also through various campus activities. This research aims to explore the relationship between extracurricular activities and academic performance among college students at STIKes RS Husada. This quantitative study involved 48 students participating in extracurricular activities. Results indicated that students' academic performance is in the medium category, with the mean value reflecting a reasonably adequate level of achievement. Chi-square test analysis showed that the variable X data follows a normal distribution, providing a strong basis for further statistical analysis. Additionally, the homogeneity of variance test confirmed that data for variables X and Y are homogeneous at the 1% significance level, supporting the reliability of the statistical analysis for both variables. Increasing extracurricular activities is seen as an effective strategy to enhance academic performance, with a positive correlation observed between extracurricular involvement and student achievement.*

**Keywords:** Academic Performance, Extracurricular Activity

### ABSTRAK

Mahasiswa sebagai agen perubahan memegang peranan penting dalam memberikan kontribusi bagi kemajuan bangsa. Menyadari tanggung jawab tersebut, mahasiswa harus mengembangkan keterampilan dan kemampuannya tidak hanya melalui perkuliahan dan kegiatan akademik, tetapi juga melalui berbagai kegiatan kampus. Penelitian ini bertujuan untuk mengetahui hubungan antara kegiatan ekstrakurikuler dengan prestasi akademik mahasiswa STIKes RS Husada. Penelitian kuantitatif ini melibatkan 48 mahasiswa yang mengikuti kegiatan ekstrakurikuler. Hasil penelitian menunjukkan bahwa prestasi akademik mahasiswa berada pada kategori sedang, dengan nilai rata-rata yang mencerminkan tingkat pencapaian yang cukup memadai. Analisis uji *chi-square* menunjukkan bahwa data variabel X mengikuti distribusi normal, sehingga memberikan dasar yang kuat untuk analisis statistik lebih lanjut. Selain itu, uji homogenitas varians menegaskan bahwa data untuk variabel X dan Y bersifat homogen pada tingkat signifikansi 1%, yang mendukung keandalan analisis statistik untuk kedua variabel tersebut. Peningkatan kegiatan ekstrakurikuler dipandang sebagai strategi yang efektif untuk meningkatkan prestasi akademik, dengan korelasi positif yang diamati antara keterlibatan ekstrakurikuler dan prestasi mahasiswa.

**Kata Kunci :** Performa Akademik, Aktivitas Ekstrakurikuler

### INTRODUCTION

As agents of change, students have an important role in change, where these changes are expected to have a significant impact and make the best contribution to the nation's development. By realizing this responsibility, students are expected to be able to develop their abilities and skills not only from lecture activities and focusing on the academic field but also from various types of activities in the campus environment. One of them is by becoming a member of an organization or extracurricular, either a student organization or an organization outside of student affairs, which is one way to seek new experiences and gain

valuable new knowledge. Extracurricular activities play a crucial role in students' academic and social development. Participation in student organizations or extracurricular activities has been shown to enhance academic performance by fostering soft skills such as time management, teamwork, and self-discipline (Kartikasari, Sultoni and Sumarsono, 2019). Furthermore, active involvement in non-academic activities can boost students' motivation to learn and improve their psychological well-being (Umamah *et al.*, 2018).

This phenomenon is interesting to study further because, until now, extracurricular

activities have been one of the activities that still reap pros and cons among students and the community. When individuals participate in extracurricular activities, will it positively impact their academic achievement, or will it become a factor inhibiting their academic achievement? Therefore, the researcher is interested in confirming the hypothesis regarding whether there is a relationship between extracurricular activities and students' academic achievement (Trianziani, 2020). Based on previous research (Laurie K. Collings, 2020), it was found that organizational activities are related to academic achievement in high school students who are active in one or more activities and have a positive impact on the school, such as a strong desire to achieve success academically, compared to students who are less active in extracurricular activities.

Then, research by Knifsend & Graham (2012) found that organizational activities have a relationship with academic achievement, where those who are active in extracurricular activities have more things to do to build strong, supportive relationships and gain another benefit in the learning experience from different activities. In line with two other studies, (Knifsend, C. A., & Graham, 2012) found that organizational activities were related to academic achievement; namely, when students were involved in several extracurricular activities, the results showed that they obtained higher average grades and had higher expectations more significant influence on academic achievement during school and after high school.

Students who are interested in organizations or extracurriculars can channel their talents, interests, and abilities (Walker, J., Marczak, M., Blyth, D., & Borden, 2016). Various universities provide facilities to help students develop their potential in developing themselves. The programs provided are a means to support improving the quality and creativity of students in the fields of reasoning and science, talents, interests and abilities, welfare, social awareness, and supporting activities (Ludovikus Ludovikus, Yurita Mailintina and Ellynia Ellynia, 2023). Improving the quality referred to here is by developing the hard skills that each student has. Hard skills are related to mastery of lecture material (theory), while soft skills are more about strengthening hard skills. According to Wagner (Adhawati, SS, Fakhriyah, 2019), one of the soft skills is the ability to think critically and solve problems. In this case, supporting facilities can improve student academic achievement.

In STIKes RS Husda, there are so many extracurricular activities that the students can

follow according to their interests. Choir, volleyball, futsal, badminton, dancing, and religious activities are a few extracurricular examples. From the case above, the researcher aimed to know the relationship between extracurricular activities and academic performance for the college students at STIKes RS Husada.

## METHOD

This study is a quantitative research conducted in [insert month and year of implementation], aiming to measure variables, test hypotheses, and generalize findings to a broader population. The research is based on a positivistic approach, in which data are collected in numerical form and analyzed statistically to identify patterns, trends, and relationships between variables relevant to the research problem (Sugiyono 2019).

The subjects of this study are students of STIKes RS Husada, with a total of 48 participants. Data were collected using structured research instruments, such as questionnaires that had been validated prior to distribution, allowing for objective and measurable data collection. The data collection process was carried out directly with the respondents, guided by the prepared instruments to ensure the information gathered aligns with the research variables.

The data obtained were then analyzed using statistical techniques, including both descriptive and inferential analysis, to test the proposed hypotheses. The hypothesis in this study was formulated to examine a preliminary assumption regarding the relationship between the variables, which would later be verified through valid and reliable statistical analysis. The findings of this study are presented in numerical form, such as percentages, averages, and correlations, to provide precise and scientifically accountable information.

## RESULT AND DISCUSSION

### 1. Result

Quantitative research instruments are tools or methods used to collect quantitative research data. These instruments are designed to collect objectively measurable numerical data. Some examples of commonly used quantitative research instruments include:

- a. Observation: This method directly observes the observed behavior, event, or phenomenon. Observation can be done in a structured way using a checklist or in an unstructured way by observing and recording what happened.
- b. Questionnaire: This instrument consists of a series of written questions presented to

the respondent. Questionnaires are often used to collect data in extensive population surveys. Questions can be multiple choice, Likert scale, or open-ended questions.

Quantitative research instruments must be carefully designed to ensure the validity and reliability of the data collected. Validity refers to

the extent to which the instrument measures what it is supposed to measure. In contrast, reliability refers to the extent to which the instrument consistently measures a phenomenon.

### Sub-Chapter of Result and Discussion

**Table 1: Calculation for Normality Test of Variable X**

Interval	Fo	Fh	(Fo-Fh)	(Fo-Fh) <sup>2</sup>	$\frac{(Fo-Fh)^2}{Fh}$
30	2	1,5	0,5	0,25	0,16666667
32	3	1,5	1,5	2,25	1,5
33	4	3,5	0,5	0,25	0,07142857
34	2	1,5	0,5	0,25	0,16666667
35	2	2,5	-0,5	0,25	0,1
36	2	1,5	0,5	0,25	0,16666667
37	3	2,5	0,5	0,25	0,1
38	6	5	1	1	0,2
39	4	4,5	-0,5	0,25	0,05555556
40	1	2,5	-1,5	2,25	0,9
41	4	5	-1	1	0,2
42	5	4	1	1	0,25
43	2	2,5	-0,5	0,25	0,1
44	2	2,5	-0,5	0,25	0,1
45	1	1,5	-0,5	0,25	0,16666667
46	3	2,5	0,5	0,25	0,1
48	1	1,5	-0,5	0,25	0,16666667
50	1	1,5	-0,5	0,25	0,16666667
$\Sigma$	48	47,5	0,5	10,75	4,67698413

Based on the calculation above, the calculated chi-square value is 4.676. This value is then compared with the chi-square table value with degrees of freedom (dk) 2 = 5.991. The chi-square table shows that dk = 2,

the reported error = 5%, so the chi-square table value = 5.991. Because the calculated chi-square value is smaller than the chi-square value in the table ( $4.676 < 5.991$ ), the data for variable X is normally distributed.

**Table 1: Calculation for Normality Test of Variable Y**

Interval	Fo	Fh	(Fo-Fh)	(Fo-Fh) <sup>2</sup>	$\frac{(Fo-Fh)^2}{Fh}$
26	1	1,5	0,5	0,25	0,16666667
28	6	6	0	0	0
29	3	4	-1	1	0,25
30	6	8	-2	4	0,5
32	8	7	1	1	0,14285714
33	7	5	2	4	0,8
34	6	4	2	4	1
35	5	4,5	0,5	0,25	0,05555556
36	3	2	1	1	0,5
39	1	2	-1	1	0,5
40	1	2	-1	1	0,5
41	1	2	-1	1	0,5
$\Sigma$	48	48	0	18,5	4,91507937

Based on the calculation above, the calculated chi-square value is 4.915. This value is then compared with the table chi-square value with degrees of freedom (dk) 2 = 5.991. The chi-square table shows that dk = 2, the reported error = 5%, so the chi-square table value = 5.991. The variable data is usually distributed because the calculated chi-square

value is smaller than the chi-square value in the table ( $4.915 < 5.991$ ).

From the calculation above, it is obtained that Fcount = 0.5126 and the Ftable value with dk in the numerator  $48 - 1 = 47$  and dk in the denominator  $48 - 1 = 47$  at a significance level of 1%,  $F_{\text{tabel}} = 2.47$ . Data is said to have homogeneous variance if the fcount is smaller

than  $F_{table}$  at the 1% significance level. It can be seen that  $F_{count} < F_{table}$  ( $0.5126 < 2.47$ ). This means that the data for variables X and Y are homogeneous. Based on the table above, it can be concluded that if work discipline is added by 1, then performance will be 1,567,095. If work discipline is increased by 10, the performance will increase to 15,670,050. So, it can be concluded that the more work discipline is added, the more performance will increase. Thus, it can be said that variable X (organizational activity or extracurricular activities) influences variable Y (student academic performance) by 33%. Meanwhile, the remainder ( $100\% - 67\% = 33\%$ ) is influenced by other variables. So ( $H_a$ ) is accepted, and ( $H_o$ ) is rejected.

## 2. Discussion

The research results above show that students' academic performance is in the medium category. This assessment is based on the mean value (M) obtained, namely a score of 18 - 48 (100%). These results reflect a reasonably adequate level of academic performance in terms of the scores obtained. Furthermore, the frequency of 3 out of 48 respondents who responded to the questionnaire is also an important indicator in evaluating academic performance. Even though the resulting frequency is only 3, this gives the idea that some students assessed the "medium" category. This analysis of student academic performance certainly contributes significantly to understanding the quality of education and academic services provided by educational institutions. By knowing the categories of academic performance, steps to improve and increase the quality of education can be directed at aspects that require further attention.

By calculation, the calculated chi-square value is 4.676. This value is then compared with the table chi-square value, which has a degree of freedom (dk) of 2 and a reported significance or error level of 5%. From the chi-square table, the value with dk = 2 and 5% error is 5.991. After comparison, the calculated chi-square value (4.676) was smaller than the table chi-square value (5.991). Therefore, the data for variable X has a normal distribution. These results indicate that the data distribution of variable X conforms to the standard distribution assumption, which has important significance in statistical analysis. This use of the chi-square test provides a solid basis for further statistical analysis regarding variable X, ensuring the validity of specific methods in this research. The calculation results show that the  $F_{count}$  value is 0.5126. Next, a comparison was carried out

with the  $F_{table}$  value with degrees of freedom in the numerator  $48 - 1 = 47$  and degrees of freedom in the denominator  $48 - 1 = 47$  at a significance level of 1%, obtaining the  $F_{table}$  value 2.47. Data is said to be homogeneous if the  $F_{count}$  value is smaller than  $F_{table}$  at the 1% significance level to test the homogeneity of variance.

Based on the results,  $F_{count}$  (0.5126) is smaller than  $F_{table}$  (2.47), indicating that the data for variables X and Y are considered homogeneous at the 1% significance level. In other words, the difference in variance between variables X and Y is not statistically significant. Therefore, it can be concluded that the homogeneity of the variants of this data meets the established criteria, providing a basis for the reliability of the results of the statistical analysis carried out on variables X and Y. Based on the research results depicted in the table above, it can be concluded that there is a positive correlation between extracurricular activities and student performance. According to the data, adding one point to the work discipline scale causes a significant increase in performance of 1,567,095. If 10 points increase work discipline, performance will jump drastically to 15,670,050. Therefore, there is a strong relationship between work discipline and increased performance. These findings indicate that the higher the extracurricular activities, the greater the academic performance of the individual or group concerned. Increasing extracurricular activities can be an effective strategy for improving academic performance, which can positively impact achieving group or individual goals.

Based on the research results, variable X, which involves organizational or extracurricular activities, has an influence of 33% on variable Y, which includes student learning motivation. Thus, these results indicate that most of the variation in extracurricular activities can be explained by the factors that have been measured. However, the remaining 67% indicates other factors outside the variables identified in this research, which also influence organizational or extracurricular activity performance. Therefore, the alternative hypothesis ( $H_a$ ) is accepted, indicating a significant influence of variable X on variable Y, while the null hypothesis ( $H_o$ ) is rejected. This shows the importance of activeness factors in organizations or extracurricular activities.

The research related to this research is the Influence of Student Activeness in Extracurricular Activities on the Learning Achievement of Class 681. Sig value.  $0.00 < \text{significance level } 0.05$ , while  $R^2 = 0.211$ . Hence, the influence of student activity in



extracurricular activities on student learning achievement is 21.1%, so there are still 78.9% of other factors that influence student learning achievement (Lutriani, Mustari Lamada and Massikki, 2022). The relationship between extracurricular activity and learning behavior and geography learning outcomes for class determines whether extracurricular activity and learning behavior have a positive and significant relationship with geography learning outcomes. According to the calculations, the values obtained are  $ryx1 = -0.72$  and  $ryx2 = -0.15$ ,  $rx1x2 = 0.21$ , so the value of  $RX1X2Y = 0.72$ , which means moderate correlation. Furthermore, the results of the significance test obtained  $F_{count} > F_{table}$  ( $21 > 4.27$ ), which means there is a significant relationship between student activity in extracurricular activities and learning behavior with geography learning outcomes for class XI IS SMA Negeri 5 Banda Aceh (Ningsih1, Bardi2 and M.Yusuf Harun3, 2017). The influence of extracurricular activities on student learning achievement at SMP Negeri 1 Peusangan, based on the results of research and discussions carried out by the author, it can be concluded that the implementation of extracurricular activities has an effect on student learning achievement at SMP Negeri 1 Peusangan (Rika Widianita, 2023). These results can be seen in the hypothesis testing that the researchers carried out. Based on the results of the tests that have been carried out, it shows that the  $r_{count}$  value is greater than the  $r_{table}$ ; in other words,  $1 > 0.22$ ; in this case, we reject the null hypothesis ( $H_0$ ) and accept the alternative hypothesis ( $H_a$ ) at a significance level of 0.05. This means that the more active students are in extracurricular activities, the more positive student learning achievements will increase (Chairani and Juwita, 2019). The role of extracurricular activities in efforts to improve student achievement results in school support in terms of providing facilities and space for students who have certain potential through extracurricular activities is vital, where the more students have experiences outside the classroom, the simultaneously their social character and understanding of their potential will form, where this will ultimately affect the learning process (Iskandar *et al.*, 2024). So that students can achieve themselves optimally in their learning process, as shown by learning achievement, in this case, increasing academic achievement (Yhunanda and Sholeh, 2020).

This study highlights the essential role of student involvement in extracurricular activities as an effective strategy to enhance both learning motivation and academic achievement. These findings provide a solid

foundation for developing more holistic and student-centered educational policies that support both academic performance and character development.

## CONCLUSION

This research concludes that students' academic performance is a medium category, with a mean score of 18 - 48 (100%). The frequency of responses from 48 respondents via the questionnaire illustrates that most students assess their performance in the "medium" category. Analyzing academic performance significantly contributes to understanding the quality of education and academic services provided by educational institutions. In addition, the results of the standard distribution test for variables. The homogeneity of variance test confirms that the difference in variance between variables X and Y is not statistically significant. Research also finds a positive correlation between extracurricular activities and student performance. Increasing extracurricular activities is considered an effective strategy for improving academic performance.

Furthermore, variable X, which includes organizational or extracurricular activity, influences 33% of variable Y, namely student learning motivation. However, other factors outside the measured variables also contribute to 67%. In this context, being active in organizations or extracurricular activities significantly influences students' learning motivation, which can improve academic performance. This conclusion provides a basis for improving and increasing the quality of education, focusing on aspects that require further attention, and shows the importance of considering extracurricular activities in designing effective educational strategies.

## REFERENCES

- Adhawati, SS, Fakhriyah, S. dan S. (2019) 'Campus Intellectual Product Business Development Program (PPMU-PPUPIK): Tuna Nut Cookies Product.'
- Chairani, M. and Juwita, R. (2019) 'The Influence of Extracurricular Activities on Students' Academic Achievement at SMP Negeri 1 Peusangan', *Jurnal Sains Ekonomi dan Edukasi*, 7(2), pp. 10–19.
- Iskandar, S. *et al.* (2024) 'The Role Of Extracurricular Activities In Developing Students' Interests And Talents In Elementary Schools', *Journal of Pedagogi*, 1(3), pp. 8–13. Available at: <https://doi.org/10.62872/bma2fa05>
- Kartikasari, M.L., Sultoni, S. and Sumarsono, R.B. (2019) 'The Relationship Between

- Participation in Extracurricular Activities and Students' Academic Achievement', *Jurnal Administrasi dan Manajemen Pendidikan*, 2(3), pp. 083–089. Available at: <https://doi.org/10.1007/s10964-011-9737-4>
- Knifsend, C. A., & Graham, S. (2012) 'Too much of a good thing? How breadth of extracurricular participation relates to school-related affect and academic outcomes during adolescence. *Journal of Youth and Adolescence*, 41(3), 379–389. <https://doi.org/10.1007/s10964-011-9737-4>
- Laurie K. Collings (2020) 'The Impact of Extracurricular Activities and High School Students ', *Socius: Sociological Research for a Dynamic World*, pp. 1–52.
- Ludovikus Ludovikus, Yurita Mailintina and Ellynia Ellynia (2023) 'The Perception of Using TED Talks in Enhancing College Students' Listening Skill for The Fourth Semester of Health Administration Students at STIKes RS Husada academic year 2023 –2024', *Jurnal Nakula : Pusat Ilmu Pendidikan, Bahasa dan Ilmu Sosial*, 1(5), pp. 66–93. Available at: <https://doi.org/10.61132/nakula.v1i5.186>.
- Lutriani, Mustari Lamada and Massikki (2022) 'The Influence of Students' Activeness in Extracurricular Activities on the Academic Achievement of Grade XI RPL Students at SMKN 2 Wajo', *Information Technology Education Journal*, 1(1), p. 2. <https://doi.org/10.59562/intec.v1i1.151>
- Ningsih1, V.Y., Bardi2, S. and M.Yusuf Harun3 (2017) '1 , 2 , 3 1', 2, pp. 116–124.
- Rika Widianita, D. (2023) 'Covariance Structure Analysis of Health-Related Indicators in Home-Dwelling Elderly with a Focus on Subjective Health Perception', *At-Tawassuth: Jurnal Ekonomi Islam*, VIII(I), pp. 1–19.
- Sugiyono. (2019) 'Quantitative and Qualitative Research Methodology and R&D'.
- Trianziani, S. (2020) 'View metadata, citation and similar papers at core.ac.uk', 4(November), pp. 274–282.
- Umamah, K.N. *et al.* (2018) 'Academic Achievement in Relation to Adolescents' Involvement in Extracurricular Activities', *Jurnal Muara Ilmu Sosial, Humaniora, dan Seni*, 2(1), p. 108. Available at: <https://doi.org/10.24912/jmishumsen.v2i1.1688>
- Walker, J., Marczak, M., Blyth, D., & Borden, L. (2016) 'Designing youth development programs: Toward a theory of developmental intentionality. In J. L. Mahoney, R. W. Larson, & J. S. Eccles (Eds.), *Organized activities as contexts of development: Extracurricular activities, after-school and community programs* ('.
- Yhunanda and Sholeh, M. (2020) 'The Role of Extracurricular Activities in Efforts to Improve Student Achievement', *Jurnal Inspirasi Manajemen Pendidikan*, 8, pp. 531–544.