

## Comparative Analysis of Online and Offline Learning Strategies on Academic Achievement among Nursing Students at Panrita Husada Health College Bulukumba

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### ABSTRACT

**Background :** Change system learning in a way drastic during and after the COVID-19 pandemic has influence various aspect in the world of education high, including effectiveness method online and offline learning towards achievements academic students. Institutions education health face challenge for adjust learning strategies to remain ensure quality education, especially in matter achievement competence academic and skills professional student . **Objective:** Study This aim for analyze difference achievements academic student based on method online and offline learning at STIKES Panrita Bulukumba Village. **Method:** Study This use approach quantitative with design comparative . The sample consists of of 114 students divided into two groups : 57 students who participated online learning and 57 students offline learning. Achievement data academic obtained through documentation mark end of semester, and analyzed using the independent sample t-test. **Results:** Analysis results show that there is difference significant between achievements academic students who participated online and offline learning ( $p < 0.0001$ ). Students in the offline group had an average grade of more academic tall compared to with online groups. **Conclusion:** Offline learning is proven more effective in increase achievements academic student compared to online learning. These results recommend importance optimization learning face advance or a structured blended learning model, especially in education health that emphasizes integration theory and practice

**Keywords :** achievements academic; online learning; offline learning; students nursing; education

### INTRODUCTION

The COVID-19 pandemic that has hit the world since early 2020 has change in a way drastic system education in various countries, including Indonesia. Institutions education, including college tall health, must adapt with fast to digital transformation in the learning process. According to Haelermans et al., 2022 change sudden This cause various challenge, start from limitations infrastructure, lack of digital literacy, up to readiness power teacher in manage online learning effective.

Along with subside pandemic, system learning return experience transition, from online to offline or in form combination both (blended learning). A study conducted by

Ashraf et al., 2024 show that blended learning has the potential increase understanding conceptual students, but still need readiness good technology and learning strategies so as not to cause gap achievements academic. Therefore that, institution education tall need do evaluation to the learning model used in order to be able to answer need student optimally post- pandemic.

In context education health, learning clinical and skills practical work become focus different main from field studies other so that change system learning No only impact on aspects theoretically, but also in learning clinical and skills practical work that relies heavily on interaction directly. Study results Ligita et al., 2022 emphasize that student nursing in Indonesia faces difficulty in develop skills psychomotor in a way maximum through online learning. This become challenge alone in prepare competent and prepared graduates work. With Thus, the analysis to effectiveness online and offline learning post-pandemic become very important for determine the right learning strategy.

System growing online learning rapidly during pandemic give various benefits, especially from side flexibility, efficiency time, and access extensive learning. Students can access material When anywhere and anytime, and have the opportunity For repeat learning through recording media or digital modules (Paudel, 2020) . In addition, online learning encourages independence learning and mastery digital technology is important in the era of transformation education 4.0 (Ashraf et al., 2024) .However, even though assessed effective from side accessibility, effectiveness pedagogical Still become debate, especially for study programs that require learning practice and skills clinical , such as education health.

On the other hand, online learning faces challenge Serious related limitations interaction social, low motivation learning, and obstacles Technical research by Wijaya et al., 2021 show that student often experience difficulty understand material in a way independent, feel isolated, as well as constrained internet connection is not stable. This is impact on low involvement students and potential decline achievements academic. In addition, the results study by Ligita et al., 2022 disclose that student nursing feel not enough believe self in develop skills practice only through online session, which shows importance learning based experience direct.

Achievements academic is indicator main in evaluate success of the learning process at university high. According to, achievements academic student can made into gauge measuring effectiveness method learning implemented by institutions education,

at the same time as base evaluation success lecturer in convey material. Good academic grades are also representation success system learning in develop potential cognitive student optimally.

In addition, the achievements academic No only functioning as a quantitative parameter to results learn, but also become component important in determine sustainability study, giving scholarships, and eligibility Work after graduation. Research by Ashraf et al., 2024 show that performance high academic correlated positive with level trust self, motivation intrinsic, as well as readiness student in facing the world of work. Therefore that's important for institutions for ensure that system applied learning capable support improvement achievements academic in a way comprehensive.

More continue, achievements academics also become indicator important in accreditation institutions and decision making policy education. Report from Haelermans et al., 2022 show that achievements academic student used as base in evaluate quality of study programs and determine effectiveness implemented curriculum. Because that, measurement and improvement achievements academic student become aspect central in ensure quality education in a way sustainable.

Based on description above, research This formulate question : How? the impact of online and offline learning strategies on achievements academic students at the institution education health? Research This aim for analyze and compare influence second method learning the to performance academic students at Panrita Health College Husada Bulukumba. It is hoped results study can become base in designing policy effective hybrid learning in education tall health.

## **MATERIALS AND METHODS**

Study This use approach quantitative comparative with cross-sectional design, which aims for know difference achievements academic student based on method the learning they follow, namely online and offline. This design chosen Because capable describe relationships and comparisons between two variables in one time measurement (Creswell, 2014). Population in study This is all over student active of Panrita Health College Husada Bulukumba in the year academic year 2023/2024. Simple random sampling technique where method election participant in a way random from the student list active that meets criteria inclusion, namely students who take part in one of the type learning (online or offline) during one full semester. Calculation big sample use formula big sample with G Power application. Total number of respondents is 114 students,

consisting of of 57 students online groups and 57 offline groups (Safruddin et al., 2023). Data collection was carried out through documentation mark end of semester as representation achievements academic, which is obtained from system information academic institutions. These values Then analyzed using the independent sample t-test to know difference in average achievement academic between two groups with the SPSS program. The t-test was selected Because in accordance For comparing two groups independent with interval data scale and normal distribution. (Sugiyono, 2020). Before the test was carried out, the data was tested its normality using Kolmogorov-Smirnov followed by with homogeneity test variance (e.g. Levene's test) and shows variations The same ( Safruddin, 2022). Data analysis was carried out with software assistance. Research This has get agreement ethics from Committee Ethics Panrita Health College Research Husada Bulukumba, and all respondents give agreement written (informed consent) for participate in study.

## RESULT

Table 1 presents characteristics respondents based on type gender and generation study. Total respondents totaling 114 people, 57 of each group online learning and 57 from offline. On Gender Majority respondents is women, both in the online (91.2%) and offline (93%) groups, showed domination student women in institutions education health. In the Respondent Group originate from three force last (2020–2022), with proportion most from class of 2021 (40.4%), showing that group This become representation main in studies This.

**Table 1 Description characteristics respondents : type gender , Force**

| Characteristics | (Online)  | %          | (Offline) | %          |
|-----------------|-----------|------------|-----------|------------|
| <b>Gender</b>   |           |            |           |            |
| Man             | 5         | 8.8        | 4         | 7.0        |
| Woman           | 52        | 91.2       | 53        | 93.0       |
| <b>Force</b>    |           |            |           |            |
| 2020            | 17        | 29.8       | 17        | 29.8       |
| 2021            | 23        | 40.4       | 23        | 40.4       |
| 2022            | 17        | 29.8       | 17        | 29.8       |
| <b>Amount</b>   | <b>57</b> | <b>100</b> | <b>57</b> | <b>100</b> |

Table 2 shows results comparison achievements academic student between two methods learning : online and offline. Online groups have average value of 64.12 with standard deviation 9.90, value lowest 38, and highest 80. The offline group shows the average achievement more academic tall namely 77.15 with standard deviation more big (7.30), value lowest 62 and the value highest 92

**Table 2 description achievements academic between online and offline groups**

| Mark    | n  | Mean  | Standard Deviation | Min - Mak |
|---------|----|-------|--------------------|-----------|
| Online  | 57 | 64.12 | 9.90               | 38 – 80   |
| Offline | 57 | 77.15 | 7.30               | 62 - 92   |

Table 3 shows results comparison achievements academic student between two methods learning : online and offline, based on mark academic achievements (eg average test score end of semester or final semester GPA). Online groups have average value of 64.12 with standard deviation 9.90, value lowest 38, and highest 80. This shows variation achievements sufficient academic tall in group This. The offline group shows the average achievement more academic tall namely 77.15 with standard deviation more big (7.30), value lowest 62 and the value highest 92. This indicates distribution greater value higher and more achievements tall in a way general. The results of the independent sample t-test show that There is significant difference in a way statistics between achievements academic student group online and offline learning ( $p < 0.0001$ ). The average value academic in offline groups significant more tall compared to online groups. The average difference between second group around 13.03

**Table 3. Comparison achievements academic between online and offline groups**

| Mark    | n  | Mean  | Standard Deviation | Min - Mak | $\Delta$ | p          |
|---------|----|-------|--------------------|-----------|----------|------------|
| Online  | 57 | 64.12 | 9.90               | 38 – 80   | 13.03    | $< 0.0001$ |
| Offline | 57 | 77.15 | 7.30               | 62 - 92   |          |            |

### DISCUSSION

Analysis results using an independent sample t-test show that there is a significant difference in a way statistics between achievements academic students who participated online and offline learning, with mark  $p < 0.0001$  ( $p < 0.05$ ). Difference This indicates that method learning influential to results Study students. Average achievement value academic students in groups offline (77.15) in significant more tall compared to with group online (64.12), which indicates that method face advance give contribution more positive to performance academic.

Although mark average Low online learning but Still selected and developed in the digital era because own high flexibility, efficiency and accessibility, allowing student Study When anywhere and anytime as well as utilise various source real -time global

learning (Paudel, 2020). In addition, online learning supports mastery digital literacy and preparing student face challenges of the world of work based technology (Ashraf et al., 2024) . However, method This own limitations, such as low interaction social, motivation learning and effectiveness learning practical work (Ligita et al., 2022; Wijaya et al., 2021). For overcome weakness Therefore, a hybrid model (blended learning) was developed which combines superiority online and offline learning. Approach This allows delivery material theoretical online while maintain learning face advance For activity practice, discussion, and development skills social, so that create system more learning effective, adaptive, and student - centered (Wang et al., 2020).

Findings study This in line with theory constructivism Vygotsky's social theory, which emphasizes importance interaction social in the learning process. In the context offline learning, students get stimulation Study through dialogue, guidance direct, and experience more collaborative intense compared to online learning. This participate reinforced by research from Mulyadi et al., 2021 which shows that learning face advance produce achievements more academic tall in a way significant compared to online learning for students nursing in college tall health. However different with study Ashraf et al., 2024 and Paudel, 2020 state that online learning can strengthen digital literacy, making things easier access global information, and has the potential increase understanding draft in a way independent, especially in material based theory.

In addition, a study by Fatimah & Suparno, 2022 find that online learning tends to lower motivation and discipline Study student consequence lack of supervision direct and interaction active, which in the end impact negative to performance academic findings A similar finding was also reported by Utami et al., 2023, where the group students who participated lectures face advance show improvement more cognitive and affective Good compared to with students who study online during the COVID -19 pandemic. Therefore that, the result study This strengthen literature previously that learning model face advance give environment learn more conducive in increase achievements academic, especially in the field of education health.

Effectiveness learning, both online and offline, is influenced by various interrelated factors related, such as availability infrastructure, capabilities digital literacy, motivation learning, style Study individual, quality interaction lecturers-students, as well as support environment learning. In online learning, limitations internet access, digital devices that are not adequate and lack of interaction social become obstacle main in the learning

process (Wijaya et al., 2021). Meanwhile that, in offline learning, success more influenced by discipline time, involvement active in class, and method teach communicative and participatory lecturers (Putra & Lestari, 2022). According to Astuti & Suryani, 2023 internal factors such as independence learning and motivation intrinsic students, as well as factor external like environment social and support academically, in terms of significant influence results learn in both learning modes. Therefore that, effectiveness method learning No only depends on the media, but is also influenced by readiness system, role educators, and individual conditions of participants educate.

Implications from findings This for institutions education health is the need designing adaptive and context - based learning strategies evidence, with consider the effectiveness of each method learning to achievements academic students. Study results show that offline learning tends to give results more academic good, so institutions recommended for optimize return learning face advance post-pandemic, especially for material that is practical work and discussion clinical.

Limitations in study This lies in the design cross - sectional study, so that no allows for evaluate connection causal between method learning and academic achievements longitudinally. In addition, the achievement data academic used limited to value end of semester, which has not been reflect aspect competence in a way comprehensive like skills practical and attitude professionals, especially in context education health. Research this is also only done on one institution, namely Panrita Health College Husada Bulukumba, so that generalization results to other institutions need done with be careful. Factors external like motivation learning, condition social economy, and access to technology No analyzed in a way deep, which may be participate influence results Study students. Therefore that, study advanced with approach multivariate and larger populations highly recommended area.

## CONCLUSION

Study This find that there is significant difference in a way statistics between achievements academic students who participated online and offline learning. Students who study through offline method shows the average value more academic tall compared to with those who study online, Findings This indicates that method learning face advance give more contributions positive to results Study student. Implications practical from study This for lecturer is importance increase quality interaction learning, good both online and offline, with use student- centered and based approach experience real.

Lecturers need to designing encouraging learning strategies involvement active student as well as do evaluation formative in a way periodically for monitor achievements learning. For institutions, the results This become base for compile policy academic balance effectiveness and flexibility learning, including provision means technology, training lecturers, and learning monitoring systems.

For study Next, it is recommended to use longitudinal design or experiment quasi to evaluate influence term long method learning to achievements academic student in a way more in-depth. Research should also be involving variables control like motivation learning, access technology, background behind social economy, as well as support family or environment Study For get a clearer picture comprehensive. In addition, the coverage studies can expanded to a number of institutions education health in various regions so that the results more generalizable.

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