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Profile of Biology Students' Learning Styles at UIN KHAS Jember

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Abstract The Bioconservation course requires a great deal of contextual learning, enrichment, debate, and case studies in the field, hence it is taught in a blended learning format. If the teacher is aware of the student's learning styles, blended learning will be successful. As a result, knowing student learning styles is essential for the success of learning activities. A survey was utilized as the research technique, and the instrument was in the form of a closed angle. The information collected is quantitative. Percentages were used to examine the data. Respondents are State Islamic University KH. Achmad Shiddiq Jember class of 2020 Biology class 2 students enrolled in the Bioconservation course. The results of the study showed that students participating in the Bioconservation course had an auditive-visual learning style of 57.1%, followed by a visual, auditive learning style. Meanwhile, the visual-kinesthetic, auditive-kinesthetic and kinesthetic learning styles had the same percentage of 10.7%. Blended learning may be an option for accommodating different student learning styles. Journals are used by 85.7% of students as a source of learning, followed by books and internet references (learning websites), while 85.7% of students check for study references on their smartphones. The practice of students searching for reference materials on the internet through cellphones, as well as their learning style, has aided blended learning activities.

Keywords: Student learning styles, Bioconservation courses, Blended learning

INTRODUCTION

Education is a critical component in ensuring the nation's future growth. Humans as development subjects must be taught, nourished, and developed in order to produce excellent development subjects. The university is one of the educational establishments. Students are one component that interacts to sustain the education system at colleges. Students' primary role is to fight with information and produce positive changes with the intelligence they have while attending education (Jeanette, 2016).

The university learning method differs from that of junior high/high school. Students must be able to study on their own and assess learning challenges. Effective learning can meet the demands of students. Every pupil has a distinct personality that distinguishes them from their peers. Each student has a unique degree of performance, learning pace, and learning style. This distinction in learning styles demonstrates the most effective technique for pupils to acquire knowledge when studying. A learning style is the simplest and quickest method for a person to learn (Jeanette, 2016).

Learning styles are a collection of personal qualities that influence how some students respond to education while others do not. For example, in order to guarantee a successful learning process, educators must be able to choose and apply relevant instructional material based on the students' learning styles (Harahap & Nasution, 2022). There are three types of learning styles: visual, aural, and kinesthetic. The highest capacity to see and sketch is visual. Auditory is the highest level of hearing and speaking abilities. Maximum understanding with bodily movement is referred to be kinesthetic (moving and doing) (Wawan, 2016). Students suffer as a result of lecturers' lack of comprehension of student learning patterns. This will result in student success that is not commensurate with their intellectual level. As a result, instructors must understand and identify each student's learning style in order to ease the learning process (Jeanete, 2016).

Learning styles of each student are unique (Afriza & Nasution, 2022). A visual learning style is one that involves seeing, watching, gazing, and other similar activities. The visual sense is the strength of this learning technique. The eye is the most sensitive instrument for catching every learning symptom or stimulus for persons who have this learning style. Auditory learning is a listening-based learning approach. Individuals with this learning style are more likely to use their hearing sense to carry out learning tasks (Rahayu, 2019). The kinesthetic learning approach involves moving, working, and touching. The goal is to learn by emphasizing the sensations of taste and movement. Individuals with this learning style learn more readily when they move, touch, or act (Rahayu, 2019).

With creative technology breakthroughs, the word learning may be interpreted as an activity that assists students in learning from a variety of sources. Technology is also a tool that allows kids to have infinite access to data and information. Students may get deeper insights by having unlimited access to data and information. Furthermore, the

use of technology in learning will boost student motivation and learning results. As a result, technology becomes a strategy for achieving certain learning objectives (Tanzil, 2019).

The development of student awareness of the importance of learning activities in utilizing learning resources, such as visiting the library, participating in discussions in academic forums, and diligently accessing knowledge information in online media networks, aids in the creation of such a quality teaching and learning process. However, statistics suggest that student mobility in locating learning materials remains low. The capacity to utilize learning materials effectively and efficiently is a crucial aspect in achieving learning objectives in both formal and non-formal education settings. Several studies have shown the need of optimizing the use of learning materials in order to assure the attainment of learning goals. Various media, in addition to books, slides, films, wall sheets, pictures, cassettes, vinyl records, models, specimens, and so on, are sources of learning information (Muhtadi, 2005).

Blended learning combines conventional classroom instruction with technology-based instruction (Widiara, 2018). According to the same experts, blended learning blends face-to-face interactions with computer-based learning both offline and online. Students may still contact with professors personally, but they now have the option of accessing a range of learning tools from cyberspace. Blended learning is the solution to a learning paradigm that meets the needs of the 21st century student (Dyah, 2022). The purpose of this research is to identify the learning styles of students in biology class 2 in 2022 who are enrolled in blended learning-based bioconservation courses.

METHOD

The survey approach was employed in this study. A closed questionnaire created by enabling the Google form was utilized as the instrument. Students were provided the questionnaire's address so that they could complete the questionnaire even if they were not on campus. Respondents in this research were Tadris Biology study program biology class 2 class of 2020 students enrolled in the Bio-conservation course during the 2022/2023 academic year. There were 28 surveys that were successfully completed.

The questionnaire covers statements on learning styles, student habits about learning reference sources, and student access tools. Answer options for learning style include auditive, visual, kinesthetic, auditive-visual, auditive-kinesthetic, and visual-kinesthetic. Aspects of student learning reference sources include students' proclivity to learn through books, the internet, or journals. Smart phones, computers, tablets, and notebooks are among the instruments utilized by students while studying on the internet. On November 25, 2022, the study was completed at the conclusion of the odd semester of the 2022/2023 academic year. The implementation took done in the classrooms of the UIN KHAS Jember

FINDINGS AND DISCUSSION

Student learning styles

Every student learns differently. There are students who benefit more from auditive media while studying, but there are other pupils who benefit more from auditive-visual media. Understanding student learning styles may aid in the organization of educational programs. The proportion of student learning styles indicated in Figure 1 is based on a questionnaire filled out by students.

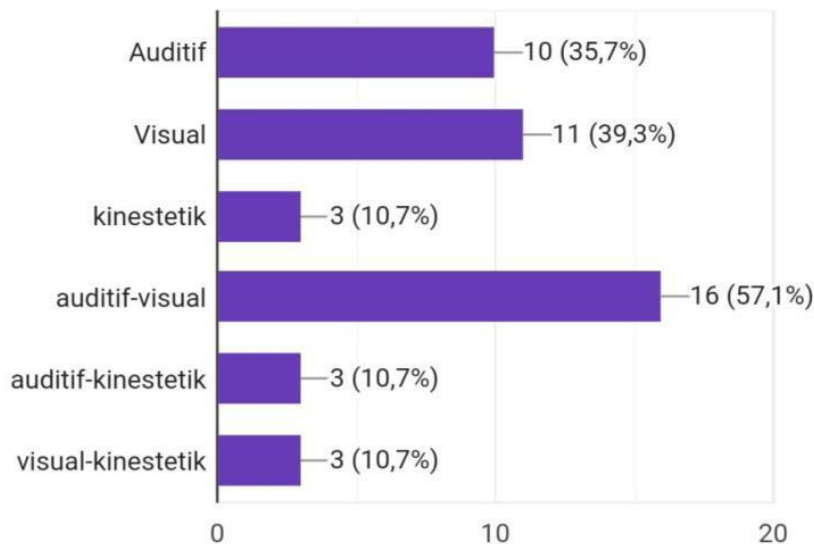


Figure 1. Student learning styles

Suprijono (2016) asserts that in order to develop successful and efficient strategies, learning models must pay attention to principles. One of these concepts is that the model must include available resources and finances. Student traits are one of the targeted resources. Students are distinct and growing persons; they are not inert things that can be handled lightly. They have diverse interests and abilities, as well as learning styles (Ananda, 2019).

Students' learning styles must be sought and fostered in order for best learning outcomes to be obtained. As a result, the teacher's responsibility is to assist pupils in developing their potential via their learning style. Blended learning enables students to get knowledge from a variety of sources through the facilities utilized and to study more freely using content offered online. As a result, blended learning may be a viable option for accommodating varied student learning styles. Blended learning seems to be

more efficient and effective. Because students may talk to professors or other students without having to wait in class, and because content can be updated using the existing internet resources (Utami, 2020). Blended learning may be utilized as a supplement to in-class learning activities that can be carried out outside of the classroom, making the classroom more expansive. Blended learning is also appropriate for a variety of learning styles since students are free to study learning material and the content may be accessible at any time.

Student habits

Publications in higher education serve as a channel of information and communication for materials, references, and even scientific research journals that are required by the academic community. The availability of journal services at tertiary institutions undoubtedly aids the academic community in their academic pursuits. Journals, with all of their speed and benefits, allow for quick dialectics of a science as well, therefore updating of a science is predicted to be more intense. Using journals as a reference tool creates a habit for student learning. Students' references are largely drawn from journals. Students are used to seeking direct references from journals, even during group discussions in class or while completing projects such as articles or research reports. (2013) (Mustati and najib)

This practice is backed by the fact that some students use journal references. The proportion of students who used journal references was 85.7%. Figure 2 depicts student tendencies while using reference materials.

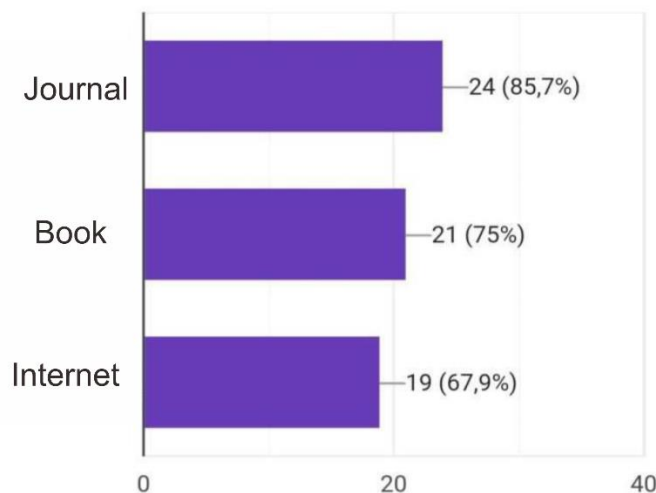


Figure 2. Student reference sources

In second place after references from journals, students also use books as references. This habit can be seen through the fact that the results of research show that the percentage of students taking references from books is as much as 75% of students taking references from books. The habits of these students can be seen in Figure 2.

Some students, in addition to utilizing periodicals and books as reference sources, seek for references on the Internet, such as learning websites. The usage of the internet in learning activities is consistent with the study habits of students while seeking for references. Students get the majority of their information from the internet. Students are used to searching for references straight on the internet, even while group discussions or other tasks are taking place in class. These student behaviors are supported by the study's findings, which show that 67.9% of students use the internet for research.

Blended learning includes the use of web-based technologies as a source of learning and learning material. Blended learning improves learning results by combining today's evolving online technologies with learning settings (Ceylan & Kesici, 2017). This encourages the use of the internet in learning activities. Campus facilities that have provided e-learning via the web address conserva.site, which includes both national and international journals and is equipped with e-books, learning videos, and various practice questions, contribute to the ease of finding references for studying conservation biology courses. As a result, pupils may study according to their own learning styles.

E-learning development is an effective learning medium and strategy for aiding the interaction process of learning and teaching activities in schools and universities (Ismantohadi, Nugroho, & Kusumawardani, 2015). Students may now receive multiple references online thanks to better internet access. Student learning styles are also increasingly enabled based on individual student features. Various methods enhance students' habits of obtaining material on the internet when learning is based on blended learning in conservation biology courses. According to the study's findings, practically all students utilize cellphones as access devices for educational content. The proportion of students who use notebooks and tablet PCs is significantly lower than the number of students who use smartphones. Figure 3 demonstrates this.

Access to information may be used in learning activities. This convenience is aided by the availability of numerous technological instruments. Teachers must employ these tools in structured learning in order to adapt to student habits and preferences. When learning is done in a blended fashion, instructors employ E-learning, which is readily available to students and incorporates numerous media that may assist students with different learning styles. changed, and now the android smartphone is not only a communication tool, but also a learning instrument that is currently present in student life.

Blended learning is seen to be suitable for today's pupils. Because students often use cellphones to obtain information, it is okay if the content is sent to them through a link that they may access. It is envisaged that classroom learning activities would become more effective.

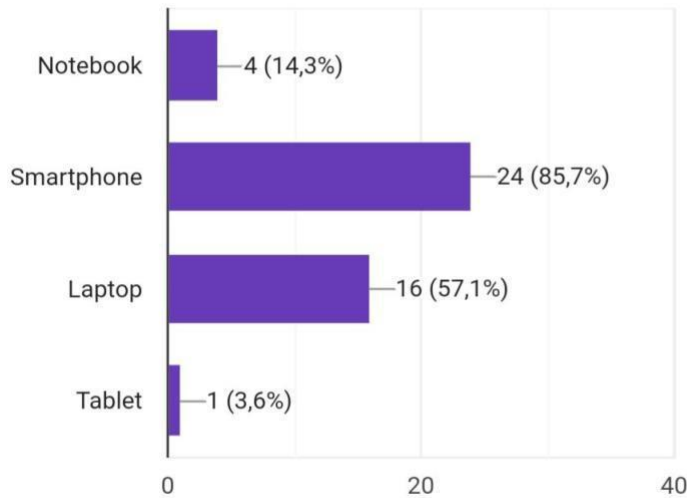


Figure 3. Access tools used by students

CONCLUSION

Students in bioconservation courses had a 57.1% auditory-visual learning style, followed by visual, auditory, and visual-kinesthetic, auditory-kinesthetic, and kinesthetic learning styles. Blended learning may be an option for accommodating different student learning styles. As many as 85.7% of students utilize journals as a source of learning, 75% use books as references, and 67.9% use cellphones to access the internet.

Students' use of cellphones to access the internet enhances the blended learning activities that are carried out. Because in blended learning-based learning, instructors utilize learning websites that include a variety of learning material that may accommodate a variety of student learning styles.

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