

Web-Based Independent Learning Implementation in Universitas Lancang Kuning

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Abstrak

Pendidikan di era revolusi industri 4.0 dengan perkembangan Teknologi Informasi dan Komunikasi (TIK) memiliki berbagai inovasi, salah satunya adalah pemanfaatan internet secara optimal dalam kegiatan pembelajaran. Penelitian ini bertujuan untuk mendeskripsikan implementasi merdeka belajar berbasis web oleh mahasiswa Fakultas Pendidikan dan Vokasi Universitas Lancang Kuning pada tahun akademik 2022/202. Pendekatan mixed-method digunakan dengan sampel sebanyak 181 mahasiswa Fakultas Pendidikan dan Vokasi tahun akademik 2022/2023 yang dipilih dengan menggunakan teknik random sampling. Untuk menilai pelaksanaan pembelajaran mandiri berbasis web digunakan kuesioner Skala Likert online, sedangkan data wawancara dianalisis menggunakan teknik analisis kualitatif melalui metode analisis tematik. Hasil penelitian menunjukkan bahwa pelaksanaan merdeka belajar berbasis web di Fakultas Ilmu Pendidikan dan Vokasi Universitas Lancang Kuning berjalan efektif dan efisien. Hal ini didukung oleh nilai rata-rata tertinggi untuk setiap pernyataan yang dipilih oleh siswa di empat indikator yang berbeda. Merdeka belajar berbasis web membuat proses pembelajaran menjadi fleksibel dan memberikan kemudahan bagi siswa dalam memahami materi pembelajaran karena siswa dapat dengan bebas memilih metode pembelajarannya sendiri.

Kata kunci: *Pembelajaran berbasis web, belajar mandiri, implementasi*

Abstract

Education in the era of revolution of industry 4.0 with the development of Information and Communication Technology (ICT) has various innovations, one of them is the optimal use of the internet in learning activities. This study aims to describe the implementation of web-based independent learning by students of the Education and Vocational Faculty at Lancang Kuning University in the academic year 2022/202. A mixed-method approach was used with a sample of 181 students from the Education and Vocational Faculty in the academic year 2022/2023 which selected by using the random sampling technique. To assess the implementation of web-based independent learning, an online Likert Scale questionnaire was utilized, while interview data was analyzed using qualitative analysis techniques through thematic analysis method. The result indicates that the implementation of web-based independent learning at the Faculty of Education and Vocational of Lancang Kuning University is both effective and efficient. This is supported by the highest average values for each statement selected by students across four different indicators. Web-based independent learning makes the learning process flexible and provides convenience for students in understanding the learning material because students can freely choose their own learning methods.

Keywords: *Web-based learning, independent learning, implementation*

INTRODUCTION

In the era of the 4.0 industrial revolution, with the rapid development of Information and Communication Technology (ICT), there is a demand for innovation in various aspects of life.

One of these aspects is education. To enhance the quality of education in the age of technology, innovation is required, particularly in the development of learning media. One of the innovations in learning through Information and Communication Technology is the optimal utilization of the internet. As we know, the internet has become the backbone of the transition from traditional/classical learning models to modern and highly effective, efficient, and accessible learning models. The advantages of this modern learning model are evident through internet access, which can provide various educational resources and materials for educators and learners from around the world.

In Indonesia itself, the emergence of the internet has become very popular and crucial in the current learning process. The internet has played a pivotal role in various learning models implemented by the government, such as the implementation of distance or online learning, hybrid learning, and even limited face-to-face learning. Educators and learners are provided with various conveniences in obtaining and managing learning resources. This, of course, can accelerate the knowledge transfer process. As a result, the goal of education in creating a "knowledgeable society" can be realized more swiftly.

Various internet technologies and applications have evolved to support self-directed learning. The internet provides numerous websites and resources to help learners acquire knowledge, expand their horizons, and hone their skills in specific fields. Learners can study independently by accessing blogs or websites that are beneficial to them, or even by engaging in online puzzles and quizzes related to their areas of study.

Davidson-Shivers, Rasmussen, and Lowenthal (2018) mentioned that the internet and the World Wide Web have given rise to several models of distance education that educational institutions can utilize. There are at least five models: Internet & World Wide Web, Computer & Digital Technologies, Teleconference Systems & Communication Networks, Broadcast Systems, and Correspondence Courses. Specifically for internet and WWW-based learning, also known as e-learning, Horton and Horton (2003) categorized it into five types: Learner-led e-learning, Facilitated e-learning, Instructor-led e-learning, Embedded e-learning, and Telementoring and e-coaching.

According to Hsieh & Lin (1998), from the learners' perspective, the internet plays a significant role in supporting the learning process. This is evident in their willingness to face the challenges posed by internet usage and to take risks with self-determined learning methods. Additionally, Boswood (1997) stated that learners greatly enjoy online learning and discover new ideas, a characteristic of self-directed learning. In other words, internet-based independent learning can motivate learners to develop and choose their preferred learning methods. The availability of diverse learning resources from around the world presented by the internet can stimulate learners' ideas, keeping them engaged in limitless exploration of knowledge.

Furthermore, Schank (1993) argued that learners using the internet as a learning medium can control their learning strategies, choosing what to read or view and how long and how often to engage with it. As a result, Wenden (1998) claimed that learning through the internet can enhance self-appreciation, which can help learners develop positive attitudes toward their abilities as students. The point is self-directed learning using the internet as an unlimited learning resource offers learners the opportunity to access anything they desire. However, this poses a challenge for learners in deciding whether the internet will lead to their success or the opposite.

Therefore, the existence of internet-based self-directed learning activities that have been implemented by the Faculty of Education and Vocational at Lancang Kuning University in previous semesters is expected to motivate and have a positive impact on changing students' learning methods and outcomes for the better. In addition to expanding knowledge and enhancing skills, the use of the internet as a reflection of students' self-directed learning is also anticipated to transform their learning styles. Hence, the researcher believes it is necessary to understand how web-based independent learning has been applied by students at the Faculty of Education and Vocational at Lancang Kuning University in the academic year 2022/2023.

Rohmalina Wahab (2018) defined that learning as an activity consciously carried out by an individual. Through this learning activity, one can acquire new knowledge and skills, which

manifest in the form of positive attitudes and values, serving as the precursor to changes in their behavior. In the process of learning, there is interaction between learners and their sources of learning, which are typically teachers, as well as the media and tools used. This can be seen as patterns in the learning process. According to Barry Morris, as cited in Rusman (2010), learning is categorized into four patterns: (1) Traditional Learning Pattern 1; (2) Traditional Learning Pattern 2; (3) Teacher and Media Learning Pattern; and (4) Media-Based Learning Pattern.

Now, the internet is increasingly used in everyday life by various segments of society, especially in the field of education. Internet-based learning, or web-based learning, has garnered the attention of educators and learners alike. The development of web-based learning has encouraged active participation of learners in every detail of the learning activities they undertake. This makes the learning process more enjoyable, creative, engaging, and certainly not boring. Additionally, internet-based self-directed learning models have been designed in the form of social networks that can be used individually or by groups simultaneously.

According to Cobine (1997), through self-directed learning, learners act as thinkers. In line with this, Dickinson (1993) identifies three characteristics of self-directed learners. First, they learn at their own pace. Second, they can make choices regarding their own learning management. Third, they actively participate in their self-directed learning process. Moreover, self-directed learners can acquire the same information through different selective and self-directed pathways and can evaluate each situation they encounter.

Jeffri (1990) defined self-directed learning as a learning activity in which individuals or a group of learners learn independently, possibly as part of a course, without direct tutor intervention. This requires learners to take full responsibility for what they learn, how they learn, and when they learn. In addition, learners are expected to complete their assessments independently.

Internet-based learning models condition learners to learn independently. Learners can access various sources online, including libraries, databases, museums, and more. Learners can gain access to a wide range of materials such as historical events, statistical data, event recordings, and reports. According to Rusman (retrieved: 2023), the use of the internet as a learning medium has several advantages, which are explained in the following points:

1. Wide Educational Distribution: It allows for the distribution of education across the entire nation, with an unlimited capacity, as it doesn't require physical classrooms.
2. Unrestricted Learning Time: The learning process is not confined by time, as it is in traditional face-to-face settings.
3. Learner's Choice of Topics: Learners can choose topics or teaching materials that align with their desires and needs.
4. Flexible Learning Duration: The length of learning depends on each student's abilities.
5. Accuracy and Currency of Learning Materials: There's accuracy and up-to-date content in the learning materials.
6. Interactive Learning: Learning can be conducted interactively, making it engaging for students. It also allows stakeholders, such as parents, to participate in the learning process by helping to check assignments online.

The implementation of web-based or internet-based learning facilitates faster and more accessible message delivery. Furthermore, it can enhance teaching methods and strategies for educators while improving student performance (Ayuyang: 2019). Khalifa and Lam (2022) additionally suggest that internet-based learning environments make the learning process more comfortable, allowing learners to explore themselves. In conclusion, internet-based self-directed learning provides significant benefits for the development of knowledge, skills, and learner behavior within their learning process. Learners can independently determine the steps of their learning activities, learning objectives, learning resources, and their learning attitudes. This is highly essential, as self-awareness contributes to more effective learning.

These are some relevant research studies related to web-based independent learning, which serve as references for conducting this research. First is a study conducted by Ritchelle W. Origenes (2022) titled "Model for web-based learning module in Senior High School General Chemistry" with a quasi-experimental research design. This study aims to determine if there is

an influence of using web-based learning as an additional learning tool for the learning activities carried out by high school students majoring in Chemistry. The research results show that the use of web-based learning modules is an outstanding additional learning tool that provides flexibility for students to acquire the material at their own learning pace while exploring the module content.

The second research study was conducted by Fadli (2013) with the title "Development of a Web-based instructional model." The research method used was Research and Development (R&D). This study aims to develop a web-based instructional model that encourages students to be actively and constructively engaged with the media used in the learning process. The learning model developed by this researcher can be used both individually and in group learning. Interactive learning materials were also developed to keep students motivated throughout the learning process. Meanwhile, the teacher acts as a facilitator whose role is to motivate students both verbally and non-verbally (using media). Students' tasks in the form of training, evaluation, questions, and answers are presented in the program, and this program facilitates the teacher in correcting and tracking students' tasks.

The third study was conducted by Mohd. Haidir, Urai Salam, Syarif Husin (2017) with the title "The use of the internet for Independent English Learning." This study aims to investigate and describe how junior high school students utilize internet availability to create opportunities for independent learning of the English language. To answer this research question, a case study method was used, involving interviews and observations of 5 junior high school students who use the internet in the Sungai Raya Dalam area, Kubu Raya Regency, supported by screen captures as concrete evidence of students' activities.

The research results show that the number of students using the internet is very small. However, these students have a positive view of the internet and use it according to their learning needs. Data findings from the interview results show that these students have applied self-directed learning in three critical aspects: self-direction, motivation, and effort in learning the English language. As a result, the students were able to develop independent learning and engage in positive and relevant activities for junior high school students in practicing the essential skills in English: listening, speaking, reading, writing, and vocabulary acquisition.

METHOD

This research aims to describe how the implementation of web-based independent learning is carried out by students of the Faculty of Education and Vocational at Lancang Kuning University in the academic year 2022/2023 and the factors influencing these activities. The research results are expected to provide insights into the implementation of internet-based self-directed learning activities by Faculty of Education and Vocation students, serving as a reference for the use of information technology in the independent learning process of students in the future.

Based on the research objectives, the desired outcomes are a module for the "Technology for Teaching and Learning English" course and a scholarly article published in an accredited national academic journal. The scholarly article to be published in the accredited journal is expected to serve as a reference for researchers, educators, and students in need of relevant theories or research findings related to this study. The findings of this research are anticipated to become a valuable resource for researchers, educators, and students seeking theories or research results relevant to this study.

This research employs a mixed-method approach with a concurrent or parallel design, where quantitative and qualitative research is conducted simultaneously and independently analyzed according to their respective designs.

Instruments

To obtain quantitative data regarding students' perceptions of web-based independent learning implementation, the researcher will use an online questionnaire as the instrument. Meanwhile, to gather qualitative data concerning the influencing factors, the researcher will use interviews as the instrument.

The population of this research consists of students from the Faculty of Education and Vocational Studies at Lancang Kuning University in the academic year 2022/2023. Here are the specific details regarding the population and sample for this study. To determine the sample for this research, the researcher employs the Random Sampling technique, taking 25% of the total population, as suggested by Arikunto (2010). If the population size is greater than 100 individuals, a sample size of 10% - 15% or 20% - 25% can be used. However, if the population size is less than 100 individuals, the entire population can be considered the sample. Here is the table of the sample for this research.

Table 1. Population and Sample

| No | Department | Jumlah | |
|---------------|---------------------------------------|-------------------|--------------|
| | | Population (100%) | Sample (25%) |
| 1 | Pend. Bahasa Inggris | 302 | 75 |
| 2 | Pend. Biologi | 150 | 38 |
| 3 | Pend. PG PAUD | 210 | 52 |
| 4 | Pendidikan Vokasi dan Teknik Otomotif | 18 | 4 |
| 5 | Pendidikan Khusus | 47 | 12 |
| Jumlah | | 662 | 181 |

Data Source: smartunilak.ac.id

Based on the table provided, it can be determined that the sample size for this research consists of 181 students from the Faculty of Education and Vocational for the Academic Year 2022/2023.

Data obtained from the questionnaire are analyzed using statistical calculations. In this case, the researcher employs the SPSS (Statistical Package for the Social Sciences) application to perform calculations in various sections of descriptive statistics, such as the sum of scores, mean, standard deviation, and percentages, as outlined by Creswell (2012). Subsequently, the researcher uses references for mean score and score categories, following the guidance provided by Katz and Kahn (1978).

Table 2. Questionnaire Calculation Average Scale and Categories

| No | Mean | Category |
|----|-------------|-----------------|
| 1 | 1.00 – 2.49 | <i>Low</i> |
| 2 | 2.50 – 3.99 | <i>Moderate</i> |
| 3 | 4.00 – 5.49 | <i>High</i> |

Source: Katz & Kahn (1978)

The results of the descriptive statistical calculations, which have been interpreted according to the Katz & Kahn (1978) scale, are presented to address the two research questions in this survey: the implementation of web-based independent learning by students at the Faculty of Education and Vocational Studies at Unilak for the academic year 2022/2023. As for the data obtained from interviews, it will be analyzed using qualitative analysis techniques, specifically using thematic analysis. This involves five steps: the researcher familiarizes themselves with the

entire dataset, identifies initial codes for the data, determines themes within the data, reviews and refines the themes, and finally, defines the themes (Braun & Clarke, 2006).

RESULTS AND DISCUSSION

This research was conducted during the 2022/2023 academic semester at the Faculty of Education and Vocational, Lancang Kuning University. The study had 181 participants, who were students. To obtain the necessary results, the researcher analyzed the mean, frequency, and percentage of the questionnaire data completed by the respondents. The purpose of this analysis is to describe how web-based independent learning is implemented by students at Lancang Kuning University's Faculty of Education and Vocational for the academic year 2022/2023. The following are the results of the analysis of respondent data related to the implementation of web-based independent learning by students at Lancang Kuning University's Faculty of Education and Vocational for the academic year 2022/2023, analyze by each indicator.

Table 3. Result of Data Analysis on Learning Styles Indicators

| NO | Statement | STS | | TS | | N | | S | | SS | | MEAN |
|----|--|-----|------|----|-------|----|-------|----|-------|----|-------|------|
| | | I | F | P | F | P | F | P | F | P | F | P |
| 1 | I can plan and organize my time well (Saya dapat merencanakan dan mengatur waktu saya dengan baik). | 5 | 3.01 | 9 | 5.42 | 39 | 23.49 | 80 | 48.19 | 33 | 19.88 | 3.77 |
| 2 | I can study on my own (Saya mampu belajar mandiri). | 6 | 3.61 | 11 | 6.63 | 50 | 30.1 | 73 | 44 | 26 | 15.7 | 3.61 |
| 3 | I can find learning resources when I need them (Saya dapat menemukan sumber belajar ketika saya membutuhkannya). | 8 | 4.82 | 6 | 3.61 | 31 | 18.67 | 88 | 53.01 | 33 | 19.88 | 3.80 |
| 4 | I can look for help with my educational problems (Saya dapat mencari bantuan untuk masalah pendidikan saya). | 7 | 4.22 | 7 | 4.22 | 42 | 25.3 | 86 | 51.81 | 24 | 14.46 | 3.68 |
| 5 | I like problem-solving tasks (Saya menyukai tugas-tugas pemecahan masalah). | 6 | 3.61 | 19 | 11.45 | 61 | 36.75 | 66 | 39.76 | 14 | 8.43 | 3.38 |
| 6 | I learn from my mistakes (Saya belajar dari kesalahan saya). | 7 | 4.22 | 5 | 3.01 | 18 | 10.8 | 77 | 46.4 | 59 | 35.5 | 4.06 |
| 7 | I review my lessons regularly (Saya meninjau pelajaran saya secara teratur). | 4 | 2.41 | 14 | 8.43 | 58 | 34.94 | 68 | 40.96 | 22 | 13.25 | 3.54 |

| | | | | | | | | | | | | |
|-----------|---|---|------|----|-------|----|-------|----|-------|----|-------|------|
| 8 | I can evaluate my work (Saya dapat menilai pekerjaan saya). | 5 | 3.01 | 14 | 8.43 | 40 | 24.1 | 83 | 50 | 24 | 14.5 | 3.64 |
| 9 | I can evaluate my progress in learning English (Saya dapat menilai kemajuan saya dalam belajar bahasa Inggris). | 6 | 3.61 | 13 | 7.83 | 45 | 27.11 | 77 | 46.39 | 25 | 15.06 | 3.61 |
| 10 | I can change my learning strategies if I need to (Saya dapat mengubah strategi belajar saya jika saya membutuhkannya). | 3 | 1.81 | 14 | 8.43 | 32 | 19.28 | 87 | 52.41 | 30 | 18.07 | 3.77 |
| 11 | I can learn by myself without depending on others (Saya dapat belajar mandiri tanpa bergantung pada orang lain). | 7 | 4.22 | 25 | 15.06 | 57 | 34.34 | 53 | 31.93 | 24 | 14.46 | 3.37 |
| 12 | I choose my own way to learn without imitating others (Saya memilih menggunakan cara belajar saya sendiri tanpa meniru orang lain). | 8 | 4.82 | 14 | 8.43 | 41 | 24.7 | 74 | 44.58 | 29 | 17.47 | 3.61 |
| 13 | I go to self-access centers at school regularly (Saya pergi ke pusat akses mandiri di sekolah secara teratur). | 6 | 3.61 | 30 | 18.07 | 69 | 41.57 | 47 | 28.31 | 14 | 8.43 | 3.20 |
| 14 | I find trying different ways of learning useful (Saya merasa bahwa mencoba berbagai cara belajar itu bermanfaat). | 6 | 3.61 | 8 | 4.82 | 20 | 12.05 | 91 | 54.82 | 41 | 24.7 | 3.92 |
| 15 | I like having choices while studying (Saya suka memiliki pilihan sendiri ketika belajar). | 7 | 4.22 | 7 | 4.22 | 36 | 21.69 | 85 | 51.2 | 31 | 18.67 | 3.76 |

Based on the table above, it can be concluded that there are several common criteria for students' learning styles in the context of implementing web-based independent learning. These learning styles are assessed based on how each student applies web-based independent learning. According to the research findings, most students are capable of learning from their mistakes even when engaging in independent learning. This is evident from the mean values for each statement, where the highest mean value is found in the statement "I learn from my

mistakes," which is 4.06. On the other hand, the lowest mean value is for the statement "I go to self-access centers at school regularly," which is 3.20.

Table 4. Results of Data Analysis on the Attitudes Towards Learning Indicator

| NO | Statement | STS | | TS | | N | | S | | SS | | MEAN |
|----|--|-----|-------|----|-------|----|-------|----|-------|----|-------|------|
| | | F | P | F | P | F | P | F | P | F | P | |
| 1 | For me, learning means discovering and exploring new ideas (Menurut saya, belajar berarti menemukan dan mengeksplorasi ide-ide baru). | 7 | 4.22 | 8 | 4.82 | 10 | 6.02 | 77 | 46.39 | 64 | 38.55 | 4.10 |
| 2 | For me, teachers are the best source of information (Menurut saya, guru adalah sumber informasi terbaik). | 9 | 5.42 | 8 | 4.82 | 30 | 18.07 | 66 | 39.76 | 53 | 31.93 | 3.88 |
| 3 | I learn best in the classroom (Saya belajar dengan baik di kelas). | 7 | 4.22 | 7 | 4.22 | 29 | 17.5 | 91 | 54.8 | 32 | 19.3 | 3.81 |
| 4 | I don't need to study outside class if I learn well in class (Saya tidak perlu belajar diluar kelas jika saya belajar dengan baik di kelas). | 22 | 13.25 | 46 | 27.71 | 53 | 31.93 | 31 | 18.67 | 14 | 8.43 | 2.81 |
| 5 | Teachers are responsible for students' learning (Guru bertanggung jawab atas pembelajaran siswa). | 7 | 4.22 | 15 | 9.04 | 33 | 19.88 | 79 | 47.59 | 32 | 19.28 | 3.69 |
| 6 | I think I should seek knowledge by myself to be a good learner (Menurut saya, saya harus mencari pengetahuan sendiri untuk menjadi pelajar yang baik). | 8 | 4.82 | 6 | 3.61 | 29 | 17.47 | 85 | 51.2 | 38 | 22.89 | 3.84 |
| 7 | For me, learning requires involvement (Menurut saya, belajar membutuhkan keterlibatan diri). | 6 | 3.61 | 5 | 3.01 | 19 | 11.45 | 79 | 47.59 | 57 | 34.34 | 4.06 |

| | | | | | | | | | | | | |
|-----------|---|---|------|----|-------|----|-------|----|-------|----|-------|------|
| 8 | I should use different sources to learn better (Saya harus menggunakan sumber yang berbeda untuk pembelajaran yang lebih baik). | 6 | 3.61 | 6 | 3.61 | 22 | 13.25 | 87 | 52.41 | 45 | 27.11 | 3.96 |
| 9 | I am responsible for my own learning (Saya bertanggung jawab atas pembelajaran saya). | 8 | 4.82 | 4 | 2.41 | 10 | 6.02 | 90 | 54.22 | 54 | 32.53 | 4.07 |
| 10 | I think students cannot monitor their own progress (Menurut saya siswa tidak dapat memantau kemajuan mereka sendiri). | 6 | 3.61 | 24 | 14.46 | 63 | 37.95 | 51 | 30.72 | 22 | 13.25 | 3.36 |

The data in the table above describes the students' attitudes towards the implementation of web-based independent learning. Based on the table, it can be concluded that web-based independent learning provides an opportunity for students to explore and develop new ideas in their learning. In other words, learning becomes more flexible, following students' thought patterns. This is evident from the average values for each statement, where the highest mean value is found in the statement "For me, learning means discovering and exploring new ideas," which is 4.10. On the other hand, the lowest mean value is for the statement "I don't need to study outside class if I learn well in class," which is 2.81.

Table 5. Results of the Data Analysis on the Attitudes Towards Computer and Internet Indicator

| NO | Statement | STS | | TS | | N | | S | | SS | | MEAN |
|----------|--|-----|-------|----|-------|----|-------|----|-------|----|-------|------|
| | | F | P | F | P | F | P | F | P | F | P | |
| 1 | I enjoy doing things on computer (Saya menikmati melakukan apa saja di komputer). | 10 | 6.02 | 7 | 4.22 | 33 | 19.88 | 84 | 50.6 | 32 | 19.28 | 3.73 |
| 2 | I feel comfortable working with a computer (Saya merasa nyaman bekerja dengan komputer). | 9 | 5.42 | 6 | 3.61 | 47 | 28.31 | 74 | 44.58 | 30 | 18.07 | 3.66 |
| 3 | Working with a computer makes me nervous (Bekerja dengan komputer membuat saya gugup). | 21 | 12.65 | 48 | 28.92 | 60 | 36.14 | 30 | 18.07 | 7 | 4.22 | 2.72 |
| 4 | Using a computer is difficult (Menggunakan komputer itu sulit). | 25 | 15.1 | 52 | 31.3 | 56 | 33.7 | 23 | 13.9 | 10 | 6.02 | 2.64 |

| | | | | | | | | | | | | |
|----------|--|----|------|----|------|----|-------|----|-------|----|-------|------|
| 5 | I use my e-mail account often (Saya sering menggunakan akun e-mail saya). | 7 | 4.22 | 15 | 9.04 | 34 | 20.48 | 74 | 44.58 | 36 | 21.69 | 3.70 |
| 6 | I mostly use the internet to enjoy myself (e.g., chats, games, etc). (Saya sering menggunakan internet untuk bersenang-senang, contohnya chat, game, dll). | 13 | 7.83 | 16 | 9.64 | 36 | 21.69 | 64 | 38.55 | 37 | 22.29 | 3.58 |

The data in the table above describes the students' attitudes toward using a computer/laptop connected to the internet as a learning tool. Based on the table, it can be concluded that students are already familiar with using computers or laptops for various purposes, including learning. Therefore, the implementation of web-based independent learning is supported by this familiarity. This is evidenced by the average values for each statement, where the highest mean value is found in the statement "I enjoy doing things on the computer," which is 3.73, and the lowest mean value is 2.64 for the statement "Using a computer is difficult."

Table 6. Results of Data Analysis on the Knowledge about Learning on the Internet Indicator

| NO | Statement | STS | | TS | | N | | S | | SS | | MEAN |
|----------|--|-----|------|----|-------|----|-------|----|-------|----|-------|------|
| | | F | P | F | P | F | P | F | P | F | P | |
| 1 | I regularly use a computer for my studies (Saya menggunakan komputer untuk belajar secara teratur). | 6 | 3.61 | 14 | 8.43 | 62 | 37.35 | 66 | 39.76 | 18 | 10.84 | 3.46 |
| 2 | I regularly use the internet to study (Saya menggunakan internet untuk belajar secara teratur). | 6 | 3.61 | 7 | 4.22 | 50 | 30.12 | 75 | 45.18 | 28 | 16.87 | 3.67 |
| 3 | Studying on the internet is time-consuming (Belajar di internet memakan waktu). | 14 | 8.43 | 34 | 20.48 | 67 | 40.36 | 39 | 23.49 | 12 | 7.23 | 3.01 |
| 4 | Studying on the internet is difficult (Belajar melalui internet itu sulit). | 26 | 15.7 | 55 | 33.1 | 55 | 33.1 | 18 | 10.8 | 12 | 7.23 | 2.61 |
| 5 | I use the internet to improve my English (Saya menggunakan internet untuk meningkatkan kemampuan bahasa Inggris saya). | 9 | 5.42 | 6 | 3.61 | 34 | 20.48 | 72 | 43.37 | 45 | 27.11 | 3.83 |

| | | | | | | | | | | | | |
|-----------|--|---|------|----|-------|----|-------|----|-------|----|-------|------|
| 6 | I am familiar with educational sites on the internet to study English (Saya mengetahui situs-situs pendidikan di internet untuk belajar bahasa Inggris). | 5 | 3.01 | 10 | 6.02 | 42 | 25.3 | 71 | 42.77 | 38 | 22.89 | 3.77 |
| 7 | I use the search engines (e.g., Alta vista and yahoo) to find educational sites and materials to study English (Saya menggunakan mesin pencarian, contohnya Alta vista dan yahoo, untuk mencari situs pendidikan dan materi belajar bahasa Inggris). | 4 | 2.41 | 21 | 12.65 | 49 | 29.52 | 66 | 39.76 | 26 | 15.66 | 3.54 |
| 8 | Students learn more from books rather than from a computer (Siswa dapat belajar lebih banyak dari buku daripada komputer). | 4 | 2.41 | 29 | 17.47 | 76 | 45.78 | 39 | 23.49 | 18 | 10.84 | 3.23 |
| 9 | The internet is a useful learning tool (Internet adalah alat pembelajaran yang berguna). | 6 | 3.61 | 5 | 3.01 | 16 | 9.64 | 86 | 51.81 | 53 | 31.93 | 4.05 |
| 10 | I enjoy studying on my own on the internet (Saya menikmati belajar mandiri melalui internet). | 7 | 4.22 | 8 | 4.82 | 37 | 22.29 | 78 | 46.99 | 36 | 21.69 | 3.77 |

The data in the table above explains the students' level of understanding when using the internet for learning. Based on the table, it can be concluded that, according to students, the implementation of web-based independent learning through the internet is very beneficial. This is evident from the average values for each statement, where the highest mean value is found in the statement "The internet is a useful learning tool," which is 4.05. The lowest mean value is 2.61 for the statement "Studying on the internet is difficult."

The results of this research indicate that the implementation of web-based independent learning at the Faculty of Education and Vocational, Lancang Kuning University, is effective and efficient. This is supported by the highest mean values for each statement chosen by students across four different indicators. Due to their familiarity with using computers/laptops and the internet, the implementation of a web-based independent learning system is not expected to encounter difficulties.

According to Jeffri (1990), independent learning is an active learning activity in which individuals, or a group of learners learn independently, and it can be a part of their academic studies without direct intervention from tutors. Therefore, students are required to take responsibility for their personal learning needs and complete their assessment processes

independently. This aligns with the statements in the Attitudes Towards Learning indicator where students agree with points related to independent learning, which is a student's responsibility.

Furthermore, with the implementation of web-based independent learning, students enjoy flexible scheduling because they can learn from anywhere if they have internet access. Students also have the freedom to choose their preferred learning sources or references. The same applies to learning strategies. Students can use the learning approach that suits them best without having to follow someone else's learning method. As a result, learning becomes more effective because students have their own ways of comprehending the material. This aligns with the views of Cobine (1997), who suggests that through independent learning, learners become active thinkers and participants in their own education.

CONCLUSION

The implementation of web-based independent learning by students at the Faculty of Education and Vocational, Lancang Kuning University, for the academic year 2022/2023 is efficient. This is due to the supporting factors related to the familiarity of students with the chosen learning method. The use of computers or laptops in their daily activities, in addition to learning, assists students in easily accessing the internet for self-directed learning. Moreover, in the era of Information and Communication Technology (ICT) advancement, student-centered learning models have become more popular, allowing students to engage in independent learning using available technology. Web-based independent learning makes learning flexible and provides convenience for students in understanding the learning materials because they can freely choose their own learning methods.

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