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21st CENTURY IN GERMAN LANGUAGE LEARNING

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Abstract

As a place for learning activities, educational institutions must adapt to the times to not be viewed as a threat in the current era of education 4.0. Along with 21st-century learning needs to foster students' creative, innovative and competitive attitudes by implementing technology as an auxiliary medium in the learning process to produce quality students (Sobri et al., 2020). This research is a descriptive case study to explore the application of the cybergogy concept about facing the challenges of learning in the 21st-century, especially in lecturing German in the courses offered by students. The application of cybergogy concept is relative to the use of technology in learning. Students and lecturers are directly involved in using technology adapted to students' cognitive, emotive, and social factors. The sample in this study were students in semesters II, IV, and VI of the German Language Education Study Program, with 35 students. The instruments used in this study were questionnaires, interviews, and document review. Data from questionnaires, discussions and document reviews were analyzed using descriptive statistics referring to the Milles and Huberman (1992) stages. The results showed that the concept of cybergogy had been applying 30% synchronously and 70% asynchronously. On average, 93-94% of students and lecturers have used technology-based media in the German language learning process because of the availability of teaching materials and supporting facilities for information and communication technology to face 21st-century learning.

Keywords: 21st-century, cybergogy, technology, german language learning

The human need for information technology in the era of the industrial revolution 4.0. so high, along with the rapid development of information and communication technology. Almost all human activities require technological devices. The reason is that indirectly, information and communication technology makes it easy for humans to carry out their activities, including in learning activities. Everyone can communicate and collaborate without being limited by distance, space, and time. Technological developments such as computers, smartphones, and the internet have changed from spacious to affordable. This convenience becomes one of the factors that will provide benefits in the learning process. In this regard, the social generation in the industrial revolution 4.0 is referred to as a digital-innovative society so that the idea of industry 5.0 develops and becomes humanist-innovative (Lustyantie & Arung, 2020, p. 73). This idea means that humans can collaborate with intelligent machines in facilitating the development of the global industrial world, devices that are central to it. Lustyantie & Arung (2020, p. 74) added that in education, the

concept of learning in era 4.0 and 5.0 do more oriented towards learning that creates innovation by using existing knowledge to be more creative and critical to creating new things. This theory is in line with Sobri et al. (2020) that in the 21st century, technology-based learning needs to build creative, innovative, and competitive generations to produce good outputs. Furthermore, Wahab (2021) added that educators today must master technology well to create exciting and accessible learning for students because the learning system is now changing from a conventional method to a modern learning system using computers and the internet. In addition, the application of technology-based learning is support due to the Covid-19 pandemic, which requires the education process to carry out online so that virtual schools and colleges appear. Academic learning and services are no longer face-to-face but online (Khalil et al., 2020). This opinion is certainly very influential on the learning process both at school and in college. One of them is in learning German. German is one of the foreign languages in great demand and studied by the world community, including Indonesia. According to a survey conducted every five years by the Federal Foreign Office in collaboration with the German Academic Exchange Service (DAAD), Goethe Institut, Deutsche Welle, and Zentralstelle für das Auslandsschulwesen (ZfA) in 2015, the number of German-language learners in Indonesia is 187,000. people (Goethe-Institut, 2015 ; Wenno & Karuna, 2021). In addition, Sumiati et al. (2020) added that the education system in Indonesia is technology-oriented due to IR 4.0, which involves a learning system. This theory means that German is one of the foreign languages that peoples are very much interested in. In the context of higher education, lecturers must apply appropriate learning to face the challenges of learning in the 21st century and adapt the learning process to the current covid pandemic, where knowledge must be technology-based that can apply to online learning. The main thing lecturers can do after the COVID-19 pandemic is minimize the difficulties that arise by making it easier or more flexible to learn and expand access for all students with different backgrounds. Thus, all students can participate in learning in any situation.

1. Cybergogy concept

The concept of cybergogy emerged as a descriptive label for strategies for creating online learning engagement. According to Wang & Kang (2006) ideas about cybergogy make learning more assisted by using internet technology where students can be involved in appropriate learning. The concept of cybergogy involves three important interrelated factors, namely cognitive, dynamic, and social factors. These three factors are fundamental considerations in the online learning environment. Cognitive factors apply prior knowledge, achievement goals, learning activities, and mental or learning styles. Emotional factors involve: feelings of self, feelings towards the community, feelings towards the learning atmosphere, feelings towards the learning process. Social factors involve personal attributes, context, community, and communication (Lustyantie & Arung, 2020). In other words, cybergogy is a learning approach with a virtual learning environment to develop students' cognitive, emotional and social learning. Cybergogy learning encourages students to use computers and the internet to get information, modules, reports, and various other types of references. Cybergogy combines the fundamentals of pedagogy and andragogy and provides the learning benefits provided by technology for better learning outcomes. The cybergogy approach has now been carried out in several countries and will be more widespread in the future. Cybergogy education does expect to fulfill Education 4.0, which creates a virtual learning environment that is learner-centered, autonomous, and collaborative. Education 4.0 is a phenomenon that responds to Industrial Revolution 4.0, where humans and machines do assist in finding solutions, solving problems, and finding innovation possibilities. Cybergogy serves the needs of society in the 'innovative era.' The learning management carried out aims to develop the ability of students to apply new technologies that will help them grow following changes in society. The goal is to be able to live in community to the best of his ability.

Cybergogy has a strong influence on independent learning through the internet and social media facilities. Language learning does maximize to improve students' abilities through cybergogy (Samad, 2018). In addition, today's students are more inclined and interested in learning using paragogy and cybergogy methods (Ismail et al., 2019). Septianisha et al. (2021) added that cybergogy could also apply in ICT (Information and Communication Technology), which can create teaching and learning processes in innovations based on concepts in educational pedagogy.

Based on the opinion above, it can be concluded that cybergogy is a very supportive concept in facing the challenges of 21st-century learning and can adapt to the ongoing covid pandemic so that the learning process continues well. Cybergogy is also an educational method in the digitalization era of education that utilizes information and communication technology empowerment facilities. This means that its application is relative to the use of learning technology, where lecturers and students are directly involved in using technology that adjusts to students' cognitive, dynamic, and social factors..

2. Cybergogy Implementation

The world of education continues to experience renewal both in terms of curriculum and learning media. One of the reforms that are discussed is the transition from conventional learning media to technology-based media. By utilizing information and communication technology, students will be more flexible in communicating and accessing information. The cybergogy approach in teaching and learning, especially in language learning, directs students that learning can be done anywhere and anytime according to their respective conditions in accessing computers and the internet. The availability of very complete and heterogeneous subject matter on the internet can be accessed easily by students. For this reason, a strategy in language learning is needed for educators to overcome challenges and facilitate 21st-century learning.

Several studies relevant to the concept of cybergogy in learning have been conducted, namely, by Muresan (2013) entitled *A Blended Learning System Within The Cybergogy Paradigm*, which focused on developing students' transverse competencies communication in foreign languages and intercultural dialogue skills. This study has drawn on Anderson and Krathwohl's taxonomy and proposed a conceptual model, articulating multiple dimensions: foreign language knowledge, communication, cultural/intercultural approaches, and organizational culture. The conceptual framework has been applied using an online platform, according to the paradigms of cybergogy and andragogy. Then in (2014), Muresan continued his research with the title, *Using Cybergogy and Andragogy Paradigms in Lifelong Learning*. The research focuses on the principles of cybergogy and andragogy in the framework of the paradigm of self-assessment and their implementation in lifelong learning processes. The approach used is to synergize the paradigms of andragogy, cybergogy, and formative self-assessment to contribute to changing contexts and attitudes related to lifelong learning, based on the context of independent learning and using E-Learning programs. The case study also focuses on implementing the E-Learning program as an example to complement the conceptual and practical approach. Raharjo et al. (2017) have developed and implemented EFS-based teaching materials with an inquiry learning approach through Moodle e-learning to determine the effectiveness of EFS teaching. Moodle has also become one of the online learning platforms that have long been applied to the concept of cybergogy.

The Needs Analysis of Developing Mobile Learning Application for Cybergogical Teaching and Learning of Arabic Language Proficiency by Daud et al. (2019) explains that exciting transformations in education must be embraced and explored further, especially in language teaching and learning is an integral part of communication. Language has also become an essential requirement for work and a critical success factor in life. Their research explores the potential use of "Cybergogy" in T&L with the help of cybergogy tools in learning. To ensure the effective use of these tools, they have used appropriate instruction designs. A collection of questionnaires on

student needs and perceptions was administered to 196 Malaysian students studying an introductory Arabic course. Quantitative descriptive analysis, through the use of IBM's SPSS statistical software, was used to analyze the collected data. The results showed a positive response to the help of technological tools for language learning because it could increase students' motivation to learn Arabic.

Educators also need to know the latest developments through face-to-face or online programs or in the form of discussion groups. Educators must understand that their current function as knowledge facilitators is no longer the only source of knowledge. Learning must be technology-based, for example, using social media such as Facebook, Twitter, tumblers that support more extensive interaction. Educators can also use applications to develop and assess student performance to have room for discussion and feedback both with students and with institutions (Siagian & Iskandar, 2020).

In addition, Online Learning platforms that can be used are Google Classroom, youtube, video, WhatsApp, voicemail, Google Meet, and email. The Google Classroom application can be developed as a platform to provide learning materials, distribute assignments, send activity answers, announce and manage all online classes (Bahrom, 2020). By utilizing online platforms, learning also tends to apply technology-based skills, to motivate students through the use of mobile learning, especially Mobile-Assisted Language Learning (MALL), which has become an essential tool in the teaching and learning process (Amalia, 2020).

Suhaimi et al. (2020) entitled *Promoting Transformative Mathematical Learning Through Heutagogy, Paragogy And Cybergogy Approaches*, focuses on educating mathematics educators on applying heutagogy, paragogy and cybergogy approaches in the classroom. Paradigms of heutagogy and cybergogy in a transdisciplinary perspective by (Sumarsono, 2020). This study uses a literature review method from well-known national and international journals such as Elsevier, Google Scholar, Scopus Journal, IEEE Journalin to find relevant research data through the stages of review, study, structured evaluation, classification, and categorization of existing evidence . The research is the prospect and challenge of heutagogy independent learning that is integrated with online cybergogy learning. Several learning paradigms were put forward due to a literature review on strategies for implementing heutagogy and cybergogy in a transdisciplinary perspective in Islamic Higher Education.

Research by Septianisha et al. (2021) on *Cybergogy: Concepts and Implementation in Mathematics Learning* aims to provide an overview of the concept and implementation of cybergogy in mathematics learning to be applied in online mathematics teaching in the era of independent learning. And the application of digital learning materials based on Augmented Reality (AR) by Rahma et al. (2021) btained perfect results because it was proven to help students learn effectively.

Based on the results of previous studies that have been described above, it can be said that research on language learning based on the concept of cybergogy is still little done. In addition, research that has been more focused on producing implementation strategies and providing an overview of the idea and implementation of cybergogy in mathematics learning and non-formal education, while in the context of learning foreign languages in the 21st century, one of which is German, it is also essential to take advantage of internet technology. Because learning German will not be effective if you only use books, but additional insights are needed to increase students' motivation and creativity in using German both orally and in writing through internet technology. An easy and quick way to understand the material can be done through exercises and explanations through audio-visual media. In addition, they are also required to learn independently with the current pandemic conditions so that they must be able to adapt to the use of technology. For this reason, the problem in this study can be formulated as follows: how is the application of the concept

of cybergogy in learning German at the university level by utilizing technology both synchronously and asynchronously? From the formulation of the problem, the purpose of this study is to find out students' opinions regarding online lectures in the courses they have taken. Second, to find out the implementation of the cybergogy concept applied by lecturers and students in all courses that have been followed by semester II, IV, and VI students.

METHOD

This research is descriptive qualitative research with the type of case study to explore the application of cybergogy, especially in the German language lecture process in the courses offered by students. The population of this study was students of the German Language Education Study Program, Faculty of Teacher Training and Education, Pattimura University. The sample used in this study was semester II, IV, and VI students who are still actively studying, namely from the 2018 class to the 2020 class, 35 students. The sample was determined using a random sampling technique. Several research instruments were used to collect the research data. The mechanisms of this research are questionnaires, interviews, and document reviews to analyze the extent to which the implementation of the concept of cybergogy in German language lectures has been achieved by students. Data analysis in this study was carried out using descriptive analysis by (Milles & Huberman, 1992). This analysis begins by reducing the data, selecting and simplifying the data, and focusing on the data obtained from questionnaires, interviews, and documentation. Then the data is presented in the form of graphs.

RESULTS AND DISCUSSION

Student Responses to the Implementation of the Cybergogy Concept

Based on the results of a questionnaire conducted on thirty students of the German language education study program at Pattimura University, from the 2018 class, 2019 and 2020, it is known that 70% of the lecture process in the German language education study program is online. And 30% face to face. The lecturer applies the lecture method in certain subjects, especially for semester II 2020 students, because the language level is still at the primary level, namely A1. It requires a reasonably detailed explanation of material related to learning German. While the lecture process carried out by lecturers for A2-B1 upper-level students, namely semesters IV to VI, has implemented various technology-based media. This means that lecturers and students have been directly involved in the use of technology that is adapted to the cognitive, dynamic, and social factors of students. 80% percent of students feel bored if German-language lectures do not apply learning media and use the right technology. So that on average, 94% of lecturers have used online learning facilities such as Zoom, LMS, Google Classroom, WhatsApp, Learning Videos via YouTube, and the availability of E-Books to support learning activities that students can reach both online and offline.

Figure 1a. Student Questionnaire Response

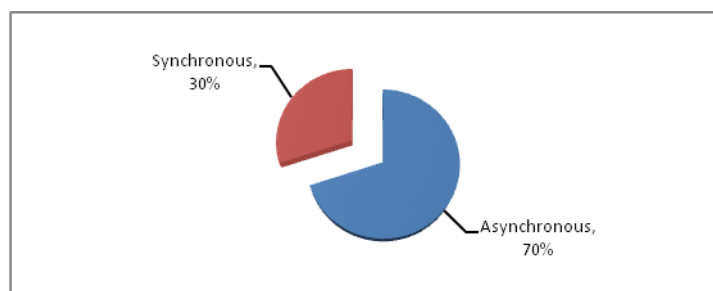


Figure 2b. Student Questionnaire Response

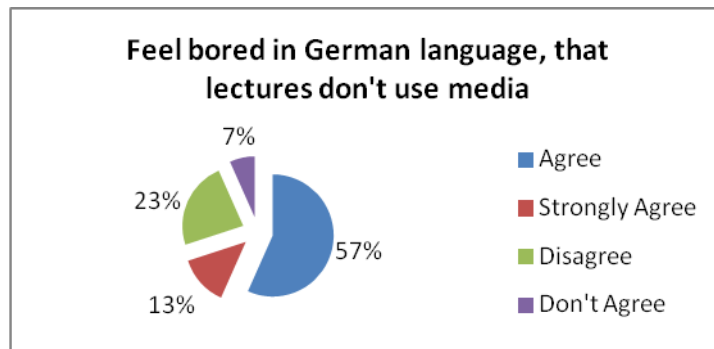
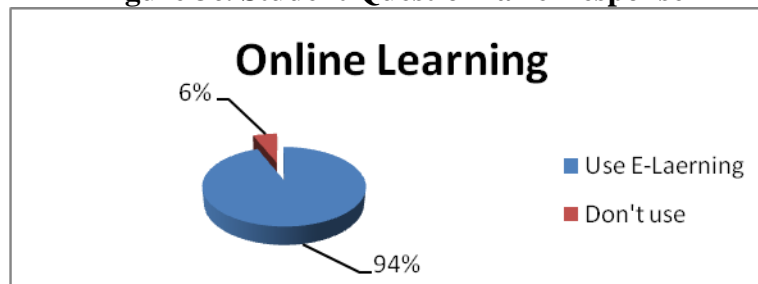
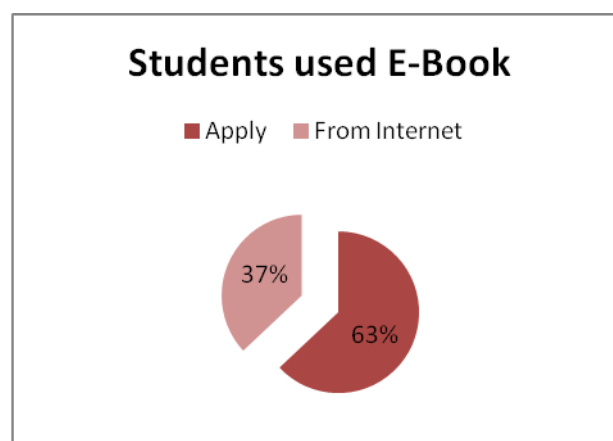


Figure 3c. Student Questionnaire Response



Applying the concept of cybergogy in learning German in the 21st century makes lectures more interesting, fun, and can increase student creativity. Classes become more accurate because they can directly utilize technology. Students can complete tasks given by lecturers quickly and easily. In other words, students are greatly helped by the presence of technology-based learning media. They can access information and teaching materials provided by lecturers without being limited by distance, space, and time, anytime and anywhere. The use of the internet is an alternative for students to learn and communicate with foreigners to practice their German language skills. In addition, they use specific applications to find difficult words and even translate sentences through Google Translate. Lecturers have provided an E-Book as an additional reference so that students can access it. 63% apply it, while 37% of students use references from the internet as comparison material.

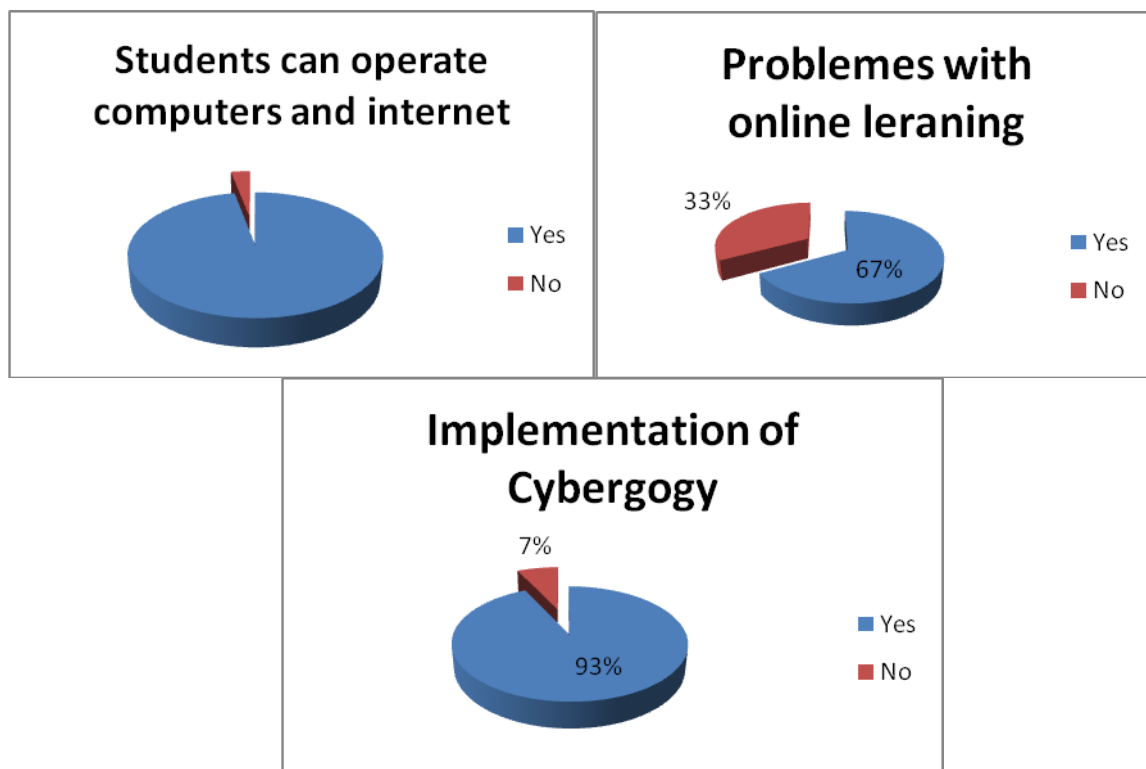
Figure 2. Student Questionnaire Response



97% of students can operate computers and internet technology, so the concept of cybergogy in the German language learning process is easier to apply. However, the results also show that in

online lectures, 33% of students still experience problems learning independently due to unstable network conditions and the lack of data pulses. An average of 93% of cybergogy concepts has been applied in the German language learning process because of the availability of teaching materials and supporting facilities for information and communication technology to deal with 21st-century learning.

Figure 3. Student Questionnaire Response



The results of observations and brief interviews with five students via WhatsApp also showed that most students felt helped. By changing media use from conventional methods that often occur in face-to-face lectures, turning into technology-based learning, distance learning can be implemented. They feel pretty comfortable with information and communication technology-based media because they can easily find information about German language material that they do not understand. Although in a different case experienced by second-semester students. 80% of learning is still dominant using the conventional method because at level A1, students need to be given a solid language base, so they are rarely involved with technology media in lectures, only face-to-face asynchronously via Zoom technology. However, they still feel the positive impact that learning German requires them to explore their creative potential to implement the language for themselves and others through the use of technology. For example, they are looking for additional references independently through YouTube, using online dictionaries to increase German vocabulary, practicing speaking German through making creative videos. In addition, upper-level students also argue that technology and information are significant for learning in this century. So they suggest that educators, in this case, lecturers and students, must adapt to the times by mastering technology to have a creative, innovative, and competitive attitude in the field of education. Because, with the presence of digital technology, it is hoped that lecturers can use it well and optimally so that learning is more efficient and varied. In addition, the creativity of lecturers is very much needed in

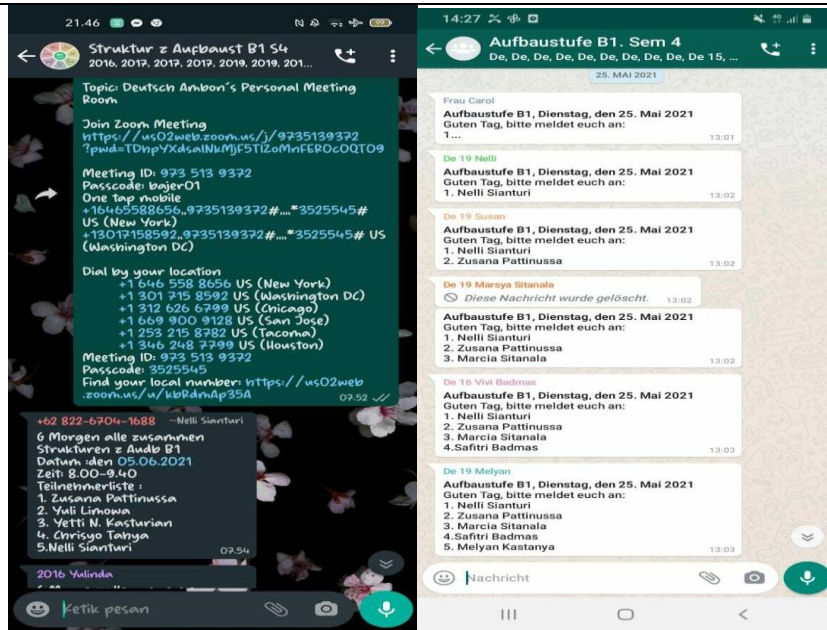
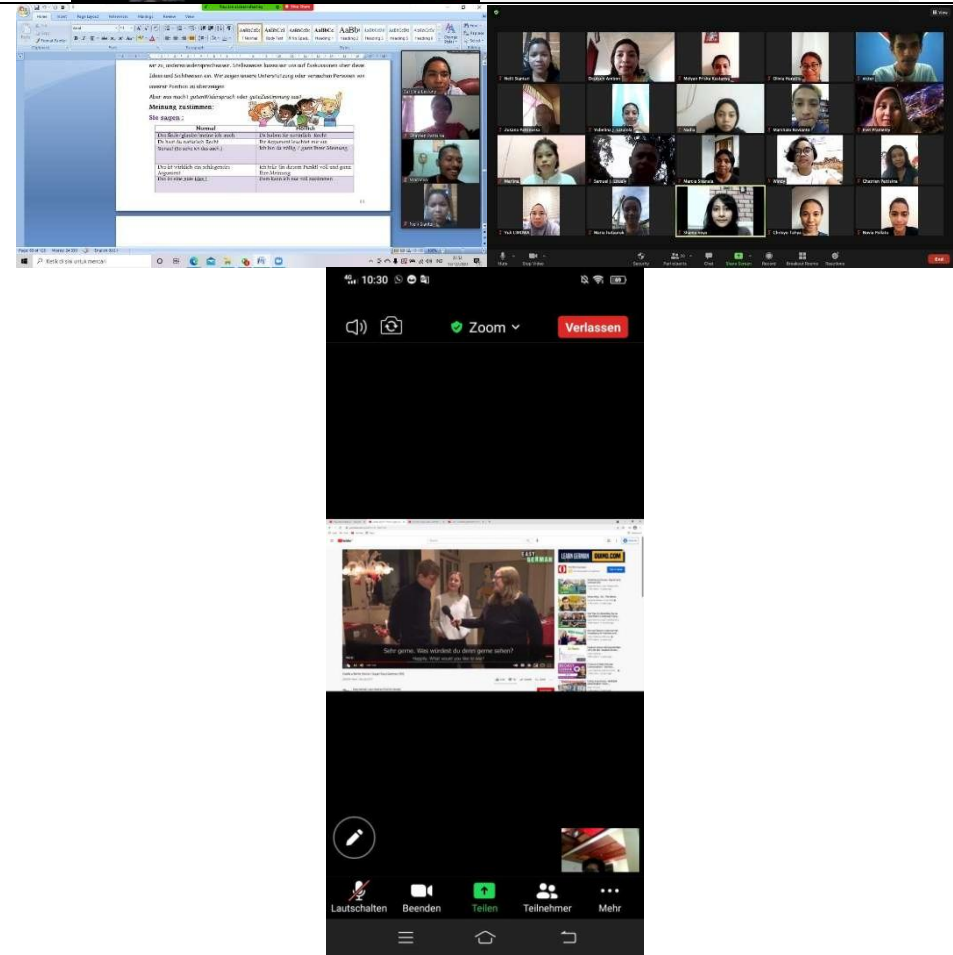
learning German. In addition to helping students' language aspects, creative and innovative lecturers can also be role models for students who will become prospective teachers.

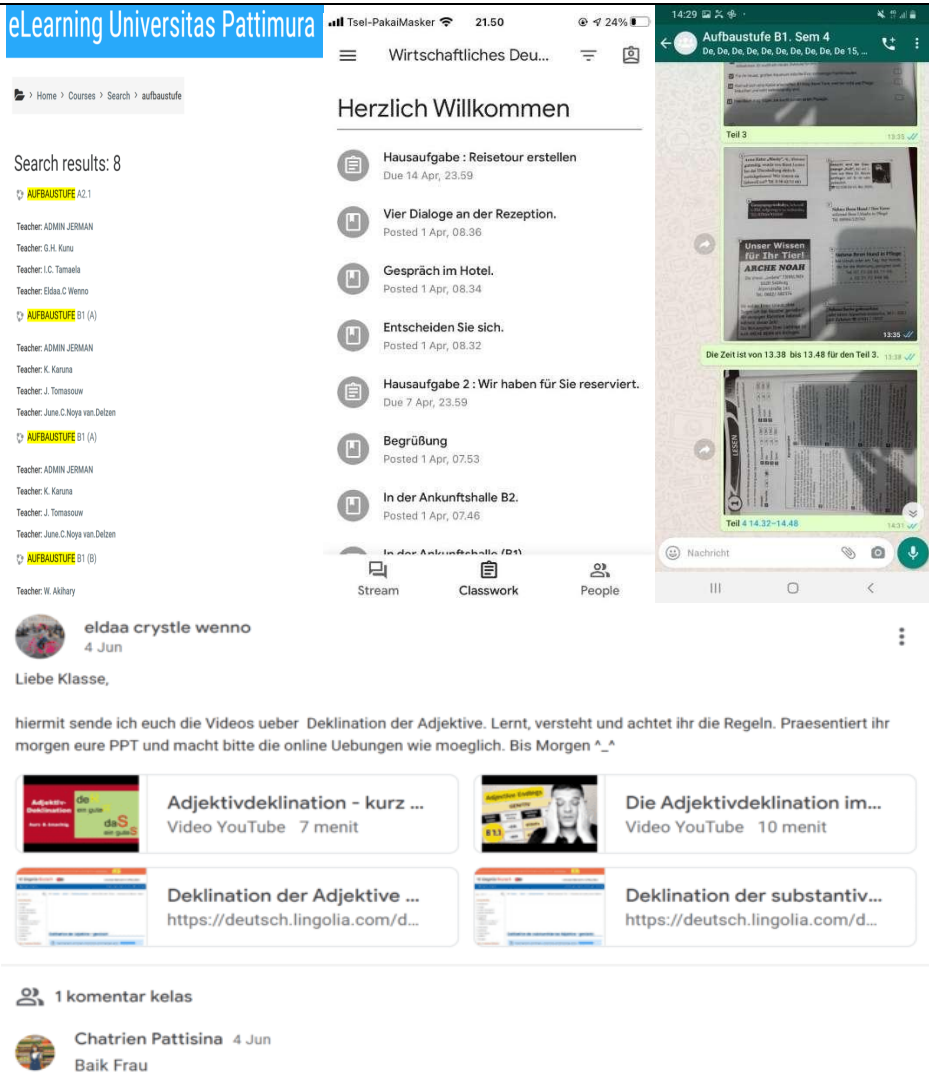

Documentation Study

The German Language Education Study Program, University of Pattimura, has implemented a curriculum based on 21st-century learning. This can be seen from the study materials, syllabus, and RPS for each course. The lecture process is carried out well, boldly, and attractively, adjusting to the conditions of the COVID-19 pandemic. Therefore, online learning is assisted by technology-based media. The application of cybergogy concept is relative to the use of technology in learning. Students and lecturers are directly involved in using technology adapted to students' cognitive, emotive, and social factors. This concept means that the material provided by the lecturer and the media applied are following the characteristics of students, language level, age, and student needs for the importance of learning German. Teaching materials are provided to students through Zoom Meeting, Unpatti E-Learning, Google Classroom, WhatsApp, Learning Videos via YouTube, Quizzes, Paddlet, Google Form, and German grammar exercises through the LearningApps, Mentimeter and Kahoot applications, which students can access. With the availability of the learning platforms mentioned above, students immensely helped understand the lecture material. Students are also able to study independently, expressing ideas and ideas both orally and in writing. Even students can produce a learning video product, where they use the internet and technology-based applications to create these learning videos. This point is proven by the activities they upload on Google Classroom and Paddlet. Overall, the lecturers have facilitated the lecture process by providing directions and relevant learning resources based on the concept of cybergogy. Examples of activities are depicted in table 1.

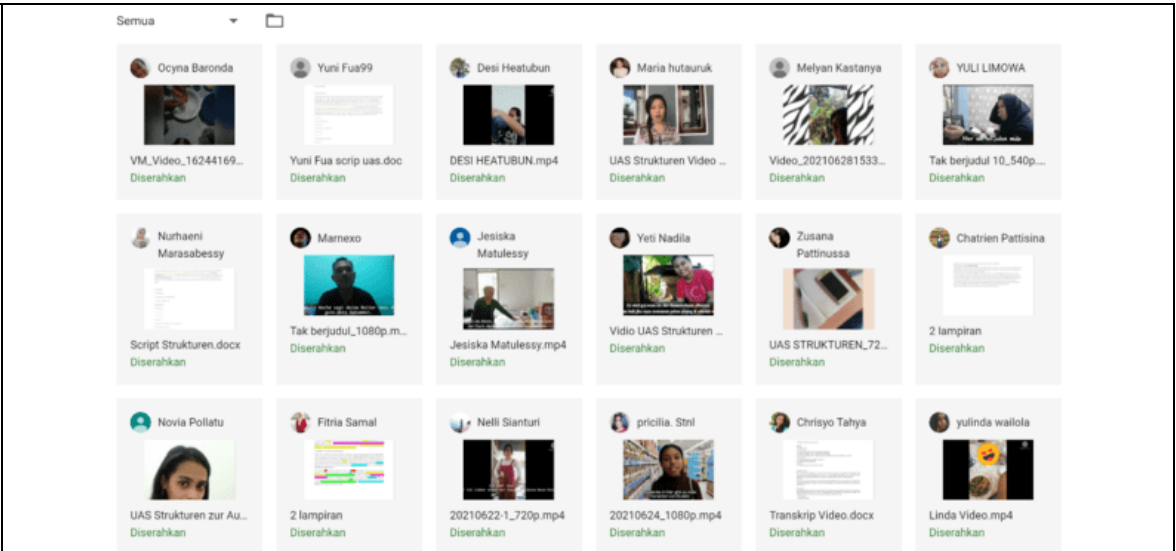
Table 1. Example Of Activities

Semester Lesson Plan (RPS)	Pertemuan ke-	Kemampuan Akhir (Sub CPMK)	Bahan Kajian	Metode/ Model Pembelajaran	Pengalaman Belajar	Alokasi Waktu	Penilaian	Kriteria / Indikator	Bobot Nilai	Referensi
	1	Lehrvertrag					2x50'			
2	kann einfache Sätze mit Infinitiv zu / um zu verstehen	Infinitiv zu / um zu	Selbst erfinden (Video sehen)	Anwendung der Infinitiv zu / um zu im Satz erkennen	2x50'	schriftlich mündlich Arbeitsblatt	die richtigen Infinitiv zu / um zu herausfinden die richtigen Sätze	10	Netzwerk B1	
				Anhand gesammelter Sätze mit Infinitiv zu / um zu eigenen Satz bilden die Sätze mit Infinitiv zu / um zu im passenden Kontext schreiben			mit Infinitiv zu / um zu bilden die Sätze mit Infinitiv zu / um zu schriftlich oder mündlich verwenden		Youtube : https://www.youtube.com/watch?v=Y104a8QCNSI https://www.youtube.com/watch?v=9aHz-zDNu4	
3	kann einfache Sätze mit verb lassen verstehen	Verb lassen	SOLE (Self-Organized Learning Environment)	Anwendung des Verb lassen im Satz erkennen Anhand gesammelter Sätze mit Verb lassen zu eigenen Satz bilden die Sätze mit Verb lassen im passenden Kontext schreiben	2x50'	Schriftlich Mündlich Arbeitsblatt	die richtigen Verb lassen herausfinden die richtigen Sätze mit Verb lassen zu bilden die Sätze mit Verb lassen schriftlich oder mündlich verwenden	10	Netzwerk B1 Internet Google Classroom - Strukturen B1 2021 (google.com)	

<p>Absent Through the WhatsApp Application</p>	 <p>The image shows two screenshots from a WhatsApp chat. The left screenshot is a message from 'Nelli Sianturi' with a meeting link for 'Struktur z Aufbau B1 54' and a list of participants. The right screenshot shows a chat conversation about 'Aufbaustufe B1, Dienstag, den 25. Mai 2021' with several messages from different participants.</p>
<p>Synchronous Lectures via the Zoom App</p>	 <p>The image displays a Zoom meeting interface. At the top, there's a toolbar with icons for mute, video, and 'Zoom' settings. Below that is a grid of 16 video thumbnails of participants. In the center, a shared screen shows a video player with a German video. At the bottom, there's a toolbar with icons for 'Lautschalten', 'Beenden', 'Teilen', 'Teilnehmer', and 'Mehr'.</p>

<p>Asynchronous via LMS, Google Classroom and WhatsApp Group</p>	 <p>The screenshot shows the eLearning Universitas Pattimura interface. On the left, search results for 'aufbaustufe' are listed with various course titles and teachers. On the right, a WhatsApp chat is visible, titled 'Aufbaustufe B1. Sem 4'. The chat contains several messages, including a welcome message and a message from 'eldaa crystle wenko' dated 4 Jun, which includes a list of German grammar resources: 'Adjektivdeklination - kurz ...', 'Die Adjektivdeklination im...', 'Deklination der Adjektive ...', and 'Deklination der substantiv...'. Below the chat, there is a comment from 'Chatrien Pattisina' dated 4 Jun, stating 'Baik Frau'.</p>
<p>30% Synchronous : Face to face</p>	 <p>The photograph shows a classroom setting with several students seated at long wooden desks. A teacher is standing at the front of the room, near a laptop on a desk, appearing to be conducting a lesson or activity. The room has large windows on the right side, and the overall atmosphere is that of a traditional face-to-face classroom environment.</p>

Creation and collection of Learning Video Assignments



Online-based Practice Questions: Paddlet, LearningApps, Kahoot and Mentimeter

A collage of screenshots for online learning tools. The top left shows a social media post with a poll question: 'Welche smartes Gerät würden Sie gern haben und warum?' and two responses from 'Anonim' users. The top right shows the LearningApps.org interface for a 'Vokabeln: Gesundheit' app, displaying a task: 'Welches Bild passt?' with various health-related icons. The bottom left shows the Kahoot summary interface for a quiz titled 'Rezeptionen mit Dativ', including a description and settings. The bottom right shows the Mentimeter quiz interface with the question 'Welches Wort bezieht sich auf Gesundheit? Schreiben Sie drei Woerter!' and three input fields for answers, each with a '25' point value, and a 'Submit' button.

End of semester exam via google form	 A screenshot of a mobile Google Form titled "UAS Struktur zur Aufbaustufe A2.1". The form is displayed on a smartphone screen with a status bar at the top showing the time 14:24 and various icons. The form content includes a header with a colorful background of balloons, the title "UAS Struktur zur Aufbaustufe A2.1", the date "Mittwoch, den 16 Juni 2021", and a red asterisk indicating a required field. Below the title, there are two input fields: "Nama *" and "NIM *", each with a "Jawaban Anda" label and a text input area. The form is set against a light orange background. The bottom of the screen shows the Android navigation bar with back, home, and recent apps buttons.
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CONCLUSION

Based on the results and discussion, it is concluded that the German language learning process has been designed as innovatively as possible to encourage educational change towards a better direction based on a new paradigm of short-term and long-term needs based on 21st-century learning. From the results obtained, the concept of cybergogy has been applied 30% synchronously and 70% asynchronously. On average, 93-94% of students and lecturers have used technology-based media in the German language learning process because of the availability of teaching materials and supporting facilities for information and communication technology to deal with 21st-century learning. This study is limited to observing some of the scopes of the concept of cybergogy in learning German. The observed indicators are; a learning process that emphasizes the use of technology, methods, and internet media applied by lecturers, cognitive, emotive, and social factors of students. Further research is expected to dig deeper into all indicators of the concept of cybergogy in language learning and develop an application that lecturers can use and provide significant benefits for education in language learning in the era of the COVID-19 pandemic.

REFERENCES

- Amalia, I. (2020). The Application Of Mobile Assisted Language Learning (Mall) In Teaching Pronunciation. *Ijlecr-International Journal Of Language Education And Culture Review*, 6(2), 194–203. <https://doi.org/doi.org/10.21009/IJLECR.062.20>
- Bahrom, Z. (2020). *Pedagogi Norma Baharu: Cabaran dan Hikmah*. *Jurnal Refleksi Kepemimpinan*, JILID III.
- Daud, W., Teck, W. K., Ghani, M. T. A., & Ramli, S. (2019). The needs analysis of developing mobile learning application for cybergogical teaching and learning of Arabic language proficiency. *International Journal of Academic Research in Business and Social Sciences*, 9(8), 33–46. <https://doi.org/10.6007/IJARBSS/v9-i8/6206>
- Ismail, N. A., Wahid, A. N., & Hasan, M. S. (2019). Meningkatkan Efikasi Kendiri Guru Di Malaysia Terhadap Kecenderungan Pembelajaran Generasi Z Dan Alpha. *J. Manag. Oper. Res.(JoMOR)*, 1(13), 1–8.
- Khalil, R., Mansour, A. E., Fadda, W. A., Almisnid, K., Aldamegh, M., Al-Nafeesah, A., Alkhalifah, A., & Al-Wutayd, O. (2020). The sudden transition to synchronized online learning during the COVID-19 pandemic in Saudi Arabia: a qualitative study exploring medical students' perspectives. *BMC Medical Education*, 20(1), 1–10. <https://doi.org/https://doi.org/10.1186/s12909-020-02208-z>

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- Lustyantie, N., & Arung, F. (2020). *Pembelajaran Inovatif Bahasa dan Sastra: Mengembalikan Prinsip Bahasa dan Sastra Sebagai Cara Berpikir Inovatif* (1st ed.). Deepublish Publisher.
- Milles, M. B., & Huberman, A. M. (1992). *Analisis data kualitatif: buku sumber tentang metode-metode baru*. Jakarta: UIP.
- Muresan, M. (2013). A Blended Learning System within the Cybergogy Paradigm. *Procedia - Social and Behavioral Sciences*, 89, 193–198.
<https://doi.org/https://doi.org/10.1016/j.sbspro.2013.08.833>
- Muresan, M. (2014). Using Cybergogy and Andragogy Paradigms in Lifelong Learning. *Procedia - Social and Behavioral Sciences*, 116, 4722–4726.
<https://doi.org/https://doi.org/10.1016/j.sbspro.2014.01.1015>
- Raharjo, D. H., Mayuni, I., & Emzir, E. (2017). Implementation Of Inquiry Learning In English For Secretary's Instructional Material Through Moodle. *Ijlecr-International Journal Of Language Education And Culture Review*, 3(2), 72–86.
- Rahma, R. A., Sucipto, S., Affriyenni, Y., & Widayawari, M. (2021). Cybergogy as a digital media to facilitate the learning style of millennial college students. *World Journal on Educational Technology: Current Issues*, 13(2), 223–235.
<https://doi.org/https://doi.org/10.18844/wjet.v13i2.5691>
- Samad, K. B. B. A. (2018). Enriching Learning Experience of German as Foreign. *UNIVERSITY CARNIVAL on E-LEARNING (IUCEL) 2018*, 263.
- Septianisha, N. I., Anggraeni, K. D., Hilda, N. R., Azhar, M. S., & Ulya, V. H. (2021). Cybergogy: Konsep dan Implementasi dalam Pembelajaran Matematika. *ProSANDIKA UNIKAL (Prosiding Seminar Nasional Pendidikan Matematika Universitas Pekalongan)*, 2, 153–166.
- Siagian, E., & Iskandar, I. (2020). Hots-Oriented Learning Language Learning, Project-Based In The 21st Century Learning Context. *Ijlecr-International Journal Of Language Education And Culture Review*, 6(1), 9–19. <https://doi.org/doi.org/10.21009/IJLECR.061.02>
- Sobri, M., Nursaptini, N., & Novitasari, S. (2020). Mewujudkan kemandirian belajar melalui pembelajaran berbasis daring diperguruan tinggi pada era industri 4.0. *Jurnal Pendidikan Glasser*, 4(1), 64–71. <https://doi.org/https://doi.org/10.32529/glasser.v4i1.373>
- Suhaimi, N. A., Adnan, M., & Puteh, M. (2020). Promoting Transformative Mathematical Learning Through Heutagogy, Paragogy And Cybergogy Approaches. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(10), 481–497.
- Sumarsono, S. (2020). The paradigms of heutagogy and cybergogy in the transdisciplinary perspective. *Jurnal Pendidikan Dan Pengajaran*, 52(3), 172–182.
- Sumiati, A., Lustyantie, N., & Iskandar, I. (2020). Integrating 21st Century Skills Into Translation Classroom: A Brief Perspective On Its Syllabus. *Ijlecr-International Journal Of Language Education And Culture Review*, 6(2), 87–96.
<https://doi.org/doi.org/10.21009/IJLECR.062.11>
- Wahab, K. I. A. (2021). Kebolehlaksanaan Pembelajaran Melalui Aplikasi Microsoft Teams Di Kolej Komuniti Kota Marudu, Sabah. *International Journal of Humanities Technology and Civilization*, 1–14.
- Wang, M., & Kang, M. (2006). Cybergogy for engaged learning: A framework for creating learner engagement through information and communication technology. In *Engaged learning with emerging technologies* (pp. 225–253). Springer.
- Wenno, E. C., & Karuna, K. (2021). Hots (High Order Thinking Skill) Dalam Tes Bahasa Jerman. *J-EDU: Journal Erfolgreicher Deutschunterricht*, 1(1), 17–23.
<https://doi.org/https://doi.org/10.30598/J-EDU.1.1.17-23>
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