STUDENTS' PERCEPTIONS OF MIDJOURNEY

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ABSTRACT

Technology is developing increasingly sophisticated because developers continuing to innovate to create something new. Moreover, technological advances already have an intelligence that almost resembles humans. Midjourney is an artificial intelligence that can create digital works with typing commands. This research aims to describe the perceptions of students from the D-III Visual Communication Design Study Program regarding the mid-journey web. This research is a type of qualitative research. The research subject is the mid-journey web. The research object of the participants interviewed was 16 (sixteen) students of the D-III Visual Communication Design Study Program. Department of Art and Design, FBS, Ganesha University of Education. The methods used are observation, documentary materials, searching for online materials, visual materials, and interviews. The data analysis technique uses the Triangulation model assisted by NVivo 12 software. The data used is qualitative.

Keywords: perception, mid-journey, visual communication design, Undiksha.

INTRODUCTION

Drawing is a form of creativity that can be honed since we are children. Creativity from drawing manually on simple media such as HVS paper painting media, crayons, pencils, markers, watercolors, food coloring, pottery, marbles, straws, natural materials, and used materials (Etnawati & Pamungkas, 2022). As humans, we as children were taught to draw using one of these tools. Scratching from hand onto paper requires time and patience, but the results can be very satisfying and make us feel proud of the work that has been created.

D-III Visual Communication Design Study Program, Department of Art and Design, Ganesha Education University has knowledge that will have to keep up with current developments. Currently, you need to know that the latest is the development of digital art with artificial intelligence. Students in the DKV Study Program also need manual drawing and digital drawing skills. The latest technology can also draw with artificial intelligence, which refers to art technology that uses machine learning algorithms and artificial intelligence (Artificial Intelligence) to produce visual works of art, such as drawings or illustrations. This technology can help artists and designers to create works of art more quickly and efficiently, as well as provide new creative ideas. One example of an application of this technology is generative adversarial networks (GANs) (ACADEMY, 2021), is one of the Deep Learning architectures that shows an extraordinary ability to understand real-world data. A type of AI algorithm that can produce new images based on the training data provided. By inputting several parameters such as theme, color, or shape, GANs can produce unique images that match those parameters.

Artificial intelligence nowadays already exists, one of which is a website called mid-journey (Holz, n.d.). Midjourney can assist humans in creating AI-based images with simple text prompts. A website called mid-journey can create art with artificial intelligence that can be viewed on https://www.midjourney.com/.
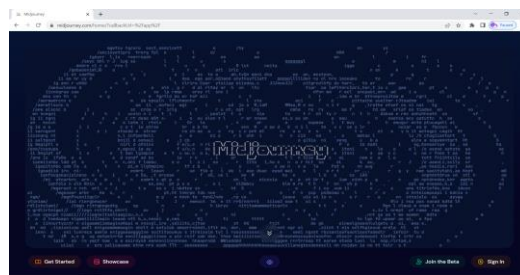

Figure 1. Web *Midjourney*.
(Source: https://www.midjourney.com/home/?callbackUrl=%2Fapp%2F, 2023)

Digital art can be produced just by typing on the web, then by pressing enter and waiting a few moments you will see the results. Terrifying? Indeed, if you look at it, it can 'take' people's livelihoods as illustrators, digital artists, and character design artists. But we as humans cannot avoid technology, there are positives and negatives. If you look at it from a positive perspective, this is not terrible, because it can help designers look for newer ideas. But if from the negative, what has been explained earlier will be the ability to 'take' human skill professions which can take hours or even days, but with artificial intelligence, it only takes a few minutes.

Artificial intelligence in the field of art has several products being developed, with the latest development being midjourney. Art technology using mid-journey can be said to be using technology in the creative process or fine art in the middle of the process of creating a work of art. The concept of midjourney in the context of art technology refers to the stage when artists or visual artists are in the middle of the process of creating their work of art and using technology to help them visualize and realize their ideas. For example, artists can use design software and visualization software to create initial sketches or concepts, as well as

to create three-dimensional models of their artwork. Technologies such as augmented reality and virtual reality can also be used to visualize works of art at full scale before they are physically produced.

Apart from that, midjourney art technology can also help with the use of technology in the process of creating interactive works of art or works of art that involve user participation. Artists can use technology such as motion sensors, sound sensors, or interactive programming to create works of art that respond to user interactions with the work. In this case, midjourney refers to the ongoing creation of a work of art as long as the user interacts with the work.

Researchers have views on the use of artificial intelligence technology in drawing and creating works of art. Researchers are also worried that the use of this technology will replace my role as a designer and reduce human creativity, thereby reducing uniqueness or authenticity because it does not fully originate from human creativity. In terms of copyright and plagiarism, it can also occur if technology is used to create works of art that are similar to previous works. Artwork in the field of Visual Communication Design can be in the form of digital illustrations to create t-shirt product designs (Fleck, 2021).

Researchers looked at the experiences of students through exercises and assignments given by teachers at school and in the D-III Visual Communication Design Study Program, Arts and Arts Department, Faculty of Languages and Arts, Ganesha University of Education, definitely having a different point of view regarding midjourney. Will you be able to see new opportunities in terms of collaboration between humans and machines in creating digital illustrations or as ideas in terms of designing from existing designs?

Certainly, technology in the field of Visual Communication Design will continue to develop. As in the era of the Industrial Revolution 4.0 which is based on digital technology and Artificial Intelligence and the integration of the world of DKV into everyday life in society (Harsanto, 2019).

In connection with this, it is important to analyze the midjourney web based on the perceptions of students, especially the D-III Visual Communication Design Study Program, Department of Art and Design, UNDIKSHA, who have varying perspectives and experiences for each student regarding midjourney. Student perceptions regarding digital illustrations created by midjourney are important to research because digital illustration is a field that is increasingly developing in the current digital era. Digital illustration has great potential to be an effective tool in communication and convey messages in an interesting and creative way. Understanding students' perceptions of midjourney can help us understand how students view and apply digital illustrations in their lives.

Previous research has results that are relevant to this research, namely research results (Angelia & Gultom, 2020) revealed that:

The results of research using ICT do not always have a positive effect on business performance. In the creative economy sector, the use of ICT has a negative effect on performance in the DKV, music, applications and games, and fine arts subsectors. The low level of IPR ownership and the lack of creative economy human resource capabilities in optimizing ICT utilization could potentially be the cause of the negative influence of ICT utilization on business unit performance.

Research (Kurniawan & Mahmudah, 2020) stated that: The use of learning media, tools and learning resources based on information and communication technology in learning is aimed at guiding students who experience difficulties by providing appropriate answers to students' questions.

Research result (Hasyim et al., 2021), stated that: "Artificial intelligence technology uses an artificial condition network (ANN) model using many layers so that it can make it easier to recognize batik patterns."

Study (Ratnaningsih, 2020), stated that:
Technological sophistication in creating fine arts is really needed, technological sophistication means that the development of fine arts media is increasingly undergoing changes that adapt to human needs to create creative works of art and increase the potential of students. From the innovation in developing digital-based arts and culture learning media, the exotic painting on caping is expected to be able to develop arts and culture learning media.

Research (Dewi, 2020), revealed that:
Librarians can collaborate with information technology experts if they want to apply artificial intelligence in libraries. They can discuss what artificial intelligence is suitable to be applied in a library, or whether they want to create it based on the packaging or needs expressed by the librarian. The implementation of new technology requires sufficient funds and requires adaptation from librarians and users in its use.
Research (R. S. Dewi et al., 2021), revealed that:
The Ruang Guru application can be easily accepted by its users because it fulfills the 8 Golden Rules of Interface Design theory proposed by Ben Shneiderman, which includes design consistency, universal usability, offering informative feedback, dialogue design for closure, offering error handling, allowing appropriate feedback. easy, supports internal locus of control and reduces short-term memory load.

(Herliyani, 2022) in the Final Basic Research Report entitled "Analysis of the Principles of General Characteristics of User Interface Design on the Opensea Web" concluded that:
Twenty-six general characteristic principles of user interface design on the OpenSea Web are met. Especially users who find the display design aesthetically pleasing, as well as users who have just opened the OpenSea web, feel a positive first impression by paying attention to the logo, colors, typography, navigation menu, animation and video.

LITERATURE REVIEW

Perception is 1) Direct response (acceptance) of something; uptake; 2) The process of someone knowing several things through their five senses (KBBI, n.d.) Perception is a person's way of understanding and giving meaning to an object or a particular situation, which can be influenced by experience, knowledge or beliefs. Perception can collect information from someone in a certain environment and make meaning from that information. Perception is determined by a person's correct understanding which is very important in aspects of education, business, politics and social life.

Perception is the experience of objects, events, or relationships obtained by inferring information and interpreting messages. Perception can be interpreted as giving meaning to sensory stimuli. The perceiver has four external stimuli when perceiving objects, namely: movement, stimulus intensity, novelty and repetition. Several internal factors that can influence the observer's mind include: 1) Biological factors which include a sense of beauty in the object being observed, a state of hunger which causes a lack of concentration in a session, and sexual feelings. 2) Sociopsychological factors as supporting elements in perception activities, in the form of attitudes, habits and will of the observer (Rakhmat, 2022).

Attention is the mental process in which a stimulus or series of stimuli becomes prominent in consciousness at a time when other stimuli are attenuated. External factors that attract attention have prominent characteristics, including movement, stimulus intensity, novelty, and repetition.

1. Movement; Humans are visually attracted to moving objects.
2. Stimulus intensity; Humans will pay attention to stimuli that are more prominent than other stimuli.
3. Novelty; things that are new, extraordinarily different, will attract attention.
4. Repetition; things presented many times, when accompanied by slight variations, will attract attention.

Internal factors that attract attention
1. Biological factors; Human biological inheritance is received from both parents and is genetically programmed in the human soul
2. Sociopsychological factors; Humans from social processes behave with several characteristics into three components, namely affective, cognitive and conative. Affective is the emotional aspect, cognitive is the intellectual aspect, conative is related to habits and willingness to act.
   a. The affective component consists of sociogenic motives, attitudes and emotions.
      Sociogenic motives include: 1) curiosity motive; 2) competency motive; 3) love motive; 4) self-esteem motive and the need to search for identity; 5) The need for values, desires and meaning of life; 6) The need for self-fulfillment.
      Attitude is a tendency to behave in certain ways towards an attitude object, which is an object, person, place, idea or situation, or group (page 49)
      Emotions are energy generators, emotions are information carriers, emotions are not only information carriers in intrapersonal communication, but also message carriers in interpersonal communication. Emotions are also a source of information about our success.
   b. Cognitive; Knowledge relates to the amount of information a person has.
   c. Conative; Habit and will. Each person has different habits in responding to certain stimuli. Habits provide predictable patterns of behavior. Will is closely related to actions to achieve certain goals.

Midjourney is located at https://www.midjourney.com/home/?callbackUrl=%2Fapp%2F, which has artificial intelligence in processing digital images, both its own and images that can be downloaded for free on the internet.
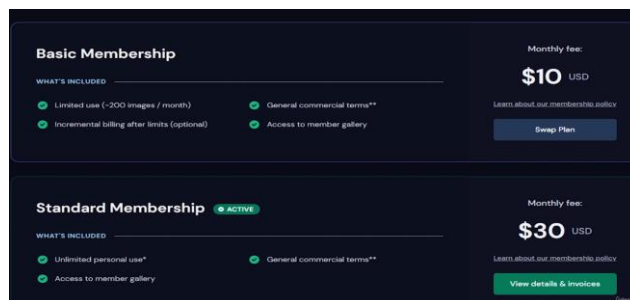

Figure 2. Cost in using *Midjourney*.
(Source: https://www.midjourney.com, 2023)

RESEARCH METHOD

The qualitative-verification data analysis strategy is an inductive analysis effort of research data carried out throughout the research process. One of the qualitative-verification design formats can be found in case study research (Bungin, 2011). The research uses qualitative data analysis, namely (1) analyzing the process of a social phenomenon and obtaining a complete picture of that process, and (2) analyzing the meaning behind the information, data and process of a social phenomenon (Bungin, 2011). The research subject is the midjourney web. The research objects of the participants interviewed were 15 (fifteen) students of the D-III Visual Communication Design Study Program, Department of Art and Design, Ganesha University of Education, totaling 16 (sixteen) people.

The research setting and location when collecting data will then meet with participants offline. The research data is analyzed offline and the lead proposer will work on the research location in a private study room located at Jalan Raya Jagaraga, Housing Bali Erfina, Legian Block No. 29. Bungkulan Village, Sawan District, Buleleng Regency 81171, using a laptop and

internet network. The data collection method for analyzing the midjourney web uses several methods, namely: observation method, documentary material method, online material search method, visual material method, and interview method. The following is an opinion regarding these methods according to Bungin (2011).

The observation method is a data collection method used to collect research data through observation and sensing (Bungin, 2011). Researchers look for ideas and titles for research proposals. Documentary material method from data collection in the form of writings, monuments, artifacts, photos, tapes, microfilm, discs, CDs, hard disks, flash disks, collections of writings and written stories (Bungin, 2011). The method for searching online materials is a procedure for searching data through online media such as the internet or other network media that provides online facilities, so that it is possible for researchers to utilize online information data in the form of data or theoretical information, as quickly or easily as possible, and can be held accountable academically (Bungin, 2011).

The visual material method can be used in research, but because this visual material is secondary information material, it can only be used as a secondary method (Bungin, 2011). The interview methods that will be carried out are individual and group interviews, namely interviews conducted by someone with a group (Bungin, 2011). The research instrument consists of researchers and participants who will later be interviewed by the lead proposer. The criteria for participants in this research were students from the D-III Visual Communication Design Study Program, Department of Art and Design, Faculty of Languages and Arts, Ganesha University of Education. The research team has recruited participants who meet the interview requirements. Before starting the interview, the researcher and lecturer in the Communication Media Theory course provided material about Midjourney only from PowerPoint and YouTube presentations. Together, immediately see the explanation about midjourney starting from the midjourney web, prompts, inputting images, seeing the results of the images that have been explained in the Communication Media Theory Course. After that, the researcher conveyed the research objectives, and had contracted the time and location to interview participants about the midjourney offline.

The interview was conducted offline with cellphone and laptop camera documentation, photographed by the student team. Participants were divided into 4 people per class and called one by one. The data that has been collected both before the title and after the research proposal is accepted according to the research subject is midjourney. The data collected was from the observation method, documentary material method, online material search method, visual material method, and interview method. The data analysis technique uses the Triangulation model. The data used is qualitative data. The data was analyzed based on the theory of perception (Rakhmat, 2022).

The first external stimulus or stimulus is movement from the mouse that accesses the web midjourney. The second stimulus in terms of stimulus intensity will pay more attention to the stimulus that plays a major role in processing the image into an artificial intelligence version of the work. The third stimulant is the novelty of midjourney when processing images into digital works with multiple viewing options. The fourth stimulant is iteration when artificial intelligence remakes existing images into even better works. The internal stimulation that observers bring to themselves from biological factors can feel the beauty in the work of artificial intelligence. Internal stimulation from sociopsychological factors as a supporting element in the perception activities of certain groups, especially students of the D-III Visual Communication Design Study Program. Internal stimuli from sociogenic motives are in the form of attitudes, habits and willingness of observers from D-III Visual Communication Design Study Program students who have created digital works. Data analysis steps according to Creswell (Creswell, 2021)

– Step 1. Process and prepare data for analysis. This step involves transcribing interviews, scanning material, typing field data, or sorting and organizing the data into different types depending on the source of the information.
– Step 2. Read all the data obtained and reflect on its overall meaning.
– Step 3. Start coding all data.
– Step 4. Apply the coding process to describe the setting of people (participants), categories and themes to be analyzed.
– Step 5. Indicate how these descriptions and themes will be restated in the narrative/qualitative report.
– Step 6. The final step is to make an interpretation in qualitative research or make sense of the data.

RESULTS AND DISCUSSION

Midjourney

Midjourney is an independent, expansive research facility that has explored a variety of media and thought that expands humanity's future. Midjourney runs commands with requests in Chatbots is to help guide and direct the conversation by suggesting topics or options for the user. Prompts are an important feature of chatbots that help guide conversations with users. These prompts can be open-ended questions or multiple-choice options that set up a conversation. Prompts are short text messages that Midjourney Bot uses to create images. It's useful to analyze the words and phrases in a good prompt, break them down into tokens, and match them with data to produce unique and captivating images. There are two prompts, namely basic prompts and additional prompts. A basic prompt is the simplest type of prompt, consisting of a text plan of artificial intelligence ideas and thoughts to get results from Midjourney. Additional prompts with one or more image URLs, some text, one or more parameters. Well-written requests help produce good images.

Exploration of Research Participant Data

There were 16 (sixteen) research participants who were interviewed. The data shows in Table 1.

Table 1. Participant Names

No.	NIM	Name
1.	2002071011	I Putu Wahyu Mahadipta
2.	2102071001	Kadek Rony Tejakusuma

No.	NIM	Name
3.	2102071002	Kadek Arya Dwipayana
4.	2102071003	Ketut Agus Maha Yasa
5.	2102071004	Kadek Angga Tibi Nugraha
6.	2102071005	Rifka Hanin Nafilah
7.	2102071006	Gede Aswina Budi Winaya
8.	2102071007	Ketut Gede Agus Saputra
9.	2102071009	I Nengah Junyartawan
10.	2102071010	Putu Shinta Fannylia
11.	2102071011	Gede Rama Indra Prasta
12.	2102071012	I Made Arya Sudi Adnyana Sucita
13.	2102071013	I Kadek Artha Darma Yasa
14.	2102071015	Ismuzaqy
15.	2102071016	Komang Aditya putra buana arta
16.	2102071017	I Gede Winada Putra

(Source: D-III Visual Communication Design Study Program, 2023)

Data Recording and Storage

The research team recorded interviews and photographed interview activities with participants in the DKV 3 classroom on the 2nd floor of the Faculty of Languages and Arts, Ganesha Education University. The research team stores data according to their respective data needs.

Figure 3. Interview Documentation
(Source: research team, 2023)

Once in the field

Component A. Attention-Attracting External Factors from Midjourney. Sub Component A: Movement, Stimuli Intensity, Novelty, Repetition. Component B. Internal Factors Attracting Attention from midjourney. Sub Component B: Biological Factors, Sociopsychological Factors from Affective, Sociopsychological Factors from Cognitive, Sociopsychological Factors from Conative. Here are the results.

Table 2. Interview Guide Grid and Interview Instruments.

No.	Component		Interview Number
A	Attention-Attracting External Factors from Midjourney		
	Sub-component	**Question**	
1	Movement	What do you think about the moving visuals on the main page of the midjourney web?	1
2	Stimuli Intensity	What do you think about what stands out on the main page of the midjourney website?	2
3	Novelty	What do you think about the novelty in midjourney web?	3
4	Repetition	What do you think about repetition in the midjourney web?	4

A		Attention Attracting Internal Factors from midjourney		
		Sub-component	**Question**	**Interview Number**
	1	Biological Factors	How do you use midjourney according to the culture in your place?	5
	2	Sociopsychological Factors of Affective		
		a) Sociogenic Motives		
		1) Motive of curiosity	How do you know midjourney?	6
		2) Competence motive	How can you improve your ability to use midjourney?	7
		3) Love motive	How do you accept midjourney?	8
		4) Self-esteem motive and the need to find identity	What do you think about seeing the results of human-made design combined with midjourney?	9
		5) The need for values, desires and meaning of life	What do you think about midjourney in helping human life?	10
		6) The need for self-fulfillment	How can you improve your design skills with midjourney?	11
		b) Attitude	What is your attitude towards midjourney? Is it positive or negative? Why?	12
		c) Emotions	How are your emotions regarding midjourney? Is it anger, fear, love? Why?	13
	3	Sociopsychological Factors of Cognition	Have you heard of Midjourney before? If yes, where does it come from?	14
			What is the function of midjourney?	15
			What is the good performance of the images using midjourney?	16
			What problems arise during mid-journey?	17
	4	Sociopsychological Factors of Conative		
		a) Habits	What do you think about users who are already used to subscribing to midjourney?	18
		b) Will	How do you react to designs that use midjourney?	19

Conclusion

Student perceptions of midjourney in terms of component A and component B (Rakhmat, 2022). Component A. External Factors Attracting Attention from Midjourney. Subcomponent A: Movement, Stimuli Intensity, Novelty, Repetition. Component B. Internal Factors Attracting Attention from midjourney. Subcomponent B: Biological Factors, Sociopsychological Factors from Affective, Sociopsychological Factors from Cognitive, Sociopsychological Factors from Conative.

Suggestion

This research can be continued in the direction of creating existing lecture materials using artificial intelligence, collaboration between humans and technology for the development of science and adapted to courses, especially in the D-III Visual Communication Design Study Program, Department of Art and Design, Faculty of Languages and Arts, Ganesha University of Education.

REFERENCES

ACADEMY, B. A. (2021). *Generative Adversarial Networks*. https://www.bisa.ai/course/detail/MzIy#:~:text=Generative Adversarial Networks (GANs) adalah,menghasilkan gambar seperti proyek CycleGAN.

Angelia, F., & Gultom, Y. (2020). Peran Pemanfaatan Teknologi Informasi dan Komunikasi pada Sektor Ekonomi Kreatif di Indonesia. *Jurnal Kebiajakan Ekonomi*, *15*(2), 1–26. https://scholarhub.ui.ac.id/jke/vol15/iss2/4/?utm_source=scholarhub.ui.ac.id%2Fjke%2Fvol15%2Fiss2%2F4&utm_medium=PDF&utm_campaign=PDFCoverPages

Ary Kurniawan, & Mahmudah, F. N. (2020). Pelaksanaan Pembelajaran Berbasis Teknologi Informasi dan Komunikasi di Sekolah Menengah Kejuruan. *Al-Tanzim Jurnal Manajemen Pendidikan Islam*, *4*(2), 184–196. https://doi.org/10.33650/al-tanzim.v4i2.1156

Bungin, M. B. (2011). *Penelitian Kualitatif: Komunikasi, Ekonomi, Kebijakan Publik, dan Ilmu Sosial Lainnya* (2nd ed.). Kencana.

Creswell, J. W. (2021). *Research Design: Pendekatan Metode Kualitatif, Kuantitatif, dan Campuran* (4th ed.). Pustaka Pelajar.

Dewi, A. O. P. (2020). Kecerdasan Buatan sebagai Konsep Baru pada Perpustakaan. *ANUVA: Jurnal Kajian Budaya,*

Perpustakaan, Dan Informasi, *4*(4), 453–460. https://doi.org/10.14710/anuva.4.4.453-460

Dewi, R. S., Simanungkalit, E. J., & Bhuwana, A. M. S. (2021). Analisis Desain Antarmuka pada Aplikasi 'Ruang Guru' di Era Society 5.0. *SANDI : Seminar Nasional Desain*, 277–284. https://eproceeding.isi-dps.ac.id/index.php/sandi-dkv/article/view/146/110

Etnawati, S., & Pamungkas, J. (2022). Penggunaan Media Lukis dalam Pembelajaran Seni untuk Mengembangkan Multiple Intelegensi Anak. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *6*(6), 5960–5969. https://doi.org/10.31004/obsesi.v6i6.2766

Fleck, R. (2021). *How to Use Illustration as a Powerful Marketing Tool for Your Brand*. Dribbble. https://dribbble.com/stories/2021/08/11/illustration-as-a-business-tool

Harsanto, P. W. (2019). Desain Komunikasi Visual (DKV) dalam Era Revolusi Industri 4.0. *SEMINAR NASIONAL SANDYAKALA*, 14. https://eproceeding.isi-dps.ac.id/index.php/sandyakala/article/view/33/27

Hasyim, F., Malik, K., Rizal, F., & Yudistira. (2021). Implementasi Algoritma Convolutional Neural Networks (CNN) Untuk Klasifikasi Batik. *COREAI: Jurnal Kecerdasan Buatan, Komputasi Dan Teknologi Informasi*, *2*(2), 40–47. https://doi.org/10.33650/coreai.v2i2.3365

Herliyani, E. (2022). *Analisis Prinsip-prinsip Karakteristik Umum dari Desain Antarmuka Pengguna pada Web Opensea*.

Holz, D. (n.d.). *midjourney*. midjourney.com

KBBI. (n.d.). *Persepsi*. Badan Pengembangan Dan Pembinaan Bahasa. https://kbbi.kemdikbud.go.id/entri/persepsi

Rakhmat, J. (2022). *Psikologi Komunikasi* (Revisi). Simbiosa Rekatama Media.

Ratnaningsih, K. (2020). Pengembangan Media Pembelajaran Seni Budaya Berbasis Digital Eksotisme Lukisan Pada Caping. *INOPENDAS Jurnal Ilmiah Kependidikan*, *3*(2), 64–70. https://doi.org/10.24176/jino.v3i2.5418

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