Exploring the Digital Literacy Levels of Junior High School Indonesian Language Teachers: A DigCompEdu Perspective

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A B S T R A K

Perkembangan teknologi digital menuntut pendidik untuk memiliki literasi digital yang memadai agar mampu mengintegrasikan teknologi dalam pembelajaran secara efektif. Namun, literasi digital di kalangan guru mata pelajaran masih beragam dan memerlukan perhatian khusus, terutama dalam memaksimalkan pemanfaatan teknologi untuk mendukung proses belajar-mengajar. Penelitian ini bertujuan untuk memberikan gambaran tingkat literasi digital guru mata pelajaran Bahasa Indonesia di jenjang SMP. Penelitian ini menggunakan metode kualitatif dengan survei daring yang melibatkan 72 guru Bahasa Indonesia, yang dipilih melalui teknik cluster-quota sampling. Instrumen penelitian berupa kuesioner yang diadaptasi dari model DigCompEdu, mencakup 22 pernyataan utama dan 13 pertanyaan tambahan untuk menggali karakteristik sampel dan lingkungan mengajar guru. Data dianalisis dengan membandingkan persentase skor pada setiap aspek literasi digital dalam model DigCompEdu. Hasil penelitian menunjukkan bahwa sebagian besar guru berada pada tingkat literasi digital B1: Integrator, yang mencerminkan kemampuan mengintegrasikan teknologi dalam pembelajaran secara efektif. Guru lebih banyak menggunakan teknologi digital berupa media presentasi dalam mengajarkan mata pelajaran Bahasa Indonesia. Namun, penelitian ini juga mengidentifikasi beberapa aspek yang perlu ditingkatkan, seperti praktik reflektif, pemilihan sumber belajar, pengajaran, analisis bukti, diferensiasi dan personalisasi, serta keterampilan komunikasi. Simpulan dari penelitian ini menegaskan pentingnya pengembangan literasi digital yang berkelanjutan agar guru dapat memaksimalkan potensi teknologi dalam pembelajaran.

A B S T R A K

The advancement of digital technology requires educators to possess adequate digital literacy to effectively integrate technology into the teaching and learning process. However, digital literacy among subject teachers varies widely and requires special attention, especially in maximizing the use of technology to support educational practices. This study aims to provide an overview of the digital literacy levels of Indonesian language teachers at the junior high school level. The research employed a qualitative method with an online survey involving 72 Indonesian language teachers, selected through a cluster-quota sampling technique. The research instrument was a questionnaire adapted from the DigCompEdu model, comprising 22 core statements and 13 additional questions to explore the sample's characteristics and teaching environment. Data were analyzed by comparing the percentage scores in each aspect of digital literacy within the DigCompEdu model. The results showed that most teachers reached the B1: Integrator level of digital literacy, reflecting their ability to integrate technology effectively into teaching. Teachers predominantly used digital technologies such as presentation media when teaching Indonesian language subjects. However, the study also identified several areas for improvement, including reflective practice, resource selection, teaching, evidence analysis, differentiation and personalization, and communication skills. This study concludes by emphasizing the importance of continuous digital literacy development to enable teachers to maximize the potential of technology in education.

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1. INTRODUCTION

Digital literacy is a topic that is often discussed in the world of education for today's digital era. Recent technological developments have changed the concept of literacy and communication in various regions of the world. This causes learners in the technological era to need to improve new literacy skills, including digital literacy (Van Allen, 2020; Yeşilyurt & Vezne, 2023). In the beginning, digital literacy was defined by Paul Glister in 1997 as "the ability to understand and use information in multiple formats from a wide variety of sources when it is presented via computers" and, particularly, through the medium of the internet (Ballano et al., 2022; Pangrazio et al., 2020). Today, digital literacy is understood as a combination of technical-procedural, cognitive and social-emotional skills in using digital platforms and enabling people to expand their knowledge networks (Neumeyer et al., 2021; Reddy et al., 2023). This literacy allows people to be wiser in utilizing various technologies. It means that digital literacy is more than just the skills to utilize ICT and the internet as well as the urgency of exposure to negativity in cyberspace and efforts to prevent addiction to using the internet for things that are not useful (Dewi et al., 2021; Nugraha, 2022). For a teacher, this competency challenges them to be able to enhance creativity and discipline, digital pedagogy including develop effective and efficient learning management (Ibda et al., 2023; Marnita et al., 2023). However, study shows that educators who received training on utilization of digital literacy tools gained higher teaching effectiveness when compared to teachers who did not attend the training (ElSayary, 2023; Temirkhanova et al., 2024). Furthermore, after passing through the COVID-19 pandemic, learning in various educational institutions has changed. Therefore, it is crucial for educators to have sufficient digital literacy to meet the needs and master innovative learning models (Li & Yu, 2022; Velandia Rodriguez et al., 2022).

Digital literacy is important for teachers, including those who teach languages. The proper integration of technology in the curriculum and appropriate learning methods are the main challenges faced by educators in teaching the Indonesian language in the modern era. In addition, Indonesian language lessons during the implementation of the independent curriculum nowdays at the junior high school level need to be supported by the use of information technology. (Syahriati, 2023; Wardana et al., 2023). Challenges such as the declining enthusiasm of some students in learning, the low ability of some students to operate the features of the learning platform, and poor internet networks occur in the application of ICT in Indonesian language learning at the junior high school level. Similar challenges are also found in Indonesian language learning in the independent curriculum at the secondary school level such as lack of mastery of technology and lack of adequate learning resources (Sutama et al., 2022; Utama et al., 2024). However, conventional learning methods that are still dominant in many schools are less effective in improving students' language skills (Susanti & Nurhamidah, 2022). In the other side, through the utilization of interactive applications, learning videos, and digital platforms, learners can learn Indonesian language materials with more motivated (Khine, 2024; A. Purba & Saragih, 2023).

Various studies have been conducted to examine digital literacy among teachers. Teachers' digital attitudes surpassed with their digital knowledge and problem-solving skills, in line with previous research that highlighted the highest perceived attitudes towards utilizing ICT in teaching and learning among all aspects of teachers' digital literacy (Yao & Wang, 2024). Another study also showed that there is indeed a gap in digital resources for rural and urban secondary school teachers and this affects teachers' digital literacy levels. The urban and rural digital divides are not based on differences in lack of basic access to digital devices, but rather on meaningful access to make the most of these devices for a wider range of learning purposes (Fu et al., 2024; Zhao, 2024). This also means the weaknesses and strengths of teachers' digital literacy competencies may be different according to their digital activities or the support of digital facilities in their area (Rahmawati et al., 2024). On the one hand, the study of digital literacy for educators can be applied in Badung Regency considering that this regency is the regency with the highest level of minimum wage in Bali Province since 2022 (Candradewi & Arka, 2024; Widiantari & Mustika, 2024). Higher income often correlates with increased access to technology, which in turn enhances digital skills and literacy. However, teachers candidate digital literacy level is significantly different in terms of family income. (H. Purba & Hutabarat, 2022; Tor et al., 2022; Yeşilyurt & Vezne, 2023). Access to resources such as computers, smartphones, and stable internet enables individuals to acquire and practice digital competencies. Individuals with strong digital skills can leverage online platforms for employment, freelancing, or entrepreneurial activities, thereby expanding their income potential, increase their income level as a whole and close the income gap internally (Chen et al., 2024; J. Wang et al., 2022). Given this fact, with the highest regional income, it is possible that educators and students are facilitated with better digital learning facilities to have a better digital literacy in Badung Regency.

Based on the previous explanation, researchers wanted to analyze the level of digital literacy of Indonesian language teachers, especially those who work in various junior high schools in Badung Regency. To analyze the digital literacy level of teachers, various digital literacy models have been developed in general terms. However, there is a need for a model used specifically to identify the digital literacy level of

teachers. One of the most influential digital literacy models that can be used to analyze the level of digital literacy of teachers is the DigCompEdu model (Karsli et al., 2023; Nguyen & Habók, 2023). A study of this model was conducted and explained that the DigCompEdu questionnaire was valid and reliable for use with educators. The validation of the questionnaire also reflects the reality, explaining the educators' perception of the importance of the analyzed subjects, as well as the importance of applying this model for the future development of their competencies (Gallardo-Echenique et al., 2023; Martín Párraga et al., 2022). This research seeks to provide an overview of information and references about the level of digital literacy of educators, especially those who teach the Indonesian language in Badung Regency, based on the six areas of the DigCompEdu model. In addition, this research also provides an overview of the utilization of technology in Indonesian language learning. Through an understanding of the educators' digital literacy level, it is hoped that educators will be able to develop strategic methods or policies to improve the quality of learning, especially in Indonesian language education.

2. METHOD

This study is a qualitative research involving an online survey to the teachers at the junior high school level. This method was chosen because the researcher wanted to know in depth the level of digital literacy of Indonesian language subject teachers. In addition, this research was conducted in order to be able to reach respondents widely and flexibly with a relatively short time. This research is certainly expected to explain what components of digital literacy need attention to be improved. The sample was taken by Cluster-Quota Sampling, which selected a number of respondents from a certain area until the data limit of at least 50 respondents was reached. In this case, researchers involved Indonesian language educators at the junior high school level in the Badung Regency area as respondents or research data sources. The survey was conducted through a googleform distributed at the Badung Regency Indonesian Language Subject Teacher Consultation forum. The instrument used in this research is a questionnaire adapted from the Digital Competence of Educators (DigCompEdu) with six main aspects of digital competence for an educator which can be seen in Figure 1.
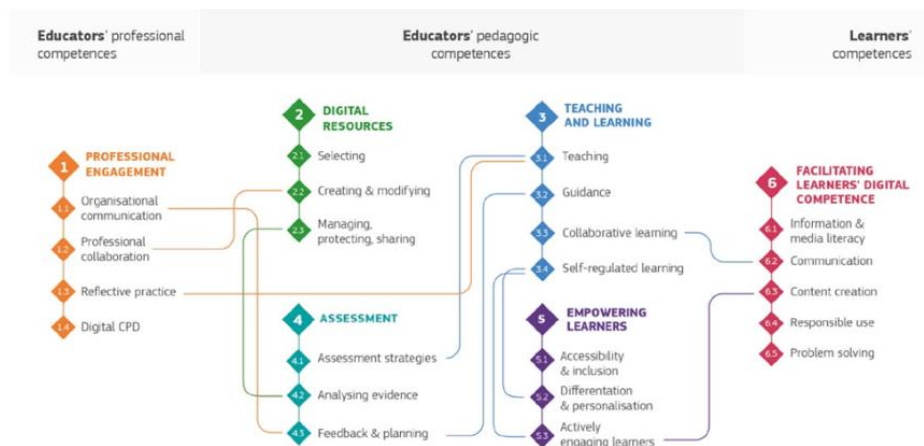

Figure 1. DigCompEdu Framework (Redecker, 2017)

The DigCompEdu model questionnaire used in this study contains 22 main statements to measure teachers' digital literacy with a scale of 0-4 and a score range of 0-88. In addition, this tool for measuring the educator's digital competence also contains 13 further statements using a Likert scale with 5 gradations of scores, which is a score of 1 means strongly disagreeing and a score of 5 means strongly agreeing with the statement being provided. The further questions given are intended to describe the respondents and the use of digital technology in their work environment. The following is the DigCompEdu instrument grid used in this study.

Table 1. Instrument Grid

Section	Question or Statement Indicators	Count
Initial Reflection	The initial level of digital literacy	1
Area 1: Professional Engagement	Digital channel	1
	Collaboration with colleagues	1

Section	Question or Statement Indicators	Count
	Development of digital teaching skills	1
	Online training	1
Area 2: Digital Resources	Search strategies	1
	Modification of existing digital resources	1
	Sensitive data	1
Area 3: Teaching and Learning	Value creation	1
	Monitoring interactions	1
	Digital technologies in group work	1
	Documentation and planning	1
Area 4: Assessment	Tracking of student progress	1
	Analysing data	1
	Feedback	1
Area 5: Empowering Learners	Adressing digital problems	1
	Personalized learning opportunities	1
	Active participation	1
Area 6: Facilitating Learners' Digital Competence	Assessment of reliable information	1
	Communication and collaboration	1
	Creation of digital content	1
	Safe and responsible behaviour	1
	Problem solving	1
Follow-up Questions about The Respondent	Personal information	2
	Teaching experiences and utilizing technology	5
	Private use of digital technologies	4
	Digital environment	7
Final Reflection	The final level of digital literacy	1

The data obtained in this study were analyzed qualitatively and using descriptive statistics through the calculation of the average score and percentage of each statement item on the instrument given. The following percentage criteria were used to categorize the digital literacy level of Indonesian language subject teachers.

Table 2. Percentage Category Table

Percentage	Category
80% - 100%	Very good
61% - 80%	Good
41% - 60%	Good enough
21% - 40%	Not good enough
0% - 20%	Not good

This research data analysis is supported by Microsoft Excel application to categorize and find descriptive statistical values to make sure that the data can be described properly. The mapping of educators' digital literacy competencies in the six DigCompEdu areas is conducted by organizing the scores into six competency levels. Level A1:Newcomer is the lowest level and level C2:Pioneer is the highest level. The score criteria that are obtained can be seen in the following table (Suzer & Koc, 2024).

Table 3. The Scoring Criteria

Competency Level	A1 (Newcomer)	A2 (Explorer)	B1 (Integrator)	B2 (Expert)	C1 (Leader)	C2 (Pioneer)
Area 1: Professional engagement	4	5-7	8-10	11-13	14-15	16
Area 2: Digital resources	3	4-5	6-7	8-9	10-11	12
Area 3: Teaching and learning	4	5-7	8-10	11-13	14-15	16
Area 4: Assesment	3	4-5	6-7	8-9	10-11	12
Area 5: Empowering learners	3	4-5	6-7	8-9	10-11	12

Competency Level	A1 (Newcomer)	A2 (Explorer)	B1 (Integrator)	B2 (Expert)	C1 (Leader)	C2 (Pioneer)
Area 6: Facilitating learners's digital competence	5-6	7-8	9-12	13-16	17-19	20
Total	19	20-33	34-49	50-65	66-80	81-88

3. RESULT AND DISCUSSION

Results

The results of this study aim to show the level of digital literacy of Indonesian language subject teachers at the junior high school level in Badung Regency. This research also aimed to be able to show which digital technology tools are mostly used by the teacher in Indonesian language classes at the junior high school level. By utilizing the DigCompEdu questionnaire, we found various data from respondents. The following table explains the description of the respondents of this study and a description of digital technology utilized by Indonesian language teachers.

Table 4. Respondent Description

Parameters	n	%	Parameters	n	%
Gender			**Current use of digital technologies**		
Male	13	18.00	Never used digital technologies	0	0.00
Female	59	82.00	<1 year	6	8.33
Age			1-3 years	20	27.77
<25 years old	3	4.16	4-5 years	23	31.94
25-29 years old	20	27.77	6-9 years	16	22.22
30-39 years old	37	51.38	10-14 years	2	2.27
40-49 years old	2	2.27	15-19 years	1	1.38
50-59 years old	10	13.88	20 years or more	0	0.00
>60 years old	0	0.00	Prefer not to say	4	5.55
Years of teaching			**Percentage of used digital technologies in the past 3 months**		
1-3 years	9	12.5	0%-10%	3	4.16
4-5 years	9	12.5	11%-25%	14	19.44
6-9 years	17	23.6	26%-50%	25	34.72
10-14 years	18	25	51%-75%	19	26.38
15-19 years	4	5.55	76%-100%	3	4.16
20 years or more	8	11.11	Prefer not to say	8	11.11
Prefer not to say	7	9.72			

Table 5. Digital Technology Used by Indonesian Language Teachers

Current digital tools	n	%
Presentations	66	92
Watching videos/listening to audios	65	90
Creating videos/audios	44	61
Online learning environments	27	38
Digital quizzes or pools	46	64
Interactive apps or games	25	35
Digital posters, mindmaps, planning tools	33	46
Blog or wikis	5	7
I have not yet used digital tools in class	0	0
Pefer not to say	0	0
Others	0	0

Table 5 above shows that Indonesian language teachers, especially at the junior high school level in Badung Regency, mostly use presentations as a choice of digital technology in learning followed by the use of video/audio and making learning videos. None of them did not want to provide information related to this particular choice of digital technology and none of the respondents stated that they had never used

digital technology in the classroom. However, the survey results also show that the use of online learning environments and the use of interactive apps or games are not the most popular options for Indonesian language teachers. The data relating to the personal use of digital technology and the working environment for Indonesian language teachers at junior secondary schools in Badung district are shown below.

Table 6. Teacher's Digital Technology Ultilization

	Means	Percentage
Teacher's personal utilization of digital technologies		
I enjoy to work with computers and other technological tools.	4.21	84%
I use the internet extensively and competently.	3.96	79%
I am open and curious about new applications, programs and resources.	4.29	86%
I am a member of various social networks.	3.63	73%
Digital technology conditions in teacher's work environments		
Interactive whiteboards are available in every classroom.	3.44	69%
Students have access to digital devices such as laptops, tablets, and smartphones in theclassroom.	3.86	77%
The school's internet connection is reliable and fast.	3.56	71%
Students have access to internet-connected digital devices at home.	3.38	68%
The school administration supports the integration of digital technologies in the classroom.	3.79	76%
The curriculum facilitates and supports the use of digital technology in the classroom.	3.97	79%
Many of my colleagues use digital technology in the classroom.	3.94	79%

Tabel 6 above explains that teachers, especially those who teach Indonesian language at the junior high school level in Badung Regency, are still not completely a part of various social networks. In addition, regarding the statement of the availability of digital devices connected to the internet, few of them agreed with this statement. Nevertheless, they show high enthusiasm and curiosity about the emergence of new digital applications, programs and learning resources. In addition, relating to the working environment of Indonesian language teachers in junior high schools in Badung Regency, they tend to agree that the current curriculum supports the use of digital technology in the classroom and many of their colleagues utilize digital technology in learning. Table below shows the grouping of Indonesian language educators into six levels of educator digital literacy ranging from level A1: Newcomer to level C2: Pioneer in each area or aspect of DigCompEdu.

Table 7. Indonesian Language Teacher's Competency Level

Competency Level	Area 1		Area 2		Area 3		Area 4		Area 5		Area 6	
	n	%	n	%	n	%	n	%	n	%	n	%
A1: Newcomer	3	4%	3	4%	1	1%	5	7%	0	0%	3	4%
A2: Explorer	18	25%	17	24%	10	14%	18	25%	12	17%	11	15%
B1: Integrator	27	38%	25	35%	41	57%	30	42%	20	28%	35	49%
B2: Expert	20	28%	17	24%	15	21%	10	14%	19	26%	11	15%
C1: Leader	1	1%	8	11%	3	4%	7	10%	14	19%	9	13%
C2: Pioneer	3	4%	2	3%	2	3%	2	3%	7	10%	3	4%

Based on the data in Table 7 above, this study shows that in each area of the DigCompEdu model, Indonesian language teachers at the junior high school level in Badung Regency are dominated by the competency level of a B1: Integrator. The following table is a detail showing the percentage score on each digital literacy component obtained from respondents.

Table 8. Teacher's Digital Literacy Score on Each Component

Area	Component	Score	Ideal Score	Percentage
Professional Engagement	Digital communication	161	288	56%
	Professional collaboration	160	288	56%
	Reflective practice	148	288	51%
	Digital CPD	166	288	58%
	Selecting	128	288	44%

Area	Component	Score	Ideal Score	Percentage
Digital Resources	Creating & modifying	153	288	53%
	Managing, protecting, sharing	208	288	72%
Teaching and Learning	Teaching	141	288	49%
	Guidance	178	288	62%
	Collaborative learning	176	288	61%
	Self-regulated learning	176	288	61%
Assesment	Assesment strategies	168	288	58%
	Analysis evidence	149	288	52%
	Feedback & planning	154	288	53%
Empowering Learners	Accessibility & inclusion	218	288	76%
	Differentiation & personalisation	173	288	60%
	Actively engaging learners	186	288	65%
Facilitating Learner's Digital Competence	Information & media literacy	154	288	53%
	Communication	150	288	52%
	Content creation	200	288	69%
	Responsible use	155	288	54%
	Problem solving	186	288	65%
Total		**2894**	**6.336**	**46%**

Discussion

Digital literacy under all its different names (e.g. competence, fluency, etc.), has become one of the most transversal competencies. Moreover, it is a topic of growing interest in open, distance, and digital learning research, as can be seen from the large number of reviews on the topic (Marín & Castañeda, 2023). The different levels of digital literacy of educators can be influenced by various factors. Previous research explains that there are significant differences in digital literacy for prospective educators based on gender (Kuru, 2022). In addition, factors such as age, gender, educational status, work environment conditions including access to technology also show significant differences in the level of digital literacy of an educator (Korkmaz & Akçay, 2024). In addition, age and teaching experience are also said to have an influence on the level of digital literacy of an educator (Saripudin et al., 2021).

This study tries to describe the digital literacy level of Indonesian language teachers at the junior high school level, especially in Badung Regency. The data we have obtained shows a total of 72 teachers with 59 females and 13 males who serve across 8 private schools and 29 government-owned schools located in the Badung Regency area. Based on the results of this study, we found that Indonesian language educators in this area mostly choose to use digital technology in the form of presentations as a digital-based technology tool in learning. Presentations such as PowerPoint or in the form of other applications in Indonesian language learning can be an interesting learning media. This presentation media is able to integrate various forms of learning content such as images, text, audio, video and other forms of content by adjusting to the theme or needs of students (Herlina & Saputra, 2022). In addition, they also prefer to use video or audio in Indonesian language learning and other digital tools as shown in Table 4.

The Indonesian language teacher we met were dominated by the B1: Integrator level of achievement in each area. This is the level at which educators experiment with digital technologies in different environments and for different purposes, and also integrate them into their practices. Integrators creatively use digital technologies to enhance various aspects of their professional engagement. They are looking forward to expanding their scope of implementation. However, they are still working on understanding which tools work best in which situations and how to adapt digital technologies with pedagogical strategies and methods. Integrators just need more time to experiment and reflect, complemented by collaborative encouragement and knowledge exchange to become a B2: Expert. On the one hand, based on the total score, a B1: Integrator is also said to be a teacher who has tried out various digital technologies into a variety of methods for an objective to be achieved (Wardani & Santosa, 2022).

The level of digital literacy in the first area of professional engagement in this study found that 38% of Indonesian language teachers at the junior high school level in Badung Regency reached the B1: Integrator level. As we find in the percentage score obtained in Table 7, the component with the lowest percentage level can be found in the reflective practice component. This results also support that educators are in critical need of personalised training to achieve optimal levels of digital literacy so that they can keep up with the changing paradigm that eventually incorporates new educational methodologies and strategies (Baber et al., 2022; Sánchez-Cruzado et al., 2021). It shows that there is a need for Indonesian language teachers at the junior high school level in Badung district to participate in online training periodically. This

training will be more effective if it utilizes digital facilities such as digital boards or stationery, digital teaching materials, video conferencing, and so on (Joshi et al., 2023).

The second area of digital resources in our study was also dominated by the achievement of level B1: Integrator for Indonesian language teachers at the junior high school level. The lowest percentage of components in this area is selecting. This indicates that teachers still need to be guided on how to select digital learning resources that are available on the internet or other digital resources. This data also supports the results of a similar study which said that in terms of digital literacy, the ability to select digital resources is the most needed ability for educators (Cattaneo et al., 2022). This is a challenge for an Indonesian language teacher as well as the challenge of the availability of adequate digital learning resources, the capacity of educators in creating teaching materials that are aligned with the curriculum and adjusting teaching materials to the characteristics of students, and the creativity of educators to build a motivating learning environment (Sukma et al., 2023). The challenges in the second area related to digital learning resources need to be addressed in Indonesian language learning. In line with this, digital forms of media or learning resources are preferred by students and this indicates the strengthening of digital literacy in learning (Widiastuti et al., 2022). However, the managing digital resources component which obtained the highest percentage in this area explained that teachers already have sufficient digital literacy to manage digital resources owned, both in organizing, protecting, and sharing digital resources for learning purposes. This data supports findings from other studies showing that teachers have a high intention to use digital resources (Q. Wang et al., 2023). In addition, the support for the statement in Table 4 also explains that many of our respondents like to use computers and have high curiosity about the development of digital technology.

The third area in our study show the lowest percentage of the total score on the teaching component with a percentage of 49%. These results can support the description that teachers teaching at the junior secondary level still lack ICT competence in teaching (Handayanto et al., 2024). This is also a remind that in utilising digital technology, Indonesian language teachers at the junior high school level still need to maximise the usefulness of digital technology in learning. Moreover, this third area are also supported by the highest percentage in the guidance component. This means that teachers have a good desire to guide students in digital learning. This supports a survey of secondary school teachers which showed that teachers are involved in guiding students such as providing digital feedback to students. However, they have doubts about the effectiveness of the feedback (Vattøy & Gamlem, 2024). However, it should be noted that guidance should not be given at a high frequency, given that providing guidance at a low frequency can improve the learning performance of students at the junior high school level (Z. Wang et al., 2024).

Fourth area explains that the component of analyzing evidence through digital devices as a digital literacy by educators has a lower total score when compared to the selection of assessment strategies and providing feedback using digital technology. This supports the survey which revealed that secondary school teachers have low levels of data utilisation and data literacy skills (Michos et al., 2023). Therefore, efforts such as training on the use of digital devices to analyze students' scores can be a strategic step in improving the performance of Indonesian language educators at the junior high school level. Meanwhile, our research data shows that the highest percentage score is achieved by the component of assessment strategies. This supports the statement that the teachers also consider the process and purpose of conducting student assessments as one of their digital competencies in the secondary education program (Wong & Moorhouse, 2021).

The fifth area explained that educators' competence in differentiating or personalizing learning through digital devices as digital literacy obtained a lower percentage when compared to the other two components related to empowering learners. Similar results were also found in Morocco that one of the low-category digital literacy competencies of language teachers is personalising competence (Benali et al., 2018). Other research on the implementation of an independent curriculum in Indonesia and Indonesian language learning found similar challenges, namely difficulties in adapting to the different characteristics of students and limited learning facilities in accommodating differences in students (Nurhasna et al., 2024). Support in the form of adequate facilities and flexible curriculum development is expected to be channeled in Indonesian language learning to implement differentiated learning (Tulak et al., 2024). On the one hand, the accessibility and inclusion component received the highest percentage in the fifth area. This means that teachers and students have engaged access to digital resources. This data can also be related to research results that show an increase in the utilization of digital educational resources in learning that has increased after passing the COVID-19 pandemic (Sanz-Labrador et al., 2021).

Facilitating learner's digital competence area in this study has special attention to the communication component with the lowest percentage. The results we found support research conducted at the secondary school level which shows that teachers' awareness of utilizing digital communication is

still low. They do not realize that digital communication tools are basic competencies that need to be mastered. However, the challenges for teachers in using digital communication tools in collaborating with students are generally time constraints and lack of digital competence (Midtlund et al., 2021). In this area, the data in Table 7 explains that educators have provided good opportunities for learners to create digital content. This supports the results of other studies showing that after the pandemic, educators are more motivated to prepare for learning such as developing digital content (Beardsley et al., 2021). This is also supported by the sufficient percentage in Table 5 on the statement related to the availability of facilities for learners to access digital technology outside school.

However, the results of this study cannot be separated from various limitations. One possible limitation is the generalisation of the research results obtained. Given that this research was conducted in Badung Regency, especially to those who are Indonesian language teachers at the junior high school level. Differences in the sample such as higher or lower levels or analyses of teachers from other subjects might provide different outcomes. Further, our limitations may also be due to the characteristics of the DigCompEdu instrument. The DigCompEdu model by its nature is still unable to take into consideration the external factors of educators that play an important role in influencing their ability to improve digital literacy (Alarcón et al., 2020). Therefore, we certainly hope that future research can examine the factors that influence the improvement of educators' digital literacy. Furthermore, our survey questionnaire may have provided easy and quick results. It is also possible that the answers given are affected by various factors such as awareness, emotions, and so on. Therefore, future research can also examine the level of digital literacy through giving tests to educators that are more conditioning for them to give truthful results.

4. CONCLUSION

The digital literacy level of Indonesian language teachers at the junior high school level in Badung Regency as measured by the DigCompEdu model instrument in this study reached level B1: Integrator. This level is obtained in each area in the DigCompEdu model. The percentage of the total score obtained explains that the digital literacy level of the respondents is in the good enough category. Then, the most widely used digital technology tool in learning is presentation media. Furthermore, teachers can also be promoted as part of the social community and ensured that learners have good internet access for learning. Several components that can be of concern in each area of digital literacy that we underline in this study are reflective practice, selecting, teacahing, analyzing evidence, differentiation & personalization, and communication. This study was focused on a sample of Indonesian language teachers at the junior high school level. We recommend a comparative study that compares the level of digital literacy for teachers at the junior high school level with a higher or lower school level or analyses of teachers digital literacy from other subjects. Our results can also be used to explore what factors can influence the differences in digital literacy levels among Indonesian language teachers.

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