VOLUME 15, NO. 2, DECEMBER 2025

ALLEMANIA

Journal homepage:
https://ejournal.upi.edu/index.php/allemania/index

The Relationship Between Generation Z Learning Characteristics and German Language Learning Outcomes of Grade XI High School Students

Lellyana Purwantini[1], Iwa Sobara[2*]
[1,2] Universitas Negeri Malang, Indonesia.

Article Info

Paper Type:
Research Paper/ Conceptual Paper/Case Study/Literature Review etc.

Received: Seoptember 17, 2025
Revised: November 20, 2025
Accepted: December 02, 2025
First Available online: December 15, 2025
Publication Date: December 15, 2025

Abstract

This study aims to identify the characteristics of learning as a process that brings about changes in students through deliberate learning experiences and in Generation Z students who have a tendency to learn in a unique way, namely by relying on technology, visualization, and enjoying interactive learning. Furthermore, it analyzes learning characteristics, particularly in German language instruction at the high school level, and examines their relationship with the German language learning outcomes of 11th-grade students at SMA Negeri 5 Malang. The study employs a quantitative correlational approach, with data collected through questionnaires, documentation of Mid-Term Exam (UTS) scores, and classroom observations of 31 11th-grade students at SMA Negeri 5 Malang. The results indicate that students have a high preference for visual media and collaborative learning, and actively use technology. However, Pearson's correlation test shows no significant relationship between learning characteristics and learning outcomes ($r = 0.033$; $p = 0.860$). These findings indicate that academic success is not solely determined by learning characteristics but is also influenced by other factors such as learning strategies and discipline. This necessitates teachers not only adapting to students' learning styles but also paying attention to internal aspects such as motivation, time management, and learning responsibility.

Keywords: *Generation Z, characteristics of learners, German Language Learning.*

1. INTRODUCTION

*Corresponding author: iwa.sobara.fs@um.ac.id

The changing times marked by technological advances have shaped the mindset and lifestyle of today's younger generation. Generation Z, individuals born between 1997 and 2012, are known as *digital natives* because they grew up in an environment that is very familiar with *digital* technology (Francis & Hoefel, 2018). This generation is accustomed to obtaining information instantly and quickly, which has a direct impact on how they learn and process information. They show a tendency to learn flexibly, visually, and practically, and prefer the use of interactive media over conventional learning methods (Faristin & Suciptaningsih, 2020; Urba et al., 2024). In the context of education, the characteristics of Generation Z demand changes in learning strategies at various levels, including at the high school level. They are more interested in active learning approaches that involve technology such as videos, learning applications, and educational social media (Akbar et al., 2022; Hayati, 2024). Their tendency to *multitask* and learn independently makes them more adaptable to online and *mobile-based learning* (Nugroho et al., 2025). However, on the other hand, these characteristics can cause distraction and decreased focus if not accompanied by proper guidance (Silitonga & Tampomuri, 2024).

Learning foreign languages such as German in high school faces complex challenges, especially when students are from Generation Z. German has a syntactic and grammatical structure that is very different from Indonesian, requiring contextual and visual delivery strategies to make learning more interesting and easier for students to understand (Helaluddin et al., 2019). The Merdeka Curriculum, which is currently being implemented in Indonesia, provides flexible space for teachers to adapt teaching materials to the needs and characteristics of students, including utilizing *digital* media as an effective learning tool (Suryaman, 2020; Susilawati et al., 2023)

Previous studies have shown that the use of technology-based media has proven effective in increasing the engagement of Generation Z students in foreign language learning. (Yulianingsih & Pujosusanto, 2023) found that the Lingbe application can improve German speaking skills through direct interaction with foreign speakers. Meanwhile, (Kristanti, 2019) and (Nuraeni, 2019) showed that the media *"Deutsch ist* interessant" and "DOLAR" significantly helped students in their listening skills. (Nawawi, 2020) research even confirmed that students' learning motivation increased when the learning media matched their visual and *digital* characteristics.

However, many teachers still face a gap between the teaching methods used and the learning styles of Generation Z students, which ultimately affects student engagement and learning outcomes. Learning strategies that are still one-way and do not utilize the potential of *digital* media are often considered boring by students (Doimer, 2022; Supriadi et al., 2025). In addition, most students tend not to review the material independently and are too dependent on instant translation applications (Oktaviani et al., 2022; Handayani, 2024). This shows that a deep understanding of the learning characteristics of Generation Z is necessary for teachers to design learning that suits the needs of today's students.

This study aims to identify the learning characteristics of Generation Z in German language learning in high school and analyze the extent to which these characteristics imply learning outcomes. This research is important as a basis for developing teaching strategies that are not only relevant to the needs of the current generation but also capable of guiding them towards a

reflective, independent, and sustainable learning process. In addition, by understanding the learning preferences and habits of Generation Z students, teachers can take on a more strategic role in creating an inclusive and meaningful learning environment.

2. METHODOLOGY

This study used a Pearson correlational quantitative approach with the aim of determining whether there was a relationship between Generation Z learning characteristics and German learning outcomes on an interval or ratio scale and whether the relationship was linear (Sugiyono, 2016). The location of the study was SMA Negeri 5 Malang, with 31 students in class XI-A who took German as a subject as the research subjects. Data were collected through three instruments, namely questionnaires, grade documentation, and classroom observation.

The questionnaire consists of 20 statements based on Generation Z learning characteristics indicators, such as technology preferences, learning methods, independence, and learning motivation. The questionnaire uses a four-point Likert scale: Strongly Disagree (1) to Strongly Agree (4). Midterm exam scores for German language subjects are used as indicators of learning outcomes. This data was obtained from teacher documentation and became the dependent variable in the correlation test. To support the quantitative data, the researcher also conducted direct observations in the classroom. The observation sheet covered student behavior during learning, such as involvement in discussions, use of media, and use of technology while learning. This data was not included in the statistical test but was used to enrich the analysis and interpretation of the findings.

Before conducting a correlation analysis, there are two main requirements that must be met, namely that the data must be normally distributed and the relationship between variables must be linear. Therefore, in this study, normality and linearity tests were conducted as part of the prerequisite tests for correlational analysis. In this study, the normality test used the Kolmogorov-Smirnov and Shapiro-Wilk methods. However, because the number of respondents was less than 50, the Shapiro-Wilk results were used as the main reference. The (p) value used as the determinant was (0.05), so that if the (p) value was > 0.05, the data was considered to be normally distributed. Conversely, when the (p) value was < 0.05, the data was not normally distributed.

Next, a linearity test was conducted to determine whether there was a linear relationship between the independent and dependent variables. This test was performed using the ANOVA (Analysis of Variance) table, specifically by looking at *the Linearity* and *Deviation from Linearity* sections. The threshold value used was (0.05). If the significance value in *the Linearity* section was less than (0.05), the relationship between the variables was considered linear. However, if the value exceeded (0.05), the relationship between the variables was not linear.

After the data meets the analysis requirements, the relationship between variables is analyzed using *Pearson Product Moment* correlation. Next, a significance test is performed to ensure that the relationship found is statistically significant. If the test result is significant ($p < 0.05$), it means that there is a meaningful relationship between the two variables. The result of the Pearson correlation test is shown by a correlation (r) ranging from -1 to +1. A positive (r) value indicates

a direct relationship, meaning that the closer the number is to 1, the more correlated the two variables are. Meanwhile, if the r value is close to 0, it means that the relationship between the two variables is very weak. In addition to the (r) value, Pearson's correlation analysis also includes a (p) value, which serves as a way to see whether the relationship is coincidental or statistically reliable. If the (p) value is >0.05, then the relationship between the variables is considered significant. The correlation test results can provide information about the direction and strength of the relationship between the research data being tested.

Data analysis is performed using the *Pearson Product Moment* correlation technique, which is used to measure the degree of linear relationship between two variables. The formula used is as follows:

$$\frac{n\,r\; =\; n\sum XY\; -\; (\sum X)(\sum Y)\}}{\sqrt{n\sum X^2 - \left(\sum\quad X\right)^2][n\sum Y^2 - \left(\sum\quad Y\right)^2]}$$

Explanation:

- **r** = correlation coefficient
- **n** = number of respondents
- **X** = learning characteristic score
- **Y** = learning outcome score
- **∑XY** = sum of the products of X and Y
- **∑X**, **∑Y** = total sum of each variable's scores

The **r** value obtained is then interpreted using Pearson's correlation criteria:

Table 1. Comparison of X and Y

0.00–0.199	very weak
0.20–0.399	Weak
0.40–0.599	Moderate
0.60–0.799	Strong
0.80–1.00	Very Strong

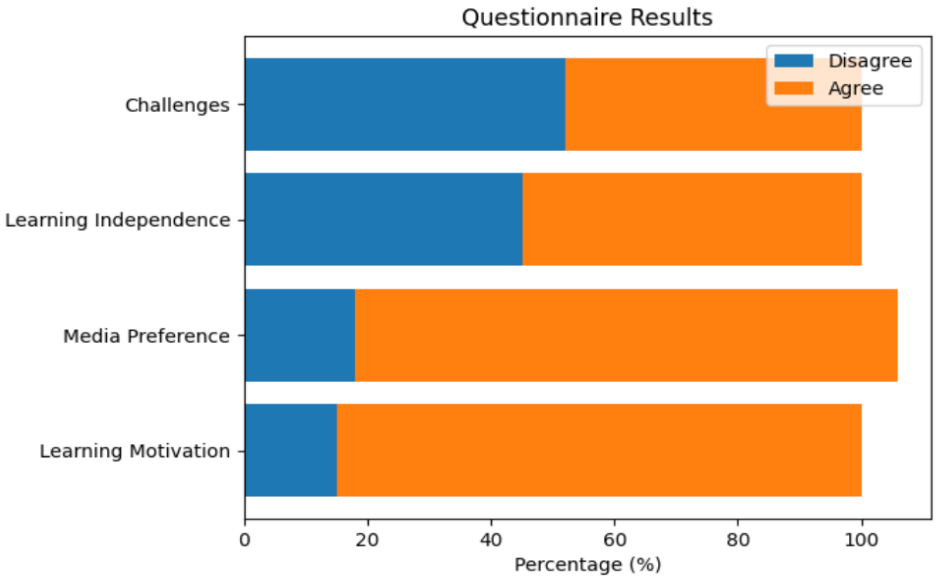
Source: Sugiyono. Metode Penelitian Kuantitatif, Kualitatif, dan R&D. (2016)

After the correlation analysis process is carried out, the results will be used to interpret the extent to which Generation Z's learning characteristics contribute to the achievement of German language learning outcomes.

3. RESULTS AND DISCUSSION

Questionnaire Results

Based on the questionnaire results, the majority of students showed a preference for visual and interactive learning. As many as 83% of students stated that they feel motivated to learn German when the learning media used is interesting and contextual. More than 85% of students use the internet or applications to support the learning process, both inside and outside the classroom. In addition, the majority of students are more comfortable learning through group discussions or direct practice than learning independently.



.

Figure 1. Survey Results

However, challenges were found in terms of discipline and concentration in learning. Around 56% of students admitted that they were easily distracted by social media during lessons. More than half of the students also admitted that they relied on translation applications without understanding the meaning, and only a small number of students were accustomed to reviewing the material independently outside of class hours. In addition, nearly half of the students stated that they were more focused on pursuing exam scores than on understanding the material in depth. This statement shows that even though students are technologically active, their independence and in-depth understanding of the material are not yet optimal.

Grade Documentation

From the documentation of the midterm exam scores for German, it was found that the average score for students in class XI-A was 80.06, with the highest score being 96.5 and the lowest being 41.17. Most students exceeded the minimum passing score, indicating that their understanding of the material was generally good. However, the wide range of scores indicates that there are disparities in understanding among students. Some students still have difficulty absorbing the teaching material even though the learning process uses interactive media.

Normality Test Results

Before conducting further analysis, the researcher first performed a normality test to check whether the data obtained had a normal distribution pattern. The normality test was conducted on two variables, namely student learning characteristics and midterm test scores. The normality test was conducted using two methods, namely Kolmogorov-Smirnov and Shapiro-Wilk. However, because the number of respondents was less than 50, the results of the Shapiro-Wilk test were used as the main basis for decision making. Based on the test results, a significant value of (0.001) was obtained for the midterm exam data and (0.000) for the questionnaire data. Both values are below (0.05), so it can be concluded that the two data sets are not normally distributed.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
UTS	.160	31	.041	.869	31	.001
ANGKET	.214	31	.001	.671	31	.000

a. Lilliefors Significance Correction

Figure 2. Normality Table

Linearity Test Results

After conducting the normality test, the next step is to conduct a linearity test to determine whether there is a relationship between the independent variable (student learning characteristics) and the dependent variable (midterm test scores). Based on the results of the ANOVA analysis in the linearity test, a significant value of (0.845) was obtained in the *Linearity* section. This value exceeds the significance limit (0.05), indicating no significant relationship. Additionally, the significance value in the *Deviation from Linearity* section is 0.185, which is also greater than 0.05. This indicates that the relationship formed is not strong enough to be considered linear.

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
UTS * ANGKET	Between Groups	(Combined)	3436.752	13	264.366	1.472	.224
		Linearity	7.054	1	7.054	.039	.845
		Deviation from Linearity	3429.698	12	285.808	1.592	.185
	Within Groups		3052.132	17	179.537		
	Total		6488.884	30			

Figure 3. ANOVA Table

Measures of Association

	R	R Squared	Eta	Eta Squared
UTS * ANGKET	.033	.001	.728	.530

Figure 4. Measures of Association Table

Correlation Test Results

Based on the correlation *output* results, a *Pearson* correlation coefficient value of 0.033 was obtained. This value is close to zero, indicating that there is almost no relationship between the two variables. In addition, the significance value (Sig. 2-tailed) is (0.860), which is far above the significance threshold (0.05). These results indicate that there is insufficient evidence to show a linear pattern between the two variables.

Correlations

		UTS	ANGKET
UTS	Pearson Correlation	1	.033
	Sig. (2-tailed)		.860
	N	31	31
ANGKET	Pearson Correlation	.033	1
	Sig. (2-tailed)	.860	
	N	31	31

Figure 5. Pearson Correlation Table

Observation Sheet Results

Classroom observation results show that Generation Z students' engagement is highly dependent on the learning approach used by teachers. When teachers utilize interactive visual media such as *Kahoot* and *Padlet*, students appear to be more focused, actively answer questions, and engage in discussions. The classroom atmosphere becomes dynamic because

students are interested in the varied displays and challenges given directly. This finding reinforces (Hayati, 2024) statement that Generation Z students are more responsive to active learning that involves *digital* technology and contextual visualization of material. In foreign language learning, such as German, this engagement is important for forming a deeper understanding of structure and vocabulary through direct practice.

Conversely, when teachers return to less varied teaching methods, such as only using textbooks or explaining without visuals, some students begin to show signs of losing focus. Some of them even open social media or use personal devices for activities unrelated to the lesson material. This finding is supported by (Silitonga & Tampomuri, 2024), who state that although Generation Z is accustomed to technology, they are also very easily distracted if not given the right stimulation during the learning process. The tendency *to multitask*, which is characteristic of this generation, can be an obstacle if not managed with learning strategies that encourage focus and full engagement. These observations indicate that the use of technology in learning is not only a matter of media availability, but also concerns how the media is used to build students' emotional and cognitive connections to the material. (Right & Farida, 2022) emphasize that the success of Generation Z's learning does not only depend on the teacher's mastery of technology, but also on the teacher's ability to understand how students think and learn. In this context, teachers need to be facilitators who not only deliver material but also guide students to be able to manage their learning focus, use technology productively, and develop self-regulation. Thus, the adaptive learning characteristics of Generation Z can be directed to become a strength in more effective and sustainable German language learning. Based on the results of questionnaires, documentation of scores, statistical tests, and observations, it can be concluded that Generation Z's learning characteristics tend to be active, visual, and technology-based. However, these characteristics are not significantly correlated with German language learning outcomes. Therefore, a learning approach is needed that is not only technically interactive but also builds students' focus, independence, and self-regulation.

Based on the results of data analysis obtained from this study, it is known that there is no significant relationship between the learning characteristics of Generation Z students and German language learning outcomes in class XI-A of SMA Negeri 5 Malang. The Shapiro-Wilk normality test showed that the data for both variables, namely the questionnaire results and midterm test scores, were not normally distributed. In addition, the linearity test results gave a significance value of 0.224, indicating that there was no significant linear relationship between the two variables. The Pearson correlation test reinforced this finding with a very weak correlation coefficient ($r = 0.033$) and a significance of 0.860. Thus, statistically, it cannot be proven that there is a significant influence between learning characteristics measured through questionnaires and students' academic achievement.

However, the quantitative approach cannot fully capture the complexity of Generation Z students' learning characteristics, which are highly contextual and diverse. The questionnaire results show that most students have a high level of interest and motivation in learning German. A total of 83% of students agreed or strongly agreed that learning a foreign language is important for their future, and 80% felt that the teacher's teaching methods were interesting

enough to motivate them to learn. Students' preference for the use of *digital* and visual media is also very strong, with more than 85% of students admitting that they are more interested in learning using videos, applications, or presentations than just textbooks. Most students prefer practical and group discussion-based learning, indicating that their learning style is more active, collaborative, and experience-oriented.

However, students' tendency toward independent learning still needs to be critically understood. About 80% of students use the internet and personal devices to access German language materials outside of class, but more than 50% also admit to frequently copying answers from translation apps without understanding their meaning. This shows that even though Gen Z has high technological skills, they still lack reflective learning awareness. In this context, the findings of (Desmala Eliza et al., 2024) provide an important explanation that *self-efficacy* and learning habits can indeed affect learning outcomes, but only if accompanied by mature learning strategy management and understanding of the material. The independent characteristics seen in Generation Z students are more accurately described as technically independent, not conceptually.

The survey results also reveal major challenges in terms of focus and discipline in learning. Around 40–50% of students stated that they are often distracted by notifications or social media during learning. In classroom observations, this is reflected in the behavior of some students who appear to lose focus when the material is presented without visual elements or direct activities. This phenomenon is in line with the research by (Hanawi et al., 2022), which states that although Gen Z is highly adaptive to *digital-based* learning, they also tend to experience focus disturbances if they do not receive consistent visual stimulation or interactive engagement. Teachers, in this case, play an important role in directing the productive use of technology rather than merely consumptive use.

Furthermore, students' learning patterns show a contradiction between their enthusiasm for independence and their low level of learning depth. About 60% of students admitted to doing their assignments without supervision, but at the same time tended to want to finish them quickly even if the results were less than optimal. Only a small percentage of students showed a habit of reviewing the material after class, and nearly half of them prioritized test scores over understanding. This shows that their learning patterns are still pragmatic and oriented towards short-term results, rather than long-term understanding. On the other hand, observations show that when learning is presented with interesting *digital* media, such as *Kahoot* or *Padlet,* students appear to be more engaged, actively ask questions, and are able to discuss the material contextually. This shows that their engagement can be very high, as long as the learning process is tailored to the characteristics of their generation.

(Tschaudi, 2021) notes that Generation Z tends to be more engaged when learning is packaged in an interesting, dynamic, and experience-based manner. Their learning style is closer to entertainment and digital interaction, where the material must be visual, mobile, and trigger emotions and curiosity. This is in line with the findings of the questionnaire and observation, where students appear to be more focused when the material is delivered using

interactive media and lose concentration when learning tends to be passive. This is also relevant to the findings of Roemer and Hagemus-Becker (2018), who found that the use of the *Inverted Classroom* Model (ICM) opens up space for more in-depth and participatory learning activities because face-to-face sessions are used for exploration, not just for delivering material. This model suits the character of Generation Z, who like flexibility and want to feel involved in the learning process. However, the effectiveness of this approach still depends on the readiness of students to manage independent learning responsibly. This is a challenge in this study, because many students tend to use technology superficially, for example, only to copy answers.

Therefore, although the quantitative results in this study do not significantly support the hypothesis, findings from questionnaires and observations indicate that strengthening Generation Z's learning character in German language learning requires more than just adding technological elements or visual media. This is in line with (Tschaudi, 2021) view, which emphasizes that Generation Z needs visual, digital, and emotional learning to stimulate interest and concentration. Furthermore, in a study published in the book Vielfältiges Lernen edited by (Buchner et al., 2018), Roemer and Hagemus-Becker (2018) show that approaches such as *the Inverted Classroom* can increase motivation and learning participation. This effectiveness is achieved when learning materials are studied independently before class, and face-to-face time is used for collaborative activities. However, as (Desmala Eliza et al., 2024) remind us, the effectiveness of learning is not only determined by learning styles, but also by structured learning strategies and reflective awareness. Additionally, (Hanawi et al., 2022) highlight that Generation Z is easily distracted if they do not receive consistent visual stimulation and direct interaction. Therefore, it is important for teachers to design learning that is not only technically engaging but also conceptually deep and builds more sustainable learning patterns.

4. CONCLUSION

Based on the results of research conducted at SMA Negeri 5 Malang, it can be concluded that the learning characteristics of Generation Z students show a strong tendency towards the use of digital media, visual learning, and practical and collaborative methods. Students appear enthusiastic when the material is presented contextually and interactively, and they utilize technological devices to support their learning. However, statistical analysis shows that there is no significant relationship between learning characteristics and German language learning outcomes. This shows that although learning characteristics can affect student engagement in class, it is not necessarily directly proportional to academic achievement, as there are many other factors that play a role, such as discipline, time management, and individual learning strategies. These results also indicate that Generation Z has great potential in modern learning, but still needs direction and guidance to develop reflective and responsible learning patterns.

Based on these findings, it is recommended that German teachers not only integrate technology into learning, but also develop a balanced approach between easy access to

information and conceptual deepening of material. Teachers need to continue to develop project-based learning strategies, discussions, and evaluations that challenge students to think critically and independently. Students also need to be given an understanding of the importance of reviewing material, managing digital distractions, and forming a learning awareness that is not only value-oriented. In addition, schools can provide support through teacher training and the provision of digital-based learning facilities that are relevant to the characteristics of the current generation. Further research using qualitative or *mixed-method* approaches is also needed to explore in greater depth the relationship between learning characteristics and academic outcomes, so that learning strategies can be designed in a more contextual and comprehensive manner.

REFERENCES

Akbar, M. S. F., Fauzi, R., Tsamanyah, Z. A., & Marini, A. (2022). Pengaruh Penggunaan Gadget Dalam Kegiatan Belajar Dan Mengajar Terhadap Pembentukan Karakter Anak Generasi Z. *Jurnal Pendidikan Dasar Dan Sosial Humaniora*, *2*(2), Article 2. https://doi.org/10.53625/jpdsh.v2i2.4418

Buchner, J., Freisleben-Teutscher, C. F., Haag, J., Rauscher, E., Fachhochschule St. Pölten, & Pädagogische Hochschule Niederösterreich (Eds.). (2018). *Inverted classroom vielfältiges Lernen: Begleitband zur 7. Konferenz Inverted Classroom and Beyond 2018, FH St. Pölten, 20. & 21. Februar 2018*. Konferenz Inverted Classroom and Beyond.

Desmala Eliza, Nurul Azizah, Sa'idy, Umi Hijriyah, & Agus Susanti. (2024). Hasil Belajar: Korelasi Kuantitatif antara Self Efficacy dan Kebiasaan Belajar. *Jurnal Intelektualita: Keislaman, Sosial dan Sains*, *13*(2). https://doi.org/10.19109/intelektualita.v13i2.25548

Doimer, N. (2022). *Motivating Generation Z: A Study of the unique learning styles of a generation*. *Culminating Projects in English. 13.* https://repository.stcloudstate.edu/eng_etds/13

Faristin, A. E., & Suciptaningsih, O. A. (2020). Perkembangan Karakter Generasi Z Terhadap Pendidikan. *Jurnal Pendidikan Berkarakter*, *Vol. 10 Nomor 10.*

Francis, T., & Hoefel, F. (2018). 'True Gen': Generation Z and its implications for companies. *McKinsey & Company*, *12(2), 1–10*.

Hanawi, S. A., Saat, N. Z. M., Hanafiah, H., Taufik, M. F. A. M., Nor, A. C. M., Hendra, A. K., Zamzuri, N., Nek, S., Ramli, P. A. M., Woon, S., Basir, M. H. H., Sabirin, F. H., Fadzil, N. S., & Azlan, T. N. A. I. (2022). Relationship between Learning Style and Academic Performance among the Generation Z Students in Kuala Lumpur. *International Journal Of Pharmaceutical Research And Allied Sciences*, *11*(3), 40–48. https://doi.org/10.51847/bznxqWIsQL

Handayani, F. (2024). The Role Of Technology In Enhancing English Language Learning: A Study Of Digital Tools And Their Impact On Student Engagement. *Berajah Journal*, *4*(6), Article 6. https://doi.org/10.47353/bj.v4i6.430

Hayati, E. N. (2024). Karakteristik Belajar Generasi Z Dan Implikasinya Terhadap Desain Pembelajaran Ips. *Jurnal Pembelajaran, Bimbingan, dan Pengelolaan Pendidikan*, *4*(8), 8. https://doi.org/10.17977/um065.v4.i8.2024.8

Helaluddin, H., Tulak, H., & Rante, S. V. N. (2019). Strategi Pembelajaran Bahasa bagi Generasi Z: Sebuah Tinjauan Sistematis. *Jurnal Pendidikan Edutama*, *6*(2), 31. https://doi.org/10.30734/jpe.v6i2.499

Kristanti, L. N. (2019). *Pengembangan Media Deutsch Ist Interessant Untuk Pembelajaran Keterampilan Menyimak Bahasa Jerman Sma*.

Nawawi, M. I. (2020). Pengaruh Media Pembelajaran terhadap Motivasi Belajar: Tinjauan berdasarkan Karakter Generasi Z. *Jurnal Penelitian dan Pengkajian Ilmu Pendidikan: e-Saintika*, *4*(2), 197. https://doi.org/10.36312/e-saintika.v4i2.216

Nugroho, R. P., Lobo, E., Nggadung, W., & Kurniawan, C. (2025). Pengaruh Efikasi Diri, Optimisme, dan Kompetensi Penggunaan AI pada Kemampuan Pembelajaran Mandiri Siswa Generasi Z. *Petik: Jurnal Pendidikan Teknologi Informasi Dan Komunikasi*, *11*(1), Article 1. https://doi.org/10.31980/petik.v11i1.2170

Nuraeni, N. (2019). *Pengembangan Materi Media Dolar Untuk Pembelajaran Keterampilan Menyimak Bahasa Jerman Sma*.

Oktaviani, N. K., Dewi, N. K. L., Dian, N. P., Agustina, P. A. A., & Si, M. (2022). Meningkatkan Pendidikan Karakter Bagi Generasi Z Pada Era Society 5.0. *Prosiding Pekan Ilmiah Pelajar (PILAR)*, *2, 202-213.*

Right, A., & Farida. (2022). *Millennial Teachers for Gen Z*. NOKTAH.

Silitonga, N., & Tampomuri, H. R. (2024). *Generasi Z dan Tantangan Etika Digital Dalam Pembelajaran Modern*. *6*(1).

Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif Dan R&D*. Alfabeta, Bandung.

Supriadi, D., Taufiqurrahman, & Samsuddin. (2025). Inovasi Pembelajaran Pai Di Era Digital: Strategi Menumbuhkan Minat Belajar Gen-Z. *Tadbiruna*, *4*(2), Article 2. https://doi.org/10.51192/jurnalmanajemenpendidikanislam.v4i2.1506

Suryaman, M. (2020). Orientasi Pengembangan Kurikulum Merdeka Belajar. *Seminar Nasional Pendidikan Bahasa Dan Sastra*, 13–28.

Susilawati, S., Octasari, A., & Juanda, J. (2023). Analisis Struktur Kurikulum K13 dan Struktur Kurikulum Merdeka Fase E untuk Kelas X dan Fase F untuk Kelas XII. *Jurnal Literasi Dan Pembelajaran Indonesia*, *3*(1), 24–32.

Tschaudi, K. (2021). Das gemischte Klassenzimmer: Unterrichten im generationsgemischten Klassenzimmer / The mixed classroom: Teaching in the mixed-generation classroom (Masterarbeit, Karl-Franzens-Universität Graz). *Karl-Franzens-Universität Graz und UNI for LIFE.*

Urba, M., Ramadhani, A., Afriani, A. P., & Suryanda, A. (2024). Generasi Z: Apa Gaya Belajar yang Ideal di Era Serba Digital? *DIAJAR: Jurnal Pendidikan Dan Pembelajaran*, *3*(1), Article 1. https://doi.org/10.54259/diajar.v3i1.2265

Yulianingsih, R. D., & Pujosusanto, A. (2023). *Keefektifan Media Aplikasi Mobile Phone "Lingbe" Untuk Meningkatkan Keterampilan Berbicara Bahasa Jerman Kelas Xi Di Sman 2 Sidoarjo*. *12*.