International Journal of Education, Vocational and Social Science
https://e-journal.citakonsultindo.or.id/index.php/IJEVSS
E-ISSN : 2963 4954
IJEVSS

Designing TESTER Cards: An Innovative Medium For Developing Self-Disclosure Skills In Vocational High School Students

Awalya Siska Pratiwi
Guidance and Counseling, Universitas Negeri Malang
Khairul Bariyyah
Guidance and Counseling, Universitas Negeri Malang
Yuliati Hotifah
Guidance and Counseling, Universitas Negeri Malang
Retno Widiyawati
Guidance and Counseling, Universitas Negeri Malang

Corresponding Author: *Awalya.siska.fip@um.ac.id*

Abstract

Self-disclosure skills are very important for adolescents to have in order to establish interpersonal relationships. If these skills are not improved, it will have an impact on the individual's interpersonal life. This study aims to develop and test the effectiveness of Tester Cards as an innovative medium in group counseling services to improve self-disclosure among vocational high school students. This study is a type of research and development study using the Borg & Gall (1983) development model, which has been adapted to the researchers' needs. The development stage in this study reached the fifth stage, which is product revision based on validation by experts and prospective product users. The research subjects consisted Borg & Gall (1983)of two subject matter and media experts, prospective product users, namely two guidance and counseling teachers, and 10 vocational high school students. The research instruments included instruments for assessing product acceptance by experts and prospective product users. Data analysis used the Inter-rater Agreement Model. The results showed that the product was highly feasible, with the guidance and counseling subject matter experts, media experts, and prospective users each giving it a score of 1, meaning that the product was highly feasible. The effectiveness test results showed that the Tester cards had an influence on increasing students' self-disclosure. The Tester card media was deemed feasible and effective for use as a supporting medium for group guidance services, particularly in helping to develop the self-disclosure skills of vocational high school students.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

International Journal of Education, Vocational and Social Science
https://e-journal.citakonsulindo.or.id/index.php/IJEVSS
E-ISSN : 2963 4954
IJEVSS

Keywords: Self-disclosure; Group Guidance; Guidance and Counseling Media; TESTER Card

INTRODUCTION

Adolescence is a developmental period characterized by complex biological, cognitive, social, and emotional changes. During this phase, adolescents face the developmental tasks of establishing self-identity (Branje et al., 2021), developing healthy interpersonal relationships (Coyne-Beasley et al., 2024), improving their emotional management skills (Vucenovic et al., 2023) and resolving various problems they encounter (Fathalikhani et al., 2024). One psychosocial competency that plays a crucial role in supporting the success of these developmental tasks is self-disclosure, the ability of individuals to voluntarily reveal thoughts, feelings, experiences, and personal information to others in situations deemed safe (Rime, 2016). This ability forms the foundation for positive interpersonal relationships, increased psychological well-being, the development of interpersonal trust, and the effectiveness of the support process in guidance and counseling services (Nowell et al., 2023; Smithson, 2025).

In the context of education, self-disclosure plays a strategic role because student openness allows teachers and counselors to understand their psychological, academic, and social conditions more deeply (L. Li et al., 2022; Qin, 2022). Students who are able to express their feelings and problems tend to obtain social support more easily, develop adaptive coping strategies, and demonstrate better adjustment in the school environment, and vice versa. This situation becomes increasingly complex in the digital era when adolescents are faced with the paradox between the need to express themselves and the tendency to build an ideal self-image through social media. Other research shows that self-disclosure in adolescents today is influenced by various psychosocial factors, such as perceived safety, the need for social acceptance, privacy, and self-presentation mechanisms in digital spaces (Schlosser, 2020; Sultan, 2021).

These challenges are becoming increasingly relevant for Vocational High School (SMK) students. Unlike students in general education, vocational high school students are in a learning environment oriented toward mastery of vocational competencies, industrial practice, and preparation for entering the workforce (Billett, 2022). This situation creates unique social interaction characteristics, where students are required to demonstrate professionalism, independence, and self-confidence. In some areas of expertise, particularly those dominated by a masculine culture, emotional expression and self-disclosure are often perceived as weaknesses, leading students to tend to hide their feelings and problems (Gados, 2023). This situation has the potential to hinder the problem-identification process by guidance and counseling teachers and

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

reduce the effectiveness of support services provided to students.

Guidance and counseling services play a strategic role in facilitating the development of students' self-disclosure skills. One factor determining the success of these services is the use of media that creates a safe, engaging, and interactive atmosphere that encourages active student participation (Simon et al., 2025). Furthermore, various studies have shown that physical, card-based media still have distinct advantages in group guidance services. Illustrated cards can increase student participation, facilitate discussion of abstract topics, and encourage more active communication during the service process (Purnama, 2021). Compared to digital media, cards offer several advantages, including simplicity, independence from the internet, ease of implementation in group services, reduced distractions from device use, and the possibility of more intense face-to-face interaction between counselors and students.

However, research specifically developing media to enhance self-disclosure remains very limited. Furthermore, the card media that has been developed is primarily aimed at psychoeducational services or learning at the elementary level and has not been designed based on psychological mechanisms that directly facilitate student self-disclosure. These studies also fail to consider the unique characteristics of vocational high school students, whose developmental dynamics differ from those of regular school students, particularly regarding vocational identity, industrial practice experience, readiness to enter the workforce, and the culture of interaction that develops within each specialty program (J. Li & Pilz, 2023; McGrath & Yamada, 2023)

Based on these conditions, there are several research gaps that need attention. There is no card-based guidance and counseling media that is explicitly designed to improve self-disclosure skills as a target for change, and there are not many media specifically designed to suit the developmental characteristics of vocational high school adolescents. Departing from these gaps, this study developed the Tester Card (Tell–Listen–Resolve) as an innovative card-based media designed using User-Centered Design principles to facilitate the development of self-disclosure skills in vocational high school students. The Tester Card places self-disclosure as the main mechanism of change and thematic categories that are appropriate to the lives of vocational high school adolescents. The card is expected to be able to create a comfortable and structured communication environment so that students are more ready to express their thoughts, feelings, and personal experiences during group guidance services.

This research provides a theoretical contribution in the form of developing a self-disclosure-based guidance and counseling media concept with the developmental characteristics of vocational adolescents. From a practical perspective, this research produces innovative media

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

that is easy to use by guidance and counseling teachers in facilitating students' self-disclosure systematically in group guidance services. Thus, this research is expected to not only enrich the innovation of guidance and counseling media in schools, but also provide more effective intervention alternatives to support the social-emotional development of vocational high school students. Based on the description, the objectives of this research are: (1) to develop and validate the Tester Card as an innovative media based on User-Centered Design to develop self-disclosure skills in vocational high school adolescents; (2) to evaluate the feasibility, acceptability, and usability of the Tester Card in implementing group guidance services in vocational high schools; and (3) to test the effectiveness of the use of the Tester Card in improving the self-disclosure skills of vocational high school adolescents.

METHODS

Research Design

This research is a research and development (R&D). It uses a procedural research and development design, meaning that everything follows a procedure, not a process that occurs without it. The development model (Borg & Gall, 1983) comprises ten steps: research and data collection, planning, development of an initial product draft, expert testing, product revision, field testing, revision of the main product, operational field testing, revision of the final product, dissemination, and implementation. The steps in this research and development are tailored to the researcher's needs.

The procedures used in this product up to the fifth stage, namely (1) research and information collection, researchers will review literature studies related to students' self-disclosure abilities to prevent toxic relationships as well as needs analysis with both students and counselors which aims to collect data related to preventing toxic relationships (2) planning, determining product development objectives, designing product designs along with product materials (3) developing a preliminary form of product, developing a product in the form of a card. (4) preliminary field testing, conducting product acceptance tests from material expert tests, media experts and prospective counselor users (5) main product revision & final product, at this stage revisions are made based on expert validation and prospective counselor users.

Research Subjects

The research subjects were expert test subjects for research and development products, consisting of expert subjects and potential product users. The subject matter and media experts

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

were experts in the field of guidance and counseling with a minimum educational qualification of a Master's degree in Guidance and Counseling and more than 5 years of experience. The potential product users were two guidance and counseling teachers and ten students.

Data Analysis Instruments and Techniques

The research instruments used in the research and development were derived from product acceptability assessments conducted by experts and potential users. Data analysis used to process the research results used the Inter-rater Agreement Model (IAR) test (Gregory, 2011). The IAR model is illustrated in the figure below.

	Low Relevance (*item rated* 1-2)	High Relevance (*item rated* 3-4)
Low Relevance (*item rated* 1-2)	A	B
High Relevance (*item rated* 3-4)	C	D

Figure 1. Inter-rater-agreement

RESULT AND DISCUSSION

RESULT

The initial stage of the research aimed to evaluate the feasibility of the Tester Card through a validation process by experts. Validation was conducted on three aspects: material validation, media validation, and validation of potential users. The assessment was conducted using a validation sheet, which was then analyzed using a validity index, with interpretation categories consisting of 12 categories. The following is presented in Table 1, which summarizes the scoring criteria for the expert test results.

Table 1. Expert Test Score Criteria

No.	Score Range	Criteria
1.	0,00 - 0,25	Low

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

2.	0,26 - 0,50	Medium
3.	0,51 - 0,75	High
4.	0,76 - 1,00	Very High

Material Expert Testing

The material testing was conducted by experts specializing in guidance and counseling with a minimum educational qualification of a Master's degree. The total number of statement items for the material expert testing was 24. The material validation results yielded the following score:

$$\frac{D}{A+B+C+D} = \frac{24}{24} = 1$$

Based on the scores obtained above, the tester card's material testing score was 1, indicating a very high score.

Media Expert Test

The media tester card test is carried out by experts who are experts in guidance and counseling with 16 statement items. The media validation results obtained the following scores:

$$\frac{D}{A+B+C+D} = \frac{16}{16} = 1$$

Based on the scores above, the media test card tester received a score of 1, which means it is in the very high category.

Expert Testing of Prospective Users

The prospective user test was conducted by a Guidance and Counseling teacher with 19 items. The validation results from the prospective users yielded the following scores:

$$\frac{D}{A+B+C+D} = \frac{19}{19} = 1$$

Based on the scores obtained above, the prospective card tester user received a score of 1, which is considered very high.

After being declared eligible, the Tester Card was implemented in group guidance services using a simulation game technique involving 10 vocational high school students. The effectiveness of the media was evaluated by measuring self-disclosure skills before (pre-test) and after (post-

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

test) the service implementation using a 16-item self-disclosure scale.

Table 1. Self-Disclosure Scoring Criteria

Score	Category
48-64	High
32-47	Moderate
16-31	Low

The measurement results showed an increase in the average self-disclosure score after students participated in group guidance services using the Tester Card.

Table 3. Pre-test and Post-test Self-Disclosure Scores

Measurement	Mean Score	Category
Pre-test	45.2	High
Post-test	50.0	Moderate

As shown in Table 3, the average self-disclosure score increased from 45.2 in the pre-test to 50.0 in the post-test. This represents an increase of 4.8 points, or approximately 10.62%, indicating a change in the category from moderate to high. A statistical analysis using SPSS was then conducted to determine the effect of the tester card on improving students' self-disclosure. To determine the significance of the increase in self-disclosure ability, an analysis was conducted using the Wilcoxon Signed-Rank Test because the data came from paired measurements in a small sample size.

Table 4. Wilcoxon test results

1. Test Statistics[a]	
	posttest eksperimen - pretest eksperimen
Z	-2.032[b]
Asymp. Sig. (2-tailed)	.042
a. Wilcoxon Signed Ranks Test	
b. Based on positive ranks.	

Hypothesis:

H0: If Asym.sig > 0.05, then there is no effect.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

H1: If Asym.sig < 0.05, then there is an effect.

The analysis results show a Z value of -2.032 with p = 0.042, which is smaller than the 0.05 significance level. This finding indicates a significant difference between pre-test and post-test scores. In other words, the use of the Tester Card in group guidance services is followed by a significant increase in students' self-disclosure abilities. Overall, the results of the study indicate that the Tester Card not only meets the eligibility criteria based on expert assessment but is also effective for use in group guidance services to improve the self-disclosure abilities of vocational high school students. The increase in the average score, the significant Wilcoxon test results, and the high effect size provide empirical evidence that the developed media has the potential to be an innovative tool in guidance and counseling services in schools.

DISCUSSION

This study shows that the use of TESTER (Tell–Listen–Resolve) Cards in group guidance services can improve the self-disclosure skills of vocational high school students. This finding is indicated by an increase in the average self-disclosure score from the moderate to high category after students participated in the service, and is reinforced by the results of the Wilcoxon Signed-Rank Test which showed a significant difference between the pre-test and post-test scores ($p < 0.05$). In addition, the effect size value is in the large category indicating that the increase is not only statistically significant but also has practical significance in the implementation of guidance and counseling services in schools.

The success of the TESTER Card in enhancing self-disclosure is thought to be influenced by several interrelated mechanisms. First, the use of simulation game techniques creates a more enjoyable and less intimidating learning environment (Prasetya, 2025). A The game activity shifts students' attention from fear of speaking to active engagement in the group process (Parker & Welch, 2021). This situation encourages more spontaneous interpersonal communication compared to conventional discussions. When students engage in games, their focus is no longer on fear of being assessed, but on the process of sharing experiences with group members, allowing for optimal self-disclosure.

Interactions within groups create a sense of mutual trust, allowing students to feel safer expressing their thoughts and feelings (Pratiwi et al., 2024). This finding aligns with the finding that groups are therapeutic environments that allow individuals to gain direct interpersonal experiences through interactions between participants (Corey, 2017). D Therefore, the increase

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

in self-disclosure in this study was influenced not only by the media used but also by the quality of the group dynamics formed during the service process.

The results of this study support self-disclosure theory, which explains that self-disclosure is a prerequisite for the formation of healthy interpersonal relationships (Jourard & Friedman, 1970). When individuals are in a safe and supportive environment, they tend to be more willing to reveal personal experiences, thoughts, and feelings. This finding also strengthens the view that self-disclosure plays a vital role in building interpersonal trust, strengthening social relationships, and improving the quality of communication between individuals (Derlega et al., 1993). In the context of guidance and counseling services, the results of this study indicate that a safe environment is not only formed by the counselor's skills but can also be facilitated through media design that can create a structured and comfortable communication experience for students.

The findings of this study are also consistent with various previous studies on the effectiveness of simulation games and innovative media in guidance and counseling services. A related study, which found that games aimed at improving adolescent mental health are engaging and can have beneficial effects, closely related to self-disclosure behavior (De Jaegere et al., 2024). Similarly, other research has shown that games designed with character values in mind can increase students' self-disclosure through enjoyable and trusting interactions (Sansastra et al., 2024). Despite its similarities with previous studies, this study offers several novel contributions. While most previous research has focused on the effectiveness of game techniques as a service strategy, this study focuses on the development of systematically designed media using the Borg and Gall research and development model.

The research context of vocational high school students also adds value to this study. Unlike students at the general education level, vocational high school students face the demands of developing vocational competencies, industrial work experience, and preparing to enter the workforce. These conditions require interpersonal communication skills, collaboration, and openness in expressing ideas and challenges. Therefore, increasing self-disclosure not only contributes to the success of guidance and counseling services but also supports students' readiness to build professional relationships in the future workplace.

From a theoretical perspective, this study strengthens self-disclosure theory by demonstrating that self-disclosure is influenced not only by individual characteristics and the quality of interpersonal relationships, but also by the design of the media used in the service process. In other words, guidance media designed based on user needs can be a supporting factor that accelerates the emergence of open communication within the group (Sucipto et al., 2024).

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

These findings expand the study of guidance and counseling media development by positioning media design as a factor influencing changes in student behavior.

In practice, the TESTER Card provides an alternative medium for guidance and counseling teachers to use in various services, such as group guidance, orientation services, social skills development, and student character development activities. It is relatively easy to use, requires no technological devices, and can be applied to classes with diverse student populations. These characteristics make the TESTER Card a potential medium for supporting more interactive, participatory, and student-centered guidance and counseling services.

CONCLUSION

Based on the results of the research conducted, it can be concluded that the TESTER media has proven effective in developing self-disclosure skills of vocational high school adolescents. The media designed in this study was systematically arranged, indicating that the TESTER media is suitable for use by students and teachers in group guidance services. This is evidenced by the results of the guidance and counseling material expert test, the media expert test, and the prospective user test, with each score of 1 meaning very suitable. The use of this media can encourage students to be more open in communicating their thoughts, feelings, and personal experiences. Developing self-disclosure skills of vocational high school adolescents can be seen from changes in their behavior, which have become more confident and able to communicate more openly. Therefore, the TESTER media in this study is one of the effective strategies in guidance and counseling services in vocational high schools. For future researchers, it is hoped that they can conduct similar research with a broader scope, such as at different educational levels or diverse cultural contexts, to test the effectiveness of the media more comprehensively.

FUTURE DIRECTIONS

Further research is recommended to test the effectiveness of the TESTER Card by involving a larger number of participants from various schools so that the results can be more broadly generalized. Furthermore, an experimental design involving a control group is needed to obtain stronger empirical evidence regarding the media's effectiveness. Future research could also develop the TESTER Card with more diverse themes or integrate it with digital media for more flexible use in guidance and counseling services.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

REFERENCES

Billett, S. (2022). *Learning through work: augmenting vocational educational experiences to meet 21st-century work requirements*. Elsevier Science.

Borg, W. R., & Gall, M. D. (1983). *Education Research and Introduction, fourth edition*.

Branje, S., De Moor, E. L., Spitzer, J., & Becht, A. I. (2021). Dynamics of identity development in adolescence: A decade in review. *Journal of Research on Adolescence*, *31*(4), 908–927.

Corey, G. (2017). *Theory and Practice of Counseling and Psychotherapy (10th ed.)*. Cengage Learning.

Coyne-Beasley, T., Miller, E., & Svetaz, M. V. (2024). Racism, identity-based discrimination, and intersectionality in adolescence. *Academic Pediatrics*, *24*(7), S152–S160.

De Jaegere, E., van Heeringen, K., Emmery, P., Mommerency, G., & Portzky, G. (2024). Effects of a serious game for adolescent mental health on cognitive vulnerability: Pilot usability study. *JMIR Serious Games*, *12*, e47513.

Derlega, V. J., Metts, S., Petronio, S., & Margulis, S. T. (1993). *Self-disclosure.* Sage Publications, Inc.

Fathalikhani, M., Sharbafchi, M. R., & Hajializadeh, K. (2024). *Effectiveness of emotional regulation training on quality of life, self-efficacy, and problem-solving in adolescents*.

Gados, R. (2023). Exploring the Adherence to Masculine Norms and Emotional Expression of Male College Students. *Masculinities & Social Change*, 1–26.

Gregory, R. J. (2011). *Psychology Testing: History, Principle, And Applications (6th Ed)*. Boston: Allyn and Bacon.

Jourard, S. M., & Friedman, R. (1970). Experimenter-subject" distance" and self-disclosure. *Journal of Personality and Social Psychology*, *15*(3), 278.

Li, J., & Pilz, M. (2023). International transfer of vocational education and training: A literature review. *Journal of Vocational Education & Training*, *75*(2), 185–218.

Li, L., Chen, Y., & Liu, Z. (2022). Shyness and self-disclosure among college students: The mediating role of psychological security and its gender difference. *Current Psychology*, *41*(9), 6003–6013.

McGrath, S., & Yamada, S. (2023). Skills for development and vocational education and training: Current and emergent trends. *International Journal of Educational Development*, *102*, 102853.

Nowell, C., Pfeifer, J. H., Enticott, P., Silk, T., & Vijayakumar, N. (2023). Value of self-disclosure to parents and peers during adolescence. *Journal of Research on Adolescence*, *33*(1), 289–

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

301.

Parker, K. C., & Welch, T. D. (2021). Innovative teaching strategies to escape the anxiety in simulation. *Teaching and Learning in Nursing*, *16*(4), 414–417.

Prasetya, A. F. (2025). Filolosofi Ki Hadjar Dewantara: Bimbingan Kelompok Teknik Simulasi Permainan Yang Menyenangkan. *Jurnal Ilmu Bimbingan Dan Konseling*, *2*(3), 114–123.

Pratiwi, A. S., Fauzan, L., Hotifah, Y., & Brahim, J. (2024). *Psychodrama Guide to Addressing Self-Esteem in Vocational High School Students from an Islamic Perspective*. *5*(2), 116–133. https://doi.org/10.18326/pamomong.v5i2.1123

Purnama, D. S. (2021). Development of Pictorial Card "kencana"(Disaster Preparation) as a Media of Group Guidance Services in SMP N 1 Wonosari. *IOP Conference Series. Earth and Environmental Science*, *884*(1).

Qin, J. (2022). A theoretical review on the role of English as a foreign language teachers' self-disclosure in shaping classroom climate and immediacy. *Frontiers in Psychology*, *13*, 945046.

Rime, B. (2016). Self-disclosure. *Encyclopedia of Mental Health*, *4*, 66–74.

Sansastra, P., Ratnawati, V., & Khususiyah, K. (2024). Media Permainan Dam Quiz sebagai Sarana Melatih Keterbukaan Diri Siswa. *Prosiding Seminar Nasional Kesehatan, Sains Dan Pembelajaran*, *3*(1), 457–464.

Schlosser, A. E. (2020). Self-disclosure versus self-presentation on social media. *Current Opinion in Psychology*, *31*, 1–6. https://doi.org/10.1016/j.copsyc.2019.06.025

Simon, I. M., Indreswari, H., Probowati, D., Prihatiningsih, R., & Pratiwi, A. S. (2025). Guidance and Counselling Services through Online Content Development: an Innovative Approach in the Digital Era. *Bisma The Journal of Counseling*, *9*(1), 46–53.

Smithson, J. (2025). Self-Disclosure. *The Handbook of Communication Skills*, 273–310.

Sucipto, S. D., Tanjung, R. F., Minarsi, M., Dewi, M., & Sagita, D. N. (2024). Pengembangan Media Interaktif Berbasis Website untuk Pelayanan Bimbingan dan Konseling yang Terintegrasi. *Jurnal Ilmiah Bimbingan Konseling Undiksha*, *15*(3), 327–336.

Sultan, A. J. (2021). Fear of missing out and self-disclosure on social media: the paradox of tie strength and social media addiction among young users. *Young Consumers*, *22*(4), 555–577.

Vucenovic, D., Sipek, G., & Jelic, K. (2023). The role of emotional skills (competence) and coping strategies in adolescent depression. *European Journal of Investigation in Health, Psychology and Education*, *13*(3), 540–552.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License