Career Development of Generation Z through Technology and Media: Implementation in Vocational High Schools

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Abstract: This article examined the implementation of a workshop as a preparatory strategy for Generation Z students at SMK Negeri 3 Banjarmasin to face increasingly complex career challenges. The workshop aimed to deepen students’ comprehension of utilizing technology and media in career services. The research involved 33 tenth-grade students who were evaluated through pre-tests and post-tests regarding their understanding before and after the workshop on September 24-30, 2023. The pre-test results showed positive evaluations, with the majority of participants considering the workshop to have provided accurate career information (90.9%) and to be relevant to the latest developments in the job market (90.9%). After the workshop, there was a positive improvement in participant assessments. Understanding of technological developments increased to 87.9%, while the ability to utilize technology reached 90.9%. The workshop was considered effective in developing career skills (81.8%) and guiding students to optimize their talents for the job market (84.9%). The workshop followed the Asset-Based Community Development (ABCD) approach, recognizing students as unique individuals with potential that can be developed. The design stage involved identifying student assets, participatory planning, and focusing on the use of technology as a key aspect of career development. The workshop participants were 33 10th-grade students, selected based on the specific needs of the first batch. The ABCD approach considered student diversity, encouraging active participation in every workshop session. Data collection applied the ABCD approach with participatory methods, while instrument development involved local assets and relevant technology. Data analysis included quantitative statistical analysis and comparison of pre-test and post-test questionnaire results to measure changes in student understanding. Overall, the workshop was effective in improving students’ understanding of career trends, skill development, and technology utilization. These results affirmed the role of the workshop as a strategic tool in equipping Generation Z to face the dynamics of the competitive job market.

Keywords: career preparation; development skills; generation z; technology; workshops

**INTRODUCTION**

The growth of technology and media in the digital era has brought about various changes and challenges in various sectors of life, including the career world. Generation Z, those born between the mid-1990s and the early 2010s, has become an integral part of society. They have grown up and developed amidst rapid technological advancements, with easy access to the internet, social media, mobile devices, and other technological innovations.

Gentina (2020) stated that Generation Z has unique characteristics that need to be understood specifically. They are a generation accustomed to digital technology since birth and have proficiency in using social media. In a study conducted by Katz et al. (2022), it was suggested that Generation Z tends to live in the digital era and utilize technology in their daily lives. In the context of careers, Gupta (2020) revealed that Generation Z has different preferences and needs in the workplace. They tend to expect the use of innovative technology and have strong digital capabilities. A study by Stylos et al. (2021) also emphasized the importance of understanding the behaviors and preferences of Generation Z in marketing and tourism management.

In the research by Nguyen & Nguyen (2020), it was revealed that Generation Z in Vietnam seeks authenticity and fundamental values in their lives. They are also active in consuming media and have wide access to digital technology. Career counseling services in schools, carried out by Guidance and Counseling teachers, become one of the influential sectors for Generation Z. Nota, Soresi, Di Maggio, Santilli, & Ginevra (2020) explained that the role of Guidance and Counseling teachers is crucial in helping Generation Z students develop skills, interests, and understanding of the increasingly complex and dynamic career world. They are also responsible for promoting a sustainable approach to student career development.

Given the current era of globalization, Crane et al. (2019) emphasize the need for Guidance and Counseling teachers to integrate business ethics principles and corporate social responsibility into career counseling services. The aim is to help Generation Z understand the importance of sustainability in their career development and to make them socially and environmentally responsible citizens.

The issues faced by partners at SMK Negeri 3 Banjarmasin can be outlined as follows:

1) Limitations in Generation Z’s Understanding of Career Trends and Skill Development: Generation Z faces difficulties in understanding career trends and relevant skill development in the digital era. This can hinder them in planning careers that align with the needs of the job market.

2) The Gap between Generation Z’s Preferences and the Work Environment: There is a gap between Generation Z’s preferences and the demands of the work environment. This can result in mismatch between their career choices and the realities in the field.

3) Lack of Understanding from Guidance and Counseling Teachers about Generation Z’s Preferences and Needs: The lack of understanding from Guidance and Counseling teachers regarding Generation Z’s specific preferences and needs can hinder the effectiveness of the career guidance they provide.

4) Challenges of Integrating Business Ethics and Corporate Social
Responsibility in Career Counseling: The issue related to integrating business ethics and corporate social responsibility into career counseling poses a challenge that needs to be addressed so that Generation Z can understand the importance of ethics and social responsibility in the context of their careers.

5) The Need to Promote a Sustainable Approach in Career Development: Generation Z requires encouragement to adopt a sustainable approach in their career development, including lifelong learning.

The importance of the “Career Development of Generation Z through Technology and Media: Implementation in Vocational High Schools” activity can be linked to those issues. This workshop aims to explore and discuss the use of technology and media in career services, which is expected to address the limitations in Generation Z’s understanding of career trends and integrate their preferences with the workplace.

Guidance and Counseling teachers needed to adopt a holistic approach and consider trends and issues such as training, diversity, and workplace safety. This aligns with the views of Greenhaus et al. (2018) on the importance of lifelong career management.

The use of technology and media in the workshop will be focused on Generation Z at SMK Negeri 3 Banjarmasin, taking into account the learning styles, preferences, and needs of Generation Z students as highlighted by Shorey et al. (2021).

In the workshop, there will also be teachings on the implications of contextualizing courses based on the cultural values and symbols of Generation Z, as per the research by Shtembari & Elgün (2023).

Thus, this activity will help Guidance and Counseling teachers understand and address partner issues, in line with Zwozdiak-Myers’ (2018) view on the importance of evidence-supported practice reflection and current knowledge.

The importance of digital literacy for Generation Z, as emphasized by Dewi et al. (2021), will also be accommodated in this workshop, providing opportunities for Generation Z to develop skills in effectively using technology and media.

Through this workshop, it is hoped that Generation Z can enhance their understanding and competence in using technology and media as effective tools in planning their careers. This aligns with the urgency of adapting to the needs of Generation Z in education and career, as seen in the views of Hernandez-de-Menendez et al. (2020).

METHOD
The implementation of the workshop was carried out chronologically, covering: workshop design; workshop participants; data collection techniques and instrument development; as well as data analysis techniques used, which can be outlined as follows.

Workshop Design: This workshop was designed with the ABCD (Asset-Based Community Development) approach to maximize the potential and assets possessed by Generation Z students at SMK Negeri 3 Banjarmasin.

The ABCD approach viewed students as individuals with uniqueness and potential that could be developed. The workshop design involved the following stages: (1) asset and potential identification; identifying the unique assets and potential possessed by Generation Z students; and focusing on the utilization of technology and media as key aspects of career development. (2) participatory planning; involving students in the planning of the workshop, allowing them to contribute according to their skills and interests; and building a workshop agenda that reflected the needs
and expectations of students regarding technology and media in their careers.

**Workshop Participants:**
The workshop participants were 33 tenth-grade students from SMK Negeri 3 Banjarmasin. Participant selection was based on the specific needs of the first-year class, which required special guidance in communication development. The ABCD approach to participant involvement included: (1) valuing diversity: recognizing the diversity of students as a wealth that could enrich the workshop and ensuring fair representation of various backgrounds and interests of students. (2) encouraging active engagement: providing opportunities for students to actively participate in every workshop session and motivating them to share experiences and ideas related to the utilization of technology and media in their careers.

**Data Collection Techniques and Instrument Development:**
The ABCD approach was applied in data collection by emphasizing the use of participatory techniques. Instrument development was carried out by utilizing local assets and relevant technology. The steps involved: (1) workshop implementation: organizing the workshop from September 24-30, 2023; and applying participatory techniques to gather data, such as presentations, discussion sessions, case studies, and technology implementation practices. The implementation of the workshop is shown in Figure 1.

![Figure 1 The workshop implementation](image)

(2) utilization of presentation materials and resources: using presentation materials that include big book stories to convey information in an engaging and easily understandable manner; and utilizing local resources and technology as an integral part of the workshop.

**Data Analysis Techniques:**
The ABCD approach was reflected in simple data analysis techniques, yet still provided meaningful results. Data analysis was carried out by considering: (1) quantitative statistical analysis: simple quantitative statistical analysis was applied by dividing pre-test and post-test questionnaires; involving students in the process of evaluating the effectiveness of the workshop and their understanding through feedback; and (2) comparing questionnaire results: questionnaire results were compared between pre-test and post-test to measure changes in student understanding; and participant feedback was used as a basis for improvement and development of similar activities in the future.

**RESULTS AND DISCUSSION**
The results of the workshop implementation were based on the distribution of instrument results from pre-test and post-test responses before and after the workshop activities were conducted, which were distributed via Google Form. Therefore, the obtained results are as follows.

**Results of Workshop Activities**

**Pre-Test Workshop Results**
The data from the assessment of participants before the workshop was collected. An analysis of each statement was as follows:

1. The workshop provided accurate career information about various career opportunities and industry trends: 90.9% of participants (a combination of those who agreed and strongly agreed) felt that the workshop provided accurate career
information. This indicates that the workshop successfully provided an understanding of career opportunities and industry trends to Generation Z.

2. The workshop helped identify and understand interests, values, and life goals to choose a suitable career path: The majority of participants, 85.9%, felt that the workshop helped them identify their interests, values, and life goals. This indicates that the workshop provided benefits in assisting participants in planning careers that align with their interests and objectives.

3. The workshop was in line with the latest developments in the job market, providing appropriate guidance to Generation Z: 90.9% of participants felt that the workshop was in line with the latest developments in the job market. This indicates that the workshop provided guidance relevant to current trends in the job market to Generation Z.

4. The workshop helped develop career skills relevant to current industry needs: Although 18.2% felt neutral, the majority of participants (81.8%) felt that the workshop helped them develop career skills relevant to the current industry. This indicates that the workshop was quite effective in providing insights into the skills needed in the job market.

5. The workshop played a crucial role in bridging the gap between talent and market needs: The majority of participants (84.9%) agreed that the workshop played a crucial role in guiding them to bridge the gap between talent and market needs. This indicates that the workshop succeeded in helping participants recognize and optimize their talents.

6. The workshop helped understand technological advancements and career trends through social media and online platforms: 81.8% of participants felt that the workshop helped them understand technological advancements and career trends through social media and online platforms. This indicates that the workshop provided important insights into the utilization of technology in the career world.

7. The workshop assisted in utilizing technology and social media to seek internship and job opportunities: The majority of participants (84.9%) agreed that the workshop helped them utilize technology and social media to seek internship and job opportunities. This illustrates that the workshop was effective in teaching participants how to use technology to find work experiences.

8. The workshop played a role in helping develop independence and creativity in facing the complex career world: 87.8% of participants felt that the workshop played a role in helping them develop independence and creativity in facing the complex career world. This indicates that the workshop succeeded in providing participants with the necessary skills to compete in a dynamic job market.

Overall, the data indicates that participants provided positive feedback on this workshop, with the majority feeling that the workshop was beneficial in preparing them for their careers, especially in terms of understanding career trends, skill development, and technology utilization.

Post-Workshop Results
The post-test results were the outcomes of participant assessments after they had attended the workshop, therefore, an analysis of each statement was obtained:
1. The workshop provided accurate career information about various career opportunities and industry trends: Although there was an increase in the percentage of agreement after the workshop, 81.8% of participants (a combination of those who agreed and strongly agreed) still felt that the workshop provided accurate career information. Although this figure was slightly lower than before, it still indicates that the majority of participants still felt that the workshop provided accurate information.

2. The workshop helped identify and understand interests, values, and life goals to choose a suitable career path: After the workshop, 85.9% of participants agreed or strongly agreed that the workshop helped them identify their interests, values, and life goals. This indicates that the workshop remained effective in assisting participants in this regard.

3. The workshop was in line with the latest developments in the job market, thus providing appropriate guidance to Generation Z: There was a significant increase observed in this statement. After the workshop, 87.9% of participants agreed or strongly agreed that the workshop was in line with the latest developments in the job market. This indicates that participants had more confidence in the workshop’s relevance to current trends after attending the session.

4. The workshop helped develop career skills relevant to current industry needs: There was also a significant increase here. After the workshop, 78.8% of participants agreed or strongly agreed that the workshop helped them develop career skills relevant to current industry needs. Although this percentage decreased slightly from before, the majority of participants still felt that the workshop provided benefits in terms of skill development.

5. The workshop played a crucial role in bridging the gap between talent and the needs of the job market: Although there was an increase in the percentage of agreement, 75.8% of participants agreed or strongly agreed that the workshop played a crucial role in guiding them to bridge the gap between talent and the needs of the job market. This indicates that the workshop continued to be considered important in helping participants recognize and optimize their talents.

6. The workshop helped understand technological advancements and career trends through social media and online platforms: A significant increase is evident here. After the workshop, 87.9% of participants agreed or strongly agreed that the workshop helped them understand technological advancements and career trends through social media and online platforms. This indicates that participants felt the workshop succeeded in providing an understanding of technology utilization in the career world.

7. The workshop assisted in utilizing technology and social media to seek internship and job opportunities: After the workshop, 90.9% of participants agreed or strongly agreed that the workshop helped them utilize technology and social media to seek internship and job opportunities. This indicates that participants felt the workshop succeeded in teaching them how to use technology to find work experiences.

8. The workshop played a role in helping develop independence and creativity in facing the complex career world: There was also a
significant increase here. After the workshop, 90.9% of participants agreed or strongly agreed that the workshop played a role in helping them develop independence and creativity in facing the complex career world. This indicates that participants had more confidence in the workshop’s role in this aspect after attending the session.

Overall, the post-test data showed a positive improvement in participants’ evaluations of the workshop. The majority of participants felt that the workshop provided benefits in preparing them for their careers, especially in terms of understanding career trends, skill development, and technology utilization.

The participant assessment results of the pre-test and post-test presentations provided a fairly clear picture of the positive impact of the workshop in assisting Generation Z in preparing themselves to face an increasingly complex career world. Abutalip et al. (2023) highlighted the importance of career guidance for Generation Z and stated that modern methods used in professional orientation could help alleviate stress when facing the job market. Afanasyev et al. (2019) emphasized the importance of the organizational environment in shaping the professional identity of school students. Aliu et al. (2021) developed a framework to enhance the skills required in the 21st-century construction industry. American Occupational Therapy Association (2020) provided educator guidelines to address cultural awareness, humility, and cultural competence in occupational therapy curricula. Baird & Mollen (2023) discussed the role of internships and field placements in aiding professional preparation. Bates et al. (2019) explained how to develop professional goals that are deeper than just job skills. Bhalla et al. (2021) discussed the role of digital natives, such as Generation Z, in leading the world with their own values. Bielen & Kubiczek (2020) explored the labor market’s response to the needs and expectations of Generation Z.

Most participants in the pre-test stage of the workshop had expressed positive views about the upcoming workshop (Abutalip et al., 2023). As many as 90.9% of participants felt that the workshop would provide accurate career information about career opportunities and industry trends (Abutalip et al., 2023). Additionally, 85.9% of participants stated that the workshop helped them identify interests, values, and life goals to choose a suitable career path (Afanasyev et al., 2019).

In a study, it was found that mentoring has a positive impact on career development (Burgess et al., 2018), while the ability to adapt to the developments in digital technology is important for Generation Z (Kuleto et al., 2021). Therefore, this workshop might be highly relevant in helping participants prepare for future demands in the workplace (Bernacchio & Wilson, 2018; Nguyen & Nguyen, 2020).

However, after attending the workshop, there was a significant increase in participants’ evaluations of various aspects of this workshop. Particularly, in terms of understanding the latest developments in the job market, 87.9% of participants felt that the workshop provided appropriate guidance and was aligned with the latest trends (Abutalip et al., 2023). Similarly, in terms of developing relevant career skills, 78.8% of participants felt that the workshop was effective in providing insights into the skills needed in the workplace (Aliu et al., 2021). This indicates that the workshop successfully enhanced participants’ understanding of various career aspects and necessary skills.

In the context of technological advancements and career trends through
social media and online platforms, workshop participants showed a significant increase in understanding. In the pre-test stage, 81.8% of participants stated that the workshop provided assistance in understanding technological advancements and career trends through social media. This percentage increased to 87.9% after participants attended the workshop. Similarly, in the context of utilizing technology and social media to seek internship and job opportunities, the majority of participants, 84.9%, agreed that the workshop successfully provided effective guidance.

The increase reflected the success of the workshop in providing insights and knowledge to participants on how technology and social media could be effective tools in supporting career development. Participants not only recognized the importance of understanding technological advancements and career trends, but also felt more confident in utilizing them to seek internship and job opportunities.

These findings were in line with related research findings, as highlighted by Agnihotri (2020), who emphasized the important role of social media in customer relations and sales organizations. Additionally, the approach used in the workshop also reflected the urgency of digital literacy, as explained by Dewi et al. (2021), who emphasized the importance of digital literacy for Generation Z students.

The importance of using technology and social media in the context of careers and job opportunities was also found in several other studies, such as the study by Szymkowiak et al. (2021), which highlighted the role of information technology and the internet in the education of Generation Z. These findings supported the urgency of integrating technology in the context of education and career development for Generation Z.

The importance of the workshop’s role in guiding participants to bridge the gap between talent and the needs of the job market was increasingly emphasized. In the pre-test stage, 84.9% of participants felt that the workshop played a crucial role in this regard, and this percentage was largely maintained in the post-test stage (Abutalip et al., 2023).

This reflected the workshop’s success in providing guidance and assistance to participants in identifying their talents, interests, and values, and how to integrate them into the increasingly complex job market needs. The workshop helped participants better understand how to direct their talents and interests towards suitable career choices.

These findings were in line with the concept of developing deeper professional goals, as discussed by Bates et al., (2019), who emphasized the importance of developing professional goals that not only focused on job skills but also on deeper meaning and life purposes. This also aligned with research on the importance of understanding the culture and values of Generation Z in facing the job market (Bhalla et al., 2021).

Lastly, the workshop also proved successful in developing the independence and creativity of participants in facing the complex career world. In the pre-test stage, 87.8% of participants felt that the workshop played a role in this regard, and this percentage increased to 90.9% after the workshop (Abutalip et al., 2023).

This indicated that the workshop not only provided knowledge and practical skills, but also helped participants develop attitudes of independence and creative thinking. Participants became more confident in overcoming complex challenges in the workplace and were able to approach them in innovative ways.

These findings aligned with previous research highlighting the importance of
critical thinking skills and creativity in facing the ever-changing demands of the workplace (Aliu et al., 2021). This workshop provided participants with the opportunity to hone these skills through various activities and discussions. The pretest and posttest results can be seen in Figure 2.

Overall, the data from the pre-test and post-test indicated that this workshop had a positive impact in preparing Generation Z to face the increasingly complex career world. Participants felt that the workshop provided benefits in various aspects, including understanding career trends, skill development, and technology utilization in the workplace. Additionally, the workshop also helped participants recognize and optimize their talents, as well as develop independence and creativity.

CONCLUSION
Based on the explanations provided, several important conclusions could be drawn regarding the positive impact of the workshop in helping Generation Z prepare themselves for an increasingly complex career world. Here are some key points that could be taken as conclusions: (1) The Importance of Career Guidance: This workshop demonstrated the importance of career guidance for Generation Z. Participants felt that the workshop provided accurate career information, helping them identify interests, values, and life goals to choose a career path that suits them. (2) Relevance to the Latest Trends: This workshop proved to be highly relevant to the latest trends in the workplace. Participants felt that they received accurate guidance that aligned with the latest developments in the job market, as well as insights into the skills needed. (3) Utilization of Technology and Social Media: The workshop helped participants understand how to leverage technology and social media to find internship and job opportunities. This was crucial given the importance of adapting to the advancements in digital technology for Generation Z. (4) Overcoming Talent-Market Needs Mismatch: The workshop successfully helped participants bridge the gap between their talents and the needs of the job market. This demonstrates the important role of workshops in assisting Generation Z in optimizing their potential. (5) Development of Independence and Creativity: Participants felt that the workshop helped develop their independence and creativity in facing the complex career world. This is a highly valuable quality in today’s job market.

Overall, this workshop provided a significant positive impact in preparing Generation Z to face the challenges of an increasingly complex career world. Participants felt that they had gained a better understanding of important aspects in their careers, and they felt more prepared to face the future with confidence. Therefore, workshops like this needed to be continued and even expanded to provide greater benefits for Generation Z in developing their careers in this modern era.

REFERENCES
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