



Using Google Workspace for Education to Improve Understanding of Differentiated Learning

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Abstrak

Penelitian berjudul *Pemanfaatan Google Workspace for Education Untuk Meningkatkan Pemahaman Pembelajaran Berdiferensiasi* berlatarbelakang dari lemahnya guru-guru Pendidikan Agama Islam dalam memahami pembelajaran berdiferensiasi. Tujuan penelitian ini menganalisis secara kritis pemanfaatan *Google Workspace for Education* untuk pemahaman pembelajaran berdiferensiasi bagi peserta pelatihan yang terdiri dari guru-guru Pendidikan Agama Islam. Penelitian ini tergolong penelitian kualitatif. Metode penelitian ini deskriptif analitis dengan mengumpulkan data berupa literatur dari hasil penelitian yang relevan, lalu dianalisis dan diperbandingkan dengan hasil observasi oleh peneliti melalui pelatihan untuk guru-guru tentang pembelajaran berdiferensiasi dengan memanfaatkan *Google Workspace for Education*. Hasil Penelitian menunjukkan, pertama pembelajaran berdiferensiasi yang terdiri dari diferensiasi konten/materi, diferensiasi proses, dan diferensiasi produk sangat cocok disampaikan dengan menggunakan platform *Google Workspace for Education* yang memiliki fitur beragam; kedua *Google Workspace for Education* memiliki manfaat sebagai metode atau media bagi pelatih dalam pelatihan. Selain itu *Google Workspace for Education* juga bermanfaat bagi guru dalam membelajarkan pembelajaran berdiferensiasi karena elemen yang tersedia sesuai dengan berbagai karakteristik dan kecenderungan peserta didik; terakhir, pemanfaatan *Google Workspace for Education* dengan didukung pemanfaatan platform Canva dan Padlet, berdampak pada meningkatnya pemahaman yang baik para peserta pelatihan tentang Pembelajaran Berdiferensiasi.

Kata Kunci: Pembelajaran Berdiferensiasi, Google Workspace for Education, Pemahaman Baik

Abstract

The research entitled "Using Google Workspace for Education to Improve Understanding of Differentiated Learning" is based on the weakness of Islamic Religious Education teachers in understanding differentiated learning. The aim of this research is to critically analyze the use of Google Workspace for Education to understand differentiated learning for training participants consisting of Islamic Religious Education teachers. This research is classified as qualitative research. This research method was descriptive-analytical by collecting data in the form of literature from relevant research results, then analyzing and comparing it with the results of observations by researchers through training for teachers on differentiated learning using Google Workspace for Education. The research results showed, firstly, differentiated learning which consists of content/material differentiation, process differentiation, and product differentiation is very suitable to be delivered using the Google Workspace for Education platform which has various features; secondly, Google Workspace for Education has benefits as a method or medium for Trainers in training. Apart from that, Google Workspace for Education is also useful for teachers in teaching differentiated learning because the available elements suit various characteristics and tendencies of students; lastly, the use of Google Workspace for Education, supported by the use of the Canva and Padlet platforms, has an impact on increasing the training participants' good understanding of differentiated learning.

Keywords: Differentiated Learning, Google Workspace for Education, Good Understanding.

Introduction

Independent learning in its implementation demands educators to have expertise in classroom management, using various methods, models, strategies, and diverse learning media and sources. The role of methods and media is crucial because the diversity of students' characteristics and age levels can be optimized with educators' skills in applying various methods according to students' learning styles. Independent learning is in line with the principles of differentiated learning and assessment. By treating students according to their age level, learning style, and tendencies, educators have implemented the principles as required by the independent learning policy.

It's still common for teachers to face students with diverse characteristics and levels of understanding, yet they don't always adapt their teaching methods accordingly. In fact, students tend to have different learning styles. Some prefer auditory learning, while others are more visual learners.

The reality in the field is that many educators still do not fully understand differentiated learning and assessment. In twelve curriculum training sessions conducted by the researcher for Elementary, Junior High, and Senior High School Islamic Religious Education Teachers in Banyumas Regency from June to September 2022, only 25% of participants reported implementing differentiated learning. The remaining 75% had not yet differentiated their learning.

Differentiated learning, which includes differentiation in content, process, and product, is not a new concept. However, teachers are accustomed to using only one or two teaching methods, making it difficult for them to accommodate learners with diverse needs. When the researcher explained the concept of differentiated content, 30% of teachers understood it, 25% had implemented it, and 45% did not understand it. When the concept of differentiated process was explained, 20% of teachers understood it, 15% had implemented it, and 65% did not understand it. For differentiated products, 40% of teachers understood it, 10% had implemented it, and 50% did not understand it.

Based on these findings, the researcher assumed that using the platform provided by Google Workspace for Education could improve teachers' understanding of differentiated learning in Islamic Religious Education, which has unique

characteristics compared to other subjects. If teachers understand the concept of differentiated learning, it will be easier for them to implement it in their teaching and assessment (Kemdikbudristek, 2022).

Literature Review

Differentiated Learning

Differentiated learning can be understood as a way for teachers to treat students with various strategies, methods, and learning models. Differentiated learning is also learning that accommodates the needs, talents, interests, and tendencies of students to obtain treatment and experience learning and mastery of the concept of material or learning content (Kamal, 2021; Lupita & Hidajat, 2022; Nurdini, 2021). The learning process that begins with mapping or assessment by the teacher will reveal the tendencies and learning styles of students. Teachers will then adjust by using appropriate strategies, methods, and learning models to deliver the material so that students will feel comfortable, happy, and enjoy the learning process because teachers deliver according to their tendencies and learning styles.

Differentiated learning is the essence of independent learning, providing educators with the opportunity to optimize their ability to use strategies, models/methods, and learning media. This, in turn, is expected to provide a high-quality, interactive, and contextual learning experience. Such learning will give students the opportunity to have an inspiring, enjoyable, challenging, and motivating learning experience, encouraging them to play an active role. As a result, students are given sufficient space to take initiative and create independently according to their talents, interests, as well as physical and psychological development.

Independent learning means that the diverse talents and potential of students will be accommodated and treated well. Independent learning can also be interpreted as empowering the potential of students who have diverse intelligences. In fact, in 1983, Howard Gardner discovered Multiple Intelligences (MI) which include linguistic, mathematical, spatial, kinesthetic, musical, interpersonal, and intrapersonal intelligence (Eggen & Kauchak, 1997). Before Gardner, Thorndike had also revealed social intelligence, the ability to manage interpersonal relationships as a capital for someone's success (Martin, 2003). Indeed, many experts have revealed the diverse potential of

humans, which is the main reason for independent learning. By freeing students to learn, it is hoped that learning outcomes will be more easily achieved.

A crucial aspect of differentiated learning is learning that accommodates the needs of students according to their developmental stages, both physical and psychological, as well as their tendencies, talents, interests, and learning styles. This includes differentiation in content (learning material), process, and product (Andini, 2016). Content differentiation relates to what students understand and learn. In content differentiation, it must be noted that not all students in a class have the same learning outcomes. Some students may still be at the knowing or remembering stage, while others have already reached the understanding stage. Process differentiation, on the other hand, is related to the process of acquiring information for students during learning. Additionally, process differentiation is closely related to the strategies, methods, models, or techniques used by teachers or students in acquiring information. Product differentiation relates to what students have learned, understood, and acquired. For example, students who prefer a memorization learning style can produce a memorization performance as a product. Students who have information technology skills can produce a digital product.

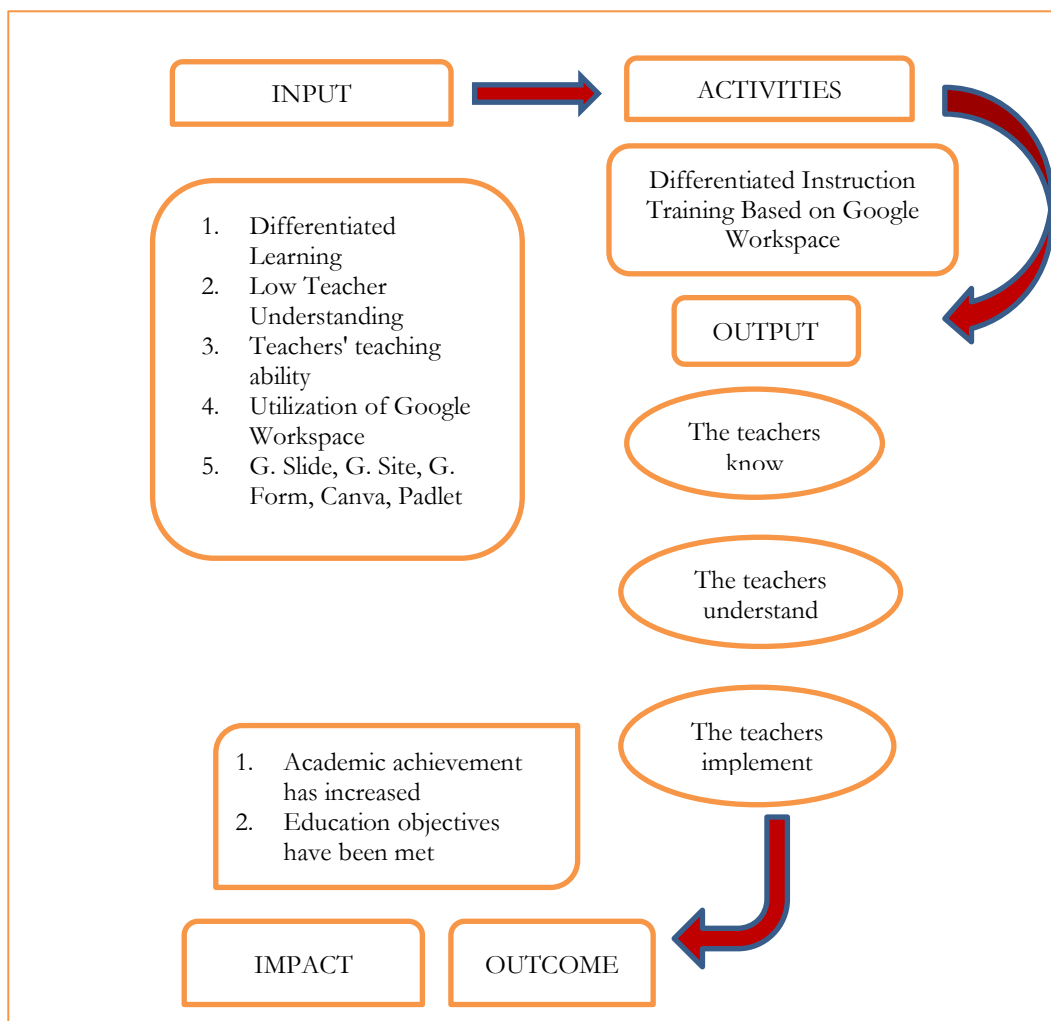
Google Workspace for Education

Google Workspace for Education is a suite of Google platforms designed with features to assist teachers and students in creating more innovative learning experiences. Its paradigm is collaborative learning through innovation. The features in Google Workspace for Education are easy to implement and diverse, providing to a wide range of student characteristics. It simplifies task management for both educators and students and offers cloud-based, unlimited storage, which is crucial given the vast amount of data generated in the learning process. In this research, the focus will be on utilizing Google Slides, Google Sites,

and Google Forms to enhance understanding and implementation of differentiated learning. Additionally, the researcher will also utilize Canva and Padlet. While Canva and Padlet are not strictly Google products, they are considered suitable for differentiated learning and will be integrated with Google Workspace for Education to further improve the understanding and application of this teaching approach.

The researcher will take several writings that support and strengthen the research from the results of previous studies. These include references on the utilization of Padlet, especially for training both reading and writing skills, intended for high school teachers in Sidoarjo Regency. This writing is the result of research by Susanto et al. (2021). This research emphasized more on the aspects of numeracy and literacy. Meanwhile, this research focuses more on the utilization of Google Workspace for Education to enhance understanding and implementation of differentiated learning. Furthermore, the researcher is also inspired by how to optimize the needs of students and their learning outcomes by practicing differentiated learning, which the researcher took from the research results of Herwina (2021). In this research, there is no use of information technology as a variable. In addition to these two research results, the researcher will adopt the approach, meaning that differentiation is used as an approach to learning solutions so that the diversity of students' interests and potential can be channeled according to their needs, which the researcher took from a literature review written by Wulandari (2022). In her writing published in the MIPA Education Journal, Wulandari analyzed articles related to the research topic of differentiated learning. The difference with the issue raised by the researcher is that Wulandari's research is a science subject research, which certainly has different characteristics and methods from the Islamic religious education subject.

Conceptual Framework



Method

Research Type

This research is a descriptive-analytical study (Suriasumantri, 2001) that examines studies from research papers, journals, related books about the utilization of media, models, strategies, and platforms for differentiated learning, as well as the researcher's observations from several training sessions on differentiated learning and Google Workspace. The objectives of this descriptive-analytical research include examining ideas or thoughts of individuals, whether presented in online or print media, be it primary or secondary sources. The researcher also conducted a critical study by comparing the results of observations from training sessions on differentiated learning with the utilization of Google Workspace, Canva, and Padlet platforms, which the researcher has undertaken, to make the analysis more critical as it is combined with several concepts, both from references and training results.

Research Approach

This research was based on several approaches, including:

a. Pedagogical Approach

This approach is used by the researcher to examine and critique the opinions or thoughts of educational practitioners related to differentiated learning and also the media or platforms from Google Workspace.

b. Sociological Approach

The sociological approach is important because it is used to examine the conceptual relationship between the Trainer, the trained teacher, and the students who will be the target of the differentiated approach to learning.

c. Psychological Approach

This approach is very important, especially for examining the psychological condition of the teachers as training participants and also the developmental psychology of the students so that the characteristics and development of each student can be studied in more depth.

Data Sources

The data in this research was obtained from various sources, including written works from studies on differentiated learning, Google Workspace, Canva, and Padlet; as well as the researcher's observations as a Trainer/Resource Person during differentiated learning training sessions. Additionally, data was collected from relevant articles or references, particularly research studies related to differentiated learning and the media used for it.

Data Collection Method

Given that this research analytically describes the results of a critical review of previous research and observations of the training conducted by the researcher for PAI teachers on differentiated learning, the data collection method involved quoting, paraphrasing, or reviewing previous research, as well as reviewing the results of the training conducted to utilize Google Workspace for differentiated learning.

Data Processing and Analysis Methods

The data collected by the researcher from various sources would be processed and then analyzed using content analysis, as suggested by Muhadjir (2000). In this case, the researcher would identify various references, such as research reports on differentiated learning and the media used for differentiated learning, as well as key points from the researcher's observations in training on the utilization of Google Workspace for differentiated learning. The next step was to classify the data, analyze it, and interpret it using various approaches to answer the research questions. The method used for data processing was qualitative, with analysis techniques using the inductive method. Specific data related to the research problem would be used to draw general conclusions. However, the researcher would also use the deductive method, analyzing general data to draw specific conclusions. To ensure data validity, the researcher would also use the comparative method to analyze the data. Data from previous research, both from journals and literature reviews, would be compared with the researcher's observations in the training.

Result and Discussion

The researcher administered a Pre-Test to 80 training participants to assess their initial understanding before the training began. The

training began with conventional media, such as simple PowerPoint presentations. Following the Pre-Test, the results showed that 85% of participants had not yet implemented differentiated learning due to a lack of understanding.

Differentiated learning encompasses three aspects: differentiation of content or material, differentiation of process, and differentiation of product. When the researcher explained the concept of differentiated content or material, 30% of the teachers (participants) understood, 25% had already implemented it, and 45% did not understand. When the concept of differentiated process was explained, 20% of the teachers understood, 15% had implemented it, and 65% did not understand. For differentiated products, 40% of the teachers understood, 10% had implemented it, and 40% did not understand.

Based on the results of the pre-test, the researcher then trained the participants using Google Workspace. Specifically, Google Forms was utilized for quizzes and surveys, Google Slides for presenting training materials (Google Slides was considered easier to add elements and had faster access compared to PowerPoint), and Google Sites for displaying the final products of the teachers or training participants. Canva, with its various attractive features and many options, was particularly useful for mapping media related to the needs of students. For example, for auditory learners, training participants would choose elements that support audio. For students who tend to enjoy art, training participants would select elements that depict artistic activities. For students who tend to memorize, training participants would choose elements that represent memorization.

Additionally, Canva's elements could be customized to meet the user's specific needs. By utilizing Canva, training participants could more easily understand and directly practice differentiated learning through simulations assigned by the researcher. The Padlet platform was also a favorite among training participants, as it allowed them to easily display their work in the form of differentiated learning activities. This enabled a variety of products to be showcased on the Padlet platform (Differentiated Products displayed on Padlet).



Figure 1. Utilizing Canva to Illustrate Differentiation



Figure 2. Padlet Display for Product Differentiation



Figure 3. Google Site to Display Training Participant Activities

Moreover, through the utilization of Google Workspace supplemented by Canva and Padlet platforms, training participants demonstrated an increased understanding as measured by a Post-Test administered via Google Forms. Specifically, participants demonstrated a 95% understanding of Content Differentiation, 80% understanding of Process Differentiation, and 78% understanding of Product Differentiation. Furthermore, 70% of participants were able to apply differentiated learning during a simulation. The participants expressed enthusiasm for using Google Workspace for Education as well as Canva and Padlet. This enthusiasm facilitated their understanding, especially since the training started with a brainstorming session and a review of previous research on these platforms, which the researcher incorporated into the literature review. As a result, the participants were optimistic, comprehending the concepts, and

eager to practice through simulations and assigned tasks during the training.

In addition, Google Workspace for Education has features that are highly supportive of optimizing the understanding of differentiated learning. This platform is beneficial both as a medium and a method when the Trainer (in this case, the Researcher) delivers the material, and it is also beneficial for the participants (in this case, Islamic Education Teachers) in practicing differentiated learning. When the Trainer or Resource Person describes differentiation in learning using only PowerPoint media, the participants are not enthusiastic, but as soon as they use Google Workspace for Education, the participants immediately ask to practice and enjoy trying it out.

Google Site can be utilized as a collaboration space, where there is a training room that allows training participants to showcase their products and document best practices from the training and learning process. To produce the best documentation products to be displayed, participants are trained to use Canva. With a wide variety of templates and elements, training participants can choose according to their desired character. Additionally, Canva is easy to use, even without having to open a laptop, so training participants enjoy using it.

Beyond Google Sites and Canva, the researcher also utilized Padlet as a medium to facilitate the understanding of differentiated learning among training participants. Islamic Religious Education Material which has characteristics (Aly & Munzier, 2000); faith education (Hidayati, 2009), charitable education (Mastuhu, 1999; Muhaimin, 2004), scientific education (Aly & Munzier, 2000), moral education (Athiyah al-Abrasyi, 1970), and social education (Ramayulis & Nizar, 2005) has implications for content-differentiated learning. To facilitate the understanding of this differentiation, the researcher found Padlet to be a helpful application. Padlet, or online whiteboard with features such as images, videos, text, and links, greatly simplifies the user experience based on the content to be uploaded. This makes it easier to understand differentiation. With the characteristics of Islamic Religious Education content encompassing five aspects, Padlet, whose content is supported by Canva and can include links from Google Sites, is particularly helpful

in displaying the products of differentiated learning training.

In this session, the Researcher also involved other sources to assist in conducting observations so that the results would not be solely based on the Researcher's subjectivity. Observations were assisted by a team of other sources from the beginning to the end of the training implementation. The Source team helped observe the differentiated learning training using simple media. The source team (observers) noted that the participants still did not fully understand the concept of differentiated learning; participants wanted to be given a clearer picture of what differentiated learning looked like; participants asked for examples of differentiated learning. Based on the observations, it was concluded that the participants attended the training well; some participants were brave enough to ask questions; the participants also responded to each other; and some participants answered the trainer's (Researcher's) questions correctly and demonstrated the concepts directly.

Conclusion

Based on the research conducted by the researcher, the following conclusions can be drawn:

1. The utilization of Google Workspace includes Google Forms for quizzes and surveys, and Google Slides for presenting training materials or content. Google Slides makes it easier to add desired elements with much faster and easier access compared to other presentation media, Google Sites and Padlet to upload the results of teachers' or training participants' work, while Canva, with its various attractive features and many options, is especially useful for mapping media related to the needs of students.
2. Google Workspace for Education has benefits for understanding differentiated learning. Its features are very supportive in optimizing the understanding of differentiated learning. This platform is beneficial both as a medium and method when the trainer (in this case, the researcher) delivers material and is also beneficial for training participants. In addition to training participants, Google Workspace for Education is also beneficial for students. Because it has various elements, it can be easily adjusted to the tendencies and characteristics of training participants and

students and can be applied in training on Differentiated learning so that participants consisting of Islamic Education Teachers can understand differentiated learning well.

3. The utilization of Google Workspace for Education, supported by the utilization of the Canva and Padlet platforms, has an impact on increasing the understanding of training participants about Differentiated learning. With a Post-Test using Google Forms, participants understood the Differentiation of Content or Material by 95%, participants understood the Differentiation of Process by 80%, and participants understood the Differentiation of Product by 78%. While participants who were able to apply differentiated learning in the simulation amounted to 70%. The participants were enthusiastic about following the utilization of Google Workspace for Education, Canva, and Padlet.

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