The Use of Podcasts as a Learning Strategy in Christian Education in Developing Senior High School Students’ Creativity in the Digital Era: A Case Study

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Abstract

The use of podcasts as a learning strategy in Christian education aims to focus on students study areas and make them think creatively about what they hear, so that what is being learned can be properly implemented because students are actively involved in the discussion and get immediate feedback from what was discussed. This study examined the senior high school students’ creativity towards Christian education about "love, sex, and dating" in terms of their activities in answering questions. The quantitative data was obtained from the responses of as sample of the first-grade students that enrolled in a Christian education subject in SMAN 3 Tarutung. Questionnaires were given to them to respond to in order to assess the students' creativity based on the Guilford Theory of Creativity. The collected data was analyzed quantitatively from the students' answers by using the percentage of how many responses there were (fluency), how many types of responses there were (flexibility), the unusualness of the responses (originality), and the detail of the responses (elaboration). The Guilford theory system was used to quantify the relative level of students' creativity, and then to arrive at the conclusion of this study, the collected data was analyzed quantitatively. The result showed a significant difference in students' creativity in understanding Christian education relating to "Love, Sex, and Dating" after using podcasts to convey the material along with two informants who were experts in Christian education. This study has an important contribution to make in helping academicians improve and enhance their teaching strategies to achieve the desired objectives of using podcasts as a learning strategy in Christian education so as to develop students' creativity optimally.

Keywords: Podcasts, Learning Strategy, Christian Education, Students, Creativity.

Introduction

We live in a technologically advanced world, where technology has become an important part of everyday life, and education is no exception. Along with technological advances, technology-based or online learning has become a new trend in the teaching and learning process in schools (Heinich, 2002), including teaching Christian education, which presents different challenges from other educational sciences because the teacher plays a role in guiding students to the truth and a clearer understanding of the Christian faith. Therefore, it
is important for educators or teachers to be able to prepare themselves by providing interesting and relevant learning materials, and any online-based learning must be planned and implemented properly in order to be fully effective (Yusuf, 2012; Bahapol & Singal, 2020). But in reality, there are still many teachers who rely on old or conventional methods due to their inability to develop creative and effective teaching methods that can involve students more actively in online learning. In fact, if explored more deeply, many creative methods use technology that is compatible with online learning.

Learning religious education does not have to mean that it is only done by reading textbooks related to religious education. By utilizing technology, teachers can make religious education lessons more enjoyable using creative platforms that can be accessed or studied anywhere and anytime (online) (Hung, 2010). In this case, the use of podcasts is a solution to support inspiring and innovative learning so that it can generate creativity not only in teachers but also in their students. For Christian education teachers, podcasts can be used to improve teaching in a meaningful way, for example by providing exciting and interesting content that makes students think deeply about religious meaning through features such as the interview, the solo item, non-fiction storytelling, fiction storytelling, the panel or conversation, and co-hosting (Kavaliauskien, 2008; Tanasyah & Simanungkalit, 2020).

These features can be used as a way to convey Christian stories or materials that are packaged in a fun way, and are not rigid like religious material that has been delivered by way of sermons. Stories in the Bible can also be told on podcasts through storytelling, and this will be very popular with students. When students listen to podcasts, teachers can ask students to take notes and respond to topics that have been listened to either directly by allowing the audience (students) to send their comments (live comments) or indirectly by making a schedule for discussion or question-and-answer after the podcast show ends (Nugroho, 2020). This interactive method aims to help focus students and make them think critically about what they hear, so that what is being learned can be understood well because students are actively involved in the discussion and get immediate feedback from what is being discussed (Izzudin, 2013; Kusmantoro et al., 2020).

Podcasts can play a major role in the development of student Christian self-learning. Students can find information for themselves through podcasts. Course material can be downloaded and watched offline whenever students want it. In addition, the advantage of learning from podcasts is that students can listen to the learning material while doing something else. This means that students' daily activities can be done while listening and learning. Listening is an important part of understanding language because when we hear, the human brain creates a picture or film in our mind of what we heard so that we can absorb information quickly. That means by listening to podcasts, students are developing and practicing their listening skills so they can absorb information better and have an enhanced understanding of their religion and faith.

In this study, the use of podcasts as a Christian education learning strategy is targeted at senior high school students. Christian education will be delivered or discussed in a unique way, namely through the voices of speakers who express various views and opinions spontaneously in podcasts. The use of podcasts in delivering Christian education is a strategy that is thought to be effective in maintaining interactivity between teachers and students in online learning situations (Nikolopoulou, 2010), so that students' creativity also develops along with the development of the times, like in the current digital era.

**Theoretical Framework**

The use of educational podcasts also has relevance to the concept of digital culture, which states that digital technology can eliminate various obstacles to the communication process.
In digital culture, the internet implements interaction and participation, which, in this case, brings together technology users without being hindered by the dimensions of space and time (Uzelac, 2008). Podcast content is freely distributed, so any student can listen to a wide variety of lessons anytime and anywhere with ease. This is unlike learning in a classroom where access is limited to the dimensions of space and time. Through podcasts, which are on-demand, educational content is no longer exclusive and opens up opportunities for everyone to learn. Khitskov states that a digital culture also includes human behaviour or habits towards information in the digital environment (Khitskov et al., 2017).

This statement is in accordance with the function of social media, which is finally considered capable of changing user behavior in seeking educational content, no longer through conventional means but through social media. It is possible that in the future, the community will get used to the changes in the teaching and learning process that were initially carried out in the classroom on social media (Vogele & Gard, 2006).

When examined through the concept of digital culture, various ideas regarding podcast consumption during for example, a pandemic such as the last Covid-19, are changes that are driven by the use of digital media. The capabilities produced by digital technology are able to create an ability that becomes a habit in everyday human life. In this case, podcast consumption through digital technology has been able to change human habits of learning no longer conventionally but anytime and anywhere. The concept of e-learning in the end is not only limited to changing the form of conventional classes but how the pattern of students consumes educational content. In distance learning activities, listening to podcasts has become a new habit, not only during distance learning but also as a learning method after the pandemic. In the context of teaching, talking about learning strategies means talking about teachers’ efforts to help students learn more effectively and efficiently. A learning strategy is an approach that a person uses to complete a task. Furthermore, learning strategy is the way a person organizes and uses a set of skills to learn or complete tasks more effectively and efficiently in school (Schumaker & Deshler, 1992).

According to Mayer, learning strategies are defined as learner behavior intended to influence how students process information (Mayer, 1988). Thus, to complete the given task and obtain success in the learning objectives, the use of appropriate learning strategies is very important. In this digital era where learning is evolving from a traditional face-to-face system to digital-based learning, there are several learning strategies implemented by teachers in Indonesia, such as e-learning, video conferencing, live streaming, etc. Teaching strategies in the form of e-learning include: learning by doing, incidental learning, learning by reflection, case-based learning, and learning by exploring (Suparno & Kamdi, 2010). The advantages of learning in the digital era have several benefits because, in the implementation process, teachers are more flexible in their teaching and have more free time than in conventional learning (Syaputra & Hasanah, 2022). In addition, teachers can better take advantage of the latest technology to make teaching in class easier, such as podcasts. Students themselves can use this podcast as a new strategy to learn Christian education materials at school while developing their creativity, as explained in the previously.

According to Kembara et al. (2018), there are four competencies that students must master in the twenty-first century, one of which is creativity skills. Creativity is understood as a higher-order thinking skill that is based on complex and postformal thinking related to the creation of new and valuable ideas (Larraz et al., 2020). In addition, the development of creativity is currently considered important to achieve effective and high-level learning. Many authors have described creativity as a process that is clearly distinguished from other cognitive processes. Guilford (1967a) was one of the first authors to propose creative thinking as a cognitive process involved in the structure of intelligence. Furthermore, Guilford (1967b) proposes these four productive processes of divergent thinking: fluency, flexibility, originality, and elaboration.
(Guilford, 1994).

**Methodology**

This research involved individual and group interviews, as well as observing class activities as a goal to collect information (Cohen, 2007; Putrawan et al., 2023) about the use of podcasts as a learning strategy and how it contributes to the creativity of 30 (thirty) students of class 1A SMA N 3 Tarutung. The data that has been collected from the interviews and observations will be analyzed using a five-phase cycle: Compiling, Disassembling, Reassembling, Interpreting and Concluding (Yin, 2011). The population of the study was a school and the sample was taken from that group. During the research all participants anonymity was maintained and they were not incentivized to participate. They all took part voluntarily and all ethical requirements were met in conducting the research. Permission was granted and the participants were free to leave at any time if they felt uncomfortable with any issues of the study which was conducted as per the diagram below based on the Guilford Theory of Creativity.

![Diagram of the five-phase cycle: Compiling, Disassembling, Reassembling, Interpreting, and Concluding.](image)

**Design and methods**

Observation data was taken from the social situations occurring naturally, which was very useful for researchers to describe the classroom activities (Morrison, 1993; Yin, 2002). The results of individual interviews were compiled based on the questions given in the questionnaire. There are 25 (twenty five) questions given to 30 (thirty) students. The answers given by students were collected and then separated and placed in each question number. Furthermore, the disassembling process was carried out by processing the compiled data and putting it into smaller pieces (new labels). After being given a new label, a reassembling process was carried out to reprocess the data into several newer labels. Only after that, the interpretation process was carried out to give meaning to the overall data obtained by linking it to the uses and gratification mass communication theory to explain how podcasts affect students’ creativity and Guilford’s creativity theory was used to measure students’ creativity development based on 4 (four) categories of creativity, namely: fluency, flexibility, originality, and elaboration.

Based on the interpreting process, it can be concluding that students are not only satisfied with the podcast application because it is packaged in a unique way, which can be watched and listened to anytime and anywhere, so that students can learn about the material provided in a comfortable and relaxed situation. But more importantly, students obtain new ideas from the material presented and can develop these ideas critically and creatively. This is because the speakers presented are also experts in the field of Christian learning and they are very flexible in explaining the material about Love, Sex, and Dating: Christian perspectives. The following is an example of the process of collecting research data from the compilation, disassembly, to the reassembling stage in question number 1: Do you think you are a creative person? Why?
Developing, and Expert. These 3 levels of creativity will be explained in the table below.

<table>
<thead>
<tr>
<th>Compiling</th>
<th>Disassembling</th>
<th>Re-assembling</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am not very creative because I still often imitate others</td>
<td>Not creative because I still imitate</td>
<td>Why people claim they are creative vs not creative</td>
</tr>
<tr>
<td>Yes, I am creative in working on problems because I enjoy working on them.</td>
<td>Creative in working on problems</td>
<td></td>
</tr>
<tr>
<td>Yes. Because I am able to create new ideas and work</td>
<td>Creative in creating ideas and work.</td>
<td></td>
</tr>
<tr>
<td>No, because when I do something I usually ask other people or look it up on the internet.</td>
<td>No, because I always ask questions and search the internet</td>
<td></td>
</tr>
<tr>
<td>In my opinion, I am a creative person. If there is a project assignment, I have a lot of ideas, I can develop something and put it into a work.</td>
<td>Creative because I have many ideas, can develop things and create works.</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. The Compilation, disassembly, to the re-assembling stage in question number

Results and Discussion

The results and discussions presented in this section are the data displayed based on the results of data analysis through observation, individual interviews and group interviews. The aim was to find out how podcasts develop the creativity of students in learning Christian education. Based on the results of data analysis through observation, learning Christian education using podcasts, it was the first time this was experienced and followed by all participants, although many of them often watch other podcasts.

As Gabriel (one of the students) stated: “Usually I listen to Deddy Corbuzier's podcast, Deny Sumargo, and others. As for the other podcasts for Christian Education learning, I never did. Because I didn't think to listen to podcasts to study religion” (Gabriel, Group interview, September 2022). Furthermore, observations are made by first ensuring that students are able to judge themselves as being creative or not, as well as being able to define the meaning of being creative itself according to them. Based on the results of data analysis, 80% (n=24) stated that they were creative while 20% (n=6) stated that they were not creative. Dewa (claimed he is a creative person) stated “I think I am a creative person. Because if there is a task or project, I have a lot of ideas in developing something and putting it into a work.” (Dewa/personal interview/September 2022).

Unlike Dewa, Joshua stated that he was not a creative person at all. "I'm not creative, because every time there is a task or project given to me, I can't give the best and interesting idea so that people who see or hear are satisfied with my work” (Josua/personal interview/September 2022). Students may argue about creativity in themselves, but after processing and analyzing data obtained from the students' answers to the questions given about “Love, Sex, and Dating” in Christian education learning, it was found that all participants (100%; n=30) experienced creative development after using a podcast as part of a learning strategy. Creativity assessment is determined based on Guilford's Creativity theory, which divides creativity into four dimensions of divergent production: they are Fluency (how many responses); Flexibility (how many types of responses); Originality (the unusualness of the responses); and Elaboration (the detail of the responses). In addition, each of these four creativity found in all students. The criteria for assessing creativity also divided into 3 levels, which are Novice, Developing, and Expert. These 3 levels of creativity will be explained in the table below.
Fluency (how many responses)

Fluency is the ability to generate a large number of ideas or problem solutions in a short time. After learning Christian Education about “Love, Sex, and Dating” by using podcasts, the researcher posed some questions to the students directly at the end of each podcast episode. There were 6-7 students who raised their hands wanting to answer the questions. However, due to limited time, only 3 selected students were allowed to answer (live observation, September 2022) and they answered very enthusiastically and correctly. Then, when answering the questionnaire, as many as 26 students (86%) were found to experience the development of ideational fluency (the production of ideas) quantitatively. These students also considered several ideas in their answers. It means that students are in the “developing” stage on their fluency.

Flexibility (how many types of responses)

Flexibility is the ability to simultaneously propose different approaches to a particular problem (various ways). Students also experience the development of creativity in flexibility. In answering questions related to Love, Sex, and dating, 70% of students proposed various solutions to a problem or conflict faced in marriage or household. As done by the following students who try to offer solutions / steps to resolve in cases of infidelity that often occur in husband and wife couples.

Cynthia in her writings wrote, several kinds of solutions such as "Couples should spend more time together, open up to each other, and pray together." Tabitha also provides other ideas such as "Husband and wife must trust each other and be easy to forgive for every mistake their partner makes." In addition there was also Adrian Raja Noel with his opinion that “Husband and wife must build good communication, be able to control their emotions if a problem occurs, and all of that can be done if husband and wife are close to God." This is the same as in fluency, the flexibility of students here was at the “Developing” stage, because students considered several types of ideas.

Originality (the unusualness of the responses)

Originality is the ability to produce new and original ideas. Based on the data analysis of the observations, the researchers concluded that the original creativity of the XI grade students of SMA Negeri 3 was in the developing stage. Here, Students developed an interesting idea that
several other students would have suggested and/or minimally added onto an existing idea.

When episode 1 about the preparation of Christian wedding finished playing, the researcher asked Students “why do you think Christian weddings need to be well prepared?” There were 4 people who raised their hands namely Blessing, Dewa, Sari, and Chelsea, but only 3 people were given the opportunity to answer. The first to give an answer was Blessing with the answer “In my opinion, why marriage needs to be properly prepared is to prevent marriages that lead to divorce or marriages that fail Christianly” (Observation, 2 September 2022).

Then Dewa offered his thoughts “What we need to understand is that Christian marriage is not a simple thing because Christianly, if we have a family then it is a choice that must be accounted for, because the family itself is the image of God in the church that we must guard so that it can be a channel of blessing and spreading the gospel to other people” (Observation/2 September 2022). Lastly, Sari conveyed her thoughts by saying, “In my opinion, with adequate preparation for marriage when you have built a family, a happy family can be created that will not lead to divorce. So that it can be a channel of blessing for those around us.” (Observation, 2 September 2022).

The answers given by the three students experienced the development of originality; where the main idea of Blessing's answer is different from the main idea of Dewa's answer, but becomes a more complete combination of main ideas when Sari answers. Each of them builds an interesting idea, but Sari adds an existing idea into a more complete idea. This happened in all 10 questions posed to the students. Many different and interesting ideas or thoughts appeared, but at the end they tend to accept these ideas so that they become part of their ideas. So it can be concluded that they are experiencing the development of originality creativity and based on the criteria of creativity development, they are at the “developing” level.

Elaboration (the detail of the responses)

Elaboration is the ability to systematize and organize the details of ideas in head and bring them out. Based on data analysis, the researcher concluded that most students experienced the development of creativity at the expert level where they could find various complex problems in marriage, describe the causes of these problems, and were able to provide varied solutions (more than 1 idea) and details such as an expert. This is in accordance with the criteria given by Starko (2010) that at the expert level, students are able to add a lot of significant detail and develop their ideas. While at the develop level, students are able to add a little detail in developing their ideas. The results of observations on their assignments were chosen randomly and can be seen in table 1 below:

<table>
<thead>
<tr>
<th>Student number</th>
<th>Problems Found</th>
<th>Solutions of the Problem</th>
<th>Elaboration Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Domestic violence</td>
<td>1 solution (with elaborated cause and effect to solve the problem)</td>
<td>Developing</td>
</tr>
<tr>
<td>2</td>
<td>Divorce</td>
<td>6 kinds of solutions</td>
<td>Expert</td>
</tr>
<tr>
<td>3</td>
<td>Divorce</td>
<td>8 kinds of solutions + 3 steps to prevent Divorce</td>
<td>Expert</td>
</tr>
<tr>
<td>4</td>
<td>Divorce</td>
<td>4 kinds of solutions</td>
<td>Expert</td>
</tr>
<tr>
<td>5</td>
<td>Domestic violence</td>
<td>4 kinds of solutions</td>
<td>Expert</td>
</tr>
<tr>
<td></td>
<td>Divorce</td>
<td>2 kinds of solutions</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Affair</td>
<td>1 solution</td>
<td>Developing</td>
</tr>
</tbody>
</table>

The problems found and elaboration level can be observed in table 1 above.
Domestic violence | 1 solution  
---|---  
Financial | 1 solution  
7 | 4 kinds of solutions  
Divorce | 3 kinds of solutions  
Domestic violence | 1 solution + 3 preventions  
8 | 13 steps of solutions  
Domestic violence | Expert  
Principles different | 4 kinds of solutions  
Expert | 5 kinds of solution  
Financial | 5 kinds of solution  
Affair | 2 kinds of solution  
9 | Problem exploration +1 solution  
10 | Expert  
Financial | 4 kinds of solution  
Affair | 2 kinds of solution  
11 | Expert  
Bad communication | Problem exploration +1 solution  
Affair | Problem exploration +1 solution  
Divorce | Problem exploration +1 solution  
Financial | Problem exploration +1 solution  
12 | 3 kinds of solution  
Different religion | Expert  
Affair | 2 kinds of solution  
Domestic violence | 2 kinds of solution  
Financial | 2 kinds of solution  
Trust issue | 2 kinds of solution  
13 | 2 kinds of solution  
Matchmade by parents | Developing  

Table 3. Students assignments to ascertain their elaboration level

From the table above, it can be seen that there is a development of ideas and different points of view that students have in solving problems. The data also showed that students provided different solutions in terms of ideas and completion steps but still in the same scope and approach. Furthermore, most of them provide very detailed solutions but as many as 16% (n=5) do not provide detailed enough solutions.

**Students’ Experiences in Using Podcasts**

Based on data analysis in-group interviews, it is clear that the students feel a unique experience when learning Christian education by using podcasts. The following table summarizes the experiences:

<table>
<thead>
<tr>
<th>The effect of using a podcast</th>
<th>The uniqueness of using a podcast</th>
<th>The obstacles of using a podcast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changing the mindset to be more critical</td>
<td>Easy to listen</td>
<td>Requires internet quota</td>
</tr>
<tr>
<td>Able to open our point of view</td>
<td>Lots of important information</td>
<td>Many new terms</td>
</tr>
<tr>
<td>Stimulates the mind on the topic discussed</td>
<td>Extensive and precise information</td>
<td>Poor pronunciation</td>
</tr>
<tr>
<td>Get lots of new ideas</td>
<td>Just need to listen and listen</td>
<td></td>
</tr>
<tr>
<td>Gaining new knowledge</td>
<td>Interesting topics covered</td>
<td></td>
</tr>
<tr>
<td>Be more focused</td>
<td>There is an audio visual</td>
<td></td>
</tr>
<tr>
<td>Open mind</td>
<td>Different from usual learning</td>
<td></td>
</tr>
<tr>
<td>Generate inspirational sentences</td>
<td>Learning is more relaxed and fun</td>
<td></td>
</tr>
<tr>
<td>Help students understand the material</td>
<td>Presents a wide point of view</td>
<td></td>
</tr>
<tr>
<td>Help complete the task</td>
<td>Presentation of simple and creative learning</td>
<td></td>
</tr>
<tr>
<td>Make it easier for high school students to learn</td>
<td>Beneficial for yourself and others effective and fun</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Students’ Experiences in Using Podcasts
Although some students had problems using the podcast, at the end of the group interview session, 99% (n=29) strongly recommended the use of podcasts in learning Christian education. They believe that watching podcasts makes it easier for them to understand the material being studied and at the same time they tend to develop creativity.

The closing statement from one student (Chelsye) was, “I highly recommend using this podcast, and when I listen to podcasts, I personally understand more easily and am also trained for public speaking” (Chelsye, Group interview, September 2022).

**Conclusion**

Based on the result and discussion of this study, it can be concluded that the use of podcasts as learning strategy in Christian Education develops the creativity of Class XI students at SMA Negeri 3 Tarutung. The developed creativity is grounded on fluency, flexibility, originality, and elaboration. The creativity that develops in students after studying Christian education by using podcasts as a learning strategy is summarized in the table 5 below.

<table>
<thead>
<tr>
<th>No</th>
<th>The Criteria of Creativity</th>
<th>Students’ Achievement</th>
</tr>
</thead>
</table>
| 1  | Fluency                    | (1) Students can combine/ mention the information that is known in the question correctly and clearly  
                                | (2) Students can identify and analyze the questions asked                            |
| 2  | Flexibility                | (1) Students can explain ideas/concepts that will be used to solve problems using their own words  
                                | (2) Students can dig deeper into what is relevant to the question being asked          |
| 3  | Originality               | (1) The student can use the relevant information in the problem and/or the previous knowledge acquired to solve the problem  
                                | (2) Students can draw conclusions                                                   |
| 4  | Elaboration                | (1) Students can better explain the steps of completion they have found in detail  
                                | (2) Students can find other ways/strategies to solve problems                         |

Table 5. The developed Creativity

**References**


Conflict of Interest Statement: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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