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A MIXED-METHOD ANALYSIS AMONG THE BACHELOR OF CULTURE AND ARTS EDUCATION STUDENTS MEASURING THE FOCUS WHILE LISTENING TO MUSIC AND MUSIC INTEREST

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Abstract. This study is a sequential mixed-method design measuring the level of focus while listening to music and music interest of the students taking the Culture and Arts Education program. This study seek to identify the following: (1) what are the level of focus while listening to music and music interest of the Bachelor of culture and arts education students, (2) what is the significant differences in the level of focus while listening to music and music interest among the culture and arts education students and gender, (3) what is the significant relationship between the level of focus while listening to focus among the culture and arts education students. The study implements an onsite survey divided into two parts and distributed among 34 students of the culture and arts education program. According to the analysis culture and arts education students exhibit high level of focus while listening to music and also their music interest. While gender does not significantly influence the focus while listening to music and the music interest. There is also weak correlation between the level of focus while listening to music and the music interest.

Keywords: *focus while listening to music, music interest, culture and arts education students*

1. Introduction

1.1 Background of the study

Music is one of the foundations that plays an important role in shaping humanity and society. Listening to music is already part of our day-to-day life. Several studies have shown that music can enhance food (Pantoha, and Borges., 2021), help reduce pain (Cuhaci et al., 2024), improve phonological awareness and critical thinking (Aksu et al., 2024), (Topoglu., 2014), and even increase anxiety and depression (Wang et al., 2023). Music can even increase self-esteem and confidence (Vannay et al., 2023), increase motor skills (Abolghasemi et al., 20), and help improve mathematical skills (Wang et al., 2024). Thus, the researcher is interested in the effects of listening to music in the field of focus and aims to provide a deeper understanding through thematic analysis. Several studies have shown that listening to music has a significant effect, especially on the cognitive ability of the person; for example, listening to music has consistently been proven to have a greater influence on strengthening connections in default mode players and promoting brain activity in the prefrontal cortex, which plays essential roles in feelings, thinking, and memory processing (Manon et al., 2020). Recent research has explored the impact of listening to music on brain function, and it has been revealed that listening to music can improve cerebral synaptic plasticity (Rausechacler., 2001). The researcher decides to eliminate the overall effect on cognitive ability and focuses more on the specific type of cognitive ability that is the focus.

Recent studies have determined the relationship between music and cognitive performance. The results indicate that individuals use less background music (BGM) during difficult tasks and are less selective with BGM during easier tasks, and younger generations utilize BGM more frequently than older adults do (Goltz and Sadakata., 2021). This study also shows that half of the respondents (50.71%) state that music can help them focus. The respondents of the recent study were those who finished a university bachelor's degree, master's degree, or PhD degree. The recent study did not include college students or those below to determine how listening to music affects their cognitive ability. Thus, this study was intended to fill the population gap of recent studies. To provide deeper insights into a certain type of cognitive ability that is the focus when listening to music. This is to determine college students' level of focus while listening to music and their perceptions of it. The reason why college students are the freshest and of the appropriate age is that in college, many tasks and activities are conducted.

The researcher conducted a study to determine the level of the students' focus (the specific type of cognitive ability) while listening to music and music interest to gain insight into the students' focus when listening to music. This study is intended to provide deeper insight into the level of focus when listening to music and to determine the underlying complexity of the connection between focus and music. The study will be conducted at a certain university; specifically, the respondents are college students who have been involved in music lessons.

1.2 Research Questions

The goal of the study is to determine the Bachelor of culture and arts students' level of music interest and focus when listening to music. Specifically, the study sought to answer the following questions:

1. What is the extent of music interest among the respondents?
2. What is the level of focus when listening to music among the respondents?
3. Is there a significant difference among the respondents' extent of music interest when data are grouped across genders?
4. Is there a significant difference among the respondents' level of focus when listening to music when the data are grouped across genders?
5. Is there a significant relationship between the respondent's extent of music interest and level of focus when listening to music?
6. What are the students' perceptions of the impact of music on their focus while studying?

2. Methodology

2.1 Research Design

The aim of this study is to determine the relationship between focus while listening to music and music interest and their perceptions of the impact of music on their focus while studying. An explanatory sequential mixed method research approach was used. The first phase involved the gathering of quantitative data, and to further elaborate, thematic inductive analysis was employed. Because the research instruments utilized in this study require respondents to offer answers in the form of numerical values, the data used in this study are in numerical form. The collected data were then analyzed via statistical methods, followed by an interview in a paragraph to determine what the student's perception is toward the impact of music on their focus while studying.

The research was designed to determine the extent of music interest and the level of focus when listening to music and their perception of the impact of music on their focus while studying. This approach aims to provide reliable data, such as the survey questions reflected in this study. A descriptive research design was also employed to describe the data, specifically the extent of focus while listening to music and the level of music interest.

In the qualitative study, the researcher employed thematic-inductive analysis to investigate the reasons for the level of focus while listening to music. Data were collected through personal interviews, where responses were analyzed thematically to identify recurring themes about the variable under

investigation. This data-driven analysis relied solely on participants' responses, following an inductive approach.

2.2 Respondents of the studies

The study was conducted in a state university. The respondents were Bachelor of Culture and Art Education students ranging from the 1st year to the 3rd year. The study utilized random sampling; 34 respondents were randomly selected out of 104 students: 4 for the 1st year, 11.8%; 13 for the 2nd year, 38.2%; and 17 for the 3rd year, 50%. A total of 13 males (38.2%) and 21 females (61.8%) were included, this uneven gender distribution is typical in education programs in the Philippines (see Clorion et al., 2025; Domingo et al., 2025; Maghanoy et al., 2025), with ages ranging from 18-28 years. The respondents cooperated voluntarily, and all of them provided consent before taking the survey. The respondents are free to deny participation if they do not want to.

For qualitative research, the researcher selected 5 respondents from the total number of quantitative respondents. 3 males and 2 females were selected as the informants in the qualitative design. The informant was 20–22 years old and enthusiastic about music.

2.3 Research Instruments

The instrument used is adapted from the Subset of the Goldsmith Musical Sophistication Index (Gold-MSI) (Lima et al., 2018). This instrument aims to measure individual engagement in music as well as the skill level they display in musical activity (Müllensiefen et al., 2014). However, in the adapted instrument, the instrument consists of 14 items in total; it uses a five-point Likert scale and includes a few questions about music interest and focus when listening to music.

The overall Cronbach's alpha for music interest is 0.881, and that for focus when listening to music is 0.885. This suggests that the reliability of these instruments is currently high, considering that they were adapted. The total number of items in the survey is 20, with 10 items for music interest and 10 items for focus when listening to music. The survey uses a 5-point Likert scale, where the numbers range from 1 - Strongly Disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, and 5 - Strongly Disagree.

In the qualitative study, the researcher employed semi-structured interview questions to have follow-up questions among the answers of the respondents. It was employed to provide clear and precise answers among the respondents.

2.4 Data Gathering Procedure

The study was conducted on November 29, 2024, Friday. This was a cross-sectional study, and the survey was conducted in a short amount of time. The researcher also provided consent for the students to be respondents in the study. Note that the respondents fully cooperate in the survey. Per ethical review.

In the qualitative study, data were collected through detailed verbal responses from informants regarding their high levels of focus while listening to music. The participants were allowed to choose their preferred language for interviews, resulting in a mix of Filipino, Bisaya, and English. The transcripts were then translated into pure English to facilitate analysis, ensuring accuracy through consultation with a language expert. Finally, the data were grouped into themes to explain the sources of the participants' creative self-efficacy.

2.5 Data Analysis

In this study, the researcher utilized IBM SPSS to support the analysis and to compute and interpret all the data that were gathered. For the demographic profile, the researcher used descriptive statistics such as age, year level, and gender.

Researchers have utilized descriptive analysis to determine the level of focus of those listening to music. Before using the following tools, the researcher performs a normality distribution test to assess whether the assumptions are met when the parametric tools are used. The distribution was normal for the Shapiro–Wilk test. The p value is 0.171 for music interest and 0.201 for focus when listening to music, as it is higher than 0.05. The hypothesis fails to be rejected, which means that the data are normally distributed.

In the coding procedure, (1) for males, (2) for females, (1) for strongly disagree, (2) for disagree, (3) for neutral, (4) for agree, and (5) for strongly agree.

For the qualitative phase, the answers of the respondents were transcribed to standard English, and thematic analysis was then employed to identify the themes in the respondents' responses. Immediately after the interviews were recorded and the transcribed information was transcribed, the data were then coded and grouped according to their identified themes. The themes were later combined, split, or reconstructed to ensure that the information or data were saturated.

2.6 Trustworthiness

To ensure trustworthiness in the qualitative investigation, the researcher employed member checking by sharing the study's findings with participants. They were asked for feedback on whether the results

accurately reflected their experiences and perspectives. The participants confirmed that the data and interpretations were accurate representations of their thoughts and experiences.

2.7 Assumptions

Because how humans perceive their behavior follows specific regularities rather than being random, the researcher thought that patterns may be found and examined from the collected data. Social, belief, or environmental variables may have an impact on these patterns, which may be related to the topic under study. The researcher also assumes that the respondents are the truest answer to avoid bias in the information that will be collected. Furthermore, the researcher recognized that the information is only depictions of the occurrence and that the patterns found may change when fresh information becomes available.

3. Results and Discussion

Table 1: Extent of music interest

Variable	Mean	Std. Deviation	Interpretation
Music interest	3.6912	0.81457	High

Table 1 shows that most of the respondents are interested in music. Descriptive statistics, such as the means and standard deviations, were used to analyze the data. The result is that the mean is 3.6912 and can be interpreted as high. This can mean that most of the respondents are taking music seriously and consider themselves musicians.

With that information, most of the respondents have greater cognitive performance. As a result of (Carey et al., 2015), music-inclined people tend to have a greater form of thinking or cognitive performance.

Table 2: Level of focus when listening to music

Variable	Mean	Std. Deviation	Interpretation
Focus when listening to music	3.6278	0.74176	High

Table 2 shows the level of focus when listening to music, and descriptive statistics are used to analyze the mean and standard deviation. The mean = 3.6279, which means that the level of focus when listening to music is high. Thus, most of the respondents have a positive response and agree that they can focus well when listening to music.

Furthermore, the respondent has a positive perspective toward listening to music while doing some tasks. Most of the respondents agreed that listening to music has a positive effect on focus. Similar to the result of (Caldwell and Riby., 2007), listening to music can influence the learning process and enhance a variety of cognitive activities, such as focus.

Table 3: Extent of music interest when data are grouped according to gender

Variable	Gender	Mean	SD	t-value	p-value	Interpretation
Music interest	Male	3.7692	1.14370	0.373	0.715	Not Significant
	Female	3.6429	0.55097			

Table 3 shows whether there is a significant difference in the respondent's extent of music when the data are grouped according to gender. An independent sample t test was used to analyze the data and to determine whether they were significant. The data show that the p value of music interest is 0.715, which is greater than 0.05, indicating that there is no significant difference in the respondent's extent of music interest when the data are grouped according to gender. This means that gender is not involved in why the respondent's degree of interest in music is high, as shown in Table 1.

Table 4: The level of focus when listening to music when data are grouped according to gender

Variable	Gender	Mean	SD	t-value	p-value	Interpretation
Focus when listening to music	Male	3.4808	.81944	-1.195	.241	Not Significant
	Female	3.7917	.68275			

Table 4 also shows the significant difference in the respondents' level of focus when listening to music when the data are grouped according to gender. The p value is 0.241, and it is also greater than 0.05, which means that the respondent's level of focus when listening to music when the data are grouped according to gender is not significant. This means that gender is also not involved in why the respondent's level of focus is high, as shown in Table 2.

Table 5: Relationships between music interest and focus when listening to music

Variable		p value	r-value	Interpretation
Music Interest	Focus when listening to music	.091	.295	Not Significant

Table 5 shows the relationship between the extent of music interest and the level of focus when listening to music. The correlation coefficient is used to analyze the relationship between two variables. The table shows that the pvalue is 0.091 and that the Pearson's r value is 0.295. Since the p value is greater than 0.05, it can be interpreted as not significant. This means that there is no relationship between the respondent's music interest and the level of focus when listening to music.

Thus, the interpretation for Table 1, in which the respondents have a high music interest, and that for Table 2 also has a high focus when listening to music are just coincident and are not connected to each other. In contrast to the study of (Brenda et al. 2011) reported that musician or music-inclined people tend to have greater cognitive performance than do people who are not inclined to music.

4.1 Qualitative phase

4.1.1 Reasons why the respondents had a high level of focus while listening to music

After determining that the respondents had a high level of focus while listening to music in the quantitative study, a qualitative study was then conducted to determine the reasons behind this. Thus, a semi-structured interview was conducted with five (5) informants who were carefully selected from the total population of the quantitative study. After the important data were gathered, they were analyzed thematically, and five (5) themes were identified to determine why the respondents had a high level of focus while listening to music. These include creating cognitive space, ingrained habits, rhythmic immersion, music that resonates, and mood-driven productivity.

Theme 1. Creating cognitive space

Creating cognitive space is a barrier that isolates oneself to cancel out distractions and unnecessary noise in the environment. According to the information gathered, this becomes one of the reasons why the respondents have a high level of focus while listening to music is because it creates a barrier or space of their own.

There are four subthemes that were incorporated into the main theme, one of which is about causing fewer distractions. Listening to music can also create a barrier and avoid distractions in the environment. The second is cancelling out noise that the participants believe that listening can erase unwanted noise. The third is isolation, in which the participants state that while listening to the music, it can cut their connection to the real world. Last, peace, participants believe that the reason they can focus while listening to music is because it gives them the feeling of peacefulness. This can be proven by the support statement of informant 1: "With the help of music, of course, using such earphones, earbuds, or other tools for listening to music, it gives me more space; it feels like I'm alone. " In addition, informant 2

stated, "I just prefer to listen to music for me to feel the moment or to have my own world." Informant number 3 also stated that "because it almost felt like I was alone in a certain place, and I felt like there's no one there beside me, but in the real situation, there were more people in one room." In informant number 4, "It helps me to focus while studying if you have peace in your mind." This aligned with previous studies (Boghdady and Ewalds-Kvist, 2020). The reduced time improved to 10% in upper-level trainees. The quality of skin repair also improved slightly in the music-listening group. This finding indicates that listening to music can increase or complete a task efficiently. The surgeon needs a concentration and avoids distractions.

Theme 2. Ingrain habits

Most people listen to music out of habit be it in work, travel, cooking, or other activities. The participants believed that they had a high level of focus while listening to music because it was already in their routine. With their habits, they unconsciously listen to music when they perform activities.

Listening to music is just their hobbies, which explains why they can focus well in doing their activities. This can be further proven by the statement of informant number 1: "When doing physical things, I do not find it fun without music. Therefore, as I always do it, I have gotten used to listening to music being when I do something, specifically physical activities." However, informant number 2 stated that "it became my daily routine. Like every day when I commute from home to school, I always put on my earphones and listen to music like in full volume. Informant number 3 "say that it is a habit now since I am listening to music ever since a kid and especially growing up in a, you know, in a not so stable environment." This shows that they did not just choose to listen to music to help them focus; rather, they preferred unintentional habits.

Theme 3. Rhythmic immersion

Ryhtmic immersion, the preference of music depends on the listener because music has different values for measurements and the genre itself. The reasons why the participants have a high level of focus while listening to music are that they tend to listen to their preferred genre and melody.

There are 2 subthemes, one of which is rhythm because how the music is played can arouse the cognitive abilities of the students. Next, the preference in music and what to listen to varies across different genres or with respect to the speed of the music. This can be further proven by the statement of informant 2: "Soft melodies because it truly helps you to like ease your mind and like to help you focus more so that you can finish what you are doing." In addition, informant 3 stated, "I can say the EDM pop, the pop, the dance pop genre of music, you know, it might be weird for anyone or particularly you but listening

to pop songs while reading is something very, it is making, it is one thing that makes me focus." Informant 4 also stated, "These instrumentals help me focus on studying. When there is peace in my mind, it does not have lyrics. While these have lyrics, I can feel what the lyrics are about. I can feel if the lyrics are persuasive, or the music is sad." This shows that different tempos vary in how they can affect one's focus while one is listening to music. This finding also connects with other research indicating that musical preferences are related to personality traits. For example, preferences for reflective and complex music (e.g., classical, jazz, blues) are related to personality trait openness to experience. Preferences for upbeat and conventional music (e.g., pop, country) are related to the personality traits extraversion, agreeableness, and conscientiousness. Preferences for hard musical styles (e.g., punk, rock) are negatively related to personality trait conscientiousness (e.g., Bonneville-Roussy et al., 2013; Delsing et al., 2008; George et al., 2007; Rentfrow and Gosling, 2003).

Theme 4. Music That Resonates

The last theme was about how music technicalities contribute to the high level of focus while listening to music, but this time, it is about the likability of the music and the preference of the participants, which makes it a reason why the participants have a high level of focus while listening to music.

There is one subtheme that is likability. The more you like the music, the more you are drawn to it. It is a matter of preference. The participants can highly focus or concentrate when listening to the music they prefer. This will be supported by the statement of informant number 5: "It helps me focus doing my activities. Especially if I like the music that I'm playing." This finding shows that preferred music can also contribute to a high level of focus while listening to music.

Theme 5. Mood-driven productivity

The participants can focus while listening to music because it elicits emotions. This will become a fuel for them to finish tasks or activities. One of the reasons why they can focus while listening to music is that it enhances their mood and energy.

There are 3 subthemes in mood-driven productivity: engaging. The more engaging the music is, the more the participants can focus on their activities, but this is only for physical activities such as wood carving, painting, etc. As informant 1 stated, "To be honest while doing physical activities, music actually helps me to focus more because it gives me less distractions." "I find it engaging because sometimes I do movement with body to feel the music more and of course, my mind is active as well as I keep on, I tend to follow the music, my work becomes more engaging as I also engage myself in that activity. This finding shows that engaging in music can help individuals focus on performing physical

activities. The second is motivation, which motivates music to focus on certain activities. As informant 2 said, "It motivates me more to like finish what I'm writing because I can vibe with the music, and I truly just love listening to music. In addition, informant 4 stated, "I listen to motivating music. I listen to it to help me focus especially when working out." Finally, as energizers, music can help you focus and provide energy to finish your task ahead or in time. As informant 5 stated, "music is becoming an energizer part of my routine. Because when I miss it, my day feels different, like it is unbalanced." Thus, music is an energizer to make you focus on doing your task and accomplish it ahead of time.

4. Conclusion

Listening to music can help you focus, the respondents have a positive perception of listening to music, and most of the respondents consider themselves musicians and take music seriously. There was no significant difference in the respondents' level of focus while listening to music when the data were grouped according to gender. This means that focusing while listening to music is solely to the respondents' willingness in music.

The results of the study show that Bachelor of culture and arts education students have a high level of focus while listening to music. This means that the respondents have greater cognitive function (Carey et al., 2015). This also means that the respondents' brain function can be further enhanced (Rausechacler., 2001). The BCAEd students also have a high degree of music interest, considering that the respondents consider themselves musicians; thus, it is also natural for them to develop interest in music. There is no significant difference in the interest of the respondents in music when the data are grouped according to gender. This means that gender is not involved in the high extent of music interest.

The relationship between interest and focus while listening to music is not significant. This means that music interest is not a factor or that it is not connected to the focus while listening to music. This means that nonmusicians or students with a low level of interest in music can still develop or appreciate music and have a high level of focus while listening, which also does not mean that they need to have a higher level of music interest to be able to focus while listening to music. Focus while listening to music can be developed without music interest, as with music interest when a person has high-level music interest, which does not mean that one can focus while listening to music.

Thus, the study concluded that students of the Bachelor of culture and arts education or have a high level of focus while listening to music to further support quantitative study. A qualitative study was conducted to provide deeper insight into the reasons that contribute to a high level of focus when listening to music. Five key themes were identified: creating cognitive space, ingrained habits, rhythmic immersion, music that resonates, and mood-driven productivity. These key themes provide reasons why the respondents have a high level of focus while listening to music. The results show that they use music

consciously or unconsciously to shape their environment, regulate emotions, and enhance cognitive engagement while doing a task. This finding suggests that when performing tasks, music can heighten one's focus for various reasons, such as cancelling out unnecessary or isolating oneself and even being a means of motivation. These are the ones that will push you through completing your task successfully.

This study provides a deeper understanding of the complex relationship between music and focus. It was particularly striking to observe how music functions differently for individuals as a means of emotional regulation, a habitual background enhancer, or a tool for mental isolation. This underscores the different roles of music in both academic and personal productivity.

This study provides valuable insights, but several limitations must be acknowledged. One main limitation is the small sample size during the qualitative phase, which included only five participants in the qualitative phase and 30 participants in the quantitative phase. While these interviews provided rich data, the limited number restricts the generalizability of the findings. Additionally, self-reported responses in both the survey and the interviews may have introduced bias, influenced by personal perceptions or moods. Another limitation is that the study focused on rhythm and tempo but did not delve into musical elements such as volume or genre that could impact focus.

Future research should expand on these findings by increasing the sample size and diversity and conducting task-specific studies to establish a clearer connection between music and focus. Specific musical components should also be considered, and physiological measures should be included to enhance focus assessments. Finally, a longitudinal approach could provide insights into the long-term effects of music on productivity and focus on different contexts.

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