

Campus Rena

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Bachelor's thesis

# Measuring elements that influence mood management in music

Måling av element som påvirker mood management i musikk

Music Business

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Samtykker til tilgjengeliggjøring i digitalt arkiv Brage

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## Abstract

In this paper, the reasons why someone uses music as a tool for mood management will be explored. The mood management theory derives from the idea that people would either subconsciously or to a lesser conscious degree choose music to enhance and/or optimize their mood (Zillmann, 1988). This was a theory that was first applied to entertainment in general and mostly focused on TV and movies. Later this has been applied to music, which is an especially interesting form of entertainment considering the vast accessibility the streaming technology provides. Our study will be based on previous studies and reputed theories.

To study this, a positivist deductive approach was applied with a quantitative method based around a survey with 3635 respondents over a broad geographical spread of Norway. The respondents were equally distributed among the sexes, with 49,1% men and 50,9% women. Four elements from this survey were chosen and served as three independent and one dependent variable. These elements were escapism, music interest and cognitive listening.

Three different sort of analyses were performed to narrow the data and arrive at feasible conclusion. Factor analysis, correlation analysis, and a multiple regression analysis. The reliability of the two sets of variables that were merged, mood management and escapist experience, were checked through a Cronbach's alpha test. The overall results show that the three hypotheses made in this thesis were all validated through discarding of null hypotheses. These hypotheses were that escapist experience, music interest and cognitive listening individually all had a positive relation to mood management.

# 1. Introduction

Music has for a long time been an important way of expression and communication. The first evidence of a melodic instrument dates back over 40 000 years and rhythmical instruments such as sticks, rattles etc. are considered to have an even older tradition (Adler, 2009). Mankind has used music as a form of entertainment, religious expression and for strict practical use for thousands of years and one can see how the music has been shaped for the different uses. The opera, which has been a way of entertainment for hundreds of years, is grandiose, dramatic and has a story. It has been specifically designed to engage and thrill the audience. The work songs that was sung in the cotton fields by African slaves have an easy and repetitive melody combined with a slow tempo. This is specifically designed to motivate and coordinate the workers, as well as preserving their African identity with musical characteristics from Africa (Tomlinson, 2017). This optimization of music to match its use is not uncommon, even today, and it shows indication for the psychological effects music can have.

## 1.1.1 Limitations

Even though music has had a strong position in human history, it has been characterized with some limitations: accessibility, skills and resources. Music, by definition, is a democratic form of art or expression, but these limitations limits the choice of what you can listen to (Eisentraut, 2013). Opera for example has been reserved for the wealthy. Listening to a piano suite required that you knew someone that had the economic resources to buy a piano, had the economic resources to acquire the skills to play the piano, and had access to various scores. This changed in the 20<sup>th</sup> century when technology allowed music to be recorded. This started a big democratization process that led to the development of the phonograph, radio, vinyl, cassettes, cd's, mp3 downloads and today's streaming technology.

This democratization process has severely weakened the limitations regarding music listening. You can now access a vast catalogue of music with a click of a button. This has led to a strong individualization of music. When the cassettes emerged, you could listen to music via a headset, tape your own mixtapes which meant you were able to curate your personal music and listen to the mixtapes 24/7 without disturbing the neighbours. This privatization, individualization and optimization of music has been even further reinforced with the digitalization of music.

### 1.1.2 Mood management

So why do people need this vast accessibility? Music has always been, as mentioned earlier, a tool for various uses. This has not changed. Humans use music as a form of entertainment, for dancing, partying, training, and background noise to create an atmosphere. This is a strictly practical and concrete use of music, but music can also be applied in a more abstract and psychological way. The theory of mood management derives from Dolf Zillmann's article based on the theory of selective dissonance L. Festinger wrote in 1957 (Zillmann, 1988). The theory explored in *Mood management through communication choices* by Zillmann states that "the consumption of messages – entertaining messages in particular – is capable of altering prevailing mood states, and that the selection of specific messages for consumption often serves the regulation of mood states" (Zillmann, 1988, p. 327). This theory has later been explored and translated to a music perspective.

Emotions and music are deeply interconnected. This already manifests itself in the basics of music theory. You can play a chord that sound happy and joyful and a chord that is sad. You can even play an interval that was considered evil in the dark ages because of its dissonance; minor fifth also called tritone ('Tritone', n.d.). Tempoes can also invoke emotions. Norway for example has a long tradition of "Slåttetrommer" which is a traditional Norwegian drum that you can play in either major or minor, based on the tempo and intensity of the march. This is the basis of the theory that music can invoke or enhance feelings. If one can recognize a sad chord this must mean that it creates an internal feeling that you recognize as sad.

Mood management is also built on the principle that music can create feelings and emotion. If someone is exposed to a lot of music and given a vast accessibility, which gives you an opportunity to choose, you will either consciously or unconsciously choose music that either preserves or changes the mood that you desire. This has been explored and researched by a number of social researchers that has shown strong evidence for this. (Hunter, Schellenberg, & Schimmack, 2010; 'The Right Cerebral Hemisphere', n.d.; Vink, 2001; Knobloch & Zillmann, 2002).

### 1.1.3 Presentation of thesis

To provide evidence for this thesis, a quantitative survey with 3635 respondents will be used. The survey was carried out from December 2016 to January 2017, and has a representative geographical spread. This is one of the largest of its kind and gives us an opportunity for a strong generalization of the Norwegian population. Although it has a lot of respondents, it can be criticized for an unrepresentative age distribution and it is also characterized for being collected of students in a school situated in eastern Norway.

This thesis explores mood management by using the data collected in the MINS survey 16/17, and is based on the principle of mood management theory. In order to get a better understanding of the reasons why people use music as a tool for mood management, this theory will be applied. The paper is also going to expand on which factors impact people to have a high degree of mood management. The model that have been built for this thesis consists of three batteries from the survey: 1) Level of cognitive listening 2) Interest in music 3) Escapist experience while listening to music. The assumption is that a high degree of these factors lead to a high degree of mood management. If you have a high degree of cognitive listening, you are more reflected on the content of the songs, as well as being more aware of what emotions the various songs trigger. With a grand interest in music, you naturally have a large list of discovered artists and a notion of what these artists or songs represent to you emotionally. *Escapist experience* is the last battery in our model based on the assumption that if you have the capacity of a high degree of escapism while listening to music, it shows that music can impact you on a higher level.

A study of this particular subject is relevant to get a deeper understanding of mood management. Most people use music to manage their moods to a greater or lesser extent. If you are able to understand why someone use music as a tool for managing his/her mood, you can understand the mechanisms and their preferences. There is also a possibility to segment people in a much more effective way, and get songwriters to write specifically to the largest or desired segment. In the process of understanding the mechanisms and the characterizations of the different moods, there is also a possibility to synch these data up with the on-going trends that Spotify provides. The knowledge can also be used to market music by categorizing the segments and sharpen the marketing even further. There is a lot of commercial potential in understanding mood management, and it all starts with why people do this. On this basis, the thesis for this paper is:



*Why do people choose music as a tool for mood management?*

### **1.1.4 Disposition**

The disposition in this paper will be based on the IMRAD-model which is a standardized model developed in the 20<sup>th</sup> century. It became the predominant format after the International Committee of Medical Journal Editors published their key guidelines in the 1970's (Dominiczak, 2013). This format is developed to ensure objectivity and structure in the scientific presentation. It is also structured in a dramaturgical way, as a way to inspire and excite the readers. IMRAD is an acronym for introduction, method, results, analysis and discussion.

In the introduction, the historic background and context of the thesis were provided. The field of research was also narrowed before the thesis was presented. This will be the basis of this paper, and the theme throughout. The introduction also provides the structural disposition of this paper, to help the reader navigate through the research in a structural and logical way. This will lay the foundation for the theoretical chapter as well as the research used as material for this paper. The theoretical chapter will be the scientific foundation for the chosen thesis. This will provide former scientific research that this paper is going to build upon. In this chapter the scientific terms will be concretized which is essential to this paper. The scientific terms will be defined by using former research papers to gain an ethos based consensus of the terms. This will enforce the legitimacy of the conclusion.

The method chapter will explain the procedure of how the research will be executed. This will ensure transparency and will make it easier and more open to criticism and validation from other researchers. How the data is being used and acquired will be gone through. From there the results will be presented in an objective and correct manner. The results will be based on the model chosen for this thesis and will provide evidence and answers. After summarizing the results, they will be discussed in the discussion chapter. In the discussion chapter, the objective is to try making sense of the results, what they mean, and what the evidence suggests. Criticism and limitations of the study will also be discussed and reviewed. Lastly a conclusion will be drawn. Did the research lead to an answer for this thesis and if it did, what is it etc., as well as what the results implicit for future studies. This chapter will conclude our study. At the end, you will find a reference list where the research references are listed, followed by the appendices where all the figures used in the thesis are

shown. This will ensure the readers of the legitimacy of the research used to construct this paper.

## 2. Theory

The study will be based on the theory of mood management, initially referred to as the theory of affect-dependent stimulus arrangement (Reinecke, 2017), first proposed by D. Zillmann and J. Bryant (1985) and later further developed in *Mood Management Through Communication Choices* (Zillmann, 1988). The theory is based on the idea that individuals unconsciously or with a low level of cognitive involvement choose media to optimize their mood in a positive way. An example of this would be if an individual is sad and feeling down he would, given an opportunity to choose, expose himself for media that will make him feel better in e.g. a funny video of cats. It is also important to remember that the keyword here is to optimize his/her mood, not to expose yourself to media that is necessarily happy. This is important to differentiate in order to understand the principles of the mood management theory. Sometimes listening to a sad Adele song will make you better because it is relatable to your current state. Zillmann differentiated this in 4 dimensions: *excitatory potential*, *absorption potential*, *semantic affinity* and *hedonistic valence* (Reinecke, 2017).

### 2.1.1 Four dimensions

The four dimensions were developed by Dolf Zillmann in his paper *Mood management through communication choices* (1988). The *excitatory potential* dimension is the level of arousal the media provides to the individual. This can be calmative to reduce the level of arousal or dramatic to increase it. *The absorption potential* is the potential the various media contents has to distract the viewer or listener from his/her current mood or the circumstances that affect their mood. Although, a media with a big absorption level can be reduced or interfered by the level of *semantic affinity* potential. The messages in the media content can create a dissonance from the sender to the receiver. An example of this could be if you just have broken up with a person, a movie or commercial about people being in love would not optimize the receiver's mood. The *hedonistic valence* dimension, the last one of the four dimensions listed by Zillmann, refers to the tone of the media content being displayed for the receiver. This tone could have a positive hedonistic valence, which is the most effective way to maintain or improve your mood, or a negative hedonistic valence.

### **2.1.2 Mood vs. emotion**

There has been quite a lot of research regarding mood management and emotions targeted towards music. There has been a lot of confusion about the definition of these terms, and they have often been used as synonyms, making the studies unclear. This problematic has been reviewed in Sandra Garridos' study *A Systematic Review of the Studies Measuring Mood and Emotions in Response to Music* (2014). In order to conduct a study regarding emotions or moods, these terms need to be clarified and defined. According to Garridos, after reviewing a number of studies, there are five criteria regarding the main differences between mood and emotion: *duration*, *cause*, *timing*, *control* and *intensity*. The *duration* criteria is one of the biggest differences between mood and emotion. Emotion is a short time affective state, whereas mood is an affective state with a long duration. She also points out that the *cause* of these affective states differentiates them. Emotion gets triggered by certain events, whereas mood does not have any specific causes. *Timing* differentiates mood and emotions in that emotions have more or less an instantaneous reaction from the trigger and moods build up gradually. The fourth criteria differentiates mood and emotion by saying that you can not *control* your emotion to the same degree as your mood. The fifth criteria Garrido argues for is *intensity*. Emotions are more intense than moods, but emotions are as stated before smaller in duration than moods.

### **2.1.3 Music as a tool for mood management**

The mood management theory has been largely researched and found evidence for, but there have also been some studies specifically targeted to music. In the research *Mood Management via The Digital Research* done by Knobloch and Zillman (2002) they state, by reviewing a large amount of research, that listeners tend to use their past memories to choose music that will enhance their moods positively. The tendency to choose music from memories may be limited if you do not have access to the type of music you want to listen to. The vast accessibility that presents itself with streaming technology can therefore enhance the mood optimization, on the basis that you can listen to anything you want at any time. Some studies have also dived into the internal reasons for people to choose music as a tool for mood management and why. Saarikallio and Erkkilä researched this and broke it down to seven strategies in their research paper *The Role of Music in Adolescents' Mood Regulation* (Saarikallio & Erkkilä, 2007). They made a table of this describing the regulatory strategy, typical onset mood, typical music activity, typical social situation and typical

changes in mood. This was interesting considering the fact that the short-term effects were not always the focus. This gives a new dimension to the mood management research: therapy. Not only can you listen to music as a hedonistic form of mood enhancement, but you can also use music to reflect, and get an understanding in form of relatability. This, in the short term, will not necessarily be a positive enhancement, but in the long term it will.

From the research done by Knobloch and Zillman, one can suggest that accessibility combined with music interest and the level music can impact you psychologically, might be directly correlated by the level of mood management. There is also a study that suggests that people with a high level of cognitive listening tend to have a higher IQ than the ones that do not (Chamorro-Premuzic & Furnham, 2007). These individuals tend to focus on the performance of the musicians or the musical structure. These results also showed that they have a higher rate of music recognition and preferences. Neurotics, which also was researched in this study, tend to use music in emotional ways, focusing on the content rather than the form. Despite these results, the study done by Chamorro-Premuzic & Furnham shows that the correlation of consciousness and emotional use of music has an indirect line with cognitive use of music.

#### **2.1.4 Model and hypothesis**

To operationalize the thesis, a model was constructed based on the data gathered from the survey. It consists of three variables: cognitive listening, music interest and degree of escapism. Our hypotheses are:

H<sub>A</sub>: Level of cognitive listening is directly and positively related to mood management.

H<sub>B</sub>: Level of music interest is directly and positively related to mood management.

H<sub>C</sub>: Level of escapism while listening to music is directly and positively related to mood management.

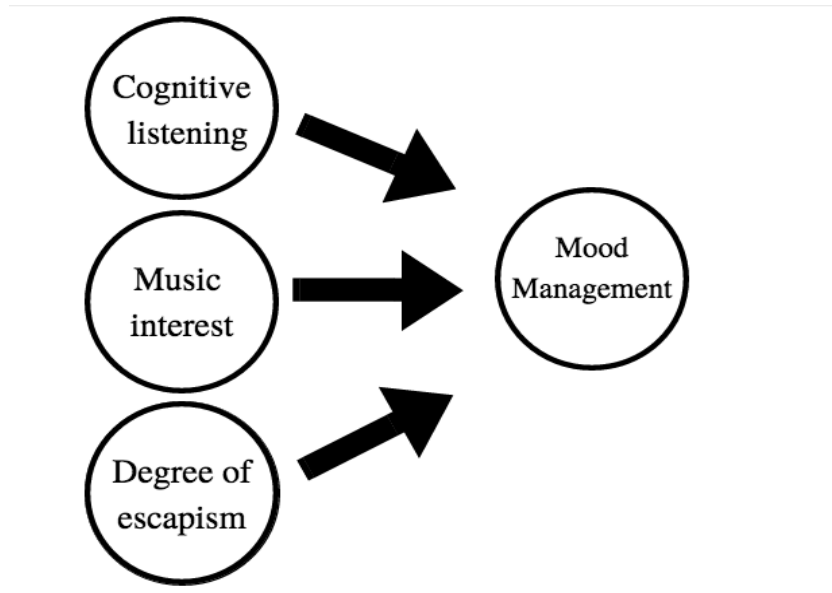


Figure 1: Model for thesis

### 2.1.5 Interpretation of terms

In the theoretical model of this thesis, four terms are used to test the hypotheses: *cognitive listening*, *music interest*, *escapism* and *mood management*.

In the first hypothesis, the term *Cognitive Listening* is used. This hypothesis, will be based on data gathered from question 15 in the survey: How would you characterize your music listening, ranging from strongly passive to really active? The assumption made is that if you have crossed the “really active” box, you have a high degree of cognitive listening.

Cognitive listening is interpreted as a conscious state of listening. The opposite of this would be unconscious listening, e.g. using music as background music. “Dictionary.com” defines the word *cognitive* as an “adjective of or relating to the mental processes of perception, memory judgement, and reasoning, as contrasted with emotional and volitional processes” (‘Cognitive’, n.d.).

The second hypothesis claims that the level of music interest is directly and positively related to mood management. Music interest is measured by question 1 in the survey: Music is a central part of my life. Low scores mean that music is not a central part of the individual’s life, high scores mean that music is a central part of the individual’s life.

The third hypothesis claims that the level of escapism while listening to music is directly and positively related to mood management. This will be measured by question 3 e, f, g and h.

These questions are based and grounded in the research regarding escapist experience (Oh, Fiore, & Jeoung, 2007a; Pine & Gilmore, 1998). The questions that we will use to measure degree of escapist experience is; 3) To what degree do you agree with the following: When I listen to music: e) I'm in another time or place, f) I feel like a different character, g) I feel like I am in a different world, h) I completely escape from reality. "Dictionary.com" defines the medical term *escapism* as "The tendency to escape from daily reality or routine by indulging in day dreaming, fantasy, or entertainment" ('Escapism', n.d.)

The interpretation of the dependant variable, mood management, and the definition that is going to be used in our paper is based on the mood management theory. The theory, as mentioned, is based on the idea that people will either subconsciously or consciously choose entertainment content with the intention to optimize or enhance their current mood. The level of mood management will be measured in our result section based on four questions from the survey: 5a) I often listen to music when I'm feeling down, 5b) Specific types of music makes me feel better, 5c) Music often takes away tensions at the end of the day, 5d) I listen to music to maintain my mood (e.g. sad, happy). The level of mood management will be based on the average of these four questions. High average equals high level of mood management and vice versa.

### 3. Research methodology

This chapter focuses on choices of methods that are available around social sciences and which that were used in this thesis. Social science methodology deals with how you collect information and which tools you use to analyze this information to reach conclusions. According to Earl R. Babbie (2010) “there are three major aspects of the enterprise of social sciences: theory, data collection, and data analysis” (p. 10). Whilst the previous chapters covered most of the theory, the next chapters, including this one, will mainly focus on data collection and analysis.

Choosing the right method for the research is crucial because “the method will affect what you look for and what you ignore” (Babbie, 2010, p. 54). Throughout this chapter a few different techniques and designs will be gone through, along with why some of these were chosen above others for this thesis. In short methodology tells us which elements research should include and how to utilize them (Saunders, Lewis, & Thornhill, 2007).

According to Cooper & Schindler (2014) research is centered around decision and dilemmas. The research process includes several elements, starting with exploration of the subject matter. In this part of the process the aim is to refine the research questions through a basic dilemma in order to form an outline of a thesis to research (Cooper & Schindler, 2014). This part has been covered in the introduction and theory chapters of this thesis. The next step is research proposal which deals with funding and budgeting of the research. Since this thesis is being executed in conjunction with a bachelor’s degree, this part does not really apply to this thesis. On that basis, it is left out of figure 2. The third step is to choose a proper research design to form a basis for the data collection that comes later. The research design is thoroughly examined in chapter 3.1. After the design is set, the data must be collected according to the perimeters set. After the projected data has been acquired, it has to be analyzed and interpreted to form a report based on the results and conclusions that were made. The process can be explained in short by this model based on the model proposed by Cooper & Schindler (2014).

Exploration → Research Design → Data Collection → Analysis → Reporting

*Figure 2: Research approach*



## 3.1 Research design

Research design contains all the elements and procedures that go into the analysis and collection of data, from detailed methods to broad assumptions (Creswell, 2009). The research design of this thesis is based on a model called *the research "onion"* created by Mark Saunders, Philip Lewis and Adrian Thornhill. This model explores seven dimensions that has to be considered while choosing research design. These dimensions are, from the layer furthest out in the onion to the centre: philosophies, approaches, strategies, choices, time horizons, and techniques and procedures (Saunders et al., 2007).

### 3.1.1 Philosophies and approaches

Research philosophy is the first and outermost layer of the "onion" and reveals how a researcher develops new information and processes it regarding the subject matter (Saunders et al., 2007). There are several different philosophies to adhere to while doing research. The philosophical path in this thesis is called positivism. Positivism takes the stance of a natural scientist, which means that you make generalisations based on your results. Positivism utilize existing theory to form new hypotheses, and through testing and analyzing of data you can disregard or validate these hypotheses. An important part of a positivist view is to keep yourself external of the process to keep personal feelings from corrupting the results.

Arguments can be made regarding law-like-generalisations in social sciences on the basis that, contrary to natural sciences, you can not truly prove anything in social sciences. All you can do is claim that there are chances that these generalizations are consistent.

In the next layer of the "onion" the two different approaches are dealt with. While a deductive approach utilizes existing literature to arrive at ideas and theories, and subsequently test them through data analyses, an inductive approach does it the other way around (Saunders et al., 2007).

The thesis and hypotheses in this paper are formed through deductive reasoning. Deductive reasoning explains the interconnection between the practical, the theory, and the data involved in the research. This implies that you form an expectation on something specific through operationalisation based on general principles (Babbie, 2010).

### 3.1.2 Research purpose

Research can generally be divided into three different stages or levels of understanding (Babbie, 2010). The first stage is exploration, where you develop an understanding of the subject matter or phenomenon you are researching. The next step is the descriptive study where you are describing and reporting data that answers what actually is occurring. The last step is an explanatory study which takes it a step further and asks not only what is occurring, but also why it is occurring. In explanatory studies you can use several variables and attempt to show a causal effect between them and from there attempt to explain why it occurs (Babbie, p. 121, 2010). In this thesis, an attempt to explain why music is being used in mood management is being made. "In explanatory hypotheses... the existence of or a change in one variable causes or leads to a change in another variable" (Cooper & Schindler, 2014).

### 3.1.3 Strategies, choices and time horizons

Saunders (2010) lists seven different strategies you may employ in your research. Each strategy serves a different purpose, but can be used for each of the three stages mentioned above. What is important when choosing strategy is to find one that best answers the research questions.

Strategies						
Experiment	Survey	Case Study	Action Research	Grounded Theory	Ethnography	Archival Research

*Table 1: Strategies*

For this thesis a survey was employed which is usually associated with a deductive approach (Saunders et al., 2007). Surveys allow the researcher to gather large amounts of data without necessarily needing a big budget. The survey strategy includes questionnaire, and structured observations and interviews.

In the process of collecting data there are generally two types of choices being implemented: mono method and multiple methods. Mono method is using either a qualitative or a quantitative method. Whereas a qualitative design uses open questions and words, a quantitative design focuses more on numbers and questions with set perimeters (Creswell, 2009). The two types of designs do not however have to be polar opposites since it's common practice to use a mix of both designs to form the best possible frame for the

research. Qualitative designs tend to focus on a smaller number on individuals and observing how they answer questions. Quantitative designs are more directed towards objective testing of different theories as the designs are centered around statistics and analyses of large amounts of data. In theory almost all questionnaires used in quantitative designs have a qualitative element, since every individual who answers the questionnaire deduces information about him/herself based on their own observations. (Babbie, 2010)

In this thesis, a quantitative design is applied based on the fact that it is examining habits among users on a very large scale. A negative aspect of quantitative methods is that it has strict frames and limitations which does not allow the individuals to elaborate much, but the positive aspect is that you can reach thousands and generalise the answers, which would not be possible through full length interviews.

The layer next to the center of the “onion” is time horizons. This layer addresses whether the data is to be collected in one instance, cross-sectional, or over a longer period of time, longitudinal. For this thesis, a cross-sectional study is used, although the research collaboration we are a part of, MINS, might be viewed as longitudinal studies, since more or less the same areas are being surveyed once a year.

## 3.2 Data collection

The data used in this thesis was collected over a period of five weeks by 34 students. Each student was equipped with 150 paper based questionnaires and the goal was to return as many as possible after the five weeks had ended. We ended up with 3635 respondents, which is a very large sum in this field of study compared to similar institutions, and a good sample of the population of Norway. The data collected is part of a bigger research collaboration called *Music Innovation Network Inner Scandinavia* or *MINS*, which is a collaboration between Karlstad University in Sweden and Inland Norway University of Applied Sciences in Norway.

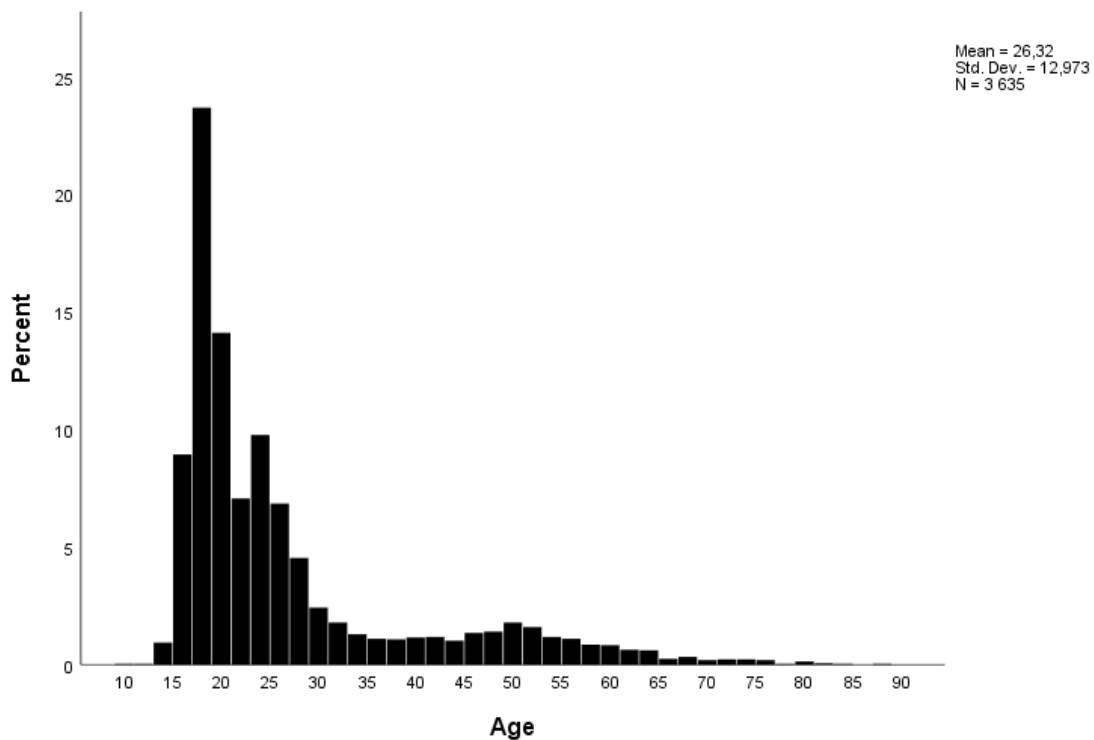
The questionnaire was made in Norwegian so all the respondents had to have an over-average understanding of the language to complete the questionnaire. On that basis, we did not approach small children or immigrants with limited knowledge of the language. A paper-based questionnaire was used to have a certain amount of control of who participated in the survey, and we were there to answer questions if needed.

As mentioned earlier the survey ended up with 3625 respondents consisting of 1785 (49.11%) men 1850 (50.89%) women, which is close to perfect sex distribution.

Sex		
	Frequency	Percent
Men	1785	49,1
Women	1850	50,9
Total	3635	100,0

*Table 2: Sex distribution of respondents*

The next thing that was checked was the age distribution of the respondents. Ideally you would want a somewhat flat curve so that most ages are represented quite equally. Figure 3 illustrates that most of the respondents age were centered around 20 year olds, with a mean age of 26,3. This is not surprising considering that there were students around that age which conducted the surveys.



*Figure 3: Age distribution of respondents*

The geographical location of the respondents covered all the 19 counties of Norway as well as the island Svalbard. There is a majority of respondents hailing from Oslo, but that is expected on the basis that most of the students conducting the survey live in that area plus the fact that Oslo is the county with the biggest population in Norway.

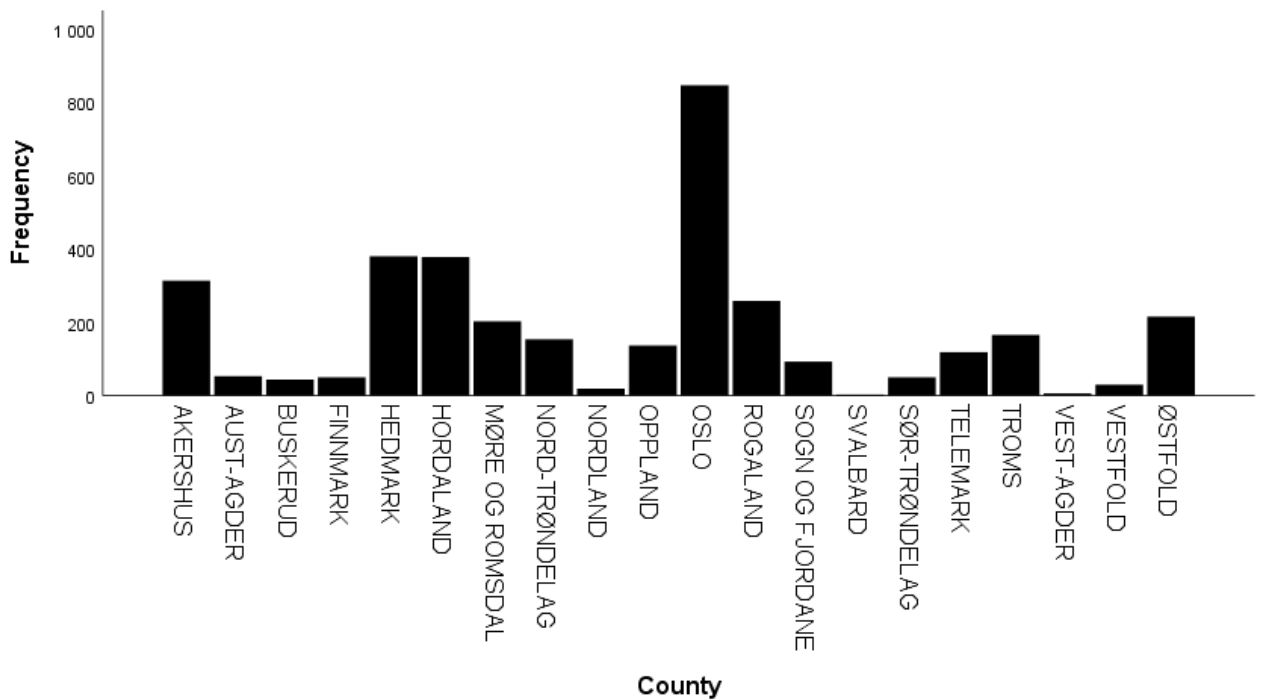


Figure 4: Geographical distribution of respondents

### 3.2.1 Variables

In order to measure the selected variables, they need to be operationalized. The selected variables utilizes a Likert-style rating scale, which means the respondent is asked how much he agrees or disagrees with a statement using a seven-point rating scale (Saunders et al., 2007). If the respondents respond 1 it means he strongly disagrees, and 7 means that he strongly agrees. As the answer "don't know" does not provide us with usable data, those answers have been excluded from the analysis.

0	1	2	3	4	5	6	7
Don't know	Strongly disagree			Neither			Strongly agree

Table 3: Likert scale

As mentioned in the theory chapter of this thesis some terms have re-coined as they seem more fitting and relevant to the research. These terms include; cognitive listening instead of active listening, and mood management instead of affective. The explanation and justification of this switch has been made in the theory chapter.

In this model, *music interest*, *escapist experience* and *cognitive listening* are used as independent variables and *mood management* as a dependent variable. This means that mood management as a dependent variable is afflicted by changes in the independent variables.

<b>Variable</b>	<b>Description</b>	<b>References</b>
Music interest	Music is a central part of my life	
Escapist experience	In a different time or place	(Oh, Fiore, & Jeoung, 2007) (Pine & Gilmore, 1998)
	I felt like a different character	
	I felt i was in a different world	
	I completely escaped from reality	
Cognitive listening	Active or passive way of listening to music	
Mood management	I often listen to music when I'm feeling down	(Chin & Rickard, 2012)
	Specific types of music make me feel better	
	Music often takes away tension at the end of the day	
	I listen to music to maintain my mood	

*Table 4: Operationalizing of variables*

## 4. Analysis and results

In this chapter, analyses will be explained and the results will be presented through the different techniques mentioned in this chapter. All the analyses were conducted in SPSS which is a software used for statistical analysis (Pallant, 2011).

”Data analysis usually involves reducing accumulated data to a manageable size” (Cooper & Schindler, 2014, p. 86). In short this process is based on taking raw data and turning into presentable results. In this analysis, relationships between different variables using multiple analysis will be explored. In the process, determining if the merging or data reduction of the four variables that makes up *mood management* and *escapist experience* are legitimate by doing a factor analysis of both variables. A correlation analysis will be performed to exhibit that there is a connection between the independent and dependent variables. Lastly a multivariate regression analysis will be carried out to show how, and if, the different variables affect one another.

### 4.1 Factor analysis

Factor analysis is used to reduce the data and in this case transform four variables into one, which simplifies further analysis (Pallant, 2011). This form for analysis does not differentiate between dependent and independent variables and according to Pallant (2011) it is often used before a multiple regression. When doing a factor analysis you need to consider the sample size, and the strength of the relationship between the variables (Pallant, 2011). The sample size in this thesis is very large, so that will not pose a problem since Pallant (2011) suggest that a minimum size of 150 is sufficient and this thesis has 3635. The relationship between the variables has already been established through the operationalization performed earlier.

The first factor analysis that was carried out performed were combining the four variables under *escapism* to one variable called *escapist experience*.

### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,024	75,595	75,595	3,024	75,595	75,595
2	,396	9,911	85,507			
3	,307	7,687	93,194			
4	,272	6,806	100,000			

Table 5: Factor analysis of "escapist experience"

The crucial numbers in table 5 are in the column called "Total" under *Initial Eigenvalues*. To be able to use escapist experience as one variable the variance of the initial eigenvalue of component 1 must be greater than 1. This technique is known as Kaiser's criterion (Pallant, 2011). Since the value of component 1 is at 3,024 and it explains 75,6% of the variance, we are able to use it as a standardised value.

Figure 5, shows that three of the variables scored quite similarly except "I'm in my own world" which scored quite a lot higher.

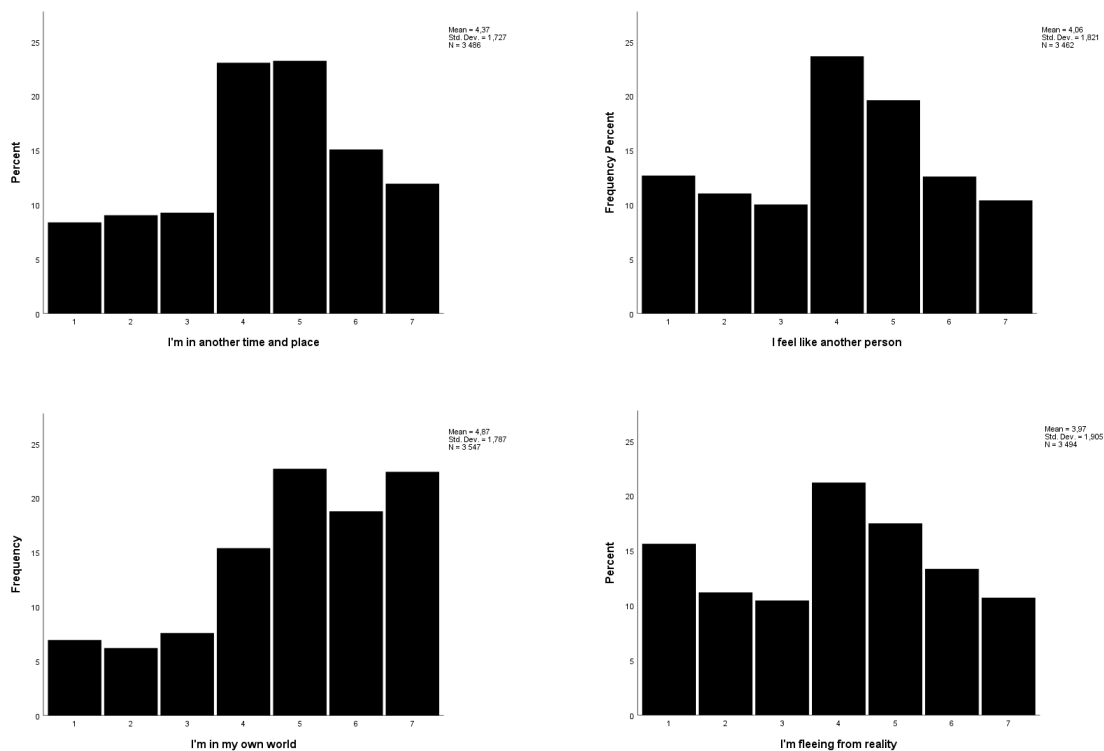


Figure 5: Escapist experience histograms



The next factor analysis that was performed were four variables under the common denominator *affective* which in this thesis is called *mood management*. This is the dependent variable used in the thesis. Table 6 illustrates that the initial eigenvalue of component 1 is greater than 1 at 2,631 and it explains 65,8% of the variance, which means that it can be used as one variable.

### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,631	65,784	65,784	2,631	65,784	65,784
2	,513	12,825	78,609			
3	,445	11,114	89,723			
4	,411	10,277	100,000			

Table 6: Factor analysis of "mood management"

The differences among these four variables were a bit larger than the ones relating to *escapist experience*, but we are still able to use it as one variable.

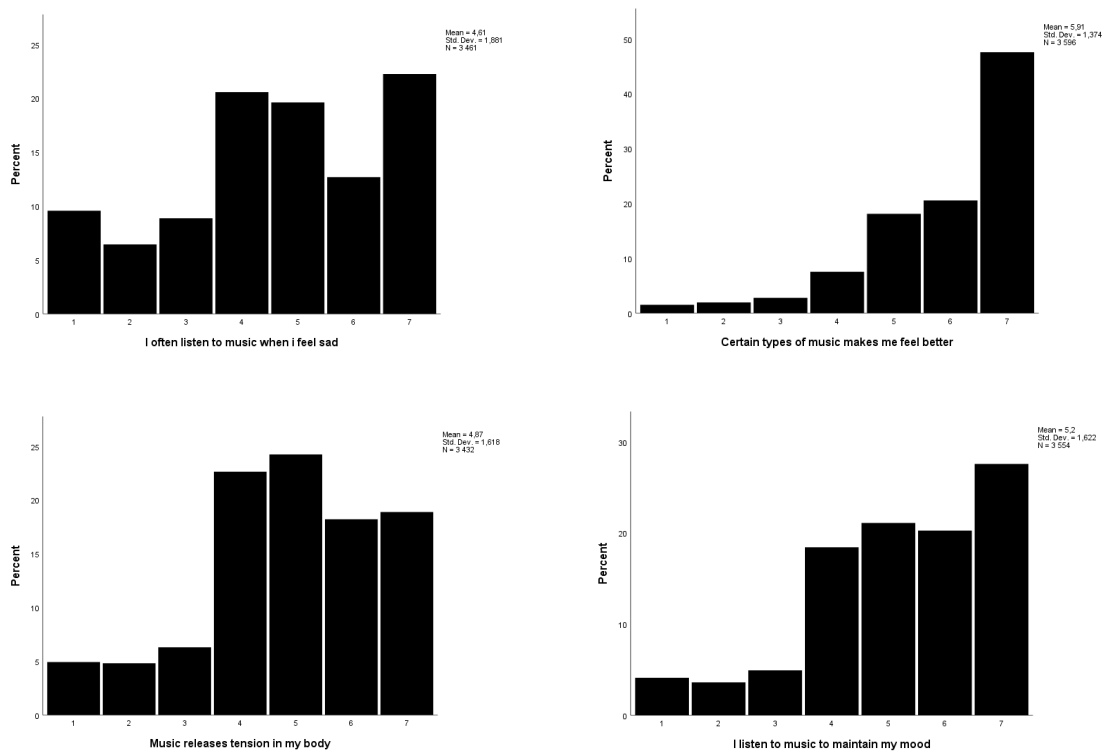


Figure 6: Mood management histograms

After performing the factor analysis, the conclusion is that both mood management and escapist experience can be used as a dependent and independent variable through the remainder of the analysis.

## 4.2 Correlation analysis

Correlation analysis is used to describe the direction and strength of a relationship between variables (Pallant, 2011). Pearson's correlation coefficient is being used to show how each variable correlate with the others. The coefficient ranges from -1 to +1, and the bigger the number the more it correlates (Cooper & Schindler, 2014). There are different formulas and methods to arrive at a correlation coefficient, and the different methods end up with slightly different answers. Two of the most used are called the Pearson correlation and Spearman's rho, but in our field of study the Pearson correlation is more prevalent since it is designed for continuous variables whereas Spearman's rho work better with ranked data (Pallant, 2011). Both correlations were performed to show how similar the results are. To perform this sort of test the sample size, N, should be greater than 30 ('SPSS Correlation Test - Simple Tutorial', n.d.). The sample size is greater than 3000, so it is well above what is necessary.

### Correlations Pearson

		Escapist experience	Mood management	Music interest	Cognitive listening
Escapist experience	Pearson Correlation	1	,550**	,464**	,417**
	Sig. (2-tailed)		,000	,000	,000
	N	3332	3055	3321	3242
Mood management	Pearson Correlation	,550**	1	,537**	,475**
	Sig. (2-tailed)	,000		,000	,000
	N	3055	3277	3266	3193
Music interest	Pearson Correlation	,464**	,537**	1	,612**
	Sig. (2-tailed)	,000	,000		,000
	N	3321	3266	3616	3504
Cognitive listening	Pearson Correlation	,417**	,475**	,612**	1
	Sig. (2-tailed)	,000	,000	,000	
	N	3242	3193	3504	3519

*Table 7: Pearson correlation analysis*

Table 7 shows that all the correlations are between 0,417 and 0,612 which is a strong positive correlation. The p-value, or Sig. 2-tailed which it is called in the table, are 0,000 which means that there is a 0% chance that the correlation is larger than the number listed, both positive and negative. This also implies that the correlation is significant. To conclude, this shows that if one variable rises, chances are you will see a proportionate rise in the others as well.

### Nonparametric Correlations Spearman's Rho

		Escapist experience	Mood management	Music interest	Cognitive listening
Escapist experience	Correlation Coefficient	1,000	,555**	,456**	,408**
	Sig. (2-tailed)	.	,000	,000	,000
	N	3332	3055	3321	3242
Mood management	Correlation Coefficient	,555**	1,000	,518**	,461**
	Sig. (2-tailed)	,000	.	,000	,000
	N	3055	3277	3266	3193
Music interest	Correlation Coefficient	,456**	,518**	1,000	,609**
	Sig. (2-tailed)	,000	,000	.	,000
	N	3321	3266	3616	3504
Cognitive listening	Correlation Coefficient	,408**	,461**	,609**	1,000
	Sig. (2-tailed)	,000	,000	,000	.
	N	3242	3193	3504	3519

*Table 8: Spearman's rho correlation analysis*

Table 8 shows the correlations after using Spearman's rho formulas are between 0,408 and 0,609. This shows how similar these tests are, and both end up with a strong positive correlation.

## 4.3 Regression analysis

To be able to show direct impact the independent variables may have on the dependent variable multiple regression analysis will be carried out (Saunders et al., 2007). Regression, also known as determination, is a tool used to estimate the relationship between variables. Multiple regression uses several independent variables, but just one dependent. "Multiple regression is based on correlation, but allows a more sophisticated exploration of the interrelationship among a set of variables" (Pallant, 2011, p. 148). In this thesis, a standard multiple regression is applied, on the basis that it shows how each independent variable predicts the dependent variable. (Pallant, 2011). To perform a multiple regression, you need

a proper sample size to be able to generalize the results. It is suggested that  $N > 50 + 8m$ , where the  $m$  is the number of independent variables (Pallant, 2011). In this thesis with three independent variables, a minimum of 74 respondents is needed. As mentioned earlier this thesis is based on a survey with over 3500 respondents, so it is well above what is needed.

### 4.3.1 Multiple regression analysis

The *Sig.* or p-value along with the corresponding t-value in table 9 shows us that there is less than 0,1% chance that there is no connection between the dependant variable and the independent ones. The B-value is an unstandardized coefficient and shows you the degree of variation between the dependent and an independent variable, when the other independents are kept constant. As an example this means that if the value of music interest goes up by 1, mood management goes up by 0,268 ('How to perform a Multiple Regression Analysis in SPSS Statistics', n.d.). The Beta value shows us that escapist experience has a bigger impact on mood management than the two others, and that cognitive listening has the least impact of the three, as shown in table 9.

		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,697	,081		20,959	,000
	Music interest	,268	,017	,284	15,534	,000
	Escapist experience	,287	,013	,347	21,776	,000
	Cognitive listening	,139	,015	,168	9,457	,000

Table 9: Coefficients for regression analysis

a. Dependent Variable: Mood management

The Anova table shows whether or not the chosen model fits the data provided. The p-value is 0,000 as well as a F-value that is 739 between df (degrees of freedom) 3 to 2974, which signifies that the data fits the regression model. This means that we can assume that our model explains a significant amount of the variance in mood management.

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2064,590	3	688,197	739,045	,000 <sup>b</sup>
	Residual	2769,380	2974	,931		
	Total	4833,971	2977			

*Table 10: Analysis of variance (ANOVA)*

a. Dependent Variable: Mood management

b. Predictors: (Constant), Cognitive listening, Escapist experience, Music interest

Table 11 shows R, which is the multiple correlation coefficient and measures the quality of the dependent variable regarding prediction (Pallant, 2011). The stronger the prediction, the closer the number is to 1. 0,654 is a very strong level of prediction. R square is the coefficient of determination and measures the proportion of variation. A result of 0,427 means that the independent variables explain 42,7% of the variation in the dependent variable (Pallant, 2011).

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,654 <sup>a</sup>	,427	,427	,96499

*Table 11: Regression model summary*

a. Predictors: (Constant), Cognitive listening, Escapist experience, Music interest

## 4.4 Hypotheses

Three alternative hypotheses were made at the beginning of this thesis. Hypotheses in a quantitative method are assumptions the researcher makes based on existing theory relating to the field of study.

H<sub>A</sub>: Level of cognitive listening is directly and positively related to mood management.

H<sub>B</sub>: Level of music interest is directly and positively related to mood management.

H<sub>C</sub>: Level of escapism while listening to music is directly and positively related to mood management.

All three hypotheses have a counter prediction called a null hypothesis H<sub>0</sub>. A null hypothesis states that there is no relationship between the dependent variable and the independent variable used in the model (Creswell, 2009). The aim of the analysis is to discard the null hypotheses, by showing this relationship. By discarding the null hypotheses, the alternative hypotheses are validated.

As an example, the null hypothesis to H<sub>B</sub> is:

H<sub>0</sub>: Level of music interest is not related to mood management.

All our hypotheses have a p-value of 0,000 which means that the assumptions made are significant. The Beta-values are positive which concludes that there is a positive relationship between each of the independent variables and the dependent variable. On this basis, the three null hypotheses are discarded and in turn validates our alternative hypotheses.

	Music interest	Escapist experience	Cognitive listening
Beta	0,284	0,347	0,167

*Table 12: Beta values*

The variable escapist experience is the strongest way to predict a positive change in mood management, followed by music interest and lastly cognitive listening.

#### 4.4.1 Cronbach's alpha

In able to make sure the variables put together have a consistency and is free from random error, a Cronbach's Alpha test will be performed (Pallant, 2011). This test is commonly used regarding Likert-scale questions like the questionnaire this thesis is based on. Two sets of variables have been put together and this test will run through both.

The first one is the dependent variable mood management.

Reliability Statistics	
Cronbach's Alpha	N of Items
,819	4

*Table 13: Cronbach's alpha, mood management*

Table 12 shows the four items that make up the mood management variable. The Cronbach's alpha rates from 0 to 1, and should be larger than 0,7 (Pallant, 2011). The result of 0,819 means there is a high level of internal consistency and reliability in this sample.

The second set of variables were regarding escapist experience, as shown in table 13.

Reliability Statistics	
Cronbach's Alpha	N of Items
,892	4

*Table 14: Cronbach's alpha, escapist experience*

In this test of the four items, the Cronbach's alpha has a value of 0,892 which means that there is a high level of internal consistency and reliability in this sample as well.

To conclude, both reductions of variables did not make the scale unreliable.



## 5. Discussion

The results acquired through this thesis shows music interest, cognitive listening and escapist experience all influence how the respondent uses mood management while selecting and listening to music. This has been demonstrated through the correlation and regression analyses we executed. Respondents who scored high on one of the independent variables also scored high on mood management. This theoretically means that even if it is a conscious choice or not, a lot of music listeners base their choice of music on how they feel or how they want to feel.

In our theory chapter, we showed how mood management has been researched in the past both on a general basis and also particularly related to music. We chose to look at the connection between the chosen independent variables and mood management based on the fact that there is no research in that specific area. We also believe that an understanding of these correlations may form how commercial music are written and marketed, based on the fact that access to music only gets easier and easier. The bigger the access the more specific and personalized music experience through mood management becomes.

The result shows us that the more interested you are in music the more actively you choose what type of music you listen to. This might seem trivial, but is based on the fact that was discussed in the theory chapter that people with a high level of music interest can ascertain more elements out of a song, and in that way place it to a specific mood.

The strongest result came from escapist experience. This relates to people who manage to "escape" from reality will to a certain degree attempt to recreate or seek new ways to do this through music that gets them in a certain mood of escapism.

As an example, you can look at the results from the multiple regression analysis which illustrates that if the value of music interest goes up by 1, mood management goes up by 0,268.

When analyzing the results, we found the correlation between active listening and level of escapism illogical to a degree. Whereas escapism is the ability to get lost in the music and is often associated with pathos, active or cognitive listening is more connected with analyzing music and logos. These two ways of listening to music is logically two contradictions. However, our results show that there is a correlation between these two terms. This may be a

result of a misunderstandings of the terms used in the survey. The respondents could interpret the word *active* as *attentive*, which somewhat differs from the term we use. The self-report done by the respondents is also a character of the survey that could be up for critique. People tend to answer the questions based on how they will be perceived and not objectively. This could disturb the results and lead to a false correlation. The illogical correlation could also be explained by the level of interest and investment in the music that is needed in both cognitive listening and escapism. If you for example tend to analyze and review the content of a song, the songs could be more familiar or more exciting and would lead you to an escapist experience while listening to music. Vice versa, if you have a strong experience while listening to a song, one could imagine that the listeners have a stronger investment in the song and would analyze the various element. Something that requires an active listening.

Based on our results, existing theories should not be changed but expanded into to new territories. We have not found contradicting results to the already established "truths" in this field, but new ways to look at it.

## 5.1 Weaknesses and limitations of the study

In this chapter, we will discuss the reliability and validity of our study.

Norway has a distinctive market regarding which platforms that are prevalent. In Norway, streaming technology is a much more prevalent platform than it is in the biggest markets around the world (IFPI, 2016). This means that conclusions drawn from this research does not necessarily manifests itself in other countries outside of Scandinavia.

The respondents of the questionnaire had a quite unequal age distribution with a mean age of 26,3 which is not representative of the whole Norwegian market. In the questionnaire, we also based our results on numbers from Likert-scales. It can be argued that Likert-scales are not really a proper ratio, but it is common practice to use it in this field. To be able to quantize this amount of data, respondents answer themselves how they observe or how they feel about a certain subject. That means the objectivity of the completed questionnaire itself is under question.

The questionnaire took between 15-20 minutes to complete and chances are that people may have misunderstood questions in the progress and maybe lost some interest underway which could lead to less weighted answers.

William Greene has highlighted problems regarding using null hypotheses as "facts".

"Since by definition, the classical procedures seek evidence in the sample to refute the "null" hypothesis, how one frames the null can be crucial to the outcome. Fortunately, the Neyman-Pearson methodology provides a prescription; the null is usually cast as the narrowest model in the set under consideration. On the other hand, the classical procedures never reach a sharp conclusion. Unless the significance level of the testing procedure is made so high as to exclude all alternatives, there will always remain the possibility of a type one error. As, such the null is never rejected with certainty, but only with a pre-specified degree of confidence." (Greene, 2003)

In most studies you come across missing data (Babbie, 2010). This can pose a problem in surveys where respondents may skip a few questions or answer "I don't know". The question is if the exclusion of the responses will affect your analysis because the number of answer is sufficient or not (Babbie, 2010).

## 6. Conclusion

The aim of this paper was to show a positive association between music interest, cognitive listening, escapist experience and mood management through our thesis:

*Why do people choose music as a tool for mood management?*

Before explaining why people choose music as a tool for mood management the emphasis was put on which elements that affects mood management. The chosen hypotheses were confirmed through discarding of null hypotheses and illustrated a positive correlation between the variables. Probably the most compelling results were shown in hypothesis H<sub>C</sub>, where our results illustrated a strong correlation between escapist experience and mood management. With our three independent variables put together, one could also draw the conclusion that people that has a big investment and interest in music tends to have a higher degree of mood management.

Mood management has become exponentially more relevant in the rise of technologically focused appliances, which has made it much easier to access media and information at any given time. On this basis, it seems that mood management along with technology will play a bigger part of peoples lives in the years to come.

### 6.1 Future research

Using music as a tool for mood management is a fairly new research field. Although music and psychology has been widely studied and provided strong evidence for, the idea of selective exposure of media and its possible effects has not been a subject for a large sum of studies. Most of the studies that have been done on mood management regarding music is explorative and qualitative to provide evidence for the theory. To get a full understanding of mood management, and it's possible effects and uses, could be proven useful to the commercial music business.

Getting a full understanding for the mood management theory implicates studies on who uses mood management and why/why not, studies on when people use mood management, studies on what traits are important in a musical piece to “treat” the different moods and

studies on the different segments (e.g. what music does the teenager listen to when feeling down/happy etc.).

In our study, we explored why people use music as a tool for mood management. Our study shows that people that has a high degree of mood management is individuals with an interest in music, a will to get invested in the music they listen to, and tends to escape from reality when they listen to music. Further studies on why people use music as a tool for mood management could lead to an even deeper understanding, something that may contribute to an even more narrow segmentation and specialisation of e.g. playlist creation and marketing. To operationalize this, we also need to get an insight in what traits each segment appreciates in a song. E.g. you could create a playlist using Spotify's metadata to make a playlist for sad moods based on the traits appreciated by sad people, and market the playlist based on our segmentation criteria. Using this metadata, Spotify has already developed a playlist sorting service ('Sort Your Music', n.d.). If we can understand the segment and what they appreciate at the different occasions, we could build a powerful tool. But this needs further research in order to be achieved.

Discovering what traits in music that stimulates the specific uses of the music, from a mood management perspective, can be proven valuable to commercialised songwriters as well. If you're writing, e.g., for an artist with a fan base demographic that consists of women, age 25-40, who are interested in music and book reading, one could write a song tailor made for this specific demographic.

It could also be interesting to get an understanding of when people use music as a tool for mood management. Is it occasionally or always? Do the listeners tend to use music as a background noise at the start of the day, and then for recreational and mood managing uses in the evening? Is it perhaps seasonal? All these questions can lead to answers that can give us a valuable insight as to when we should release albums and what songs would most likely get traction depending on what season it is. This can also be proven valuable for the marketing of the music.

With the streaming services, such as Spotify, understanding the behavioural patterns is extremely valuable. The amount of content in these services is enormous and you compete with millions of songs. An understanding of what the consumers thinks, how they make music choices, what the majority favours in a song and in which setting they like to hear

what would give you an edge on the competition. From the streaming services point of view, if they can help the consumers find the music that they want or enjoy, this will also be an ideal insight.

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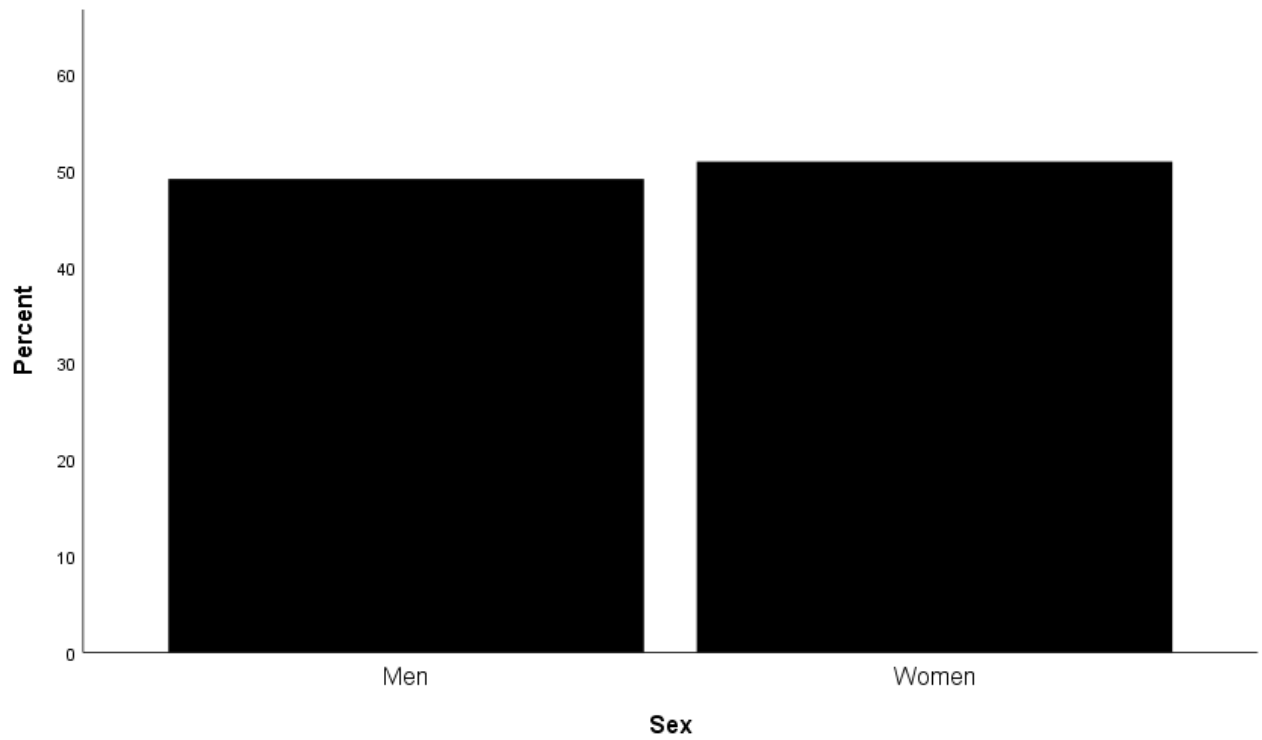


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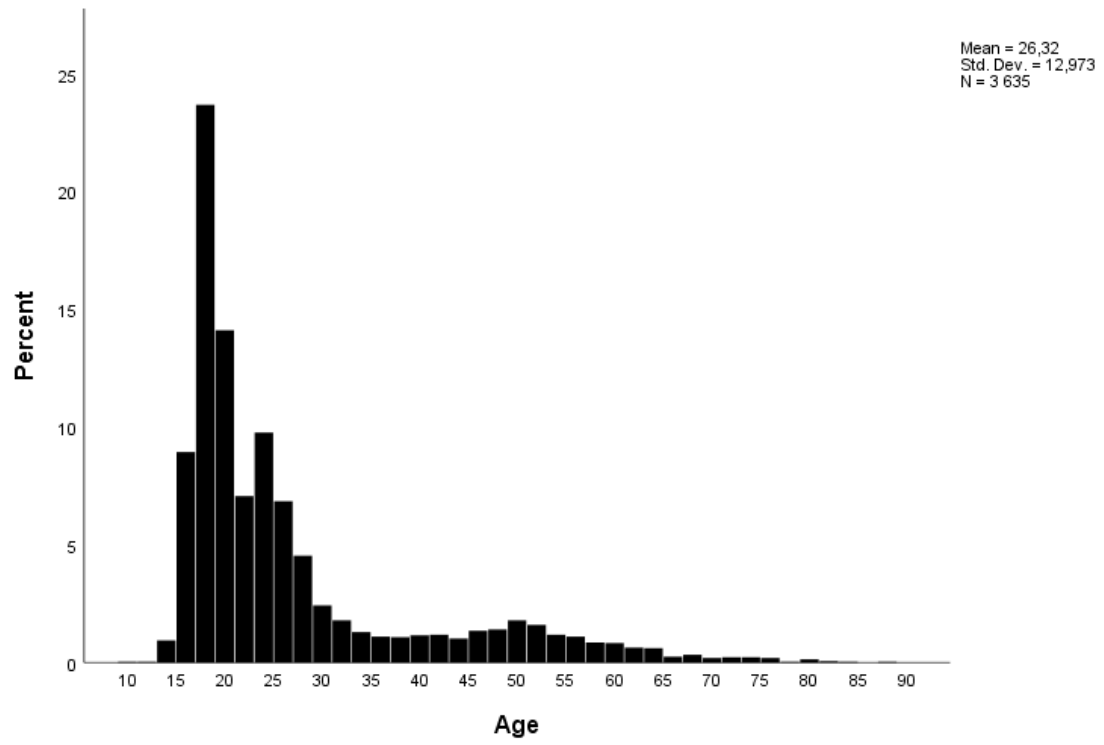
## Appendices

### 1. Frequency table: Sex

Sex		
	Frequency	Percent
Men	1785	49,1
Women	1850	50,9
Total	3635	100,0



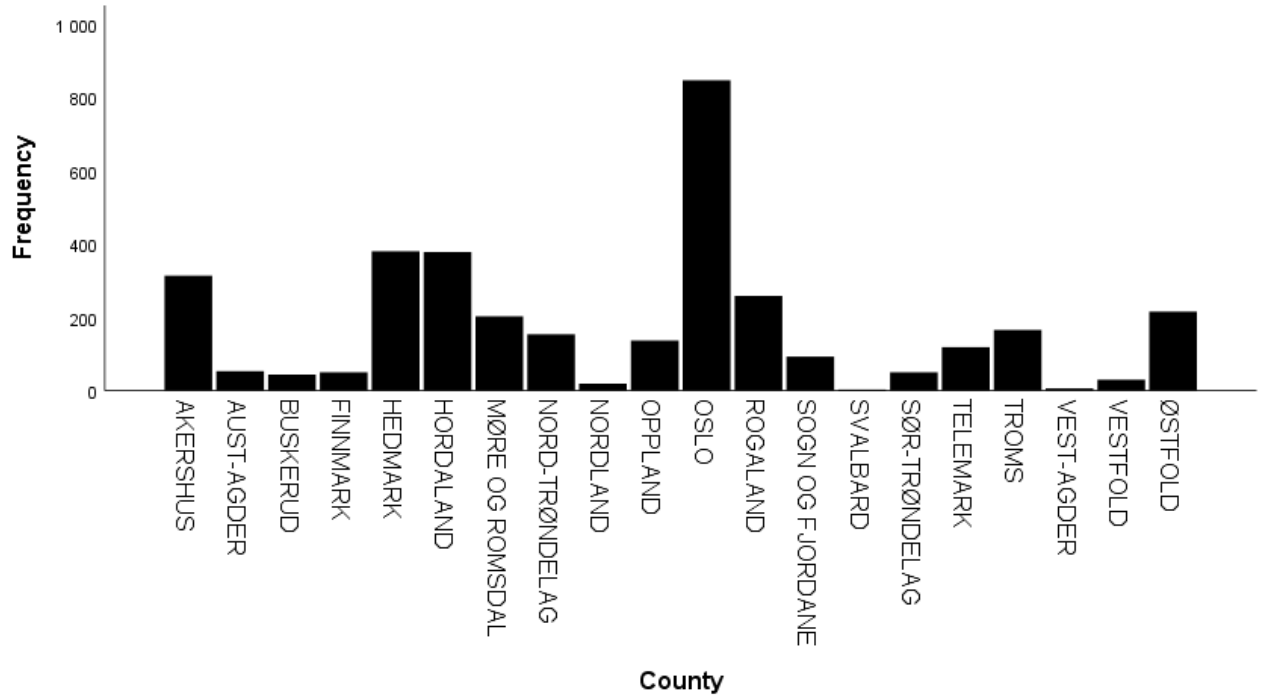
## 2. Graph: Age



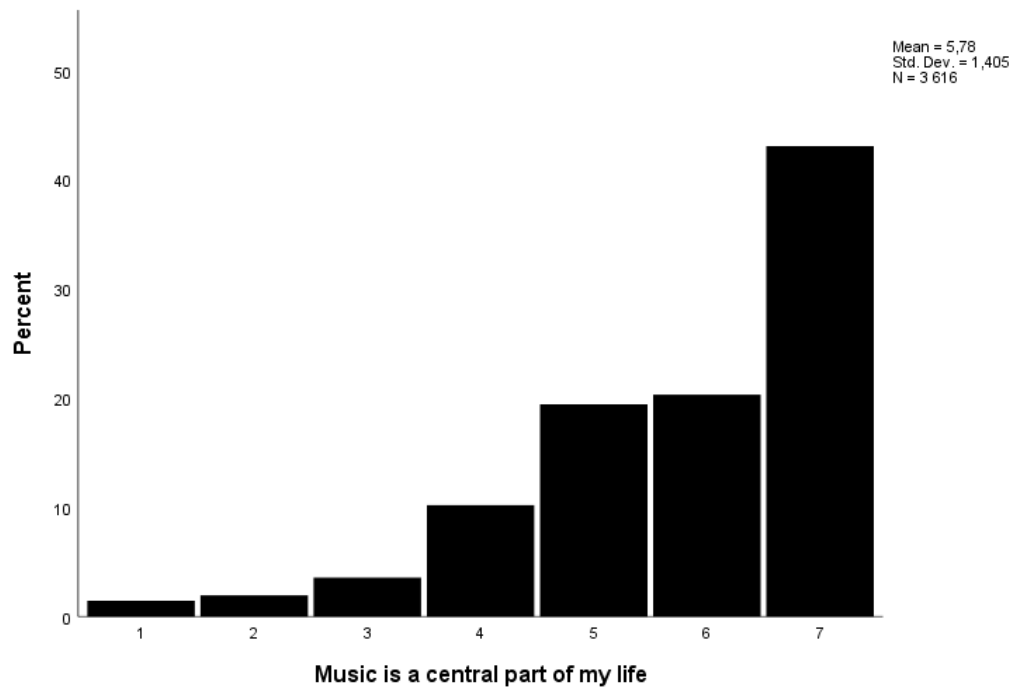
### 3. Frequency table: County

		County			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	AKERSHUS	314	8,6	8,9	8,9
	AUST-AGDER	53	1,5	1,5	10,4
	BUSKERUD	44	1,2	1,2	11,7
	FINNMARK	50	1,4	1,4	13,1
	HEDMARK	381	10,5	10,8	23,9
	HORDALAND	379	10,4	10,8	34,6
	MØRE OG ROMSDAL	203	5,6	5,8	40,4
	NORD-TRØNDELAG	154	4,2	4,4	44,8
	NORDLAND	19	,5	,5	45,3
	OPPLAND	137	3,8	3,9	49,2
	OSLO	848	23,3	24,1	73,3
	ROGALAND	259	7,1	7,3	80,6
	SOGN OG FJORDANE	93	2,6	2,6	83,3
	SVALBARD	3	,1	,1	83,3
	SØR-TRØNDELAG	50	1,4	1,4	84,8
	TELEMARK	119	3,3	3,4	88,1
	TROMS	166	4,6	4,7	92,8
	VEST-AGDER	6	,2	,2	93,0
	VESTFOLD	30	,8	,9	93,9
	ØSTFOLD	216	5,9	6,1	100,0
Total	3524	96,9	100,0		
Missing	111	3,1			

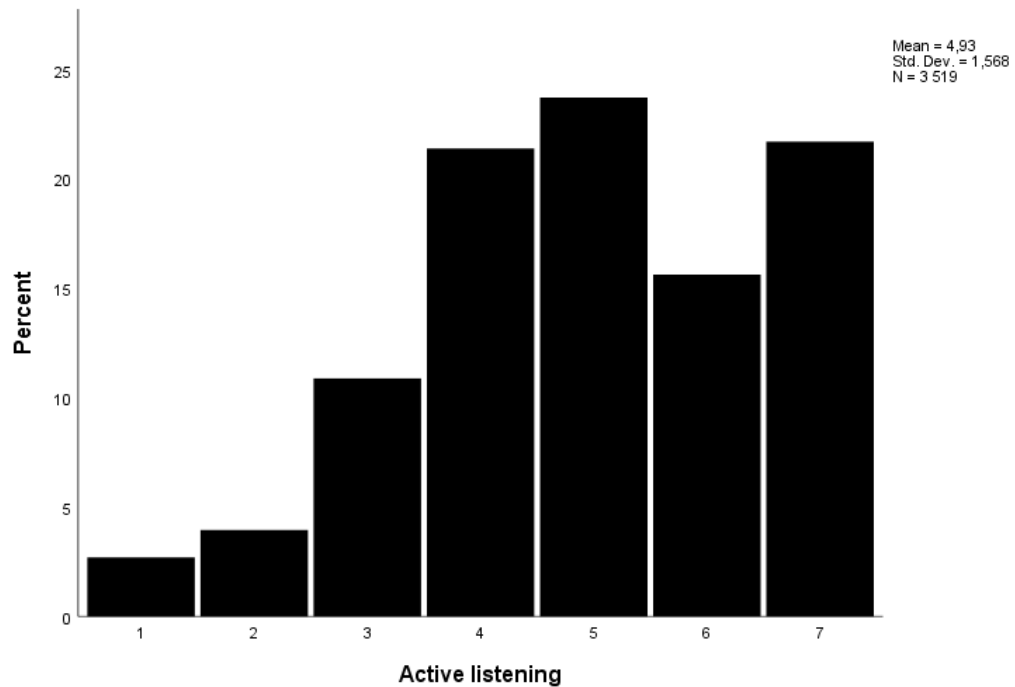
Total	3635	100,0		
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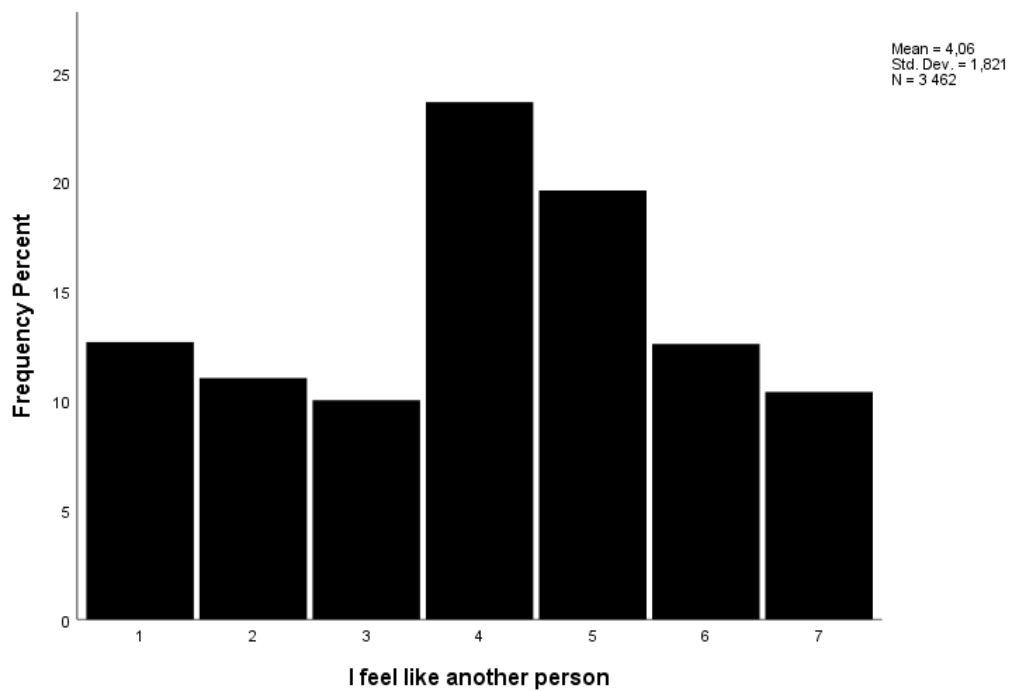
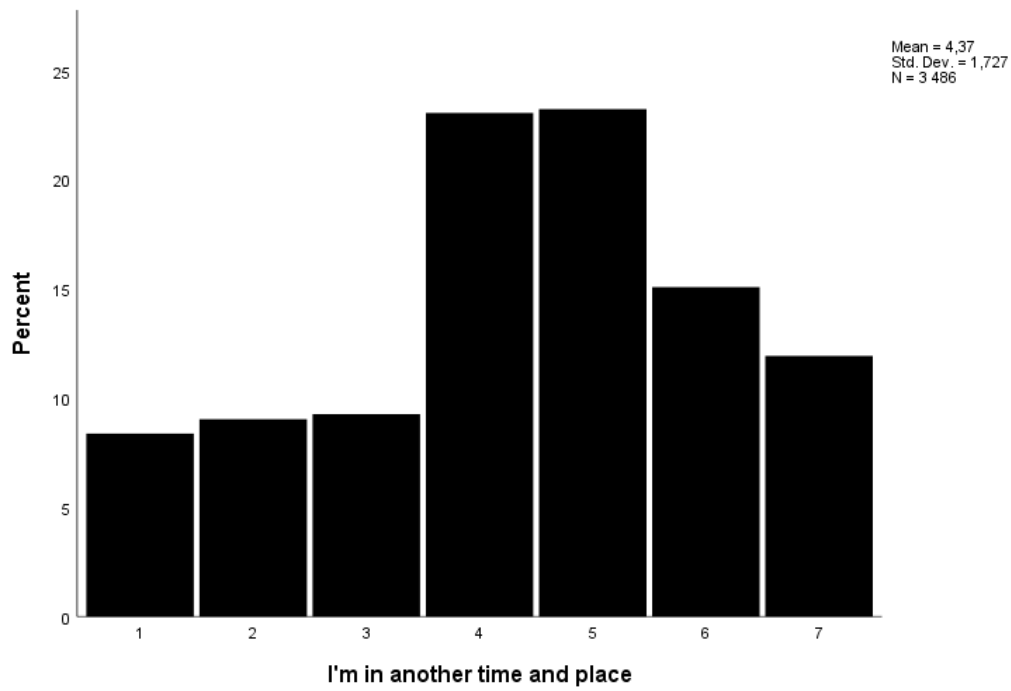
#### 4. Graph: Music interest

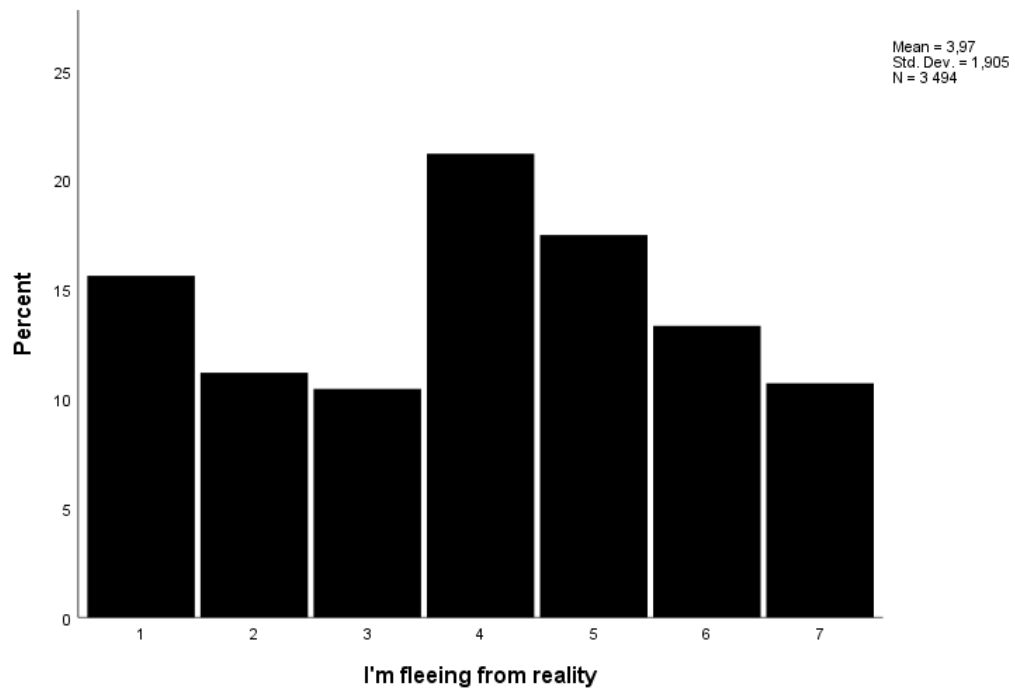
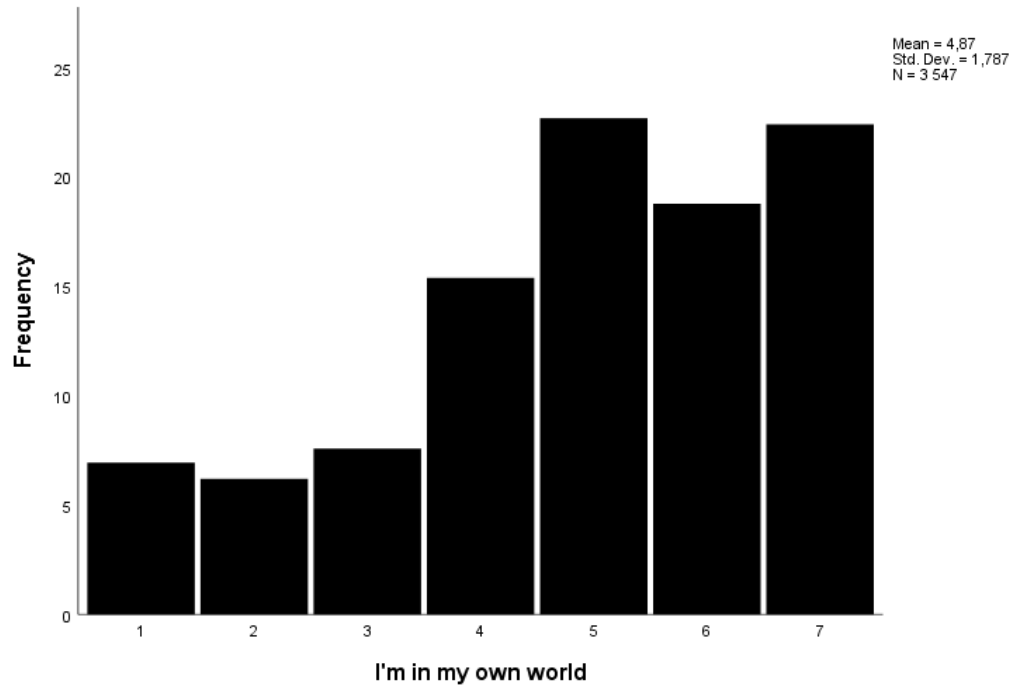


#### 5. Graph: Cognitive listening



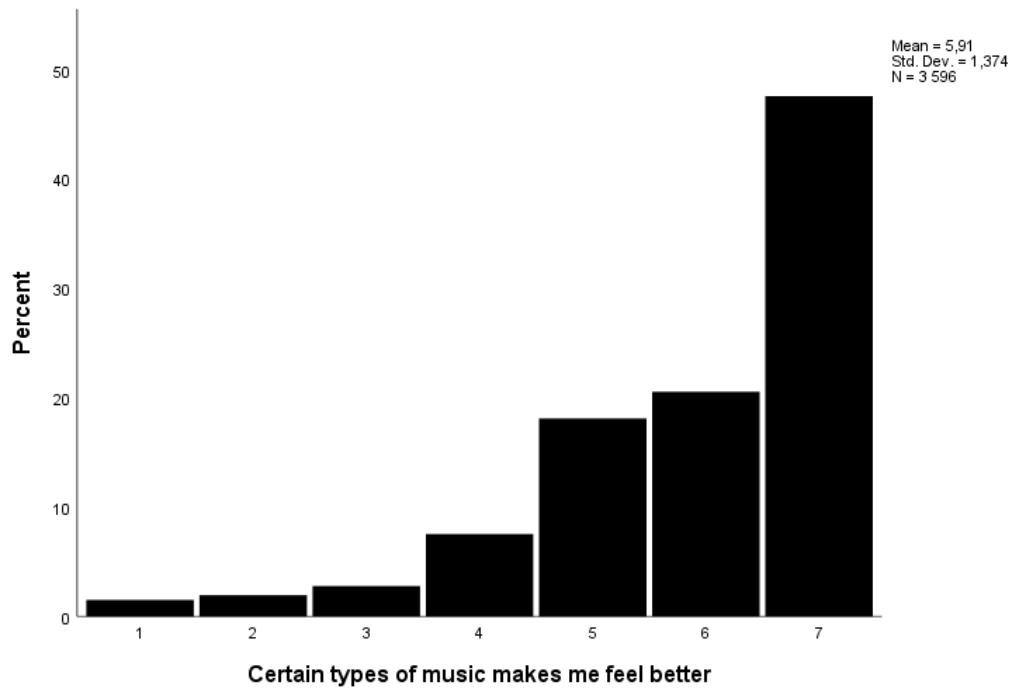
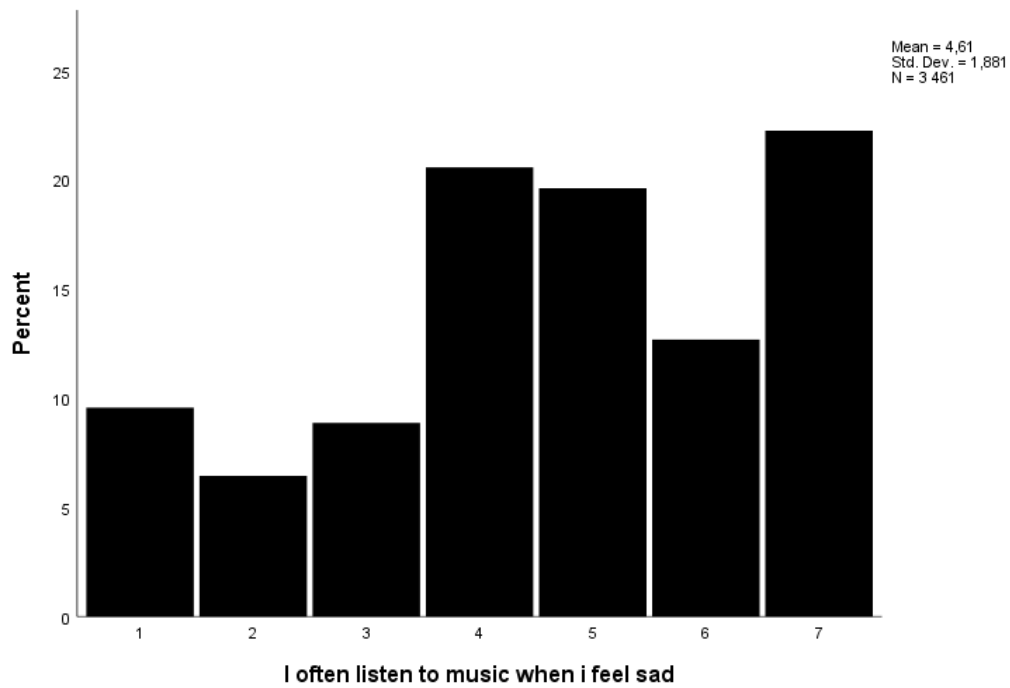
## 6. Graph: Escapist experience

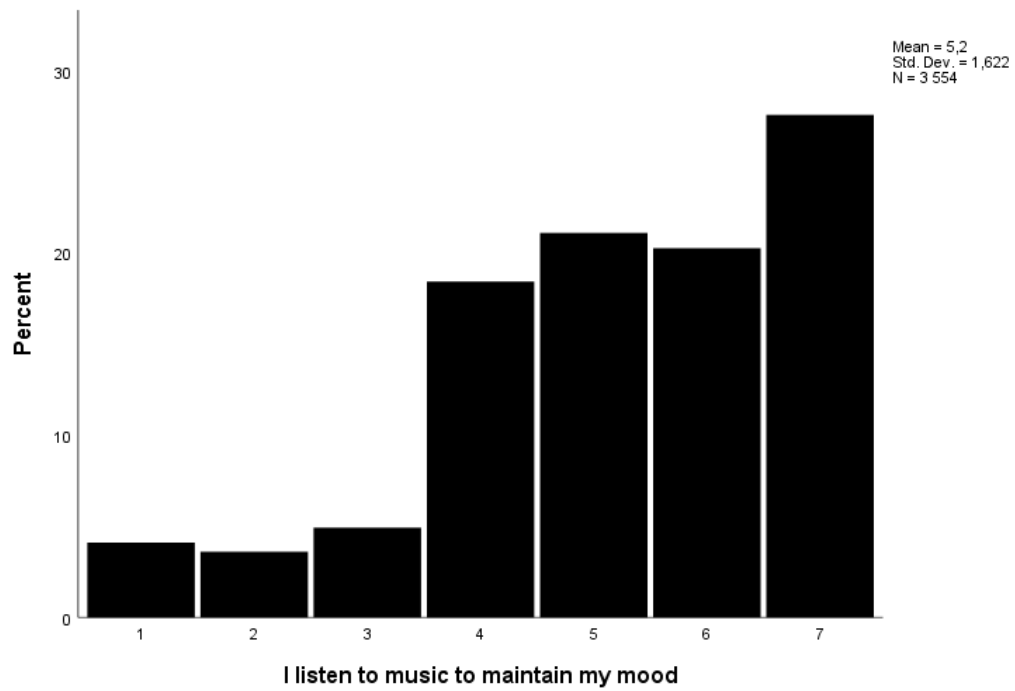
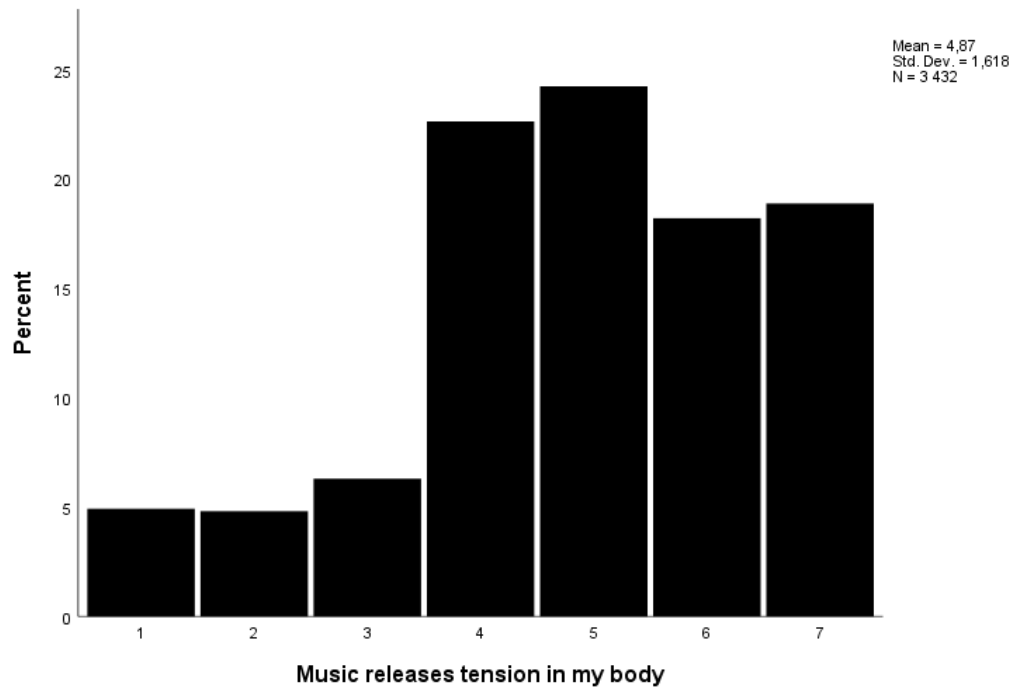






## 7. Graph: Mood management





## 8. Factor Analysis: Escapist experience

### Communalities

	Initial	Extraction
In a different time or place	1,000	,753
I felt like a different character	1,000	,783
I felt i was in a different world	1,000	,768
I completely escaped from reality	1,000	,719

Extraction Method: Principal Component Analysis.

### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,024	75,595	75,595	3,024	75,595	75,595
2	,396	9,911	85,507			
3	,307	7,687	93,194			
4	,272	6,806	100,000			

Extraction Method: Principal Component Analysis.

---

**Component Matrix<sup>a</sup>**

	Component 1
In a different time or place	,868
I felt like a different character	,885
I felt I was in a different world	,876
I completely escaped from reality	,848

Extraction Method: Principal Component Analysis.<sup>a</sup>

a. 1 components extracted.

## 9. Factor Analysis: Affective

### Communalities

	Initial	Extraction
I often listen to music when I'm feeling down	1,000	,611
Specific types of music make me feel better	1,000	,666
Music often takes away tension at the end of the day	1,000	,660
I listen to music to maintain my mood	1,000	,695

Extraction Method: Principal Component Analysis.

### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,631	65,784	65,784	2,631	65,784	65,784
2	,513	12,825	78,609			
3	,445	11,114	89,723			
4	,411	10,277	100,000			

Extraction Method: Principal Component Analysis.

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**Component Matrix<sup>a</sup>**

	Component 1
I often listen to music when I'm feeling down	,782
Specific types of music make me feel better	,816
Music often takes away tension at the end of the day	,813
I listen to music to maintain my mood	,834

Extraction Method: Principal  
Component Analysis.<sup>a</sup>

a. 1 components extracted.

## 10. Pearson Correlations

### Correlations

		Escapist experience	Mood management	Music interest	Cognitive listening
Escapist experience	Pearson Correlation	1	,550**	,464**	,417**
	Sig. (2-tailed)		,000	,000	,000
	N	3332	3055	3321	3242
Mood management	Pearson Correlation	,550**	1	,537**	,475**
	Sig. (2-tailed)	,000		,000	,000
	N	3055	3277	3266	3193
Music interest	Pearson Correlation	,464**	,537**	1	,612**
	Sig. (2-tailed)	,000	,000		,000
	N	3321	3266	3616	3504
Cognitive listening	Pearson Correlation	,417**	,475**	,612**	1
	Sig. (2-tailed)	,000	,000	,000	
	N	3242	3193	3504	3519

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## 11. Nonparametric Correlations Spearman's Rho

### Correlations

		Escapist experience	Mood management	Music interest	Cognitive listening
Escapist experience	Correlation Coefficient	1,000	,555**	,456**	,408**
	Sig. (2-tailed)	.	,000	,000	,000
	N	3332	3055	3321	3242
Mood management	Correlation Coefficient	,555**	1,000	,518**	,461**
	Sig. (2-tailed)	,000	.	,000	,000
	N	3055	3277	3266	3193
Music interest	Correlation Coefficient	,456**	,518**	1,000	,609**
	Sig. (2-tailed)	,000	,000	.	,000
	N	3321	3266	3616	3504
Cognitive listening	Correlation Coefficient	,408**	,461**	,609**	1,000
	Sig. (2-tailed)	,000	,000	,000	.
	N	3242	3193	3504	3519

\*\* . Correlation is significant at the 0.01 level (2-tailed).



## 12. Multiple Regression Analysis

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	Cognitive listening, Escapist experience, Music interest	.	Enter

a. Dependent Variable: Mood management

b. All requested variables entered.

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,654 <sup>a</sup>	,427	,427	,96499

a. Predictors: (Constant), Cognitive listening, Escapist experience, Music interest

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2064,590	3	688,197	739,045	,000 <sup>b</sup>
	Residual	2769,380	2974	,931		
	Total	4833,971	2977			

a. Dependent Variable: Mood management

b. Predictors: (Constant), Cognitive listening, Escapist experience, Music interest

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,697	,081		20,959	,000
	Music interest	,268	,017	,284	15,534	,000
	Escapist experience	,287	,013	,347	21,776	,000
	Cognitive listening	,139	,015	,168	9,457	,000

a. Dependent Variable: Mood management

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### 13. Cronbach's Alpha: Affective

#### Case Processing Summary

		N	%
Cases	Valid	3277	90,2
	Excluded <sup>a</sup>	358	9,8
	Total	3635	100,0

a. Listwise deletion based on all variables in the procedure.

#### Reliability Statistics

Cronbach's Alpha	N of Items
,819	4

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## 14. Cronbach's Alpha: Educational experience

### Case Processing Summary

		N	%
Cases	Valid	3332	91,7
	Excluded <sup>a</sup>	303	8,3
	Total	3635	100,0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
,892	4