Title of Research: Music Whilst Studying

You are being invited to participate in a research. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and feel free to ask us if you would like more information or if there is anything that you do not understand. Please also feel free to discuss this with your friends or relatives if you wish. We would like to stress that you do not have to accept this invitation and should only agree to take part if you want to.

What is the purpose of the research? Students commonly listen to music whilst studying. However, the extent to which background music is beneficial for studying is unclear as the effect might differ among individuals, the types of study tasks, as well as the types of music being listened to. Therefore, we aim to conduct a research to explore students' music listening habits when they are studying, and students' perception of how background music affects them and their study outcomes.

Why have I been chosen to take part? We are looking for students (full-time or part-time) who are at least 18 years of age, use an Android smartphone (the study will be conducted using a mobile app that only works on Android phones), and use music streaming platforms (e.g., Spotify, Google Play, SoundCloud, etc.) for music listening.

Do I have to take part? Your participation is voluntary and you are free to withdraw your participation at any time, without explanation, and without incurring a disadvantage.

What will happen if I take part?
In the first part of the study, we will ask you to complete an online survey with questions about your personality, music preferences, level of music education and musical experiences, use of music, and some basic demographic questions such as your age, gender, and level of education (this should take around 20-30 minutes to complete). Then, we will ask you to install a mobile app in your Android smartphone and use it over a period of 6 weeks. During this period, we will prompt you (a maximum of 3 times per day) to tell us if you are studying in that moment. Depending on whether you are studying or not, we will ask you some follow up questions about the study task(s) you are engaging with or what you may be doing other than studying. Finally, 30 minutes after this initial prompt, we will ask you another set of follow up questions related to your mood and study tasks (if applicable). Note that these questionnaires should take only 1 to 2 minutes to answer so that the disruption to your daily activities is minimal. You will also have the option to ignore the prompt and not answering any questions if you wish so. Note that if you give permission for the app to track the music you listen to whilst studying, during the 30 minutes that follow the initial prompt, we will automatically log the music tracks that you play on your

device using your preferred music streaming service (e.g., Spotify, Google Play, SoundCloud, etc.).

How will my data be used? The University processes personal data as part of its research and teaching activities in accordance with the lawful basis of 'public task', and in accordance with the University's purpose of "advancing education, learning and research for the public benefit". Under UK data protection legislation, the University acts as the Data Controller for personal data collected as part of the University's research. The Student Lead Investigator and the Principal Investigator (contact details at the end of this document) act as the Data Processors for this study, and any queries relating to the handling of your personal data can be sent to them. Further information on how your data will be used can be found in the table below.

How will my data be collected?	The data will be collected remotely through an online survey and a mobile app.
How will my data be stored?	All data collected in the first part of the study (online surveys) will be stored in a secure server at the University of Liverpool. All data collected by the mobile app will first be stored in the app's server (hosted by the University of Jyväskylä, Finland) and then transferred to the Principal Investigator in an encrypted file, which will then be stored in a secure server at the University of Liverpool.
How long will my data be stored for?	In line with ethical and governance requirements, this will be kept for a minimum of 10 years following the end of the project, after which it will be destroyed. The research data may also be made openly available to the wider academic community in accordance with the University of Liverpool Research Data Management Policy.
What measures are in place to protect the security and confidentiality of my data?	Your data will be stored on a password protected, secured server at the University of Liverpool and will be only accessible by the research team.
Will my data be anonymised?	Your data will be fully anonymised throughout the research, and any individually identifying information (i.e., email address) will be destroyed immediately after data collection.
How will my data be used?	Results from this study will be included in a doctoral thesis and may be submitted for publication in scientific journals and/or conferences. You will not be identifiable in any publications associated with this study.
Who will have access to my data?	Your information will be confidential with only the research team having access to your responses and details. Fully anonymised data may also be archived for future use (see below).
Will my data be archived for use in other research projects in the future?	Consistent with open science practices, anonymised data may be made available as

	part of peer reviewed publications, or deposited on an online repository, or may be made available upon request to the authors.
How will my data be destroyed?	In line with ethical and governance requirements, the collected data will be permanently deleted from the secure university server along with any data analysis after 10 years following completion of the project. In the case that the data is shared for future research, the data will be kept indefinitely.

Expenses and / or payments. No payments will be offered for participation.

Are there any risks in taking part? We did not identify any specific risks related to your participation in this research. However, the research involves sending prompts to answer questionnaires for a prolonged period of time, therefore you might experience some fatigue and/or minor disruption to your daily schedule. If any of the questionnaire prompts occur at a time when it is inconvenient for you to respond, you will have the option of ignoring that particular prompt.

You will also be asked to answer some questions about your personality. In the unlikely event that you experience any discomfort or distress while answering any of these questions, feel free to either pause the study or not respond to those questions at all.

Are there any benefits in taking part? There is no intended benefit to yourself, but your participation will help us better understand students' use of background music when they study.

What will happen to the results of the research? The results of the research will be published in a doctoral thesis, and may be published in academic research journals and used for public presentations. However, under no circumstances will you be identifiable from the results.

What will happen if I want to stop taking part? Your participation is voluntary and you are free to stop taking part and can withdraw from the study at any time without giving any reason and without your rights being affected. If you wish to withdraw during the first part of the study, simply stop answering the questionnaires. If you wish to withdraw during the second part of the study, you will need to uninstall the mobile app we asked you to install on your phone. All data collected until the moment you stop taking part may be used by the researchers.

What if I am unhappy or if there is a problem? If you are unhappy, or if there is a problem, please feel free to let us know by contacting the Student Lead Investigator and/or the Principal Investigator (contact information at the bottom of this document) and we will try to help. If you remain unhappy or have a complaint which you feel you cannot come to us with, then you should contact the Research Ethics and Integrity Office at ethics@liv.ac.uk. When contacting the Research Ethics and Integrity Office, please provide details of the name or description of the

study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make.

The University strives to maintain the highest standards of rigour in the processing of your data. However, if you have any concerns about the way in which the University processes your personal data, it is important that you are aware of your right to lodge a complaint with the Information Commissioner's Office by calling 0303 123 1113.

If you have any questions regarding the research or would like further information, please contact the research team:

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