
Does student opinion on passive versus active learning correlate with how effective it is for retention of knowledge?

A Data Management Plan created using DMPonline

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Project abstract:

The project is to understand students' perceptions on the way they learn best and whether this correlates to how well they retain the knowledge for their assessments. The project will first give all participants a test on the topic to understand their baseline knowledge. Participants will be divided into two groups randomly and equivalent content will be delivered to them, in either a passive or active format. Straight after, another test (of similar difficulty) will take place for everyone. Finally, there will be a third test (again of similar difficulty) about four weeks after the teaching to analyse the retention of knowledge. These results will be analysed to see if there's a difference between passive and active learning. Furthermore, a few in depth interviews will take place to try and understand the way students view their learning and understand their preference, and then this will be compared to their results to see if there's any correlation. The outcomes of this research will be of interest in medical education and in understanding learning more widely.

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Does student opinion on passive versus active learning correlate with how effective it is for retention of knowledge?

Data description

What data will you create?

The data will be a mix of quantitative and qualitative - participants will have to answer some test questions which will be quantitative (a score) but some participants will be invited for interview at the end the study to learn more about the way they learn and so the transcript and thematic analysis will provide qualitative information.

For the quantitative data, the test will take place using Microsoft forms using the secure, password protected University Office365 system. This can capture the data which will be transferred onto University of Nottingham One-Drive which is also password protected for further analysis.

The data will use codes to anonymise individual participants data. There will include some demographic data, including age and gender, due to possible correlations of these in my results that I may want to look at.

Data collection / generation

What are your methodologies for data collection / generation? How will you ensure data quality? What data standards will you use?

Volunteers will be recruited through email, lecture shoutouts and possibly posters (after Ethics Committee approval). Participants will complete an online Microsoft Form to establish their consent and through which questions will be asked to ascertain their baseline knowledge of the topic to be studied. Teaching will be delivered by the chief researcher as either passive (lecture format) or active (student centred) activity through MS Teams (on the secure University of Nottingham system). Interviews will also be conducted on Teams and transcribed using the secure streaming system.

Data storage and security

Where and how will data will be stored, backed-up, transferred, and secured during the active phase (short to medium term) of research?

All data will be stored on the University of Nottingham secure system using O365. To start with, I will store data on the online survey using Microsoft forms which will be anonymised. I will then transfer the results onto a spreadsheet on one-drive- UoN allows secure and controlled sharing of data amongst research teams. UoN allow up to 5TB free-at-point-of-use and the project plans to have around 50 participants so the data won't exceed this allowance.

Back-ups are through the university secure system.

Data management, documentation, and curation

What are your principles, systems, and major standards for data management and creation? What metadata and documentation will you keep?

Due to being interested in the student group as a whole rather than individuals themselves, as little as possible personal data will be collected during this project. We plan for only a few demographics to be collected, including age and gender. For ethical reasons though, all participants will agree to data collection and long-term retention. Also, the project will follow the stand ethical procedures from the Faculty of Medicine and Health Sciences, and the University of Nottingham. An ethics form is being submitted to consider the specific project.

Participants will be informed on their participant information sheet that they can withdraw at any time during or after the project.

Ethics & Privacy

Are there any ethical or privacy related issues associated with your data?

The data will be anonymous and therefore limited personal data will be collected- this will only include demographics like age and gender. It will be stored on password protected One-Drive which only the Chief investigator will have the password to access.

An ethics form is being submitted to Ethics committee containing details of the project which will be reviewed, and the project will only commence once the Ethics has been approved.

Data preservation

How will you ensure the long term storage and preservation of data?

The data that will be collected from the project will be deposited in the UoN research data archive- <https://rdmc.nottingham.ac.uk/>.

Data sharing and access

How will the data generated be shared and published?

The data will be shared in the form of a thesis dissertation, with the potential of it being published. All the data used in the thesis dissertation would have had informed consent and be anonymised.

Roles & responsibilities

Who will be responsible for managing data, data security, data quality, and data security both during the award and post-award?

The chief investigator will be responsible for making sure the data is managed and secure, with the support of the project supervisor.

Relevant policies

What are the relevant institutional, departmental or study policies on data sharing and data security?

We will ensure that our research aligns with the requirements of the University's Research Data Management Policy, Information Security Policy, Code of Research Conduct and Research Ethics. As we are working with personal data, we will abide by the University's Handling Restricted Data Policy and Data Protection Policy. All third party commercial data or new data that may be suitable for commercial exploitation will be protected by the University's Intellectual Property policy.

IPR

Who will own the copyright and IPR of any data that you will collect or create? Will you create a licence(s) for its use and reuse? If you are planning to use existing data as part of your research, do any copyright or other restrictions determine its use?

The copyright and IPR for all the project research data is owned by the University of Nottingham.

Budgeting

What are the costs or funding required for capturing, processing, storing, and archiving your data?

This project does not anticipate any further costs or funding required for the storing of results. This is due to using One Drive and Microsoft Teams that the University of Nottingham already has a subscription with.

Further Help

Would you like your plan to be reviewed by specialists in Libraries?

Saving this plan after checking the "Yes" box will immediately notify Libraries DMP review service, please only do this when you are ready for review.

- Yes