

LEVEL 7 ASSESSMENT SPECIFICATION

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Programme:	MA Physical Education, Sport and Physical Literacy / MA Outdoor Education		
Module:	Research Methods in Health, Outdoor Education and Physical Literacy		
Module code:	BMOE7004	Contribution to Overall Module Assessment (%):	80%
Lecturer:	Dr Nalda Wainwright	Internal Verifier:	Dr Andy Williams
Assignment Title:	Electronic poster and project reflections.	Word count (or equivalent):	2904
Submission deadline:	13 th May 2022	Return date of provisional marks & written feedback:	10 th June 2022
Submission method:	All written assessments, where practical and possible, must be submitted via Turnitin unless otherwise instructed by the Lecturer. (Please DO NOT put this assessment specification into Turnitin or it will match many similarities with other students' submissions.) Alternative submission method (if applicable): Late submission of the assessment will result in a late penalty mark. Penalties for late submission: Up to one week late, maximum mark of 50%. Over one week late, 0%. Only the Extenuating Circumstances Panel may approve a change to submission dates.		
Academic honesty / referencing:	Academic honesty is required. In the main body of your submission you must give credit to authors on whose research and ideas your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have used, cited or quoted in order to complete this assessment.		

Introduction

This reflective essay details the experience of undertaking this research project and the key lessons learned. This reflective essay aims to analyse the process and methodology and assess the merits, strengths and limitations of each choice made. As described by (2005), a reflective model considers the description, feelings, evaluation, analysis, conclusion, and action plan undertaken for a given project.

Formulation of the research question

I had to read about previous students' research and published articles and started exploring the gaps. I also analyzed the feasibility of conducting a particular topic given the resources and time available. I managed to develop three (03) questions. I had to narrow it down to one that was not previously undertaken by another researcher and was relevant and feasible. Creswell and Clark (2010) stated that formulating and clarifying the research topic is a starting point of a successful research project. I made changes to the research question to refine it so that it is clear, focused, and researchable (Fandino, 2019).

After this, it was necessary to develop a plan of action with timelines attached to each deliverable. For instance, I had to complete the research proposal by February 2022, complete the ethical application by mid-March and complete the data collection by mid-April to be ready to make final submissions of the poster in May 2022. This was intended to guide me on how much time I had and the key deliverables (Gerald and Lechter, 2012).

Drafting and writing of research proposal

A research project is a systematic investigation or inquiry into a given problem or phenomenon (Creswell and Clark, 2010). I followed the assignment rubric and guidelines to develop a research proposal. I began the proposal by describing, defining, and stating the problem, research question and purpose of my research. I read published articles and grey literature (Bonato, 2018) surrounding the topic to identify gaps that the studies had not answered. The critical gap identified included a lack of physical activity patterns among university students post COVID-19.

I was able to add enough detail to the proposal and then successfully submitted it in time. After getting a go-ahead and approval, I went ahead to apply for ethics and came up with a data collection tool. The whole process of developing a research proposal was new to me, but I was able to read, learn and put all effort into producing an academically sound proposal. This has led me to grow into a better researcher and writer, and my English ability has also improved.

It was essential to position my research to address a specific gap such that it is significant. There were only a handful of studies relating to university students' physical activity patterns, especially factoring in the effect

of the COVID-19 pandemic. As Creswell and Clark (2010) illustrated, the proposed research must make a meaningful contribution. I envisioned that findings from the survey would be used by university management to design effective interventions to increase students' participation in exercises and sports facilities.

I targeted undergraduate and postgraduate students from the universities to draw a sample. The whole student body is taken as the source population from which the sample was obtained. It was vital for me to clearly describe the sample, inclusion and exclusion criteria (Kish, 1965). Only currently registered students, both under and graduate students, were eligible for inclusion; I excluded students under the long-distance and online learning modes because they are not stationed around their universities. Thus, it would be not very objective to include their physical activity patterns. This would otherwise introduce sampling bias, yielding wrong estimates (Brown, 2017).

Deciding on data collection method

There are several methods of data collection; use of paper-based questionnaires, interviews, focus group discussions, observation and online forms (Wing, 2018). I weighed the merits and demerits of each method, given the time and resources available. The critical factor I used to determine the approach to employ included time and financial resources. Given the time available, I required a method that would collect data in the shortest time possible, and for that reason, the online tool was the most appropriate method.

The online data collection method is quick, and thus data can be collected within a short time; however, it means that the physical activity patterns would not be objective. The data collected would rely on the memory of the respondent and thus be liable to bias (Wing, 2018). The WHO scale has been extensively used by other scholars across various populations and has therefore been validated for use even among young people. The tool relied on reported measures of physical activities as reported by the students. While this was the easier and quicker method, it is inaccurate as it depends on the respondents' memory. Additionally, the technique is liable to biases such as social desirability, which creates data errors.

At first, I did not have prior experience using online tools, but I sought guidance from colleagues. I used Google forms to draft the tool incorporating skip logic in the questions. I was able to deploy the tool and pretest it to check its use among a sample of ten students who would not be part of the primary survey (Hilton, 2017). After pretesting, identified gaps were addressed accordingly.

The online tool was adapted from a standardized Global Physical Activity Questionnaire from the World Health Organization (Cleland et al., 2014). This was necessary such that the tool had validity to collect precisely what it was meant to collect.

Ensuring ethical standards

I was able to fill out the ethical application form and submit it. The application form contained sections about the details of the study, data collection, analysis and data protection policies. I filled in all the sections and submitted the application. This was important since all research studies have to be passed by a governing body to ensure that it does not pose any risks to participants (General Assembly of the World Medical Association, 2014).

Additionally, participants had to give their consent to participate in the study after understanding the purpose of the research, the length of the survey, and the study's confidentiality. Participants were also fully entitled to complete right to confidentiality and privacy. I did not include questions about names or student numbers. I ensured that I gathered, stored, and handled data transparently and with confidentiality. Data was stored in an encrypted format that is only accessible by the researcher in line with the university's data protection policy.

Data analysis

Data collected from the Google forms were downloaded as an Excel CSV file. It was then imported into SPSS version 22.0 (IBM SPSS Inc., Chicago, IL) for cleaning and analysis. I presented the results as frequencies, percentages, means, and standard deviations in graphs and tables. I used regression analysis to identify the factors associated with physical activity among university students and multivariable analysis to determine significant predictors of physical activity among the sample.

The extent to which research questions have been answered

Answering the critical research question in my project was directed by the methodology and the quality of data collected. Key research questions for the study included (i) What are the patterns of physical activities among university students? (ii) What socio-demographic determinants are associated with physical activity patterns among university students? (iii) Which motivators and constraints affect the participation of university students in physical activities?

I employed a descriptive cross-sectional study design (Creswell, 2004). This design is relatively cheap, fast and generates a point in time estimate of the natural patterns, motivators and constraints students face when engaging in physical activities. During the first phase of data collection, I realised that I wasn't going to be able to reach the sample that I required from one university (University of Wales Trinity St David), given the low response rate and the limited available time. In consultation with the lecturer, I was advised to expand the scope of my sample to incorporate other purposively selected universities. Through the connection of the professors, I was able to reach other students to ask them to participate in the study. I reached out to three

different universities; however, I still did not manage to reach the required sample target of 415 students. I was only able to achieve a 19.3% response (80/415).

The low response rate affected my study as it lacked enough statistical power, as similarly reported by Baguley (2004). However, I went ahead and analyzed the available data. In the beginning, I had assumed that the online mode of data collection would be able to provide enough responses, but students did not fully participate; probably there was a gap in the mobilization of the students' bodies. The use of emails could also have contributed to the low response rates. I could have utilized social media to transmit the questionnaire to the wider student body. Unfortunately, this would potentially have led to ineligible students getting access to the study questionnaire which would be irrelevant.

In summary, all of the research questions have been effectively addressed using data obtained from the students through a transparent methodology and the research findings have been summarized and presented as a poster.

Coming up with poster

I used Adobe illustrator to come up with a poster making sure that it had all the elements of a good research poster. All study details such as introduction, background, aim, objectives, methodology, results, discussion and conclusion were included. I was glad that I successfully designed and submitted the poster in time and it looked visibly appealing. While I used Adobe Illustrator to make the poster, I found out that Microsoft PowerPoint and Microsoft Publisher were all possible options and easier platforms that I could have used to design the poster.

The positive contribution of the assignment

On a personal level, the research project has increased the level of my self-confidence because I could complete it in time. Additionally, my time management skills have also improved, given that we operated under a strict time frame to be able to submit both the poster and reflective essay in time.

I have developed data analysis skills, summarizing key output data and presentation of an academic poster. My academic writing skills have also improved due to engaging in a research report. The assignment has also sharpened my critical analysis skills. For instance, instead of focusing on surface meanings, I have learned to continuously ask "why". Such that I delve deeper to obtain deep surface meanings and connections.

Key lessons learnt

It is essential to do a thorough review of the literature to understand the nature and gaps around a specific topic. I have gained a better understanding of how to do literature searches through Google Scholar and PubMed. I was also able to appraise articles, critique them, and summarize the main points.

I now appreciate the key steps in the success of a research project, i.e. goal setting, planning, time management and sticking to deadlines. As Pinto and Slevin (1987) explain, setting a clearly defined goal is the most critical part of any project and forms the basis of your action plans.

Undertaking this assignment has developed my skill set and knowledge base in research methods. I can now create a research problem and draft a straightforward methodology to answer the research questions. I am now more knowledgeable in the different methodologies that can be employed, such as quantitative, mixed and qualitative studies. I can identify a suitable data collection method such as questionnaires, interviews or focus group discussions for a given study design.

The activity of designing a poster opened my eyes to a whole new way of presenting research findings that is appealing and brief. I was also able to learn about the basics of the new software (Adobe Illustrator). I am convinced that the next time I have the task of designing a research poster, I will be in a much better position to produce one comfortably.

The assignment made me go out of my way to seek support and guidance from peers, and this has developed my confidence. I am able to advise other students on the best possible research methodologies, having improved my knowledge of research methods. I have improved my social networking skills as well by interacting with several people.

Significant challenges encountered and how they were solved

The response rate for the online tool was low when I sent it out in the first place to the students of the University of Wales Trinity St David. To counteract this, I had discussions and got advice from the lecturer to share the links to other universities. I was able to share them with three (03) other universities; Reagent College London, Swansea University and the University of Bolton. Unfortunately, I still did not reach the required number of responses.

The time allocated for the project was somewhat limited given the academic load during the time. However, I was able to work hard and made sure that I delivered on time. The use of online data collection and analysis methods reduced the data collection time tremendously for me to be in a position to adhere to the set timelines.

Key strengths & weaknesses

Online surveys offer many advantages over the traditional face to face surveys, including speed of data access and reduced costs associated. Given the COVID-19 pandemic times, online platforms offer a safe alternative than face to face interviews. The main limitation of the study is the reliance on self-reported estimates of physical activity patterns among students. Studies indicate there is a big change for participants to over-represent their physical activity levels if they are asked to self-report (Celis-Morales et al., 2012).

Action plan

The university should allocate more time for the research module to allow students to have adequate time for everything involved, from proposal development, data collection, report writing and analysis.

Other scholars willing to engage in a similar topic of evaluating physical activity need to use objective and direct measures of physical activity assessment, such as pedometers, accelerometers, and other gadgets. This will give rise to more precise and accurate data than self-reported measures (Celis-Morales et al., 2012).

Conclusion

This research project has investigated the patterns of physical activity among university students. It has enabled me to learn deeper about the different research methods and how to apply them in the academic field of sports science. This study was conducted among university students to investigate the patterns and levels of physical activity. I hope that the findings obtained will aid academic institutions in setting up policies to encourage and facilitate students to engage in physical activities, especially given the stigma associated with the post-Covid-19 era.

The assignment has improved my knowledge and skills in research in preparation to join circles of researchers and like-minded professionals. My main personal achievement has been my developed skills and capabilities in research and academic writing, coupled with time management skills and self-confidence.

I am confident that the research project was successfully managed, with acknowledged limitations and possible room for improvement. I believe I conducted good research considering the scope of this project, with a thoughtful and sensible methodology. I think the poster summarized key outcomes using visually appealing infographics.

REFERENCES

- Baguley, T., 2004. Understanding statistical power in the context of applied research. *Appl. Ergon.* 35, 73–80. <https://doi.org/10.1016/j.apergo.2004.01.002>
- Bonato, S., 2018. *Searching the Grey Literature: A Handbook for Searching Reports, Working Papers, and Other Unpublished Research*. Rowman & Littlefield.
- Brown, G., 2017. A Review of Sampling Effects and Response Bias in Internet Participatory Mapping (PPGIS/PGIS/VGI). *Trans. GIS* 21, 39–56. <https://doi.org/10.1111/tgis.12207>
- Celis-Morales, C.A., Perez-Bravo, F., Ibañez, L., Salas, C., Bailey, M.E.S., Gill, J.M.R., 2012. Objective vs. Self-Reported Physical Activity and Sedentary Time: Effects of Measurement Method on Relationships with Risk Biomarkers. *PLOS ONE* 7, e36345. <https://doi.org/10.1371/journal.pone.0036345>
- Cleland, C.L., Hunter, R.F., Kee, F., Cupples, M.E., Sallis, J.F., Tully, M.A., 2014. Validity of the Global Physical Activity Questionnaire (GPAQ) in assessing levels and change in moderate-vigorous physical activity and sedentary behaviour. *BMC Public Health* 14, 1255. <https://doi.org/10.1186/1471-2458-14-1255>
- Creswell, J., 2004. *Research Design: Qualitative, Quantitative and Mixed Method Approaches*, 2nd ed. Thousand Oakes, CA: Sage Publications.
- Creswell, J.W., Clark, V.L.P., 2010. *Designing and Conducting Mixed Methods Research*, Second edition. ed. SAGE Publications, Inc, Los Angeles.
- Fandino, W., 2019. Formulating a good research question: Pearls and pitfalls. *Indian J. Anaesth.* 63, 611–616. https://doi.org/10.4103/ija.IJA_198_19
- General Assembly of the World Medical Association, 2014. World Medical Association Declaration of Helsinki: ethical principles for medical research involving human subjects. *J. Am. Coll. Dent.* 81, 14–18.
- Geraldi, J., Lechter, T., 2012. Gantt charts revisited: A critical analysis of its roots and implications to the management of projects today. *Int. J. Manag. Proj. Bus.* 5, 578–594. <https://doi.org/10.1108/17538371211268889>
- Gibbs, G., Simpson, C., 2005. Conditions Under Which Assessment Supports Students' Learning 30.
- Hilton, C.E., 2017. The importance of pretesting questionnaires: a field research example of cognitive pretesting the Exercise referral Quality of Life Scale (ER-QLS). *Int. J. Soc. Res. Methodol.* 20, 21–34. <https://doi.org/10.1080/13645579.2015.1091640>
- Kish, L., 1965. *Survey sampling*. John Wiley and Sons, Inc, New York.
- Pinto, J.K., Slevin, D.P., 1987. Critical factors in successful project implementation. *IEEE Trans. Eng. Manag.* EM-34, 22–27. <https://doi.org/10.1109/TEM.1987.6498856>
- Wing, C., 2018. Monitoring Athlete Load: Data Collection Methods and Practical Recommendations. *Strength Cond. J.* 40, 26–39. <https://doi.org/10.1519/SSC.0000000000000384>

STUDENT FEEDBACK FORM

This section details the *extent* to which the assessment criteria are demonstrated by you, which in turn determines your mark. The marks available for each category of skill are shown. Lecturers will use the space provided to comment on the achievement of the task(s), including those areas in which you have performed well and areas that would benefit from development/improvement.

Generic Assessment Criteria	Marks available	Marks awarded
1. Engagement with Literature Skills		
Engagement with literature in the relevant topic of the research to be demonstrated in the rationale for the study on the poster and in the critical discussion in the reflective paper. Evidence of engagement with research methods literature in the research design on the poster and in the reflections in the written paper.	20	
2. Knowledge and Understanding Skills		
Evidence of in-depth knowledge and understanding of existing research and gaps in your field which has led to the choice of research aims and question/s. Demonstrate that you are aware of areas of debate and how research can contribute to debate in your field.	20	
3. Cognitive and Intellectual Skills		
Evidence of in-depth critical engagement with the research process in the discussion in the reflective paper. Examination and critical reflection of decisions that were made.	20	
4. Practical Application Skills		
Creative poster illustrating an independent and methodical approach to research. Clearly demonstrating implementation of methods in practice and understanding the complexities of the context. Critical reflection on the implementation of research in practice.	20	
5. Transferable Skills for Life and Professional Practice		
Demonstrate awareness of all ethical issues addressed in line with sound ethical principles adhering to UWTSD ethical guidelines and those of any other appropriate professional bodies in relation to your research. Present a clear and well-structured poster that communicates the research findings.	20	

Assessment Mark (Assessment marks are subject to ratification at the Exam Board. These comments and marks are to give feedback on module work and are for guidance only until they are confirmed.)	Late Submission Penalties (tick if appropriate)		%
	Up to 1 week late (50% Max)		
	Over 1 week late (0%)		