

Assignment component 1

by Shana Rankin

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Assignment 1: Component 1 Presentation

Student name: Shana Rankin

Student ID: 1912354

Lecturer's name: Ogochukwu Agunenyne

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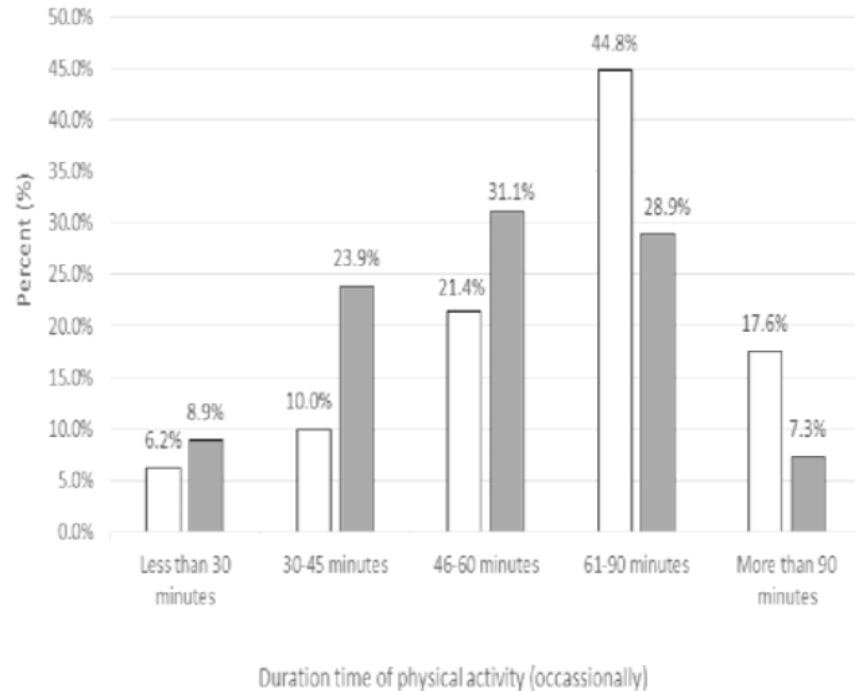
Project Proposal: Introduction

³Prevalence of Physical Activity Among Students In A Public University



- The proposed research is a null hypothesis experimental project to help adolescents adopt a physical activity habit to minimise ²their risk of obesity, heart disease, high blood pressure, and other life-altering disorders (Mayo Clinic, 2022).

Background



➤ (Ukactive, 2020).

- Just over seventy percent (76.4%) of students in higher education are engaged. 13.8% of the population were inactive students, whereas 9.8% were supposed to be moderately active (Ukactive, 2020).
- Physical activity levels among university students are often low. The systematic analysis the studies that are undertaken in various nations, only 54% of university students meet the required physical activity levels (Kljajevi et al., 2021).
- Rodriguez-Romo et al. (2022), 28% of university students met the recommended physical activity levels. These findings show that university students are not receiving enough exercise, which might severely affect their physical and mental health.

Rational

The Reason of the research:

- Inactivity is a critical public health problem that can lead to obesity, cardiovascular disease, and mental health problems, among other detrimental health outcomes (Lee et al., 2012).
- (WHO, 2023) emphasises that research is helpful on ¹ physical inactivity, one of the top risk factors for noncommunicable diseases (NCDs) and death worldwide.
- The increases of mental health, heart disease, and obesity by 20–30%; If people worldwide were more active, four to five million fatalities yearly may be avoided (WHO, 2023).



Proposed Research: Question, Aims and Objectives



Research question : What factors influences the level of physical activity among students?



Aims: To understand disparities in physical activity among student in a public university.



Objectives: The objectives are to promote physical activity, raise awareness of its among university students, and inform public importance health policies to improve their health and well-being.

Proposed Research:

- **Methodology:** Quantitative research will be used to collect information from existing and potential students by using sampling methods and sending out Surveys, questionnaires, and physical activity trackers to collect data on the student's activity level.
- **Methods section:** For the research into a public university students' physical activity, surveys, questionnaires, and activity trackers can be utilised to collect data. Statistical methods will be used to determine student physical activity (Alomairah et al., 2023).
- **Justification :** Physical activity improves academic performance, mental health, and chronic disease risk, making a public university student physical activity research important. Understanding student physical activity rates can influence actions to improve student health and well-being (Lyu, Hou and Wang, 2022).





Research Design

- **Research Design:** An investigation into the frequency of physical activity among students at a public university use quantitative surveys, questionnaires, sampling and activity monitors to gather data (Moitra and Madan, 2022).
- Data will be collected simultaneously; the study will be cross-sectional. Additionally, statistical analysis would be a part of the research design to ascertain the prevalence of physical activity among the student population (Moitra and Madan, 2022).

Recruitment

- Sending emails
- Social media
- Posting fliers around campus.



Sampling: Student In A Public University

Several sample approaches can be utilised in a public university study on student physical activity. Meng et al. (2010) stratified random sampling divides the student population into subgroups by age, gender, or academic major and randomly selects participants from each segment.

Cluster sampling involves randomly selecting groups of students (e.g., courses or dorms) and inviting all of them to participate. Both strategies can ensure that the sample is representative of the student population and reduce study bias (Meng et al., 2010).



Materials Data

Collection Methods

Question: What validated questionnaire will be used to collect data?

Answer: ⁵ The physical activity scale for the Elderly (PASE) is a validated questionnaire that will be used to collect my data and measure physical activity among university-age students (Moore et al., 2012).

Question: How will the data be collected? Where will the data be collected?

Answer: ⁴ Surveys and questionnaires will be collected on the Physical Activity Scale for the Elderly PASE questionnaire data; online, postal, or in-person surveys. In a public university study on physical activity, students could be surveyed in class, through student organisations, or via email. Ensure the survey is convenient for participants and the questions are straightforward. Survey data would be analysed to estimate student physical activity (Moore et al., 2012).

PASE Activity	PASE Weight
Muscle strength / Endurance*	30
Strenuous sports*	23
Moderate sports*	23
Light sports*	21
Job involving standing or walking*	21
Walking*	20
Lawn work or yard care [†]	36
Caring for another person [†]	35
Home repairs [†]	30
Heavy houseworks [†]	25
Light houseworks [†]	25
Outdoor-gardening [†]	20

* Determine average hours per day over the past 7 days period (i.e. "strenuous sport" for 0.04 h/d multiplied for PASE weight of 23 results in a PASE score of 0.92)

[†] Scored 1 = engaged in that activity or 0 = did not engage in that activity during the previous 7 days

(Physiopedia, 2023)

Materials Data Collection Methods

Physical Activity Questionnaire for Adolescents

Name: _____

Age: _____

Sex: M _____ F _____

Grade: _____

Teacher: _____

We are trying to find out about your level of physical activity from *the last 7 days* (in the last week). This includes sports or dance that make you sweat or make your legs feel tired, or games that make you breathe hard, like tag, skipping, running, climbing and others.

Remember:

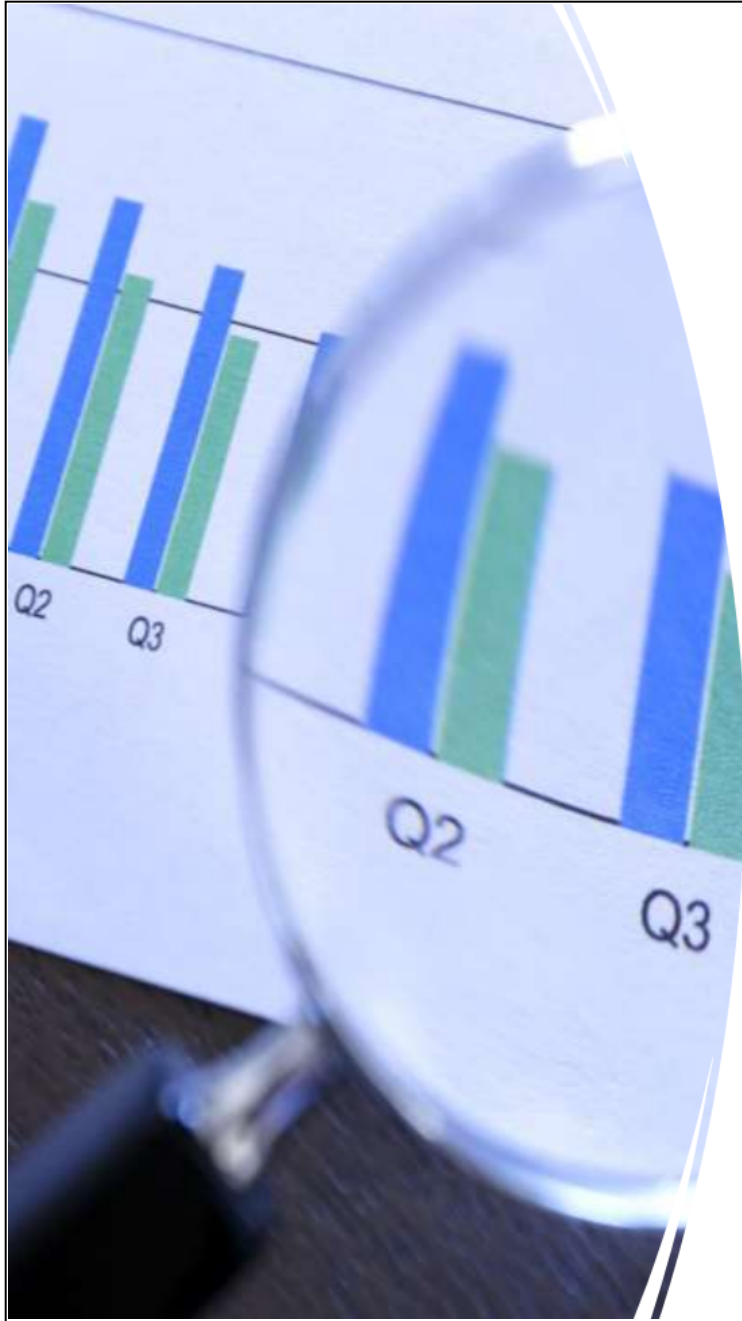
- A. There are no right and wrong answers—this is not a test.
- B. Please answer all the questions as honestly and accurately as you can—this is very important.

1. Physical activity in your spare time: Have you done any of the following activities in the past 7 days (last week)? If yes, how many times? (Mark only one circle per row.)

	No	1-2	3-4	5-6	7 times or more
Skipping	☐	☐	☐	☐	☐
Rowing/canoeing	☐	☐	☐	☐	☐
In-line skating	☐	☐	☐	☐	☐
Tag	☐	☐	☐	☐	☐
Walking for exercise	☐	☐	☐	☐	☐
Bicycling	☐	☐	☐	☐	☐
Jogging or running	☐	☐	☐	☐	☐
Aerobics	☐	☐	☐	☐	☐
Swimming	☐	☐	☐	☐	☐
Baseball, softball	☐	☐	☐	☐	☐
Dance	☐	☐	☐	☐	☐
Football	☐	☐	☐	☐	☐
Badminton	☐	☐	☐	☐	☐
Skateboarding	☐	☐	☐	☐	☐
Soccer	☐	☐	☐	☐	☐
Street hockey	☐	☐	☐	☐	☐

continued

(Cothran, 2012)



Proposed Data Analysis Techniques

- Physical activity among a public university students can be analysed using several data analysis methods (Olfert et al., 2022). Descriptive statistics can summarise data and show student physical activity rates (Sutrisno and Lubis, 2022).
- Inferential statistics can test hypotheses and discover if physical activity levels differ between groups (e.g., males vs females, athletes versus non-athletes) rates (Sutrisno and Lubis, 2022). Physical activity, age, gender, and academic major can be examined using regression analysis. Finally, bar charts and scatterplots can help communicate study findings (Michalakoudis et al., 2023).



Ethical Consideration

- Promoting physical exercise among students may have advantages and disadvantages that should be considered, as well as possible effects on university resources (Al Rawashdeh et al., 2021).
- Their information is kept private by employing data confidentiality permission, and safeguarding is considered (Al Rawashdeh et al., 2021).



Implication Research

- Research on the prevalence of physical activity among university students has implications for public health policy, university wellness programmes, and individual behaviour modification (Todd, 2020),

Among the contexts for public health and social care are:

1. Adolescent exercise programmes.
 2. Chronic condition walking groups and adolescents in school receiving physical activity interventions (**Heath et al., 2012**).
- Raising public awareness of the benefits of physical activity, encouraging physical activity through social support and environmental changes, and creating interventions tailored to university students' needs and biological activity factors can also improve their physical and mental health (**Heath et al., 2012**).

Plan Of Work And Time Schedule (Gantt Chart)



- The Gantt Chart represents a work plan and timeline for investigating the prevalence of physical exercise among students in a public university.
- This work would entail creating research questions, planning a study, identifying participants, gathering data, analysing data, and reporting findings.

(Thomas, 2020)

➤ **Thank You for listening.**

➤ **Do you have any question?**



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Assignment component 1

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