**Study Information sheet**

**Name of PI:** Assistant Prof Lorainne Tudor Car  
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**IRB reference number:**

**Title of Study:** The use of Telegram in surgical education: A Pilot Study

**Objective:** The principal aim of this study is to investigate the use of gamification in online multiple-choice question (MCQ) quizzes for surgical education.

**Procedures:** TESLA-G is an online platform for surgical education that incorporates game elements into online MCQ quizzes built on Telegram.

As part of the intervention, you will be expected to complete a demographic questionnaire and a pre-intervention knowledge test online comprising of 20 MCQs on endocrine surgery over a 30-minute period. You will then be assigned to one of two versions of the TESLA-G platform for 2 weeks to answer MCQ questions related to endocrine surgery. These two versions differ in the way the questions are delivered but contain the same set of MCQ questions. After 2 weeks, you will complete a post-intervention knowledge test online which once again comprises of 20 MCQs on endocrine surgery over a 30-minute period. You will also complete a survey online to measure your satisfaction with the application. Two weeks after completing the post-intervention test, you will complete a follow-up knowledge test online which once again comprises of 20 MCQs on endocrine surgery over a 30-minute period. Additionally, 10 of you will be randomly selected to gather qualitative feedback regarding TESLA-G.

The results and performance on the MCQ tests taken during the whole study will not affect nor will they have any bearings on your formative and/or summative grade(s).

**Right to Refuse or Withdraw:** You are entitled to refuse to participate or discontinue participation at any time in this research. You can withdraw from the research at any time without giving any reasons, by informing the principal investigator and all your data collected will be discarded.

**Risks and Discomforts:** This is a very low-risk study. Throughout this study, you will be encouraged to inform the research team via Telegram and the university’s student support services if you
experienced any issues, harms or psychological distress. Such incidents will also be recorded and reviewed for future improvement.

Benefits: There is no direct benefit to you by participating in this research study. The knowledge gained may benefit the public in the future by improving medical education.

Compensation: Upon completion of your participation in the study, you will receive a voucher to the value of $25 from a reputable retailer as a thank you for your time and contribution.

Anonymous and Confidential Data Collection: Demographic data such as your name, gender, age, year of study, Telegram username, and email will be collected as part of the study. No other identifiable information will be collected. Your data will be kept confidential.

Confidentiality of records: Only the principal investigator has your data, and this will not be released to any other person, including members of the research team. Personal data will never be used in a publication or presentation. All data collected will be kept in accordance with the University’s Research Data Management Policy. Research data used in any publication will be kept for a minimum of 10 years before being discarded.

Personal Data:

By signing the Consent Form attached, you (or your legally acceptable representative, if relevant) are authorizing (i) collection, access to, use and storage of your “Personal Data” by NTU, for the purposes of the study and subsequent steps related to this research project; and (ii) disclosure of such Personal Data to, and use and storage by, authorised service providers and relevant third parties, whether located in Singapore or overseas, for the Purpose; and (iii) disclosure of such Personal Data to the relevant government ministries, statutory boards and/or any other government agencies when requested and/or required under relevant legislations.

“Personal Data” means data about you which makes you identifiable: (i) from such data; or (ii) from that data and other information which an organisation has or likely to have access.

Research arising in the future, based on this “Personal Data”, will be subject to review by the relevant institutional review board.

Data collected are the property of the Centre for Primary Healthcare Research and Innovation. In the event of any publication regarding this study, your identity will remain confidential.

Any research data containing your “Personal Data” that is collected for the purposes described in this Consent Form will be stored in Singapore.

Who to contact with questions: Should you have any questions regarding the nature of the study or your participation in this study please contact:
Assist Prof Lorainne Tudor Car
Centre for Primary Healthcare Research and Innovation
11 Mandalay Rd, Clinical Sciences Building, Level 18, S308232
Email: lorainne.tudor.car@ntu.edu.sg
Contact: 6904 1258

Should you have questions on participants' rights in the study, please contact:
NTU-Institutional Review Board
Research Integrity and Ethics Office
62 Nanyang Drive
N1.2-B1-02A
Singapore 637459
Email: irb@ntu.edu.sg
Consent Form

I have read, discussed and understand the information and procedures in the study information sheet attached to this consent form. My questions concerning the study have been answered to my satisfaction, and I acknowledge that I am participating in this study of my own free will. I understand that I may refuse to participate or stop participating at any time.

Consent to participate in the research

☐ Yes I agree to participate in this research.

☐ No, I do not agree to participate in this research.

________________________  _____________________________  __________________
Name of Participant  Signature  Date

For study involving minors (unmarried subjects who are less than 21 years of age), consent from a parent or guardian is necessary

I give consent for my child as named above to participate in the study and agree to the consent as noted above.

________________________  _____________________________  __________________
Name of Parent  Signature  Date