

Loyola Marymount University Informed Consent Form

- TITLE:** Knowledge Grapht: AI Powered Class Management + Learning
- INVESTIGATOR:** Thomas Rife, trife@lion.lmu.edu, Cell: 951-847-6788
- ADVISOR:** Andrew Forney, andrew.forney@lmu.edu, Office: 310-338-3077
- PURPOSE:** You are being asked to participate in a research project that seeks to investigate depth of understanding of topics in your assigned classes, take quizzes and learn about which skills are your strengths/weaknesses and generate questions to help you better understand the material. You will be asked to complete a variety of questions per topic in your class, use the tool to learn about your level of understanding and connect topics together through the graph feature. All participation in the study is voluntary, although the use of the tool may be mandatory. **In order to participate in research elements you must be at least 18 years or older, but this does not affect your ability to use the app. If you decide not to participate in the study or are under 18, your data will be excluded from any results from the study.**
- RISKS:** Because this study will feature both questions from your instructor as well as AI generated questions from Large Language Models (LLMs), there is a possibility of practice questions and recommendations that are not perfectly aligned with the course material, result in incorrect information or be otherwise inaccurate. Additionally, you may spend additional time completing practice activities compared to peers not participating.
- BENEFITS:** By participating in Knowledge Grapht, you may gain a better understanding of the course material through additional practice opportunities. The system is designed to help you strengthen your skills, reinforce your knowledge, and make connections between topics that you may not have otherwise seen. While direct improvements in course performance cannot be guaranteed, many students find that structured practice supports their learning. Beyond your individual experience, your participation will contribute to research on how LLMs and knowledge-graph-based tools can support student learning in higher education. The results of this study may help instructors design more effective assignments and provide future students with better opportunities for practice and mastery.
- INCENTIVES:** If you choose to participate, you will be entered into a raffle for 2 x \$50 Amazon gift cards. You are given 1 raffle ticket just for participating and can earn more for each unique lesson completed (not counting repeats).
- CONFIDENTIALITY:** Because Knowledge Grapht will collect your responses to practice questions and interactions with the system and store them in a Supabase datastore, your user ID will be associated with this data.

Your responses and tool usage may be linked with your in-class assignment or exam performance for research purposes, but your real name and any personally identifying information will not appear in any publications, presentations, or public dissemination of these data. All research materials and consent forms will be stored securely on LMU's Box Drive and/or a secure server accessible only to the research team. You are free to review your Knowledge Graph practice results through the student interface during the study. When the research study concludes, any identifying information will be removed from the analyzed dataset or securely destroyed. All of the information you provide will be kept confidential.

The datastore we are using, Supabase, employs industry-standard security practices to protect stored data, including encryption at rest and in transit (TLS/SSL), row-level security policies to control data access, and managed PostgreSQL infrastructure hosted on secure, audited cloud platforms. Access to the database is limited to authorized project personnel through authenticated API keys, and all interactions with the Supabase backend occur over encrypted connections. Further information about Supabase's security and compliance measures can be found in their Security Overview and HIPAA Compliance web pages.

<https://supabase.com/docs/guides/security/soc-2-compliance>
<https://supabase.com/docs/guides/security/hipaa-compliance>

RIGHT TO WITHDRAW: Your participation in this study is *voluntary*. You may withdraw your consent to participate at any time without penalty. Your withdrawal will not influence any other services to which you may be otherwise entitled, your class standing or relationship with Loyola Marymount University.

SUMMARY OF RESULTS: A summary of the results of this research will be supplied to you, at no cost, upon request. Sometime following the Fall 2025 semester, you may email Prof. Andrew Forney <andrew.forney@lmu.edu>, office 310-338-3077 for the findings.

VOLUNTARY CONSENT: I have read the above statements and understand what is being asked of me. I also understand that my participation is voluntary and that I am free to withdraw my consent at any time, for any reason, without penalty. If the study design or use of the information is changed I will be informed and my consent reobtained. On these terms, I certify that I am willing to participate in this research project.

I understand that if I have any further questions, comments or concerns about the study or the informed consent process, I may contact Dr. Steve Heller, Institutional Review Board, Loyola Marymount University, 1 LMU Drive, Los Angeles, CA 90045-2659 or by email at irb@lmu.edu.

☐ I certify that I am 18 years or older

Participant's Signature

Date