Small TLEF Project –Final Report

Report Completion Date: (YYYY/MM/DD)

1. PROJECT OVERVIEW

1.1. General Information

Project Title:	**FNH 250 – "Exploring Your Food Choices" Walking Tour App**		
Principal Investigator:	**Dr. Gail Hammond**		
Report Submitted By:	**Dr. Gail Hammond**		
Project Initiation Date:	**05/01/2017**	**Project Completion Date:**	**05/31/2018**

1.2. Project Summary

The purpose of this project was to increase collaborative and self-regulated learning in a large class of second-year nutrition students through the development of an interactive mobile phone app. This new technological element bridges concepts learned inside the classroom with real-world applications outside of the classroom, and integrates formative peer-to-peer teaching/learning that students then apply to their term assignment.

1.3. Team Members–*(Please fill in the following table and include **students**, undergraduate or graduate, who participated in your project).*

Name	Title/Affiliation	Responsibilities/Roles
McCoy Ma (recent graduate, BSFN)	Research Assistant	Curriculum Development/App Development
Student volunteers		
▪ Faculty of Arts (n=2)	Student volunteers	Beta-testing app, providing feedback
▪ Faculty of Applied Science (Engineering, n=2)		
▪ Faculty of Land & Food Systems (n=4)		
▪ Faculty of Science (n=1)		

1.4. Courses Reached–*Please fill in the following table with **past**, **current**, and **future** courses and sections (e.g. HIST 101, 002, 2017/2018, Sep) that have been/will be reached by your project, including courses not included in your original proposal (you may adapt this section to the context of your project as necessary).*

Course	Section	Academic Year	Term (Summer/Fall/Winter)
FNH 250	001	2018 forward… (incremental integration)	Fall

2. OUTPUTS AND/OR PRODUCTS

2.1. *Please **list** project outputs and/or products (e.g. resources, infrastructure, new courses/programs).Indicate the current location of such products and provide a URL if applicable.*

Product(s)/Achievement(s):	Location:
LFS Walking Tour App Script	Motive Platform
LFS Walking Tour App Photos – Full License	App Development Dropbox
Multiple Test Sessions (as noted in section 1.3)	On Campus and Digitally Transcribed
LFS Walking Tour App (beta version)	Google Play Store

2.2. Item(s) Not Met –*Please list intended project outputs and/or products that were not attained and the reason(s) for this.*

Item(s) Not Met:	Reason:
FNH 250 Walking Tour App (full version)	Limited recruitment of beta-testers who are students in FNH 250 and use Android devices
Large scale roll-out of app to all FNH 250 students and full integration into classroom activities	Need for greater functionality with iPhone devices, and more robust beta-testing using this platform

3. PROJECT IMPACT

3.1. What were you hoping to change or where were you hoping to see an impact with this project?–*Please list the intended benefits of the project for students, TAs, instructors and/or community members.*

- Increased incorporation of small group formative peer-to-peer discussions of specific learning objectives that are integrated into the app, and applying their learning directly to their term assignment (e.g., increasing student competence to make everyday healthy food choices; meeting common dietary recommendations; eating well when on the go)
- Increased student understanding of collaborative learning and valuing the benefits and impact of peer-to-peer teaching in their classroom activities using data collected on a newly developed course-specific app
- Increased instructor- and TA-student interactions through formative app-based in-class learning activities leading to improved students' management of time and performance on their term assignment

3.2. Were these changes/impacts achieved? How do you know they occurred?–*To what extent were intended benefits achieved or not achieved? What evaluation strategies were used? How was data collected and analyzed? You are encouraged to include copies of data collection tools (e.g. surveys and interview protocols) as well as graphical representations of data and/or scenarios or quotes to represent and illustrate key themes.*

- A working beta version of the app was successfully installed on multiple Android devices to test its usability across Android variations (4.0 (Ice Cream Sandwich) to 7.0-7.1.2 (Nougat)), as well, installation was successful on a limited number of iPhones

- Overall, 9 students tested the app to explore campus food options, which resulted in increased awareness in making healthier on-campus food choices (refer to Appendix for student feedback)
- Two evaluation strategies were employed to ensure workability of the app on mobile devices. These included an in-app gaming activity that make connections to course Learning Objectives (collecting badges), and an associated worksheet that promotes knowledge acquisition during the walking tour.
- The in-app activities and worksheets provide a mechanism for in-class discussions that formatively support success with preparing their dietary analysis term assignment
- Due to a low number of beta-testers, a large scale roll-out has not yet taken place to properly assess academic impact for classes of students

3.3. Dissemination–*Please provide a list of **past** and **upcoming** scholarly activities (e.g. publications, presentations, invited talks, etc.) in which you or anyone from your team have shared information regarding this project.*

- Past presentation
    - Poster presentation showing the app development process and next steps at the TLEF Showcase on May 3 2018 during Celebrate Learning Week
- Future dissemination
    - Once the app has been fully beta-tested across iOS and Android platforms, integrated into the course activities for at least 2 terms, and evaluated, it is my aim to present the findings at a scholarship of teaching and learning in higher education (STLHE) or similar conference

4. TEACHING PRACTICES– *Please indicate if **your** teaching practices or those of **others** have changed as a result of your project. If so, in what ways? Do you see these changes as sustainable over time? Why or why not?*

- The impact on my teaching practice by integrating greater use of technology (including the app when it is fully rolled out) for FNH 250 has led to creating more space in the class design for peer-to-peer teaching. This shift has caused me to reflect on and reconfigure the breakdown of instructor-led and student-led activities in the course, leading toward a more sustainable and enhanced promotion of self-regulated learning early in students' undergraduate programs.
- Using technology creates opportunities for increased instructor- and TA-student interactions by providing greater space and time for students to directly ask me and the TAs on a one-to-one basis questions that otherwise they may not ask in the large class setting
- Integrating technology, including the app, expands the role for TAs to support knowledge acquisition and application through monitoring and mediating face-to-face discussions with students – this increased engagement ensures that TAs remain current on course content and involves them in novel teaching and learning approaches that can be sustainable through their tenure as educators

5. **PROJECT SUSTAINMENT**– *Please describe the sustainment strategy for the project components. How will this be sustained and potentially expanded (e.g. over the next five years). What challenges do you foresee for achieving the expected long-term impacts listed above?*

   - Continue to maintain the app's features and usability on the Google Play Store, as newer versions of Android continue to be released along with changes in phone technology
   - Incorporate greater usability of the app on iPhone devices and maintain compatibility with this platform over time
   - With additional funding, there is opportunity to continue working with UBC's Emerging Media Labs to adapt the app for a broader student audience in different faculties that supports them to learn about and make healthier food choices when dining at on-campus eating establishments
   - There also exists an opportunity to work collaboratively with other units on campus (e.g., Engineering, Computer Science) that use technology to support theoretical learning by offering the app as a beginner's level project for students to work on as part of their curricular activities

Appendix

Characteristics and qualitative comments obtained from 9 beta-testers

Feedback and/or Comments	Year Standing	Faculty	Device
"An innovative and exciting way to incorporate and present learning objectives and nutrition concepts!"	3rd Year	Faculty of Arts	Android
"Loved the experience and how it promotes a better sense of community and spatial cognition with select locations throughout campus. Some of the locations I have not even visited before."	3rd Year	Faculty of Arts	iPhone
"Easy to use, follow, and active interface – widespread locations on campus to create a welcomed challenge"	2nd Year	Faculty of Applied Science	Android
"Wonderful to see compatibility with many devices running different types of Android or iPhone versions – would like to explore further options"	3rd Year	Faculty of Applied Science	Android
"User-friendly experience without a large learning curve! I didn't find myself having to learn a completely new set of instructions to operate the app"	2nd Year	Faculty of Land & Food Systems	Android
"Allows me to see 'healthy eating' in a new light with consistent reminders to be proactive in my dietary options"	3rd Year	Faculty of Land & Food Systems	iPhone
"Enjoyable tour of the campus and the highlighted locations fit well with the learning objectives. It would have been an excellent addition to when I took the course!"	4th Year	Faculty of Land & Food Systems	iPhone
"The on-screen instructions were easy to follow and having the voiceover made for a fun tour around campus."	4th Year	Faculty of Land & Food Systems	Android
"Very smooth app operating, even with numerous background apps opened. Easy to understand the concepts and what the student is expected to do."	3rd Year	Faculty of Science	Android