

Flexible Learning Project Completion Report

Report Completion Date: (2015/07/29)

1. PROJECT OVERVIEW

1.1. General Information

Project Name: 2014FL2_LFS_FNH_Traviss

Principal Investigator: Karol Traviss

Team Members (Table 1.1) - (*Please fill in the following table*)

Table 1.1 - Roles and Responsibilities of the Project Team

Individual	Title/Affiliation	Responsibilities
Karol Traviss	Senior Instructor, LFS	Oversee & consult on project
Kara Vogt	Dietetics Education Coordinator	Oversee & consult on project
Tamar Kafka	Dietetics Education Coordinator	Oversee & consult on project
Karalee Boschung	Student Project Assistant (SPA)	Coordinate & execute project action items
Katherine Sohm	SPA	Coordinate & execute project action items
Heather Woodward	SPA	Coordinate & execute project action items
Katie Dick	SPA	Coordinate & execute project action items
Erin MacMillan	SPA	Coordinate & execute project action items

Project Initiation Date: 2014/04/01	Project Completion Date: 2015/07/30
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1.2. Project Summary - This project was aimed at transforming a dietetics professional practice course to address challenges with student foundational knowledge application in practice settings, and to enhance student-learning engagement. Students in the revised course established learning priorities related to course themes, and developed / compiled digital content for open access online sharing, using registered dietitians as content advisors. A pilot course was designed and delivered in 2014S, then evaluated in two phases in 2014W. Evaluation findings informed the development of course resources and tools which were implemented in the course this year (2015).



Course	Section	Enrollment	Term	Type of Implementation (pilot, full transformation, use of online resource, etc.)
FNH 480	FNH 480-921	35	2014S1	Pilot
FNH 481	FNH 481-001			Use of online resources in internship courses
482	and 002 FNH 482-201	33	2014W	
483	and 202 FNH 483-921	32	2015W	
	and 941	32	2015S1	
FNH 480	FNH480-921	33	2015S1	Full transformation

Table 1.2 - Student Impact*

* In addition to impacts on the students during the pilot and full implementation phases, we have created an open access online repository of professional learning resources that future students in the program will have access to. Total enrollment in the program is approximately 102 students.

2. PRODUCTS AND ACHIEVEMENTS

2.1. Products and Achievements - *Please* <u>update</u> the project products and achievements as necessary and indicate the corresponding implementation date [Examples: 10 online interactive lecture modules (SEPT-DEC 2013); A fully flipped course (JAN-APR 2014); Piloted two-stage midterms and final exam (SEPT-DEC 2013)]. Also please indicate the current location of such products [Examples: Department website, Connect, shared workspace, etc.].

Product(s)/Achievement(s):	Implementation	Location:
	Date:	
Open-access online repository of student	AUG 2014 & MAY	Dietetics website>Year 5
created resources available	2015	Interns>Student Created
		Resources
Self-directed and technology-centered pilot	MAY 2014	Course instructor's planning
course completed		documents
Detailed evaluation of pilot course	MAY 2014-JAN 2015	Shared workspace folder
completed		
Evaluation findings informed course	MAY 2014-APR 2015	Shared workspace folder and
refinements completed throughout the year		course instructor's planning
		documents

Table 2.1 – Products and Achievements





Product(s)/Achievement(s):	Implementation Date:	Location:
Self-directed and technology-centered course framework fully implemented	MAY 2015	Course instructor's planning documents
Guidelines, resources, and tools that can be used by other instructors to integrate similar approaches into their courses	JAN-APR 2015	Shared workspace folder
Project outcomes were shared at educational and professional events	OCT 2014 JUNE 2015 JUNE 2015 JULY 2015	LFS Brown Bag Lunch Series Dietitians of Canada National Conference (Quebec City) STLHE Conference (Vancouver) Poster display on STLHE website
Student-led project framework	MAR 2013-JUL 2015	Shared workspace folder

2.2. Item(s) not Met - *Please list all of the intended project products and achievements that were not attained and the reason(s) for this.*

Table 2.2 – Item(s) not met

Item(s) Not Met:	Reason:
N/A	
N/A	



4. PROJECT SUPPORT – *Please provide feedback on the support you received during the life of your project, as applicable. Did the received support meet your needs and expectations? What can you recommend to improve the support process?*

4.1. CTLT Pedagogical Support

- **4.1.1.** Project Management Support from the project liaison was satisfactory. She was able to join the project team for several meetings and connected us to relevant resources. She also helped us find avenues to share our project's results.
- **4.1.2.** Instructional Design Services The instructional designers our project team worked with provided great feedback on course design and plenty of ideas for how to integrate technology into course activities.

One area we see a need for improvement would be to have the same consultant work on the project throughout the year. We had a couple of different consultants join us, and while they all provided excellent service, it took extra time to orientate new consultants to the project. Additionally, it was at times difficult to contact the instructional design consultants when needed.

4.1.3. Web Programming Services – Our project team used the web programmers to create two major online hubs: Media Creation tips and processes and Student Created Resources, which are both housed on the UBC Dietetics website. The programmers provided excellent feedback on structure and design, as well as ideas to improve and streamline the websites.

Again, as an area of improvement, it would have been more efficient to work consistently with one programmer instead of orientating several to our project.

4.2. LFS Learning Center Support

4.2.1. Consultation Services – In addition to CTLT's web programming service, our project team used the LFS Learning Center to create the two major online hubs. They were very helpful in guiding the process, giving feedback on design and effectiveness, and troubleshooting any issues we ran into. These consultants have a very good understanding of our website and faculty already, making them a very valuable stakeholder to our project team. A member of the Learning Centre personnel played a pivotal role as "Technology Advisor" in the pilot course and final revised course. No areas for improvement are in mind at this time.



4.2.2. Access to Technical Equipment & Software – The LFS Learning Centre guided our project team to resources beneficial to our project at many points throughout the project. We were supported to use the CiTR recording studio at UBC, as well as took advantage of the computers and software to edit recordings. During the courses, the technology advisor provided equipment and expertise to students in creating their own educational media. No areas for improvement arose during the project.

5. PROJECT EVALUATION

5.1. Project Outcomes (Table 5.1) - *Please list the intended outcomes or <u>benefits of the project</u> for students, TAs and/or instructors. Also include the indicators used to guide your evaluation, and what constitutes your project's success.*

Table 5.1 – Evaluation and Indicators

Intended Outcomes (e.g., increased active in-class participation)	Indicator(s) (e.g., number of students participating in class; quality of the interventions)	What constitutes "success"? (e.g., larger numbers of students participating in class; greater integration of content in their comments/questions; 10% attendance increase)
1. Enhanced student learning	 Class activities, final workshop presentation and engagement with professionals 	 Increased student commitment and interest in activities, creative final workshop presentations with attention to adult learning principles, reported engagement with professionals
	- End of course debrief	 Increased positive feedback on learning experience, course framework and activities
	- End of course reflective self evaluation	 Increased student awareness to key achievements and key insights gained
2. Increased engagement with learning	 Number of students participating in class 	 Increased student involvement in class discussions & activities
	 Quality of student-professional interactions 	 Positive feedback from professionals on experience
	- End of course debrief	 Increased positive feedback from students on course design & learning experience
	 End of course reflective self evaluation 	 Increased positive feedback from students on learning experience
3. Increased skill related to digital content development/sourcing	 Outcomes of student-created educational media 	 Increased quality & complexity of student-created educational media
	- End of course debrief	 Student-reported feedback of increased skill related to digital content development/sourcing
	- End of course reflective self	- Student feedback of increased skills



	evaluation	& knowledge related to digital content development/sourcing
4. Opportunities to engage with Dietetics Program & Dietetics	 Development of educational resources 	- Accurate educational resources
professionals	- Feedback from professionals	 Positive feedback from professionals on quality of interactions
	- End of course debrief	 Increased positive feedback on quality of opportunities to engage with professionals
	- End of course reflective self evaluation	 Increased positive feedback on quality of opportunities to engage with professionals
5. Availability of an open-access online repository of practice skill focused learning content	 Creation of user-friendly open- access online repository of practice skill focused learning content 	 Positive feedback from website survey & from students in call-in survey
	 Usefulness of open-access online repository of practice skills focused learning content 	- Positive feedback from students in call-in survey
6. Development of materials and resources for use by other instructors within and beyond dietetics	 Creation of sharable file with reports, action plan templates, & other resources 	 Piquing interest in other instructors aiming to address similar education challenges

5.2 Data Collection and Evaluation Methods - Indicate your evaluation methods including who was responsible for the evaluation. Please describe the data collection strategies used, how the data was analyzed, and perceived limitations. Note: Please attach copies of data collection tools (e.g., surveys and interview protocols), any additional data or other relevant items.

5.2.1 PHASE I – Pre-Practicum Assessment

5.2.1.1 Assess pilot course effect on student engagement with learning

- 5.2.1.1.1 Qualitative data collected via interviews with seven professional dietetic advisors, technology advisor, and course instructor. Data from students collected via course debrief and student reflective self-evaluations. Data collection completed by SPAs.
- 5.2.1.1.2 Qualitative data from dietetic advisors, course instructor, and technology advisor analyzed via thematic review. Qualitative data from course debrief was analyzed by thematic review and student reflective evaluations were analyzed via random sampling and thematic review. Data analysis completed by SPAs.

5.2.1.2 Assess pilot course effect on skill development related to educational media

5.2.1.2.1 Qualitative data collected via interviews with technology advisor and course instructor. Data from students collected via course debrief and student reflective evaluations. Data collection completed by SPAs.



5.2.1.2.2 Qualitative data from technology advisor and course instructor analyzed via thematic review. Qualitative data from course debrief was analyzed by thematic review and student reflective evaluations were analyzed via random sampling and thematic review. Data analysis completed by SPAs.

5.2.1.3 Assess pilot course effect on student engagement with professionals

- 5.2.1.3.1 Qualitative data collected via interviews with seven professional dietetic advisors, technology advisor, and course instructor. Data from students collected via course debrief and student reflective evaluations. Data collection completed by SPAs.
- 5.2.1.3.2 Qualitative data from dietetic advisors, technology advisor and course instructor analyzed via thematic review. Qualitative data from course debrief was analyzed by thematic review and student reflective evaluations were analyzed via random sampling and thematic review. Data analysis completed by SPAs.

5.2.1.4 Find out how FNH 480 can be refined in future years

- 5.2.1.4.1 Qualitative data collected via interviews with seven professional dietetic advisors, technology advisor, and course instructor. Data from students collected via course debrief and student reflective evaluations. Data collection completed by SPAs.
- 5.2.1.4.2 Qualitative data from dietetic advisors, technology advisor and course instructor analyzed via thematic review. Qualitative data from course debrief was analyzed by thematic review and student reflective evaluations were analyzed via random sampling and thematic review. Data analysis completed by SPAs.

5.2.2 PHASE II – Practicum Assessment

5.2.2.1 Assess the use of "just in time" learning during internship

- 5.2.2.1.1 Qualitative data collected in two segments (first assessment at the beginning of practicum and the final assessment mid-way) from students during practicum via conference phone interviews with each health authority. Data collection completed by SPAs.
- 5.2.2.1.2 Qualitative data from students analyzed via thematic review. Data analysis completed by SPAs.

5.2.3 DATA COLLECTION & ANALYSIS LIMITATIONS

5.2.3.1.1 All data collected and analyzed was qualitative, therefore dependent on the subjective opinions of course participants.



Refer to Appendix A to view the project data collection tools.

5.3 Evaluation Results/Findings - Explain to what extent your intended project outcomes or benefits for students, TAs and or/instructors were achieved or not achieved. You are encouraged to include both graphical representations of data as well as scenarios or quotes to represent key themes.

5.3.1 Pilot course effect on student engagement with learning

5.3.1.1 Students, advisors and instructor noted course design to be a contributor to increased student engagement with learning.

5.3.2 Pilot course effect on skill development related to educational media

- 5.3.2.1 Student improvement in technology skills, knowledge, and use in education
- 5.3.2.2 Increase in student self-efficacy to seek help and learn about technology
- 5.3.2.3 Enhanced student understanding of the use of technology for education

5.3.3 Pilot course effect on student engagement with professionals

- 5.3.3.1 Rich student-advisor interactions
- 5.3.3.2 Improvement of scheduling and professional communication needed

5.3.4 Find out how FNH 480 can be improved

- **5.3.4.1** Student and advisor feedback obtained in the following areas: advisory structure, course resources, course schedule, course topics, assignments, and learning objectives
 - 5.3.4.1.1 Area most noted as needing improvement was advisory structure

5.3.5 Student-created educational media use during practicum

- **5.3.5.1** Educational media was the most used by interns as a preparation for internship, and learning during internship was well supported by resources provided by preceptors
- **5.3.5.2** The most useful media was short, very practical, applicable to daily life and not textheavy
- **5.3.5.3** Media could improve by incorporating Adult Learning Principles more thoroughly

5.3.6 Development of materials and resources for use by other instructors

5.3.6.1 Materials and resources developed include: FNH 480 Action Plan template, DC National Conference presentation slides, STLHE National Conference poster, Course Implementation Action Plan, Executive Summary, and Project Final Report. There have been no requests for materials as of this date.

Refer to Appendix B to view the SWOT analysis based upon the project evaluation and results.



5.4 Expected Long-Term Impact – *If applicable, indicate the impact your project is expected to have in this and/or other courses beyond completion.*

Table 5.2 – Expected Long-Term Impact

Course(s)	Number of Sections	Annual Enrollment
FNH 480 – Professional Dietetic Practice III	1	34
FNH 481 – Dietetic Internship I	2	34
FNH 482 – Dietetic Internship II	2	34
FNH 483 – Dietetic Internship III	2	34

5.5 Dissemination – Please provide a list of scholarly activities (e.g., publications, presentations, invited talks, etc.) in which you or anyone from your team have referred this Flexible Learning project. Include any disseminations activities you intend to accomplish in the future.

- 5.5.1 LFS Brown Bag Lunch Series discussion, October 2014
- 5.5.2 DC National Conference presentation & discussion, June 2015
- 5.5.3 STLHE National Conference poster presentation, June 2015
- 5.5.4 STLHE National Conference poster published on STLHE website, July 2015

6. DISCUSSION, RECOMMENDATIONS AND CONCLUSIONS - Reflect on the broader implications of the project. Indicate instances where your project has impacted courses or individuals not identified in your proposal. Include any recommendations you have for future Flexible Learning project leads.

- **6.1. Teaching Practices** Please indicate if your teaching practices have changed as a result of your Flexible Learning project. If so, in what ways? Do you see these changes as sustainable over time? If not, why do you think that is the case?
 - **6.1.1.** Yes, project has raised my awareness of pedagogical options to promote student engagement, as well as the importance of creating open access online learning resources that can help to mitigate challenges with asynchronous learning in the program.
- **6.2. Student Involvement in FL team –** Were there any undergraduate or graduate students involved in the development and/or evaluation of your FL project? Please describe their contributions and overall experiences as part of your Flexible Learning team.



- **6.2.1.** Throughout the FL project, five undergraduate students were employed on the project as Student Project Assistants (SPAs) who contributed heavily to the project. Overall, contributions to the project included coordination and execution of project action items.
- **6.2.2.** The students involved in the FL project reflected upon their experience working as part of the FL project team. It was a very rich learning experience for all, in areas of pedagogy, professionalism and dietetic practice. Enhanced professional skills included: creating a positive learning environment, giving and receiving constructive feedback, critical thinking, professional communication, analyzing and prioritizing, and conflict resolution. They also learned that restructuring a course requires an extensive amount of time as well as numerous resources and lengthy collaboration. The SPAs discovered that technology is a powerful tool to enhance student learning, but brings with limitations in maintenance and sustainability. SPAs benefitted by becoming familiar with practicum resources and expectations.
- **7. 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?
 - **7.1.1.** The main area of concern for project sustainment is the maintenance of the online educational media to ensure of its accuracy, relevancy, and usability. To ensure efficient maintenance, students will review an assigned section of the online repository each year in the revised course and make any necessary changes, in addition to researching a new topic related to practicum and professional practice. In this way, malfunctioning media or technology will be fixed, irrelevant information will be removed and content will be curated.
 - **7.1.2.** Potential challenges in the future may be aligning course outcomes and structure with student expectations and needs. At this point in students' education, many desire to be out of a classroom and in practice settings prior to practicum, which is challenging given limited resources and scheduling. This is the final campus-based course before students enter their practicum year, and many reported general fatigue with class work and lower motivation than is typical for them. Discussion is currently underway about methods to continue to revise the course to meet student's needs best, and ultimately to prepare them effectively to enter internship.



APPENDIX A – Data Collection Tools

Appendix A

I – Instructor Interview Questions

Instructor (KT) Interview Questions – 60 minutes

Goal: Evaluate course design and its effect on student learning. Please give suggestions and feedback from your experience in the perspective of the course instructor.

- Purpose of interview: find out how course outcomes differed from previous years: Want to ask you a bit about your experience as an instructor, and what you observed in students who were taking the course
- Put on the instructor hat!

(5 mins)

What was the instructor's main role in this reformatted course design?

a. Compare and contrast your role as an instructor in this course to previous years.

(20 mins)

In comparison to previous years, describe the differences you noticed in the students, in terms of:

- a. Student engagement with learning?
- b. Professional networking?
- c. Digital skill development?
- d. Self-directed learning?

(20 mins)

In your opinion:

- a. What were the key strengths of the 480 pilot course?
- b. What were the weaknesses of this course design?
- c. Do you have ideas to address these weaknesses?
- d. Are there ways that the pilot course prepares students for internship that the former course did not? Vice versa? Can you explain why?

(5 mins)

How did you prepare for the course?

a. How did this compare to the amount or type of preparation required before the redesign?

(10 mins)

Do you have any recommendations for other instructors taking on this type of course?

- a. Course development/planning phase:
 - i. Framework
 - ii. Learning Objectives
- b. Course implementation phase:



- c. Course schedule
- d. Gathering professional involvement

Appendix A

II – Primary Advisor Interview Questions

Primary Advisor Interview Questions – 20 minutes

Goal: Evaluate course design and its effect on student learning. Please give suggestions and feedback from your experience.

- not too formal, conversation
- goal is to evaluate and redesign course for future years
- how much do you know about background of redesign?
- Want to ask you a bit about your experience and also about what you observed in students taking the course

Logistical Questions:

- 1. How did you prepare to engage with the students?
 - a. Is there any additional information you would have liked to have had prior to meeting with the students (either from the course instructor or the students themselves)?
 - b. Would you prepare differently next time? How?
- 2. What modes of communication did you use during the course with students?
- 3. How many hours would you estimate that you gave to this course?
 - a. Was this time commitment manageable for you?

Advisor Experience:

- 1. Could you describe your role in working with the students?
- 2. What was the dynamic/tone/work relationship like between you and the students? Why?
 - a. Can you give us some examples to describe the way this impression was made?
- 3. Can you tell us, from your perspective what you think your (or the advisors in general) biggest contribution to the course was?
 - a. In what ways do you feel you were a helpful addition to the course?

Perception of student experience:

Course redesigned from traditional format to student-driven projects

- 2. Based on your experiences as an advisor this year, how do you see this redesigned course contributing to student preparedness for internship (in comparison to traditional seminar style courses)?
 - a. If you have experience from previous years, how do you think this course design might compare?
 - b. Can you explain why?
- 3. Did you observe students taking ownership of their own learning? When? How?



- a. How much did students depend on you to give direction to the project?
- b. How did your observations differ from your experience interacting with students in traditional seminarstyle courses?
- 4. Describe your observation of student engagement in their learning. In other words, were they intrinsically motivated to learn, not just to complete the assignment?
- 5. Based on your involvement in the course, what advantages does this course format offer over a traditional seminar structure? Disadvantages?
- 6. Would you participate in this course again?
- 7. Do you have any other recommendations for changes/improvements in the course for the future?
- 8. What other comments can you offer about your experience with this course?
- 9. What did you enjoy most about working with the students in this course?

Appendix AIII – Technology Advisor Interview Questions

Technology Advisor Interview Questions - 20 minutes

Goal: Evaluate course design and its effect on student learning. Please give suggestions and feedback from your experience.

Logistical Questions:

How did you prepare to engage with the students? Would you prepare differently next time? How? Do you wish that you had additional information prior to meeting with the students?

What modes of communication did you use during the course with students?

How many hours would you estimate that you gave to this course?

Was this time commitment manageable for you? Timeline?

Advisor Experience:

Could you describe your role working with the students?

What was the dynamic/tone/work relationship between you and the students? Why?

What were the biggest learning needs related to technology? To what extent did they need your support?

What kind of support did you provide mostly? What did students ask you for mostly?

Perception of student experience:



Did you observe students taking the lead in their projects? How much did they depend on you to give direction to their project?

Did you observe the students taking ownership of their own learning?

How motivated were students to explore technology resources? Were they looking for the quickest and easiest way to complete the assignment, or exploring the variety of options available to communicate?

Were there any areas where students needed resources or information that you couldn't provide?

Did you observe a change in students' confidence relating to their use of technology? How?

Did you notice any changes in students' skills relating to their use of technology? How?

Would you participate in this course again? If so, what advice would you give us as we revise the course?

Do you have any feedback on the overall course format/schedule? Suggestions.

What did you enjoy most about working with the students?

Appendix AIV – Just-in-Time Learning Evaluation Questions

September Conference Call

- 1. Did you access the online resources prior to internship?
- 2. What did you find valuable about the resources?
- 3. What is your wish list for this online content?

November/January Conference Call

- 1. Have you used the online content, and how often (i.e. Once? Once a week? Etc.)?
- 2. What did you find valuable about the resources with respect to your learning during internship?
- 3. Are there any just-in-time platforms that you found particularly useful or not useful? (i.e. how well do wiki/Powtoon/Prezi/screencasts enhance your learning?)
- 4. How have you found navigating the document index? (i.e. Is it still a problem to find all modules and forms? We are currently revising the index.)
- 5. What is your wish list for this online content?



APPENDIX B – EVALUATION RESULTS & FINDINGS

Appendix BI – SWOT Analysis

	Helpful to the objectives - Opportunities	Harmful to the objectives - Threats
External Factors	• Funding for the implementation and evaluation of the May 2014 course pilot through the Teaching and Learning Enhancement Fund	UBC constraints: course length, program curriculum, faculty requirements, course specifications
	 Involved and connected group of advisors (22 professionals participated in the pilot) 	 Time constraints for advisors as busy professionals Lack of plan for maintaining a robust list of advisors for the future Difficulty of involving current interns due to time constraints
	 Technological support from the LFS Learning Centre Support for flexible learning courses through the Centre for Teaching, Learning and Technology 	• LFS Learning Centre may not have resources to adequately support the course on an on-going basis with the expanding use of technology-based education
	• A breadth of current, relevant and evidence-based resources are provided for interns by preceptors and Health Authorities	 Preceptors perception that students are highly underprepared for nutrition care modules of internship Dietetics program's expectation that internship will be the main setting for nutrition care learning Quickly changing field of dietetics Students' learning quickly surpasses scope of educational media during internship
	Helpful to the objectives - Strengths	Harmful to the objectives - Weaknesses
Internal Factors	 Student access to professionals: mandatory meetings with technology advisor, instructor and RD advisors Avenues for receiving and giving feedback are well established: peer to peer, student to instructor, advisor to student 	 Lack of clear communication about expectations and roles of advisors prior to course Students' communications with advisors were, at times, unprofessional and terse Short course and project timeline: difficult to address all



 Interactive professional workshop acted as example to students in crafting an engaging educational session 	the knowledge and skill gaps or build a meaningful relationship with professionals
 Instructor is highly motivated, invested in quality education, and implementing feedback 	 Increased instructor time investment for new course style
Student autonomy, self-directedness and initiative	 Guidance for some course aspects was limited, including: communication with advisors, permissions, and copyright
 Educational media was created and centralized for students to refer to during internship Students learned how to use new technology for educational purposes 	 Risk of information overload or inaccuracies in educational media after years of adding to it Sustainability plan lacking for integrating existing and new media each year
• Transferable skills related to ICDEP, such as needs assessment completion and time management, are developed, which will support learning in internship	 Limited opportunities for clinical skill development or other applied practice experiences Limited opportunities for students to develop counselling skills
 Students experience deep learning in their topic area Students delivered engaging workshops Students are motivated and engaged with learning 	 Student learning outside of their designated topic area may be limited
 Pass/fail nature of the course Manageable workload for students Different learning styles addressed by the variation in course content delivery Adult learning principles incorporated into educational sessions 	 Students have preconceived idea of what courses are like, may have negative perceptions of a vastly different course design Adult learning principles were not incorporated into the educational media as carefully as they were in the educational sessions