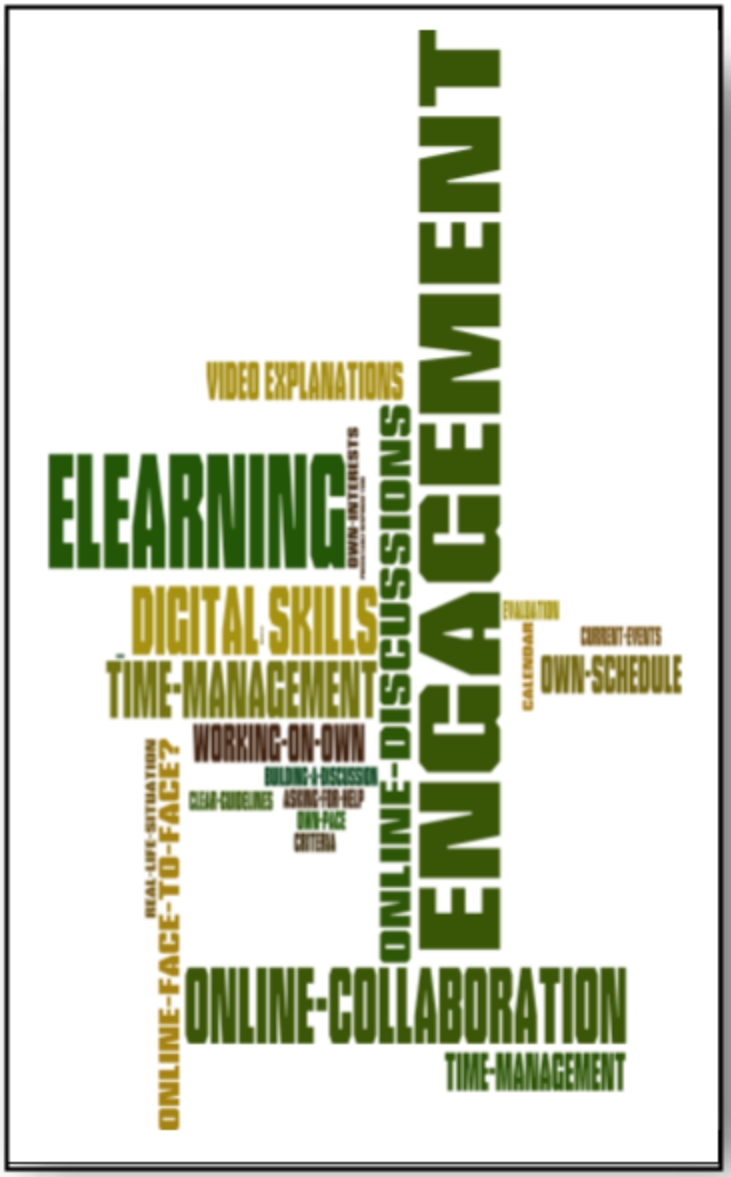

High School Student Engagement in eLearning Environments

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High School Student Engagement in eLearning Environments

A. Summary

Initially this project was entitled, *Building Community Among High School E-learners: Student Engagement and Retention in an Online World*. This was based on the belief that building community among all participants--students and teacher--would facilitate greater engagement and, therefore, greater retention of high school e-learners. As we proceeded with our literature survey, we fairly quickly narrowed our focus to student engagement. This was due, in part, to a dearth of research, specifically with our intended cohort: Canadian high school students. We also realized that attempting to show a causal link between *community*, *engagement* and *retention* would be beyond the scope of our time, and level of access to student data through D2L.

Our project consists of two major components: 1. a literature survey focused on engagement; 2. survey tools we created based on our literature survey.

B. Team Members

Robin Feick
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Math, Data Management & eLearning Teacher
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History, Teacher-Librarian & former eLearning Teacher
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C. Professional Learning Goals

As e-learning teachers we want to increase the levels of student engagement by:

- developing knowledge of best practices for student engagement according to the literature
- developing an understanding of students' perceptions about what helps them to remain engaged and be successful in online courses
- using the conclusions from our research to help shape our practice in our online courses going forward

D. Background Research: Literature Survey

One significant ingredient in any successful educational context is the building of rapport with students. According to Elizabeth Murphy and María A. Rodríguez-Manzanares, educational researchers from

Memorial University, “Granitz, Koernig, and Harich (2009) linked rapport with enhanced learning, attention, motivation, attendance, and involvement for students” (Murphy, pp. 167-8). And the same researchers in their 2008 study, “Contradictions between the virtual and physical high school classroom: A third-generation Activity Theory perspective,” found that in online courses, due to the lack of interpersonal cues found in a face-to-face classroom, “personal interactions and rapport building must be premeditated, consciously promoted and can only be achieved with more work” (Lehman, 7; Murphy, 1068). In the 2008 study, online high school teachers provided some examples of behavioural choices that they believe are important in promoting rapport:

> Teachers described their compensatory strategies such as having students' photographs and keeping track of information related to their preferences and extracurricular activities. Other strategies included providing constant and immediate feedback, sharing personal information, engaging in non-course related, off-task chat, getting to know students socially, ensuring that communication is comfortable, making personal contacts, and using technologies such as instant messaging with which students are comfortable. (Murphy, 2012)

We decided to test some of these and other strategies from Murphy’s research in question 11 by asking students to rank their importance.

In *Handbook of Research on K-12 Online and Blended Learning*, Repetto and Spitler apply a framework of “5Cs” (as cited in Ferdig and Kennedy, 2014) to online learning. According to the 5Cs framework students need:

- to be able to *connect* current learning in school to the knowledge and skills they will need post-school...
- to be provided with a safe and supportive *climate* for learning....
- to understand and learn how they are in *control* of their own learning and behaviors....
- an engaging *curriculum* grounded in effective instructional strategies and evidence-based practices to support their learning....
- to be part of a caring *community* that values them as learners, as well as individuals

(Ferdig, p. 115, emphasis, mine)

The idea of a “safe and supportive climate,” also an indicator of rapport according to Murphy, is one of the essential “5Cs.” We explored this concept in questions 6 & 7 by asking students to gauge how supported they felt and then to rank teacher behaviours and course design elements that the research suggests students would find supportive.

Control, another “5C,” was investigated with question 10. In it, we asked students about whether they elected to take the course *online*, the ability to explore their own interests, to choose the format for assignments, to choose deadlines and to respond to discussions at their own pace. We found that whether or not students chose to take the course online had one of the strongest direct relationships to engagement. This will be discussed further in the detailed discussion.

Lehman (2014) and Graham (2015) provide the basis for questions 5 & 9 which explores the impact of factors in the learning environment which probed variables related to the relevance of course content, the inclusion of video explanations, the student’s scheduling of learning, and the use of a variety of media.

Online skills (Morrison (2014) and “Getting”) are explored in Question 8. These include working with peers, building a discussion, asking for help, working on your own, managing you time, using a calendar to stay organized, and digital skills.

E. The Survey

We created a survey tool which we differentiated for students and teachers, primarily by changing the perspective of the questions. Copies of the survey are available here: student survey; teacher survey To request a copy of the surveys, please contact Robin Feick. We also added an upload site to the teacher survey and invited teachers to share assignments that their students found particularly engaging,

We deployed the surveys to students and staff in the last 2 weeks of semester one. This limited the possible sample to students who were still enrolled in an elearning course. The student survey was voluntary and anonymous, with no opportunity for students to identify themselves. The staff survey was also voluntary and anonymous, however teachers could volunteer their name. There was a 22% response rate from students (109 / 492) and an 18% rate from teachers (10 / 55) and almost no assignments were shared. This, in part, is due to difficulties in sharing assignments embedded in D2L.

F. Mapping Our Research to the Survey Questions

Questions 1 - 3 were demographic in nature. Question 4 asked students to rate their level of engagement.

Question	Source
5. To what degree did the following factors affect your learning?	Graham (2015) Lehman (2014)
6. In your online course to what degree did you feel supported?	Ferdig (2014)
7. To what degree did these activities in your online course help you feel supported?	Ferdig (2014) Graham (2015) Lehman (2014)
8. To what degree did your online course help you develop these skills?	Morrison (2014) Getting (2017)
9. To what degree did these factors in your learning environment help you be successful?	Graham (2015) Lehman (2014)
10. To what extent do you agree with the following statements regarding your control in this course?	Ferdig (2014)
11. Rank these 6 qualities of an online teacher in order of importance.	Murphy (2008)

G. The Sample

Our student sample is comprised of respondents from the Upper Grand DSB (90 respondents) and Thames Valley DSB (19 respondents). The Thames Valley sample was limited to students 18 years and older, whereas the Upper Grand sample was not. Here are the characteristics of our aggregate sample:

Level of Engagement*
Scale: 0 (not at all engaged) to 5 (very engaged)

0, 1, or 2	20%
3, 4 or 5	80%

* engagement was defined in the question as: Engagement refers to your "attention, curiosity, interest, optimism and passion" in your learning as shown through meeting course requirements (adapted from http://edglossary.org/student-engagement/)

Grade

	% of Sample
11	24%
12	76%

Previous eLearning Course?

	% of Sample
No	60%
Yes, one	26%
Yes, more than one	14%

Stream

	% of Sample
University	70%
M (U/C)	10%
College	8%
Academic	5.5%
Open	5.5%
Workplace	1%

The "Academic" cohort is suspect, given that no students indicated that they are in grade 9 or 10.

H. Analysis Based on Entire Student Sample

Question 11: Importance of specific teacher behaviours

Fig.1a. The question as it appears in the survey
(note that row order was shuffled to avoid bias)

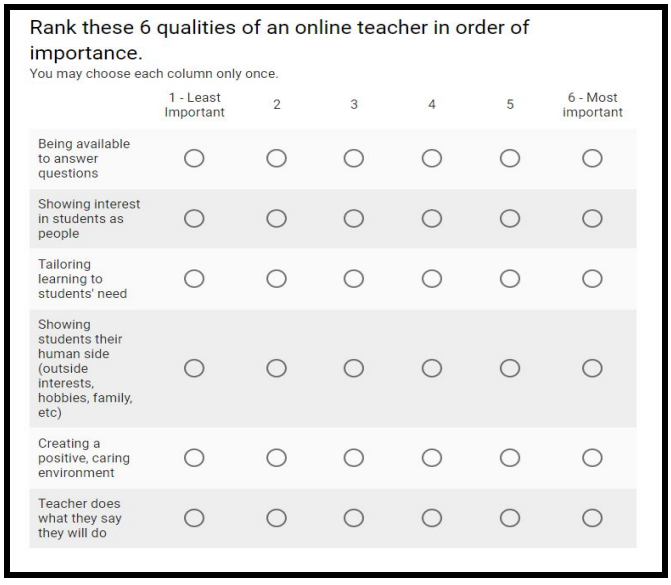
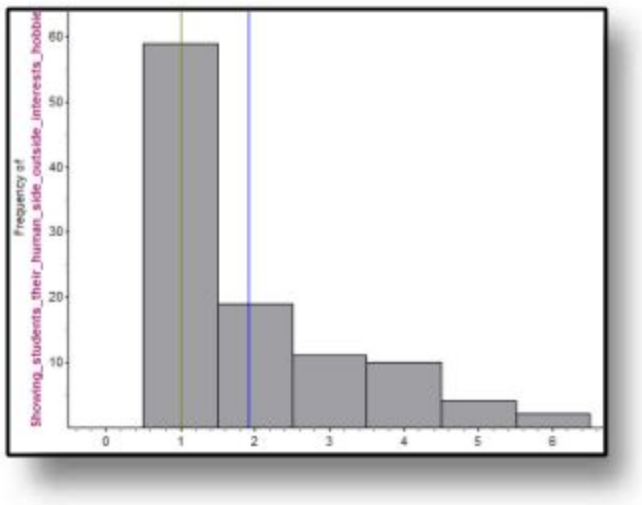
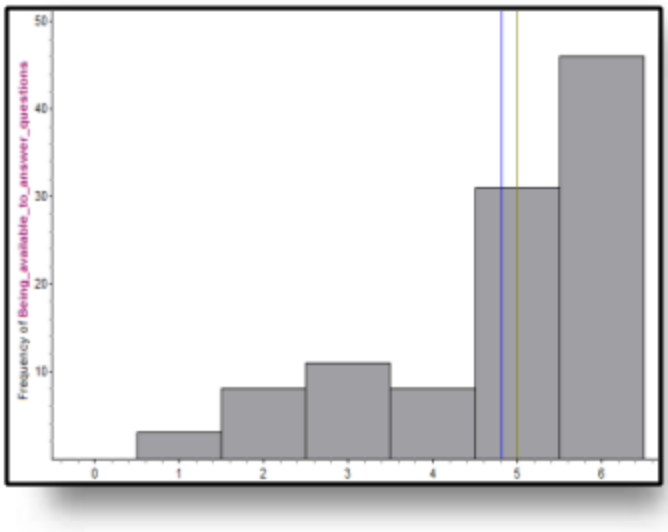


Fig.1b. The result for the variable: Showing students their human side.



Although the research (Murphy, 2014) indicates that this is a behaviour that is significant in engaging and retaining students, our student data (Fig.1b) suggests that this is relatively unimportant to students in online courses when ranked against other teacher behaviours that are also thought to promote engagement and retention. Conversely, students ranked the teacher behaviour, “being available to answer questions,” (Fig.1c) as quite important:

Fig.1c. The result for the variable: Being available to answer questions



Nearly 80% of students ranked this behaviour as important (4-moderately important to 6-“most important”).

Of note, as well, is that 64% of students ranked the variable “Tailoring learning to students’ needs” as important and 60% ranked “Does what they say they’ll do” as important.

Question 8: Skill Development in eLearning Courses

One response was required per row. Row order was not shuffled.

To what degree did your online course help you develop these skills?

	Skill not covered	0 - not at all	1	2	3	4	5 - a lot
Working with peers	○	○	○	○	○	○	○
Building a discussion	○	○	○	○	○	○	○
Asking for help	○	○	○	○	○	○	○
Working on your own	○	○	○	○	○	○	○
Managing your time	○	○	○	○	○	○	○
Using a calendar to stay organized	○	○	○	○	○	○	○
Digital skills	○	○	○	○	○	○	○

Fig 2. Skills that students indicated their course helped them to develop. The numbers in brackets indicates the percentage of students who selected a ranking of 4 or 5 for that variable. The second number does not include “Skill not covered” responses.

- Working on own (74%) (76%)
- Managing Time (59%) (60%)
- Digital skills (51%) (54%)

The results suggest a need for improvement in course design around the issue of collaboration. Regarding the variable “Working with peers”:

- Not covered (23%)
- 0-Not at all, 1 & 2 (60%) (77%)

So, approximately 80% of students believe that their *online* course did not help them learn to collaborate in an *online* environment. This seems unfortunate given that more and more the reality of higher education (Narayanan, 2015) and business (Brynley-Jones 2012; Insight 2016) is collaborative, social learning.

Question 5: To what degree did the following factors affect your learning?

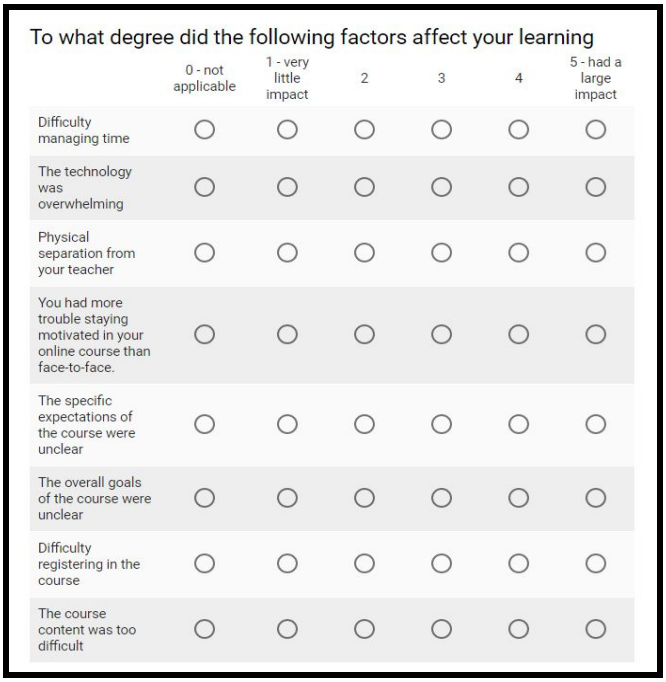


Fig 3. Factors Affecting Learning. Numbers in brackets are the percentage of students who rated the variable at 4 or 5 (out of 5). Most measures appear to have limited impact on student learning.

- Physical separation from your teacher (29%)
- The course content was too difficult (9%)
- The technology was overwhelming (10%)
- **You had more trouble staying motivated in your online course than face-to-face (27%)**
- The overall goals of the course were unclear (14%)
- The specific expectations of the course were unclear (15%)
- Difficulty registering in the course (6%)
- **Difficulty managing time (20%)**

Question 6: In your online course to what degree did you feel supported?

Approximately 70% of students indicated that they felt moderately to very well supported, that's 3, 4 or 5 on a point scale of 0 - 5. But this drops to 42% when the 3s are removed.

Question 7: To what degree did these activities in your online course help you feel supported?

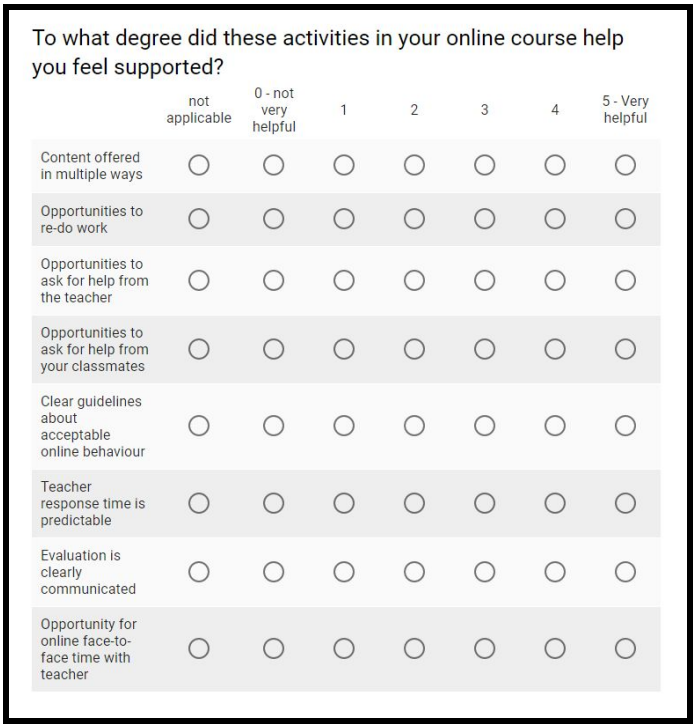


Fig. 4. Activities that Help You Feel Supported. Numbers in brackets are the percentage of students who rated the variable at 4 or 5 out of 5. The second number excludes "not applicable" responses.

- Content offered in multiple ways (21%) (24%)
- Opportunities to re-do work (36%) (45%)
- **Opportunities to ask for help from the teacher (53%) (54%)**
- Opportunities to ask for help from your classmates (20%) (24%)
- Clear guidelines about acceptable online behaviour (39%) (46%)
- **Teacher response time is predictable (49%) (51%)**
- **Evaluation is clearly communicated (46%) (49%)**
- **Opportunity for online face-to-face time with teacher (9%) (17%)**

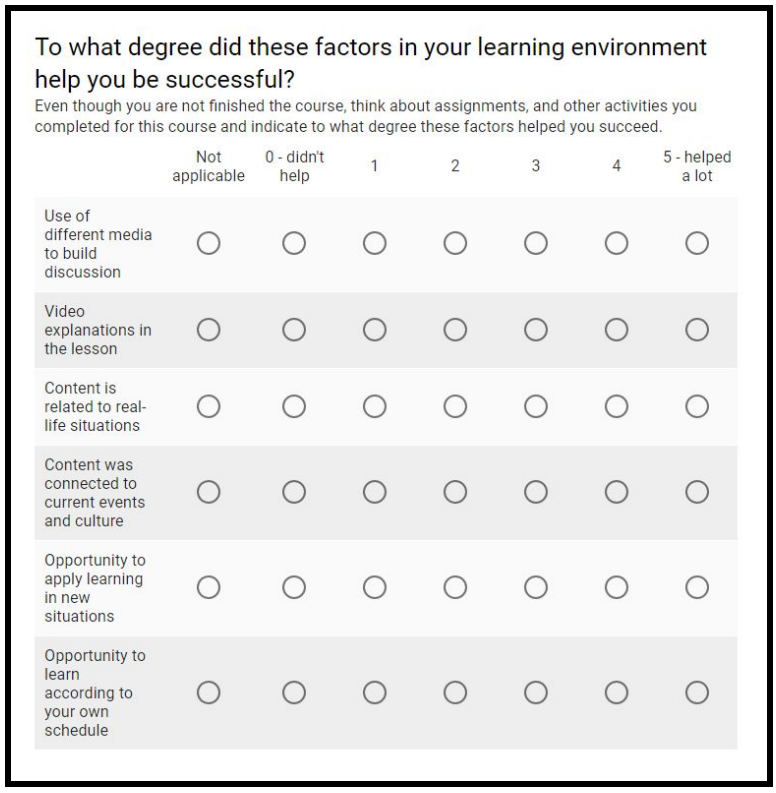
Noteworthy:

All but 2% of respondents indicated that they had opportunity to ask for help from their teacher, and 54% found this made them feel supported. Similarly, the percentage of students reporting the measures regarding teacher response time, and evaluation as “not applicable” is low, but again these measures are ranked relatively high when compared with other measures.

Students indicating that they did not have any face-to-face time with their online teacher was a significant 44% and only 9% of students found this measure helpful. Even when the students who did not experience face-to-face time are removed from the equation, the percentage who found it helpful remains low at 17%.

Questions 9: To what degree did the following factors in your learning environment help you be successful?

This question included the following instruction: “Even though you are not finished the course, think about assignments, and other activities you completed for this course and indicate to what degree these factors helped you succeed.”



To what degree did these factors in your learning environment help you be successful?

Even though you are not finished the course, think about assignments, and other activities you completed for this course and indicate to what degree these factors helped you succeed.

	Not applicable	0 - didn't help	1	2	3	4	5 - helped a lot
Use of different media to build discussion	○	○	○	○	○	○	○
Video explanations in the lesson	○	○	○	○	○	○	○
Content is related to real-life situations	○	○	○	○	○	○	○
Content was connected to current events and culture	○	○	○	○	○	○	○
Opportunity to apply learning in new situations	○	○	○	○	○	○	○
Opportunity to learn according to your own schedule	○	○	○	○	○	○	○

Fig. 5. Learning Environment. The numbers in brackets represent respondents who ranked the variable 4 or 5 out of 5. The first number is based on all responses including “not applicable”. The second number excludes “not applicable”.

- Use of different media to build discussion (27%) (29%)
- Video explanations in the lesson (36%) (43%)
- Content is related to real-life situations (41%) (45%)
- Content was connected to current events and culture (39%) (44%)
- Opportunity to apply learning in new situation (35%) (39%)
- **Opportunity to learn according to your own schedule (60%) (63%)**

Noteworthy:

Seventeen percent of respondents indicated “Not Applicable” with regard to video explanations in lessons, suggesting that almost 20% of students did not have access to video explanations.

Eighty-three percent of respondents found that “being able to learn according to [their] own schedule” was the most helpful of the six factors included in the question.

Questions 10: To what extent do you agree with the following statements regarding your control in this course?

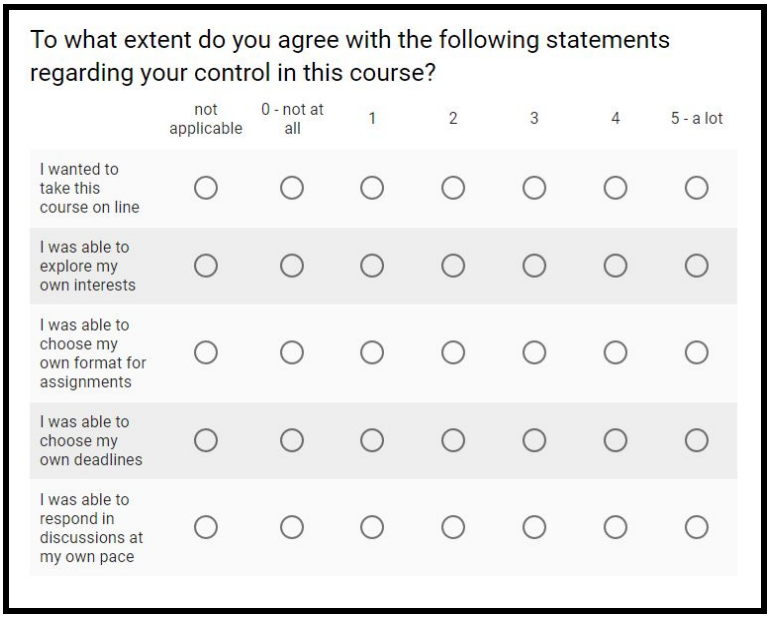


Fig 6. Student Control The numbers in brackets represent the percentage of respondents who agreed moderately to "a lot" with the variable. The first number is calculated using all responses including "not applicable". The second number excludes "not applicable".

- I wanted to take this course on line (45%) (46%)
- I was able to explore my own interests (39%) (40%)
- I was able to choose my own format for assignments (33%) (35%)
- I was able to choose my own deadlines (15%) (17%)
- I was able to respond in discussions at my own pace (28%) (31%)

Noteworthy:

Thirteen percent of respondents indicated that they were not given the opportunity to choose their own deadline. It is encouraging to see that a majority of students *wanted* to do their course online.

I. Observations by Student-Perceived Level of Engagement Based on Average Response

Question 8: To what degree did your online course help develop these skills?

Factor	**Average Response from Engaged (4,5)**	**Average Response from Disengaged (0,1,2)**
Asking for help	3.18	1.20
Building a discussion	2.53	1.05
Digital skills	3.70	2.21
Managing your time	3.22	2.63
Using a calendar to stay organized	3.55	2.16
Working on your own	4.48	3.48
Working with peers	1.68	0.63

Observations: Asking for Help

When asked "To what degree did your online course help develop these skills?" students who rated themselves as engaged (4 or 5) gave an average response of 3.18 out of 5 for "Asking for help". Whereas the students who rated themselves low on engagement gave an average response of 1.20 out of 5 for the same point.

So, perhaps teacher strategies to help encourage questioning would be 1) to make personal contact with students who routinely do not asking for help and remind them that they may ask for help, and; 2) pairing them with a student who frequently asks good, clarifying questions.

Observations: Working with peers

It is interesting that all students indicated that their course did not help them develop the skill of working with peers. Given the ease with which students can interact using collaborative tools such as GSuite for Education, and as already mentioned, given the emphasis placed on collaboration and social learning in higher education (Narayanan, 2015) and business (Brynley-Jones 2012; Insight 2016), then eLearning courses should contribute to students' ability to work digitally with others.

Perhaps a teacher strategy to mitigate this would be to provide more opportunities for online group work and also provide group norms or expectations about what it means to collaborate. See "Making" (2013) and Richardson (1999).

Question 5: To what degree did the following factors affect your learning?

Factor	**Average Response from Engaged (4,5)**	**Average Response from Disengaged (0,1,2)**
Difficulty managing time	1.69	2.86
Difficulty registering in the course	0.92	1.57
Physical separation from your teacher	1.88	3.67
The course content was too difficult	1.48	2.24
The overall goals of the course were unclear	1.19	2.29
The specific expectations of the course were unclear	1.50	2.52
The technology was overwhelming	1.33	2.33
You had more trouble staying motivated in your online course than face-to-face.	1.56	4.00

Observations: eLearning vs Face-to-Face

When asked "To what degree did the following factors affect your learning?" students who rated themselves as engaged (4 or 5) gave an average response of 1.56 out of 5 for "You had trouble staying motivated when compared to a face to face class." Whereas the students who rated themselves low on engagement gave an average response of 4.00 out of 5 for the same point. It may also be of interest that the Disengaged rate all of the factors higher than the engaged.

Perhaps a teacher strategy would be to provide some “face-to-face” time for students using Google Hangouts or Adobe Connect that would allow students to ask questions and/or provide a forum for a “lecture” type of group interaction with Q&A.

Question 6: In your online course to what degree did you feel supported?

Factor	**Average Response from Engaged (4,5)**	**Average Response from Disengaged (0,1,2)**
In your online course to what degree did you feel supported?	3.55	1.71

Observations: Degree to which you felt supported?

When asked "In your online course to what degree did you feel supported?" students who rated themselves as engaged (4 or 5) gave an average response of 3.55 out of 5. Whereas the students who rated themselves low on engagement gave an average response of 1.71 out of 5 for the same point. Perhaps this is related their ability to advocate for themselves or could be that eLearning courses tend to be text-heavy making it difficult for students who don’t read well to access helpful information.

A teacher strategy could be to provide some video explanations--either teacher-made or video already available online, and/or “face-to-face” time as mentioned in part C above, although this was rated quite low in Section D, below.

Question 7: To what degree did these activities in your online course help you feel supported?

Factor	Average Response from Engaged (4,5)	Average Response from Disengaged (0,1,2)
Clear guidelines about acceptable online behaviour	3.41	1.93
Content offered in multiple ways	2.98	1.31
Evaluation is clearly communicated	3.41	2.85
Opportunities to ask for help from the teacher	3.76	2.14
Opportunities to ask for help from your classmates	2.43	0.79
Opportunities to re-do work	3.18	1.85
Opportunity for online face-to-face time with teacher	1.82	0.90
Teacher response time is predictable	3.27	2.14

Observations: Opportunities to ask for help

When asked "To what degree did these activities in your online course help you feel supported?", students who rated themselves as engaged (4 or 5) gave an average response of 3.76 out of 5 for "Opportunities to ask for help from the teacher". Whereas the students who rated themselves low on engagement gave an average response of 2.14 out of 5 for the same point. Note that these results do not include students who indicated that these factors were “not applicable”.

It is interesting that the only factor that disengaged students rated above 50% is “Evaluation is clearly communicated,” suggesting that this form of support is more likely to help them feel supported.

Question 9: To what degree did these factors in your learning environment help you be successful?

Factor	Average Response from Engaged (4,5)	Average Response from Disengaged (0,1,2)
Content is related to real-life situations	3.38	2.00
Content was connected to current events and culture	3.22	2.63
Opportunity to apply learning in new situations	3.30	1.56
Opportunity to learn according to your own schedule	4.16	2.19
Use of different media to build discussion	3.08	0.89
Video explanations in the lesson	3.38	2.00

Observations: Learning according to own schedule

When asked "To what degree did these factors in your learning environment help you be successful?", students who rated themselves as engaged (4 or 5) gave an average response of 4.16 out of 5 for "Opportunity to learn according to your own schedule". Whereas the students who rated themselves low on engagement gave an average response of 2.19 out of 5 for the same point suggesting that this characteristic on eLearning is problematic for them. This is not surprising given that in section B, above, the unengaged students also rated both time management (2.86 out of 5) and physical separation from the teacher (3.86 out of 5) as somewhat of an issue for them, and also scored difficulty staying motivated compared to their in-class experiences quite high (4.0 out of 5).

Perhaps posting due dates in multiple ways--on the course landing page, in the calendar widget, in the news-feed, and sending group email reminders--would help mitigate this effect. Extrinsic motivators in the form of badging or bonus marks for meeting deadlines might also help the less engaged students.

Question 10: To what extent do you agree with the following statement regarding your control in this course?

Factor	Average Response from Engaged (4,5)	Average Response from Disengaged (0,1,2)
I wanted to take this course on line	3.40	1.67
I was able to choose my own deadlines	1.84	1.00
I was able to choose my own format for assignments	2.97	1.37
I was able to explore my own interests	3.52	1.24
I was able to respond in discussions at my own pace	2.80	1.95

Observations: Able to explore own interests

When asked "To what extent do you agree with the following statement regarding your control in this course?" students who rated themselves as engaged (4 or 5) gave an average response of 3.52 out of 5 for "I was able to explore my own interests". Whereas the students who rated themselves low on engagement gave an average response of 1.24 out of 5 for the same point.

Observations: Wanted to take the course online

Students who rated themselves as engaged (4 or 5) gave an average response of 3.40 out of 5 for "I wanted to take this course online." Whereas the students who rated themselves low on engagement gave an average response of 1.67 out of 5 for the same point suggesting that motivation is related to student choice.

J. Unexpected Challenges

- As we began the literature survey component of our research process, it became clear that there has been very little primary research conducted with **high school** e-learners and even less with **Canadian** high school students.
- Barriers to primary research when trying to access students in other boards
    - We encountered fairly onerous protocols when attempting to gain access to students in other Ontario boards. These included the requirement to have our research study reviewed and approved by a committee which in some cases only met every two months, as well as requiring individual parental consent for each student in order for them to be included in the study, even though the study is not controversial and is

completely anonymous. Given our resources, this was prohibitive. Therefore, we sampled only students who were 18 or older.

- Accessing retention data. Deciding which teachers we might interview about their attempts to engage students was complicated by the limited availability of historical data on eLearning teachers. As a result, we chose not to carry through with interviewing the very small sample of teachers who met the criteria for high-retaining teachers who we defined as after settling in period of 3 weeks, having retained and passed 80% of students.
- A potential union concern in some boards about how the data might be used against teachers. However, because there were no evaluative statements about teachers and because the data is an aggregate of two boards' responses and because there was no way for respondents to comment on individual teachers, then there should be no concern about the data having a negative impact on union members.

K. Enhancing Student Learning and Development

- We have a better idea of what does and does not help students remain engaged: quick, predictable response times from the teacher; being able to ask for help (and getting it); clearly communicated evaluation; clear guidelines about acceptable online behaviour (although we're not entirely sure whether this is about feeling safe i.e. insisting on a respectful tone in discussion posts).
- We have a better idea of what kinds of skills students are developing in their eLearning courses:
    - Working on their own (the elearning course helped them develop this skill in both engaged and disengaged)
    - Digital skills
    - Using a calendar to stay organized
    - Managing their time
    - Asking for help

- Our literature survey helped us to understand that because we are still in the frontier of eLearning there is very little domain-specific preparation available for either teachers or administrators.
- We believe that students need to be provided with preparation for taking online courses. This could be facilitated as part of a short unit in Careers given that so much more of school and work is conducted online, and could make use of pre-existing tools created by the Michigan Virtual School. These tools include 1) a diagnostic rubric that helps students assess their readiness for eLearning and then directs them to; 2) components of an online course designed to help them work on their weaknesses with regard to eLearning.

L. Sharing

- 2017 CANeLearn Symposium: To date, one of our members has shared our research, including some data analysis which demonstrates a relationship between student perceptions and engagement. Here is her presentation: https://docs.google.com/presentation/d/1ZlPMnASRjxsbo4UYWv8vY6CVqKsnZOb-GdSW3U1C6nA/edit?usp=sharing

- We plan to share our findings within our board at the annual learning fair in August, as well as at the BOLTT conference this fall.

M. Project Evaluation

- Learning Goals Achieved
    - We have gleaned a number of best practices based on the limited research available and in our survey we tested some of these ideas to find out whether they matter to students. In some cases they do and in some cases they do not.
    - The survey was constructed using our background research to inform our questions, we included a mathematician to help guide us in understanding what kinds of data be reasonably derived from particular questions and how the question type might affect the results.
    - The survey was deployed as widely as we could manage given the time, financial constraints and barriers to research we encountered.
    - We have pondered the student data, and have begun to incorporate this in our online teaching practice
    - We have also gleaned some information that might enhance how students are counselled into eLearning courses:
        - Students must elect to do a course online: being forced online is a predictor of dropout.

- Changes to approach
    - Our survey yielded only a small sample (109 student responses and teacher responses). For this reason any future research should include a financial and strategic plan to meet the research requirements of other boards.

- Next Steps
    - Do an expanded survey including two or three other boards.
    - Mine the data by stream

References

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Appendix

Links to histograms for each variable for questions 5 to 10.

Histograms for Engaged Students

Histograms for Less Engaged Students

Data Tables for Section H

Data Table for Fig. 2

To what degree did your online course help you develop these skills?					
		TVDSB	UGDSB	%	Not Including "Not Applicable"
Working with peers	**not applicable**	3	22	23%	
	0, 1 OR 2	15	50	60%	77%
	3	0	9	8%	11%
	4 OR 5	1	9	9%	12%
Building a discussion	**not applicable**	1	5	6%	
	0, 1 OR 2	8	51	54%	57%
	3	5	17	20%	21%
	4 OR 5	5	17	20%	21%
Asking for help	**not applicable**	1	3	4%	
	0, 1 OR 2	8	34	39%	40%
	3	4	24	26%	27%
	4 OR 5	6	29	32%	33%
Working on your own	**not applicable**	0	2	2%	
	0, 1 OR 2	3	7	9%	9%
	3	3	13	15%	15%
	4 OR 5	13	68	74%	76%
Managing your time	**not applicable**	0	2	2%	
	0, 1 OR 2	6	16	20%	21%
	3	2	19	19%	20%
	4 OR 5	11	53	59%	60%
Using a calendar to stay organized	**not applicable**	3	6	8%	
	0, 1 OR 2	6	27	30%	33%
	3	3	17	18%	20%
	4 OR 5	7	40	43%	47%
Digital skills	**not applicable**	2	3	5%	
	0, 1 OR 2	6	21	25%	26%
	3	3	18	19%	20%
	4 OR 5	8	48	51%	54%

Data Table for Fig. 3

To what degree did the following factors affect your learning				
		TVDSB	UGDSB	%
Physical separation from yourteacher	**0, 1 OR 2**	12	49	56%
	3	1	15	15%
	4 OR 5	6	26	29%
The course content was too difficult	**0, 1 OR 2**	14	71	78%
	3	3	11	13%
	4 OR 5	2	8	9%
The technology was overwhelming	**0, 1 OR 2**	14	67	74%
	3	4	13	16%
	4 OR 5	1	10	10%
You had more trouble staying motivated in your online course than face-to-face.	**0, 1 OR 2**	14	52	61%
	3	2	12	13%
	4 OR 5	3	26	27%
The overall goals of the course were unclear	**0, 1 OR 2**	12	68	73%
	3	3	10	12%
	4 OR 5	3	12	14%
The specific expectations of the course were unclear	**0, 1 OR 2**	11	65	70%
	3	4	13	16%
	4 OR 5	4	12	15%
Difficulty registering in the course	**0, 1 OR 2**	18	80	90%
	3	0	4	4%
	4 OR 5	1	6	6%
Difficulty managing time	**0, 1 OR 2**	11	61	66%
	3	3	12	14%
	4 OR 5	5	17	20%

Data Table for Section H, Question 6

In your online course to what degree did you feel supported?			
	TVDSB	UGDSB	%
0, 1 OR 2	4	30	31%
3, 4 OR 5	15	60	69%

Data Table for Fig. 4

To what degree did these activities in your online course help you feel supported?					
		TVDSB	UGDSB	%	Not Including "Not Applicable"
Content offered in multiple ways	not applicable	0	13	12%	
	0, 1 OR 2	7	39	43%	48%
	3	4	22	24%	28%
	4 OR 5	8	15	21%	24%
Opportunities to re-do work	not applicable	0	22	20%	
	0, 1 OR 2	8	24	30%	37%
	3	2	13	14%	18%
	4 OR 5	9	30	36%	45%
Opportunities to ask for help from the teacher	not applicable	0	2	2%	
	0, 1 OR 2	6	29	32%	33%
	3	1	13	13%	13%
	4 OR 5	12	45	53%	54%
Opportunities to ask for help from your classmates	not applicable	3	12	14%	
	0, 1 OR 2	9	48	53%	61%
	3	2	12	13%	15%
	4 OR 5	5	17	20%	24%
Clear guidelines about acceptable online behaviour	not applicable	5	11	15%	
	0, 1 OR 2	4	27	29%	34%
	3	3	16	18%	20%
	4 OR 5	7	35	39%	46%
Teacher response time is predictable	not applicable	0	4	4%	
	0, 1 OR 2	8	31	36%	38%
	3	3	9	11%	11%
	4 OR 5	10	43	49%	51%
Evaluation is clearly communicated	not applicable	0	6	6%	
	0, 1 OR 2	6	24	28%	29%
	3	4	18	20%	22%
	4 OR 5	9	41	46%	49%
Opportunity for online face-to-face time with teacher	not applicable	6	41	44%	
	0, 1 OR 2	9	35	41%	72%
	3	2	5	6%	11%
	4 OR 5	2	8	9%	17%

Data Table for Fig. 5

To what degree did these factors in your learning environment help you be successful?					
		TVDSB	UGDSB	%	Not Including "Not Applicable"
Use of different media to build discussion	not applicable	0	8	7%	
	0, 1 OR 2	12	41	49%	52%
	3	2	17	17%	19%
	4 OR 5	5	24	27%	29%
Video explanations in the lesson	not applicable	4	14	17%	
	0, 1 OR 2	7	24	28%	34%
	3	2	19	19%	23%
	4 OR 5	6	33	36%	43%
Content is related to real-life situations	not applicable	0	10	9%	
	0, 1 OR 2	7	27	31%	34%
	3	4	16	18%	21%
	4 OR 5	8	37	41%	45%
Content was connected to current events and culture	not applicable	1	13	13%	
	0, 1 OR 2	9	28	34%	39%
	3	3	13	15%	17%
	4 OR 5	6	36	39%	44%
Opportunity to apply learning in new situation	not applicable	2	9	10%	
	0, 1 OR 2	6	29	32%	36%
	3	5	20	23%	25%
	4 OR 5	6	32	35%	39%
Opportunity to learn according to your own schedule	not applicable	0	5	5%	
	0, 1 OR 2	5	13	17%	17%
	3	0	21	19%	20%
	4 OR 5	14	51	60%	63%

Data Table for Fig. 6

To what extent do you agree with the following statements regarding your control in this course?					
		TVDSB	UGDSB	%	Not Including "Not Applicable"
I wanted to take this course on line	**not applicable**	0	2	2%	
	0, 1 OR 2	3	36	36%	36%
	3	1	18	17%	18%
	4 OR 5	15	34	45%	46%
I was able to explore my own interests	**not applicable**	1	1	2%	
	0, 1 OR 2	6	39	41%	42%
	3	4	15	17%	18%
	4 OR 5	8	35	39%	40%
I was able to choose my own format for assignments	**not applicable**	1	4	5%	
	0, 1 OR 2	6	41	43%	45%
	3	4	17	19%	20%
	4 OR 5	8	28	33%	**35%**
I was able to choose my own deadlines	**not applicable**	2	12	13%	
	0, 1 OR 2	10	58	62%	72%
	3	2	9	10%	12%
	4 OR 5	5	11	15%	17%
I was able to respond in discussions at my own pace	**not applicable**	1	7	7%	
	0, 1 OR 2	6	43	45%	49%
	3	4	17	19%	21%
	4 OR 5	8	23	28%	**31%**

Student Survey: Your Online Experience

Letter of Explanation and Permission Form

Dear parent:

You are receiving this letter and permission form because your student is or was enrolled in a semester one online course in the Thames Valley District School Board. We need your child's help.

We are a small group of Ontario teachers trying to figure out what makes e-learning more engaging for high school e-learners. Student input is very valuable in helping us understand what students find helpful and engaging in e-learning courses and this will hopefully lead to increased student engagement and retention in e-learning courses.

The survey is anonymous with no opportunity for students to identify themselves to us. Results of the survey will only be reported in aggregate form and will be combined with survey results from the Upper Grand District School Board. The survey should take approximately 20 minutes to complete.

Results of the survey will be made available to the Thames Valley board in late May or early June.

If you have any questions or concerns, please contact the research team leader at rfeick@ugcloud.ca
Thank you for your help,

Sincerely,

Robin Feick
Research Team Leader

✂----------

Student Survey: Your Online Experience ~ Permission Form

I hereby give permission for _____ to participate in the survey, "Student Survey: Your Online Experience".

_____ _____

Parent Signature Date

Emails Used to Deploy the Survey

Student Survey Email

Dear e-learning student:

We need your help. A small group of teachers is trying to figure out what makes e-learning better for students. Your input would be very valuable in helping them understand what students find helpful and engaging in e-learning courses. Please take a few minutes to provide them with your perspective on these issues. Please note that your feedback is anonymous and will not be given to your teacher.

Thanks for your help,

Mr. Wynen, E-learning Principal
On behalf of the Student Engagement Research Group

Teacher Survey Email

Dear e-learning teacher:

We need your help. A small group of teachers is trying to figure out what makes e-learning better for students. Your input would be very valuable in helping them understand what you believe students find helpful and engaging in e-learning courses. Please take a few minutes to provide them with your perspective on these issues.

Please note that your feedback is anonymous although you may provide contact information if you would be willing to participate in further research. Also, on the "Thank You" page of the survey there will be a link to a separate resource-sharing form where you can upload files or provide links to assignments/activities that your students found engaging. This portion will not be anonymous so that you can be credit for your work and in case there are any issues accessing the resource.

In addition, an anonymous survey will be provided to your current students that seeks information similar to what we are requesting from you. Please note that none of the information will be correlated with you and there are no open-ended questions, the point being to keep students from making evaluative statements about their teachers.

Thanks for your help,

Steve Wynen
On behalf of the Student Engagement Research Group