

A Social and Gameful Experiential (SAGE) Approach to Increase Learner Engagement and Foster Self-Regulation

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2023 Learner Engagement Summit

Overview

- Exploring instructors + learning communities to foster connectedness and course engagement
- Our study uses a **social and gameful experiential (SAGE) approach** with university students across disciplines (n=103) to manage online scholarly discourse, fostering self-efficacy, critical thinking and problem-solving skills.
- The findings suggest that instructors can leverage gamification and social media-like reactions to foster satisfaction, self-regulated learning, and improve cognition.

Rationale

“Structured ways for students to learn from and with each other can enhance the learning experience for all students” (Bruff, 2019, p. 144).



vs.



About the Study

Study

- Showcases an exploratory study of multiple terms of two instructor's courses from 2021-2022

Participants

- Mid-sized, private four-year residential university adjacent to vibrant downtown area
- 10,500 students enroll in Fall 2021
- Students from 50 states and 130 countries
- Over 1,200 international students

Research Question

What is the student experience when Yellowdig, a community-engaged platform designed with social media and gamification in a course community, is mindfully incorporated into courses to improve learner self-regulation, cognition, and satisfaction?

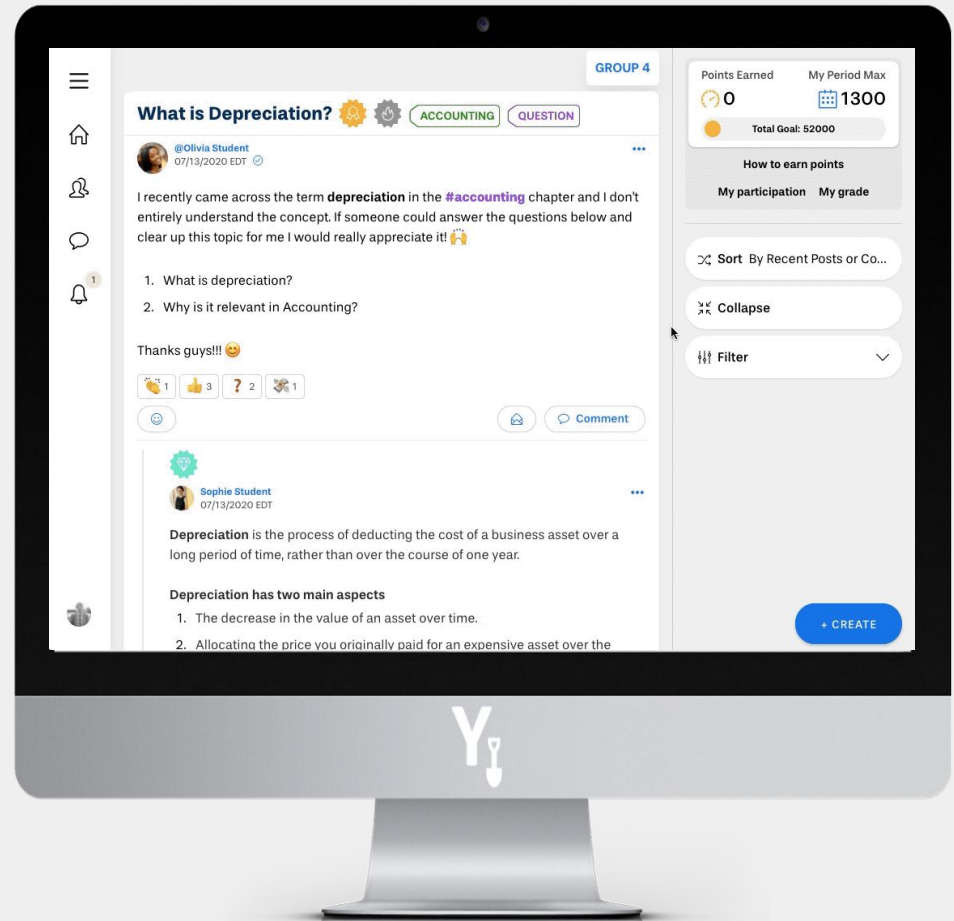
What is Yellowdig?

Yellowdig
Learn together

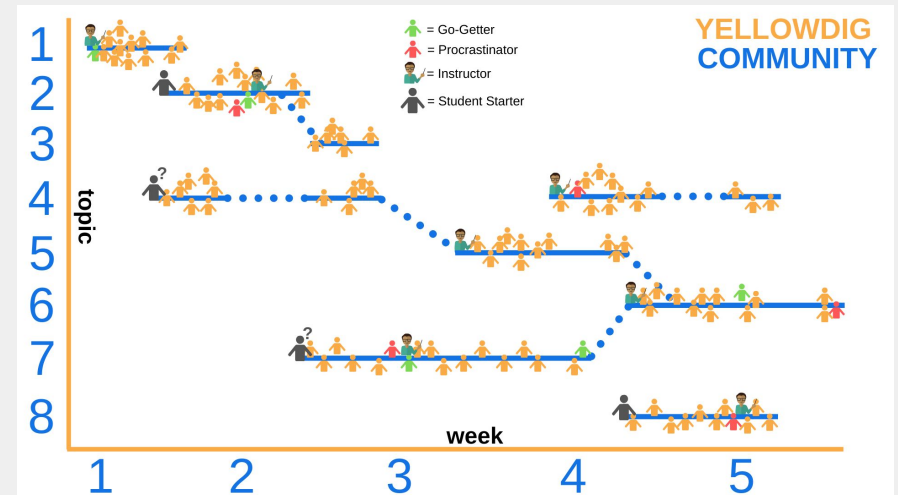
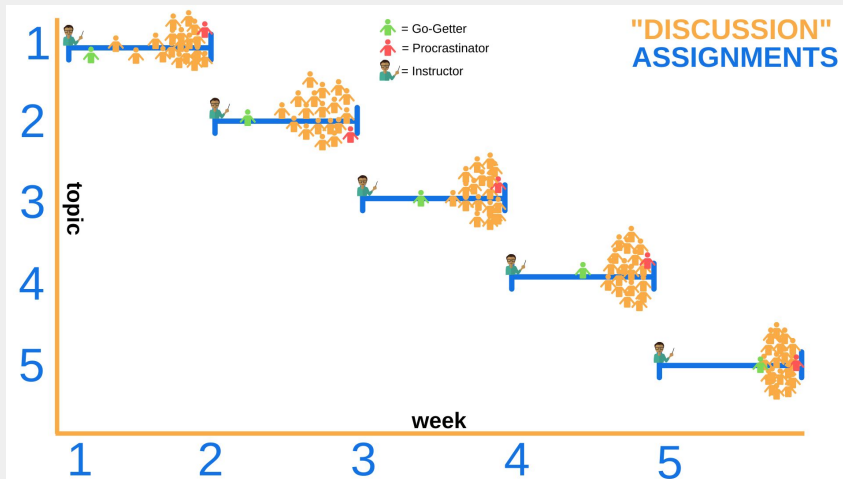
How It Differs from Discussion Boards

Designed For Active Learning Communities

Social
Gameful
Relevant
Data-driven
LMS Agnostic

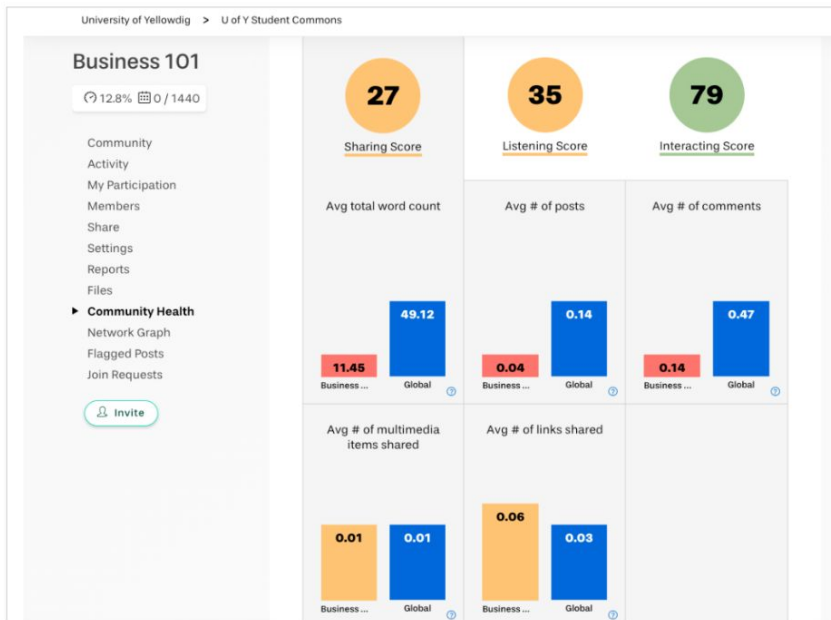


How It Allows for Organic Discourse

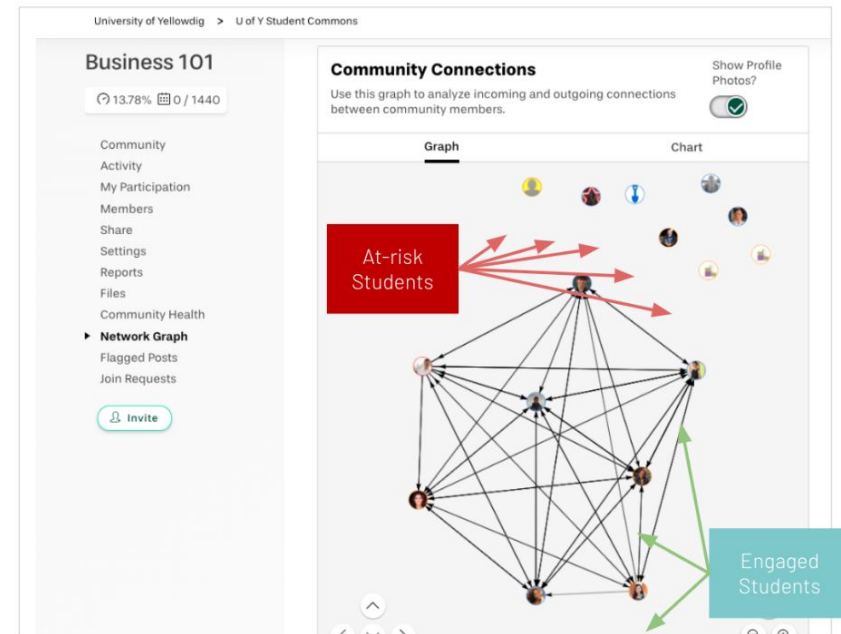


How It Helps with Instructor Support

COMMUNITY HEALTH DASHBOARD ALLOWS FACULTY TO TRACK ENGAGEMENT

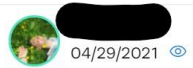


AT-RISK STUDENT IDENTIFICATION



Yellowdig: Class Example

My Definition Of Leadership - Part 2



04/29/2021



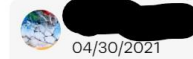
Throughout this semester, I have compiled a list of traits that contribute to my definition of a good leader based on central ideas I took away from several of the LED Talks we watched. 1. Vulnerability. In my opinion, we don't talk enough about how important vulnerability is in society. Vulnerability is a trait that allows us to connect with other humans on a level that is unlike any other. It also inadvertently establishes credibility in relationships due to the private emotions/feelings that are being exchanged and shared. If leaders are not vulnerable they lose a point of connectivity that is critical in establishing trust and with that trust comes a complete and unquestionable servitude to a leaders' counterparts.



Comment

Collapse comments (5)

Sort (Newest)



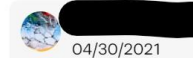
04/30/2021



This is a really interesting take on leadership, and i totally agree with you, vulnerability is definitely a trait leaders need to have, I think [@Genesishgarcia](#) says it perfectly



Reply



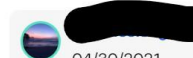
04/30/2021



Absolutely, vulnerability is seen as a weakness if you do not know how to handle it. Vulnerability is a great trait that can be used to rally people and make them feel for you.



Reply



04/30/2021



I agree! Most people see vulnerability as a weakness but it is really a strength that more leaders need to have. Being vulnerable means being able to communicate to your team about your strengths and weaknesses and understanding that you are not perfect at everything.

How It Promotes Gameful Experiences

Network Graph

Home / My Communities

Community Connections

Use this graph to analyze incoming and outgoing connections between community members.

Graph

Table



Week 1

08/30

- +90 **Comment** with 25 Minimum Words - 09/05 02:19 AM EDT - (32 words)
- +0 **Post** with 100 Minimum Words - 09/05 11:23 PM EDT - (97 words)
- +250 **Post** with 100 Minimum Words - 09/05 11:38 PM EDT - (125 words)
- +30 👍 Received - 09/06 01:37 PM EDT
- +60 **Comment Received** - 09/06 01:41 PM EDT - (49 words)
- +30 👍 Received - 09/06 01:42 PM EDT
- +75 🏆 Insightful! - 09/06 04:55 PM EDT
- +30 👍 Received - 09/06 04:55 PM EDT
- +60 **Comment Received** - 09/06 08:38 PM EDT - (50 words)
- +90 **Comment** with 25 Minimum Words 09/10 10:42 PM EDT - (30 words)
- +90 **Comment** with 25 Minimum Words 09/10 10:50 PM EDT - (131 words)
- +90 **Comment** with 25 Minimum Words 09/10 11:00 PM EDT - (51 words)
- +90 **Comment** with 25 Minimum Words 09/10 11:00 PM EDT - (39 words)
- +90 **Comment** with 25 Minimum Words 09/10 11:17 PM EDT - (57 words)
- +90 **Comment** with 25 Minimum Words 09/10 11:52 PM EDT - (123 words)
- +90 **Comment** with 25 Minimum Words 09/11 02:58 PM EDT - (396 words)

1255 Points Earned This Week

Week 2

09/12

How It Connect Learning Communities

Community Connections

Use this graph to analyze incoming and outgoing connections between community members.

Graph

Table



About the Courses

Spring 2021

Course	Delivery	Classification(s)	Enrollment
AWR 201: Research and Writing	FTF	First-Year/Sophomore	38
MAPC 602: Global Communication Design	FTF	Graduate	20
EME 606: Design of Online Collaborative Learning	Hybrid	Graduate	4

Summer 2021

Course	Delivery	Classification(s)	Enrollment
EME 605: Introduction to Distance Learning	Online	Graduate	7
EME 642: Management of Change	Online	Graduate	6
WRI 281: Technical Writing	Remote	Junior (mainly)	10

Fall 2021

Course	Delivery	Classification(s)	Enrollment
AWR 201: Research and Writing	FTF	First-Year/Sophomore	20
EME 601: Introduction to Instructional Design	Hybrid	Graduate	7
EME 603: Inquiry and Measurement	Hybrid	Graduate	14
EME 612: Media for Instruction	Hybrid	Graduate	3
ENG 491: Senior Portfolio	Hybrid	Senior	13
WRI 281: Technical Writing	FTF	Junior	15
WRI 381: Professional Editing	FTF	Junior/Senior	14

Spring 2022

Course	Delivery	Classification(s)	Enrollment
AWR 201: Research and Writing	FTF	First-Year/Sophomore	38
HON 255: Discovering the Leader Within	FTF	First-Year/Sophomore/Jr/Sr	38
EME 601: Introduction to Instructional Design	Hybrid	Graduate	8
EME 606: Design of Online Collaborative Learning	Hybrid	Graduate	5
EME 610: Trends and Issues in Instructional Design	Hybrid	Graduate	10

Literature: Using the SAGE approach

The Disruptive Innovation Framework, disruption describes *merits of the innovation disrupting the path of the traditional method, turning it on its head to improve the production of education and suggest we* rethink age-old assumptions of higher education (Christensen, 2011).

Disruptive innovation post-COVID underscores:

- the need to adapt to change,
- make critical connections,
- suggests we offer new instructional approaches with innovative digital resources (Ensmann, Whiteside, Gomez-Vasquez, Sturgill, 2021).

The SAGE approach uses platforms that incorporate a social and gameful experiential learning to increase motivation (Ensmann, Whiteside, 2022).

Methods

Design of study

This study uses an exploratory design gathering quantitative and qualitative data from students to capture their perspectives of using disruptive technology designed with gamification in a social media type platform with a SAGE approach to learning.

The results reported today include data from 5 terms and 20 classes from Spring 2021 through Spring 2022.

Methods

- **Surveys (bipolar descriptions on Likert scale)**
 1. **eLss survey** (Electronic Learning Satisfaction Survey) designed to measure learner satisfaction of electronic learning (Ritzhaupt, 2019) satisfaction of the community building discussion board.
 2. **Self-regulated Learning (SRL) dimensions** (Zimmerman, 1999; 2000; 2002; 2008) aligned to questions in survey instrument designed by researchers; tested for IRR.
 3. **Cognition, Affective, and Psychomotor (CAP)** (Rovai et al., 2009) questions used by researchers; tested for IRR.
- **Content posts**

Content analysis on-going
- **Focus groups**

Planned for Summer 2023

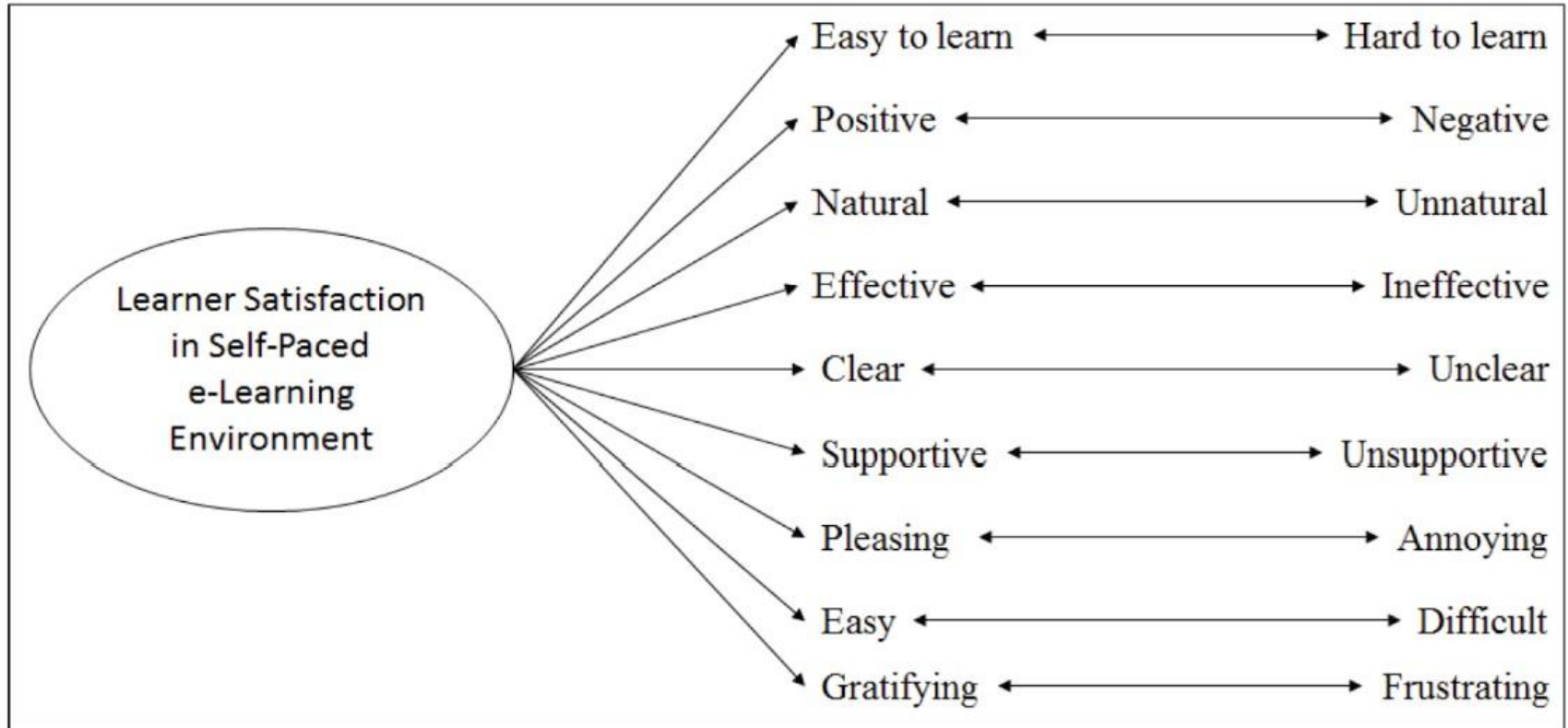
Demographics for All Terms

Demographic Descriptors of the Study (n=145)

Ethnicity	White non-hispanic 75%	Hispanic/Latino 6%	Black or African American, non-Hispanic 6%	Two or more Races including Hispanic 3%	Two or more races, non-Hispanic 3%	Asian, non-Hispanic 2%
Gender	Females 75%	Male 23%	Transgender male 1%			
Age	Z generation (1995-2010) 77%	Y generation (1980-1994) 14%	X generation (1960-1979) 3%			
Classification	Graduate 30%	Senior 25%	Sophomore 23%	Junior 11%	Freshmen 10%	
Term	Fall 2021 30%	Spring 2021 16%	Spring 2022 43%	Summer (two six week terms) 12%		

Using the eLSS to Uncover Satisfaction

eLSS Conceptual Model (Ritzhaupt, 2019)



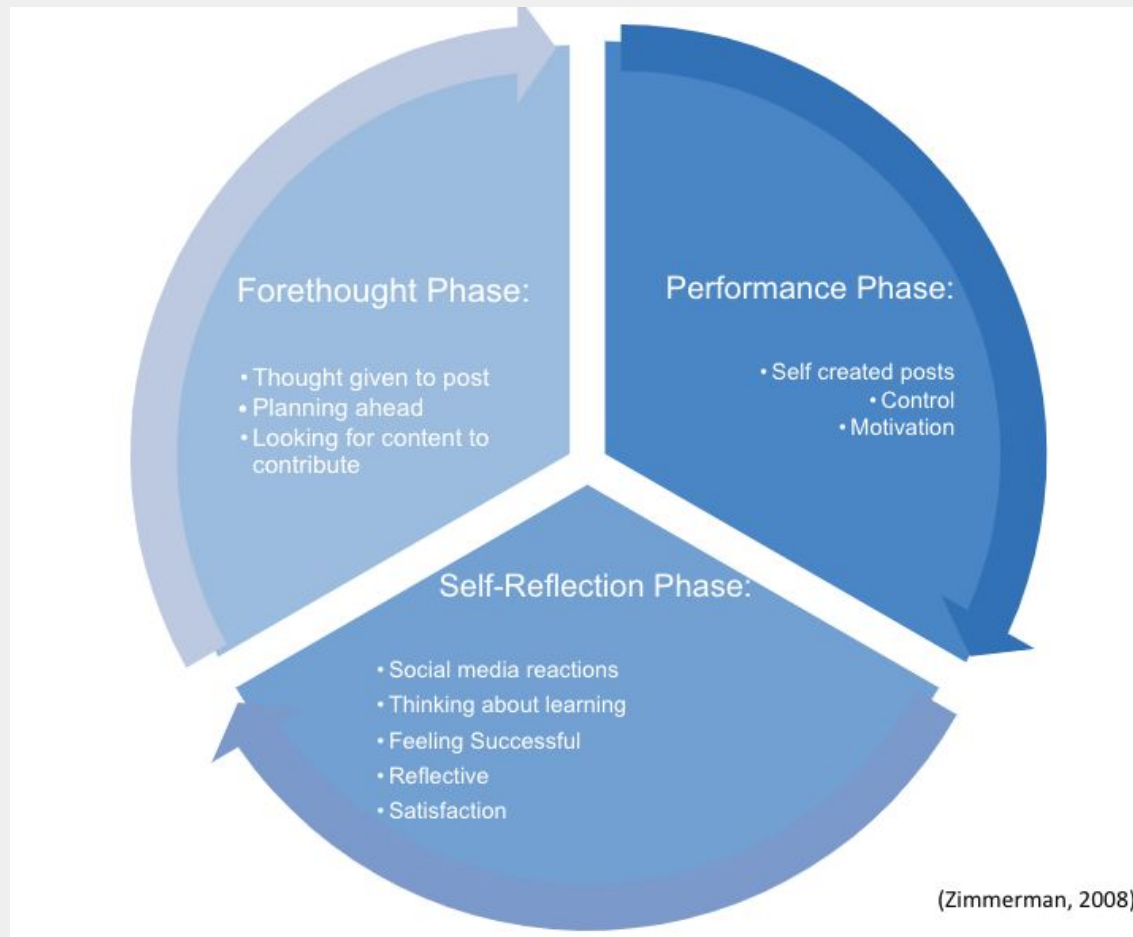
Note: Image of eLSS conceptual model showing nine items on semantic differential scale permission for this article by Albert Ritzhaupt.

Results: Learning Satisfaction

eLSS Variable	N	Mean	Std. Deviation	Minimum	Maximum
Hard to learn : Easy to learn	145	4.41	0.969	1	5
Negative : Positive	145	4.02	1.139	1	5
Unnatural : Natural	145	3.65	1.233	1	5
Ineffective : Effective	145	3.81	1.236	1	5
Unclear : Clear	145	4.35	0.924	1	5
Unsupportive : Supportive	145	4.16	1.078	1	5
Annoying : Pleasing	145	3.46	1.399	1	5
Difficult : Easy	145	4.32	0.927	1	5
Frustrating : Gratifying	145	3.57	1.284	1	5

(Ensmann & Whiteside, 2022).

Using the Survey Instrument Aligned to Uncover Self-Regulated Learning



Results: SRL (Self Regulated Learning)

I write my posts on the fly



I think carefully about my posts

I just try to get points and don't think about it



I look for things to post and add that relate to the course

Instructor led the posts each week



Peers and I led the posts each week

No social media reactions



Social media reactions

Not Learning about or from classmates



Learning about and from classmates

Not reflective



Reflective

Not satisfied



Satisfied

Not motivated



Motivated

I do not plan ahead



I plan ahead

I do not feel like I have control



I feel like I have control

Not thinking about my learning



Thinking about my learning

Not successful



Successful

Results: SRL (Self-Regulated Learning)

Variable		Mean	Std. Deviation	Min	Max
1-I write my posts on the fly: 5-I think carefully about my posts		2.99	1.27	1	5
1-I just try to get points and don't think about it: 5-I look for things to post and add what relates to the course		3.41	1.28	1	5
1-The instructors led the posts each week: 5-Peers and I led the posts each week		3.85	1.12	1	5
1-No social media reactions: 5-Social media reactions		3.45	1.38	1	5
1-Not Learning about or from classmates: 5-Learning about and from classmates		4.24	1.06	1	5

Results: SRL (Self-Regulated Learning)

Variable		Mean	Std. Deviation	Min	Max
1-Not reflective: 5-Reflective		4.34	0.92	1	5
1-Not satisfied: 5-Satisfied		3.96	1.14	1	5
1-Not motivated: 5-Motivated		3.64	1.23	1	5
1-I do not plan ahead: 5-I plan ahead		3.33	1.32	1	5
1-I do not feel like I have control: 5-I feel like I have control		4.13	1.09	1	5
1-Not thinking about my learning: 5-Thinking about my learning		4.06	1.01	1	5
1-Not successful: 5-Successful		4.11	1.09	1	5

Using the Cognition Learning Instrument to Uncover CA Perspectives (Cognitive Affective)

Please rate the statement below as it specifically relates to your experience in this Yellowdig discussion board.

	1-Not at all	2	3	4	5-Very much so
I have changed my attitudes about learning as a result of the Yellowdig platform.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can intelligently critique the work of my peers through the Yellowdig platform.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel more self-reliant as a result of the content from the Yellowdig platform.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I am a more sophisticated thinker as a result of the Yellowdig platform.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Results: CA Instrument (Cognitive Affective Learning)

Variable		Mean	Std. Deviation	Min	Max
I have changed my attitudes about learning as a result of the Yellowdig platform		3.16	1.204	1	5
I can intelligently critique the work of my peers through the Yellowdig platform		3.85	1.129	1	5
I feel more self-reliant as a result of the content from the Yellowdig platform		3.58	1.287	1	5
I feel that I am a more sophisticated thinker as a result of the Yellowdig platform.		3.44	1.236	1	5

Results: A Students Perspectives



Results: Positive Reactions

“The format was very modern and fun; the gamification aspect of it made interactions more significant and required more critical-thinking than most discussion boards.”

“I believe that Yellow dig was extremely helpful for me! I really enjoyed using it as a reflection tool and having my classmates comment back or react to my post. Yellow dig really allowed me to connect better with my classmates and allowed for me to realize that I was not the only one struggling at times or the only one procrastinating. Easy collaborative efforts, the points earned are rewarding to see and encouraging.”

Results: Negative Reactions

Yellowdig is stressing me out

ENGAGEMENT

I feel like gamification for certain things is helpful, but maybe not for this. I'm not a fan of how this system works so far. It feels like the only thing prioritized by this participation grading method is post length, which makes me feel like just coming in here and typing "potato" about 250 times to reach the post minimum everyday until I reach 5000 points. It doesn't look at the quality of the post or relevance of comments towards the original post. It's just length and I'm not a big talker. Sometimes I have nothing to say about a topic. I look at a post and say to myself "wow, I have absolutely nothing to add", but that's a no go with Yellowdig. Yellowdig to me feels incredibly vapid and leaves me stressed to engage with every post or else my grade may suffer. I don't like Yellowdig so far. It feels like forced engagement. 4/10.



Comment

Collapse comments (5) ^

Sort (Newest) v



07/20/2021

I had similar feelings about Yellowdig at the beginning of the summer. I initially felt as though my posts had to fit a certain mold. As if there were some sort of right or wrong answer. What eventually changed my mind about yellow dig was when I decided to stop worrying about the points or if I thought I was saying something that would be agreed with. I personally value authentic thoughts and feelings over contrived expressions and verbose language. I for one appreciate your posts and point of view. If you don't want to talk about the weekly topic, I for one would love to hear more about your job. From the stories you've shared so far in class, it sounds very interesting. I'm sure theres quite a bit to be learned from your engagement with such a diverse bunch of stakeholders. 😊



Results: Negative attitude changed

Yellowdig is stressing me out

ENGAGEMENT

I feel like gamification system works so far. It's post length, which makes reach the post minimum or relevance of comments. Sometimes I have nothing absolutely nothing to add and leaves me stressed so far. It feels like force



Collapse comments (5)



07/20/2021

I had similar feelings. posts had to fit a certain eventually changed n points or if I thought I authentic thoughts and appreciate your posts would love to hear more very interesting. I'm surprised diverse bunch of stakeholders. 🤔



Design for Online Collaborative Learning EME606 Spring 22

Home / My Communities

Reflections



CONNECTIVISM



@StudentA

Last Friday at 1:09 PM EDT



Greeting fellow scholars and instructional designers,

As I continue to reflect on the learning over the term, I can't seem to stop thinking about the social aspect of learning. Prior to my time in the Instructional Design Program at UT, I felt isolated as a student. While I had friendships with other students on occasion, I never felt they were part of the learning equation. The ID program has made me see things a bit differently, and I'm quite grateful for what we've shared in the pursuit of education.

Thank You All!!!



Conclusion: Benefits and Challenges

Benefits

- Increases connectedness
- Allows students not to feel alone
- Increase self reliance
- Reduces instructor workload from minutiae to to invest into facilitating learning!
- Keeps students accountable

Challenges

- Resistors--those who are stuck boycotting a new system
- Takes time for some students get “aha” moment
- Instructors and students may vary on what they define as reflective
- Students get from it what they put into it

Conclusion: Let's Continue Discussing

Contact us for any questions or for upcoming journal special issues on the SAGE approach to learning.

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Selected References

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