

Designing and Evaluating an Online Learning Community that Integrates Formal and Informal Learning

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Sep. 2019

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Outline

- **Statement of problem**
- **Purpose of the study**
- **Learning Community & Integrated Learning**
- **Research method**
- **Implementation of the study**
- **Results**

Statement of the Problem 2/1

❖ **IBSTPI requires instructional designers to continuously and proactively update their instructional design (ID) knowledge and skills**

❖ **Nature of ID:**

❖ **Dynamic field** (Eseryel, Bludnicki & Doughty, 2003; Sharif & Cho, 2015)

❖ **Multidisciplinary field** (Larson & Lockee, 2009; Ritzhaupt & Kumar, 2015)

❖ **Applied field** (Cheong et al. 2006; Sharif & Cho, 2015)

❖ **Traditional & non-traditional tasks** (Kenny et al., 2005; Ritzhaupt & Kumar, 2015; Stefaniak, 2017)

❖ **Soft skills** (Dicks & Ives, 2009)

❖ **Unsupported professional development (PD)** (Cheong et al., 2006; Sharif & Cho, 2015)

Statement of the Problem 2/2

❖ **Most formal ID degree programs focus on foundational ID knowledge with some applied practices**

(Christensen & Osguthorpe, 2004; Stefaniak, 2017; Thompson- Sellers & Calandra, 2012)

❖ **Most research focuses on formal learning of ID**

❖ **Authentic learning: case studies, action learning, & design thinking**

(Bannan-Ritland, 2001; Boling, 2017; Smith, 2017; Tracey, 2017; Visscher-Voerman, 2017)

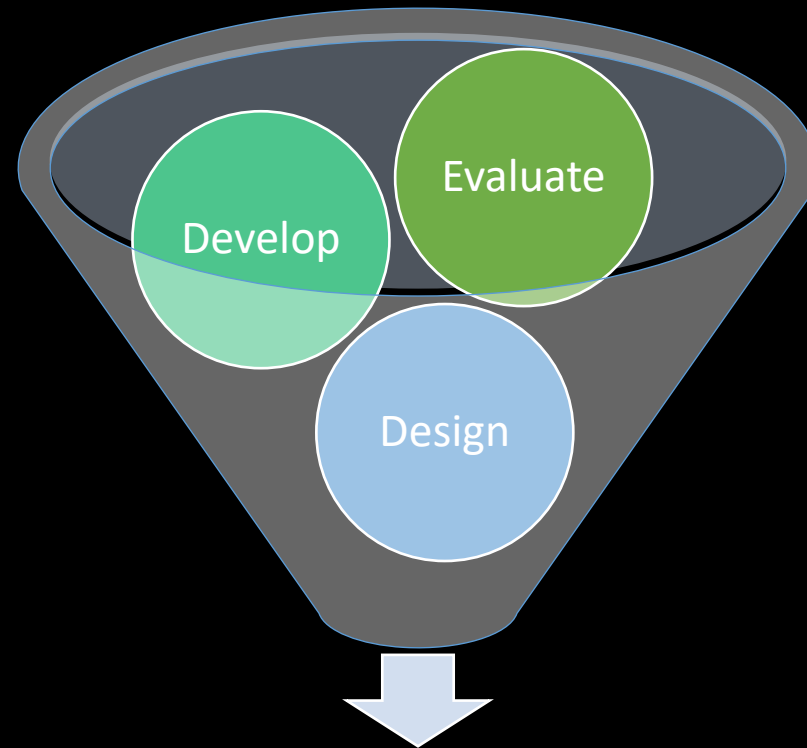
❖ **Increased significance of informal learning in higher ed.**

(Larson & Lockee, 2009; Moore & Klein, 2015; Yanchar & Hawkey, 2014, 2015).

❖ **Paucity of research on informal learning**

❖ **Limited evidence-based integration framework**

Purpose of the Study



Technology-Mediated Learning Environment (TMLE)

“Learning communities are groups of people who support one another with regard to meeting their learning agendas, working together on projects, learning from one another as well as from their environment, and engaging in a collective sociocultural experience”

(Dabbagh & Bannan-Ritland, 2005, p. 13)

Learning Community

A flexible learning experience that tailors formal objectives with individualized learning goals through a combination of mandatory and optional activities, and a provisional guidance from a faculty or a facilitator.

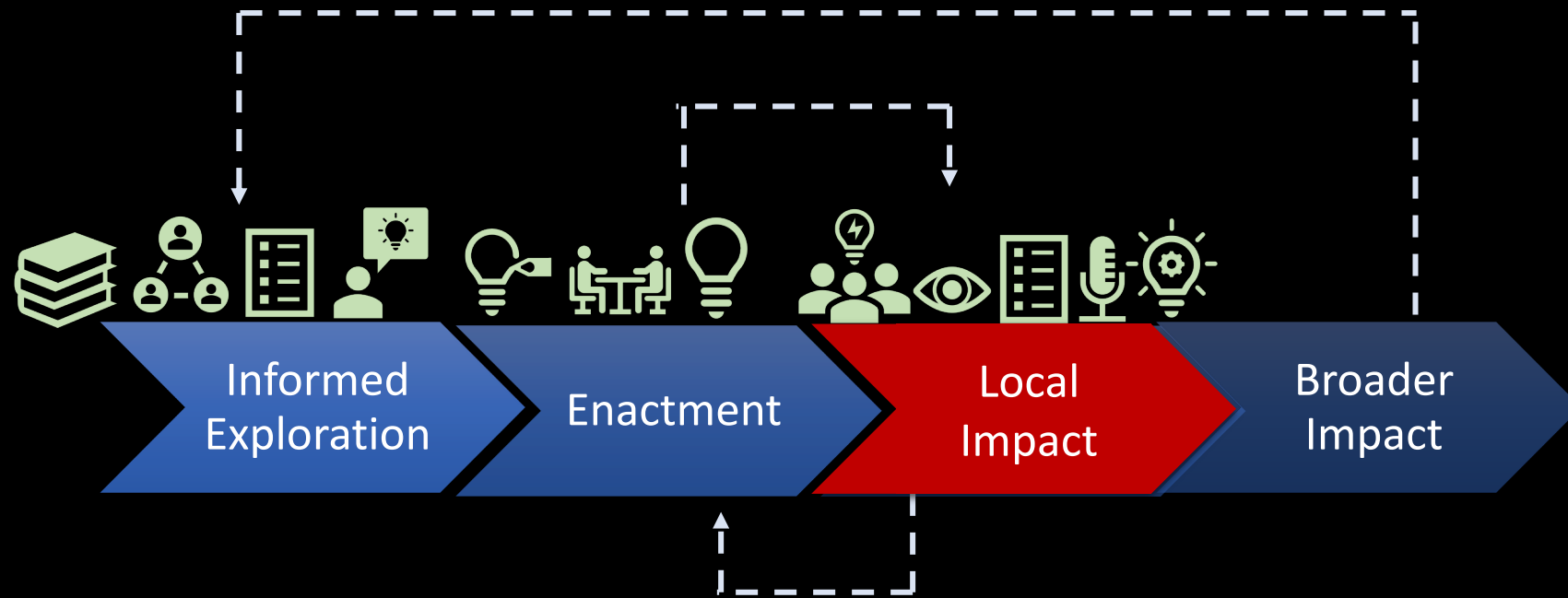
Integrated Learning

Research Method

Design-Based Research

“the systematic study of designing, developing and evaluating educational interventions, - such as programs, teaching-learning strategies and materials, products and systems - as solutions to such problems, which also aims at advancing our knowledge about the characteristics of these interventions and the processes to design and develop them” (Plomp, 2007, p. 9).

Integrative Learning Design Framework



Evaluation of Local Impact Phase

RQ1: What are students reported perceptions of the TMLE's influence on their formal and informal learning of ID knowledge and skills?

RQ2: How and to what extent did the students engage in informal learning activities during the course?

RQ3: How did the students perceive the usability, relevance, and impact of the TMLE in helping them establish their PD trajectory?

Setting



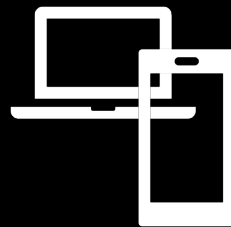
EDIT 732: Analysis and Design of
Technology-Based Learning
Environments



Design Group



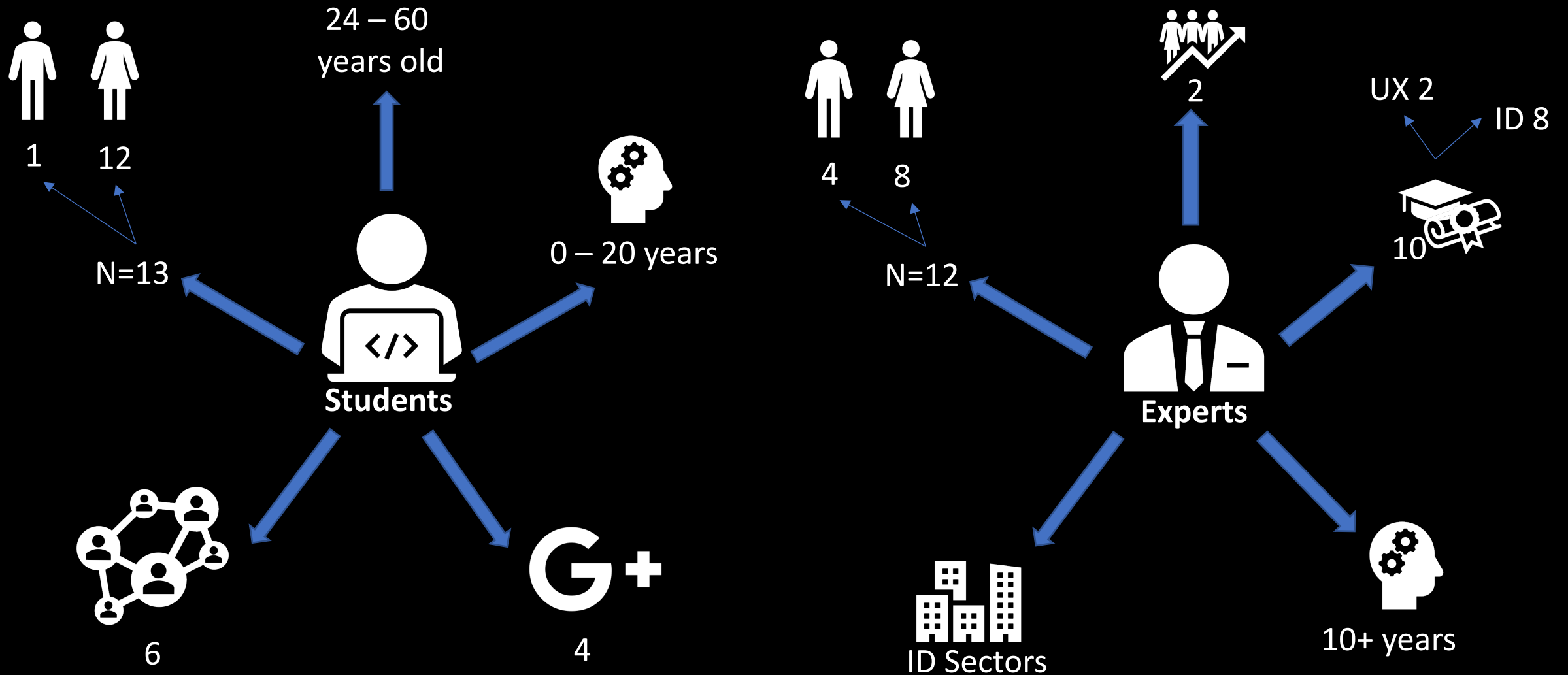
Real Clients



Technology-based solution

- Flexibility
- Collaborative learning
community
- Interactions with clients–SMEs
- Convenience

Participants



Six Design Principles to Develop the TMLE

1

Informing ID students about the importance of informal learning in the field and the ***critical value of continuous PD***

2

Creating a ***flexible learning environment*** with focused informal learning opportunities that are aligned with formal learning objectives

3

Fostering a sense of a ***learning community*** to collaborate on projects and share formal and informal knowledge, questions, comments, & thinking processes

4

Encouraging ***feedback loops*** to move between formal and informal learning networks to gain feedback through in-person and online *interactions with more knowledgeable others* (MKOs)

5

Encouraging ***ongoing reflection*** and evaluation of projects, learning experience, and upcoming learning goals

6

Integrating volunteer informal learning activities within required formal ones and accounting for individual and environmental ***motivational factors***

TMLE Intervention Elements

1. Informal learning goals
2. Weekly course schedule
3. Informal learning section within Blackboard
4. Online learning community within Google+

Informal Learning Goals & the Course Schedule

***A Dissertation Intervention

This year, a fellow Ph.D. student will implement a learning intervention designed around a learning community within Google+ to encourage students to establish their professional development (PD) trajectory and advance their knowledge and skills of instructional design (ID). The learning community will provide students who agree to participate with excellent opportunities to network with peers, ID practitioners, alumni, and experts in the field to discuss formal and informal topics. There will be several informal learning activities to help participants achieve the course learning objectives and desired PD goals. This learning intervention aims to establish a vibrant learning community that extends beyond the course to support creative and rigorous instructional design solutions.

A description of the informal learning activities is included in the last column of the weekly course schedule. The student researcher will facilitate and monitor the informal learning activities. Should you have questions about the informal learning activities, please contact the student researcher at bzawawi@masonlive.gmu.edu. Note: the informal learning activities highlighted in green are intended to support formal learning tasks. The informal learning activities highlighted in yellow are intended to support student's PD goals. And the informal learning activities highlighted in red are designed to evaluate the learning intervention.

Informal Learning Goals

1. Establish an individualized professional development (PD) trajectory that is compatible with current trends in the field
2. Collaborate with peers with similar PD goals to advance specific learning targets and elaborate on PD goals based on formal and informal learning discussions
3. Contribute to peers development of ID experience, creativity, and habits of the mind by connecting class materials and formal project with previous IDT courses and work experience
4. Experience the development of a vibrant learning community that extends beyond formalized settings to share feedback and different opinions on formal and informal learning topics and to create various networking opportunities with instructional design practitioners and alumni
5. Search for valuable and reliable resources to support formal and informal learning goals
6. Reflect on the informal learning experience to highlight essential informal learning achievements

TMLE Information in BB

201870.82212 EDIT-732-
DL4 (Fall 2018) ↑
EDIT 732 Home Page
Syllabus

Informal Activities

Participation Points

Week #5. Informal Learning Activities

Week #5. Informal Learning Activities

What Happened Last Week?

Last week I shared several resources about conducting interviews, focus groups, and observational field visits to help you think about and select the optimal method of data collection for your design project. I was hoping to receive comments or feedback from all of you regarding the shared resources, e.g., what data collection method did your group select or apply, any problems you had with users/target audience, and some useful tips for your peers. Sharing your current experience with data collection and any prior work experience communicating with users might benefit other peers who are not as familiar with the process. I would like to thank Jill for her participation in one of the discussions in Google+. Please remember that **this learning community will not flourish unless all of us actively participate.**

What to Expect This Week?

Moving forward to week 5, we will continue to discuss contextual inquiry and methods of data collection since this is the focus on your group work. So for this week, there are two learning activities in the Creative Instructional Designers Google+ Learning Community:

1. Establish and participate in discussions about methods and challenges of conducting contextual inquiry and analysis at your organization and creative solutions to work challenges/constraints and share valuable resources.
2. Search for more knowledgeable others (MKOs) if you have questions about conducting interviews/field visits and invite them to answer your questions in the Google+ learning community.

Why Would I Participate in This Week's Activities?

The goal of the first activity is to help you connect formal and informal/work learning by discussing methods and challenges of real-life implementation of formal knowledge. Such discussion might contribute to self and peers development of ID experience, creativity, and habits of the mind.

For the second activity, you can email your questions to Dr. Dennis (rdenni1@gmu.edu) or Dr. Maxwell (jmaxwell@gmu.edu) as both of them are willing to respond to your inquiry.

Upcoming Event!

Izabela and I are planning an online discussion via Hangouts about conducting needs analysis at work. I sent a detailed email about it on Sep. 23rd. Matt was the only person responded to [the Google Doodle schedule](#). Please take a minute to select a best time/day for you to participate in this online discussion. Even if you are not currently working as an instructional designer, attending this type of informal discussion would provide you with great insights into different ID organizations and how they apply needs analysis.

Group Online Meetings

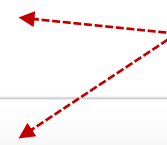
Course Management

Control Panel

Week# 1. Informal Learning Activities

Week #2. Informal Learning Activities

Weekly informal
learning activities



Google+ Learning Community

The screenshot shows the Google+ interface for a Learning Community. The top navigation bar includes the Google+ logo, the word 'Communities', a search bar, and a notification icon. The community header for 'Creative Instructional Designers' includes a description and a 'MANAGE' button. A central post features a video thumbnail with the text 'BECOME A UX DESIGNER' and 'how to become a UX designer with no experience'. Below the video is a comment field. To the right, a post by 'Boshra Zawawi' contains a welcome message and weekly activities. The left sidebar lists various filters. Annotations with dashed arrows point to specific elements: 'Community's Name' points to the community title; 'Filters' points to the sidebar menu; 'UX resources' points to the video thumbnail; and 'Welcome note & weekly activities' points to the post content. A 'Looks like you've reached the end' message is visible at the bottom right.

Google+ Communities Search Google+

Creative Instructional Designers
Instructional design, creativity, George Mason University, professional development
MANAGE

All posts ✓
Article
Discussion
Events
PD Goal-Based Groups
Questions
Weekly Activities

BECOME A UX DESIGNER
how to become a UX designer with no experience

Add a comment... +1

blog.prototypr.io

Add a comment... +1

Boshra Zawawi Owner Weekly Activities 28w
Welcome to Creative Instructional Designers Learning Community where lifelong learning starts!
Week 1 informal learning activities:
-Consider establishing a Google+ Community (Project section) for your group formal project discussion
-Create a Google+ Collection space and share it with the researcher

Add a comment... +1

Looks like you've reached the end

Community's Name

Filters

UX resources

Welcome note & weekly activities

TMLE Informal Learning Activities



Google+ Collectio



Sarah's PD

1 follower - 6 posts - Shared privately

FOLLOWING



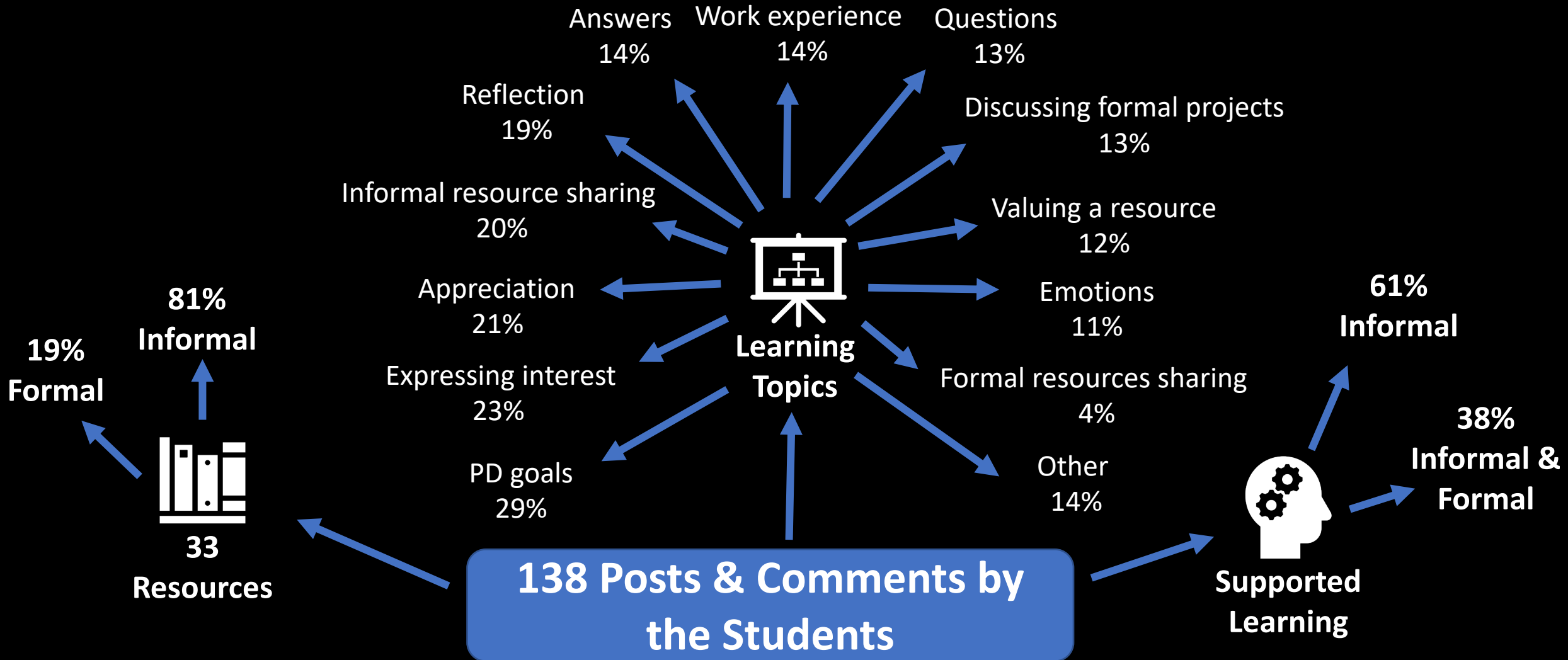
8w

8w

es

1

Types of Posts and Comments in the Google+ Learning Community & Collection



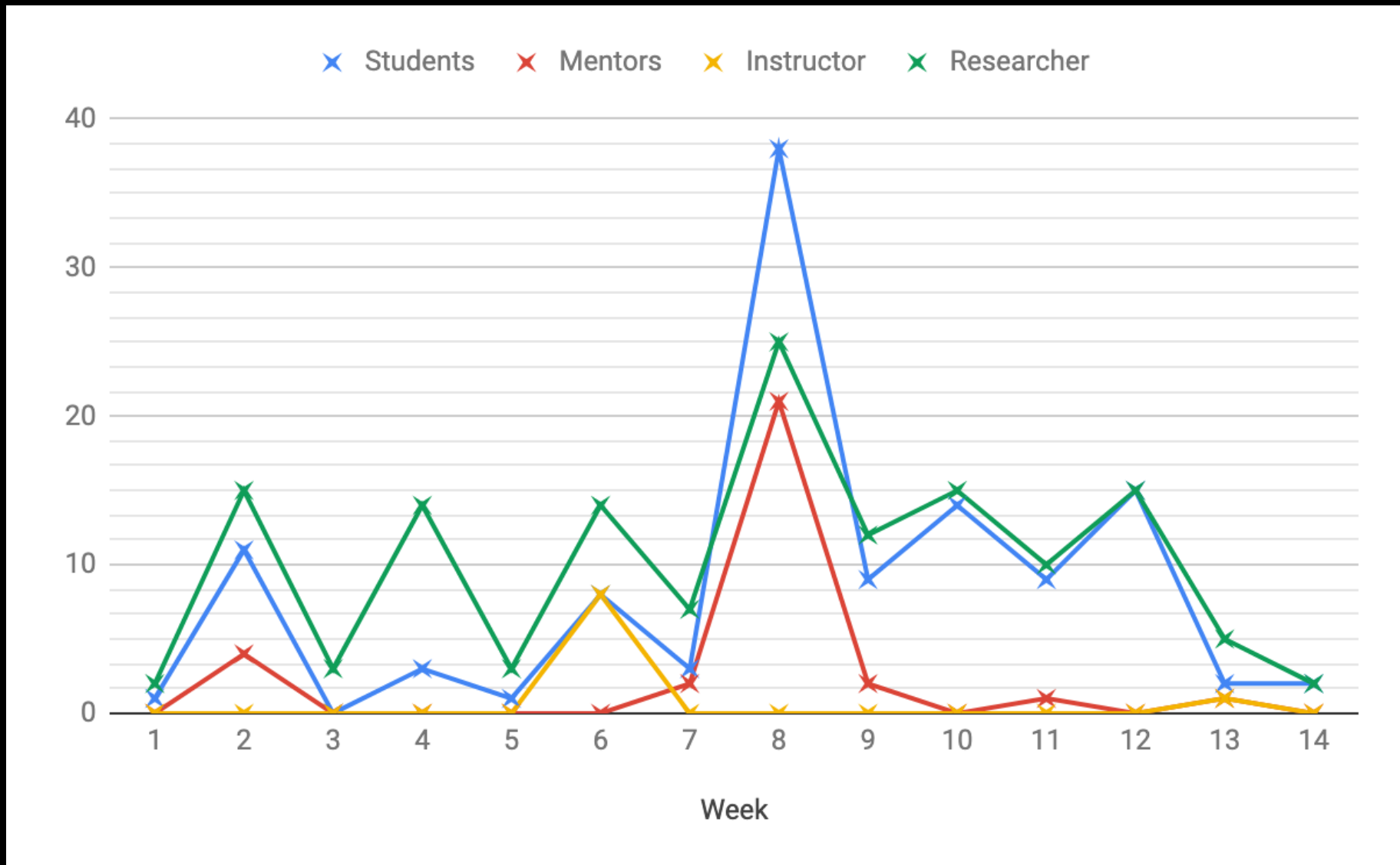
| In-Person Activities | |
|--------------------------------------------------|----|
| Listening to the guest speaker | 13 |
| Attending first social event | 7 |
| Attending second social event | 2 |
| Online Group Activities in the Google+ Community | |
| Creating a formal group project | 4 |
| Following the Google+ Community | 12 |
| Sharing resources | 10 |
| Posting Comments | 9 |
| Individualized Activities in Google+ Collection | |
| Creating a PD Collection | 8 |
| Posting PD goals | 8 |
| Posting an ID concept map | 2 |
| PD Groups in the Google+ Learning Community | |
| Participating in PD groups | 8 |
| Sharing resources | 1 |
| Posting comments | 8 |

Students Participation in the Online and In-Person Informal Activities

| Participant | Posts in Google+ Collection | Initial Posts in Google+ Community | Comments in Google+ Community | | Total |
|--------------|-----------------------------|------------------------------------|-------------------------------|---|------------|
| Nora | 3 | 0 | 29 | | 32 |
| Sarah | 6 | 5 | 15 | 😊 | 26 |
| Rosa | 5 | 3 | 13 | 😊 | 21 |
| Grace | 2 | 3 | 9 | | 14 |
| Rina | 2 | 2 | 8 | | 12 |
| Laura | 1 | 2 | 8 | | 11 |
| Mark | 4 | 1 | 3 | 😐 | 8 |
| Sharon | 2 | 0 | 6 | 😐 | 8 |
| Melissa | 1 | 2 | 2 | | 5 |
| Tracy | 0 | 1 | 0 | | 1 |
| Mari | 0 | 0 | 0 | | 0 |
| Vivian | 0 | 0 | 0 | 😞 | 0 |
| Lyla | 0 | 0 | 0 | 😞 | 0 |
| Total | 26 | 19 | 93 | | 138 |

- Mostly lurkers
- 138 total posts/comments
- Average number of posts = 10
 - Active participants = 3
 - Average participants = 6
 - One to no participation = 4

Number of Posts and Comments by the Students in the Google+ Learning Community & Collection



The number of posts/comments shared by the students, mentors, the instructor, and the researcher in the Google+ Learning Community across 14 weeks

Finalized Design Principles / Implication

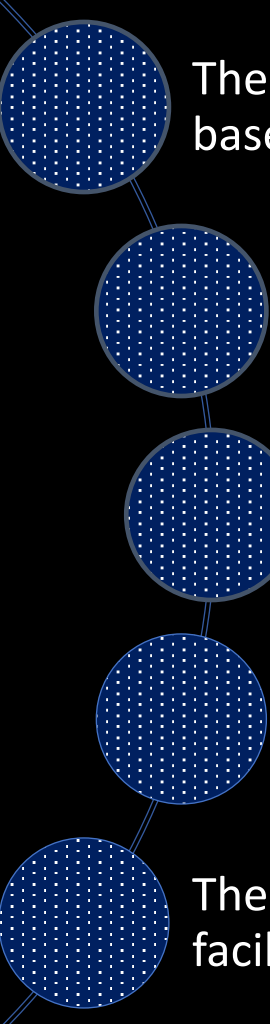
Design principles for developing the TMLE

1. TMLE should be mediated by a familiar social media platform.
2. TMLE's goals, general guidelines, and technology should be introduced in an in-person tutorial and shared with other supportive materials within the learning community.
3. The students should have the option to use a preferred tool to track their PD goals or select one from a list of useful tools.
4. TMLE should allow students maximum levels of content and context flexibility with respect to topic selection, time-frame, number of informal weekly activities, and blended learning.
5. TMLE should avoid time-consuming activities and increase connections with other courses to limit additional tasks.
6. Major informal learning activities in the TMLE should be scheduled after the due dates of main formal assignments.
7. TMLE should promote connections with experts in the field and alumni to support students' formal learning, PD, and career readiness.
8. The volunteer nature of the TMLE should be supported by extrinsic and intrinsic motivational factors to encourage initial, semester-long, and lifelong participation.

Design principles for facilitating the TMLE

1. Building the TMLE's discourse and rapport should be fostered by sharing members' bio and ID experience in the learning community and conducting in-person social networking events.
2. Supportive scaffolding is interwoven with facilitation actions in the TMLE and should be shared by the course instructor, a facilitator, and experts in the learning community.
3. TMLE facilitators should refrain from guiding discussions and rather support students' PD goals and general interests, and increase connection to formal assignments.
4. TMLE facilitators should communicate with students via informal channels and refrain from using the institution's LMS.
5. TMLE facilitators should prompt students to discuss their formal design strategies and tools within the learning community to disseminate knowledge and reflect on formal learning.
6. TMLE facilitators should track the effects of motivational factors on individual student's participation.

Summary of Findings 1/2



The TMLE supported more than half of the students to think about, establish, and refine their PD goals based on the job market and trends in the ID field.

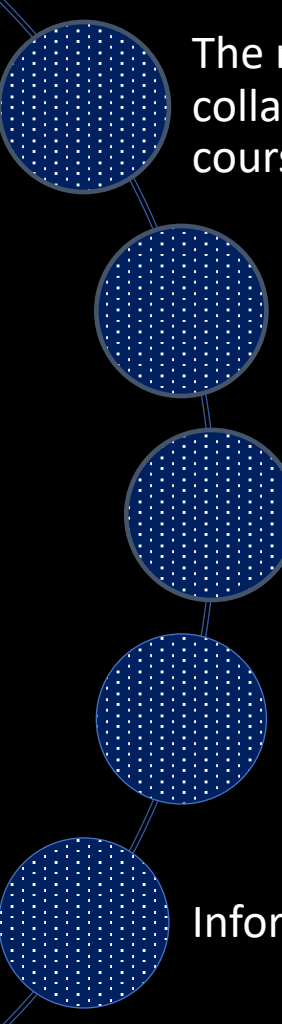
The social learning nature of the TMLE influenced students' formal learning of ID by supporting knowledge sharing across the design groups.

The flexibility of the TMLE encouraged the students to focus on learning interesting topics and explore informal learning opportunities.

Networking with experts and alumni allowed the students to connect formal learning of ID with the workplace and supported preparation for future jobs.

The twofold aims of the TMLE (i.e., advancing students' ID knowledge and PD trajectory) required on going facilitation from the facilitator and the experts as a form of scaffolding and internal motivation.

Summary of Findings 2/2



The most effective internal motivations were meeting in-person with the Google+ learning community members, collaborating on PD goals with peers and experts, facilitating the online discussions, and the presence of the course instructor.

The most effective external motivations were the point chart and posting the image of the participant of the week.

The more students feel autonomy within the learning community and concrete connections with formal learning, such as focusing on individualized PD goals and supporting formal design projects, the more they engage in the TMLE.

Time-constraints was the top factor that hindered some students from participating actively in the TMLE.

Informal learning plays a crucial role in supporting students learning of ID inside and outside the workplace.



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