The Battle Between Real-World Experience and Academic Learning Outcomes

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Northeastern University

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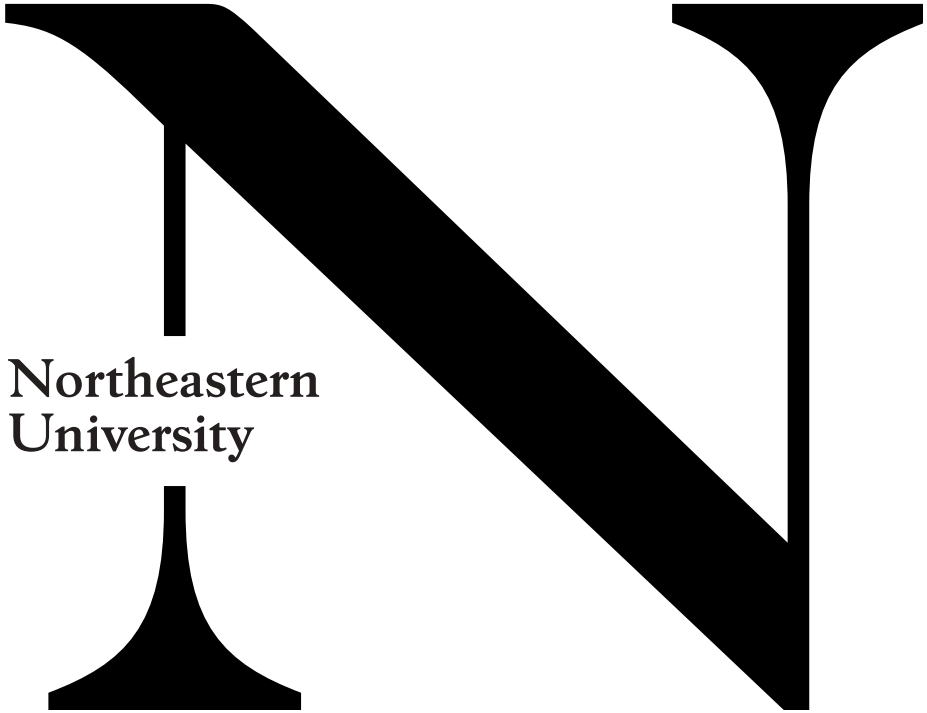
Session Overview

1. Key Insights from the research
2. Facilitating the Experiential Learning Actor Network
3. Practical Tips for aligning real-world experience with learning outcomes

Research Insights

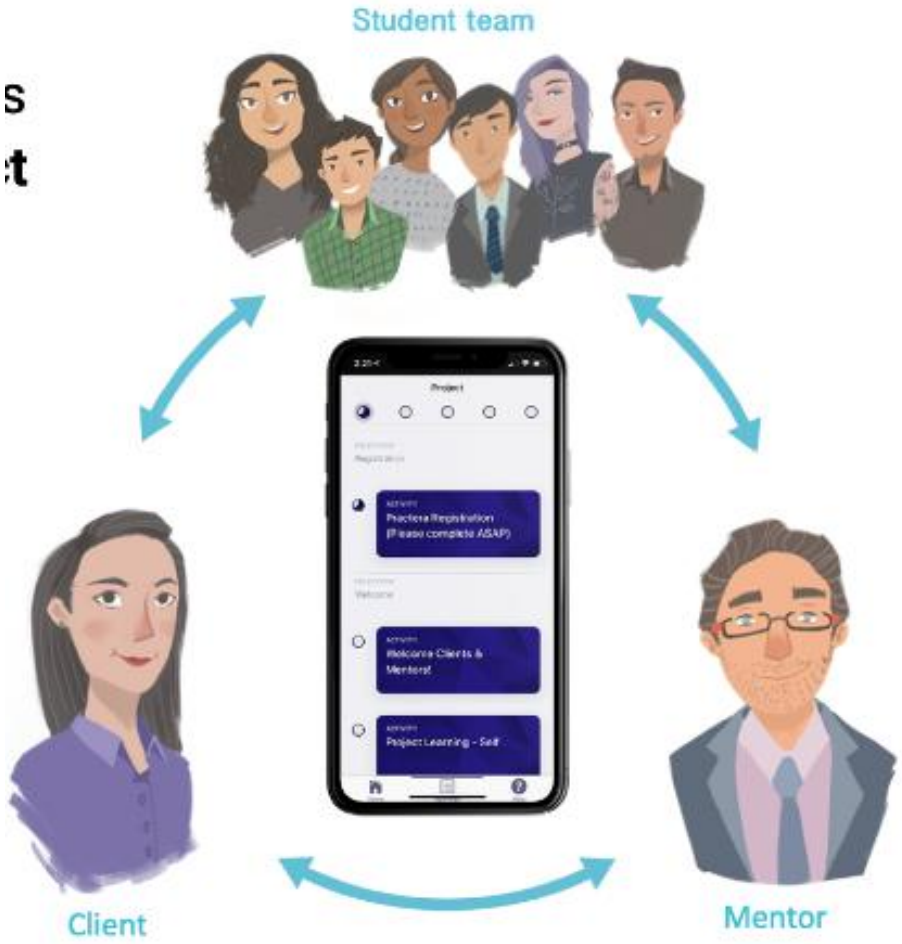


The Research Objective

- Traditional cooperative education (co-op) placements or internships can be very beneficial in orientating and preparing graduates for the workplace (Ambrose & Poklop, 2015)
- However, they are impractical for adult, non-traditional students who are already working full- or part-time while they are in school
- These important and often formative experiences are thus out of reach for these students, effectively creating a two-tier system where non-traditional and adult students, many of whom are from low-income or underrepresented minority (URM) populations, are left behind.

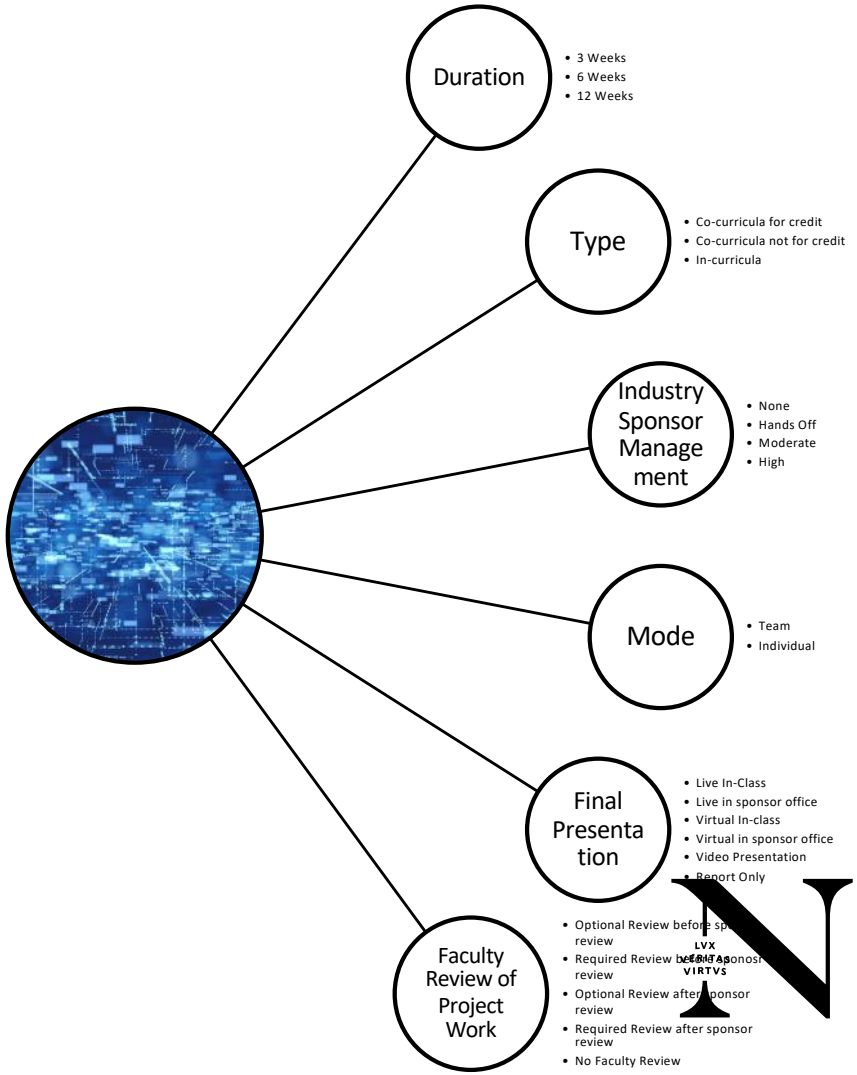
What we've learned so far

- Faculty, students and industry sponsors all bring different expectations, intentions and objectives to the collaboration
- For an effective collaboration that achieves objectives each actor (faculty, students and industry sponsors) needs to:
  - Understand each others' expectations and objectives
  - Learn their 'new role' in the learning process
  - Be in a constant state of re-aligning expectations from start to finish



What we learned so far

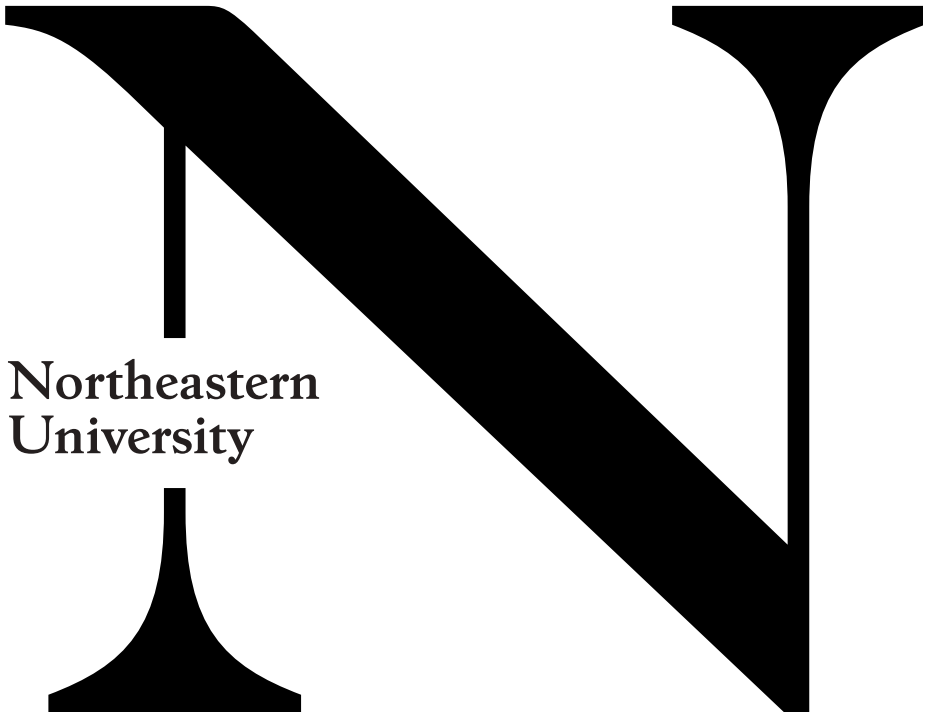
- There are multiple variables within an internship model that:
  - Need to be decided on,
  - Need to be effectively communicated
  - Have trade offs in terms of time, quality and scale



Current Hypothesis

Alignment of expectations, motivation and outcomes can be intentionally facilitated using a socio-technical system

The Experiential Learning Actor Network



Actor Network Theory

Everything in the natural and social world exists in a constantly shifting network of relationships

Each actor (whether human or technical) is an equal actor in the system.

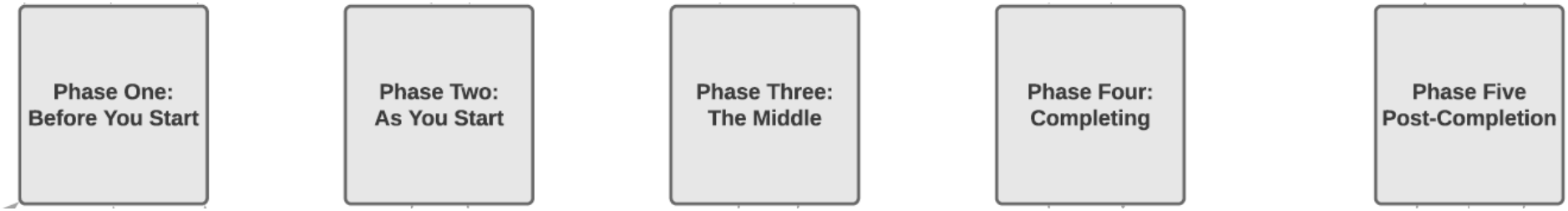
Standby for the NERDY explanation

A hypothetical experiential learning actor network theory

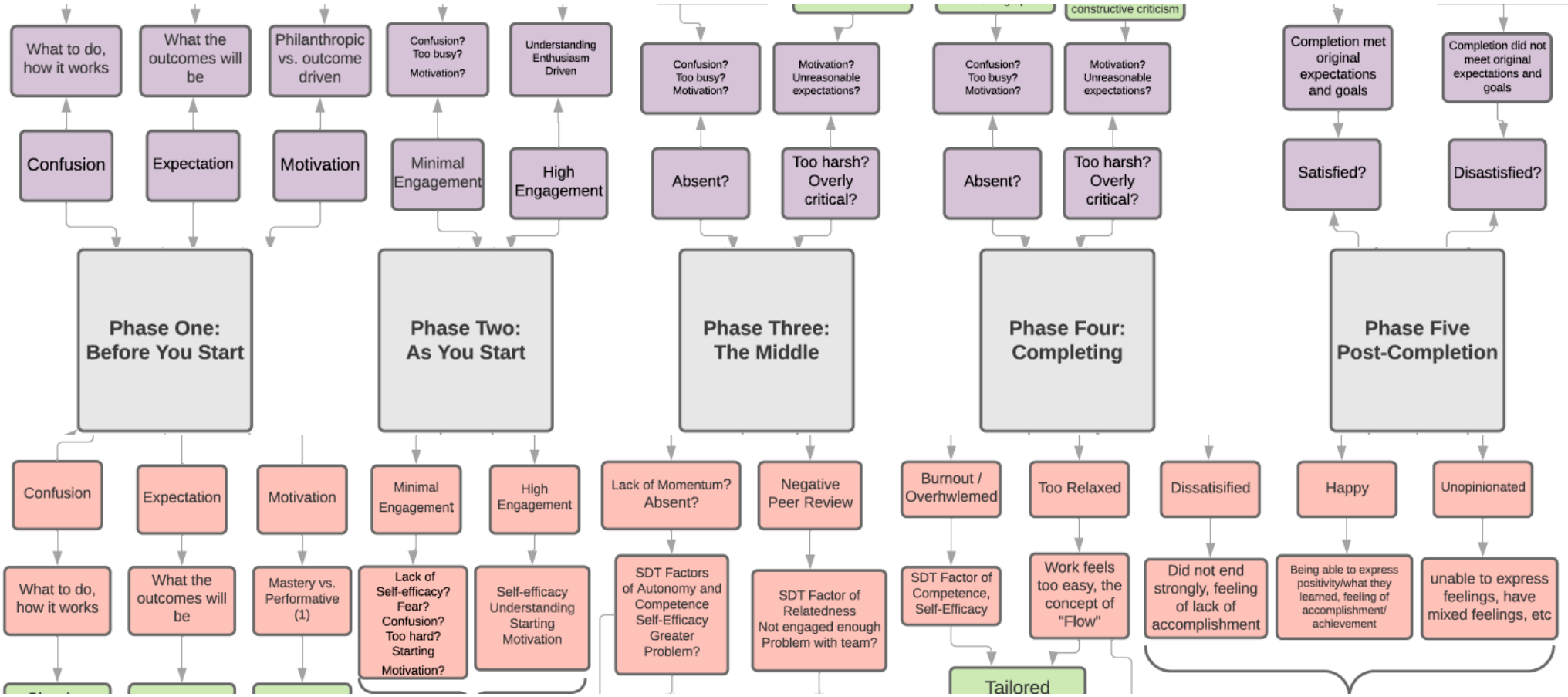
- STARTING MOTIVATION = (Actor1 Perceived input – Actor1 Perceived Output) + (Actor2 Perceived input – Actor2 Perceived Output)
- Each actor inputs starting motivation (fuel) into the network
- Actor Motivation is positively or negatively impacted by the actions of other actors
- Motivation (fuel) adds or subtracts momentum from the network
- Non - rational actors can REACT or RESPOND to interaction (friction points) with other actors
  - Reacting to momentum = neutral or negative impact on momentum
  - Responding to momentum = positive impact on momentum (acceleration)
- Rational actors can only REACT to an interaction as it is designed to REACT but this reaction still has an impact on the momentum
- The greater the momentum in the network the greater potential for intended outcomes for each actor.
- The greater the alignment of intended outcomes of the actors the lower potential there is for friction points to negatively impact the momentum of the network.

Now let’s make this PRACTICAL

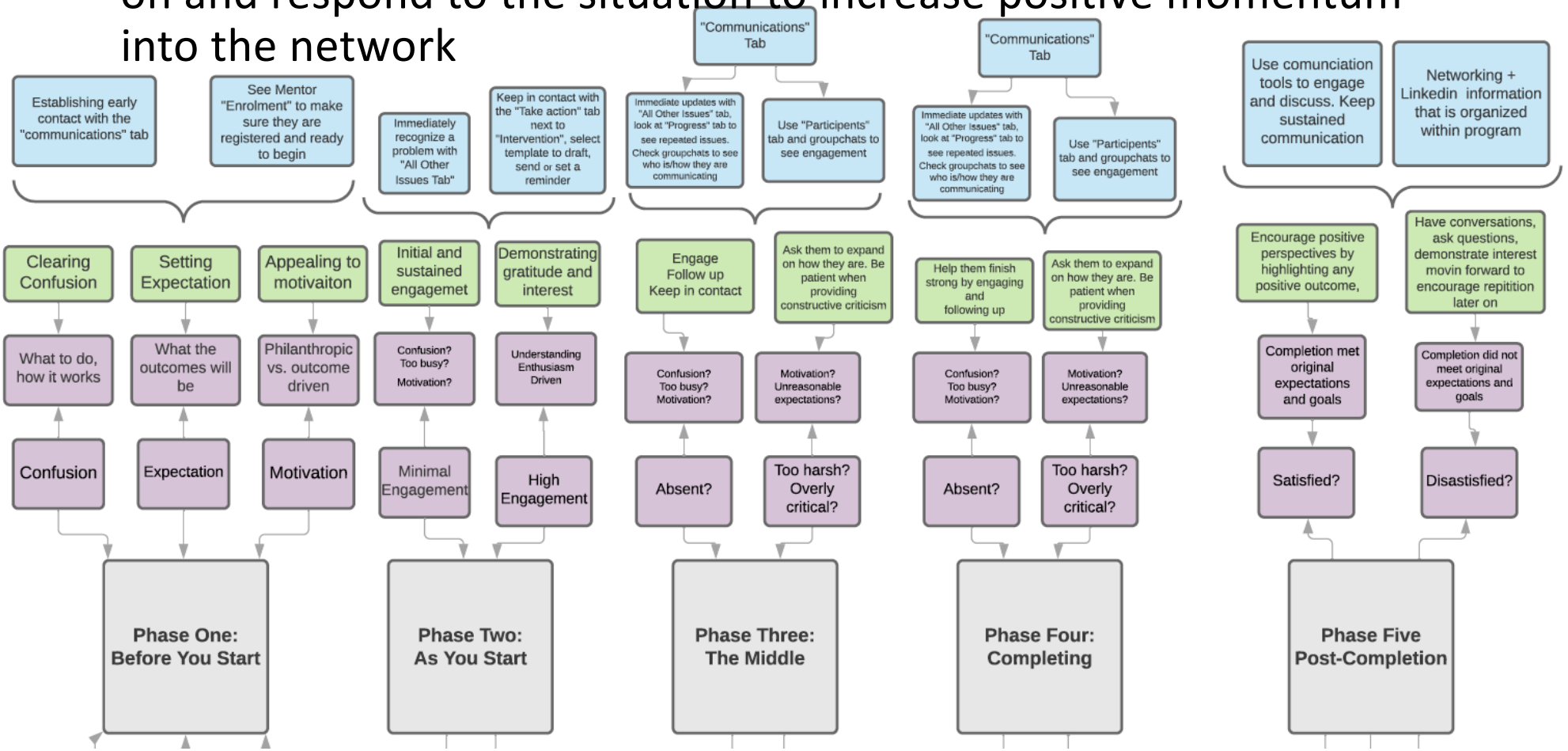
Phases of an Experiential Learning Experience

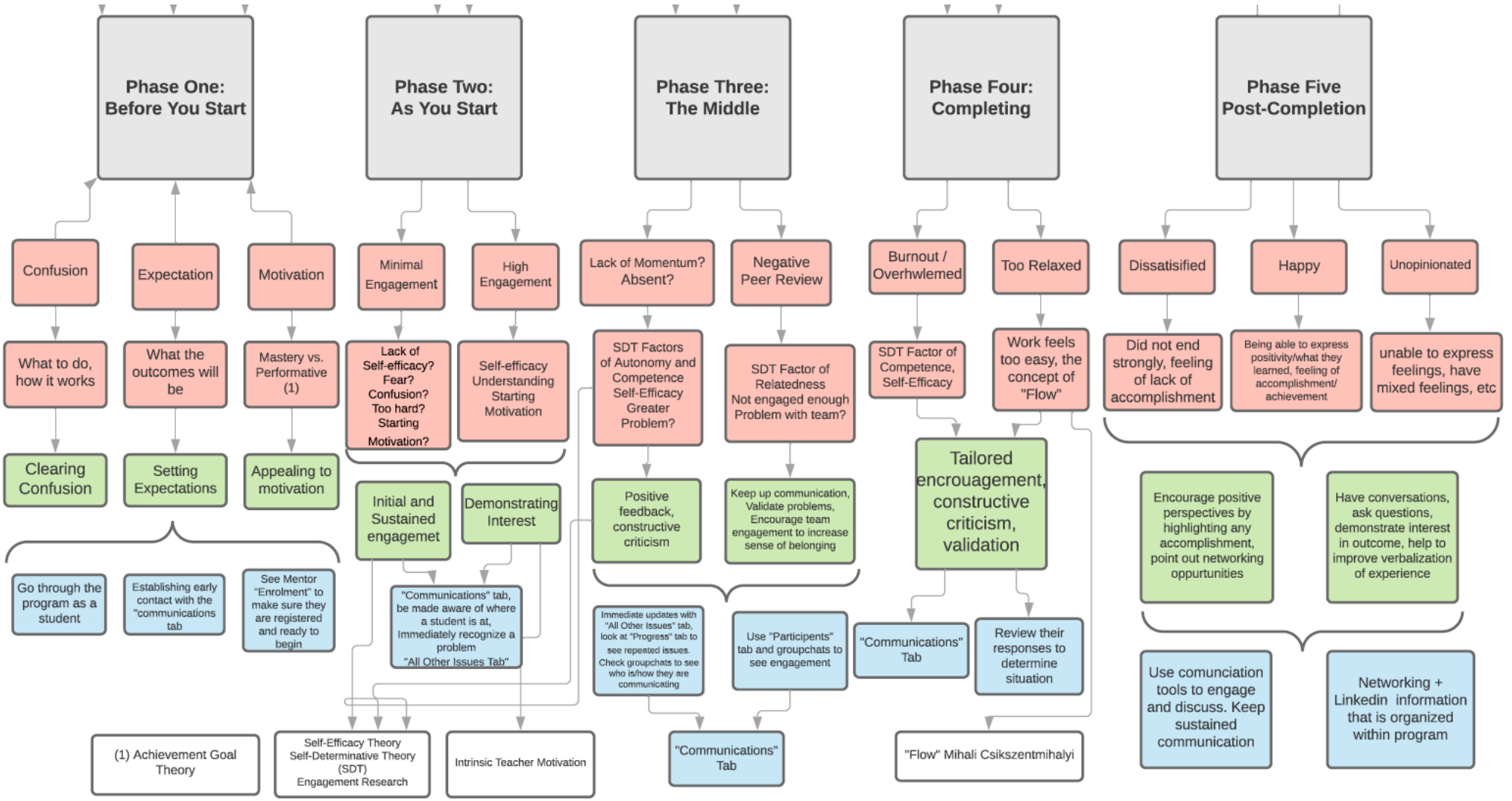


Different Student/Industry Sponsors ACT in different ways at each phase

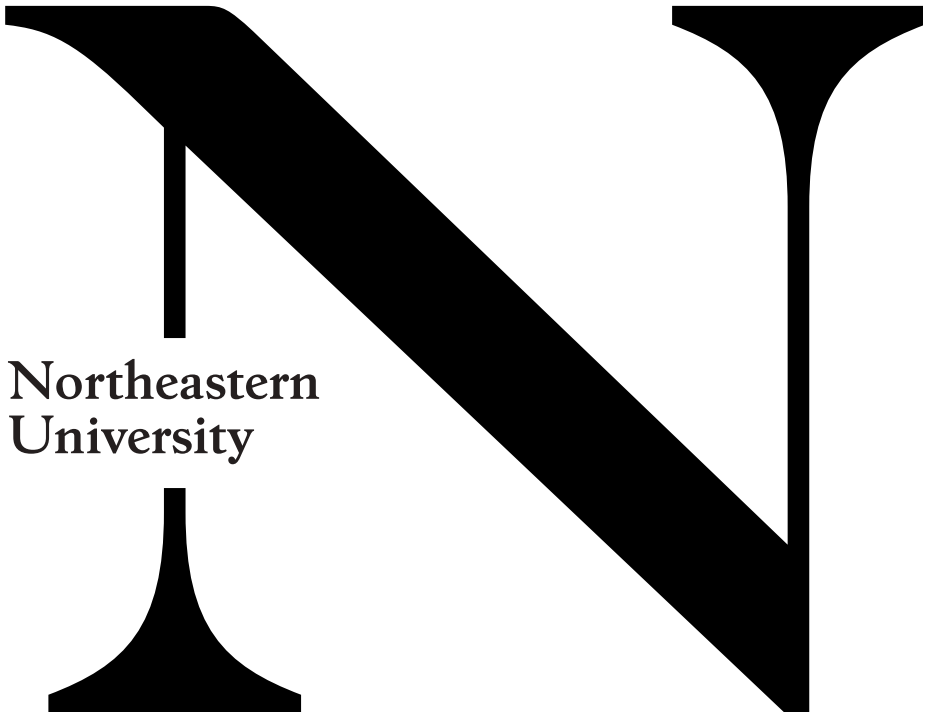


Faculty/Coordinator enabled by technology can know what is going on and respond to the situation to increase positive momentum into the network




Phase One: Before You Start
Confusion
Expectation
Motivation
What to do, how it works
What the outcomes will be
Mastery vs. Performative (1)
Clearing Confusion
Setting Expectations
Appealing to motivation
Go through the program as a student
Establishing early contact with the "communications tab
See Mentor "Enrolment" to make sure they are registered and ready to begin
Phase Two: As You Start
Minimal Engagement
High Engagement
Lack of Self-efficacy? Fear? Confusion? Too hard? Starting Motivation?
Self-efficacy Understanding Starting Motivation
Initial and Sustained engagemet
Demonstrating Interest
"Communications" tab, be made aware of where a student is at, Immediately recognize a problem "All Other Issues Tab"
Phase Three: The Middle
Lack of Momentum? Absent?
Negative Peer Review
SDT Factors of Autonomy and Competence Self-Efficacy Greater Problem?
SDT Factor of Relatedness Not engaged enough Problem with team?
Positive feedback, constructive criticism
Keep up communication, Validate problems, Encourage team engagement to increase sense of belonging
Immediate updates with "All Other Issues" tab, look at "Progress" tab to see repeated issues. Check groupchats to see who is/how they are communicating
Use "Participents" tab and groupchats to see engagement
Phase Four: Completing
Burnout / Overhwlemed
Too Relaxed
SDT Factor of Competence, Self-Efficacy
Work feels too easy, the concept of "Flow"
Tailored encrouagement, constructive criticism, validation
"Communications" Tab
Review their responses to determine situation
Phase Five Post-Completion
Dissatisified
Happy
Unopinionated
Did not end strongly, feeling of lack of accomplishment
Being able to express positivity/what they learned, feeling of accomplishment/ achievement
unable to express feelings, have mixed feelings, etc
Encourage positive perspectives by highlighting any accomplishment, point out networking oppurtunities
Have conversations, ask questions, demonstrate interest in outcome, help to improve verbalization of experience
Use comunciation tools to engage and discuss. Keep sustained communication
Networking + Linkedin information that is organized within program
(1) Achievement Goal Theory
Self-Efficacy Theory Self-Determinative Theory (SDT) Engagement Research
Intrinsic Teacher Motivation
"Communications" Tab
"Flow" Mihali Csikszentmihalyi

Aligning real-world experience with learning outcomes



Tips for aligning expectations, motivations & outcomes throughout an experiential learning program

1. Design ‘suggested’ industry sponsor projects that align with course learning outcomes

Business and Non-Profits

Engagement Analysis
Evaluate your organization's social media strategy

Technology Evaluation
Evaluate & conduct competitor analysis of a technology product

Social Media Coordinator
Plan & execute a social media plan for the summer

Graphic Design Assistant
Evaluate and recommend tools to improve visual appeal of marketing materials

Technology Quality Assurance
Test & report back on user experience of new technology product features.

Digital Activities Instructors
Provide community and interaction for kids

Digital Tutor
Help High School, Middle-School & Elementary School Kids catch up on learning they missed

Impact Assessment
Do an impact assessment of a business initiative (Social Media Analysis, Key Word Searches) and write up a report on the impact of the initiative

Public Health

Data Cleaning/Analysis
Data Cleaning and Basics Analysis to assist with business decisions and reporting

Public Health Policy
Evaluate an existing public health policy and make recommendation of changes in a post COVID context.

Public Health Campaign
Repurpose a an existing Public Health Campaign for a GEN-Z audience

LVX VERITAS VIRTVS

2. Set a clear project structure with deadlines so that everyone knows what is expected of them

Preparation

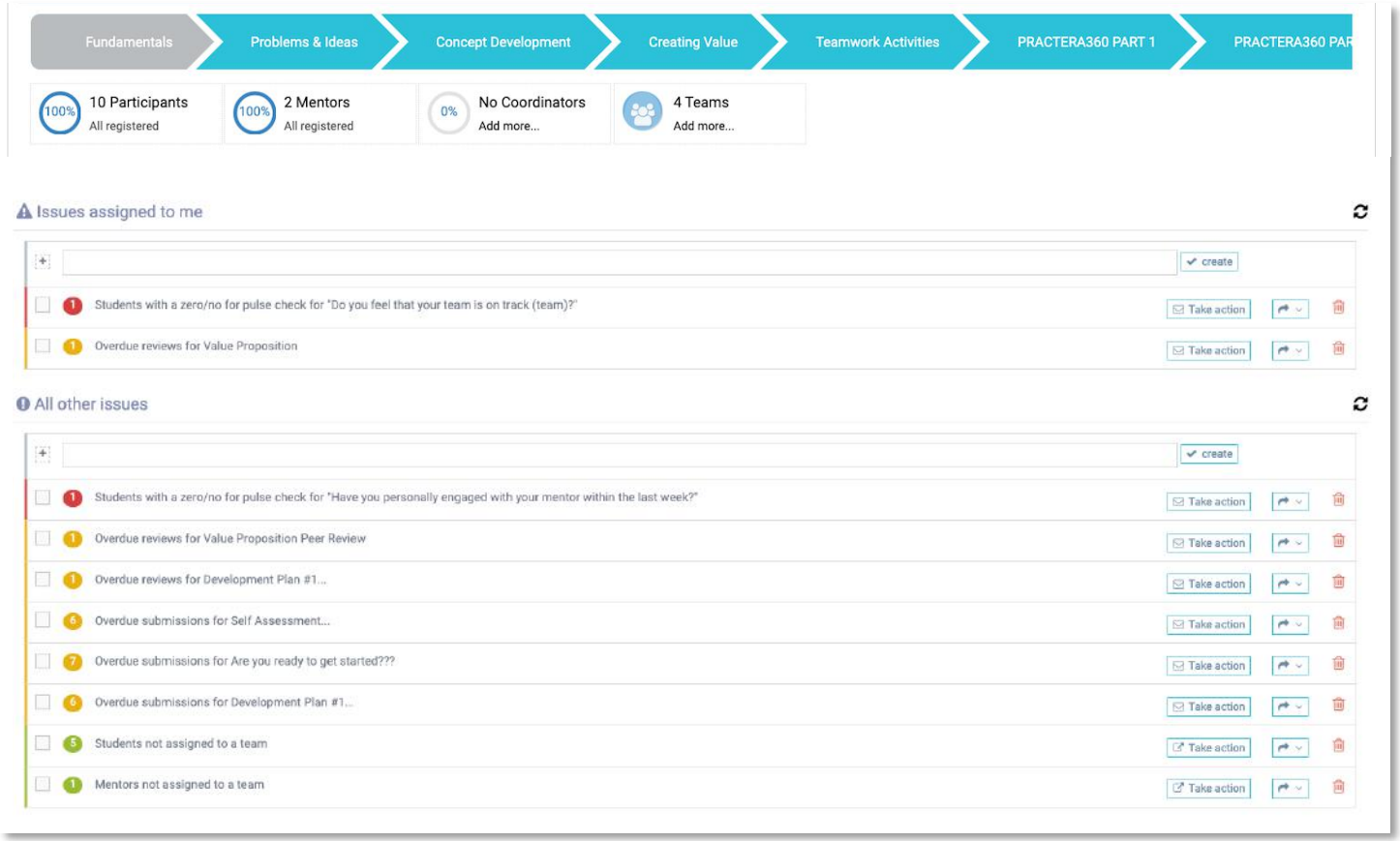
Project Plan

Project Execution

Project Presentation

Week #	Topic	Events	Deliverables
0	Welcome to your Virtual Internship	Students invited to enroll, complete platform orientation, Remote working activities	Self-Assessment # 1 + Skill Development Plan
1	Project Plan	Project Kick-Off Meeting with Supervisor Develop a detailed plan, approach for completing the Project.	Project Plan
3	Project Investigation	Deep dive into project, conduct research to understand the project.	
2	Project Execution	Project Execution	Status Update # 1
4	Project Execution	Project Execution	Self - Assessment # 2 Skill Development Plan Revision
5	Project Report	Create Project Report and put final touches on Project	Status Update # 2
6	Project Presentation	Create a presentation that presents your project to your supervisor	Project Presentation + Project Report Self-Assessment # 3 + Reflection

3. Use real-time learning analytics to monitor collaboration

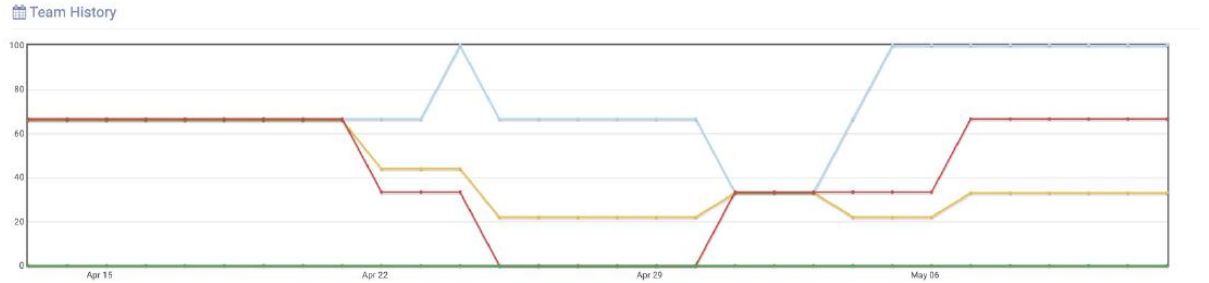


LVX VERITAS VIRTVS

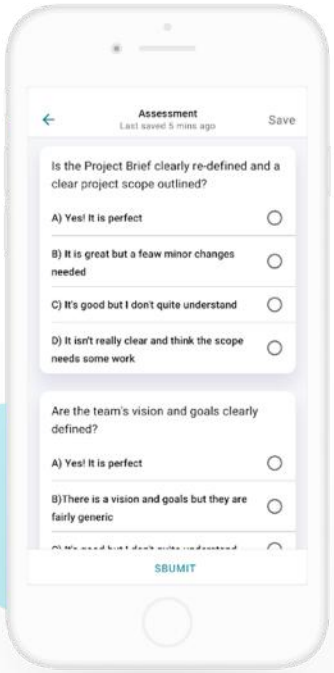
Participant Activity
Days Since Last Login
5.0
4.0
3.0
2.0
1.0
0.0
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
>14
Click a bar for specific participant details
No data yet
No issues
Observe
Caution
Intervene

In which stage do you think your team is at?
33.3%
66.7%
Showing data from: 2020-05-07

Have you personally engaged with your mentor within the last week?
33.3%
33.3%
33.3%
Showing data from: 2020-05-07


Team History
100
80
60
40
20
0
Apr 15
Apr 22
Apr 29
May 06

4. Monitor the student – Supervisor Feedback Loops



1. Intern submits work for review
2. Supervisor provides feedback
3. Intern Reflects on feedback and develops their skill

Want to join the research collaboration and test it out?

Express interest - https://bit.ly/3aJserS

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For more in-depth explanation

https://link.springer.com/article/10.1007/s11528-020-00515-2

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