2024 Project Management Symposium

Gamification for Inclusive Teamwork and Leadership in Remote Settings

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"The social and environmental context individuals with ASD experience, inclusive of mainstream school classrooms, influences the manifestation of individual difficulties and their associated impact upon the individual."

(Prizart, 2015)

Agenda

- Introduction
- Autistic Students: Higher Education and Employment Challenges
- Autism Spectrum Disorder
- Cross-Functional Team Constraints
- Inclusive Classroom & Team Effectiveness
- Methodology
- Inquiry Based Learning (IBL)
- Initial Observations
- IT & Cybersecurity Endeavors

Introduction

- About 1 in 36 children in the U.S. has autism.
- About 1 in 45 adults in the U.S. have autism.
- In the U.S., about 4 in 100 boys and 1 in 100 girls have autism.
- Boys are nearly 4 times more likely to be diagnosed with autism than girls.
- Autism prevalence in racial and ethnic groups: White(2.4%); Black (2.9%), Hispanic (3.2%), Asian or Pacific Islander (3.3%)

Source: Center for the Disease Control and Prevention (2023)

Autistic Students: Higher Education and Employment Challenges

- About 73.6% of autistic students in the U.S. graduate with a regular diploma, versus 86% of all students (U.S. Department of Education, 2018-2019).

- Approximately 60% of people with autism in the U.S. are employed after receiving vocational rehabilitation services (U.S. Department of Education (2014-2016), Bureau of Labor Statistics).

- People with disabilities, including autism, approximately 21% are employed(U.S. Department of Education (2014-2016), Bureau of Labor Statistics).

Autism Spectrum Disorder (DSM-5: American Psychiatric Association, 2013)

- Autism spectrum disorder (ASD) is a complex neurodevelopmental disorder that can result in individual difficulties with restricted or repetitive behaviors, sensory processing challenges, and social communication impairments.
- Symptoms are present in the early development period.
- Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.
- Wide variation in the type and severity of symptoms people experience.
- These disturbances are not better explained by intellectual disability or global delay.
- The three levels severity were ranked from support towards very substantial support.

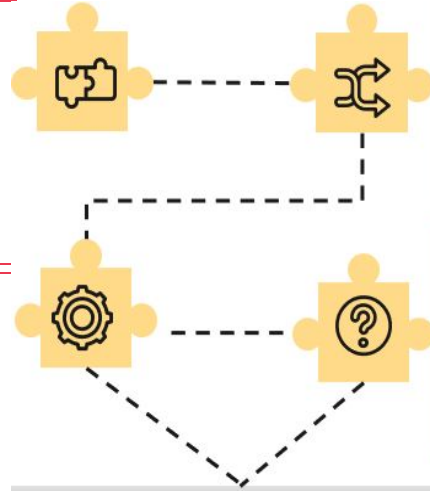# **Cross-Functional Team Constraints**

Sensibility

Follow-up

Dialogue

Inclusive Classroom & Team Effectiveness

Challenging Behaviors of the ASD Condition

Educators and Leader Levels of Knowledge and Understanding of ASD

Individual's Unique Social Communication Behaviours

Stakeholder's attitudes toward inclusion

Stakeholder's support network

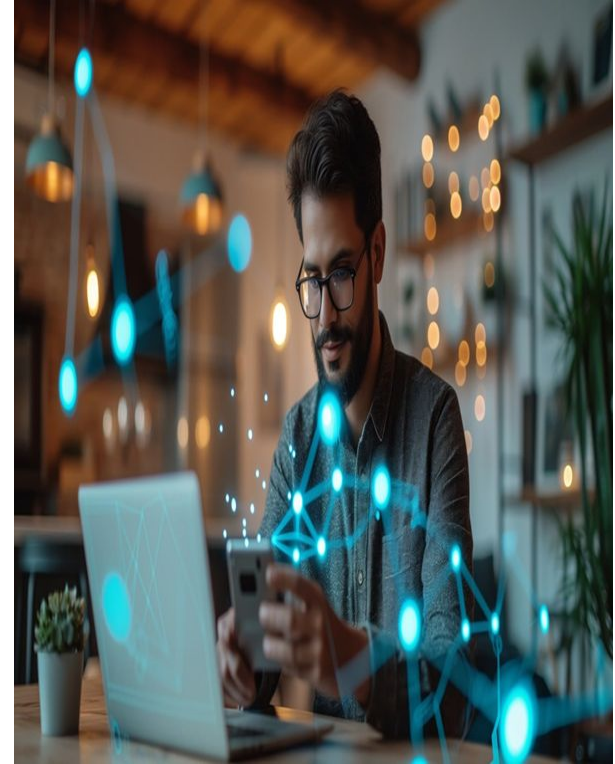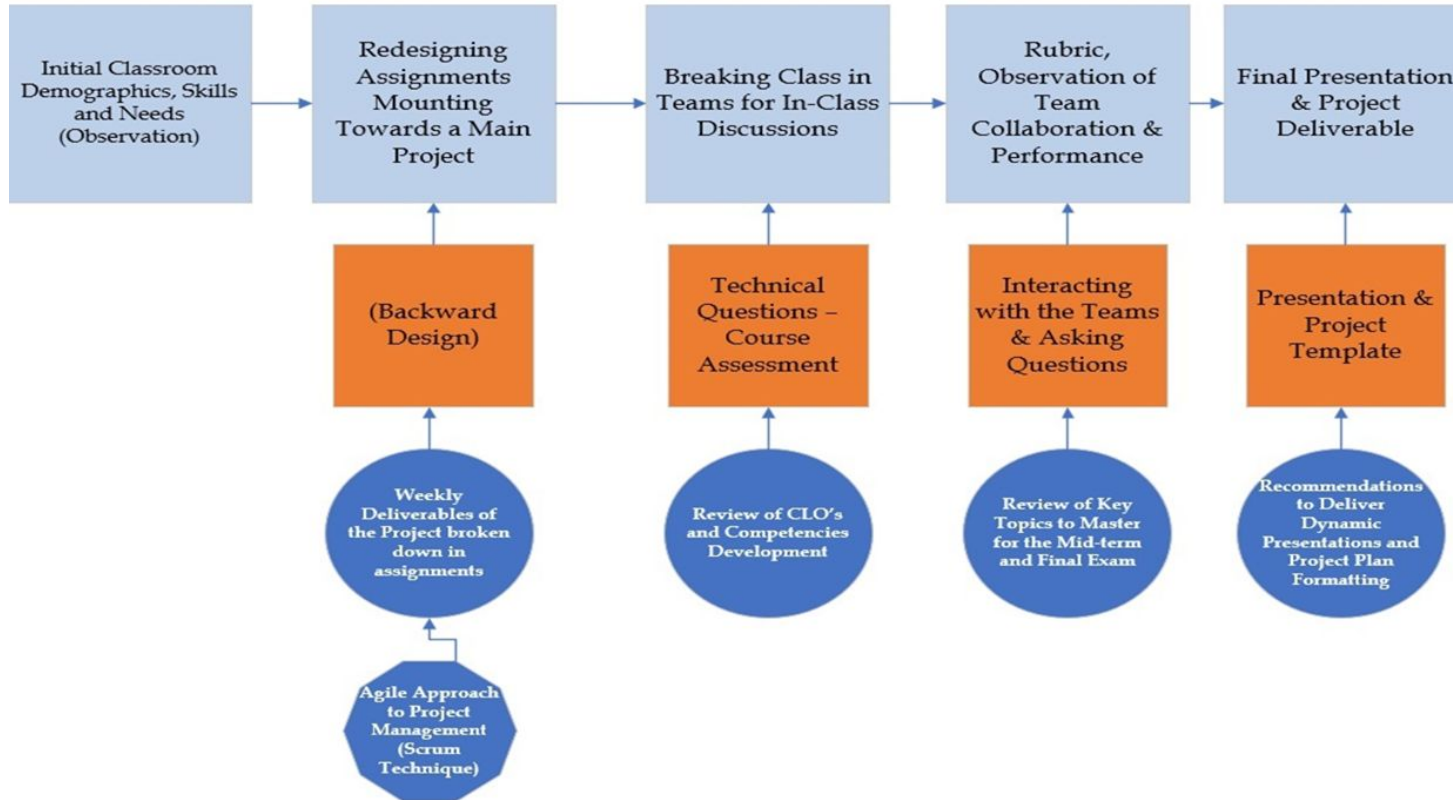**(Roberts & Simpson, 2016)**

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Methodology
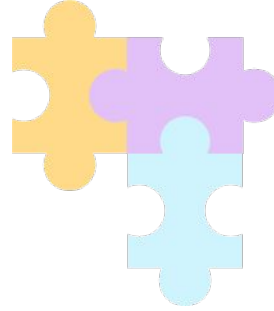
- Observing the team composition (demography)
- Differentiating the team logistics format
- Diversifying assessment revolving around a gaming project
- Teaming up with diverse teams
- Technical issues
- Final Deliverables

Inquiry Based Learning (IBL)

. "Educational and team building strategy where students follow alternative methods and practices used in the industry in order to construct knowledge" (Bauld, 2024)

. Applied Experiential Approach to Learning
   . Game Project
   . Online Collaboration tools

Initial Observations

- Diverse group of students
  - Learning gaps (probably due to the disruption caused by the pandemic)
    - Ethical Research
      - Brainstorming
      - Notes Taking
      - Tools Support
    - Team collaboration
    - Critical Thinking
    - Problem-Solving
  - Emergency Remote Teaching
- Class discussions on Inclusion, Empathy and Collaboration
- Identifying the skills, gaps and needs

IT & Cybersecurity Endeavors

Hardware Concepts
Evaluation and discussion of hardware specifications (C-1)

Operating System Concepts
Evaluation and discussion of software specifications (C-2)

Cybersecurity Concepts
Controls Definition for Operating System Configuration (C-2)

Agile Project Management
Project Planning for team workload distribution, times and deliverables
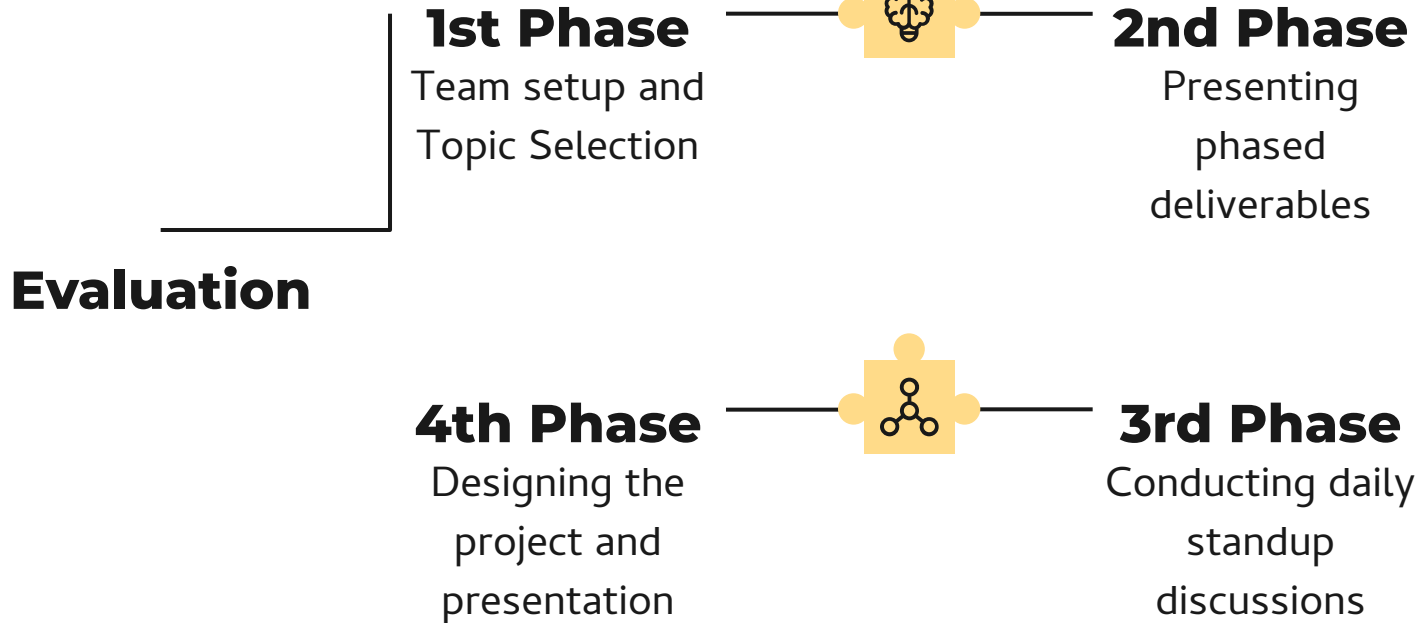
Team Collaboration
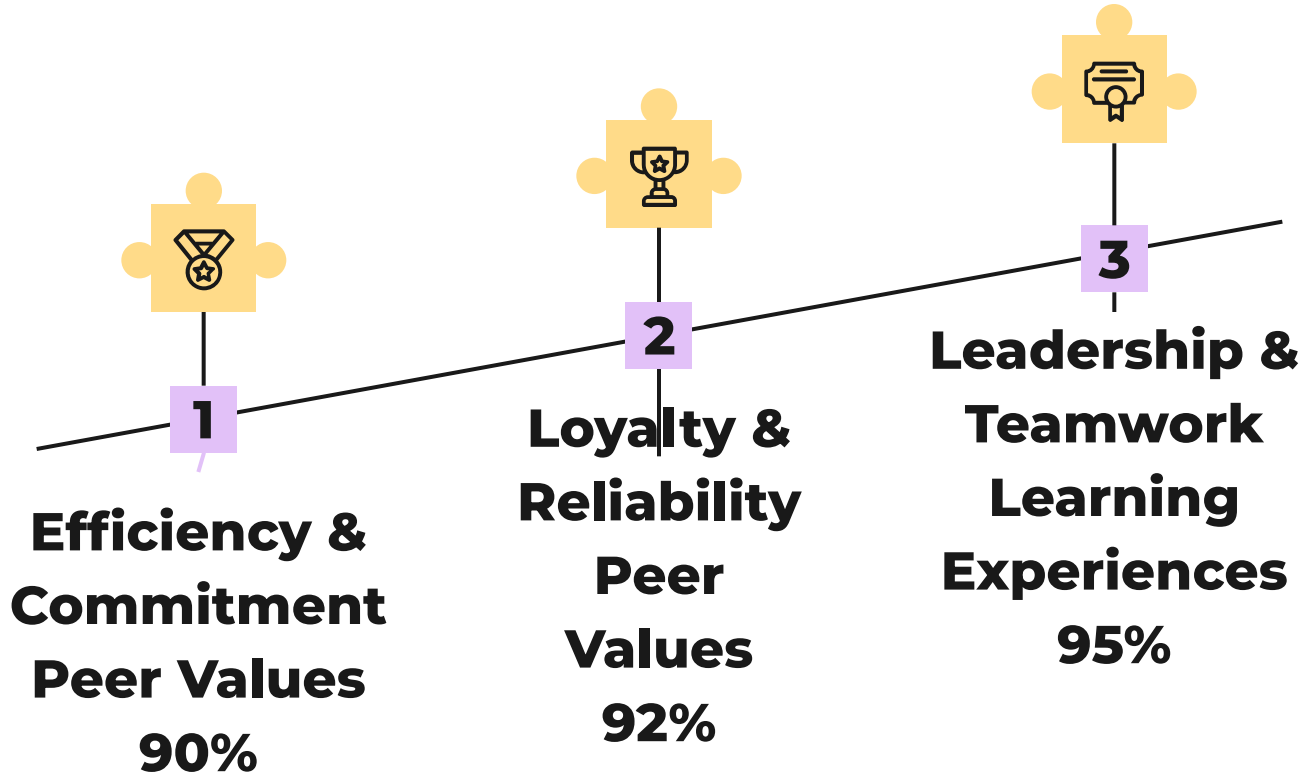In-class discussion and collaboration (Observation)

Awareness
Discussing cybersecurity controls and considerations for systems improvement and problem-solving

IT & Cybersecurity Project Phases

1st Phase
Team setup and Topic Selection

2nd Phase
Presenting phased deliverables

Evaluation

4th Phase
Designing the project and presentation

3rd Phase
Conducting daily standup discussions

IT & Cybersecurity Project Results

1

Efficiency & Commitment Peer Values 90%

2

Loyalty & Reliability Peer Values 92%

3

Leadership & Teamwork Learning Experiences 95%

Some References

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- Prizant, B. M. (with Fields-Meyer, T.). (2015). Uniquely human: A different way of seeing autism. Simon & Schuster.

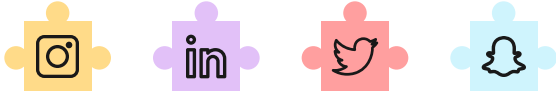"Leadership is not about titles, positions or flowcharts. It is about one life influencing other".
John Maxwell

"To collaborative team members completing one another is more important than competing with one another".
John Maxwell

Thanks!

Do you have any questions?

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