EVALUATION OF CYSER PROGRAMS

Sola Adesope

oulosola.adesope@wsu.edu

Professor of STEM Education, COE
Evaluation Profile

- Independent, rigorous evaluation of project activities to guide implementation.

- Our Center is staffed with faculty members, research associates and graduate students who are highly qualified and have extensive experience working as external evaluators on numerous projects funded by NSF, the U.S. Department of Education, USDA, DOD and state and local educational agencies.
My Interests

- Knowledge Representation (Concept Maps)
- Multimedia Learning & Adaptive Systems
- Educational Psychology
- STEM Education - Evaluation - Assessment - Design
- Research Methods (Meta-Analysis)
- Learning Analytics
- Self-Regulated Learning
~150 peer-reviewed publications
- 70 journal papers mostly in top 3 journals in education and STEM education
- 60 peer-reviewed proceedings, mostly STEM
- 3 Books
- 11 Book chapters
- Papers have been cited 7,305 times by other papers in different fields including engineering, sciences, and nursing.

107 peer-reviewed presentations at international and national conferences
EVALUATION DATA POINTS

• Attended bi-weekly meetings with investigators to discuss project goals + Frequent meetings with PI and staff.

• Attended bi-weekly seminars.

• Attended summer workshops.

• Administered survey and analyzed data from summer workshop and seminar.

• Provide formative evaluations and feedback for programs’ continuous development and improvement.
CYSER ACCOMPLISHMENTS

1. Three New Cybersecurity courses developed and offered

2. Three Certificate Programs Developed & 2 Approved

3. Bi-weekly Virtual Seminar Series Led by a Mix of Experts from Industry & Academia

4. A 2-Week Intensive Summer Workshop in 2022

5. 27 UG students/ROTC members and 7 G mentors involved in CySER. 14 offered internships, URMs
   - A new website for broader dissemination
   - A new Cybersecurity Student Club
   - Club members engage in cyber competitions
How much did you learn...?
About 90.2% indicated that they learned a lot/a great deal from attending the workshop.

Learning about Cybersecurity
Most respondents (~89%) indicated that they learned a lot/a great deal on different topics ranging from Team building & leadership, A day-in-the-life of a cybersecurity professional; Army cyber command; Common vulnerabilities; Cybersecurity and military applications; CyberHawks, Competitions, Outreach; Power grid and cybersecurity; Applications of machine learning to cybersecurity; etc.

Overall, open-ended responses as well as Likert type responses show that the workshop was effective, and beneficial in enhancing learners’ experience in cybersecurity education and research.
IMPROVEMENTS TO FUTURE WORKSHOPS

• Introduce more team building and hands-on learning activities or techniques of Cybersecurity concepts

• Introduce more career talks in Cybersecurity to encourage prospective students' interests in Cybersecurity.

• Encourage more sessions on undergraduate and graduate research in cybersecurity and resource optimization.

• More of the sessions were too advanced. Hence, there is a need to provide adequate information on the basics of Cybersecurity for all participants.
WHAT WENT WELL IN YEAR 1

• Participants responded that several aspects of the project went well in the first year. These include the cybersecurity seminar series, the summer workshops, PI-team meetings, onboarding ROTC and civilian undergraduates, involving graduate mentors.

• Many of the respondents noted that the blend of speakers from different aspects of cybersecurity, private industries, government, military and academia provided a rich set of facilitators for the biweekly seminars and the summer workshops and encouraged continuation of such blending in the future.
NEEDS IMPROVEMENT...

• Improved communication between GI and among partner institutions → clear directions about process
• Need to involve advisory board members
• Advance recruitment drives, manage internship opportunities and certification process
• Need more graduate mentors
• More time and resources to enhance project coordination
• Commensurate compensation for all stakeholders, especially the PIs.
Looking Ahead...

Sustainability Matters
THANKS + QUESTIONS

Please contact me

Olusola Adesope
olusola.adesope@wsu.edu