

EKTA SHOKEEN

Doctoral Candidate
College of Information Studies
University of Maryland, College Park

eshokeen@umd.edu

5189827964
24 Dalamar Ct,
Latham, NY 12110

With over 10 years of experience in Higher Education, I am a passionate and reflective practitioner with 4.0 GPA in my PhD coursework, researching about critical issues in Human Computer Interaction (HCI), Youth Experiences in formal and informal learning environment (YX), and Game Design & Development. Over the course of my academic experiences, I have developed a deep understanding of a wide range of qualitative, quantitative, and user experience research methods including:

Qualitative Methods: Grounded Theory, Case Studies, Surveys, Ethnography, Focus Groups, Interviews. Skilled in using Qualitative Analysis software- MAXQDA, Dedoose, Nvivo.

UX Research Methods: User-Centered Designs (UCD), Usability Testing, A/B testing, Card Sorting etc.

Quantitative data analysis – Deep Learning - toolkits such as Python, PyTorch.

FORMAL EDUCATION

| | |
|--------------------------|--|
| Aug. 2019 – Present | Doctoral Candidate in Information Studies College of Information Studies University of Maryland, College Park Advisor: Dr. Caroline Williams-Pierce |
| Aug. 2018 – July 2019 | PhD student in Curriculum and Instruction State University of New York, Albany Department of Education Theory and Practice College of Education Advisor: Dr. Caroline Williams-Pierce (Transferred to University of Maryland upon invitation from advisor) |
| July. 2015 – May 2017 | M.A. in Education Tata Institute of Social Sciences Departments of Education Advisor: Dr. Jayasree Subramanian Thesis Title: <i>Using Digital Technology for Teaching Elementary Concepts in Geometry: An Exploration</i> |
| July 2011- May 2015 | Bachelor of Elementary Education University of Delhi, Jesus and Mary College Department of Education |

AWARDS AND SCHOLARSHIP

| | |
|---------------------|---|
| Sept25, 2020 | Best Game in Development, <i>HEX -The. Turtle of Islands</i> - 14 th European Conference on Game Based Learning (ECGBL'20) |
| Fall 2019 | Dr. Dana Rotman Doctoral Student Travel Award (\$1000) |

Updated on 7/28/2021

2019-2020 Helen A. Tegnell Scholarship (\$5000)

REVIEWER FOR PROFESSIONAL CONFERENCE/JOURNAL

1. ACM CHI Conference on Human Factors in Computing Systems, 2020, 2021.
2. ACM Interaction Design and Children (IDC) conference 2020.
3. International Society of Learning Sciences (ISLS) conference 2021.
4. Learning Science Graduate Student Conference (LSGSC) 2021.

PROFESSIONAL AFFILIATION

- ACM CHI Conference on Human Factors in Computing Systems (ACM SIGCHI)
- ACM CHI Conference on Player Computer Interaction (CHIPLAY)
- International Society of Learning Sciences (ISLS)
- Connected Learning Submit (CLS)
- American Educational Research Association (AERA)
- Psychology of Mathematics Education International and North American Chapter. (PME NA)
- Learning Science Graduate Student Conference (LSGSC) 2021.

RESEARCH POSITIONS

- Jan. 2020 – Present **Graduate Research Assistant**, Dr. Michel Cukier & Dr. David Weintrop
Institute for Advanced Computer Studies, University of Maryland,
Currently working on grant titled, “Increasing the Interest of Students from Underrepresented Populations for Cybersecurity” funded by US Federal Government, Department of Defense. In this project we are developing a videogame to increase youth (10-14 yrs.) interest in cybersecurity concepts. My involvement includes designing study, data collection from participants and analyzing to inform insights to design team. Additionally, submitting proposals into conference proceedings, journals etc. to share the learning from the Design Based Research with the researchers.
- June 2019 – July 2021 **Graduate Research Assistant**, Williams-Pierce, P.I.
College of Information Studies, University of Maryland, College Park
Worked on analyzing data involving youth participation in making activities of Makerspaces. Also, worked on various literature reviews within videogames– Conceptual Review of Problem Solving, Embodied Cognition etc. My involvement has included improving design of augmented reality research tool, planning and conducting research, video data coding and analysis, as well as conference proposal.
- Aug 2018 – May 2019 **Graduate Research Assistant**, Williams-Pierce, P.I.
University at Albany – SUNY
My involvement has included book editing, research project planning, conducting structured action experiments, video data coding and analysis, as well as conference proposal and manuscript preparation and conference presentations.
- Aug. 2019 – Present **Research Team Member**,
Youth Experience Lab
College of Information Studies, University of Maryland – College Park

Updated on 7/28/2021

- April, 2017-
June, 2018 **Curriculum Developer and Instructional Designer**
Robotics Wizards,
New Delhi, India
My involvement included developing STEM based curriculum and textbooks for elementary graders; doing focused research on evaluating the effectiveness of various educational kits like Lego Education, K'nex Education etc; developing content and training manuals for teachers to assist them in classroom pedagogy; conducting teacher's training.
- June-July 2016 **Visiting Researcher**
Homi Bhabha Centre for Science Education,
TIFR Mumbai, India
My involvement included developing Mathematics Laboratory Manual and conducting workshop for Secondary Mathematics teachers on the use of different resources for teaching mathematics.
- Nov.-Dec., 2015 **Visiting Scholar**
DIGANTAR, *An Alternative School*
Rajasthan, India
My involvement included preparing an analytical report based on classroom observations, attending Teacher's Meeting, Parent's Teacher Meeting, interacting with students, teachers and parents, doing community visits.

PEER-REVIEWED PROCEEDINGS AND PUBLICATIONS

- [13] **Shokeen, E.**, Katirci, N., Simpson, A., & Williams-Pierce, C (in preparation). *Embodied Mathematical Play: Communication and Collaboration within a making robotic activity*. To be submitted in the 2022 CHI Conference on Human Factors in Computing Systems.
- [12] **Shokeen, E.**, Katirci, N., & Williams-Pierce, C. (in preparation). *The Problem with 'Problem Solving' in 'Video Games': A Systematic Review*. To be submitted to *AERA Review of Educational Research*.
- [11] **Shokeen, E.**, (in preparation). *Youth Approaches to solving puzzles in Videogame*. To be submitted in the 2022 CHI proceeding on Human Factors in Computing Systems.
- [10] **Shokeen E.**, Pellicone A., Moon P. F., Weintrop D., Ketelhut D. J., Williams-Pierce, C., Plane J. D., & Cukier M. (in preparation). *Tough Times makes Player Learn: How Perplexing Experiences Shape Player's knowledge and Identity*. To be submitted in the 2022 CHI Conference on Human Factors in Computing Systems.
- [9] Dixon E., Wood R., Elsayed-Ali S., **Shokeen E.**, Lazar A., & Lazar J. (in preparation) *Evaluating the Potential of Auto-Personalization for People with Mild to Moderate Dementia*. To be submitted to the the 2022 CHI proceeding on Human Factors in Computing Systems.
- [8] **Shokeen, E.**, Simpson, A., Katirci, N., & Williams-Pierce, C (Accepted) *Use of Zig-zag to Represent Mathematical Thinking about Angle*. In the 43rd annual proceeding of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA).
- [7] Williams-Pierce, C, Katirci, N., Simpson, A., **Shokeen, E.**, & Bih J. (2021, Oct.) *Revealing Mathematical Activity in Informal Learning Spaces*. In the 43rd annual proceeding of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA).

- [6] **Shokeen E.**, Pellicone A., Weintrop D., Ketelhut D. J., Williams-Pierce, C., Plane J. D., & Cukier M. (2021, June). *An Iterative Design Cycle: Using Productive and Unproductive Frustration to Guide Re-Design*. In Proceedings of the 2021 International Conference of the Learning Sciences (ICLS).
- [5] Simpson, A., Katirci, N., **Shokeen, E.**, Bih J., & Williams-Pierce, C. (2021, June) *Representation Fluency of Angle during an Educational Robotics Task*. In Proceedings of the 2021 International Conference of the Learning Sciences (ICLS).
- [4] Wood R., Dixon E., Elsayed-Ali S., **Shokeen E.**, Lazar A., & Lazar J. (Accepted) *Investigating Best Practices for Remote Summative Usability Testing with People with Mild to Moderate Dementia*. ACM Transactions on Accessible Computing Journal (TACCESS).
- [3] **Shokeen, E.**, Katirci, N., Bih J., Simpson, A., & Williams-Pierce, C. (2020, Nov). *Unpacking Mathematical Play within Makerspaces using Embodied Cognition*. Accepted to the Proceedings of the 2020 CHIPLAY Annual Symposium on Computer-Human Interaction in Play. <https://dl.acm.org/doi/10.1145/3383668.3419909>
- [2] **Shokeen E.**, Pellicone A., Weintrop D., Ketelhut D. J., Williams-Pierce, C., Plane J. D., & Cukier M. (2020, Nov). *Designing Failure and Feedback within Puzzles*. Accepted to the Proceedings of the 2020 CHIPLAY Annual Symposium on Computer-Human Interaction in Play. <https://dl.acm.org/doi/10.1145/3383668.3419901>
- [1] Kang, S., **Shokeen, E.**, Byrne, V. L., Norooz, L., Bonsignore, E., Williams-Pierce, C., & Froehlich, J. E. (2020, April). ARMath: Augmenting Everyday Life with Math Learning. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (pp. 1-15). <https://dl.acm.org/doi/10.1145/3313831.3376252>

PEER-REVIEWED CONFERENCE PRESENTATIONS

- [24] **Shokeen, E.**, Katirci, N., Simpson, A., & Williams-Pierce, C (in preparation). *Embodied Mathematical Play: Communication and Collaboration within a making robotic activity*. To be submitted in the 2022 CHI Conference on Human Factors in Computing Systems.
- [23] **Shokeen E.**, Pellicone A., Moon P. F., Weintrop D., Ketelhut D. J., Williams-Pierce, C., Plane J. D., & Cukier M. (in preparation). *Tough Times makes Player Learn: How Perplexing Experiences Shape Player's knowledge and Identity*. To be submitted in the 2022 CHI Conference on Human Factors in Computing Systems.
- [22] **Shokeen E.**, Pellicone A., Weintrop D., Ketelhut D. J., Williams-Pierce, C., Plane J. D., & Cukier M. (in preparation). *Youth Approaches to solving puzzles in Videogame*. To be submitted in the 2022 CHI Conference on Human Factors in Computing Systems.
- [21] **Shokeen, E.**, & Katirci, N. (in submission). *Unpacking embodied learning within a making robotic activity*. Submitted to the 2021 Learning Sciences Graduate Student Conference.
- [20] **Shokeen, E.**, & Moon, P. F. (in submission). *Unpacking players' experiences within Serious Video Games*. Submitted to the 2021 Learning Sciences Graduate Student Conference.
- [19] **Shokeen, E.**, Williams-Pierce, C & Katirci, N. (in submission). *Reflective Thinking: A learning process within gameplay*. Submitted to the 2022 American Educational Research Association Annual Meeting and Exhibition.

- [18] **Shokeen, E.**, Katirci, N., Simpson, A., & Williams-Pierce, C (in submission). *Embodied Communication and Collaboration within Making Activities*. Submitted to the 2022 American Educational Research Association Annual Meeting and Exhibition.
- [17] Katirci, N., **Shokeen, E.**, & Williams-Pierce, C. (in submission). *From Here to There!: Game-Based Learning*. Submitted to the 2022 American Educational Research Association Annual Meeting and Exhibition.
- [16] Katirci, N., **Shokeen, E.**, Simpson, A., & Williams-Pierce, C. (in submission). *Attending to the missing role of gestures in Representational Fluency*. Submitted to the 2022 American Educational Research Association Annual Meeting and Exhibition.
- [15] Pellicone A., **Shokeen E.**, Moon P. F., Weintrop D., Ketelhut D. J., Williams-Pierce, C., Plane J. D., & Cukier M. (in submission). *“It just felt more like a pyramid...” Fantasy and Content in Game-based Learning Puzzle Design*. Submitted to the 2022 American Educational Research Association Annual Meeting and Exhibition.
- [14] Pellicone A., **Shokeen E.**, Moon P. F., Weintrop D., Ketelhut D. J., Williams-Pierce, C., Plane J. D., & Cukier M. (in submission). *Designing for Fantasy and Content in Game-based Learning*. Presented in the 2021 CHIPLAY Annual Symposium on Computer-Human Interaction in Play.
- [13] **Shokeen, E.**, Simpson, A., Katirci, N., & Williams-Pierce, C (2021, October). *Use of Zig-zag to Represent Mathematical Thinking about Angle*. To be presented at the 43rd annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education.
- [12] Williams-Pierce, C, Katirci, N., Simpson, A., **Shokeen, E.**, & Bih J. (2021, Oct.) *Revealing Mathematical Activity in Informal Learning Spaces*. In the 43rd annual proceeding of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA).
- [11] Wood R., Dixon E., Elsayed-Ali S., **Shokeen E.**, Lazar A., & Lazar J. (2021, October) *Investigating Best Practices for Remote Summative Usability Testing with People with Mild to Moderate Dementia*. To be presented at the 23rd International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS).
- [10] Katirci, N., **Shokeen, E.**, Simpson, A., & Williams-Pierce, C. (2021, April). *Making with math: Extending a mathematical play framework to informal makerspaces*. Submitted to the American Educational Research Association Annual Meeting and Exhibition. <https://aera21-aera.ipostersessions.com/default.aspx?s=9F-63-14-D6-D5-77-20-39-F1-67-E8-FD-C9-9C-B8-97>
- [9] **Shokeen, E.**, Katirci, N., Bih J., Simpson, A., & Williams-Pierce, C. (2020, Nov). *Unpacking Mathematical Play within Makerspaces using Embodied Cognition*. Presented in the 2020 CHIPLAY Annual Symposium on Computer-Human Interaction in Play. https://www.youtube.com/watch?v=itj_cu61rtk
- [8] **Shokeen E.**, Pellicone A., Weintrop D., Ketelhut D. J., Williams-Pierce, C., Plane J. D., & Cukier M. (2020, Nov). *Designing Failure and Feedback within Puzzles*. Presented in the 2020 CHIPLAY Annual Symposium on Computer-Human Interaction in Play. <https://www.youtube.com/watch?v=CYUzp3KFpUQ&t=2s>
- [7] Katirci, N., Chen, L., **Shokeen, E.**, Yassenchak, T., Tian, Y., & Williams-Pierce, C. (2020). *Bridging between mathematical play and formal mathematics*. Accepted to the 14th International Congress of Mathematics Education. Shanghai, China. (Conference Canceled due to COVID-19).

- [6] Kang, S., **Shokeen, E.**, Byrne, V. L., Norooz, L., Bonsignore, E., Williams-Pierce, C., & Froehlich, J. E. (2020, April). ARMath: Augmenting Everyday Life with Math Learning. In *the 2020 CHI Conference on Human Factors in Computing Systems* (pp. 1-15).
- [5] Walkoe, J., Williams-Pierce, C., **Shokeen, E.**, & Walton, M. (2020, April 17-22). *Teacher noticing professional development: Re-embodying the dis-embodied*. Accepted to the American Educational Research Association Annual Meeting and Exhibition. San Francisco, CA. <http://tinyurl.com/tfwfwbg> (Conference Canceled due to COVID-19).
- [4] Katirci, N., **Shokeen, E.**, & Williams-Pierce, C. (2020, April 17-21). *Exploring touch and communicative gestures' role in mathematical thinking*. Accepted to the American Educational Research Association Annual Meeting and Exhibition. San Francisco, CA. <https://aera20-aera.ipostersessions.com/default.aspx?s=47-48-1C-C5-81-AB-17-E6-79-D0-94-0E-C7-AE-65-9B>. (Conference Canceled due to COVID-19).
- [3] Williams-Pierce, C., Katirci, N., Chen, L., **Shokeen, E.**, Yassenchak, T., & Tian, Y. (2019, September). *Bridging from mathematical play to formal mathematics*. Presented at 4th International Symposium of Turkish Computer and Mathematics Education. İzmir, Cesme, Turkey.
- [2] **Shokeen E.** & Williams-Pierce, C. (2019, May). *Using Embodied Cognition to Unpack Video Game-based Discussions*. Poster presented at Synthesis and Design Workshop: The Future of Embodied Design for Mathematical Imagination and Cognition. Madison, WI: University of Wisconsin – Madison.
- [1] **Shokeen E.** (2017, November). *STEM Education in India* Paper presented at the 8th Annual International Conference 2017 of the Comparative Education Society of India. University of Jammu, Jammu & Kashmir, India.

Edited Book

Tian, Y., Rivera, S., Wood, J., Persson, P., Richardson, Z., Steele, K., Furcinito, E., Doe, L.W., Reddick, P., Hafner, C., Delk, A., Marquardt, H., Slocum, E., Jones, F., Babcock, S., Addico, N., O'Donnell, K., **Shokeen, E.**, & Williams-Pierce, C. (Eds.) (2018). *Learning by playing: Game-based lessons for the classroom*.
 Available online on a variety of platforms, including Amazon Inspire
<https://tinyurl.com/yevhx7yn>.

MINOR PUBLICATIONS AND MEDIA

Resources for Hands-Off Learning at Home (May 20, 2020). Published in Sparks of Innovation: Stories from the HCI. Author with Caro Williams-Pierce and Nihal Katirci.
<https://medium.com/hcil-at-umd/resources-for-hands-off-learning-at-home-6199e1c3fc9>

TEACHING EXPERIENCE

INST 408V/ INST 608K
Spring 2021 **Videogames as Emergent Experiences**
College of Information Studies, University of Maryland, College Park
Co- instructor with *Dr. Caro Williams-Pierce*

A blended online class, half synchronous, and half asynchronous, with a gamified Read-Watch-Play (RWP) model, with assigned readings, videos, and games each week

for advanced undergraduates, master's students, and doctoral students interested in games, UX, or digital media of any kind. My role included leading lectures on multiple topics including – *Game Design Models, Educational Games, Gaming Communities, eSports, Puzzle Solving, Problem Solving, Learning*. Additionally, taking the lead to designing activities and selecting relevant content based on the diverse student's interest in the class. Having office hours for student to assist their additional needs and queries.

INST 362 –0102
Fall 2020

User-centered Design

College of Information Studies, University of Maryland, College Park

Teaching Assistant for *Dr. Caro Williams-Pierce*

A synchronous online class for 60 undergraduate students interested in User Experience (UX) Research. It was designed iteratively as Fall2020 was challenging times due to COVID19 which led to lots of issues such as lack of internet connection or digital literacy (e.g. Miro, portfolium) for few students. This made working in group projects different for students. With some additional support during office hours all students were satisfied with their performances and achievement in collaborative projects.

April, 2017-
June, 2018

Curriculum Developer and Instructional Designer

Robotics Wizards,
New Delhi, India

My involvement included developing STEM based curriculum and textbooks for elementary graders; doing focused research on evaluating the effectiveness of various educational kits like Lego Education, K'nex Education etc; developing content and training manuals for teachers to assist them in classroom pedagogy; conducting teacher's training.

April-May, 2016

Visiting Teacher

Kulachi Hansraj Model School,
New Delhi, India

My involvement included designing and executing lesson plans using art and technology for teaching mathematics to grade 7 students.

Nov.-Dec., 2015

Visiting Content and Instructional Designer

Pratham Education Foundation
New Delhi, India

My involvement included developing content for teacher's training, student's magazine and analyzing the execution of a Research and Development Project in two states- Rajasthan and Uttar Pradesh of India.

Aug. 2014-Feb.
2015

Visiting Teacher

N.P. Co-Ed. Secondary School,
Delhi, India

My involvement included creating teaching resources, teaching students of grade 4 and 6 and conducting action research including three projects titled – *How to control Growing Aggression among students; Competition versus collaboration; and an analysis of Emergent Writing Process*.

INVITED GUEST LECTURES

INST 362 User Centered Design, Instructor *Dr. Caro Williams-Pierce* invited me to give lecture on “*Double Diamond – Design Model*”.
(Sept 27, 2020)

INST 775 HCIM Capstone Project, Supervisor: Bill Kules, invited me to give lecture on “*Methodological Tools for Designing a Video Game – MDA Framework and Embodied Cognition Perspective*”
(Sept 18, 2020)

INST 728F-0101 Special Topics in Information Studies: Games and Learning Lecture, Instructor *Dr. Caro Williams-Pierce* invited me to give multiples lectures on different models of game designs for learning such as “MDA framework: *Mechanics, Dynamics and Aesthetics* of Game Design”.
(Spring 2020):
