PEER Participant Publications and Presentations

PUBLICATIONS

1. Bartell, R. & Hutchison, P., (2020). Off-task interaction as a mechanism to support on-task participation. *Proceedings of the 2020 International Conference of the Learning Sci*ences.

2. Mehltretter, K. and Hutchison, P., (2020). Variations in student authority in one collaborative small group. *Proceedings of the 2020 International Conference of the Learning Sciences*.

3. Alaee, Dina Zohrabi, Sayre, Eleanor C.. How do groups of students frame discussion in a physics class? *Accepted in 2019 AERA Annual Meeting*.

4. Alaee, Dina Zohrabi, Sayre, Eleanor C., Franklin, Scott V.. Meanings of the equals sign in upper-level undergraduate problem solving. Physics Education Research Conference Proceedings (2018). https://www.compadre.org/per/items/5017.pdf

5. Archibeque, B., Kustusch, M.B., Genz, F. Franklin, S., Sayre, E.C. Qualitative measures of Equity in small groups, 1081-1084. International Society of the Learning Sciences, Inc. (ISLS). https://repository.isls.org/handle/1/563. (2018)

6. Franklin, S. V., Hane, E., Kustusch, M. B., Ptak, C. B., & Sayre, E. C. (2018). Improving retention through metacognition: a program for deaf / hard-of-hearing and firrst generation STEM college students. Journal of College Science Teaching, 48 (2), 21-27. Retrieved from https://common.nsta.org/resource/?id=10.2505/4/jcst18_048_02_21

7. Hass, C. A., Genz, F., Kustusch, M. B., Ouimet, P. A., Pomian, K., Sayre, E. C., & Zwolak, J. P. (2018). Studying community development: a network analytical approach. A. L. Traxler, Y. Cao, & S. Wolf (Eds.), Physics Education Research Conference 2018. Washington, DC: American Association of Physics Teachers. doi: http://doi.org/10.1119/perc. 2018.pr.Hass

8. Kustusch, M. B., Sayre, E. C., & Franklin, S. (2018). Identifying Shifts in Agency by Analyzing Authority in Discussion. J. Kay & R. Luckin (Eds.), Rethinking Learning in the Digital Age: Making the Learning Sciences Count, 13th International Conference of the Learning Sciences (ICLS) 2018, Volume 3 (pp. 1623{1624). London, UK: International Society of the Learning Sciences. Retrieved from https://tinyurl.com/yao37bmu

9. Archibeque, B., Kustusch, M. B., Genz, F., Franklin, S., & Sayre, E. (2018). Qualitative Measures of Equity in Small Groups. In J. Kay & R. Luckin (Eds.), Rethinking Learning in the Digital Age: Making the Learning Sciences Count, 13th International Conference of the Learning Sciences (ICLS) 2018, Volume 2 (pp. 1081(1084). London, UK: International Society of the Learning Sciences. Retrieved from https://tinyurl.com/yao37bmu

10. Franklin, S., Sayre, E. C., & Kustusch, M. B. (2018). Professional Development for Emerging Education Researchers: Two Models for Field Schools. In 2018 CoNECD – The Collaborative Network for Engineering and Computing Diversity Conference (14 pp.). Crystal City, Virginia: American Society for Engineering Education. Retrieved from https://peer.asee.org/29561

11. Pomian, K. E., Zwolak, J. P., Sayre, E. C., Franklin, S. V., & Kustusch, M. B. (2018). Using Social Network Analysis on classroom video data. In L. Ding, A. L. Traxler, & Y. Cao (Eds.), Physics Education Research Conference 2017 (pp. 316{319). Cincinnati, OH: American Association of Physics Teachers. doi:http://doi.org 10.1119/perc 2017.pr.074. https://www.compadre.org/per/items/detail.cfm?ID=14633

12. Hass, C. A. , Genz, F., Kustusch, M. B. Ouimet, P.-P.A., Pomian, K.E., Sayre, E.C., Zwolak, J. P. (2018). Studying Community Development: A Network Analytical Approach. Physics Education Research Conference Proceedings (pp. 13-16). American Association of Physics Teachers. https://doi.org/10.1119/perc.2018.pr.Hass

13. Alaee, Dina Zohrabi, Mitchem, Savannah L., Sayre, Eleanor C. Student understanding of electric and magnetic fields in materials. American Journal of Physics 85, 705 (2017). https://doi.org/10.1119/1.4991376

14. Archibeque, B., Genz, F., Franklin, M., Franklin, S. V., Sayre, E. C. (2018). Quantitative measures of equity in small groups. 2017 Physics Education Research Conference Proceedings (pp. 44-47). American Association of Physics Teachers. https://doi.org/10.1119/perc.2017.pr.006

15. Tillotson, Wilson Andrew, McCaskey, Timothy, Nasser, Luis. Teaching representation translations with magnetic field experiments. Physics Education, The Physics Teacher 55, 44 (2017); https://doi.org/10.1119/1.4972499.

16. Marks, N. & Dawod, R. (2016). How to IMPRESS: Coordinating a Large Video DataSet for a Collaborative Project. DePaul Discoveries, 5 (1), Article 22. Retrieved from http://via.library.depaul.edu/depaul-disc/vol5/iss1/22

17. Bertram, C., Leak, A., Sayre, E. C., Kustusch, M. B., & Franklin, S. V. (2016). Student Conceptions of Expertise. In C.-K. Looi, J. Polman, U. Cress, & P. Reimann (Eds.), Transforming Learning, Empowering Learners: The International Conference of the Learning Sciences (ICLS) 2016, Volume 2 (pp. 930-933). Singapore: International Society of the Learning Sciences. Retrieved from https://www.isls.org/icls/2016/docs/ICLS2016_Volume_2.pdf

18. Franklin, S.V., Sayre, E.C., and J. Clark (2014) "Traditionally taught students learn; actively-engagedstudents remember", American Journal of Physics 82(8), 798-801. https://doi.org/10.1119/1.4890508

19. Sayre, E.C., Franklin, S.V., Clark, J., and Sun, Y. (2012) "Learning, Retention, and Forgettingof Newton's Third Law throughout University Physics", Physical Review Special Topics – Physics Education Research 8, 010116. https://doi.org/10.1103/PhysRevSTPER.8.010116

PRESENTATIONS

Peer Reviewed Presentations

1. Archibeque, B., Kustusch, M. B., Genz, F., Franklin, S., & Sayre, E. (2018, June). Qualitative Measures of Equity in Small Groups. Presented at the International Conference of the Learning Sciences. London, UK.

2. Hass, C. A., Genz, F., Kustusch, M. B., Ouimet, P. A., Pomian, K., Sayre, E. C., Zwolak, J. P. (2018, August). Studying community development: a network analyticalapproach. Juried talk presented at the 2018 Physics Education Research Conference.Washington, DC.

Invited Presentations

1. Franklin, S., Sayre, E. C., & Kustusch, M. B. (2018, August). PEER: Professional Development Experiences for Education Researchers. Presented in \Community Resources for Research and Collaboration" at the Physics Education Research Conference. Washington, DC.

2. Sayre, E. C., Franklin, S., & Kustusch, M. B. (2018, July). Professional Development for Research; Research on Professional Development. Presented in \The Art and Science of Teaching" at the American Association of Physics Teachers Meeting. Washington, DC.

3. Genz, Florian, Sayre, Eleanor, Franklin, Scott V. Using Action Cameras to Enhance Learning and Facilitate Research. AAPT Winter Meeting (2018).

4. Sayre, E. C., Genz, F., Wagener, M., Bresges, A. (2017, February). “Inclusion & equity: Research and Evidence-Based Practices.” Kompetenzen Inklusiv in der Lehrer Innenbildung (Competencies Inclusive Conference).

5. Ptak, C., Kustusch, M. B., Sayre, E. C., & Franklin, S. V. (2015, July). Emergent studies of students engaged in sense-making labwork. Presented in \Research methodologies in Laboratory Contexts" at the Physics Education Research Conference. College Park, MD.

6. Kustusch, M. B. (2015, April). Fostering student decision-making and community in a large group discussion. Presented as a part of the Purdue University Physics Department Colloquium Series. West Lafayette, IN.

7. Kustusch, M. B. (2015, April). Fostering student decision-making and community in a large group discussion. Presented as a part of the Chicago State University Physics Department Colloquium Series. Chicago, IL.

8. Kustusch, M. B. (2014, December). Who is the \expert"? Shifting Authority in a Group Discussion. Presented as a part of the Michigan State University Physics Education Colloquium Series. Lansing, MI.

9. Kustusch, M. B. (2013, October). Thumbin' It: Using right-hand rules to explore representational dependence and representational uency. Presented as a part of the Illinois State University Physics Education Research Colloquium Series. Normal, IL.

Contributed Presentations

1. Olson, Betsy, Thesis defense: Revoicing in Undergraduate Physics Education: a Case Study. (May, 2019)

2. Ouimet, Pierre-Philippe. Using Network Analysis to Study Classroom Communities. University of Regina, Department of Physics Seminar. (January, 2019)

3. Hass, C. A., Genz, F., Kustusch, M. B., Ouimet, P. A., Pomian, K., Sayre, E. C., & Zwolak, J. P. (2018, July). Studying community development: a network analytical approach. Presented at the American Association of Physics Teachers Meeting. Washington, DC.

4. Franklin, S., Sayre, E. C., & Kustusch, M. B. (2018, April). Professional Development for Emerging Education Researchers: Two Models for Field Schools. Presented at 2018 CoNECD - The Collaborative Network for Engineering and Computing Diversity Conference. Crystal City, VA.: American Society for Engineering

Education.

5. Pomian, K. & Kustusch, M. B. (2018, April). Understanding student interactions using epistemological framing on classroom video data. Presented at the Chicago Section of the American Association of Physics Teachers. Chicago, IL.

6. Genz, Florian, Archibeque, Ben J., Sayre, Eleanor, Franklin, Maxell. Equity in the IMPRESS Program. AAPT Winter Meeting (2017).

7. Archibeque, B., Kustusch, M. B., Genz, F., Franklin, S., & Sayre, E. (2017, July). Qualitative Measures of Equity in Small Groups. Presented at the American Association of Physics Teachers Meeting. Washington, DC.

8. Sayre, E. C., Franklin, S. V., & Kustusch, M. B. (2017, January). Professional development workshops for physics education research. Presented at the American Physical Society Meeting. Washington, DC.

9. Kustusch, M. B. (2015, May). Student decision making in large group discussion. Presented at the DePaul Teaching and Learning Conference. Chicago, IL.

10. Kustusch, M. B., Ptak, C., Sayre, E. C., & Franklin, S. V. (2015, May). Student decision making in large group discussion. Presented at the American Physical Society Meeting. Baltimore, MD.

Refereed Posters

1. Kustusch, M. B., Sayre, E. C., & Franklin, S. (2018, June). Identifying Shifts in Agency by Analyzing Authority in Discussion. Presented at the International Conference of the Learning Sciences. London, UK.

Contributed Posters

1. Pomian, K. & Kustusch, M. B. (2018, January). Understanding student interactions using the fusion of epistemological framing and Social Network Analysis on classroom data. Presented at the American Association of Physics Teachers Meeting. San Diego, CA.

2. Alaee, Dina Zohrabi, Sayre, Eleanor C.. How groups of students frame discussion in physics. K-State Graduate Research, Arts, and Discovery (GRAD), Forum, Manhattan, KS. (2018)

3. Alaee, Dina Zohrabi, Sayre, Eleanor C. Instructors support of students' behavior in an upper-division physics course., American Association of Physics Teachers, Washington, DC. (2018)

4. Alaee, Dina Zohrabi, Sayre, Eleanor C., Franklin, Scott V. What physicist mean by the equals sign in undergraduate education. Physics Education Research Conference, Washington, DC. (2018)

5. Olson, Betsy. Functions of Verbal Echoing in a Conceptual Oral Exam. Minnesota Area Association of Physics Teachers (MAAPT) Annual Meeting. (May, 2018)

6. Archibeque, Ben J., Genz, Florian, Hutchison, Paul, Franklin, Maxwell, Sayre, Eleanor. Measuring Equity in the IMPRESS Program. AAPT Winter Meeting (2017).

7. Pomian, K. E., Zwolak, J. P., Sayre, E. C., Franklin, S. V., & Kustusch, M. B. (2017, July). Using Social Network Analysis on classroom video data. Presented at the 2017 Physics Education Research Conference. Cincinnati, OH.

8. Alaee, Dina Zohrabi, Kornick, Kellianne, Sayre, Eleanor C., Franklin, Scott V. What physicists mean by the equals sign in undergraduate education. American Physical Society April meeting, Washington, DC. (2017) https://meetings.aps.org/Meeting/APR17/Session/Y2.5

9. Kornick Kellianne, Alaee, Dina Zohrabi, Sayre, Eleanor, Franklin, Scott V.,What physicists mean by the equals sign. American Physical Society April meeting, Washington, DC. (2017) https://meetings.aps.org/Meeting/APR17/Session/Y2.6

10. Alaee, Dina Zohrabi, Sayre, Eleanor C..What physicists mean by the equals sign in undergraduate education. K-State Graduate Research, Arts, and Discovery (GRAD), Forum, Manhattan, KS. (2017)

11. Franklin, Scott V. Sayre, Eleanor C., Alae, Dina Zohrabi. What physicists mean by the equals sign in undergraduate education. Physics Education Research Conference, Cincinnati, OH. (2017)

12. Alaee, Dina Zohrabi, Sayre, Eleanor C., Franklin, Scott V. What physicist mean by the equals sign in undergraduate education. Physics Education Research Conference, Cincinnati, OH. (2017)

13. Alaee, Dina Zohrabi, Graham, Natasha, Kornick, Kellianne, Franklin, Scott V., Sayre Eleanor C. Equal Signs in EM: Homework vs. Solution Manuals., American Association of Physics Teachers, Cincinnati, OH. (2017)

14. Alaee, Dina Zohrabi, Mitchem, Savannah L., Sayre, Eleanor C.. Student understanding of electric and magnetic fields in materials. American Association of Physics Teachers Arkansas-Oklahoma-Kansas Section, Emporia, KS. (2016)

15. Alaee, Dina Zohrabi, Mitchem, Savannah L., Sayre, Eleanor C. Student understanding of electric and magnetic fields in materials.. Research and the State, Manhattan, KS. (2016)

16. Bertram, C., Dawod, R., Marks, N. J., Ptak, C., Rangel, M., Sayre, E. C., Kustusch, M. B., & Franklin, S. V. (2015, July). Progression from Novice-like to Expert-like Behaviors in 1st-generation and Deaf and Hard of Hearing Students. Presented at the 2015 Physics Education Research Conference. College Park, MD.

17. Dawod, R., Bertram, C., Franklin, S. V., Marks, N. J., Ptak, C., Rangel, M., Sayre, E. C., & Kustusch, M. B. (2015, July). Exploring Student Ideas About Metacognition. Presented at the 2015 Physics Education Research Conference. College Park, MD.

18. Marks, N. J., _Rangel, M., _Bertram, C., _Dawod, R., Franklin, S. V., Kustusch, M. B., Ptak, C., & Sayre, E. C. (2015, July). Lab experiences and students' ideas about he nature of science. Presented at the 2015 Physics Education Research Conference. College Park, MD.

Compiled 06-17-19; D. Jacobson

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