

GUHER GORGUN

Mary Frances Early College of Education
Quantitative Methodology | Department of Educational Psychology
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EDUCATION

- 2024 **Ph.D.**, Measurement, Evaluation, and Data Science, University of Alberta, Edmonton, AB, Canada
- 2018 **M.S.**, Educational Psychology and Methodology, SUNY at Albany, NY, USA
- 2016 **M.S.**, Educational Studies, KU Leuven, Belgium
- 2013 **B.A.**, Philosophy, Bogazici University, Istanbul, Turkey

WORK EXPERIENCE

Academic Positions

- 2026 - Present **Assistant Professor**, Quantitative Methodology (Educational Psychology), University of Georgia, Athens, GA, USA
- 2024 - Present **Adjunct Professor**, Faculty of Education, University of Alberta, Edmonton, AB, Canada
- 2024 - 2025 **Postdoctoral Research Associate**, Digital Education, IPN Leibniz Institute for Mathematics and Science Education & Europa Universität Flensburg, Germany
- 2024 **Postdoctoral Research Associate**, Educational Technology and Educational Data Mining, University of Alberta, Edmonton, AB, Canada

Non-Academic Positions

2024	Psychometrician , Ontario Primary and Junior Assessment, Education Quality and Accountability Office, Toronto, ON, Canada
2023	Research Intern , Educational Testing Service, NJ, USA

FUNDING, FELLOWSHIPS, AND AWARDS

2023	Mitacs Accelerate Fellowship <ul style="list-style-type: none">• Funding Source: Mitacs Canada• Partner Organization: Educational Testing Service (ETS)• Awarded Amount: C\$17,500
2022 - 2023	Alberta Innovates Graduate Student Scholarship <ul style="list-style-type: none">• Funding Source: Alberta Innovates, AB, Canada• Awarded Amount: C\$62,000
2022	ATLAS Doctoral Research Fellowship <ul style="list-style-type: none">• Funding Source: University of Kansas, KS, USA• Awarded Amount: US\$8,000
2021	Alberta Society for Computers in Education Scholarship in Educational Computing <ul style="list-style-type: none">• Funding Source: University of Alberta, Edmonton, AB, Canada• Awarded Amount: C\$2,100
2020	Alberta Graduate Excellence Scholarship <ul style="list-style-type: none">• Funding Source: University of Alberta, Edmonton, AB, Canada• Awarded Amount: C\$12,000
2019	Doctoral Recruitment Scholarship <ul style="list-style-type: none">• Funding Source: University of Alberta, Edmonton, AB, Canada• Awarded Amount: C\$5,000
2016 - 2019	Tuition Scholarship <ul style="list-style-type: none">• Funding Source: SUNY at Albany, NY, USA• Awarded Amount: US\$54,000
2017	Alice Clark Long Scholarship <ul style="list-style-type: none">• Funding Source: SUNY at Albany, NY, USA• Awarded Amount: US\$750

2008 - 2013	Scientific and Technological Research Council of Turkey Scholarship
	<ul style="list-style-type: none"> • Funding Source: Scientific and Technological Research Council, Turkey • Awarded Amount: TRY30,000

TRAVEL AND PROFESSIONAL DEVELOPMENT GRANTS

2024	AI4ED Travel and Attendance Scholarship for AAAI 2024
	<ul style="list-style-type: none"> • Funding Source: Google & EEDI, UK • Awarded Amount: CA\$2,000
2024	FGSR Graduate Travel Award
	<ul style="list-style-type: none"> • Funding Source: University of Alberta, Edmonton, AB, Canada • Awarded Amount: C\$500
2023	Faculty of Education Graduate Travel Award
	<ul style="list-style-type: none"> • Funding Source: University of Alberta, Edmonton, AB, Canada • Awarded Amount: C\$500
2022 & 2023	GSA Travel Grant
	<ul style="list-style-type: none"> • Funding Source: University of Alberta, Edmonton, AB, Canada • Awarded Amount: C\$1,000
2018	Kristen Huff Travel Award
	<ul style="list-style-type: none"> • Funding Source: SUNY at Albany, NY, USA • Awarded Amount: US\$1,000
2012 - 2013	Scholarship from the Erasmus-Exchange Program
	<ul style="list-style-type: none"> • Funding Source: Ministry of National Education, Turkey • Awarded Amount: €2,664

PUBLICATIONS

Refereed Journal Articles

Wongvorachan, T., Bulut, O., **Gorgun, G.**, & Daniels, L. (2025). Evaluating the Validity of the Student Perspectives of Teaching Survey: A Network Psychometrics Approach. *Trends in Higher Education*, 4(4), 74.
<https://doi.org/10.3390/higheredu4040074>

Bulut, O., Yildirim-Erbasli, S. N., Ulitzsch, E., & **Gorgun, G.** (2025). Measuring consumers' financial well-being: Uncovering the causes and consequences of careless and insufficient effort in self-report responses. *Journal of Financial Counseling and Planning*. <https://doi.org/10.1891/JFCP-2024-0103>

Bulut, O., **Gorgun, G.**, & Karamese, H. (2025). Incorporating test-taking engagement into multistage adaptive testing design for large-scale assessments. *Journal of Educational Measurement*, 62(1), 57-80. <https://doi.org/10.1111/jedm.12380>

Bulut, O., **Gorgun, G.**, & Yildirim-Erbasli, S. N. (2025). The impact of frequency and stakes of formative assessment on student achievement in higher education: A learning analytics study. *Journal of Computer Assisted Learning*, 41(1), 1-11. <https://doi.org/10.1111/jcal.13087>

Gorgun, G., & Bulut, O. (2024). Instruction-tuned large-language models for quality control in automatic item generation: A feasibility study. *Educational Measurement: Issues and Practice*, 44 (1), 1-12. <http://dx.doi.org/10.1111/emip.12663>

Gorgun, G., & Yildirim-Erbasli, S. N. (2024). Algorithmic Bias in BERT for response accuracy prediction: A case study for investigating population validity. *Journal of Educational Measurement*, 63(1), 1-35. <https://doi.org/10.1111/jedm.12420>

Gorgun, G., & Bulut, O. (2024). Exploring quality criteria and evaluation methods in automated question generation: A comprehensive survey. *Education and Information Technologies*, 29(18), 24111-24142. <http://dx.doi.org/10.1007/s10639-024-12771-3>

Gorgun, G., & Kilmen, S. (2024). Investigating the invariance of non-cognitive skills in countries with different immigration policies: A psychometric network approach. *Social Psychology of Education*, 27(4), 1509-1533. <https://doi.org/10.1007/s11218-023-09871-2>

Yildirim-Erbasli, S. N., & **Gorgun, G.** (2024). Disentangling the relationship between ability and test-taking effort: Can we predict the ability levels from the response behavior? *Technology, Knowledge, and Learning*, 1-23. <https://doi.org/10.1007/s10758-024-09810-w>

Manganello, J., Ilaka, O., & **Gorgun, G.** (2024). A comparison of health literacy measurement tools in a sample of college students. *Health Behavior Research*, 7(4), 1-7. <http://dx.doi.org/10.4148/2572-1836.1239>

- Bulut, O., **Gorgun, G.**, & He, S. (2024). Unsupervised anomaly detection in sequential process data: Insights from PIAAC problem-solving tasks. *Zeitschrift für Psychologie*, 232(2), 74-94. <https://doi.org/10.1027/2151-2604/a000558>
- Romero, S., Georgiou, G. K., Altani, A., **Gorgun, G.**, & Protopapas, A. (2024). Beyond word recognition: The role of efficient sequential processing in word- and text-reading fluency development. *Scientific Studies of Reading*, 28(5), 529-548. <https://doi.org/10.1080/10888438.2024.2360189>
- Gorgun, G.**, & Bulut, O. (2023). Incorporating test-taking engagement into the item selection algorithm in computerized adaptive tests. *Large-Scale Assessments in Education*, 11, 27. <https://doi.org/10.1186/s40536-023-00177-5>
- Bulut, O., Shin, J., Yildirim-Erbasli, S. N., **Gorgun, G.**, & Pardos, Z. A. (2023). An introduction to Bayesian knowledge tracing with pyBKT. *Psych*, 5(3), 770-786. <https://doi.org/10.3390/psych5030050>
- Bulut, O., **Gorgun, G.**, Yildirim-Erbasli, S. N., Wongvorachan, T., Daniels, L. M., Gao, Y., Lai, K. W., & Shin, J. (2023). Standing on the shoulders of giants: Online formative assessments as the foundation for predictive learning analytics models. *British Journal of Educational Technology*, 54(1), 19-39. <https://doi.org/10.1111/bjet.13276>
- Bulut, O., **Gorgun, G.**, Wongvorachan, T., & Tan, B. (2023). Rapid guessing in low-stakes assessments: Finding the optimal response time threshold with random search and genetic algorithm. *Algorithms*, 16(2), 89. <https://doi.org/10.3390/a16020089>
- Gorgun, G.**, & Bulut, O. (2022). Identifying aberrant responses in intelligent tutoring systems: An application of anomaly detection methods. *Psychological Testing and Assessment Modeling*, 64(4), 359-384.
- Hachem, M., **Gorgun, G.**, Chu, M-W., & Bulut, O. (2022). Social and emotional variables as predictors of students' perceived cognitive competence and academic performance. *Canadian Journal of School Psychology*, 37(4), 362-384. <https://doi.org/10.1177/08295735221118474>
- Ulitzsch, E., Yildirim-Erbasli, S. N., **Gorgun, G.**, & Bulut, O. (2022). An explanatory mixture IRT model for careless and insufficient effort responding in self-report measures. *British Journal of Mathematical and Statistical Psychology*, 75(3), 668-698. <https://doi.org/10.1111/bmsp.12272>
- Gorgun, G.**, & Bulut, O. (2021). A polytomous scoring approach to handle not-reached items in low-stakes assessments. *Educational and Psychological Measurement*, 81(5), 847-871. <https://doi.org/10.1177/0013164421991211>

- Bulut, O., **Gorgun, G.**, & Yildirim-Erbasli, S. N. (2021). Estimating explanatory extensions of dichotomous and polytomous Rasch models: The eirm package in R. *Psych*, 3(3), 308-321. <https://doi.org/10.3390/psych3030023>
- Colvin, K. F., **Gorgun, G.**, & Zhang, S. (2020). Comparing interpretations of the Rosenberg Self-Esteem Scale with 4-, 5-, and 101-point scales. *Journal of Psychoeducational Assessment*, 38(6), 762-766. <https://doi.org/10.1177/0734282920915063>
- Colvin, K. F., & **Gorgun, G.** (2020). Collapsing scale categories: Comparing the psychometric properties of resulting scales. *Practical Assessment, Research & Evaluation*, 25, 6. <https://doi.org/10.7275/17315702>
- Bulut, O., Xiao, J., Rodriguez, M. C., & **Gorgun, G.** (2020). An empirical investigation of factors contributing to item nonresponse in self-reported bullying instruments. *Journal of School Violence*, 19(4), 539-552. <https://doi.org/10.1080/15388220.2020.1770603>
- Learned, J. E., Dacus, L. C., Morgan, M. J., Schiller, K. S., & **Gorgun, G.** (2020). “The Tail Wagging the Dog”: High-stakes testing as a mediating context in secondary literacy-related. *Teachers College Record*, 122(11), 1-47. <https://doi.org/10.1177/016146812012201115>
- Lui, A. M., Franklin Jr, D., Akhmedjanova, D., **Gorgun, G.**, Bryer, J., Andrade, H. L., & Cleary, T. (2018). Validity evidence of the internal structure of the DAACS self-regulated learning survey. *Future Review: International Journal of Transition, College, and Career Success*, 1(1), 1-18.

Refereed Conference Proceedings and Workshops

Note. Conference proceedings are double-blind reviewed and typically go through two rounds of review.

Alemdag, E. & **Gorgun, G.** (2026). AI scoring of peer feedback quality under different prompting strategies: How close it to expert scoring? *Proceedings of 16th International Conference on Learning Analytics & Knowledge*, Bergen, Norway.

Gorgun, G., Cai, M., & Demmans Epp, C. (2025). *Modeling intrinsic load: Can item difficulty be a reasonable proxy?* In A.I. Cristea, E. Walker, Y. Lu, O.C. Santos, S. Isotani (Eds.), *Artificial Intelligence in Education. AIED 2025. Lecture Notes in Computer Science* (pp. 260-267), vol 15881. Springer, Cham.

Gorgun, G., & Bulut, O. (2024). Current evaluation methods are a bottleneck in automatic question generation. *AI for Education: Bridging Innovation and Responsibility* at the

38th AAAI Annual Conference on AI, 1-8. Vancouver, BC, Canada.

<https://proceedings.mlr.press/v257/gorgun24a.html>

Bulut, O., **Gorgun, G.**, & Tan, B. (2024). Item difficulty and response time prediction with large language models: An empirical analysis of USMLE items. In E. Kochmar, M. Bexte, J. Burstein, A. Horbach, R. Laarmann-Quante, A. Tack, V. Yaneva, & Z. Yuan (Eds.), *Proceedings of the 19th Workshop on Innovative Use of NLP for Building Educational Applications (BEA 2024)* (pp. 522–527), Mexico City, Mexico. Association for Computational Linguistics. <https://aclanthology.org/2024.bea-1.44/>

Gorgun, G. & Botelho, A.F. (2023). Enhancing the automatic identification of common math misconceptions using natural language processing. In N. Wang, G. Rebolledo-Mendez, V. Dimitrova, N. Matsuda, & O. C. Santos (Eds.), *Artificial Intelligence in Education. Posters and Late Breaking Results, Workshops and Tutorials, Industry and Innovation Tracks, Practitioners, Doctoral Consortium, and Blue Sky. AIED 2023* (pp. 302-307). Communications in Computer and Information Science, vol 1831. Springer, Cham. https://doi.org/10.1007/978-3-031-36336-8_47

Bulut, O., **Gorgun, G.**, Tan, B., Wongvorachan, T., Yildirim-Erbasli, S. N., & Clelland, A. (2023). Self-regulated learning through online formative assessments: The effects of assessment frequency and participation on student performance. In P. Blikstein, J. Van Aalst, R. Kizito, & K. Brennan (Eds.), *Proceedings of the 17th International Conference of the Learning Sciences* (pp. 1406-1409), Montreal, QC, Canada: International Society of the Learning Sciences.

Gorgun, G., Yildirim-Erbasli, S. N., & Demmans Epp, C. (2022). Predicting cognitive engagement in online course discussion forums. In A. Mitrovic & N. Bosch (Eds.), *Proceedings of the 15th International Conference on Educational Data Mining*, (pp. 276-289). Durham, UK: International Educational Data Mining Society. <https://doi.org/10.5281/zenodo.6853149>

Gorgun, G., & Bulut, O. (2022). Considering disengaged responses in Bayesian and deep knowledge tracing. In M. M. Rodrigo, N. Matsuda, A. I. Cristea, & V. Dimitrova (Eds.), *Artificial intelligence in education. Posters and late-breaking results, workshops and tutorials, industry and innovation tracks, practitioners' and doctoral consortium* (pp. 591-594). Lecture Notes in Computer Science, vol 13356. Springer, Cham. https://doi.org/10.1007/978-3-031-11647-6_122

Wongvorachan, T., Clelland, A., **Gorgun, G.**, & Bulut, O. (2022). Identifying the predictors of mathematics anxiety and performance in Canada: An educational data mining approach. *Alberta Academic Review*, 5(1), 2-2. <https://doi.org/10.29173/aar134>

Book Chapters

Gorgun, G., Tan, B., & Bulut, O. (2025). Designing classroom assessments with generative AI: A teacher-in-the-loop framework. In S. Papadakis (Ed.), *Teaching with artificial intelligence: A guide for primary and elementary educators*. Routledge.

Bulut, O., Yildirim-Erbasli, S. N., & **Gorgun, G.** (2024). Assessment analytics for digital assessments: Identifying, modeling, and interpreting behavioral engagement. In M. Sahin & D. Ifenthaler (Eds.), *Assessment analytics in education – Designs, methods and solutions* (pp. 35-60). Springer, Cham. https://doi.org/10.1007/978-3-031-56365-2_3

Yildirim-Erbasli, S. N., **Gorgun, G.**, & Bulut, O. (2024). Enhancing self-regulated learning with artificial intelligence-powered learning analytics. In N. K. Ulutaş & D. Höl (Eds.), *Emergent practices of learning analytics in K-12 classrooms* (pp. 57 - 83). Charlotte, NC: Information Age Publishing. <https://doi.org/10.4018/979-8-3693-0066-4>.

Technical Reports

Bulut, O., Seitz, P., Deforge, K., Chu, M. W., Hachem, M., & **Gorgun, G.** (2020). Measuring students' socio-emotional well-being to optimize learning: Looking beyond academic performance and grades. <https://doi.org/10.7939/r3-jkvz-qt28>

Under Review

Gorgun, G., & Bulut, O. (Under review). From human raters to AI-powered evaluators: Assessing item quality with large-language models. *Manuscript submitted for publication.*

Botelho, A., **Gorgun, G.**, Closser, A. H., & Baral, S. (Under review). Characterizing mathematical conceptions through common wrong explanations. *Manuscript submitted for publication.*

PRESENTATIONS

Conference Presentations

Gorgun, G. & Lindner, M. (2026, April). *From creation to evaluation: A systematic human-in-the-loop approach to automatic item generation.* Paper to be presented at the annual meeting of the National Council on Measurement in Education (NCME), Los Angeles, CA, USA.

Lindner, M., Schewior, L., & **Gorgun, G.** (2026, April). *How LLM-driven conversation-based assessment enhances engagement and test-taking experience beyond multiple-choice.* Paper to be presented at the annual meeting of the National Council on Measurement in Education (NCME), Los Angeles, CA, USA.

Alemdag, E. & **Gorgun, G.** (2026, April). AI scoring of peer feedback quality under different prompting strategies: How close is it to expert scoring? Poster to be presented at the *16th International Conference on Learning Analytics & Knowledge*, Bergen, Norway.

Lindner, M., Schewior, L., & **Gorgun, G.** (2026, March). *Students' experience of conversation-based vs. multiple-choice assessment: Interactive, supportive, and often preferred.* Paper to be presented at the annual meeting of 13. Kongress der Gesellschaft für Empirische Bildungsforschung (GEBF 2026), Munich, Germany.

Gorgun, G., Bulut, O., & Lindner, M. (2025, August). *Response behavior is a good proxy for difficulty estimation in adaptive learning environments.* Paper presented at the biennial meeting of the EARLI Conference, Graz, Austria.

Gorgun, G., Cai, M., & Demmans Epp, C. (2025, July). *Modeling intrinsic load: Can item difficulty be a reasonable proxy? Paper presented at the annual meeting of the Artificial Intelligence in Education (AIED) conference, Palermo, Italy. [16% acceptance rate]*

Gorgun, G., & Bulut, O. (2025, April). Predicting the item characteristics of scenario-based assessment items. In G. Gorgun (Chair), *Leveraging large-language models for operational large-scale assessments: Opportunities and challenges.* Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), Denver, CO, USA.

Cai, M., **Gorgun, G.**, & Demmans Epp, C. (2025, April). *Difficulty as a proxy for measuring intrinsic cognitive load.* Poster presented at the annual meeting of the American Educational Research Association (AERA), Denver, CO, USA.

Gorgun, G., & Bulut, O. (2024, April). *Using large language models for evaluating item quality in large-scale assessments*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), Philadelphia, PA, USA.

Gorgun, G., Choi, I., & Zu, J. (2024, April). *Predicting expert judgment on the quality of automatically generated items*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), Philadelphia, PA, USA.

Wongvorachan, T., Bulut, O., **Gorgun, G.** (2024, April). *Evaluating dimensionality in non-cognitive measures: Exploratory vs. hierarchical exploratory graph analysis*. Poster presented at the annual meeting of the National Council on Measurement in Education (NCME), Philadelphia, PA, USA.

Firoozi, T., Bulut, O. & **Gorgun, G.** (2024, April). *Text augmentation for enhancing the accuracy of automated essay scoring*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), Philadelphia, PA, USA.

Gorgun, G., & Bulut, O. (2024, February). *Current evaluation methods are a bottleneck in automatic question generation*. Poster presented at the Workshop on AI for Education: Bridging Innovation and Responsibility at the AAAI Annual Conference on AI, Vancouver, BC, Canada.

Gorgun, G., & Botelho, A. F. (2023, July). *Enhancing the automatic identification of common math misconceptions using natural language processing*. Poster presented at the annual meeting of the Artificial Intelligence in Education (AIED) Conference, Tokyo, Japan. [21% Acceptance Rate]

Bulut, O. & **Gorgun, G.** (2023, June). *Utilizing response time for scoring the TIMSS 2019 problem-solving and inquiry tasks*. Paper presented at the IEA International Research Conference (IEA IRC), Dublin, Ireland.

Bulut, O., **Gorgun, G.**, Tan, B., Wongvorachan, T., Yildirim-Erbasli, S. N., & Clelland A. (2023, June). *Self-regulated learning through online formative assessments: The effects of assessment frequency and participation on student performance*. Paper presented at the annual meeting of the International Society of the Learning Sciences (ISLS), Montreal, QC, Canada.

Gorgun, G., Bulut, O., & Wongvorachan, T. (2023, April). Detecting rapid guessing: In search of the optimal response time threshold. In E. Ulitzsch & J. Rios (Chairs), *Methodological advances in detecting and accounting for non-effortful responding*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), Chicago, IL, USA.

Gorgun, G., Wongvorachan, T., Tan, B., & Bulut, O. (2023, April). *Predicting item difficulty from students' response behaviors*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), Chicago, IL, USA.

Gorgun, G. & Kilmen, S. (2023, April). *Introducing network analysis for meaningful country and group comparisons in large-scale assessments*. Poster presented at the annual meeting of the National Council on Measurement in Education (NCME), Chicago, IL, USA.

Yildirim-Erbasli, S. N., **Gorgun, G.**, & Bulut, O. (2023, April). *Automatic item paraphrasing to avoid the repetitive use of the same items*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), Chicago, IL, USA.

Tan, B., Bulut, O., **Gorgun, G.**, & Wongvorachan, T. (2023, April). *Mining textual features of questions to predict item parameters*. Poster presented at the annual meeting of the National Council on Measurement in Education (NCME), Chicago, IL, USA.

Wongvorachan, T., Bulut, O., **Gorgun, G.**, & Tan, B. (2023, April). *Random search algorithm to identify response time thresholds for rapid guessing*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), Chicago, IL, USA.

Gorgun, G., Yildirim-Erbasli, S. N., & Demmans Epp, C. (2022, July). *Predicting cognitive engagement in online course discussion forums*. Paper presented at the annual meeting of the Educational Data Mining (EDM) Conference, Durham, UK. [29% Acceptance Rate]

Gorgun, G., & Bulut, O. (2022, July). *Considering disengaged student behavior in Bayesian and deep knowledge tracing*. Poster presented at the annual meeting of the Artificial Intelligence in Education Conference (AIED), Durham, UK. [35% Acceptance Rate]

Ulitzsch, E., Yildirim-Erbasli, S. N., **Gorgun, G.** & Bulut, O. (2022, July). *An explanatory mixture IRT model for careless and insufficient effort responding in self-report measures*. Paper presented at the annual meeting of the Psychometric Society, Bologna, Italy.

Hachem, M., **Gorgun, G.**, Chu, M-W., & Bulut, O. (2022, April). *Social and emotional variables as predictors of students' perceived cognitive competence and academic performance*. Paper presented at the uLead Summit of Educational Leadership, Banff, AB, Canada.

- Deforge, K., Seitz, P., Bulut, O., Chu, M-W., **Gorgun, G.**, & Hachem, M. (2022, April). *Giving students a voice: A measure of students' socio-emotional wellbeing to optimize learning for all students*. Paper presented at the uLead Summit of Educational Leadership, Banff, AB, Canada.
- Ulitzsch, E., Yildirim-Erbasli, S. N., **Gorgun, G.** & Bulut, O. (2022, April). *An explanatory mixture IRT model for careless responding in survey data*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), San Diego, CA, USA.
- Yildirim-Erbasli, S. N., **Gorgun, G.**, Gao, Y., & Bulut, O. (2022, April). *Sequential pattern mining to understand time management strategies in online courses*. Poster presented at the annual meeting of the National Council on Measurement in Education (NCME), San Diego, CA, USA.
- Ulitzsch, E., Yildirim-Erbasli, S. N., **Gorgun, G.** & Bulut, O. (2022, April). *An explanatory mixture IRT model for careless responding in survey data*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), San Diego, CA, USA.
- Wongvorachan, T., Clelland, A., **Gorgun, G.**, & Bulut, O. (2022, April). *Identifying the predictors of mathematics anxiety and performance in Canada: An educational data mining approach*. Poster presented at the 14th Annual Graduate Student Research Showcase: Exploring Horizons (University of Alberta), Edmonton, AB, Canada.
- Bulut, O., Yildirim-Erbasli, S. N., **Gorgun, G.**, Gao, Y., Wongvorachan, T., Lai, K. W., & Shin, J. (2022, March). *Leveraging online formative assessments to enhance predictive learning analytics models*. Paper presented at the International Conference on Learning Analytics and Knowledge (LAK2022).
- Gorgun, G.** & Bulut, O. (2022, January). *Customizing item selection with engagement in computerized-adaptive tests*. Poster presented at the Advancing Assessment and Evaluation Conference (AAEC), Virtual.
- Gorgun, G.**, Yildirim Erbasli, S. N., & Bulut, O. (2021, June). *An application of explanatory IRT to predict factors contributing to rapid guessing*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), Virtual.
- Yildirim-Erbasli, S. N., **Gorgun, G.**, & Bulut, O. (2021, June). *Detecting careless responses: a new method utilizing response time and accuracy*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), Virtual.

Hachem, M., **Gorgun, G.**, Chu, M.-W., & Bulut, O. (2021, June). *Social and emotional variables as predictors of students' cognitive competence and academic performance*. Paper presented at the annual meeting of the Canadian Society for the Study of Education.

Gorgun, G. (2020, April) *Predicting income based on schooling: A comparison of linear regression method with regression trees* [Poster Session]. AERA Annual Meeting, San Francisco, CA, USA <http://tinyurl.com/wrafbn8>. (Conference canceled due to COVID)

Gorgun, G., Colvin, K. F., Roohr, K. C., & Ling, G. (2020, April). *Multilevel analyses of subgroups on the Major Field Test of Business*. Paper accepted to the annual meeting of the National Council on Measurement in Education (NCME), San Francisco, CA, USA. (Conference cancelled due to COVID)

Bryer, J., & **Gorgun, G.** (2019, April). *Relationship between intraclass correlation (ICC) and percent agreement*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), Toronto, ON, Canada.

Colvin, K. F., **Gorgun, G.**, & Zhang, S. (2019, April). *Assessing the reliability of single-item measures*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), Toronto, ON, Canada.

Gorgun, G. & Colvin, K. F. (2019, April). *The influence of rating scales on coefficient alpha and alternative reliability measures*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), Toronto, ON, Canada.

Learned, J. E., Dacus, L., Morgan, M. J., Schiller, K. S., & **Gorgun, G.** (2019, April). *"The tail wagging the dog": Assessment as a mediating context in secondary literacy education*. Paper presented at the annual meeting of the American Educational Research Association, Toronto, ON, Canada.

Colvin, K. F., **Gorgun, G.**, & Zhang, S. (2018, October). *Reliability of single-item measures: An overview*. Paper presented at the annual meeting of the Northeastern Educational Research Association, Trumbull, CT, USA.

Gorgun, G., & Colvin, K. F. (2018, October). *The impact of increasing the number of response categories on a rating scale*. Paper presented at the annual meeting of the Northeastern Educational Research Association, Trumbull, CT, USA.

Ilaka O., **Gorgun G.**, & Manganello J. (2018, October). *A comparison of health literacy measurement tools for a sample of college students*. Poster presented at Health Literacy Research Conference, Bethesda, MD, USA.

Gorgun, G. & Colvin, K. F. (2018, May). *Odd vs even number of response options*. Poster presented at the Educational Psychology Day, University at Albany, SUNY, Albany, NY, USA.

Gorgun, G. & Colvin, K. F. (2017, October). *Reconsidering scale use through the World Values Survey*. Paper presented at the annual meeting of the Northeastern Educational Research Association, Trumbull, CT, USA.

Invited Talks

Gorgun, G. (2026, April). *Challenges and opportunities of international collaboration in the field of measurement and research methodologies in the AI era*. Invited panel talk given at the annual meeting of the American Educational Research Association (AERA), Los Angeles, CA, USA.

Gorgun, G. (2024, September). *Large-language models for evaluating item quality*. Invited talk given at the annual meeting of International Conference on Measurement and Evaluation in Education and Psychology, Eskisehir, Turkey.

Gorgun, G. (2023, June). *Identifying disengaged responses and students in learning environments and assessments*. Invited talk given at the University of Alberta, Edmonton, AB, Canada.

Colvin, K. F. & **Gorgun, G.** (2018, May). *The optimal number of rating scales in a survey*. Invited talk given at the Educational Psychology and Methodology Brown Bag Speaker Series, University at Albany, SUNY, Albany, NY, USA.

TEACHING

Note. The principal instructor is responsible for designing, preparing, and coordinating the course. The teaching assistant's duties include grading assignments and exams, as well as holding office hours. The courses mentioned are 13-week long (i.e., semester-long) courses. N = the number of students enrolled in the course.

Spring '26 **Principal Instructor**, ERSH 4600/6600: Applied Educational Assessment, University of Georgia, Athens, GA, USA ($N = 10$)

Fall '25 **Principal Instructor**, Artificial Intelligence for Better Classroom Assessments (MA), Europa-Universität Flensburg, Germany ($N = 35$)

Fall '25 **Principal Instructor**, Artificial Intelligence for Better Classroom Assessments (BA), Europa-Universität Flensburg, Germany ($N = 5$)

Winter '25	Principal Instructor , Artificial Intelligence for Better Classroom Assessments, Europa-Universität Flensburg, Germany ($N = 28$)
Winter '25	Principal Instructor , Digitalization in Intercultural Education, Europa-Universität Flensburg, Germany ($N = 7$)
Winter '24	Principal Instructor , EDPY 303: Educational Assessment, University of Alberta, Edmonton, AB, Canada ($N = 121$)
Winter '24	Principal Instructor , BUS 112: Business Statistics, Concordia University of Edmonton, Edmonton, AB, Canada ($N = 29$)
Fall '23	Principal Instructor , EDPY 302: Learning and Development in Childhood, University of Alberta, Edmonton, AB, Canada ($N = 64$)
Fall '23	Principal Instructor , BUS 112: Business Statistics, Concordia University of Edmonton, Edmonton, AB, Canada ($N = 18$)
Spring '23	Principal Instructor , PSY 825: Mixed Methods and Program Evaluation, Concordia University of Edmonton, Edmonton, AB, Canada ($N = 8$)
Winter '23	Principal Instructor , EDPY 303: Educational Assessment, University of Alberta, Edmonton, AB, Canada ($N = 106$)
Fall '22	Principal Instructor , PSY 611: Quantitative Data Analysis, Concordia University of Edmonton, Edmonton, AB, Canada ($N = 7$)
Winter '22	Principal Instructor , EDPY 303: Educational Assessment, University of Alberta, Edmonton, AB, Canada ($N = 119$)
Winter '21	Teaching Assistant , EDPY 303: Educational Assessment, University of Alberta, Edmonton, AB, Canada ($N = 123$)
Fall '21	Teaching Assistant , EDPY 303: Educational Assessment, University of Alberta, Edmonton, AB, Canada ($N = 260$)
Fall '17	Teaching Assistant , EPSY 751: Multivariate Methods for Applied Researchers and Evaluators, SUNY at Albany, NY, USA ($N = 30$)

ADVISING & MENTORING

* denotes students that I provided statistical and methodological supervision

† denotes thesis committee membership

* Jialiang Yan (2024)

B.S., Computing Science, University of Alberta, Edmonton, AB, Canada

Project: Investigating the impact of timing on the salience of smartphone app privacy notices

† Anindita Kundu (2024)

M.S., Computing Science, University of Alberta, Edmonton, AB, Canada

Thesis: Are large language models good essay graders?

*† Oyenike Ilaka (2018)

B.S., Public Health, SUNY at Albany, NY, USA

Thesis: A comparison of health literacy measurement tools for a sample of college students

SERVICE

University Service

- 2022 - 2023 **Member**, Faculty Teaching Awards Committee, University of Alberta, Edmonton, AB, Canada
- 2017 - 2018 **Member**, Academic Council, SUNY at Albany, NY, USA

Professional Service

- 2026 - 2027 **Workshop Co-chair**, National Council on Measurement in Education (NCME)
- 2026 - 2027 **Training and Professional Development Committee Member**, National Council on Measurement in Education (NCME)
- 2025 **Research Track Advisory Board Member**, Artificial Intelligence in Education (AIED) Conference
- 2023 - 2024 **Methodological and Statistical Consultant**, Center for Research in Applied Measurement and Evaluation, University of Alberta, Edmonton, AB, Canada
- 2022 - 2023 **Co-organizer**, Measurement Reading Club, University of Alberta, Edmonton, AB, Canada
- 2025 - Present **PC Member**, European Conference on Technology-Enhanced Learning (EC-TEL) Conference
- 2025 - Present **PC Member**, Learning Analytics and Knowledge (LAK) Conference
- 2023 - Present **PC Member**, Artificial Intelligence in Education (AIED) Conference

- 2023 - Present **PC Member**, Educational Data Mining (EDM) Conference
- 2023 - Present **PC Member**, International Society of Learning Sciences (ISLS) Conference
- 2023 - Present **Reviewer**, Annual Meeting of Educational Data Mining (EDM)
- 2023 - Present **Reviewer**, Annual Meeting of Artificial Intelligence in Education (AIED)
- 2023 - Present **Reviewer**, Annual Meeting of European Conference on Technology-Enhanced Learning (EC-TEL) Conference
- 2023 - Present **Reviewer**, Annual Meeting of International Society of Learning Sciences (ISLS) Conference
- 2021 - Present **Reviewer**, Annual Meeting of National Council on Measurement in Education (NCME)
- 2018 - 2019 **Peer Mentor**, SUNY at Albany, NY, USA
- 2017 - 2018 **Research Advisor**, SUNY at Albany, NY, USA

Editorial Service

- Ad Hoc Journal Reviewer**
- ACM Computing Surveys
 - British Journal of Mathematical and Statistical Psychology
 - International Journal of Data Science and Analytics
 - Frontiers in Psychology
 - Chinese/English Journal of Educational Measurement and Evaluation
 - ACM Computing Surveys
 - Cogent Education
 - Diagnostica
 - Data
 - Practical Assessment, Research, and Evaluation
 - Journal of Educational Data Mining
 - Education and Information Technologies
 - International Journal of Artificial Intelligence in Education
 - Language Assessment Quarterly
 - Educational Measurement: Issues and Practice
 - International Journal of Assessment Tools in Education
 - Educational Psychology and Methodology
 - Journal of Educational Computing Research

PROFESSIONAL MEMBERSHIP

- Since 2016 National Council on Measurement in Education (NCME)
- Since 2017 American Educational Research Association (AERA)
- Since 2022 International Artificial Intelligence in Education Society (AIED)
- Since 2022 International Educational Data Mining Society (EDM)
- Since 2024 Association for the Advancement of Artificial Intelligence (AAAI)
- Since 2025 The European Association for Research on Learning and Instruction (EARLI)