

**PATRICIA L. ALBACETE**

*Curriculum Vitae*

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**EDUCATION**

Ph. D., INTELLIGENT SYSTEMS University of Pittsburgh, Pittsburgh, PA	1999
M.S., INTELLIGENT SYSTEMS University of Pittsburgh, Pittsburgh, PA	1993
B.S., COMPUTER SCIENCE AND PHYSICS Universidad de Buenos Aires, Buenos Aires, Argentina	1989

**EXPERIENCE**

RESEARCH ASSOCIATE Learning Research and Development Center, University of Pittsburgh.	2010-Present
CONSULTANT Learning Research and Development Center, University of Pittsburgh.	2002-2009
RESEARCH ASSISTANT Intelligent Systems Program, University of Pittsburgh	1990-1998
TEACHING ASSISTANT Intelligent Systems Program, University of Pittsburgh	1992-1995

**FUNDING**

co-PI on IES R305A150155 “Linking Dialogue and Student Modeling to Create an Enhanced Micro-Adaptive Tutoring System”	2015-2018
co-PI on IES R305A130441 “Exploratory Studies to Derive Policies for Adaptive Natural-language Tutoring in Physics”	2013-2016
Team member on IES R305A100163 “Improving a Natural-language Tutoring System that Engages Students in Deep Reasoning Dialogues about Physics”	2010-2013
Consultant on NSF 0325054 “Tutoring Scientific Explanations via Natural Language Dialogue”	2004-2008
Consultant on ONR N00014-00-1-0600 “Why2000: An Intelligent Tutoring System with Natural Language Understanding”	2000-2005

## RESEACH PAPERS

- Albacete, P., Silliman, S., & Jordan, P. (2017). A Tool to Assess Fine-grained Knowledge from Correct and Incorrect Answers in Online Multiple-choice Tests: an Application to Student Modeling. *In proceeding of the 25<sup>th</sup> Word Conference on Educational Media & Technology (EdMedia)*.
- Jordan, P., Albacete, P., & Katz, S. (2017). Adapting Step Granularity in Tutorial Dialogue Based on Pretest Scores. *In proceeding of the 18<sup>th</sup> International Conference on Artificial Intelligence in Education (AIED)*.
- Jordan, P., Albacete, P., & Katz, S. (2016). Exploring Contingent Step Decomposition in a Tutorial Dialogue System. *In proceedings of the 24th Conference on User Modeling, Adaptation and Personalization (UMAP)*.
- Katz S., Jordan, P., & Albacete, P. (2016). Exploring How to Adaptively Apply Tutorial Dialogue Tactics. *In Proceedings of the 16th IEEE International Conference on Advanced Learning Technologies (ICALT)*.
- Katz, S., Albacete, P., & Jordan, P. (2016). Do summaries support learning from post-problem reflective dialogues? *In Proceedings of the 13th International Conference on Intelligent Tutoring Systems (ITS), Zagreb, Croatia*.
- Albacete, P., Jordan, P., & Katz, S. (2015). Is a Dialogue-Based Tutoring System that Emulates Helpful Co-constructed Relations During Human Tutoring Effective? *In Proceedings of the 17<sup>th</sup> International Conference on Artificial Intelligence in Education (AIED), pages 3-12, Madrid, Spain*.
- Jordan, P., Albacete, P., and Katz, S. (2015). When Is It Helpful to Restate Student Responses within a Tutorial Dialogue System? *In Proceedings of the 17<sup>th</sup> International Conference on Artificial Intelligence in Education (AIED), pages 658-661, Madrid, Spain*.
- Jordan, P., Albacete, P. & Katz, S. (2015). Exploring the Effects of Redundancy within a Tutorial Dialogue System: Restating Students' Responses. *In Proceedings of the 16<sup>h</sup> Annual Meeting on Discourse and Dialogue (SIGdial)*.
- Lipschultz, M., Litman, D., Katz, S., Albacete, P., & Jordan, P. (2014). Predicting Semantic Changes in Abstraction in Tutor Responses to Students. *International Journal of Learning Technology, 9(3), 281-303*.
- Katz, S., Jordan, P., & Albacete, P. (2014). Rimac: A natural-language tutoring system that supports students' understanding of physics concepts. Paper presented at the *Ohio Educational Technology Conference (OETC), Columbus Ohio*.
- Jordan, P., Albacete, P., Ford, M.J., Lipschultz, M., Litman, D., Silliman, S., & Wilson, C. (2013). Interactive Event: The Rimac tutor: A simulation of the highly interactive nature of human tutorial dialogue. *In Proceedings of the 16<sup>th</sup> International Conference on Artificial Intelligence in Education (AIED), pages 928-929, Memphis, TN*.
- Katz, S., Albacete, P., Ford, F., Jordan, P., Lipschultz, M., Litman, D., Silliman, S., & Wilson, C. (2013). Pilot test of a natural-language tutoring system for physics that simulates the highly interactive nature of human tutoring. (poster presentation). *In Proceedings of the 16<sup>th</sup> International Conference on Artificial Intelligence in Education (AIED), pages 636-639, Memphis, TN*.
- Jordan, P., Albacete, P., Ford, M., Katz, S., Lipschultz, M., Litman, D., Silliman, S., & Wilson, C. (2013). The Rimac Tutor: A simulation of the highly interactive nature of human tutorial dialogue. *In Proceedings of the 9<sup>th</sup> International Conference of AI in Education (AIED)*.
- Katz, S., & Albacete, P. (2013). A tutoring system that simulates the highly interactive nature of human tutoring. *Journal of Educational Psychology. (Special Issue on Advanced Learning Technologies), 105(4), 1126-1141*.

- Jordan, P., Albacete, P., Ford, M.J., Katz, S., & Lipschultz, M. (2012). Eliciting student explanations during tutorial dialogue for the purpose of providing formative feedback. In *Proceedings of the Workshop on Formative Feedback (AIED)*.
- Jordan, P., Katz, S., Albacete, P., & Ford, M. (2012). Reformulating student contributions in tutorial dialogue. In *Proceedings of the 7<sup>th</sup> International Natural Language Generation Conference (INLG)*, pp. 95-99, Utica, Association for Computational Linguistics.
- Katz, S., Jordan, P., Litman, D., and the RimaC Project Team. (2011). RimaC: A Natural-language dialogue system that engages students in deep reasoning dialogues about physics. In *Proceedings of the Society for Research on Educational Effectiveness (SREE)*, Washington, DC.
- Katz, S., Albacete, P., Jordan, P., & Litman, D. (2011). Dialogue analysis to inform the development of a natural-language tutoring system. In *Proceedings of the Workshop on the Semantics and Pragmatics of Dialogue (SemDial)*, Los Angeles, CA.
- Jordan, P., Makatchev, M., Pappuswamy U., VanLehn, K., and Albacete, P (2006). A Natural Language Tutorial Dialogue System for Physics. In *Proceedings of the 19<sup>th</sup> International FLAIRS conference*.
- Jordan, P., Albacete, P., and VanLehn, K (2005). Taking Control of Redundancy in Scripted Tutorial Dialogue. In *Proceedings of International Conference on Artificial Intelligence in Education (AIED)*, pp. 314-321.
- Albacete, P. and VanLehn, K. (2000). Evaluating the Effectiveness of a Cognitive Tutor for Fundamental Physics Concepts, In the *Proceedings of the 22<sup>nd</sup> Annual Conference of the Cognitive Science Society*, Philadelphia, PA.
- Albacete, P. and VanLehn, K (2000). The Conceptual Helper: An Intelligent Tutoring System for Teaching Fundamental Physics Concepts,. In the *Proceedings of the 5<sup>th</sup> International Conference on Intelligent Tutoring Systems (ITS)*, pp. 564-573.
- Albacete, P., Chang, S.K., Polese, G, and Baker, B (1994). Iconic Language Design for People with Significant Speech and Multiple Impairments. In the *Proceeding of the ACM Conference on Assistive Technologies (ASSETS)*. pp. 23-30.

## BOOK CHAPTERS

Albacete, P., Chang, S., and Polese, G. (1998) *Iconic Language Design for People with Significant Speech and Multiple Impairments* (pp. 12-32). In *Assistive Technology and Artificial Intelligence: Applications in Robotics, User Interfaces and Natural Language Processing*. V. Mittal, H. Yanco, J. Aronis, and R. Simpson (Eds). Lecture Notes in Computer Science, vol. 1458, Springer.

## SYNERGISTIC ACTIVITIES

Reviewer for Journal ACM Transactions on Interactive Intelligent Systems

Reviewer for Conference Artificial Intelligence in Education