

Gerry Stahl

Studying Virtual Math Teams

 Springer

Studying Virtual Math Teams Computer Supported Collaborative Learning Series

Gerry Stahl



Studying Virtual Math Teams Computer Supported Collaborative Learning Series:

Studying Virtual Math Teams Gerry Stahl, 2010-05-03 Studying Virtual Math Teams centers on detailed empirical studies of how students in small online groups make sense of math issues and how they solve problems by making meaning together. These studies are woven together with materials that describe the online environment and pedagogical orientation as well as reflections on the theoretical implications of the findings in the studies. The nature of group cognition and shared meaning making in collaborative learning is a foundational research issue in CSCL. More generally, the theme of sense making is a central topic in information science. While many authors allude to these topics, few have provided this kind of detailed analysis of the mechanisms of intersubjective meaning making. This book presents a coherent research agenda that has been pursued by the author and his research group. The book opens with descriptions of the project and its methodology as well as situating this research in the past and present context of the CSCL research field. The core research team then presents five concrete analyses of group interactions in different phases of the Virtual Math Teams research project. These chapters are followed by several studies by international collaborators discussing the group discourse, the software affordances, and alternative representations of the interaction, all using data from the VMT project. The concluding chapters address implications for the theory of group cognition and for the methodology of the learning sciences. In addition to substantial introductory and concluding chapters, this important new book includes analyses based upon the author's previous research, thereby providing smooth continuity and an engaging flow that follows the progression of the research. The VMT project has dual goals: a) to provide a source of experience and data for practical and theoretical explorations of group knowledge building, and b) to develop an effective online environment and educational service for collaborative learning of mathematics. Studying Virtual Math Teams reflects these twin orientations, reviewing the intertwined aims and development of a rigorous science of small group cognition and a Web 2.0 educational math service. It documents the kinds of interactional methods that small groups use to explore math issues and provides a glimpse into the potential of online interaction to promote productive math discourse.

The Computer Supported Collaborative Learning (CSCL) Conference 2013, Volume 1 ISLS, 2014-04-23 The Computer Supported Collaborative Learning CSCL Conference 2013 proceedings Volume 1

The Computer Supported Collaborative Learning (CSCL) Conference 2013, Volume 2 ISLS, 2014-04-23 The Computer Supported Collaborative Learning CSCL Conference 2013 proceedings Volume 2 *International Handbook of Computer-Supported Collaborative Learning* Ulrike Cress, Carolyn Rosé, Alyssa Friend Wise, Jun Oshima, 2021-10-08 CSCL has in the past 15 years and often in conjunction with Springer grown into a thriving and active community. Yet lacking is a comprehensive CSCL handbook that displays the range of research being done in this area. This handbook will provide an overview of the diverse aspects of the field, allowing newcomers to develop a sense of the entirety of CSCL research and for existing community members to become more deeply aware of work outside their direct area. The handbook will also serve as

a ready reference for foundational concepts methods and approaches in the field The chapters are written in such a way that each of them can be used in a stand alone fashion while also serving as introductory readings in relevant study courses or in teacher education While some CSCL relevant topics are addressed in the International Handbook of the Learning Sciences and the International Handbook of Collaborative Learning these books do not aim to present an integrated and comprehensive view of CSCL The International Handbook of Computer Supported Collaborative Learning covers all relevant topics in CSCL particularly recent developments in the field such as the rise of computational approaches and learning analytics

Theoretical Investigations Gerry Stahl, 2021-04-23 Computers have transformed how we think discuss and learn as individuals in groups within cultures and globally However social media are problematic fostering flaming culture wars and fake news This volume presents an alternative paradigm for computer support of group thinking collaborative learning and joint knowledge construction This requires expanding concepts of cognition to collectivities like collaborative groups of networked students Theoretical Investigations explores the conditions for group cognition supplying a philosophical foundation for new models of pedagogy and methods to analyze group interaction Twenty five self contained investigations document progress in research on computer supported collaborative learning CSCL both in Stahl s own research and during the first decade of the CSCL journal The volume begins with two new reflections on the vision and theory that result from this research Representing both ethnomethodological and social constructivist research paradigms the investigations within this volume comprise a selection of seminal and influential articles and critical commentaries that contribute to an understanding of concepts and themes central to the CSCL field The book elaborates an innovative theory of group cognition and substantiates the pedagogical potential of CSCL Theoretical Investigations Philosophical Foundations of Group Cognition is essential as a graduate text for courses in educational theory instructional design learning and networked technologies The investigations will also appeal to researchers and practitioners in those areas

The Routledge International Handbook of Research on Dialogic Education Neil Mercer, Rupert Wegerif, Louis Major, 2019-09-26 The Routledge International Handbook of Research on Dialogic Education provides a comprehensive overview of the main ideas and themes that make up the exciting and diverse field of Dialogic Education With contributions from the world s leading researchers it describes underpinning theoretical approaches debates methodologies evidence of impact how Dialogic Education relates to different areas of the curriculum and ways in which work in this field responds to the profound educational challenges of our time The handbook is divided into seven sections covering The theory of Dialogic Education Classroom dialogue Dialogue teachers and professional development Dialogic Education for literacy and language Dialogic Education and digital technology Dialogic Education in science and mathematics Dialogic Education for transformative purposes Expertly written and researched the handbook marks the coming of age of Dialogic Education as an important and distinctive area of applied educational research Featuring chapters from authors working in different educational contexts around the world the handbook is of international

relevance and provides an invaluable resource for researchers and students concerned with the study of educational dialogue and allied areas of socio cultural research It will interest students on PhD programmes in Education Faculties Master s level courses in Education and postgraduate teacher training courses The accounts of results achieved by high impact research projects around the world will also be very valuable for policy makers and practitioners

Essays In Computer-Supported Collaborative Learning Gerry Stahl,2016-01-26 These essays are some of the most important papers co written with my colleagues that supplement the discussion of CSCL research in the published books These chapters take the discussion in specific directions They begin with my general reflections on the importance of CSCL as a research field situating my work on the VMT Project and my theory of group cognition within the field of CSCL They describe the VMT research project including its research approach technology pedagogy and analysis methods Mostly they discuss in some detail the findings that have emerged from the VMT Project about the nature of online interaction in that type of CSCL setting The volume concludes with reports of work in the project and future directions that were underway

Studying Virtual Math Teams (pre-publication Version) Gerry Stahl,2016-01-28 This book presents a coherent research agenda that has been pursued by the author and his research group The book opens with descriptions of the project and its methodology as well as situating this research in the past and present context of the CSCL research field The core research team then presents five concrete analyses of group interactions in different phases of the Virtual Math Teams research project These chapters are followed by several studies by international collaborators discussing the group discourse the software affordances and alternative representations of the interaction all using data from the VMT project The concluding chapters address implications for the theory of group cognition and for the methodology of the learning sciences

Essays in Online Mathematics Interaction Gerry Stahl,2015-10-06 These are case studies of student teams using VMT to work on problems in the mathematical domain of combinatorics The version of VMT used here included a generic whiteboard for sketching graphical representations Data from these sessions was analyzed by a number of researchers in addition to the VMT project members The essays in this volume were co authored with close colleagues

The British National Bibliography Arthur James Wells,2009

SIGGROUP Bulletin ,2001

Constructing Dynamic Triangles Together Gerry Stahl,2016 This study illustrates how groups learn through collaboration mathematical discourse and problem solving in a guided sequence of online topics

Current Index to Journals in Education ,1999

Resources in Education ,1996

Essays in Group-Cognitive Science Gerry Stahl,2015-10 Essays in Group Cognitive Science intros to CSCL research methodology and findings Vol 10 of Gerry Stahl s assembled texts

Essays in Philosophy of Group Cognition Gerry Stahl,2015-10-04 The volume includes essays that address the philosophical issues raised in computer support of collaborative learning and by the concept of group cognition In particular philosophy of group cognition should tackle the following questions What is the nature of group cognition What are the conditions of possibility for the existence of group cognition The essays explore intersubjectivity joint

attention common ground collaborative learning and related concepts through analysis of empirical examples and review of the most important philosophic sources **Adventures in Dynamic Geometry** Gerry Stahl, 2015-10-06 Math games and workbooks with topics for online small groups of teachers or students to collaboratively learn dynamic geometry The approach is based on Translating Euclid The many GeoGebra files used in VMT courses are pictured in the workbook Several versions of the workbooks are available including the version used in WinterFest 2013 and analyzed in Translating Euclid and Constructing Dynamic Triangles Together Also includes the content of a game version that is available as a GeoGebraBook

Essays in Collaborative Dynamic Geometry Gerry Stahl, 2017-02-15 This volume includes analyses of student teams using the VMT environment with multi user GeoGebra These studies are related to the presentations in Translating Euclid and Constructing Dynamic Triangles Together These essays document the most recent stage of the Virtual Math Teams Project

Essays In Personalizable Software Gerry Stahl, 2016-01-26 The idea of personalizable software is fashionable today I explored it in a number of software prototypes a decade or two earlier The perspectives mechanism in Hermes my dissertation software system was an initial major initiative in this direction WebNet was a follow up system to integrate the perspective mechanism into discussion forum collaboration software Subsequent systems explored personalization mechanisms in systems for work and for learning including TCA for teachers developing and sharing curriculum and systems for automated critics in design systems or reviewers of journal articles In each case the mechanisms were intended to support users to view and discuss materials from their personal perspectives and to share those views with others to encourage building group perspectives The volume is organized in terms of essays on a structured hypermedia b personalizable software c software perspectives and d applications to health care education and publishing Science Abstracts , 1995

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