An Annotated Bibliography of Constructivist Education

Books and Book Chapters


This book provides helpful evidence and support for preservice teachers as they begin to develop a constructivist understanding of instruction. Aaronsohn presents a rich case study describing the challenges that face a first year student-centered teacher. This beginning teacher learns how to handle her own uncertainties about her non-traditional practice as she struggles to overcome resistance from other teachers in her new school. Chapters help the reader to see teaching as a process, not a product, and to learn how to deal with institutional realities that may conflict with more student-centered priorities. The book also includes suggestions for how teacher educators can develop an effective mentoring relationship with their preservice teacher-students.


The author’s objective is to enable future teachers to provide young children with the mental tools necessary for learning. They view mental tools as a cycle in which ideas are learned from others, modified and changed, and passed back to others. They offer practical applications and suggestions for applying elements of social constructivist theory in the classroom. The book includes examples and activities that profile the Vygotskian approach at work in various schools in the Denver metropolitan area.


This book, a classic, presents the foundations for creating a Constructivist environment. It discusses the process of constructing knowledge, presents primary concepts, and examines how to seek and clarify students’ points of views. The chapter on how to become a Constructivist Teacher is a MUST for every practitioner, administrator, and researcher wishing to “Jump start” their Constructivist practice. This chapter examines and discusses twelve descriptors of classroom practices which empower students to create their own learning and understanding. These descriptors include such behaviors as accepting and encouraging student autonomy, using raw data and primary sources, allowing student responses to drive lessons, encouraging dialogue, and driving activities which may contradict initial student hypotheses. The final chapter presents and discusses six suggestions for educational institutions which are in the process of changing to or creating a Constructivist environment.

mathematical acculturation, and the classroom community. In M. Larochelle, N. Bednarz & J. Garrison (Eds.), *Constructivism and education* (pp. 63-80). Cambridge, UK: University Press.

This book chapter argues that every classroom is a unique mathematics microculture that significantly affects the mathematical activities and learning of the students. The authors also discuss the theoretical and pragmatic tensions arising from viewing mathematical learning as a process of individual cognitive construction and as a process of social acculturation into conventional mathematical practice. These issues form the background of the authors’ consideration of instructional activities appropriate for inquiry-based mathematics classrooms.


This book compares and contrasts major early childhood education philosophies while detailing a Piagetian approach to educating young children. The book is written in four sections. In the first, the authors begin with an overview of constructivist theory. They describe Piaget’s theory and how it can be translated into educational practice. The next section of the book outlines curriculum and activities derived from constructivist goals, such as physical-knowledge activities and group games. Next, the authors write about the traditional school objectives of arithmetic, reading, and writing from a constructivist perspective. In the final section of the book, the authors evaluate different early education programs, such as the Montessori and Bank Street theories from a constructivist perspective.


This book provides a constructivist rationale for a sociomoral atmosphere in early childhood education that optimally promotes social, moral, and affective development in children. The teacher-child relationship is conceived as one of mutual respect in which the teacher minimizes the exercise of unnecessary authority, and which aims to replace external teacher control of children with moral behavior motivated by internalized principles. In addition to several chapters explaining this approach from a theoretical standpoint, there are a number of chapters discussing the theory’s practical implications in common early childhood classroom activities. The authors include many realistic and useful examples for working in constructivist classrooms.

Julie Rainer Dangel

This text provides constructivist interpretation of developmentally appropriate curriculum. The authors investigate topics such as play-oriented curriculum, physical-knowledge activities (cooking in the classroom, playing with water, shadow activities), and the use of group games for teaching mathematics. The authors contrast constructivist teaching with different approaches throughout the book. They include many realistic and useful examples for working in constructivist classrooms.


This book chapter gives an overview of the primary author’s semester-long, graduate level course called “Language and Learning Across the Curriculum,” starting with a brief comparison of constructivist and behaviorist educational beliefs. Four key principles undergirding the course, an outline of course readings, and a brief description of assessment methods are included. Each of the five secondary authors’ viewpoints as former students in the course are given in their own words, with a summary reflection by the primary author. The unusual subtitle is explained at the end of the chapter.


This book outlines the Vygotskian approach in every aspect of classroom instruction and assessment, including reading, writing and scientific concepts. The author includes discussions about Activity Theory, the Zone of Proximal Development, the benefits of collaborative teaching, and the use of portfolios to mediate literacy instruction and assessment.


This book describes the experiences of thirteen teachers in a one-year, graduate level Experienced Teachers Program (ETP) at the Harvard Graduate School of Education. The ETP is outlined in the introduction; and the remainder of the book is a collection of discussions, essays, and first-person descriptions of experiences of the teacher-students during their year in the program. The book relates the achievements and challenges of a democratic teacher education program from the insiders’ viewpoints.


This text examines different theories of constructivism and strives to close the gap between theory and practice. The book is divided into three sections. Part one includes
literature regarding the theoretical aspects of constructivism. Part two discusses perspectives from the field and part three concludes with information regarding practices in the classroom.


This book provides an introductory overview of social constructionist by outlining major debates, topics, and issues of the philosophy.


In this book Goodman argues for and illustrates the way in which elementary education can serve as a vehicle for critical democracy. The concept of critical democracy is drawn from Dewey’s political ideologies. However, Goodman’s primary source of inspiration emerged from his observations in an independent school that is actively searching for ways to create an elementary education for democracy.


This chapter focuses on three phases of curriculum decision making for an early childhood department at a large urban state university engaged in developing a new master’s degree program based on constructivist theories and principles. Authors identified a) tasks, issues, and decisions for each phase; b) foundations for change; and c) faculty struggles in making a paradigm shift in higher education.


A collection of articles outlining issues in teaching elementary and middle school students, with detailed sections on dialogue, observation, questioning, communication, and misconceptions. Brought to life with examples from classrooms and children, this collection of articles is especially useful with undergraduates or beginning teachers.


This book reflects two emerging, interrelated educational reform trends: 1) the constructivist approach, stressing teaching for meaning making rather than for rote memorization and 2) schools as centers of inquiry, where teachers function as students of their professional work. Responding to these trends, the text is designed to help readers become career-long students of constructivist educational practices.

This book chapter describes the initial three years of the undergraduate Teacher Education for Civic Responsibility (TECR) Program at Ohio State University, which is "framed around the civic mission of teachers in educating their students about the rights and responsibilities of citizenship in a democracy" (p. 90). A table lists six contrasts between TECR and what the author describes as a more traditional teacher education program.

Jensen, E. Teaching with the Brain in Mind. ASCD.

While not directly focusing on Constructivism, this book can certainly be a nice addition to the library of any Constructivist educator. The book examines such topics on basics of understanding the brain, how the environment influences the brain's development, how stressors and emotions affect the brain, and motivation. The chapter on movement and learning is an important one for any Constructivist wishing to integrate content areas with movement and physical education. The final chapter, examining the concepts of memory and recall, has many implications for the Constructivist.


Approaching learning from a constructivist viewpoint, this book addresses how to use very specific types of technology and focuses on how technology can be used as a thinking tool to foster meaningful learning. Each chapter provides various activities and implementation strategies with follow-up questions. Current uses of technology such as video theater, cybermentoring, creating homepages, and hypermedia are discussed throughout the book.


Kamii, C. & Joseph, L. (2003). Young children continue to reinvent arithmetic,
second grade: Implications of Piaget’s theory. NY: Teachers College Press.


This book discusses effective teacher development while emphasizing social justice. The text is organized around six principles that are intended to guide practice in the classroom and direct attention to students who have been underserved by educational institutions. The six principles are as follows: Teaching is inherently moral work; teaching is an act of inquiry and reflection; learning is a developmental, constructivist process; the content of what is taught must be well understood by those who teach and those who learn; teaching is a collegial act; and teaching is political.


This text provides a look at the future of schooling and the role that teachers as leaders must assume by answering the following questions: Why must teachers take primary responsibility for creating a new context for teaching and learning? How do constructivist leaders create meaning out of learning? How do the roles of leadership with adults and leadership with children merge in the role of teacher leader? and What commitments, knowledge, and skills are essential for teachers as leader? The authors answer these questions by combining the ideas of teaching as leading, constructivist leadership, an ecological perspective of systematic change, learning communities, and the professional development of teachers.


This text utilizes a wide range of literature in order to demonstrate the conceptual basis for constructivist theory. The authors also analyze literature on educational leadership, and provide case studies for review and application of knowledge. Chapters focus on issues such as constructing school change, the role of narrative and dialogue in constructivist leadership, and the school district as interdependent learning community. The goal of the text is to redefine leadership and describe strategies that will enable educators to make fundamental changes in schools. The book concludes with a discussion on the preparation of constructivist leaders and insights into the future of schooling.


This international and interdisciplinary collection of chapters discusses the many issues and educational practices that are touched on by constructivism. Drawing on
perspectives from a range of different fields (ethics, mathematics education, philosophy, social psychology, science education, social studies), this book invites us to reposition ourselves in relation to the major currents that have influenced education in this century, namely pragmatism, genetic epistemology, and social interactionism.


This book chapter presents a rationale for the authors' belief that “teachers can fundamentally reorganize the whole of their teaching by adopting a democratic paradigm of assessment” (p. 223). A four-page chart is included that contrasts democratic assessment practice with what the authors describe as traditional assessment methods. An overview of the goals, strategies, and assessment methods of a week-long graduate course in democratic education for experienced teachers is also presented.


Providing guidance in teaching across all subjects of the primary curriculum, this text draws on extensive research in constructivist ideas in children’s learning which shows that effective learning occurs when teachers understand and build on children’s previous views and experience in their teaching programs. The authors provide both specialist subject knowledge and coherent cross-curriculum perspectives.


This book consolidates the theoretical foundations of constructivist education with their practical implications in the classroom. Key issues regarding the shift from a traditional to a constructivist approach are discussed; and guidelines, practical tips, and model checklists are presented to help teachers make the change an enduring one. Firsthand reports of successes and problems in classroom teachers’ attempts to change paradigms are included.


The authors of this book show how teachers who take a social constructivist stance may enhance motivation and meaningful learning. They suggest experiences that deepen understanding of social constructivism and its relevance for multicultural, democratic classrooms. The authors analyze transcripts of in-depth conversations with children in order to better understand children’s individual thought patterns, and they describe strategies for discussing carefully selected children’s and young adult books to help both
teachers and children understand learning through a social constructivist lens. An extensive annotated bibliography is provided.


This is a classic book using findings on student conceptions and use of language to explore issues in learning and teaching. Many examples of classroom teaching are used to develop understanding of the challenges to bringing about deep understanding. It develops a teaching sequence based on a constructivist learning model. Implication for working with teachers are included.


All effective educators must continually reflect and inquire about their teaching. This book blends the Constructivist philosophy with transformative learning and other philosophies to present a comprehensive system of reflective tools for the teacher. The system is structured by the application of four Constructivist metaphors to the platforms of teacher journals, interactive journals action research, conference proceedings, and professional portfolios. The book is not about theory; rather, it presents a system and presents examples of the system. In all of the examples presented, the role of the Constructivist philosophy is evident throughout the book and in all examples.


The book presents a step by step approach for translating the philosophy of Constructivism into classroom practice. It is more than a list of recipes; rather, it looks at the history of Constructivist thought, presents some learning principles, and transforms these learning principles into four concrete teaching principles. There are chapters on different learning modes and Constructivism, and how to connect questioning techniques to the Constructivist philosophy. Topics such as metacognition, note-taking, problem-based learning, manipulatives, are also examined and connected to Constructivism. This book will provide a concrete roadmap for the practitioner wishing to use constructivist philosophy.


This is Part 1 of the 99th Yearbook of the National Society for the Study of Education (NSSE). The NSSE recruited scholars from around the world to contribute their opinions on social and radical constructivism and the relevance of these philosophies to teachers and administrators. The yearbook is divided into five topics with two varying opinions presented about each. The topics covered are as follows: Constructivism as an
epistemology and philosophy of education, Social Constructivism, Constructivism in science and mathematics education, the impact of Constructivism on researchers, and some final opinions on Constructivism.


This text provides information gathered from the ATE Commission on Constructivist Teacher Education project in which constructivist theory was explored from teacher educators’ perspectives. The book defines constructivist teacher education as the interaction of seven dimensions and offers suggestions of principles and practices to guide teacher educators as they translate constructivist theory into practice. The seven dimensions used to define constructivist teacher education and to organize the text are learning and development, authority and facilitation, action and reflection, autonomy and community, process and content, power and empowerment, and critical thinking and multiple perspectives.


In this chapter Richardson reviews different forms of constructivism with teacher educators in mind. She discusses issues of power, authority, and the role of formal knowledge. Richardson notes that some teacher educators are using a direct approach to teach about constructivism and others are modeling the constructivist approach to involve their students in examining of teaching and model alternatives.


This booklet written for teachers provides an insightful look at the justification for a constructivist view of learning. It then outlines the key parts of this view and gives general implications and examples, including a generalized model for a constructivist teaching sequence.


This book serves as a guide for new and student teachers attempting a constructivist approach in teaching. The author outlines the general principles of constructivist learning and teaching and includes chapters discussing examples for how the methods can be applied to individual subjects: science, history, language, and mathematics. Additional
chapters discuss issues such as motivation and working within a national curriculum. The author gives tips on dealing with system-wide curriculum expectations and common objections to constructivist teaching.


This book presents a major reconsideration of constructivist theory through an applied examination of the ways in which people create meaning for texts. The author describes major historical constructivist positions throughout the twentieth century and uses them as an essential starting point for her presentation of current approaches to the generative, organizational, and selective nature of human communication. The work illustrates an integrative conception of discourse, placing cognitive activity in relation to the text while assuming a social orientation encompassing both composition and comprehension.


This text serves to express the ideas presented at the Alternative Epistemologies in Education Conference, February 1992. This book contains manuscripts from leading constructivist thinkers about how epistemological theory impacts educational theory and practice. Major sections discuss 1) Radical constructivism and social constructivism, 2) Information-processing constructivism and cybernetic systems, 3) Social Constructivism and sociocultural approaches, 4) Analysis and synthesis of alternative epistemologies in language, math, and science.


A thorough review of issues in constructivism, focusing on the nature of constructivism, its relationship to teaching and learning of science and mathematics, and constructivist perspectives on teacher education. Very in depth and complex in its coverage, it is recommended for graduate students and college faculty.


This article builds an argument for an emancipatory approach to knowledge construction in teaching and teacher education programs. Emancipatory and sociocultural constructivist believe that knowledge is first created on the social plane through interactions with others and then is moved by individuals to the psychological plane. Students are encouraged to explore and act on their discoveries. Emancipatory knowledge construction is a commitment to social change, justice, and responsibility.

This informative theory-to-practice textbook clearly demonstrates how Piaget’s constructivist theory translates into solid instructional principles to be used in preschools through primary classrooms today. Chapters are included about the following topics: understanding constructivism, children’s social understandings, and guiding children’s moral development. Additional chapters about constructivist implications for teaching the subject areas of reading and writing, mathematics, science, and art are also presented.


This book discusses the author’s concept of teacher communities and what factors encourage or impede their growth in schools. Case studies of the efforts of faculty and staff at two diverse middle schools to create and sustain teacher communities are presented and compared. Lessons learned from these case studies are explored, along with their implications for administrators, researchers, and other stakeholders in education.


The intent of this text is to introduce students of education and psychology to Vygotskian theories of teaching, learning, and development by using his written documents. The book begins with an overview of Vygotsky’s background and moves on to outline the significance of studying Vygotsky and his theories. The authors then examine three concepts: thoughts and language by looking at the Vygotskian Venn Diagram, the concept of sociocultural teaching and learning, and the Zone of Proximal Development. The next section of the book evaluates theory through intersubjectivity, intertextuality, intercontextuality, and consequential progressions. The authors conclude by defining several of the terms used throughout the text and a discussion of mentoring - meaning experienced thinkers sharing knowledge with novice thinkers.

Journals and Journal Articles


This article describes the Committee for Alternative Programs in Teaching and Learning
(CAPITAL) Program, formed in 1988 at the Center for the Collaborative Advancement of the Teaching Profession at the University of Louisville for non-traditional students earning a K-4 Master of Arts in Teaching. This program is a joint effort by the university’s Early and Middle Childhood Education Department and the Jefferson County (Kentucky) Public Schools. In addition to discussing the CAPITAL Program’s features and goals, the article presents a 15-question Developing Teacher Interview the authors used in their research of preservice teachers’ changes in attitudes about teaching and learning.


In a review of the literature, DeVries concludes that there are better child outcomes in constructivist classrooms as compared to non-constructivist classrooms. She also discusses implications for schools.


Reference in M. O’Loughlin in engaging teachers in emancipatory knowledge construction,” to the idea that all students possess multiple frames of reference with which to construct knowledge by virtue of their ethnic background, etc.


An in-depth understanding of developmental theory and research, in the tradition of Piaget, is used as core knowledge for helping preservice and inservice elementary teachers restructure their conceptions of teaching and learning. The 2-year Developmental Teacher Education (DTE) program is summarized and linkages between developmental conceptions of learning and educational practices that Piagetian theory was not originally developed to encompass are proposed.


This article argues that the main constructivist writers can be located along each of three different dimensions, which also serve to highlight the relationships and differences among them. The author calls the first two dimensions “individual psychology versus public discipline” (whether the theorist is more concerned with how knowledge
originates within the individual or built up within society as a whole) and "humans the creators versus nature the instructor" (whether knowledge is created within the learner or if it comes from somewhere external to the learner). The third dimension is not named, but is described as whether or not the constructive activity is discussed in terms of individual cognition alone or in terms of social and political processes.


This is an original study that established the role of students’ prior ideas on learning and postulated a theory of conceptual change instruction. A general model of conceptual change which is largely derived from current philosophy of science. Pedagogical implications are presented.


This article proposes that cognition is situated and social and follows with a discussion of where teachers’ learning experiences should take place.


In this article, the author describes a programmatic reform based on constructivist theories, identifies how the reform changed faculty practice, and articulates faculty members’ reflections on personal and professional change.


In this research study, the authors describe practices in a constructivist graduate program in teacher education, document changes in teachers and their practice, and analyze connections between program practices and teacher change. The authors also develop a model for constructivist teacher education with linkages between community, democratic practices and teacher change.


Project Construct, and early childhood reform initiative designed to translate Piagetian
theory into educational practice, represents an expansive effort to develop and support constructivist early childhood teachers. This paper describes the Project Construct framework, its accomplishments and challenges, and continuing issues and questions.


Data from a whole class constructivist teaching experiment is presented. From this data, a model of teacher decision making for mathematical tasks is developed.


Taking on the critics of constructivism as a theory of knowledge, Starver presents a detailed explanation of the epistemological grounds for constructivism, five long-standing epistemological issues that challenge constructivism, and responses to critics’ objections. A complex yet satisfying read for college faculty and graduate students.


Von Glaserfeld’s seminal article defining the radical constructivist theory of knowledge with applications to education. A concise and influential analysis of our understandings of knowing, learning, and teaching, appropriate for college faculty and advanced graduate students.


A review of theories behind constructivist approaches to science, including microconceptions research, interspersed with the story of a third grade classroom. Explains the difference between children’s sensible reasoning and Piagetian conceptions of concrete reasoning. Suggestions are provided for teachers. Enjoyable read.

**Thematic Journal Issues on Constructivism**


This thematic journal issue includes the following nine articles on constructivism in teacher education: 1) Vygotsky and Schooling: Creating a Social Context for Learning [Hausfather, S. J., pp. 1-10]; 2) Learning about Learning: An Interactive Model [Burk, D. I. & Dunn, M., pp. 11-18]; 3) Implications of a Model for Conceptualizing Change in


The following articles are presented in this issue: *The Many Faces of Constructivism* by David Perkins; *The Understanding Pathway: A Conversation with Howard Gardner* by Marge Scherer; The Courage to Be Constructivist by Martin G. Brooks and Jacqueline Gremmenn Brooks; Getting the Discussion Started by Margaret G. McKeown and Isabel L. Beck; Problem Solved: How to Coach Cognition by Karoline Krynock and Louise Robb; Strategies for Mathematics: Teaching in Context by Michael Crawford and Mary Witte; What Is a Standards-Based Mathematics Curriculum? By Lynn T. Goldsmith and June Mark; Art Lessons: Learning to Interpret by B. Stephen Carpenter II; When Students Create Curriculum by Marsha Grace; Does the Universe Have a Job? By Catherine Bennett, Jacqueline Gremmenn Brooks, and Nancy Morvillo; Helping Students Ask the Right Questions by Cynthia Richetti and James Sheerin; *In New Zealand A City Site Classroom* by Perry Rush; Constructing Knowledge, Reconstructing Schooling by John Abbott and Terence Ryan; To See the World in a Grain of Sand by Steven Levy; Architects of the Intellect by Robin Fogarty.