Threshold Concepts And Troublesome Knowledge

Decoding the Disciplines is a widely-used and proven methodology that prompts teachers to identify the bottlenecks – the places where students get stuck – that impede learners' paths to exper process is based on recognizing the gap between novice learning and expert thinking, and uncovering tacit knowledge that may not be made manifest in teaching. Through "decoding", implicit exp into explicit mental tasks, and made available to students. This book presents a seven-step process for uncovering bottlenecks and determining the most effective way to enable students to sur to apply the seven steps of Decoding the Disciplines – how to identify bottlenecks, unpack the critical thinking of experts, teach students how to do this kind of thinking, and how to evaluate th learned to do it. They provide in-depth descriptions of each step and, at the end of each chapter, at least one exercise the reader can do on his or her own. Because the decoding process works exercises for leading groups through the process, making available to informal groups as well as groups led by professional developers, the tools to transform their understanding of teaching and view that they refer to as "the bottleneck perspective". Because it focuses on the mental moves that underlie the cognitive competencies we want students to develop, spelling out what critical methodology helps teachers to get beyond focus on content delivery and transmission and provides criteria to select from the bewildering array of teaching tools the methods most appropriate book for faculty who want their students to develop disciplinary forms of reasoning, and are moreover interested in a methodology with the potential to transform and reinvigorate their teaching in communities of practice, and should be indispensable for any one engaged in cross-disciplinary teaching, as it enables co-teachers to surface each other's tacit knowledge and disciplinary assu Essys on new ways to teach and learn high school and college science.

Over the last decades several researchers discovered that children, pupils and even young adults develop their own understanding of "how nature really works". These pre-concepts concerning co of mass are brought into lectures and teachers have to diagnose and to reflect on them for better instruction. In addition, there are 'school-made misconceptions' concerning equilibrium, acid-ba originate from inappropriate curriculum and instruction materials. The primary goal of this monograph is to help teachers at universities, colleges and schools to diagnose and 'cure' the pre-conce made misconceptions it will help to prevent them from the very beginning through reflective teaching. The volume includes detailed descriptions of class-room experiments and structural models misconceptions.

Art and Design Pedagogy in Higher Education provides a contemporary volume that offers a scholarly perspective on tertiary level art and design education. Providing a theoretical lens to examine suggest a student-centred model of curriculum that supports the development of creativity. The text offers readers analytical frameworks with which to challenge assumptions about the art an education. In this volume, Orr and Shreeve critically interrogate the landscape of art and design higher education, offering illuminating viewpoints on pedagogy and assessment. New scholarship is curriculum: the nature and purpose of the creative curriculum and the concept of a 'sticky curriculum' that is actively shaped by lecturers, technicians and students; ambiguity, which the authors creative education; value, asking what and whose ideas, practices and approaches are given value and create value within the curriculum. These insights from the perspective of a creative univers ways of viewing other disciplines, and provide a response to a growing educational interest in cross-curricular creativity. This book offers a coherent theory of art and design teaching and learnin those working in and studying higher education practice and policy, as well as academics and researchers interested in creative education.

This is the second volume in this series dedicated to Theory and Method in Higher Education Research. Publishing contemporary contributions to international debates regarding the application and development of theory and methodology in researching higher education, this volume aims to offer a channel for discussion, critique and innovation.

It has long been a matter of concern to teachers in higher education why certain students 'get stuck' at particular points in the curriculum whilst others grasp concepts with comparative ease. What accounts for this variation in student performance and, more importantly, how can teachers change their teaching and courses to help students overcome such barriers? This book examines the difficulties of student learning and offers advice on how to overcome them through course design, assessment practice and teaching methods. It also provides innovative case material from a wide range of institutions and disciplines, including the social sciences, the humanities, the sciences and economics.

"The 'academy' is not restricted to the architectural limits of the university, but a broader conception of education that, through its social dissemination, ought to be continually shaped in relation to academic practice, thinking and living. Educational institutions are not solely modern providers of a pertinent workforce but foremost communities of thought with cultural, political and social importance. On the Facilitation of the Academy is thus concerned with educational issues that cohere, but also quarrels with, the university institution today as the highest institutionalised place for learning. The contributors in this volume consider practices of learning, teaching and knowledge acquisition in academic environments. It challenges educational issues in relation to conversation, discourse and tradition as well as

contains contributions on threshold concepts, knowledge production and dangerous thinking. Belonging to a variety of academic orientations – philosophy, educational theory, psychoanalysis, communication studies – the authors in this volume offer different takes, but share similar features and aspects, on the worries that should occupy academe today."

This is a compelling exploration of the transformative power of art education through the personal journeys of several students. The book provides a complex theoretical explanation and insight that inspires personal reflection upon art pedagogy.

Improving Learning

On the Facilitation of the Academy

Linkages to Ways of Thinking and Practising Within the Disciplines

Disciplinary Applications of Information Literacy Threshold Concepts

Threshold Concepts and Transformational Learning

Educational Development

Understanding Writing Transfer

University Teaching in Focus provides a foundational springboard for early career academics preparing to teach in universities. Focusing on four critical areas - teaching, curriculum, students, and quality/leadership - this succinct resource offers university teachers a straightforward approach to facilitating effective student learning. The book empowers university teachers and contributes to their career success by developing teaching skills, strategies, and knowledge, as well as linking theory to practice. Written in a clear and accessible style by internationally acclaimed experts, topics include: learning theories, assessment, discipline-based teaching, curriculum design, problem-based and work-integrated learning, effective classroom teaching, and flexible modes of delivery. The needs of diverse student groups are explored and the scholarship of teaching and learning is addressed within a quality and leadership framework. The book also makes reference to seminal works and current resources. Real-world cases illuminate the theoretical content and 'Your Thoughts' sections encourage reflection and adaptation to local contexts. University Teaching in Focus explores ways that teachers can effectively engage students in life-long learning, extending their capacity to solve problems, to enter the workforce, to understand their discipline, and to interact positively with others in a global community throughout their professional lives.

Addressing how composers transfer both knowledge about and practices of writing, Writing across Contexts explores the grounding theory behind a specific composition curriculum called Teaching for Transfer (TFT) and analyzes the efficacy of the approach. Finding that TFT courses aid students in transfer in ways that other kinds of composition courses do not, the authors demonstrate that the content of this curriculum, including its reflective practice, provides a unique set of resources for students to call on and repurpose for new writing tasks. The authors provide a brief historical review, give attention to current curricular efforts designed to promote such transfer, and develop new insights into the role of prior knowledge in students' ability to transfer writing knowledge and practice, presenting three models of how students respond to and use new knowledge—assemblage, remix, and critical incident. A timely and significant contribution to the field, Writing across Contexts will be of interest to graduate students, composition scholars, WAC and writing-in-the-disciplines scholars, and writing program administrators.

· What do educational developers see as the main issues to be tackled within their work? · How does the educational context and culture in which they work affect the practice of educational developers? · How do educational developers perceive change occurring within higher education organisations? In higher education institutions worldwide, issues relating to quality in teaching and learning have gained prominence over the last two decades as student numbers, and the need to be publicly accountable, have increased. During this time a sizeable community of educational developers has emerged whose work and research focuses on the enhancement of the student experience in higher education. A significant issue for these developers is how change can be effected in organisations with well-established academic cultures and practices, beset by many other priorities and pressures. This first book-length analysis of developers as a community of practice illustrates in their own words the issues they face, their differing orientations to development (given their differing organisational cultures), and how they see their institutional role. What emerges is the contested notion of 'development' itself, and a tribe of developers who, though fragmented, offer a rich variation in their discourse, identity and practice. Drawing upon developers' own voices, the book offers a lively and accessible narrative approach to this rapidly evolving area. It is a useful guide to help individual developers compare their own practice with that of others, and development teams to map the effectiveness of their own centre's provision. Educational Developmentis essential reading for educational developers, teaching and learning co-ordinators and teaching fellows, as well as senior managers with remits for academic development, and directors of quality assurance. It is also of interest to those in higher education who are concerned with bringing about organisational or cultural change.

This collection provides a research-based guide to instructional practices for writing in the health professions, promoting faculty development and bringing together perspectives from writing studies, technical communication, and health humanities. With employment in health-care sectors booming, writing instruction tailored for the health professions is in high demand. Writing instruction is critical in the health professions because health professionals, current and aspiring, need to communicate persuasively with patients, peers, mentors, and others. Writing instruction can also help cultivate professional identity, reflective practice, empathy, critical thinking, confidence, and organization, as well as research skills. This collection prepares faculty and administrators to meet this demand. It combines conceptual development of writing for the health professions as an emergent interdiscipline with

evidence-based practices for instructors in academic, clinical, and community settings. Teaching Writing in the Health Professions is an essential resource for instructors, scholars, and program administrators in health disciplines, professional and technical communication, health humanities, and interdisciplinary writing studies. It informs the teaching of writing in programs in medicine, nursing, pharmacy and allied health, public health, and other related professions.

Implications for Transformative Student Learning in Higher Education

Addressing Perceptions in Chemical Education

Art and Design Pedagogy in Higher Education

Theory of Didactical Situations in Mathematics

Perspectives, Problems, and Practices

The Confident Teacher

Diversity and Inclusivity

This book provides information literacy practitioners with a thorough exploration of how threshold concepts can be applied to information literacy, identifying the important elements and connections between each concept and relating theory to practical methods that can transform how librarians teach. • Provides an essential, foundational text on the theory behind the new ACRL Framework for Information Literacy • Supplies librarians with the context to frame the work they do with information literacy in the same manner as faculty • Demonstrates how librarians sharing pedagogical approaches with faculty enable more cooperative projects, better faculty-librarian communication, and truly integrated librarian instruction

"This book is written for a diverse audience of educators from many disciplines, curriculum designers, researchers, and administrators. While this book establishes both a new approach to learning design and an associated research agenda, it is also intended to be practical." "In this book you will find many examples of how people experience information use as they go about learning in different contexts.' --From the preface.

This book is unique. It gathers texts which give the best presentation of the principles and key concepts of the Theory of Didactical Situations that Guy Brousseau developed in the period from 1970 to 1990. These texts provide a comprehensive presentation of the Theory. In order to facilitate the reading of certain points footnotes have been added, as well as preludes and interludes to place in context the chosen texts and clarify the construction of the book.

Threshold Concepts within the Disciplines brings together leading writers from various disciplines and national contexts in an important and readable volume for all those concerned with teaching and learning in higher education.

Decode the Critical Thinking of Your Discipline

Exploring More Signature Pedagogies

University Teaching in Focus

Learning to Think

Discourse, Identity and Practice

New Perspectives

Learning Thresholds in Writing, Composition, Rhetoric, and Literacy

The 6th Annual Conference of the National Academy for the Integration of Research, Teaching and Learning (NAIRTL) and the 4th Biennial Threshold Concepts Conference was held at Trinity College Dublin, Ireland, on June 27-29, 2012. The NAIRTL is a collaborative initiative between University College Cork, Cork Institute of Technology, National University of Ireland Galway, Trinity College Dublin, and Waterford Institute of Technology. It is supported by the Higher Education Authority under the Strategic Innovation Fund. The proceedings from the 2012 NAIRTL conference bring together "key insights" on the topic of Threshold Concepts. This publication includes a selection of papers from the conference. The papers provide insights into how to apply the Threshold Concepts idea to gain a deeper understanding of how students learn, and also how to gain new ways of looking at disciplines that involve education. Following a foreword by Bettie Higgs, the proceedings are divided into seven parts. Part I, Keynote Speakers, contains the following papers: (1) A Closer Look at Liminality: Incorrigibles and Threshold Capital (Ray Land, Julie Rattray, and Peter Vivian); (2) Threshold Concepts: Navigating the Route (Bettie Higgs); (3) Threshold Concepts as an Analytical Tool for Researching Higher Education Pedagogy (Glynis Cousin); and (4) From This Curriculum to That Which Is to Come: Threshold Concepts, Complexity and Change (Patrick Carmichael). Part II, Engaging Students with Threshold Concepts, contains the following papers: (5) Creativity as Threshold--Learning and Teaching in a Liminal Space (Belinda Allen); (6) "Doing" History: What May Liminal Space and Transition Time Expose During the Process (James Cronin); (7) Novel Threshold Concepts in the Mathematical Sciences (David Easdown and Leigh Wood); (8) Engineering Problem Solving: Uncovering a Threshold Experience and Triggering a Meta-Learning Response (Brian Foley); (9) The Hero's Journey: Uncovering Threshold Barriers, Dispositions and Practices among Occupational Therapy Students (Tracy Fortune, Priscilla Ennals, and Mary Kennedy-Jones); (10) Students' Perceptions of Travel Through the Liminal Space: Lessons for Teaching (Ann Harlow, Mira Peter, Jonathan Scott, and Bronwen Cowie); (11) The Role of Design Projects in Assisting Engineering Students from Liminality to Understanding (Donal Holland, Garet J. Bennett, and Conor Walsh); (12) Now I Know Why I Have Been Knocking My Head against a Brick Wall: Doctoral Candidates and Stuck Places (Margaret Kiley); (13) Towards a

Role-Reversal Model of Threshold Concept Pedagogy (Marina Orsini-Jones); and (14) Using a Mixed Methods Approach to Explore Student Understanding of Hypotheses in Biology (Charlotte Taylor, Vicky Tzioumis, J. H. F. Meyer, Pauline Ross). Part III, Interdisciplinary Threshold Concepts, contains the following papers: (15) Interdisciplinarity and Information Literacy Instruction: A Threshold Concepts Approach (Korey Brunetti, Amy Hofer, and Lori Townsend); (16) "How Do You Know?" The Threshold Concept, Multi-Disciplinary Approaches and the Age of Uncertainty (Brendan Hall); and (17) Seeing Deeply in Space and through Time: Interdisciplinarity Meets Threshold Concepts in Earth and Environmental Science (Anne Marie Ryan). Part IV, New Developments in Threshold Concepts, contains the following papers: (18) The "Science Education for New Civic Engagements and Responsibilities", A US National Initiative Linking Sciences, Public Issues and Threshold Concepts (Monica Devanas); (19) Towards a TCT-Inspired Electronics Concept Inventory (Jonathan Scott, Ann Harlow, and Mira Peter); (20) Threshold Concepts and Decoding the Humanities: A Case Study of a Threshold Concept in Art History (Brad Wuetherick, and Elizabeth Loeffler); and (21) Student Understanding of the Critical Features of an Hypothesis: Variation across Epistemic and Heuristic Dimensions (Kirsten Zimbardi, J. H. F. Meyer, P. Chunduri, L. J. Lluka, C. E. Taylor, P. M. Ross, and V. Tziournis). Part V, Threshold Concepts in Professional Development, contains the following papers: (22) Threshold Concepts and Practices in Teacher Education: Professional, Educator and Student Perspectives (Ann Devitt, Marita Kerin, and Helen O'Sullivan); (23) A Comparative Academic/Industrial Professional Development Study of Threshold Concepts in Project Management (Mick Flanagan, Gerhard Ackermann, Matthias Zimmermann, Leif Martin Hokstad, Bjorn Andersen, and Manuel Fradinho); (24) Shifting Identity in Teacher Development (Colleen P. Gilrane); (25) Up Close and Personal: Engaging Learners with Service User Knowledge (Gloria Kirwan); (26) There's a Right Answer but Only Some Students Can Get It: Threshold Concepts in the Professional Development of Physics Laboratory Demonstrators (Ruth Mills and Anna Wilson); (27) A Broader Threshold: Including Skills as Well as Concepts in Computing Education (Lynda Thomas, Jonas Boustedt, Anna Eckerdal, Robert McCartney, Jan Erik Mostrom, Kate Sanders, and Carol Zander); and (28) Voice, Vision and Articulation: Conceptual Threshold Crossing in Academic Writing (Gina Wisker). Part VI contains posters. Part VII, E-Publication Papers, contains summaries with links to the following papers: (29) Troublesome Thresholds and Limiting Liminality: Issues in Teaching in Vocational Education (James Atherton, Peter Hadfield, and Peter Wolstencroft); (30) Addressing Diversity as Asset: Using Social Justice Vignettes for Transformational Change in Teacher Preparation (Joan Barnatt and Mary Knight-McKenna); (31) "Threshold Concept Literacy": Helping Learners Develop Writing Skills and Acquire Threshold Concept Understanding Through Examining Associated Transformations in Discourse (Graham Barton); (32) Embedding Threshold Concepts into Hierarchical Concept Structures (Michael A. Bedek and Albert Dietrich); (33) Serious Play: Threshold Concepts, Information Engagement and Game Design (Margaret Blackmore and Pam Freeland); (34) Designing Tasks to Aid Understanding of Functions (Sinead Breen and Ann O'Shea); (35) Interdisciplinary Threshold Concepts: An Ontological and Epistemological Analysis (Monica R. Cowart); (36) Locked Doors: Threshold Concepts as Guardians (Jason Davies); (37) What Concepts Underpin Skills Training in Community Services in Vocational Education and Training (Rhonda Fuzzard and Margaret Kiley); (38) "Playing" So Hard We Fall Out of Our Heads: Threshold Concepts and Troublesome Knowledge in Experiences of Experiential Knowledge Acquisition in Higher Education Actor Training (Sam Grogan); (39) Integrating Threshold Concepts Pedagogy into a Market-Value Education System to Reduce the "Plagiarism Epidemic" (Corrine Hersey); (40) Embedding Threshold Concepts in a Student Learning Community (Jody Horn); (41) Using Language to Transform Judgemental Attitudes (Charity Johansson); (42) Don't Fear the Engineer: Social Science Students Exploring a Liminal Space with Engineering Students (Jens Kabo and Caroline Baillie); (43) The Experience of Interdisciplinarity in Doctoral Research: Threshold Journey (Jeffrey Keefer and Gale Parchoma); (44) Crossing a Threshold Concept in Biology: Variation in Student Learning (Eileen Kennedy); (45) Threshold Concepts in Liberal Education (Bruce MacKay); (46) The Integrative Nature of Threshold Concepts in Financial Accounting--An Exploration of the Interdisciplinarity of One Threshold Concept (Sonia Magdziarz, Paul Myers, and Sheila Bellamy); (47) Threshold Theory, Action Research, and Teacher Learning: An Exploration (Sarah Noonan); (48) I Hate Maths and Maths Hate Me! Analysing the Development of Threshold Concepts and Attitudes in Preservice Mathematics Teacher Education (Maria Northcote); (49) Academic Numeracy: Challenging Thinking Dispositions to Enable Students to Enter and Cross the Liminal Space (Rebecca LeBard, Rachel Thompson, and Rosanne Quinnell); (50) Creating Optimal Distance Education Environments for the Emergence of Threshold Concepts (Kristi Archulta-Frush and Candy Sebert); and (51) Helping Students to "Think Historically" by Engaging with Threshold Concepts (Paul Sendziuk). Individual papers contain references.

Over the last decade the notion of 'threshold concepts' has proved influential around the world as a powerful means of exploring and discussing the key points of transformation that students experience in their higher education courses and the 'troublesome knowledge' that these often present.

The use of online learning environments is now widespread, and there is a wealth of literature providing practical advice on how to teach online, develop courses and ensure effective pedagogical practice. What has been frequently overlooked is the insight offered by cyberspace theory, which considers broader social, cultural and theoretical contexts within which new technologies and learning models are situated. This book provides a fresh perspective on current thinking in e-learning. It challenges orthodox assumptions about the role of technology in the teaching and learning of the future, and explores more varied and wider-reaching conceptual frameworks for learning in cyberspace. Featuring the contributions of respected and experienced experts with a wide range of perspectives, Education in Cyberspace will be valued by anyone closely involved in the theory of e-learning and education.

"Threshold Concepts in Practice brings together fifty researchers from sixteen countries and a wide variety of disciplines to analyse their teaching practice, and the learning

experiences of their students, through the lens of the Threshold Concepts Framework. In any discipline, there are certain concepts – the 'jewels in the curriculum' – whose acquisition is akin to passing through a portal. Learners enter new conceptual (and often affective) territory. Previously inaccessible ways of thinking or practising come into view, without which they cannot progress, and which offer a transformed internal view of subject landscape, or even world view. These conceptual gateways are integrative, exposing the previously hidden interrelatedness of ideas, and are irreversible. However they frequently present troublesome knowledge and are often points at which students become stuck. Difficulty in understanding may leave the learner in a 'liminal' state of transition, a 'betwixt and between' space of knowing and not knowing, where understanding can approximate to a form of mimicry. Learners navigating such spaces report a sense of uncertainty, ambiguity, paradox, anxiety, even chaos. The liminal space may equally be one of awe and wonderment. Thresholds research identifies these spaces as key transformational points, crucial to the learner's development but where they can oscillate and remain for considerable periods. These spaces require not only conceptual but ontological and discursive shifts. This volume, the fourth in a tetralogy on Threshold Concepts, discusses student experiences, and the curriculum interventions of their teachers, in a range of disciplines and professional practices including medicine, law, engineering, architecture and military education. Cover image: Detail from 'Eve offering the apple to Adam in the Garden of Eden and the serpent' c.1520–25. Lucas Cranach the Elder (1472–1553). Bridgeman Images. All rights reserved.

Knowledge, Values and Ambiguity in the Creative Curriculum
Threshold Concepts in Problem-based Learning
Advancing Surgical Education
Didactique des Mathématiques, 1970–1990
Threshold Concepts and Troublesome Knowledge
Reading for Understanding
Misconceptions in Chemistry

Naming What We Know: Threshold Concepts of Writing Studies, published in 2015, contributed to a discussion about the relevance of identifying key concepts and ideas of writing studies. (Re)Considering What We Know continues that conversation while simultaneously raising questions about the ideas around threshold concepts. Contributions introduce new concepts, investigate threshold concepts as a framework, and explore their use within and beyond writing. Part 1 raises questions about the ideologies of consensus that are associated with naming threshold concepts of a discipline. Contributions challenge the idea of consensus and seek to expand both the threshold concepts framework and the concepts themselves. Part 2 focuses on threshold concepts in action and practice, demonstrating the innovative ways threshold concepts and a threshold concepts framework have been used in writing courses and programs. Part 3 shows how a threshold concepts framework can help us engage in conversations beyond writing studies. (Re)Considering What We Know raises new questions and offers new ideas that can help to advance the discussion and use of threshold concepts in the field of writing studies. It will be of great interest to scholars and graduate students in writing studies, especially those who have previously engaged with Naming What We Know. Contributors: Marianne Ahokas, Jonathan Alexander, Chris M. Anson, Ian G. Anson, Sarah Ben-Zvi, Jami Blaauw-Hara, Mark Blaauw-Hara, Maggie Black, Dominic Borowiak, Chris Castillo, Chen Chen, Sandra Descourtis, Norbert Elliot, Heidi Estrem, Alison Farrell, Matthew Fogarty, Joanne Baird Giordano, James Hammond, Holly Hassel, Lauren Heap, Jennifer Heinert, Doug Hesse, Jonathan Isaac, Katie Kalish, Páraic Kerrigan, Ann Meejung Kim, Kassia Krzus-Shaw, Saul Lopez, Jennifer Helane Maher, Aishah Mahmood, Aimee Mapes, Kerry Marsden, Susan Miller-Cochran, Deborah Mutnick, Rebecca Nowacek, Sarah O'Brien, Ọlá Ọládipọ̀, Peggy O'Neill, Cassandra Phillips, Mya Poe, Patricia Ratanapraphart, Jacqueline Rhodes, Samitha Senanayake, Susan E. Shadle, Dawn Shepherd, Katherine Stein, Patrick Sullivan, Brenna Swift, Carrie Strand Tebeau, Matt Thul, Nikhil Tiwari, Lisa Tremain, Lisa Velarde, Kate Vieira, Gordon Blaine West, Anne-Marie Womack, Kathleen Blake Yancey, Xiaopei Yang, Madylan Yarc
Overcoming Barriers to Student UnderstandingThreshold Concepts and Troublesome KnowledgeRoutledge
Naming What We Know examines the core principles of knowledge in the discipline of writing studies using the lens of "threshold concepts"—concepts that are critical for epistemological participation in a discipline. The first part of the book defines and describes thirty-seven threshold concepts of the discipline in entries written by some of the field's most active researchers and teachers, all of whom participated in a collaborative wiki discussion guided by the editors. These entries are clear and accessible, written for an audience of writing scholars, students, and colleagues in other disciplines and policy makers outside the academy. Contributors describe the conceptual background of the field and the principles that run throughout practice, whether in research, teaching, assessment, or public work around writing. Chapters in the second part of the book describe the benefits and challenges of using threshold concepts in specific sites—first-year writing programs, WAC/WID programs, writing centers, writing majors—and for professional development to present this framework in action. Naming What We Know opens a dialogue about the concepts that writing scholars and teachers agree are critical and about why those concepts should and do matter to people outside the field.
Threshold concepts and problem-based learning / Maggi Savin-Baden and Gemma Tombs -- The liminal tunnel / Angelica Fredholm and Charlotte Silen -- Critical thinking threshold concepts in PBL / Wdai-Ling Chen and Julie Rattray -- PBL as learning vehicle, threshold concept or capability? : audio-diary research in medical

education / Hilary Neve, Kerry Gilbert and Helen Lloyd -- Defined and enacted threshold concepts in engineering education : applied competencies within multi-level systems / Andrea Gomoll, Krista Glazewski, Cindy E. Hmelo-Silver, Thomas Brush and Jiyoon Jung -- Threshold concepts in chemical engineering design / Ashleigh Fletcher and Stuart Boon -- Helping university teachers embrace threshold concepts in scholarly teaching using a problem-based learning approach / Sarah L. Bunnell and Daniel J. Bernstein -- PBL revisited : expectations and experiences : a threshold concept perspective on the facilitator role in PBL / Leif M. Hokstad and Borge Lillebo -- Empathy and problem-based learning / Jayne Lewis -- Threshold concepts in leadership development / Ruth Pearce -- Troublesome and transformative : exploring conceptual threshold crossings in doctoral projects engaged with real world problems in professional practice / Gina Wisker -- Conclusion / Maggi Savin-Baden and Gemma Tombs

The Anthropocene as a Threshold Concept

Teaching for Quality Learning at University

Clinical Education for the Health Professions

Developing successful habits of mind, body and pedagogy

Education in Cyberspace

Informed Learning

Theory and Method in Higher Education Research II

This book is designed for anyone involved in surgical education. While it is intended as a core reference for surgeons who want to develop their surgical education knowledge and practice, it also a valuable resource for anyone undertaking a higher degree in health professions education. Divided into five parts, it starts with chapters on foundational knowledge, exploring the past before documenting the current state of surgical education and highlighting various educational leadership and governance topics. The second part examines a range of theories that inform surgical education – cognitive, behavioural and social, while the third part offers practical guidance on elements of surgical education – curriculum design, selection, feedback, assessment, evaluation, simulation and managing trainee underperformance. It also includes chapters on supporting the development of psychomotor skills, operative skills in theatre, professionalism, teamwork and patient safety. The next part shifts the focus to research in surgical education, introducing readers to all phases of conducting education research based on qualitative, quantitative and mixed methods paradigms. The final part looks to the future of surgical education and of surgical educators. Assembling these topics in one volume makes this book invaluable to anyone involved in surgical education.

This book is aimed at engineering academics worldwide, who are attempting to bring social justice into their work and practice, or who would like to but don't know where to start. This is the first book dedicated specifically to University professionals on Engineering and Social Justice, an emerging and exciting area of research and practice. An international team of multidisciplinary authors share their insights and invite and inspire us to reformulate the way we work. Each chapter is based on research and yet presents the outcomes of scholarly studies in a user oriented style. We look at all three areas of an engineering academic's professional role: research, teaching and community engagement. Some of our team have created classes which help students think through their role as engineering practitioners in society. Others are focusing their research on outcomes that are socially just and for client groups who are marginalized and powerless. Yet others are consciously engaging local community groups and exploring ways in which the University might 'serve' communities at home and globally from a post-development perspective. We are additionally concerned with the student cohort and who has access to engineering studies. We take a broad social and ecological justice perspective to critique existing and explore alternative practices. This book is a handbook for any engineering academic, who wishes to develop engineering graduates as well as technologies and practices that are non-oppressive, equitable and engaged. It is also an essential reader for anyone studying in this interdisciplinary juncture of social science and engineering. Scholars using a critical theoretical lens on engineering practice and education, from Science and Technology Studies, History and Philosophy of Engineering, Engineering and Science Education will find this text invaluable.

What is distinctive about the ways specific disciplines are traditionally taught, and what kinds of learning do they promote? Do they inspire the habits of the discipline itself, or do they inadvertently contradict or ignore those disciplines? By analyzing assumptions about often unexamined teaching practices, their history, and relevance in contemporary learning contexts, this book offers teachers a fresh way to both think about their impact on students and explore more effective ways to engage students in authentic habits and practices. This companion volume to Exploring Signature Pedagogies covers disciplines not addressed in the earlier volume and further expands the scope of inquiry by interrogating the teaching methods in interdisciplinary fields and a number of professions, critically returning to Lee S. Shulman's origins of the concept of signature pedagogies. This volume also differs from the first by including authors from across the United States, as well as Ireland and Australia. The first section examines the signature pedagogies in the humanities and fine arts fields of philosophy, foreign language instruction, communication, art and design, and arts entrepreneurship. The second section describes signature pedagogies in the social and natural sciences: political science, economics, and chemistry. Section three highlights the interdisciplinary fields of Ignatian pedagogy, women's studies, and disability studies; and the book concludes with four chapters on professional pedagogies – nursing, occupational therapy, social work, and teacher education – that illustrate how these pedagogies change as the social context changes, as their knowledge base expands, or as online delivery of instruction increases.

"Threshold Concepts in Women's and Gender Studies: Ways of Seeing, Thinking, and Knowing is a textbook designed primarily for introduction to Women's and Gender Studies courses with the intent of providing both a skill- and concept-based foundation in the field. The third edition includes fully revised and expanded case studies and updated statistics; in addition, the content has been updated throughout to reflect significant news stories and cultural developments. The text is driven by a single key question: "What are the ways of thinking, seeing, and knowing that characterize Women's and Gender Studies and are valued by its practitioners?". This book illustrates four of the most critical concepts in Women's and Gender Studies-the social construction of gender, privilege and oppression, intersectionality, and feminist praxis-and grounds these concepts in multiple illustrations. Threshold Concepts develops the key concepts and ways of thinking that students need to develop a deep understanding and to approach material like feminist scholars do, across disciplines"--

Threshold Concepts

How Reading Apprenticeship Improves Disciplinary Learning in Secondary and College Classrooms

Naming What We Know
Approaches to Teaching Disciplinary Habits of Mind
Ways of Seeing, Thinking, and Knowing
In the University and Beyond
A Learning-Centred Approach

Pedagogical Perspectives on Cognition and Writing addresses a scholarly audience in writing studies, specifically scholars and teachers of writing, writing program administrators, and writing center scholars and administrators. Chapters focus on the place of cognition in threshold concepts, teaching for transfer, rhetorical theory, trauma theory, genre, writing centers, community writing, and applications of the Framework for Success in Postsecondary Writing. The 1980s witnessed a growing interest in writing studies on cognitive approaches to studying and teaching college-level writing. While some would argue this interest was simply of a moment, we argue that cognitive theories still have great influence in writing studies and have substantial potential to continue reinvigorating what we know about writing and writers. By grounding this collection in ongoing interest in writing-related transfer, the role of metacognition in supporting successful transfer, and the habits of mind within the Framework for Success in Postsecondary Writing, Pedagogical Perspectives on Cognition and Writing highlights the robust but also problematic potential cognitive theories of writing hold for how we research writing, how we teach and tutor writers, and how we work with community writers. Pedagogical Perspectives on Cognition and Writing includes a foreword by Susan Miller-Cochran and an afterword by Asao Inoue. Additional contributors include Melvin E. Beavers, Subrina Bogan, Harold Brown, Christine Cucciarre, Barbara J. D'Angelo, Gita DasBender, Tonya Eick, Gregg Fields, Morgan Gross, Jessica Harnisch, David Hyman, Caleb James, Peter H. Khost, William J. Macauley, Jr., Heather MacDonald, Barry M. Maid, Courtney Patrick-Weber, Patricia Portanova, Sherry Rankins-Robertson, J. Michael Rifenburg, Duane Roen, Airlie Rose, Wendy Ryden, Thomas Skeen, Michelle Stuckey, Sean Tingle, James Toweill, Martha A. Townsend, Kelsie Walker, and Bronwyn T. Williams.

"As elegantly practical as it is theoretically elegant. It is a guided tour, as one examines the tools of expert teachers as they engage students in a journey that is aptly dubbed Reading Apprenticeship?learning how to become a savvy, strategic reader under the tutelage of thoughtful, caring, and demanding teachers.? P. David Pearson, University of California, Berkeley, and founding editor of the Handbook of Reading Research. Reading for Understanding is a monumental achievement. It was a monumental achievement when it came out as a first edition in 1999, bringing years of rigorous reading research together in a framework for teaching that made sense in actual secondary school classrooms. Now, just thirteen years later, Schoenbach and Greenleaf have several randomized clinical trials and multiple on-going studies at their fingertips to demonstrate the effects of this approach for developing the reading and thinking of young people in our nation?s middle and high school classrooms, as well as in community college classrooms. Their careful work on developing disciplinary literacy among all students represents a passion for and commitment to supporting students?and their teachers?in reading for understanding, which translates to reading for enjoyment, self-awareness, learning, and for purposeful and informed action in our society. ?Elizabeth Moje, Arthur F. Thurnau Professor and Associate Dean for Research, School of Education, University of Michigan Reading Apprenticeship has proven to be an inspiration to Renton Technical College faculty and students alike. They have learned together to view themselves as readers in transformative ways, as they embrace powerful techniques to increase reading comprehension. The ideas and strategies in Reading for Understanding anchor this new and broad-based energy around reading and an enthusiasm among our faculty to model effective reading strategies for our students. ?Steve Hanson, President, Renton Technical College, Renton, Washington Reading for Understanding has the finest blend I have seen of research, strategies, and classroom vignettes to deepen teacher learning and help them connect the dots between theory and practice. ?Curtis Refior, Content Area Literacy Coach, Fowlerville Community Schools, Fowlerville, Michigan A teacher-tested, research-based resource for dramatically improving reading skills Published in partnership with WestEd, this significantly updated second edition of the bestselling book contains strategies for helping students in middle school through community college gain the reading independence to master subject area textbooks and other material. Based on the Reading Apprenticeship program, which three rigorous "gold standard" research studies have shown to be effective in raising students' reading achievement Presents a clear framework for improving the reading and subject area learning of all students, including English learners, students with special needs, as well as those in honors and AP courses Provides concrete tools for classroom use and examples from a range of classrooms Presents a clear how-to for teachers implementing the subject area literacies of the Common Core Standards Reading for Understanding proves it's never too late for teachers and students to work together to boost literacy, engagement, and achievement.

The Confident Teacher offers a practical, step-by-step guide to developing the habits, characteristics and pedagogy that will enable you to

do the best job possible. It unveils the tacit knowledge of great teachers and combines it with respected research and popular psychology. Covering topics such as organisation, using your body language effectively, combatting stress, managing student behaviour, questioning and feedback, and developing confident students, it shows how you can build the confidence and skill to flourish in the classroom. This book will be an essential resource for all qualified and trainee teachers wanting to reach their full potential in this challenging but rewarding profession.

The twenty-first century has seen an increased awareness of the forms of environmental destruction that cannot immediately be seen, localised or, by some, even acknowledged. Ecocriticism on the Edge explores the possibility of a new mode of critical practice, one fully engaged with the destructive force of the planetary environmental crisis. Timothy Clark argues that, in literary and cultural criticism, the "Anthropocene", which names the epoch in which human impacts on the planet's ecological systems reach a dangerous limit, also represents a threshold at which modes of interpretation that once seemed sufficient or progressive become, in this new counterintuitive context, inadequate or even latently destructive. The book includes analyses of literary works, including texts by Paule Marshall, Gary Snyder, Ben Okri, Henry Lawson, Lorrie Moore and Raymond Carver.

Improving Student Learning

Pedagogical Perspectives on Cognition and Writing

Ecocriticism on the Edge

The Learning Pit

Writing across Contexts

Threshold Concepts in Practice

"This book is an exceptional introduction to some difficult ideas. It is full of downright good advice for every academic who wants to do something practical to improve his or hers students' learning." Paul Ramsden, Brisbane, Australia "Biggs and Tang present a unified view of university teaching that is both grounded in research and theory and replete with guidance for novice and expert instructors. The book will inspire, challenge, unsettle, and in places annoy and even infuriate its readers, but it will succeed in helping them think about how high quality teaching can contribute to high quality learning." John Kirby, Queens University, Ontario, Canada This best-selling book explains the concept of constructive alignment used in implementing outcomes-based education. Constructive alignment identifies the desired learning outcomes and helps teachers design the teaching and learning activities that will help students to achieve those outcomes, and to assess how well those outcomes have been achieved. Each chapter includes tasks that offer a 'how-to' manual to implement constructive alignment in your own teaching practices. This new edition draws on the authors' experience of consulting on the implementation of constructive alignment in Australia, Hong Kong, Ireland and Malaysia including a wider range of disciplines and teaching contexts. There is also a new section on the evaluation of constructive alignment, which is now used worldwide as a framework for good teaching and assessment, as it has been shown to: Assist university teachers who wish to improve the quality of their own teaching, their students' learning and their assessment of learning outcomes Aid staff developers in providing support for departments in line with institutional policies Provide a framework for administrators interested in quality assurance and enhancement of teaching across the whole university. The authors have also included useful web links to further material. Teaching for Quality Learning at University will be of particular interest to teachers, staff developers and administrators. While education is based on the broad assumption that what one learns here can transfer over there – across critical transitions – what do we really know about the transfer of knowledge? The question is all the more urgent at a time when there are pressures to "unbundle" higher education to target learning particular subjects and skills for occupational credentialing to the detriment of integrative education that enables students to make connections and integrate their knowledge, skills and habits of mind into a adaptable and critical stance toward the world This book – the fruit of two-year multi-institutional studies by forty-five researchers from twenty-eight institutions in five countries – identifies enabling practices for, and five essential principles about, writing transfer that should inform decision-making by all higher education stakeholders about how to generally promote the transfer of knowledge. This collection concisely summarizes what we know about writing transfer and explores the implications of writing transfer research for universities' institutional decisions about writing across the curriculum requirements, general education programs, online and hybrid learning, outcomes assessment, writing-supported experiential learning, e-portfolios, first-year experiences, and other higher education initiatives. This volume makes writing transfer research accessible to administrators, faculty decision makers, and other stakeholders across the curriculum who have a vested interest in preparing students to succeed in their future writing tasks in academia, the workplace, and their civic lives, and offers a framework for addressing the tensions between competency-based education and the integration of knowledge so vital for our society.

Considers the connection between thinking and knowledge for the development of a learning process that includes all levels of education, in an effort to enhance critical thinking skills for the future.

Threshold Concepts on the Edge explores new directions in threshold concept research and practice and is of relevance to teachers, learners, educational

researchers and academic developers.
Theory, Evidence and Practice
Threshold Concepts of Writing Studies
Threshold Concepts in Women's and Gender Studies
Teaching Writing in the Health Professions
(Re)Considering What We Know
Engineering and Social Justice
Disciplinary Perspectives