Supply chain management (SCM) has been stressed as a remedy to many of the underlying issues in the construction industry. However, the positive examples where SCM has been successfully utilised and diminished the lingering issues in construction is scarce. The question is why. Previous studies have stressed the importance of planning both the construction project as such but also the supply chain and the logistics. As an important part of SCM, supply chain planning (SCP) focuses on planning different aspects of the supply chain through involving different members of the supply chain in the planning process. SCP in construction is scarce as the planning of the logistics in general. Failing to plan the supply chain, involving supply chain members in the planning, and integrating the processes of planning the supply chains and the construction project can be one reason for the low numbers of successful SCM adoption in construction. In improving the SCP in construction, this thesis develops a SCP framework for construction that involves the main contractor, subcontractors, and suppliers. The aim is to improve SCP, collaboration, and eliminate many of the common problems in construction through a SCM and SCP perspective. The developed framework is based on an existing planning framework for sales and operations planning. This framework is generic and synthesises planning in general. It consists of identifying/developing: outcomes, input, organisation, process, key performance measurements, and IT-tools. It is thus necessary to investigate what these aspects means in a construction context. Four research objects will be fulfilled: Objective 1. Identify common logistical problems and linkages between them Objective 2. Develop a SCP process Objective 3. Develop a SCP organisation Objective 4. Identify performance measurements

STEM Road Map: A Framework for Integrated STEM Education is the first resource to offer an integrated STEM curricula encompassing the entire K-12 spectrum, with complete grade-level learning based on a spiraled approach to building conceptual understanding. A team of over thirty STEM education professionals from across the U.S. collaborated on the important work of mapping out the Common Core standards in mathematics and English/language arts, the Next Generation Science Standards performance expectations, and the Framework for 21st Century Learning into a coordinated, integrated, STEM education curriculum map. The book is structured in three main parts—Conceptualizing STEM, STEM Curriculum Maps, and Building Capacity for STEM—designed to build common understandings of integrated STEM, provide rich curriculum maps for implementing integrated STEM at the classroom level, and supports to enable systemic transformation to an integrated STEM approach. The STEM Road Map places the power into educators’ hands to implement integrated STEM learning within their classrooms without the need for extensive resources, making it a reality for all students.

Health literacy, cultural competence, and language access services are distinct but intricably linked concepts for delivering equitable care to all members of the increasingly diverse population of the United States. These concepts are linked, but they developed via different paths, and each has its own unique focus with regard to enabling every individual to obtain the ability to process and understand basic health information and services needed to make appropriate healthcare decisions. Fragmentation of these disciplines has impeded implementation of relevant measures for quality improvement and accountability. To foster an integrated approach to health literacy, cultural competency, and language access services, the Roundtable on Health Literacy initiated a project with three components: a commissioned paper to propose a framework for integrating measurements of health literacy, cultural competency, and language access; a workshop to review and discuss the framework; and a second commissioned paper that will provide a roadmap for integrating health literacy, cultural competency, and language access services as well as a revised measurement framework. Held on May 4, 2017, the workshop explored the quality performance measures for integration of health literacy, cultural competence, and language access services. This publication summarizes the presentations and discussions from the workshop.

Currently, companies have covered their business processes with stationary workstations while mobile business applications have limited relevance. Companies can cover their overall business processes more
time-efficiently and cost-effectively when they integrate mobile users in workflows using mobile device features. The objective is a framework that can be used to model and control business applications for PLM processes using mobile device features to allow a totally new user experience. This work was published by Saint Philip Street Press pursuant to a Creative Commons license permitting commercial use. All rights not granted by the work's license are retained by the author or authors.

The Lean Six Sigma methodology is being applied extensively to tackle many quality related issues in many processes of today's industries. Various companies have benefited greatly from the adoption of Six Sigma and Lean engineering concepts since their introduction, and continue to do so. The DMAIC method that is traditionally adopted in the implementation of the Lean Six Sigma methodology has proven to yield cost-saving results in most cases. Yet, industries have found that just improvement of existent process and products to reduce defects, does not quench the customer's growing thirst for greater quality. In order to tackle variation and defects pro actively, the initiative to achieve Six Sigma level of quality (3.4 DPMO) or greater is being infused into the design of new products using the Design for Six Sigma (DFSS) methodology, through systematic approaches such as DMADV. This research integrates the DMADV into the classic DMAIC methodology through a framework, DMARC, which details the improvement an existing process through re-design. It provides a systematic approach to avoid the mis-direction of projects into following the path of continued improvement of existing processes that are deemed to be beyond such efforts. A real-life industrial case: a successfully completed Lean Six Sigma project, tackling the downtime of the Launch Pad Meteorological System at Launch Pads 39A and B at the Kennedy Space Center, was studied to exemplify the possibility of the achievement of greater results from the implementation of the DMARC framework.

Science, engineering, and technology permeate nearly every facet of modern life and hold the key to solving many of humanity's most pressing current and future challenges. The United States' position in the global economy is declining, in part because U.S. workers lack fundamental knowledge in these fields. To address the critical issues of U.S. competitiveness and to better prepare the workforce, A Framework for K-12 Science Education proposes a new approach to K-12 science education that will capture students' interest and provide them with the necessary foundational knowledge in the field. A Framework for K-12 Science Education outlines a broad set of expectations for students in science and engineering in grades K-12. These expectations will inform the development of new standards for K-12 science education and, subsequently, revisions to curriculum, instruction, assessment, and professional development for educators. This book identifies three dimensions that convey the core ideas and practices around which science and engineering education in these grades should be built. These three dimensions are: crosscutting concepts that unify the study of science through their common application across science and engineering; scientific and engineering practices; and disciplinary core ideas in the physical sciences, life sciences, and earth and space sciences and for engineering, technology, and the applications of science. The overarching goal is for all high school graduates to have sufficient knowledge of science and engineering to engage in public discussions on science-related issues, be careful consumers of scientific and technical information, and enter the careers of their choice. A Framework for K-12 Science Education is the first step in a process that can inform state-level decisions and achieve a research-grounded basis for improving science instruction and learning across the country. The book will guide standards developers, teachers, curriculum designers, assessment developers, state and district science administrators, and educators who teach science in informal environments.

"With the increased concern over the impact that products and processes have on the environment, tools such as Life Cycle Assessment (LCA) have been developed to assess environmental impacts. However, several issues are present in this tool; chief among them is the difficulty of comparing LCA studies. The reasons for this issue are the lack of standardized assumptions and practices, the definition of the functional unit and the identification of reference flows. In this work, it is hypothesized that system engineering and functional analysis concepts are a promising approach to provide guidelines for system definition, system boundary definition, and reference flows identification. Based on this premise, this work delineates a framework to address some of the issues present in the early stages of LCA, and to ultimately help enable comparisons between different LCA studies. This framework was initially exercised with some simple examples to demonstrate the initial feasibility of the model. With the insights gained from these simple test cases, the proposed process was applied to a practical case study to assess the utility of the framework through the use of the SimaPro® software. The application of this framework through the case study demonstrated that the proposed approach holds promise. In particular, the case demonstrated that application of system engineering methods was a useful construct. Furthermore, the importance of decoupling consumer use from the reference flows and functional unit definition processes proved to be very useful. The implication of these two results is that the possibility of re-using already existing data, models, and projects becomes feasible since the framework creates an easy to adapt structure."--Abstract.

Max presents a framework for an in-depth understanding of project, program and portfolio management to satisfy the needs from the top executive to the student practitioner based on over 40 years' experience.

Education is expanding to include a stronger focus on the practical application of classroom lessons in an effort to prepare the next generation of scholars for a changing world economy centered on collaborative and problem-solving skills for the digital age. The Handbook of Research on Technology Tools for Real-World Skill Development presents comprehensive research and discussions on the importance of practical education focused on digital literacy and the problem-solving skills necessary in everyday life. Featuring timely, research-based chapters exploring the broad scope of digital and computer-based learning strategies including, but not limited to, enhanced classroom experiences, assessment programs, and problem-solving training, this publication is an essential reference source for academicians, researchers, professionals, and policymakers interested in the practical application of technology-based learning for next-generation education.
This book presents a realistic perspective on the paradoxes employees face when navigating work and personal responsibilities for career success. The author answers the critical question of how to achieve sustainable and rewarding work-life integration from a perspective of "both/and" rather than "either/or." While most books focus on a fragmented, hyper-effective view of women and leadership, this book advances the need for an integrated approach. Its Competing Values Framework acts as an organizing model that aligns personal competency with organizational capability, helping readers to identify important leadership roles and competencies, break societal barriers, and choose the right set of behaviors to fit their personal and professional goals. In-chapter text boxes provide personal insight from real employees both entering and established in leadership positions, offering a varied perspective on the challenges and resolutions available to women in management. As men become more engaged with their families, they too will find this book a useful tool. Students in diversity management, women and management, career development, leadership, and organizational behavior classes will benefit from this realistic and sustainable alternative to the "have it all" model.

Daniel J. Siegel goes beyond the nature and nurture divisions that traditionally have constrained much of our thinking about development, exploring the role of interpersonal relationships in forging key connections in the brain. He presents a groundbreaking new way of thinking about the emergence of the human mind and the process by which each of us becomes a feeling, thinking, remembering individual. Illuminating how and why neurobiology matters. New to This Edition *Incorporates significant scientific and technical advances. *Expanded discussions of cutting-edge topics, including neuroplasticity, epigenetics, mindfulness, and the neural correlates of consciousness. *Useful pedagogical features: pull-outs, diagrams, and a glossary. *Epilogue on domains of integration--specific pathways to well-being and therapeutic change.

Relatively little is known about how regional integration affects poverty. Many suggest that increased investment would be one of the benefits of agreeing on regional integration provisions but this has not been put to the empirical test for South-South integration. This volume examines the channels through which regional integration affects poverty and empirically analyzes the effects on foreign direct investment.

Smaller companies are abundant in the business realm and outnumber large companies by a wide margin. To maintain a competitive edge against other businesses, companies must ensure the most effective strategies and procedures are in place. This is particularly critical in smaller business environments that have fewer resources. Start-Ups and SMEs: Concepts, Methodologies, Tools, and Applications is a vital reference source that examines the strategies and concepts that will assist small and medium-sized enterprises to achieve competitiveness. It also explores the latest advances and developments for creating a system of shared values and beliefs in small business environments. Highlighting a range of topics such as entrepreneurship, innovative behavior, and organizational sustainability, this multi-volume book is ideally designed for entrepreneurs, business managers, executives, managing directors, academicians, business professionals, researchers, and graduate-level students.

This book presents a comprehensive exploration of the emerging concept and framework of telecoupling and how it can help create a better understanding of land-use change in a globalised world. Land-use change is increasingly characterised by a spatial disconnect between its main environmental, socioeconomic and political drivers and the main impacts and outcomes of those changes. The authors examine how this separation of the production and consumption of land-based resources is driven by population growth, urbanisation, climate change, and biodiversity and carbon conservation efforts. Identifying and fostering more sustainable, just and equitable modes of land use and intervening in unsustainable ones thus constitute substantial, almost overwhelming challenges for science and policy. This book brings together leading scholars on land-use change and sustainability to systematically discuss the relevance of telecoupling research in addressing these challenges. The book presents an overview of the telecoupling approach, reflects on a number of the most pressing issues surrounding land-use change today and discusses the agenda for advancing understanding on sustainable land-use change through interdisciplinary and transdisciplinary research.

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Useful attributes capture and quantify key components of the seismic amplitude and texture for subsequent integration with well log, microseismic, and production data through either interactive visualization or machine learning. Although both approaches can accelerate and facilitate the interpretation process, they can by no means replace the interpreter. Interpreter "grayware“ includes the incorporation and validation of depositional, diagenetic, and tectonic deformation models, the integration of rock physics systematics, and the recognition of unanticipated opportunities and hazards. This book is written to accompany and complement the 2018 SEG Distinguished Instructor Short Course that provides a rapid overview of how 3D seismic attributes provide a framework for data integration over the life of the oil and gas field. Key concepts are illustrated by example, showing modern workflows based on interactive interpretation and display as well as those aided by machine learning.

An introduction to risk in the project or program environment. The book provides a simplified understanding of the nature of project risk and opportunity and a systematic approach to risk reduction.
The mission of higher education in the 21st century must focus on optimizing learning for all students. In a shift from prioritizing effective teaching to active learning, it is understood that computer-enhanced environments provide a variety of ways to reach a wide range of learners who have differing backgrounds, ages, learning needs, and expectations. Integrating technology into teaching assumes greater importance to improve the learning experience. Optimizing Higher Education Learning Through Activities and Assessments is a collection of innovative research that explores the link between effective course design and student engagement and optimizes learning and assessments in technology-enhanced environments and among diverse student populations. Its focus is on providing an understanding of the essential link between practices for effective “activities” and strategies for effective “assessments,” as well as providing examples of course designs aligned with assessments, positioning college educators both as leaders and followers in the cycle of lifelong learning. While highlighting a broad range of topics including collaborative teaching, active learning, and flipped classroom methods, this book is ideally designed for educators, curriculum developers, instructional designers, administrators, researchers, academicians, and students.