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Anm.: **schwarz unterlegt**: Fehlklassifikation
Abstract suche knowledge triangle

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4. The Knowledge Triangle Cards: Supporting University-Society Collaborations
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24. Images for Crisis Management
25. The Classroom De-Gamer

Anm.: Nummeriert sind die bereinigten Treffer der Abstractsuche ohne Doppelzählungen. Unterlegt: Fehlklassifikation
CONHECIMENTO, DIDÁCTICA E COMPROMISSO: O TRIÂNGULO VIRTUOSO DE UMA PROFISSIONALIDADE EM RISCO.

Knowledge, Teaching and Commitment: The Virtuous Triangle of an At-Risk Professionalism.

Knowledge, Didactics and Engagement: The Triangular Virtuosity. By: DO CEU ROLDAO, MARIA. Cadernos de Pesquisa. Oct-Dec 2017, Vol. 47 Issue 166, p1134-1149. 16p. Language: Portuguese. Abstract (English): The present text discusses the reconfiguration of professional teaching knowledge and its anchoring in the training of teachers, pointed toward a solid professional identity, constructed along a continuum of professional development. This vision requires a different relationship with the production of specific knowledge that allows contradiction of the movement of deprofessionalization and functionalization that teachers go through. It has implications for the degree of commitment of teaching to the results of the school as the socially mandated locus for the guarantee of learning essential to the citizenry, today fundamental to the support of the economy and the cohesion of societies. [ABSTRACT FROM AUTHOR] DO: 10.1590/198053144367. Database: SocINDEX with Full Text

Preservice and novice teachers' knowledge on preformal proofs: Triangle postulate as an example.

By: Kui Chiu Issic Leung; Chun Yeung Lee. Mathematics Teacher Education & Development. 2017, Vol. 19 Issue 2, p51-80. 30p. Abstract: By considering the example of proving the triangle postulate, this study aimed to explore Hong Kong preservice and novice teachers' knowledge competencies and their beliefs about preformal and formal proofs. The findings revealed that such teachers are not proficient in using preformal proofs and do not realize that preformal proofs are a useful tool for connecting abstract geometrical concepts with concrete meanings. We conclude by providing strategies for teachers to use preformal proofs effectively in their teaching of geometric propositions. [ABSTRACT FROM AUTHOR] AN: 126728546, Database: Education Research Complete

Subjects: Beginning teachers; Geometric approach

Toward a New Innovation Management Standard. Incorporation of the Knowledge Triangle Concept and Quadruple Innovation Helix Model into Innovation Management Standard

Author: Mavroeidis, Vasileios; Tarnawska, Katarzyna
Author Affiliation: Hellenic Open U; Cracow U Economics
Source: Journal of the Knowledge Economy, June 2017, v. 8, iss. 2, pp. 653-71
Publication Date: June 2017
Abstract: Standards play an important role in technological diffusion. Empirical evidence shows that standards have a positive influence on innovative potential. Standardization is a key part of microeconomic infrastructure that may serve as a foundation for knowledge and innovation-led growth. In recent years, steps have been taken at different levels toward the development of standardized approaches regarding innovation-related fields of activity, including that of innovation management. The purpose of this paper is a critical review of the European innovation management system developed as a technical specification by the European Committee for Standardization (CEN) in perspective of the Quadruple Innovation Helix model and the Knowledge Triangle
concept. Research has a conceptual character. The Quadruple Innovation Helix model and the Knowledge Triangle concept are the point of departure for further deliberations on innovation management standardization. Findings show that although the European innovation management technical specification does not sufficiently address issues stressed in the Quadruple Helix and the Knowledge Triangle approaches, there are some common points: collaboration and creativity. The European innovation management technical specification may be also regarded as a vehicle of transformation ideas and research outcomes into innovation carried out by educated and motivated labor that is consistent with the Knowledge Triangle approach. An improved technical specification of innovation management system (IMS) should incorporate the Knowledge Triangle and the Quadruple Helix approaches to avoid the isolation of a company performing innovation activities.

ISSN: 18687865
Publication Type: Journal Article
Digital Object Identifier: http://dx.doi.org/10.1007/s13132-016-0414-4
Availability: https://link.springer.com/journal/volumesAndIssues/13132
Update Code: 20170901
AN: 1661094, Database: EconLit with Full Text

Subjects: Innovation and Invention: Processes and Incentives ; Technological Change: Choices and Consequences; Diffusion Processes ; Technological Change: Government Policy

Preservice and Novice Teachers' Knowledge on Preformal Proofs: Triangle Postulate as an Example

Academic Journal
By considering the example of proving the triangle postulate, this study aimed to explore Hong Kong preservice and novice teachers’ knowledge competencies and their beliefs about preformal and formal proofs. The findings revealed that such teachers are not proficient in using preformal proofs and do not realize that preformal proofs are a useful tool for connecting abstract geometrical concepts with concrete meanings. We conclude by providing strategies for teachers to use preformal proofs effectively in their teaching of geometric propositions.

FULL TEXT FROM ERIC , Database: ERIC

Subjects: Mathematics Instruction; Preservice Teachers; Beginning Teachers; Knowledge Level; Teacher Competencies; Validity; Mathematical Logic; Foreign Countries; Questionnaires; College Students; Geometric Concepts; Geometry; Qualitative Research; Statistical Analysis; Hong Kong

PDF Full Text

The Knowledge Triangle Cards: Supporting University-Society Collaborations.

Conference
Abstract: The Knowledge Triangle Cards (KT Cards) is an educational tool designed for a pilot course at Mälardalen University which aims to help students to contextualize studies to global and national societal needs and to collaborate more closely with society (business and municipalities). The aim is to have students become better at choosing assignments, projects and thesis topics that tie in closer to the labour market and societal needs. The KT Cards are based on a traditional deck of cards and the suits represent different aspects of the knowledge context: opportunity, process, outcome, and stakeholder. Additionally, a set of gamified and non-gamified exercises were designed to prompt reflection and discussion about how student projects incorporate these aspects. A pilot study was carried out in order to test and develop the educational tools and future studies. A total of 24 students and teachers participated and data was collected through observations and feedback from participants. The study indicates that the gamified activities could influence reflection and discussion by speeding up pace of the activity and affecting group dynamics. Two aspects were identified as potentially prompting gamification—shorter time frames and having multiple groups completing the activities. Further studies will look more closely at these aspects for designing gamification and how this affects discussion. The next design iteration will implement minor changes to the visual design of the cards and review how the prototype could provide students with know-how on universitiesociety collaborations and a deeper understanding of the Knowledge Triangle concept. [ABSTRACT FROM AUTHOR] (AN: 126280819), Database: Education Research Complete

Subjects: Educational technology; Educational games; Gamification; Teaching models; Teaching methods
6. From concept to reality in implementing the Knowledge Triangle.

Academic Journal

By: Sjoer, Ellen; Nørgaard, Bente; Goossens, Marc. European Journal of Engineering Education. Jun2016, Vol. 41 Issue 3, p353-368. 16p. Abstract: The concept of Knowledge Triangle (KT) links together research, education and innovation and replaces the traditional ‘one way’ flow of knowledge, essentially from research to education, by a ‘both ways’ circular motion between all the corners of a triangle that, besides research and education, also includes innovation, the ‘poor relation’ of many universities. What are the main issues – barriers and drivers – and what could be done in order to make the concept of KT a strong reality in engineering education? In this paper, the authors intend to bring some answers by analysing three cases coming from actors operating at the three corners of the KT: students, academic staff and engineers in industry. [ABSTRACT FROM AUTHOR]

DOI: 10.1080/03043797.2015.1079812. (AN: 114927752), Database: Education Research Complete

Subjects: Theory of knowledge; Research; Education; Engineering education; Higher education; Technological innovations

7. Development of Innovation Activities within Knowledge Triangle 'Government-University-Industry'. (In Ukrainian. With English summary.)

Academic Journal

Title: Development of Innovation Activities within Knowledge Triangle 'Government-University-Industry'. (In Ukrainian. With English summary.)

Language: Ukrainian
Author: Bazhal, Iu.
Author Affiliation: National U Kyiv-Mohyla Academy
Source: Economy and Forecasting, January-March 2015, iss. 1, pp. 76-88
Publication Date: January-March 2015
Abstract: This article presents the methodological and analytical generalization of the modern practices of the institutional ensuring of the organic cooperation in the frame of innovation cycle by the government, Universities and industries. The "Triple Helix" innovation mode is considered in order to undertake the international comparative analysis of Ukraine's competitiveness according to appropriate indicators. The author proposes to improve the Ukrainian current innovation policy through the creation and supporting the special institutional measures regarding enhancing the interaction between the government, Universities and businesses. The core of the proposed conceptual model is the Schumpeterian theory of economic development and its policy implications in the economically successful countries which have become such because they constantly generate new commercialized knowledge in the forms of process and product innovations. Therefore, dynamic and successful countries consider the transformation of institutions that promote the development of knowledge and innovation potential among the immediate reform measures. It concerns the reform of the institutions of education and science, infrastructure of transfer of innovative technologies, supporting of innovation in all areas of life, providing a major international integration of the country to the world educational, scientific and innovative ecosystem. In order to realize such an approach, the developed countries have transformed the forms and methods of innovation policy by building the new effective managerial and organizational conditions to activate the processes of generating and commercializing innovations through changing their innovation mode: from the "linear" model of innovation cycle to the "cooperative" one, i.e. to the "Triple Helix" mode. These methodological and practical transformations have changed radically the role and significance of the forms of interaction between institutions of science, education and business in the innovation process and have raised the role of Universities. This led to the formation of a new type of university--Entrepreneurial University. It is important to create in Ukraine a special institutional background to build a "cooperative" model innovation cycle, to develop and adopt regulations that will promote processes of self-organization in the area of innovation cooperation of research institutions and universities on the one hand, and business and government agencies--on the other. In this context the problem of greater autonomy for universities becomes very urgent. Also, this autonomy can help ensure a greater diversification of the sources of funding (through commercial relations with businesses and government agencies under innovation cycle) and to become more flexible and mobile in answering the challenges of external market environment.

ISSN: 16057988
Publication Type: Journal Article
Availability: http://eip.org.ua/?page_id=209&lang=en
8. Academic Journal
Title: 

Author: Dindire, Laura; Asandei, Mihaela; Ganescu, Cristina
Author Affiliation: U 'Constantin Brancoveanu' Pitesti; U 'Constantin Brancoveanu' Pitesti; U 'Constantin Brancoveanu' Pitesti
Source: Theoretical and Applied Economics, September 2011, v. 18, iss. 9, pp. 89-102
Publication Date: September 2011
Abstract: With regard to the Lisbon objective of transforming the EU into the most competitive knowledge-based economy in the world, the present paper aims to identify the place held by the current academic environment--entrepreneurial environment communication, as well as the deficiencies of this partnership relation. Among the methods of collection and systematization of information they selected the direct, selective research, according to a questionnaire. Data collection was conducted in October-November 2010, the sample of the respondents consisting of 432 company managers in the Arges County. The main results of the research highlights the need to improve the communication and collaboration between the two areas, the paper offers concrete solutions.
ISSN: 18418678
Publication Type: Journal Article
Availability: http://www.ectap.ro/theoretical-and-applied-economics-archive/
Update Code: 20111101
AN: 1267012, Database: EconLit with Full Text

Subjects: Higher Education; Research Institutions ; Entrepreneurship


Academic Journal
Abstract: While it is common to claim that university reforms are based on universal and standardised ideas about 'modernising' the university, few studies have examined in a more coherent way how the combined external pressure for change with respect to the areas of education, research and innovation has affected the university. In this paper it is argued that one can identify three different sets of logics concerning the current external reform agenda, and that these logics together create new challenges as to how knowledge is created, diffused and governed by the university. In the conclusion, it is discussed whether the current pressure for reform might change the university as we know it, or whether new institutional translations might emerge from the process renewing the university while maintaining its identity. [ABSTRACT FROM AUTHOR]
DOI: 10.1007/s10734-010-9360-4. (AN: 60875223), Database: Education Research Complete

Subjects: Theory of knowledge; Higher education & state; Educational change; Educational innovations; Europe; Higher education -- Europe; Logic

PDF Full Text (178KB)

10. Discarding the ‘basic science/applied science’ dichotomy: A knowledge utilization triangle classification system of research journals.
Factors Forming Collaboration within the Knowledge Triangle of Education, Research and Innovation

Report


A proper combination of education, research and innovation is provided by varied cooperative networks. However, the success of collaboration within a multicultural environment requires that the key factors enabling synergy between education, research and innovation have to be considered. Aim of the following paper is to identify and to analyze these key factors within the knowledge triangle of education, research and innovation. The meaning of the key concepts of education, research and innovation is studied within the search for factors forming collaboration. The results of the paper reveal the factors forming successful collaboration to become more mobile, to learn from the experiences of others and to work in a qualitative way.

FULL TEXT FROM ERIC , Database: ERIC

Subjects: Cooperation; Education; Research; Innovation; Influences; Nonverbal Communication; Cultural Influences; Social Influences; Listening; Interaction; Teaching Methods; Age; Psychological Patterns; Student Motivation; Learning Experience

Pathways to High-Tech Valleys and Research Triangles: Innovative Entrepreneurship, Knowledge Transfer and Cluster Formation in Europe and the United States

Author: Hulsink, Willem; Dons, Hans, eds.


Abstract: Fourteen papers, most originally presented at an academic workshop held in the fall of 2005 at the Wageningen International Congress Centre, explore why certain regions are successful in creating an innovative technology cluster and why aspiring communities and districts seek to learn from those examples and create an internationally successful region or sector. Papers discuss venturing and clustering in agri-food and high-technology hot spots; North Carolina’s Research Triangle Park--overview, history, success factors, and lessons learned; clustering in information and communication technology--from Route 128 to Silicon Valley, from the Digital Equipment Corporation to Google, and from hardware to content; a hotbed for entrepreneurship and innovation--looking for success factors in Israel's high-tech clusters; creating the dynamic technology region--the knowledge pearl of Leuven-Flanders; innovation and knowledge transfer in the Dutch horticultural system; a demand-led, network-based approach to technology transfer--the experience of the U.K. Defence Diversification Industry; stimulating entrepreneurship in life sciences--the Dutch approach; structural changes and the role of districts in the development of the Italian food industry; food innovation at interfaces--experience from the
Oresund region; the emergence of slow food--social entrepreneurship, local foods, and the Piedmont gastronomy cluster; the Flemish frozen vegetable industry as an example of cluster analysis; East Netherlands as an innovation region--whether a triangle between valleys can compensate for low critical mass; and the move from "Wageningen City of Life Sciences" to "Food Valley." Hulsink is with the Department of Management Studies at Wageningen University and the Rotterdam School of Management at Erasmus University. Dons is with the Department of Management Studies at Wageningen University and BioSeeds B.V. No index.


Publication Type: Book
Update Code: 20090601
AN: 1041671; Database: EconLit with Full Text

Subjects: Other Spatial Production and Pricing Analysis ; Technological Change: Choices and Consequences; Diffusion Processes ; Entrepreneurship

**ERGÄNZUNG**

Springer
Wageningen UR Frontis Series

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Pathways to High-Tech Valleys and Research Triangles
Innovative Entrepreneurship, Knowledge Transfer and Cluster Formation in Europe and the United States

Editors: Hulsink, Willem, Dons, J. J. M. (Eds.)

- Provides a comparative perspective on the development of promising high-technology valleys and triangles like North Carolina, Israel Research Triangle Park, Knowledge Pearl Leuven-Flanders, emulating and learning from the leading innovation hotspot in the world, Silicon Valley
- Also provides inside perspectives on the promotion of innovation, entrepreneurship and knowledge transfer in distinct industries, such as information and communication technologies, agri-food industries, life sciences and defence industry

**About this book**

Silicon Valley and the industrial districts of Italy, where shared identity, superior skills, regional specialization and trust-based networking among local firms have produced dynamic and flexible ecosystems, are inspiring examples of the successful promotion of thriving technology and business clusters. Cluster studies, besides acknowledging (the potential of) concentration and spill-overs in a dynamic network of larger companies and new start-up firms, also pay attention to the importance of investors, universities and other supportive institutions that contribute to the international and longer-term competitiveness of local industry clusters.

This book looks at why certain regions are successful in creating an innovative technology cluster (with chapters on Silicon Valley and the Italian Food districts) and why aspiring communities and districts seek to learn from those examples and create an internationally successful region or sector (with chapters on the Dutch Biopartner program to stimulate entrepreneurship in the life sciences, on high-tech Israel and on the Italian Slow Food Movement). In some cases internationally renowned universities and/or research laboratories inspire engineers and scientists to become entrepreneurs and take the lead in cluster development (e.g. in the chapters on Food Valley Wageningen, the Knowledge Pearl Leuven-Flanders and the Scandinavian Oresund cluster). In other cases indigenous flagship firms, collaborating with each other and outsourcing many activities to smaller companies, may act as a region’s catalyst (e.g. in the chapters on Flanders Vegetable Valley, the Dutch horticultural industry and the Defence Diversification Agency in the UK). Chapters on North Carolina’s Research Triangle Park and the recent initiative to stimulate innovativeness in East Netherlands show that also an active government can stimulate emerging clusters by making local resources and funds available (e.g. risk capital, high-quality infrastructure), attracting foreign firms to invest and building ties between the private sector, knowledge institutions and local authorities.

**Buy this book**
13. Multiple realities of the Growth Triangle: Mapping knowledge and the politics of mapping

Academic Journal

By: Chou, Cynthia. Asia Pacific Viewpoint. Aug 2006, Vol. 47 Issue 2, p241-256. 16p. 1 Map. Abstract: The Singapore-Indonesia-Malaysia Growth Triangle has been applauded by the governments of the three nation states, economists and transnational corporations as an economic success. However, other stark realities are evident at the local level as well. The Growth Triangle is supplanting older cultural and economic geographies. This has given rise to struggles over rights to territories and resources. Of the three points in the triangle, it is the landscape of Riau-Indonesia that has been transformed most dramatically. A comparative study of the cadastral maps of the administrators of the Growth Triangle versus the community maps of the indigenous peoples shows the differences in their perceived spatial ideas of Riau. It also highlights the different systems of knowledge as upheld by the administrators in contrast to that of the indigenous inhabitants. This comparative study brings to attention the issues of knowledge construction, mapping knowledge and the politics of mapping. DOI: 10.1111/j.1467-8373.2006.00307.x (AN: 21447573), Database: SocINDEX with Full Text

Subjects: SINGAPORE; INDONESIA; MALAYSIA; GROWTH triangles; ECONOMIC development; ECONOMIC policy; INTERNATIONAL business enterprises


Review


Subjects: Therapeutics; Nonfiction; Therapy Triangle: Empowering You With the Knowledge to Heal, The (Book); Emotional Cutoff: Bowenian Family Systems Theory Perspectives (Book); Burkham, Robert; Titelman, Peter

PDF Full Text (241KB)

15. THE KNOWLEDGE TRIANGLE AND AUSTRALIAN UNIVERSITIES.

Academic Journal

By: Grichting, Wolfgang L. Education & Society. 1995, Vol. 13 Issue 2, p63-75. 13p. 2 Diagrams, 3 Charts. Abstract: Knowledge generation, transmission and application are viewed as the three major functions of the modern university. These three responsibilities are conceptualised as ideal types and arranged in triangular form to create a mental space. Using recently released information from the Department of Education, Employment and Training about the 35 Australian public universities factor scores are computed for each of the 35 universities. These scores are used as coordinates to plot the 35 universities into the knowledge triangle. As predicted, knowledge transmission and application are most, and knowledge generation is least emphasised. The recent amalgamation of universities and colleges of advanced education to form the Unified National System as well as
the unique position of the Commonwealth Scientific and Industrial Research Organisation would appear to be largely responsible for this state of affairs. [ABSTRACT FROM AUTHOR] (AN: 9605283752), Database: Education Research Complete

**Subjects:** Educational evaluation; Colleges of Advanced Education (Australia); Universities & colleges -- Evaluation; Education policy; Postsecondary education; Australia; Technological innovations
Abstract: Suche knowledge triangle

Result List

1. Co-Creation and Open Innovation: Systematic Literature Review

Academic Journal


Open science, as a common good, opens possibilities for the development of nations, through innovations and collaborative constructions, which help to democratize knowledge. Advances in this area are still emerging, and the open science, co-creation of knowledge and open innovation triangle, is presented as an opportunity to generate an original contribution from research to open educational theory and practices. The study analyzed the articles that addressed this triangle, in order to identify the contexts and challenges that arise in open innovation and the co-creation of knowledge to promote open science. The method was a systematic literature review (SLR) of 168 articles published in open access format, from January 2014 to May 2017 in the Web of Science and Scopus databases. In the validation process, the York University criteria were used: inclusion and exclusion, relevance of the pertinent studies, evaluation of the quality / validity of included studies and description of data/basic studies. The findings showed that the most-widely publicized contexts were in the United States and Brazil, in the business and academic sectors (closely followed by the social sector), and the challenges were open to innovation, opening and research. The research concludes that the context and practices of collaboration are substantial elements for innovation and open science.

Subjects: Literature Reviews; Innovation; Open Source Technology; Teamwork; Research Needs; Performance Factors; Context Effect; Science Education

2. Toward a New Innovation Management Standard. Incorporation of the Knowledge Triangle Concept and Quadruple Innovation Helix Model into Innovation Management Standard

Academic Journal

Title: Toward a New Innovation Management Standard. Incorporation of the Knowledge Triangle Concept and Quadruple Innovation Helix Model into Innovation Management Standard

Author: Mavroeidis, Vasilios; Tarnawska, Katarzyna
Author Affiliation: Hellenic Open U; Cracow U Economics
Source: Journal of the Knowledge Economy, June 2017, v. 8, iss. 2, pp. 653-71
Publication Date: June 2017

Abstract: Standards play an important role in technological diffusion. Empirical evidence shows that standards have a positive influence on innovative potential. Standardization is a key part of microeconomic infrastructure that may serve as a foundation for knowledge and innovation-led growth. In recent years, steps have been taken at different levels toward the development of standardized approaches regarding innovation-related fields of activity, including that of innovation management. The purpose of this paper is a critical review of the European innovation management system developed as a technical specification by the European Committee for Standardization (CEN) in perspective of the Quadruple Innovation Helix model and the Knowledge Triangle.
concept. Research has a conceptual character. The Quadruple Innovation Helix model and the Knowledge Triangle concept are the point of departure for further deliberations on innovation management standardization. Findings show that although the European innovation management technical specification does not sufficiently address issues stressed in the Quadruple Helix and the Knowledge Triangle approaches, there are some common points: collaboration and creativity. The European innovation management technical specification may be also regarded as a vehicle of transformation ideas and research outcomes into innovation carried out by educated and motivated labor that is consistent with the Knowledge Triangle approach. An improved technical specification of innovation management system (IMS) should incorporate the Knowledge Triangle and the Quadruple Helix approaches to avoid the isolation of a company performing innovation activities.

ISSN: 18687865
Publication Type: Journal Article
Digital Object Identifier: http://dx.doi.org/10.1007/s13132-016-0414-4
Availability: https://link.springer.com/journal/volumesAndIssues/13132
Update Code: 20170901
AN: 1661094, Database: EconLit with Full Text

Subjects: Innovation and Invention: Processes and Incentives; Technological Change: Choices and Consequences; Diffusion Processes; Technological Change: Government Policy

3. Influence of Teaching Games for Understanding on Game Performance, Knowledge, and Variables Related to Adherence in Youth Sailing.

Academic Journal
By: Morales-Belando, María Trinidad; Arias-Estero, José L. Journal of Teaching in Physical Education. Apr2017, Vol. 36 Issue 2, p209-219. 11p. 1 Diagram, 4 Charts. Abstract: Purpose: To determine whether a TGfU intervention improved participant’s decision-making, skill execution, game performance, game involvement, game knowledge, enjoyment, perceived competence and intention to continue practicing sailing. Method: Participants were 19 sailors (age; M = 8.44, SD = 1.24 years old). This study followed a mixed-methods approach. The children participated in 12 TGfU intervention sessions and 2 pre-post assessment sessions. We designed and validated the sessions and the coach was trained in TGfU. Data were collected using GPAI during an Olympic triangle race, an ad hoc knowledge questionnaire, two psychological scales, and interviews of children and coach. Results: Statistically significant improvements were found in decision-making, △ = 3.97, skill execution, △ = .43, game performance, △ = 5.34, and game involvement, △ = 7.89. Discussion/Conclusion: The results support TGfU may serve to sail training in youth sport. Sailing coaches now have a teaching-learning framework that determines “what” and “how” the tasks must be, the feedback, and participant and coach behavior. [ABSTRACT FROM AUTHOR] DOI: 10.1123/jtpe.2016-0024. (AN: 122740485), Database: Education Research Complete

Subjects: Teaching games for understanding; Sports instruction; EDUCATION; Mixed methods research; Sailors; Optimism

4. The Knowledge Triangle Cards: Supporting University-Society Collaborations.

Conference
By: Gottlieb, Laura. Proceedings of the European Conference on Games Based Learning. 2017, p807-813. 7p. Abstract: The Knowledge Triangle Cards (KT Cards) is an educational tool designed for a pilot course at Mälardalen University which aims to help students to contextualize studies to global and national societal needs and to collaborate more closely with society (business and municipalities). The aim is to have students become better at choosing assignments, projects and thesis topics that tie in closer to the labour market and societal needs. The KT Cards are based on a traditional deck of cards and the suits represent different aspects of the knowledge context: opportunity, process, outcome, and stakeholder. Additionally, a set of gamified and non-gamified exercises were designed to prompt reflection and discussion about how student projects incorporate these aspects. A pilot study was carried out in order to test and develop the educational tools and future studies. A total of 24 students and teachers participated and data was collected through observations and feedback from participants. The study indicates that the gamified activities could influence reflection and discussion by speeding up pace of the activity and affecting group dynamics. Two aspects were identified as potentially prompting gamification—shorter time frames and having multiple groups completing the activities. Further studies will look more closely at these aspects for designing gamification and how this affects discussion. The next design iteration
will implement minor changes to the visual design of the cards and review how the prototype could provide students with know-how on university-society collaborations and a deeper understanding of the **Knowledge Triangle** concept. [ABSTRACT FROM AUTHOR] (AN: 126280819), Database: Education Research Complete

**Subjects:** Educational technology; Educational games; Gamification; Teaching models; Teaching methods

**PDF Full Text** (777KB)

- **5.**

**Constructing knowledge about the trigonometric functions and their geometric meaning on the unit circle.**

**Academic Journal**

By: Altman, Renana; Kidron, Ivy. International Journal of Mathematical Education in Science & Technology. 2016, Vol. 47 Issue 7, p1048-1060. 13p. Abstract: Processes of knowledge construction are investigated. A learner is constructing knowledge about the trigonometric functions and their geometric meaning on the unit circle. The analysis is based on the dynamically nested epistemic action model for abstraction in context. Different tasks are offered to the learner. In his effort to perform the different tasks, he has the opportunity to understand the process used to create unit circle representations of trigonometric expressions. The theoretical framework of abstraction in context is used to analyse the evolution of the learner's construction of knowledge in the transition from 'triangle' trigonometry to 'circle' trigonometry. [ABSTRACT FROM AUTHOR] DOI: 10.1080/0020739X.2016.1189005. (AN: 118257150), Database: Education Research Complete

**Subjects:** Trigonometry; Trigonometric functions -- Study & teaching; Circle; Triangles; Geometry

- **6.**

**From concept to reality in implementing the Knowledge Triangle.**

**Academic Journal**

By: Sjoer, Ellen; Nørgaard, Bente; Goossens, Marc. European Journal of Engineering Education. Jun2016, Vol. 41 Issue 3, p353-368. 16p. Abstract: The concept of Knowledge Triangle (KT) links together research, education and innovation and replaces the traditional 'one way' flow of knowledge, essentially from research to education, by a 'both ways' circular motion between all the corners of a triangle that, besides research and education, also includes innovation, the 'poor relation' of many universities. What are the main issues – barriers and drivers – and what could be done in order to make the concept of KT a strong reality in engineering education? In this paper, the authors intend to bring some answers by analysing three cases coming from actors operating at the three corners of the KT: students, academic staff and engineers in industry. [ABSTRACT FROM AUTHOR] DOI: 10.1080/03043797.2015.1079812. (AN: 114927752), Database: Education Research Complete

**Subjects:** Theory of knowledge; Research; Education; Engineering education; Higher education; Technological innovations

- **7.**

**Prospective teachers' understanding of the multiplicative part-whole relationship of fraction.**

**Academic Journal**

By: Castro-Rodríguez, Elena; Pitta-Pantazi, Demetra; Rico, Luis; Gómez, Pedro. Educational Studies in Mathematics. May2016, Vol. 92 Issue 1, p129-146. 18p. Abstract: The part-whole multiplicative relationship, as a topic that gives rise to the concept of fraction, is fundamental in education at the primary school level, and must therefore be included in training courses for prospective primary school teachers (PSTs). In this paper, we introduce a first study of a larger project, which aims to understand the usefulness of a semantic triangle in studying prospective teachers' knowledge of various mathematical topics. In particular, we present the results of a study focused in the starting level of the fraction concept, based on the multiplicative part-whole relationship. We carried out this study with PSTs by means of a questionnaire. We analyzed the collected responses using a framework of three components that form a semantic triangle, in terms of their conceptual structure, system of representations, and contexts and modes of use of the part-whole relationship. The results show different typologies of meaning expressed by the participants in terms of the semantic triangle. Each typology emphasizes some aspects of the meaning of the part-whole relationship such as the equality of parts, the model of area as

Subjects: Study & teaching of fractions; Teacher education; School children; Primary education; Semantic triangle theory; Primary school teachers -- Training of

PDF Full Text (600KB)

8.

Academic Journal

Title:

Changing Role of Accounting and Its Systems: A New Vision of Accounting as Knowledge Processing Systems

Author: Mohammad, Ahmed Ali
Author Affiliation: Qatar U
Publication Date: 2016
Abstract: This paper introduces a new vision for defining what can be titled "Knowledge accounting and its systems". A review of accounting and information systems literature provides a milestone in the way of architecting a new style of accounting. A key proposition of this paper is that the change in the triangle of process, knowledge, and technologies has drawn new realities for accounting and its systems. Using a nature-based inquiry and structural content analysis paradigm, this paper investigates change aspects and new realities of accounting practices to architect a future catalyst of accounting. Extant, span, scope, and identity of current accounting practices, have been analysed to indicate change aspects in terms of knowledge, process, and technologies. A new vision of knowledge accounting has been mapped and extended to match knowledge necessities of businesses. A new knowledge accounting process map consists of data, information, knowledge, wisdom, trust, and success. The most important finding of this paper is that accounting is no longer data or information services activities, instead accounting is becoming knowledge services that support survival of business organisations. The proposed vision of accounting suggests several directions for further research into transformations in the nature of accounting and its practical systems.

ISSN: 17536715
Publication Type: Journal Article
Update Code: 20161101
AN: 1603153, Database: EconLit with Full Text

Subjects: Accounting and Auditing: General

9.

Exploring advertising in higher education: an empirical analysis in North America, Europe, and Japan.

Academic Journal

By: Papadimitriou, Antigoni; Blanco Ramírez, Gerardo. Tertiary Education & Management (Routledge). Jun2015, Vol. 21 Issue 2, p99-110. 12p. Abstract: This empirical study explores higher education advertising campaigns displayed in five world cities: Boston, New York, Oslo, Tokyo, and Toronto. The study follows a mixed-methods research design relying on content analysis and multimodal semiotic analysis and employs a conceptual framework based on the knowledge triangle of education, research, and innovation. The study reveals that education is overwhelmingly the strongest element emphasized across the five cities and that students constitute the most salient and central element in the majority of the advertisements. [ABSTRACT FROM PUBLISHER] DOI: 10.1080/13583883.2014.999702. (AN: 102702247), Database: Education Research Complete

Subjects: Cross-cultural studies on education; Higher education; Universities & colleges -- Marketing; Advertising; Advertising campaigns; Higher education -- United States; Higher education -- Europe; Higher education -- Japan

10.
COGNITIVE LOAD FOR CONFIGURATION COMPREHENSION IN COMPUTER-SUPPORTED GEOMETRY PROBLEM SOLVING: AN EYE MOVEMENT PERSPECTIVE.

Academic Journal

By: Lin, John; Lin, Sunny. International Journal of Science & Mathematics Education. Jun 2014, Vol. 12 Issue 3, P605-627. 23p. Abstract: The present study investigated (a) whether the perceived cognitive load was different when geometry problems with various levels of configuration comprehension were solved and (b) whether eye movements in comprehending geometry problems showed sources of cognitive loads. In the first investigation, three characteristics of geometry configurations involving the number of informational elements, the number of element interactivities and the level of mental operations were assumed to account for the increasing difficulty. A sample of 311 9th grade students solved five geometry problems that required knowledge of similar triangles in a computer-supported environment. In the second experiment, 63 participants solved the same problems and eye movements were recorded. The results indicated that (1) the five problems differed in pass rate and in self-reported cognitive load; (2) because the successful solvers were very swift in pattern recognition and visual integration, their fixation did not clearly show valuable information; (3) more attention and more time (shown by the heat maps, dwell time and fixation counts) were given to read the more difficult configurations than to the intermediate or easier configurations; and (4) in addition to the number of elements and element interactivities, the level of mental operations accounts for the major cognitive load sources of configuration comprehension. The results derived some implications for design principles of geometry diagrams in secondary school mathematics textbooks. [ABSTRACT FROM AUTHOR] DOI: 10.1007/s10763-013-9479-8. (AN: 9833179), Database: Education Research Complete

Subjects: Mathematics textbooks; Ninth grade (Education); United States. National Aeronautics & Space Administration; Eye movements; Geometry

PDF Full Text (449KB)

Professionals’ Perceptions about the Use of Research in Educational Practice

Academic Journal >>>

By: Ion, Georgeta; Iucu, Romita. European Journal of Higher Education, v4 n4 p334-347 2014. (EJ1088948) The Lisbon strategy adopted in 2000 by the European Council considers knowledge to be the key element in ensuring future European Union economic growth and in promoting social cohesion. With this aim in mind, a solid base is needed so that knowledge can not only be produced but also be used to good effect. For any undertaking based on the triangle of knowledge, research and innovation, education and training will be the first requirements. Starting from this premise, our study aims to analyse the way educational research is used in educational practice. An open survey was administered to 60 practitioners in the field of education, teachers and educational counselling. The results of this study indicate that by building bridges between researchers and practitioners, new opportunities for improving schools’ practices can be developed. Our findings indicate that more cooperation between researchers and practitioners can be achieved by promoting design-based research and by establishing professional learning communities., Database: ERIC

Subjects: Educational Practices; Educational Research; Research Utilization; Teacher Attitudes; Theory Practice Relationship; Qualitative Research; Online Surveys; Information Sources; Performance Factors; Counselor Attitudes; Administrator Attitudes; Foreign Countries; Romania

PDF Full Text (56KB)

Construing geometric shapes in a language literacy context: Defining and classifying triangles in Greek kindergarten.

Academic Journal

By: Giannisi, Paraskevi; Kondyli, Marianna. Linguistics & Education. Dec 2013, Vol. 24 Issue 4, p523-534. 12p. Abstract: Highlights: • Language literacy setting allowing the emergence of uncommon sense knowledge categories is proposed. • Kindergarteners investigate triangles’ qualities as identifying and classifying criteria. • Negotiation of meaning activates existent knowledge and promotes reasoning processes. • Linguistic realisations illustrate the development of a more decontextualised language. • Definitions are grounded on the context and/or the demands of each task. [ABSTRACT FROM AUTHOR] DOI: 10.1016/j.linged.2013.08.001. (AN: 92717006), Database: Education Research Complete

Subjects: Foreign language education; Kindergarten; Educational quality; Educational planning; Greece; Knowledge management

PDF Full Text (805KB)
13. Academic Journal
Title:
Small Country Participation in the EU Research Programmes

Author: Fabri, Anthea
Author Affiliation: Malta Council for Service and Technology
Source: Bank of Valletta Review, Spring 2013, iss. 47, pp. 86-116
Publication Date: Spring 2013
Abstract: Research, innovation and education constitute the Knowledge Triangle and are the three central and strongly interdependent drivers of the knowledge economy (European Commission, ERA, 2012). The EU's Framework Programme is the main instrument for funding research and for implementing the EU's research and innovation policy agenda. This paper examines Malta's participation in the EU's 7th Framework Programme for Research and Technological Development and compares the performance with other small Member States, namely Cyprus, Estonia, Luxembourg and Slovenia, within the context of previous Framework Programmes. The performance of Small States has also been benchmarked with the performance of larger Member States to identify success factors and any barriers which could hinder successful participation of Small States.
ISSN: 10177841
Publication Type: Journal Article
Availability: https://www.bov.com/Content/bov-review
Update Code: 20160201
AN: 1544613, Database: EconLit with Full Text
Subjects: Industrial Policy; Sectoral Planning Methods; Technological Change; Government Policy

14. Academic Journal
Title:
Global Trends in Higher Education: An Unexpected Convergence between France and India

Author: Pilkington, Marc; Nair, Geeta
Author Affiliation: U Burgundy; Hassaram Rijhumal College of Commerce and Economics
Publication Date: 2013
Abstract: We propose to examine an unexpected convergence between the higher education systems of two heterogeneous countries, namely France and India. After a brief comparative survey, we address the issue of the commodification of higher education in order to determine whether the latter evolution has been acknowledged, encouraged or opposed by governments. The modern setting in which higher education institutions operate is partly determined by GATS rules that govern international trade in higher education services, notably through the enhancement of new modes of delivery such as e-learning and distance education. We then extend our reflection to bridge the gap between France and India. Finally, the convergence of academic, economic and institutional factors helps us put forward the new idea of an Indo-French knowledge based triangle.
ISSN: 17595673
Publication Type: Journal Article
Availability: http://www.inderscience.com/ijeed
Update Code: 20130801
AN: 1388869, Database: EconLit with Full Text
Subjects: National Government Expenditures and Education; Higher Education; Research Institutions; Education: Government Policy; Economic Development: Human Resources; Human Development; Income Distribution; Migration
15. **Number Theory and the Queen of Mathematics.**

**Academic Journal**

By: Wagner, Megan. Mathematics Enthusiast. Jan2012, Vol. 9 Issue 1/2, p193-206. 14p. Abstract: The article presents a research on geometry and its relationship with number theory which is compiled and organized from the viewpoint of mathematics education. Number theory, which originates from Babylonians with their knowledge in the right triangle and pythagorean triples, was elaborated by the French lawyer who made mathematics as a form of leisure. Fermat was fascinated with indeterminate equations, worked with pythagorean triples and formulated Fermat's Last Theorem. (AN: 74423886), Database: Education Research Complete

**Subjects:** Mathematics education; Number theory; Fermat's last theorem; Fermat numbers; Fermat, Pierre de, 1601-1665

- PDF Full Text (321KB)

16. **Teaching and Learning Economy Through new Technologies: The EE-T Platform.**

**Conference**

By: Ion, Georgeta; Popescu, Cristina Raluca; Mares, Ilaria. Proceedings of the European Conference on e-Learning. 2012, p621-624. 4p. Abstract: This paper presents a research project carried out by a consortium formed by 10 institutions from 8 European countries. The project is entitled: Economic e-Translation into e from European languages, and it is funded by the European Commission in the framework of Lifelong Learning Programme Erasmus-sub programme. The main aim of this project is to create a dynamic triangle of knowledge between research, postgraduate education and innovation, by promoting the joint application of ICT tools and innovative strategies in several connected fields which could benefit from this interaction, such as: research on history of economic thought, study and teaching of economics, history of ideas, European studies and on the study of European specialized languages. In addition, through the EE-T Project the partnership will assess the impact of economic translation, thanks to an historical and linguistic analysis in order to fully understand the circulation of different approaches to the history of economic thought in Europe. The project is addressed to Researchers in History of the Economic Thought; researchers in Languages for Specific Purposes Specialized studies, Educators in HET, linguistics, Experts in Pedagogy, and Graduate Students. In this paper we will present the first results of the research activity consisting in the identification of economic text in the Romanian language and in the creation of the database. In this matter, we have identified a number of fifteen representative books on Economics that really made a statement in the economic field, in general. Students have shown a great interest in respect to the history of economics and to the key issues that have determined great economic thinkers to make several statements that, in the end, had a historical impact worldwide. We consider that the creation of an on-line platform, such as the one proposed in the EE-T Project, will bring our students and the overall academic community closer to the main issues related to past and present economic information, and will achieve a higher level of knowledge, with regard to the use of on line learning instruments at the university level. [ABSTRACT FROM AUTHOR] (AN: 101746538), Database: Education Research Complete

**Subjects:** Mobile learning; Computer assisted instruction; Educational technology; European Commission; Translating machines

- PDF Full Text (2.3MB)

17. **Learning a mathematical concept from comparing examples: the importance of variation and prior knowledge.**

**Academic Journal**

By: Guo, Jian-peng; Pang, Ming. European Journal of Psychology of Education - EJPE (Springer Science & Business Media B.V.). Dec2011, Vol. 26 Issue 4, p495-525. 31p. Abstract: In experiment 1, novice fourth-grade students ( N = 92) who compared multiple examples that separately varied each critical aspect and then simultaneously varied all critical aspects developed better conceptual knowledge about the altitude of a triangle than students who compared multiple examples that did not separately vary each critical aspect but simultaneously varied all critical aspects. In experiment 2, this pattern was the same for fourth-grade students ( N = 90) but not for sixth-grade students ( N = 94) who had greater prior knowledge about the concept. Aspects that are critical for learning should be varied first separately and then simultaneously, and students with different levels of prior knowledge may perceive different aspects as critical for their learning and thus benefit differently from the identical instruction. [ABSTRACT FROM AUTHOR] DOI: 10.1007/s10212-011-0060-y. (AN: 66478141), Database: Education Research Complete
18. Clustering in Engineering Education in the Baltic Region

Report
The contemporary situation in the Baltic region, namely, the lack of working places due to the structural problems, a high unemployment rate, the migration of highly qualified people and the low rate of self-employees, demands on innovation as an engine of the economic development with a strong impact on sustainable development in the European Union. Clusters became a target for local and regional initiatives to promote competitiveness and job-creation. Cluster contributes to new and better jobs in new industries and offers potential solutions for the quality, maintenance and sustainable development of the economy in the European Union. Cluster is formed by the collaborative process based on mutual sustainability, complementarity and reflexivity. University in a cluster provides student engineers with the appropriate skills and competences for innovation and creates new knowledge within the “knowledge triangle” of education, research and innovation. The hypothesis for further studies is put forth. A bibliography is included. (Contains 2 tables, 3 figures, and a bibliography.)

19. The visual and visuo-haptic exploration of geometrical shapes increases their recognition in preschoolers.

Academic Journal
By: Kalenine, Solène; Pinet, Leatitia; Gentaz, Edouard. International Journal of Behavioral Development. 01/01/2011, Vol. 35 Issue 1, p18-26. 9p. Abstract: This study assessed the benefit of a multisensory intervention on the recognition of geometrical shapes in kindergarten children. Two interventions were proposed, both conducted by the teachers and involving exercises focused on the properties of the shapes but differing in the sensory modalities used to explore them. In the “VH” intervention, the visual and haptic modalities were used to explore the raised shapes while only the visual modality was involved in the “V” (Visual) intervention. We compared the effect of the two interventions on the acquisition of conceptual knowledge about squares, rectangles and triangles in 72 preschoolers. Results showed that children progressed more importantly following VH than V intervention for rectangles and triangles. The addition of the haptic modality in intervention provides beneficial effects by allowing children to better understand what is included in a shape category. Results are discussed in relation to the multimodal coding (in line with embodied theories) and the analytic perception generated by the haptic modality. [ABSTRACT FROM PUBLISHER] DOI: 10.1177/0165025410367443. (AN: 57204399), Database: Education Research Complete

20. Knowledge Policy in the EU: From the Lisbon Strategy to Europe 2020

Academic Journal
Title: Knowledge Policy in the EU: From the Lisbon Strategy to Europe 2020
Author: Hervas Soriano, Fernando; Mulatero, Fulvio
Author Affiliation: European Commission, Seville; European Commission, Seville
Source: Journal of the Knowledge Economy, December 2010, v. 1, iss. 4, pp. 289-302
Publication Date: December 2010
Abstract: The concept of the "knowledge triangle" highlights the importance of jointly fostering research, education and innovation, and of paying due attention to the linkages between them. In 2000, the European Union launched
an initiative to speed the transition to a knowledge-based society over the next 10 years: the Lisbon strategy. The policy initiatives that ensued put a strong emphasis on progress in the research, education and innovation areas. The links between these policy domains did not receive the same attention. A new, streamlined knowledge agenda (Europe 2020) has now been put at the core of the growth and employment strategy for the next decade. While keeping the positive features of its predecessor, it relies on a more integrated research and innovation policy, strongly connected with key elements of education and training. The effective implementation of the Europe 2020 agenda will depend on further reinforcement of existing governance mechanisms for knowledge policies.

Discarding the ‘basic science/applied science’ dichotomy: A knowledge utilization triangle classification system of research journals.

By: Tijssen, Robert J. W. Journal of the American Society for Information Science & Technology. Sep2010, Vol. 61 Issue 9, p1842-1852. 11p. 2 Diagrams, 5 Charts, 2 Graphs. Abstract: This paper introduces a comprehensive system for classifying scholarly journals according to their degree of ‘application orientation.’ The method extends earlier models and journal classification systems that were designed to tackle the crude duality between ‘basic research’ and ‘applied research.’ This metrics-based system rests on a ‘Knowledge Utilization Triangle’ typology, which distinguishes three types of coexisting knowledge application domains: ‘clinical,’ ‘industrial,’ and ‘civic.’ The empirical data relate to the institutional origin of authors who publish their research papers in the scientific journal literature. The case study applies indicators of ‘clinical relevance’ and ‘industrial relevance’ to 11,000 journals indexed by the Web of Science (WoS) database. The resulting multidimensional classification system of journals comprises six Journal Application Domain (JAD) categories. Macro-level trend analysis of the WoS-indexed research publication output by JAD category reveals redistributions within global science during the years 1999–2008, with a slight increase of output published in ‘industrially relevant’ journals. [ABSTRACT FROM AUTHOR]

SUSTAINABLE STRATEGIES IN MECHATRONICAL EDUCATION AS VOCATIONAL TRAINING ENVIRONMENT.

By: Pop, Ioan G.; Maties, Vistrian. Problems of Education in the 21st Century. 2010, Vol. 19, p94-102. 9p. Abstract: Education and training with specific procedures and techniques are crucial in continuously economic and social changes. The vocational educational training systems (VETS) together with industry are confronted with the need to develop theoretical sequences integrated with practical learning sequences, as well, all participants being determined to acquire key competences and update their skills as a continuous process throughout their lives. These objectives can be achieved only by sustainable long term effort raising skill levels with lifelong learning and knowledge triangle, education, research and innovation strategies. The VETS have to contribute efficiently and equitable to the modernization of education at all levels. Lifelong learning is imposed as a necessity in the new emergent knowledge based economy, supporting creativity as a contextual innovative process enabling full economical and social participation, teachers and trainers been challenged by a lot of problems. Technology education holds the potential for teaching all the people involved in the VETS as lifelong learning apprentices to get ability in problem solving, being considered as only logical system based on a new, synergistic education. The new profession, mechatronician, as a technology education job profile, has to be made
more attractive, only the quality of teacher education being able to influence the performance of the apprentices.

**Subjects:** Occupational training; Continuing education; Vocational education; Problem solving; Social change; Mechatronics

**Designing a Qualitative Research for Evaluation of English for Academic Purposes Activity in Teacher Education**

Report


Competence-based teacher education provides new knowledge within the knowledge triangle of education, research and innovation. Communicative competence is of the greatest importance which individuals need for personal fulfillment and development, active citizenship, social inclusion and employment (European Commission, 2004). The successful development of teachers’ communicative competence requires English for Academic Purposes activity in teacher education to be evaluated. Aim of the following paper is to identify the qualitative research design to examine efficiency of English for Academic Purposes activity in teacher education. The study presents how the steps of the process are related: qualitative evaluation research [right arrow] principles of the qualitative evaluation research [right arrow] the methodology of the qualitative evaluation research [right arrow] methods of the qualitative evaluation research [right arrow] empirical study within a multicultural environment. The findings of the research reveal the qualitative evaluation research design to evaluate efficiency of English for Academic Purposes activity in teacher education for the improvement of student teachers’ communicative competence. Directions of further research are elaborated. (Contains 1 table and 7 figures.)

**Factors Forming Collaboration within the Knowledge Triangle of Education, Research and Innovation**

Report


A proper combination of education, research and innovation is provided by varied cooperative networks. However, the success of collaboration within a multicultural environment requires that the key factors enabling synergy between education, research and innovation have to be considered. Aim of the following paper is to identify and to analyze these key factors within the knowledge triangle of education, research and innovation. The meaning of the key concepts of education, research and innovation is studied within the search for factors forming collaboration. The results of the paper reveal the factors forming successful collaboration to become more mobile, to learn from the experiences of others and to work in a qualitative way.

**CREATIVITY AND INNOVATION IN LEARNING: The Changing Roles OF ICT.**

Academic Journal


Abstract: The notions of information, communication and technology constitute the underlying structure of the term ICT. While these elements have instigated change, the use of them has also incited change in a way that the notions of Innovation, Collaboration and Transformation have become keys to the application of ICTs. Similar to this new ICT triangle, the knowledge triangle addresses the issue of innovation as well. The knowledge triangle, consisting of education, research and innovation, is crucial to support personal and organizational development. The critical issue is that innovation intersects with both the new ICT triangle and the knowledge triangle. Any discussion regarding the relationship between the new ICT and knowledge would cover a very
broad scope, including the relationships between education and society, and the interaction between knowledge and innovation. Under such circumstances, where such vast areas must be covered simultaneously; creativity, innovation and education will most likely be in the agenda of European education for a long time. As social changes take place towards a digital society, pre-established social connections have also been transferred and somewhat transformed into the digital domain. In this regard, e-learning seems to have a crucial role to succeed in keeping pace with the constant change. [ABSTRACT FROM AUTHOR] (AN: 43476257), Database: Education Research Complete

**Subjects:** Distance education; Creative ability; Education; Information & communication technologies; Communication & technology; Globalization

PDF Full Text (290KB)

- 26.

**H. M. Government:**

Report

Education & Training Parliamentary Monitor: Monthly Further & Higher Education Bulletin. 2009, Issue 26, p7-8. 2p. Abstract: Information about the European Competitiveness Ministers meeting held in Prague, Czech republic on May 4, 2009 is presented. Highlights include the existence of knowledge triangle, a concept to the links between higher education, and research policies. Further it also raised the issue on developing human resources, and the scrutiny of specific needs of mobile researchers in the wider context of mobile workers in a way that existing European consultative groups can be maximized. (AN: 44138753), Database: Education Research Complete

**Subjects:** Conferences & conventions; Education conferences; Human capital; Prague (Czech Republic); Czech Republic; Personnel departments

PDF Full Text (16KB)

**ERGÄNZUNG**

**H. M. Government DIUS MINISTERIAL WRITTEN STATEMENTS EU Competitiveness Ministers Meeting (4 May 2009) 11.5.09**

The Minister of State for Science and Innovation (Lord Drayson) made the following written statement:

“An informal meeting of EU Research Ministers took place in Prague on 4 May. The two main topics for discussion were links between higher education, research and innovation policies and the mobility and career development of researchers. Professor Adrian Smith, Director-General for Science and Research in DIUS, represented the UK.

“The meeting began with a session on the “knowledge triangle”—a concept referring to the links between higher education, innovation and research policies as being central to the creation of a strong knowledge-based economy. There were presentations from the vice-chair of the Czech Research Council and from three organisations representing major investors in R&D from the three sides of the knowledge triangle: EUROHORCs (the heads of national Research Councils in Europe), the European University Association (EUA) and BusinessEurope.

“This was followed by a discussion focusing on relevant initiatives being implemented in member states and at European level. The UK stressed the need to address the culture of university-business relations alongside looking at the structures designed to forge links between these two groups and noted action taken in the UK to this effect.

“The second session on developing human resources for research examined a paper circulated by the Portuguese and Luxembourg Ministers setting out the conditions required to make Europe a more attractive place for researchers to work. The UK referred to the importance of national action plans on researcher careers and mobility currently being developed in member states and the need to respect national competence which applied in key areas. It was also important to examine the specific needs of mobile researchers in the wider context of mobile workers as a whole and to maximise the use of existing European consultative groups in taking this agenda forward.”

- 27.

**Trigonometry, Technology, and Didactic Objects.**

Conference
By: Moore, Kevin. Conference Papers -- Psychology of Mathematics & Education of North America. 2009 Annual Meeting, p1. 8p. Abstract: Students have difficulty constructing coherent understandings of trigonometry and trigonometric functions (Brown, 2005; Weber, 2005). This study conjectured that their weak understandings of angle measure and compartmentalized knowledge of right triangle and unit circle trigonometry are sources of the problem. The response was to devise an instructional sequence to promote these foundational understandings and connections. A critical part of this instruction was the use of dynamic applets. These applets were intended as didactic objects to facilitate meaningful conversations supporting student learning. This report discusses the design and implementation of these applets and their role in promoting discourse that facilitated knowledge construction. ..PAT.-Unpublished Manuscript [ABSTRACT FROM AUTHOR] (AN: 54435917), Database: Education Research Complete

PDF Full Text (222KB)

Investigating properties of isosceles trapezoids with the GSP: The case study of two preservice teachers.

Conference

By: Sáenz-Ludlow, Adalira; Athanasopoulou, Anna. Conference Papers -- Psychology of Mathematics & Education of North America. 2006 Annual Meeting, p1. 4p. 7 Diagrams. Abstract: ABSTRACT The purpose of this teaching experiment was to understand how learners, who have already some knowledge of geometry, are able to reorganize it and develop a better sense for geometric objects and their properties using the GSP. The guiding principle of the study was the use of semi-structured constructions using the GSP environment and open-ended questions to give learners freedom to explore, to make conjectures, to investigate them, and to prove them. This paper reports the activity of two pre-service teachers induced by a task exploring isosceles trapezoids and their properties. They not only arrived at several of the properties of isosceles trapezoids but were also able to prove them using their previous knowledge of similar and congruent triangles. ..PAT.-Unpublished Manuscript [ABSTRACT FROM AUTHOR] (AN: 26974328), Database: Education Research Complete

Subjects: Teaching; Geometry education; Learning; Trapezoids; Shapes; Triangles

PDF Full Text (132KB)

Being a 'professional' primary school teacher at the beginning of the 21st century: a comparative analysis of primary teacher professionalism in New Zealand and England.

Academic Journal

By: Locke, Terry; Vulliamy, Graham; Webb, Rosemary; Hill, Mary. Journal of Education Policy. Sep2005, Vol. 20 Issue 5, p555-581. 27p. Abstract: This article analyses findings from two studies conducted collaboratively across two educational settings. New Zealand and England, in 2001-2002. These studies examined the impact of national educational policy reforms on the nature of primary teachers' work and sense of their own professionalism and compared these impacts across the two countries. Adopting a policy ethnography approach, using in-depth interview data from samples of teachers in each country, it is argued that there have been discursive shifts in the meaning of the three key terms, autonomy, altruism and knowledge, embodied in the classical professionalism triangle. These shifts reflect policy-makers' moves from a 'professional-contextualist' conception of teacher professionalism towards the 'technocratic-reductionist' conception that accompanies neoliberal educational reforms in many countries. Teachers in both countries experienced increasing constraints on their autonomy as they became far more subject to 'extrinsic' accountability demands. Whether these demands were perceived as enhancing or diminishing teacher professionalism depended on the manner in which they were filtered through the profession's defining quality, namely teachers' altruistic concerns for the welfare of the children in their care. [ABSTRACT FROM AUTHOR] DOI: 10.1080/0268093050221784. (AN: 18926576), Database: Education Research Complete

Subjects: Education policy; Primary school teachers; Primary education; Educational change; Teachers; New Zealand; England; Professionalism

PDF Full Text (247KB)

Hands-on shapes.

Academic Journal
By: De Mestre, Neville. Australian Mathematics Teacher. Aug2005, Vol. 61 Issue 3, p14-15. 2p. Abstract: Presents hands-on tasks that were created based on shapes, aimed to add to a student's knowledge of geometry. Changing a triangle into a rectangle; Demonstration of a four-color problem; Tasks involving the use of pentominoes and unit cubes. (AN: 18862776), Database: Education Research Complete

Subjects: Geometry education; Triangles; Rectangles; Cubes; Shapes

PDF Full Text (116KB)


Review


Subjects: Therapeutics; Nonfiction; Therapy Triangle: Empowering You With the Knowledge to Heal, The (Book); Emotional Cutoff: Bowenian Family Systems Theory Perspectives (Book); Burkham, Robert; Titelman, Peter

PDF Full Text (241KB)

32. THE ARTICULATION OF CULTURE, AGRICULTURE, AND THE ENVIRONMENT OF CHINESE IN NORTHERN THAILAND.

Academic Journal


Subjects: Sustainable agriculture; Culture; Rural development; Northern Thailand; Agriculture

PDF Full Text (4.5MB)


Editorial & Opinion

By: McCarthy, Florence E.. 2003 8 pp. (ED481081)

Using the concept of triangles as a schematic conceptualization of service learning is a useful pedagogical tool in helping faculty, students, and community members to see the linkages among the component concepts in service learning approaches. Service learning, which is the linking of academic instruction with community service as guided by reflection, has the following among its general characteristics: (1) it brings education back into society by linking what students learn in the classroom to what goes on in the real world; (2) it encourages students to be useful and productive in the service of others; and (3) it provides students with the means to develop critical analytic and personal skills related to their own self-awareness and self-confidence. In the triangle of concepts, experience, reflection, and knowledge are mutually dependent and interconnected. In the triangle of partners, agencies, students, and faculty work together through reciprocal participation. Finally, in the triangle of relationship, the experience of agencies, the reflection of students, and the knowledge of faculty create mutually reciprocal and interactive relationships among that partners that create successful service learning programs. (Contains 23 references.) (MO) FULL TEXT FROM ERIC, Database: ERIC

Subjects: Agency Role; Community Involvement; Community Role; Community Services; Educational Principles; Higher Education; Linking Agents; Partnerships in Education; School Community Relationship; Service Learning;
Approximation Algorithms for the Traveling Salesman Problem

Author: Monnot, Jerome; Paschos, Vangelis; Toulouse, Sophie
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Abstract: We first prove that the minimum and maximum traveling salesman problems, their metric versions as well as some versions defined on parameterized triangle inequalities (called sharpened and relaxed metric traveling salesman) are all equi-approximable under an approximation measure, called differential-approximation ratio, that measures how the value of an approximate solution is placed in the interval between the worst- and the best-value solutions of an instance. We next show that the 2 OPT, one of the most-known traveling salesman algorithms, approximately solves all these problems within differential-approximation ratio bounded above by 1/2. We analyze the approximation behavior of 2 OPT when used to approximately solve traveling salesman problem in bipartite graphs and prove that it achieves differential-approximation ratio bounded above by 1/2 also in this case. We also prove that, for any epsilon > 0, it is NP-hard to differentially approximate metric traveling salesman within better than 649/650 + epsilon and traveling salesman with distances 1 and 2 within better than 741/742 + epsilon. Finally, we study the standard approximation of the maximum sharpened and relaxed metric traveling salesman problems. These are versions of maximum metric traveling salesman defined on parameterized triangle inequalities and, to our knowledge, they have not been studied until now.

Amédée or How to Get Rid of It: Social Representations from a Dialogical Perspective.

By: Marková, Ivana. Culture & Psychology. Dec2000, Vol. 6 Issue 4, p419. 42p. 2 Diagrams. Abstract: The theory of social representations and communication belongs to a broadly conceived family of approaches studying interdependencies between socially and individually shared knowledge, which are based on dialogical epistemology. This epistemology, in order to ask questions about stability in knowledge, presupposes its change. The theory of social representations as a theory of social knowledge is characterized by the following concerns. First, it conceives of the dynamics of thought, language and social practices as interdependent socio-cultural and individual phenomena which are co-constructed by means of tension and polarization of antinomies. The construction of knowledge can be represented as a dynamic semiotic triangle and the change of knowledge can be represented in terms of three-step processes. Second, the theory of social representations and communication is based on the set of interrelated and dialogically defined concepts generating hypotheses, for example themata, anchoring, objectification and communicative genres. [ABSTRACT FROM AUTHOR] (AN: 5848633), Database: Education Research Complete

Pyramids and probability.
Abstract: Presents mathematical problems based on mathematician Blaise Pascal's Pascal's triangle. Knowledge of the number sequence involved in the Pascal's triangle by the Chinese and Arabic mathematicians. INSETS: French challenge 1.; French challenge 2. (AN: 3709415), Database: Education Research Complete

Subjects: Pascal's triangle; Number theory

Reconceiving Science and Policy: Academic, Fiducial and Bureaucratic Knowledge

Academic Journal
By: Hunt, Jane; Shackley, Simon. Minerva: A Review of Science, Learning & Policy. Summer 1999, Vol. 37 Issue 2, p141. 24p. Abstract: Explores the relationship between the three dimensions of the conception of science as an aid to policymaking, namely, academic science, fiducial science, and bureaucratic knowledge. Distinction between tacit and explicit knowledge; Forms of association in the knowledge triangle; Applications from climate change science; Energy knowledge in Great Britain; Hybrid knowledge form of paleoclimatology. (AN: 11306655), Database: Education Research Complete

Subjects: Tacit knowledge; Bureaucracy; Science & state; Science

Simply Proving Pythagoras's Theorem.

By: Bertrand, Philip V.. Teaching Mathematics and Its Applications, v15 n1 p10-11 Mar 1996. (EJ530002) Presents a simple proof of the Pythagorean Theorem that only requires prior knowledge of elementary properties of triangles. (MKR), Database: ERIC

Subjects: Concept Formation; Geometry; Higher Education; Mathematics Instruction; Proof (Mathematics); Secondary Education; Triangles (Geometry)

THE KNOWLEDGE TRIANGLE AND AUSTRALIAN UNIVERSITIES.

Academic Journal
By: Grichting, Wolfgang L. Education & Society. 1995, Vol. 13 Issue 2, p63-75. 13p. 2 Diagrams, 3 Charts. Abstract: Knowledge generation, transmission and application are viewed as the three major functions of the modern university. These three responsibilities are conceptualised as ideal types and arranged in triangular form to create a mental space. Using recently released information from the Department of Education, Employment and Training about the 35 Australian public universities factor scores are computed for each of the 35 universities. These scores are used as coordinates to plot the 35 universities into the knowledge triangle. As predicted, knowledge transmission and application are most, and knowledge generation is least emphasised. The recent amalgamation of universities and colleges of advanced education to form the Unified National System as well as the unique position of the Commonwealth Scientific and Industrial Research Organisation would appear to be largely responsible for this state of affairs. [ABSTRACT FROM AUTHOR] (AN: 9605283752), Database: Education Research Complete

Subjects: Educational evaluation; Colleges of Advanced Education (Australia); Universities & colleges -- Evaluation; Education policy; Postsecondary education; Australia; Technological innovations

Research Synthesis on Education Interventions for Students with Attention Deficit Disorder.

Education of Children with Attention Deficit Disorder.
Report

By: Fiore, Thomas A.; And Others; Research Triangle Inst., Research Triangle Park, NC. Center for Research in Education.. 1992 150 pp. (ED363085)

This report summarizes activities and findings of a federally funded center at the Research Triangle Institute (North Carolina) reviewing current knowledge concerning nonpharmacological interventions for improving educational outcomes for students with attention deficit disorders (ADD). For each of the seven topics reviewed, the report provides a synopsis summarizing the findings across studies; suggestions for educators; areas for further study; and a matrix of representative studies, displaying key variables and outlining findings most relevant to educators. The topics are: (1) positive reinforcement or token reinforcement; (2) behavior reduction strategies; (3) response cost; (4) self-instruction or cognitive behavioral training; (5) parent or family training; (6) task or environmental stimulation; and (7) biofeedback. An annotated bibliography provides bibliographic information and abstracts for 83 studies which represent the range of research and are particularly well designed or have special relevance for educators. The abstracts describe settings, subjects, and procedures; review the findings with an emphasis on those relevant to teaching and learning; and report conclusions. (Also contains an additional bibliography of approximately 150 items.) (DB)

FULL TEXT FROM ERIC

Subjects: Attention Deficit Disorders; Behavior Change; Behavior Modification; Biofeedback; Cognitive Restructuring; Educational Practices; Elementary Secondary Education; Instructional Effectiveness; Intervention; Outcomes of Education; Parent Education; Positive Reinforcement; Self Management; Stimulation; Teaching Methods

Images for Crisis Management.

Academic Journal


Most take canoeing, leadership, first aid, CPR and other courses to help cope when something happens, but there is more to dealing with crisis than learning proper procedures and techniques. Three areas of concern interlock to form the Crisis Management Triangle: knowledge and skill, preventive awareness, and crisis management planning. (ERB), Database: ERIC

Subjects: Accident Prevention; Adventure Education; Crisis Management; Emergency Programs; Experiential Learning; Outdoor Activities; Planning; Rescue; Safety; Safety Education

The Classroom De-Gamer.

Report

By: Stapleton, Richard J.. 1978 6 pp. (ED155581)

Teachers calling on students to answer questions in class regarding homework assignments and general knowledge frequently invoke the Drama Triangle (Karpman, 1968). Many of these questions automatically put the teacher in the Persecutor or Rescuer role and students in the Victim role. Retaliatory transactions by students often put the teacher in the Victim role and students in the Persecutor role. The players switch about the Drama Triangle as the games are played. One way to end the game-playing involves the Classroom De-Gamer. This is a teacher-invented device which randomizes the question-and-answer process. The device consists of a "spinner" which lands on a number from 1-30. Students have been preassigned corresponding numbers, and the person on whose number the pointer lands must answer the question. All questions can be presented in advance if desired. The device has proved highly successful in the classes of its teacher/inventor. (Author/BP), Database: ERIC

Subjects: Class Activities; Classroom Communication; Educational Games; Elementary Secondary Education; Program Descriptions; Questioning Techniques; Role Conflict; Student Participation; Student Teacher Relationship; Teaching Methods; Testing