

Bibliography רשימת מקורות לכנס הבינלאומי
“The third mission”: International Virtual Conference on
Teacher Education in Social and Environmental Context
י"ז בטבת, תשפ"ב 21 December 2021

1.

Exploring the impacts of contextualised outdoor science education on learning: the case of primary school students learning about ecosystem relationships.

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Source:

Journal of Biological Education (Routledge). Apr2021, p1-18. 18p. 3

Abstract:

The present study explored the impacts of a contextualised outdoor science curriculum on what and how elementary students learn when immersed in the local contexts in which natural phenomena occur. We conducted 63 individual interviews with fifth- and sixth-graders (between 10 and 12 years old) living in the inner city of Montréal, Québec province, Canada. These allowed us to identify (1) three categories of impacts on what students learned: evolution of conceptual understanding about living organisms, development of scientific investigation abilities, and evolution of connection to nature, and (2) two categories of impacts on how students learned: a context that encourages deeper learning and a context that promotes engagement. Our results show that impacts on students went beyond learning about living organisms. A strength of our findings is that although the method of data collection did not aim a priori to corroborate the work of other research in the field of outdoor education, it in fact corroborated several results from other research, which is an important step for the development of this field. We also found that some students developed a connection to nature without addressing environmental problems during outdoor activities.

2.

The Formation of the Eurasian Research-and-Education Ecosystem and the Internationalization of Educational Platforms: the Case of Russia and China.

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Source:

European Journal of Contemporary Education. Dec2019, Vol. 8 Issue 4, p841-854. 14p.

Document Type:

Abstract:

The object of this study is to assess the potential for the development of the Russian market for educational services as a component part of the present-day process of internationalization of science and higher education in the countries of Eurasia, above all China and Russia. The paper describes Russia's and China's unique unifying and coordinating role in the development of a common educational space, which must result in the creation of a Eurasian research-and-education ecosystem. The authors conducted an analysis of the current structure of the ecosystem. The authors conducted an analysis of the current structure of the education ecosystem. The authors conducted an analysis of the current structure of the sector of joint Russian-Chinese education institutions. The paper describes the current state of affairs regarding, and prospects for, the development of the government's digitalization program that is based on the concept of Digital 4.0, a paradigm that is increasingly becoming a natural environment for society to function and develop in. The authors explore some of the key trends and risks inherent in the development of the global market for educational platforms. The paper provides a rationale for the need to create a joint Russian-Chinese educational platform - one can hardly overestimate its role in the implementation of the Belt and Road Initiative transnational project. The study employed a set of traditional methods of research, including classification, comparative analysis, summarization, juxtaposition, and forecasting. In addition, it incorporates a sociological survey of students at Russia's leading universities. The authors made use of data from the Ministries of Education of China and Russia and various open-access statistics websites, as well as data from a sociological study of their own. The authors' assessments of the current potential of and trends exhibited by the Russian market for online education, as well as the fact that Russian students are interested in and prepared for active participation in online projects, helped put together a set of recommendations for boosting the competitiveness and efficiency of the Russian market for educational services

and those for developing an international educational platform as part of the Eurasian educational ecosystem.

3.

Studying Professional Development as Part of the Complex Ecosystem of STEM Higher Education.

Authors:

Emery, Nathan1 emeryna1@msu.edu

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Ebert-May, Diane1

Source:

Innovative Higher Education. Dec2019, Vol. 44 Issue 6, p469-479. 11p.

Document Type:

Article

Abstract:

Professional development in teaching is a critical component of ongoing work to improve student learning outcomes in higher education, especially STEM education. While there are many large-scale professional development programs designed to help participants change the way STEM is taught, few have thoroughly evaluated the outcomes to determine whether faculty members have adopted new techniques and transferred what they learned to their teaching practice. Importantly, without substantive assessment of long-term professional development outcomes, we are left with little evidence of program effectiveness. In this article we examine the current state of professional development evaluation in STEM higher education, propose possible study design elements to use when investigating the impact of professional development on instructors, and describe a novel longitudinal research design for the evaluation of professional development activities.

4.

The ecosystem of e-learning model for higher education.

Authors:

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Siebrits, André2

Source:

South African Journal of Science. May/Jun2019, Vol. 115 Issue 5/6, p78-83.

6p.

Document Type:

Article

Abstract:

We present the ecosystem of e-learning (EeL) model, which can be applied to any higher education context, and which takes full account of all inhabitants and their interrelationships, not only the components, of the e-learning food

chain. Specifically, this model was applied to our context within the University of the Western Cape, highlighting the role of the academic developer within the model. A key argument advanced in this paper is that academic developers should work to reduce complexities associated with emerging e-tools. The EeL model is used to emphasise the role of academic developers as mediators between components and relationships.

5.

Expanding entrepreneurship education ecosystems.

Authors:

Belitski, Maksim1, m.belitski@reading.ac.uk

Heron, Keith1, keith.heron@henley.reading.ac.uk

Source:

Journal of Management Development; 2017, Vol. 36 Issue 2, p163-177, 15p

Document Type:

Article

Abstract:

Purpose The creation of start-ups using knowledge provided by universities has been identified as an important source of knowledge spillover and regional economic development. Entrepreneurship ecosystems in education have become the most important and efficient mechanism of business community engagement and knowledge transfer within university-industry-government framework creating value to society and regional economy. The paper aims to discuss these issues. **Design/methodology/approach** This study undertakes in-depth synthesis of eclectic literature on entrepreneurship ecosystems and knowledge spillover of entrepreneurship, examining the critical success factors and enablers of entrepreneurship ecosystems in education. **Findings** This study proposes entrepreneurship education ecosystems as an alternative unit of analysis when it comes to considering the role of university-industry-government collaboration in knowledge commercialization. The authors recommend key entrepreneurship education ecosystem enablers for knowledge commercialization and engagement with entrepreneurial communities. **Originality/value** The authors propose a framework for the creation of an entrepreneurship education ecosystem as a unit of analysis when considering the role of university-industry-government collaboration. It requires different approaches to teaching, research and business outreach, some of which have not yet been discovered or yet need to be created.

6.

Engaging the Framework for Information Literacy for Higher Education

as a Lens for Assessment in an ePortfolio Social Pedagogy Ecosystem for Science Teacher Education.

Authors:

Pitts, Wesley¹

Lehner-Quam, Alison¹

Source:

International Journal of ePortfolio; 2019, Vol. 9 Issue 1, p29-44, 16p

Document Type:

Article

Abstract:

This article highlights a case study that assesses how graduate-level, in-service science teachers engage in an ePortfolio social pedagogy ecosystem to document their growth in knowledge practices and dispositions in information literacy. The ePortfolio social pedagogy ecosystem and this study are situated within the context of the Catalyst Framework. The three modes of interrelated social learning activities include: (1) authoring the written ePortfolio in an online ePortfolio digital media platform, (2) presenting the ePortfolio in the webinar platform, and (3) presenting the ePortfolio inperson in a physical setting. We used case study methodology to systematically investigate how each participant used their ePortfolio capstone exit project to engage the Association of College and Research Libraries' (2015) Framework for Information Literacy for Higher Education (ACRL Framework) as a conceptual lens to document their competencies (as part of reflective practice) in information literacy. The unit of analysis we used was the ePortfolio entry focused on using information literacy to understand science education theory and practice. Findings show that the participants emphasized content in different but connected communication modes across the ePortfolio social pedagogy ecosystem. Findings also show that ePortfolio is an effective tool for self-assessment and reflection on one's information literacy competencies. Implications for outcomes assessment are also discussed.

7.

New technology, new pedagogy? Employing video podcasts in learning and teaching about exotic ecosystems.

Authors:

Hill, JenniferL.1 (AUTHOR) jennifer.hill@uwe.ac.uk

Nelson, Amanda2 (AUTHOR)

Source:

Environmental Education Research. Jun2011, Vol. 17 Issue 3, p393-408. 16p.

1 Chart, 3 Graphs.

Document Type:

Article

Abstract:

This paper examines the experiences of undergraduate university students in response to the employment of video podcasts to support learning and teaching about exotic ecosystems. Six, 15-20-minute podcasts were made accessible to students through a virtual learning environment, either online or to download to mobile technology. The students were free to watch the podcasts whenever and wherever they chose to. The perceived and actual effectiveness of the technology was assessed by written questionnaire, focus groups and summative assessment results. Students agreed that the podcasts were effective in supporting learning and teaching on the course, largely by offering a flexible and visual learning experience. The podcasts were also perceived as a useful resource for revision and assessment, providing visual images that stimulated factual recall and highlighted knowledge gaps. There were no significant differences, however, in examination essay grades comparing cohorts prior to and post adoption of podcasts. The key to improving the student learning experience appears to lie not in adopting new pedagogy, but in reflexively developing the existing pedagogic strategies employed by both teachers and learners. Of primary importance is uniting the individual learning experience of podcasts with group exploration and critical discussion in a collaborative learning framework.

8.

Inferring ecosystem networks as information flows.

Authors:

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Source:

Scientific Reports. 3/29/2021, Vol. 11 Issue 1, p1-22. 22p.

Document Type:

Article

Abstract:

The detection of causal interactions is of great importance when inferring complex ecosystem functional and structural networks for basic and applied research. Convergent cross mapping (CCM) based on nonlinear state-space reconstruction made substantial progress about network inference by measuring how well historical values of one variable can reliably estimate states of other variables. Here we investigate the ability of a developed optimal information flow (OIF) ecosystem model to infer bidirectional causality and compare that to CCM. Results from synthetic datasets generated by a simple predator-prey model, data of a real-world sardine-anchovy-temperature system and of a multispecies fish ecosystem highlight that the proposed OIF performs better than CCM to predict population and community patterns. Specifically, OIF provides a larger gradient of inferred interactions, higher point-value accuracy and smaller fluctuations of interactions and α - diversity including their characteristic time delays. We propose an optimal

threshold on inferred interactions that maximize accuracy in predicting fluctuations of effective α -diversity, defined as the count of model-inferred interacting species. Overall OIF outperforms all other models in assessing predictive causality (also in terms of computational complexity) due to the explicit consideration of synchronization, divergence and diversity of events that define model sensitivity, uncertainty and complexity. Thus, OIF offers a broad ecological information by extracting predictive causal networks of complex ecosystems from time-series data in the space-time continuum. The accurate inference of species interactions at any biological scale of organization is highly valuable because it allows to predict biodiversity changes, for instance as a function of climate and other anthropogenic stressors. This has practical implications for defining optimal ecosystem management and design, such as fish stock prioritization and delineation of marine protected areas based on derived collective multispecies assembly. OIF can be applied to any complex system and used for model evaluation and design where causality should be considered as non-linear predictability of diverse events of populations or communities.

9.

Verification of historical smooth sheet bathymetry for the Gulf of Alaska – Integrated Ecosystem Research Program.

Authors:

Zimmermann, Mark¹ (AUTHOR) mark.zimmermann@noaa.gov

De Robertis, Alex¹ (AUTHOR)

Ormseth, Olav¹ (AUTHOR)

Source:

Deep-Sea Research Part II, Topical Studies in Oceanography. Jul2019, Vol. 165, p292-302. 11p.

Document Type:

Article

Abstract:

We verified the accuracy of interpolated bathymetric surfaces created from historic (1924–2003) National Ocean Service smooth sheet bathymetric soundings and shorelines with single-beam echosounder measurements of seafloor depth obtained in the spring and summer of 2013. Independent comparisons were made at ten inshore locations in the central and eastern Gulf of Alaska as an effort to groundtruth the fish habitat layers provided for NPRB's (North Pacific Research Board) sponsored Gulf of Alaska – Integrated Ecosystem Research Program (GOA-IERP). Ordinary least squares linear regressions determined that the GOA-IERP soundings could successfully predict interpolated smooth sheet bathymetry (gridded or raster surface) at all sites (best $R^2 = 1.0$), although the oldest smooth sheets from 1924 ($R^2 = \sim 0.90$) and 1925 ($R^2 = \sim 0.80$) had the poorest fits. Standardized residuals were geographically clustered at all sites, with larger residuals often

observed in areas of rapid depth transition, but $\geq 93\%$ of residuals at all sites were within two standard deviations. Residual analysis indicates that the standardized residuals increase with depth, slope, distance to nearest smooth sheet sounding, and distance to nearest smooth sheet navigation station. This indicates that errors in navigation were greater farther offshore, interpolations were worse in areas of sparse soundings, and the consequences were more significant in steeper and deeper areas. Overall, we conclude that the smooth sheet bathymetry was successfully ground truthed and useful for fish habitat descriptions.

10.

Relational epistemologies in land-based learning environments: reasoning about ecological systems and spatial indexing in motion.

Authors:

Pugh, Priya¹

McGinty, Megan¹

Bang, Megan¹

Source:

Cultural Studies of Science Education; Jun2019, Vol. 14 Issue 2, p425-448, 24p

Document Type:

Article

Abstract:

Social and cultural practices in learning settings are sites for leveraging and/or remediating sustainable and just conceptions of nature–culture relations to meet changing environmental demands of twenty-first century. In this study, we examine epistemic navigation among Indigenous youth in an outdoor, land based, STEAM (science, education, arts, math, and science) camp which not only leveraged nature-culture relations as part of critical engagement with socio-ecological systems, but also as a site for Indigenous resurgence and well-being in learning spaces. We take a microethnographic (Gee and Green in Rev Res Educ 23:119–169, 1998. 10.2307/1167289) approach to examine sense-making among three youth while engaged in a walking activity in which they were asked to embody a plant as part of cultural practices of reading the land. We found that the micro-practice of spatial indexing dynamically mediated sense-making about ecological systems as participants coordinated attention and observations between humans and more-than-human kinds. This form of sense making reflected both cultural and historical experiences, which students leveraged in their understandings of complex socio-ecological systems.

11.

Practice makes pedagogy – John Dewey and skills-based sustainability education.

Authors:

Tarrant, Seaton Patrick¹

Thiele, Leslie Paul²

Source:

International Journal of Sustainability in Higher Education; 2016, Vol. 17 Issue 1, p54-67, 14p

Document Type:

Article

Abstract:

Purpose – The purpose of this paper is to ground contemporary sustainability education in John Dewey's democratic pedagogy. Specifically, the authors argue that Dewey's thought anticipates, and theoretically informs, the sustainability skill set required of contemporary citizens in a complex and changing world. **Design/methodology/approach** – For illustrative purposes, the authors consider how these skills are at work in current approaches to the adaptive co-management of ecosystems, and they argue that these same skills are at work across professional and cultural contexts, toward the achievement of sustainable societies. In turn, the authors situate Dewey's relevance to contemporary sustainability education in his writing on interdependence, fallibilism and experimentalism. **Findings** – Dewey's writings provide both a historical antecedent and still valid moral and practical justification for sustainability education's emphasis on integrated and adaptive learning. **Practical implications** – Grounding sustainability education in Dewey's democratic pedagogy underlines its capacity and obligation to develop critical thinking and systems thinking skills, communication skills and collaboration skills in students. **Originality/value** – The paper acknowledges the many ways Dewey has been incorporated into environmental philosophy, experiential pedagogy and sustainability theory. But Dewey's role in the historical development of skills-based pedagogy and, more specifically, his continuing contribution to contemporary practices of sustainability education has yet to be explored. By grounding sustainability education in Dewey's democratic pedagogy, the authors underline its civic mandate to empower citizens to become lifelong learners and skillful stewards.

12.

Missed opportunities for observation-based ecology in the Next Generation Science Standards.

Authors:

Merritt, Eileen G.¹, leenmerritt@gmail.com

Bowers, Nicole¹

Source:

Science Education; Jul2020, Vol. 104 Issue 4, p619-640, 22p, 3 Diagrams, 3 Charts

Document Type:

Article

Abstract:

Observation-based ecology (OBE) generates critical knowledge about the health of ecological systems and human impacts on these systems. Systematic observations of organisms and processes from an early age can help children develop ecological knowledge and skills, and deepen their connection to the natural world. Yet recent educational reforms may privilege other scientific and engineering practices (SEPs) over OBE methods. We used lexical analysis of Next Generation Science Standards documents to identify instances of observational methods suggested in the SEPs and ecology-related performance expectations (PEs). We identify where observations are included and omitted in these documents. Only 16 of the 175 (9%) learning progression descriptions for the SEPs explicitly mention observations. Nine out of 142 (6%) PEs related to ecology require observations. OBE opportunities were particularly scarce in middle and high school years, and missing entirely from PEs for disciplinary core ideas related to ecosystems and human impacts on ecosystems. We consider how these missed opportunities may constrain place-based learning in natural environments, and reflect on implications for educators, students, and nonhuman others.

13.

Factors influencing perceptions of aquatic ecosystems.

Authors:

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Aho, Kelsey2 (AUTHOR)

Source:

AMBIO - A Journal of the Human Environment. 2021, Vol. 50 Issue 2, p425-435. 11p.

Document Type:

Article

Abstract:

While factors influencing perceptions of drinking water have been well studied, those of aquatic ecosystems have been to lesser extent. We conducted a review to improve awareness of these factors. Environmental factors found to influence public perceptions of aquatic ecosystems were presence/absence of water plants and algae, presence/absence of floating debris, the odor, movement (for flowing waters) and clarity/turbidity of the water, and the type, condition, setting, naturalness, and overall aesthetic appeal of the ecosystem. Sociocultural factors found to influence public perceptions of aquatic ecosystems included age, education, gender, and

place-based knowledge. We provide perspectives of how managers can better meet the diverse social demands placed on aquatic ecosystems. The importance and benefits of considering these perspectives may be especially beneficial where significant multi-generational and culturally relevant place-based knowledge exist.

14.

The Ecology of the Education for Sustainability Paradigm.

Authors:

Woodhouse, Jan

Source:

Thresholds in Education; 2015, Vol. 38 Issue 1, p29-35, 7p

Document Type:

Article

Abstract:

The article focuses on a theoretical framework for the ecology of an education for sustainability paradigm. Topics discussed include consideration for the interrelatedness and interdependency of variables within the elements of the paradigm and the new knowledge and skills required by participation in local initiatives. The education for sustainability entrenched in a place-based pedagogy and the goal of preparing individuals for sustaining ecological and cultural integrity are then mentioned.

15.

Continuous clarification and emergent requirements flows in open-commercial software ecosystems.

Authors:

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Knauss, Alessia2 alessiaknauss@gmail.com

Source:

Requirements Engineering. Mar2018, Vol. 23 Issue 1, p97-117. 21p.

Document Type:

Article

Abstract:

Software engineering practice has shifted from the development of products in closed environments toward more open and collaborative efforts. Software development has become significantly interdependent with other systems (e.g. services, apps) and typically takes place within large ecosystems of networked communities of stakeholder organizations. Such software ecosystems promise increased innovation power and support for consumer-

oriented software services at scale and are characterized by a certain openness of their information flows. While such openness supports project and reputation management, it also brings requirements engineering-related challenges within the ecosystem, such as managing dynamic, emergent contributions from the ecosystem stakeholders, as well as collecting their input while protecting their IP. In this paper, we report from a study of requirements communication and management practices within IBM®'s Collaborative Lifecycle Management® product development ecosystem. Our research used multiple methods for data collection, including interviews within several ecosystem actors, on-site participatory observation, and analysis of online project repositories. We chart and describe the flow of product requirements information through the ecosystem, how the open communication paradigm in software ecosystems provides opportunities for “just-in-time” RE—and which relies on emergent contributions from the ecosystem stakeholders—, as well as some of the challenges faced when traditional requirements engineering approaches are applied within such an ecosystem. More importantly, we discuss two tradeoffs brought about by the openness in software ecosystems: (1) allowing open, transparent communication while keeping intellectual property confidential within the ecosystem and (2) having the ability to act globally on a long-term strategy while empowering product teams to act locally to answer end users’ context-specific needs in a timely manner. A sufficient level of openness facilitates contributions of emergent stakeholders. The ability to include important emergent contributors early in requirements elicitation appears to be a crucial asset in software ecosystems.

16.

On the other side of the ditch: exploring contrasting ecosystem service coproduction between smallholder and commercial agriculture.

Authors:

Malinga, Rebecka Henriksson^{1,2}

Jewitt, Graham P. W.^{2,3}

Lindborg, Regina⁴

Andersson, Erik¹

Gordon, Line J.¹

Source:

Ecology & Society. 2018, Vol. 23 Issue 4, p236-258. 23p. 4 Charts, 2 Graphs, 1 Map.

Document Type:

Article

Abstract:

Managing for increased multifunctionality of agricultural landscapes is a crucial step toward a sustainable global agriculture. We studied two contrasting agricultural landscapes that exist in parallel on two sides of a ditch

in the South African Drakensberg Mountains. The large-scale commercial and smallholder farmers operate within a similar biophysical context but have different farming intensities, management practices, socioeconomic positions, ethnic identities, cultural contexts, and land tenure systems. To assess multifunctionality, we examined the ecosystem services coproduced within these two social-ecological systems, by applying a mixed-method approach combining in-depth interviews, participatory mapping, and expert assessments. The results indicate clear differences between the two farming systems and farmer groups in terms of supply, demand, and the capacity of the farmers to influence ecosystem service production within their landscapes. Commercial farmers can generally produce agricultural products to meet their demand and have the capacity to mitigate land degradation and erosion. Smallholder food production is low, and the demand for ecosystem services is high. Since the smallholders lack the resources to mitigate unsustainable use, this leads to overuse and land degradation. Both landscape types manifest aspects of multifunctionality but vary in the outcomes. Unequal access to land; skills; and natural, financial, and technical resources can hamper multifunctionality and the development toward an equitable and sustainable agriculture in South Africa.

17.

HEALTH INNOVATION AND COMMERCIALIZATION ECOSYSTEMS AND PUBLIC HEALTH EMERGENCY RESPONSE SYSTEMS.

Authors:

Scott, Craig¹

Zwicker, Jennifer²

Source:

School of Public Policy Publications. Apr2020, Vol. 13 Issue 6, preceding p1-9. 10p.

Document Type:

Article

Abstract:

The article summarizes findings from a School of Public Policy (SPP) research paper that describes stakeholder perspectives on the precision health (PH) ecosystem in Alberta and offers recommendations about the coronavirus disease-2019 (COVID-19) pandemic. Topics covered include the implications of novel PH approaches, the impact of PH on the health innovation and commercialization (I&C) system, and the benefits of the growth of PH on public health emergency response systems.

18.

The nexus between climate change, ecosystem services and human health: Towards a conceptual framework.

Authors:

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Higgins, Sahran³
Taylor, Tim³ Timothy.J.Taylor@exeter.ac.uk

Source:

Science of the Total Environment. Sep2018, Vol. 635, p1191-1204. 14p.

Document Type:

Article

Abstract:

This paper addresses the impact that changes in natural ecosystems can have on health and wellbeing focusing on the potential co-benefits that green spaces could provide when introduced as climate change adaptation measures. Ignoring such benefits could lead to sub-optimal planning and decision-making. A conceptual framework, building on the ecosystem-enriched Driver, Pressure, State, Exposure, Effect, Action model (eDPSEEA), is presented to aid in clarifying the relational structure between green spaces and human health, taking climate change as the key driver. The study has the double intention of (i) summarising the literature with a special emphasis on the ecosystem and health perspectives, as well as the main theories behind these impacts, and (ii) modelling these findings into a framework that allows for multidisciplinary approaches to the underlying relations between human health and green spaces. The paper shows that while the literature based on the ecosystem perspective presents a well-documented association between climate, health and green spaces, the literature using a health-based perspective presents mixed evidence in some cases. The role of contextual factors and the exposure mechanism are rarely addressed. The proposed framework could serve as a multidisciplinary knowledge platform for multi-perspective analysis and discussion among experts and stakeholders, as well as to support the operationalization of quantitative assessment and modelling exercises.

19.

Federal Environmental Exemptions for Natural Disasters and the Case for Ecosystem Resilience.

Authors:

Drake, Morgan¹

Source:

BYU Journal of Public Law; 2020, Vol. 34 Issue 1, p109-133, 25p

Document Type:

Article

Abstract:

The article offers information on federal environmental exemptions for natural disasters and the case for ecosystem resilience. Topics include examines that

origins of federal environmental schemes can be traced to specific ecological fallouts; and reports that natural disasters and emergency conditions push lawmakers to promulgate new environmental laws, the need for quick and efficient response to a disaster may go against requirements of preexisting environmental laws.

20.

Building a Sport-driven Social Ecosystem of Active Wellbeing: Theory and Practical Approaches. (English)

Language:

Chinese

Authors:

ZHANG Zhi-yong¹

MENG Xiao-ping¹

LIU Xian¹

LIU Jian²

Source:

Journal of Beijing Sport University; 2021, Vol. 44 Issue 3, p57-71, 15p

Document Type:

Article

Abstract:

Through literature review and logical analysis, this paper develops the theory of "active wellbeing", explores the basic components of and the approaches to building a social ecosystem of active wellbeing, and clarifies the value of sports to building a healthy China. It is concluded that "active wellbeing" is the development trend of people's life pursuit and an inevitable choice for people's desire for a better life in the new era. A sport-driven social ecosystem of active wellbeing is both a theoretical and practical approach to building a healthy China and breaking through the health barrier. The social structure of a sport-driven social ecosystem of active wellbeing consists of the micro, meso and macro levels and the six elements of individuals, families, communities, organizations, governments and the cultural environment. The four basic ecological structural units of the ecosystem are producers, consumers, decomposers and the social environment. The ecosystem has four functions: generation, consumption, allocation and maintenance. The practice approaches to the social ecosystem of active wellbeing include: the education-oriented approach of sports cognition, emotion and behavior; the science--technology--oriented approach of scientific theory research, content and facilities R&D, and health care and rehabilitation technology applications ; and the culture-oriented approach of sports organizations, system and culture. In order for the sport -driven social ecosystem of active wellbeing to play a full role in building a healthy China, it is necessary to clarify the value and significance of active wellbeing, promote the concept of active wellbeing, focus on building a positive and healthy social ecosystem, and clarify the

social health value of sports.

21.

Do Methods Matter in Global Leadership Development? Testing the Global Leadership Development Ecosystem Conceptual Model.

Authors:

Walker, Jennie L.1, jennie.walker@faculty.rockies.edu

Source:

Journal of Management Education; Apr2018, Vol. 42 Issue 2, p239-264, 26p

Document Type:

Article

Abstract:

As world communication, technology, and trade become increasingly integrated through globalization, multinational corporations seek employees with global leadership skills. However, the demand for these skills currently outweighs the supply. Given the rarity of globally ready leaders, global competency development should be emphasized in business education programs. Global leadership competence requires moving beyond the cognitive domain of learning to create socially responsible and culturally connected global leaders. This requires greater attention to understanding the impact of specific learning methods, the dynamics between them, and their effect on intended outcomes. A new conceptual model, the Global Leadership Development Ecosystem, was introduced in this study to test the impact of learning methods in developing global leadership competencies. It was based on four theories of learning including cognitive, social, experiential, and humanist. This study quantitatively tested the model using PASW statistics software, and hierarchical regression showed the individual effect of each development method and their combined effect on graduate student scores on the Global Mindset Inventory assessment. The analysis revealed that each methodology played a distinct and important role in developing different competencies of global leadership. This model provides a useful framework for global leadership development in higher education business programs.

22.

Leadership in startup communities: how incubator leaders develop a regional entrepreneurial ecosystem.

Authors:

Roundy, Philip T.1, philip-roundy@utc.edu

Source:

Journal of Management Development; 2021, Vol. 40 Issue 3, p190-208, 19p

Document Type:

Article

Abstract:

Purpose: Scholars are increasingly adopting an ecosystems perspective focused on the complex systems of factors that influence organizations. A type of ecosystem that is receiving significant academic and practitioner attention is the entrepreneurial ecosystem (EE): the interconnected system of actors and forces that supports or hinders entrepreneurship in a geographic area. However, the role that leaders play in ecosystem development, particularly in unmunificent contexts, has received little attention. The purpose of this study was to investigate EE leadership and development and induce a theory explaining how it unfolds. **Design/methodology/approach:** An inductive research design was combined with the case study methodology to analyze the leadership of an entrepreneurial support organization (an incubator) and its role in developing an entrepreneurial ecosystem. **Findings:** The findings revealed that incubator leaders constructed a dynamic leadership model that evolved as the EE developed and was tailored to the region's strengths and weaknesses. **Originality/value:** The study contributes to research at the nexus of leadership and entrepreneurship by introducing a new level of analysis (the meta-organization), focusing on an underexamined leader type (the support organization) and emphasizing the interplay between leadership and regional characteristics.

23.

Entrepreneurial ecosystems: towards a systemic approach to entrepreneurship?

Authors:

Fredin, Sabrina1 sfl@bth.se

Lidén, Alina2,3

Source:

Geografisk Tidsskrift. Oct2020, Vol. 120 Issue 2, p87-97. 11p.

Document Type:

Article

Abstract:

Despite its relative newness, entrepreneurial ecosystems (EEs) have attracted much attention from research and policy but they are recognized to be largely untheorized. It is claimed that one aspect which distinguishes the EE perspective from other perspectives related to business environments is its systemic approach; however, much of the systemic approach still needs to be investigated. The aim of this paper is therefore to investigate how the systemic and complex approach of EEs can be theoretically strengthened. We do this by investigating what values complex adaptive system theory holds for advancing the EE perspective. We highlight four propositions which are of particular importance for strengthening the systemic approach of EE: spatial and component boundaries of the system; self-governance; the relational dimension between system components and the system; and the evolution of the system. We propose that boundaries should be seen as a natural part of

the system, that a complex system is too complex to capture all components and all interactions, and that studying only individual activities will not enable us to fully understand the system's behaviour.

24.

Start-up factories, transnational entrepreneurs and entrepreneurial ecosystems: unpacking the lure of start-up accelerator programmes.

Images

Authors:

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Source:

European Planning Studies. May2019, Vol. 27 Issue 5, p885-904. 20p. 2

Charts.

Document Type:

Article

Abstract:

This paper examines the role of accelerator programmes in promoting transnational entrepreneurship. Designed to assist the growth of start-ups by providing seed finance and structured entrepreneurship support, these programmes are now a prominent feature in many entrepreneurial ecosystems around the world. Drawing on in-depth qualitative evidence focused on one particular programme, the paper shows accelerators play an important intermediary or 'brokerage mechanism' providing start-ups with enhanced relational connections and networks. Transnational entrepreneurs attracted to these programmes are highly focused on exploiting these networks whilst maintaining multiple levels of embeddedness in various contexts to maximize the opportunities afforded by accelerators. While many governments are attempting to replicate accelerators programmes within the public sector, the paper concludes that such attempts may prove problematic within weaker entrepreneurial ecosystems.

25.

Using virtual agents to increase physical activity in young children with the virtual fitness buddy ecosystem: Study protocol for a cluster randomized trial.

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Source:

Contemporary Clinical Trials. Dec2020, Vol. 99, pN.PAG-N.PAG. 1p.

Document Type:

Article

Abstract:

Designing and implementing a truly self-determined physical activity (PA) intervention has required excessive amounts of labor and expenses that, until recently, have made it prohibitively costly to implement in the field at scale. Guided by self-determination theory, and harnessing the power of consumer-grade interactive technologies, we developed the Virtual Fitness Buddy (VFB) Ecosystem. Designed to foster intrinsic motivation toward adopting PA as a lifestyle change in 6-10-year-old children, the Ecosystem features a mixed-reality kiosk which houses a personalized virtual pet for each user. Each time a child visits the kiosk, the pet (a mid-sized dog) automatically detects its owner based on the data from a child's Fitbit, assists the child in setting daily PA goals and provides tailored feedback on the child's PA progress. The pet alerts parents in real-time by sending text messages and relaying the parents' response to the child, so that parents and children can remain connected about the child's PA progress even when they are physically apart. We aim to implement the kiosk in 12 after-school sites, plus use 12 additional sites as controls, where children can still set and view progress toward their PA goals without access to a virtual pet. The VFB Ecosystem represents a new generation of technology-mediated health interventions for children to promote sustainable PA lifestyle changes. Because the VFB Ecosystem is a cost- and labor-effective solution that integrates consumer-grade technology with low barriers for continued use, it has the potential for rapid diffusion and widespread public health impact.

26.

**BUILDING DIGITAL CAPACITY FOR HIGHER EDUCATION TEACHERS:
RECOGNISING PROFESSIONAL DEVELOPMENT THROUGH A
NATIONAL PEER TRIAD DIGITAL BADGE ECOSYSTEM.**

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Source:

European Journal of Open, Distance & E-Learning; Jan2021, Vol. 23 Issue 2,
p1-19, 19p

Document Type:

Article

Abstract:

Digital Badge design and practice at a national level is a relatively new field of scrutiny and this study reports on a sector-wide initiative for building digital



capacity with the design, and implementation of an ecosystem of 15 open courses in teaching and learning with digital badges to recognise the professional development of teachers in Irish higher education. Each course is provided in three delivery modes and mapped to Ireland's National Professional Development Framework for teachers. This enables multiple access points for teachers to engage in professional development via the Framework and recognize their engagement through peer triads and a digital badge ecosystem. The paper critically discusses and reflects on the study of the complex phenomena of the application of the open courses within professional contexts. A novel dimension is the implementation of a peer triad system for recognition of PD. Implementing the open courses digital badges ecosystem was challenging as this different form of assessment required a clear understanding of all stakeholder expectations, the language of recognition and how the learning outcomes could be met and validated using a peer triad assessment. This paper concludes with sectoral learning on nationally recognized open course development, including success factors for building digital capacity, challenges encountered and transferability to other contexts.

27.

Studying Professional Development as Part of the Complex Ecosystem of STEM Higher Education.

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Source:

Innovative Higher Education. Dec2019, Vol. 44 Issue 6, p469-479. 11p.

Document Type:

Article

Abstract:

Professional development in teaching is a critical component of ongoing work to improve student learning outcomes in higher education, especially STEM education. While there are many large-scale professional development programs designed to help participants change the way STEM is taught, few have thoroughly evaluated the outcomes to determine whether faculty members have adopted new techniques and transferred what they learned to their teaching practice. Importantly, without substantive assessment of long-term professional development outcomes, we are left with little evidence of program effectiveness. In this article we examine the current state of professional development evaluation in STEM higher education, propose possible study design elements to use when investigating the impact of professional development on instructors, and describe a novel longitudinal research design for the evaluation of professional development activities.

28.

An ecosystem approach to teacher professional development within computer science.

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Source:

Computer Science Education. Dec2018, Vol. 28 Issue 4, p303-344. 42p.

Document Type:

Article

Abstract:

Computer Science (CS) curricula are being adopted worldwide. However, the lack of prior teaching training within this area means that we have an urgent need to provide teacher professional development. Best practice teacher professional development motivates us to construct interactive and sustainable models of professional development. However, there are challenges in doing this at the scale that we need and with the resources that are available. In this paper, we describe an ecosystem-based approach to supporting teacher professional development, aligned with best practices and with teachers' and schools' needs. An ecosystem approach operates under the coordination of a governance model, features a central hub and conceptualises the relationships of the organisations as a network.

Ecosystems are underpinned by value co-creation, shared logic and can be non-geographical. We believe an ecosystem view of a teacher professional development program supports sustainability, authenticity and flexibility in how teachers engage with professional development, positioning teachers as co-contributors.

29.

Expanding perspectives on secondary education teachers' learning ecosystems: implications for teachers' professional development.

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Source:

European Journal of Teacher Education. Oct2020, p1. 3 Illustrations, 2 Charts.

Document Type:

Article

Abstract:

This article builds on APREN-DO research project, which explores how

secondary school teachers learn, using an inclusive research approach and visual and narrative methods. To this end, twenty-eight secondary school teachers created and narrated their learning cartographies, showing what, how, where, with whom, and with what they learn. This paper challenges traditional conceptions of learning (mainly cognitive or individual) and introduces the notion of learning ecosystems where intra-action is at the core of learning. It considers the (dis)continuous, non-linear, fragmented and fractal dimensions of learning made up of intra-actions between living beings, culture, and matter. It provides results on the learning characteristics of teachers, and the peculiarities of their significant ecosystems (professional, familial, and educational). It evidences that teachers' learning takes place everywhere, in every space, at every moment of their lives, with different people and the surrounding resources. We also highlight suggestions for improving teachers' professional development.