



Experiential Learning Theory Bibliography--Annotated

**Volume 6
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Prepared by Alice Kolb & David Kolb

The bibliography contains 60 references with abstracts on experiential learning theory from 2017-2018. The bibliography is in PDF and formatted in APA style. Many research studies listed in the bibliography can be accessed through research databases such as: Web of Science Citation Index, MEDLINE, Education Abstract, Dissertation Abstract, ERIC Document, Google Scholar and others. To review and access current citations of ELT related works go to: http://scholar.google.com/citations?user=MBn_GG4AAAAJ&hl=en For online access to the bibliography, the Learning Style Inventory and other experiential learning resources go to www.learningfromexperience.com Please send any additions and corrections to dak5@msn.com
Revised 1/18.

A

Abbott, C. (2017). Pictorial Construction – Pictorial Speech?: Experiential Learning and Co-Design as models for exploring sustainable development issues through Graphic Design principles and techniques. *Spark: UAL Creative Teaching and Learning Journal* Vol 2 / Issue 1 (2017) pp. 4-14 *

Issues around sustainable development are characterised by the complexity of interactions between social and ecological systems, a complexity that is underrepresented by diagrammatic representation and only partially comprehended through single disciplines. This paper seeks to address this by exploring how models of Co-Design and Experiential Learning can encourage multi-disciplinary engagement with, and reflection upon, issues around sustainable development. Using the Graphic language of 'Ideograms', a 45 minute workshop was developed that encouraged participants to create pictorial representations of issues around sustainability of personal significance. The resulting focus group discussion highlighted the iterative processes key to Co-Design, and its effectiveness in encouraging debate and reflection upon sustainability issues.

Aleksic, V & Ivanovic, M. (2017) A Literature Review of Empirical Research on the Effects of Digital Games on Learning Styles and Multiple Intelligences. *Croatian Journal of Education* Vol.19; No.2/2017, pages: 511-562 *

The paper presents a review of literature resources that studied the effects of digital games on students' learning and intelligence. The research included 5,740 scientific papers from 11 electronic repositories that presented various evidence of multidimensional impact of digital games on students. Categorization and application of multiple qualitative criteria identified 36 representative papers that presented empirical evidence. Various indicators and benchmarks used in papers were analysed, taking into account the methodological limitations. The results confirm the complex relations between digital games and learning styles and multiple intelligences on which the recommendations and questions for future research are created.

Alshehri, M. A. (2017). TEACHING CLINICAL REASONING TO PHYSIOTHERAPISTS IN SAUDI ARABIA: A THEORETICAL REPORT. *Int J Physiother.* Vol 4(2), 106-111 *

Background: Clinical reasoning (CR) is an essential skill that should be taught to all healthcare professionals. In physiotherapy, it is a cognitive process whereby physiotherapists collect and assess patient data to make a diagnosis and develop an effective treatment plan. Several teaching and learning theories have been developed and used in healthcare education. The purpose of teaching is to facilitate the learning process and the successful development of practitioners in the community. Learning is defined as a knowledge process that is developed through experience which is used to manage daily life situations. The aim of this report is to explore teaching and learning theories and strategies to teach clinical reasoning to physiotherapy students in Saudi Arabia.

Discussion: Although it is challenging to completely change the teaching methods in Saudi universities due to the education system rules already in place, some modules in physiotherapy are different, as they are practical and based mainly in a clinical hospital setting. As such, certain teaching and learning theories could be employed to facilitate student teaching. Indeed, a mixed method based on several theories taking into

consideration the context, culture, students' learning styles and the type of knowledge would be most appropriate. Conclusion: There is a debate about the best theory for teaching physiotherapy students. In the context of clinical reasoning, a behaviorism approach is not suitable, in contrast, constructivism is more appropriate, and thus, Saudi physiotherapy educators should consider constructivism strategies for teaching clinical reasoning.

An, D. & Carr, M. (2017). Learning styles theory fails to explain learning and achievement: Recommendations for alternative approaches. *Personality and Individual Differences* Volume 116, 1 October 2017, Pages 410-416 *

The purpose of this paper is to propose a multiple approaches to explaining and predicting individual differences in learning. First, this article briefly reviews critical problems with learning styles. Three major concepts are discussed: lack of a clear, explanatory framework, problems of measurement, and a failure to link learning styles to achievement. Next, this paper presents several alternative approaches to learning styles that do a better job of explaining how learning styles might predict achievement. Alternatives to learning styles include individual differences in verbal and visual skills, expertise and domain knowledge, self-regulation and inhibition, and perfectionism. For expertise and domain knowledge, knowledge representation and fluency are specifically discussed. It is recommended that the new approach that focuses on individual differences in learning be used by teachers.

An, D., & Carr, M., Learning styles theory fails to explain learning and achievement: Recommendations for alternative approaches, *Personality and Individual Differences* (2017), <http://dx.doi.org/10.1016/j.paid.2017.04.050> *

The purpose of this paper is to propose a multiple approaches to explaining and predicting individual differences in learning. First, this article briefly reviews critical problems with learning styles. Three major concepts are discussed: lack of a clear, explanatory framework, problems of measurement, and a failure to link learning styles to achievement. Next, this paper presents several alternative approaches to learning styles that do a better job of explaining how learning styles might predict achievement. Alternatives to learning styles include individual differences in verbal and visual skills, expertise and domain knowledge, self-regulation and inhibition, and perfectionism. For expertise and domain knowledge, knowledge representation and fluency are specifically discussed. It is recommended that the new approach that focuses on individual differences in learning be used by teachers.

B

Bates J.E., Almekdash H., Gilchrest-Dunnam M.J. (2017) The Flipped Classroom: A Brief, Brief History. In: Santos Green L., Banas J., Perkins R. (eds) *The Flipped College Classroom*. Educational Communications and Technology: Issues and Innovations. Springer, Cham *

This chapter uses a chronological perspective to examine the pedagogical practice of “flipping” a class, reminding all that this practice existed many years before it was named. The chapter also discusses the variations one sees of flipped class models. It

concludes by addressing some common concerns instructors have with respect to the flipped classroom.

BATI, A. H., YILMAZ, N. D. & YAĞDI, D. (2017). Learning styles and learning approaches: How closely are they associated with each other and do they change during medical education? *Marmara Medical Journal* 2017; 30: 82-91 DOI: 10.5472/marumj.344818 *

Objectives: This study aims to determine medical students' learning styles and approaches and to evaluate the relationship between them, as well as observe whether any changes occur in these during the course of their education. Methods and Materials: This research was carried out on students who were enrolled in 2008-2009 and was conducted in their first, second and fourth years. The study group consisted of students who had fully completed the scales of measurement used for this research in all years. Learning styles and approaches were determined for each period. Results: An increase in the convergent and divergent styles and a decrease in the assimilator style, determined over the years were not statistically significant. The decline in the deep learning approach scores was important. Evaluating the relationship between the learning styles and approaches, we found that the deep learning approach scores with the divergent style were lower in the first two years; however, no relationship was observed in the fourth year. Conclusions: The learning style follow-up study indicates a trend among students who will try to understand the whole by giving importance to details, to focus on problem solving, and to move away from traditional learning. The decrease in deep learning approaches may be linked to the nature of assignments and testing systems.

Beane, M. (2018). Shadow Learning: Building Robotic Surgical Skill When Approved Means Fail. *Administrative Science Quarterly* 1-37*

I explore here how trainees in a community of practice learn new techniques and technologies when approved practices for learning are insufficient. I do so through two studies: a two-year, five-sited, comparative ethnographic study of learning in robotic and traditional surgical practice, and a blinded interviewbased study of surgical learning practices at 13 top-tier teaching hospitals around the U.S. I found that learning surgery through increasing participation using approved methods worked well in traditional (open) surgery, as current literature would predict. But the radically different practice of robotic surgery greatly limited trainees' role in the work, making approved methods ineffective. Learning surgery in this context required what I call "shadow learning": an interconnected set of norm- and policy-challenging practices enacted extensively, opportunistically, and in relative isolation that allowed only a minority of robotic surgical trainees to come to competence. Successful trainees engaged extensively in three practices: "premature specialization" in robotic surgical technique at the expense of generalist training; "abstract rehearsal" before and during their surgical rotations when concrete, empirically faithful rehearsal was prized; and "undersupervised struggle," in which they performed robotic surgical work close to the edge of their capacity with little expert supervision—when norms and policy dictated such supervision. Shadow learning practices were neither punished nor forbidden, and they contributed to significant and troubling

outcomes for the cadre of initiate surgeons and the profession, including hyperspecialization and a decreasing supply of experts relative to demand.

Bozkurt, A. (2017). Augmented Reality with Mobile and Ubiquitous Learning: Immersive, Enriched, Situated, and Seamless Learning Experiences. DOI: 10.4018/978-1-5225-1692-7.ch002 *

Augmented Reality is generally used with mobile and ubiquitous technologies and they become widespread and are being used in education increasingly. Mobile and wearable devices as hard technologies, augmented and virtual reality as soft technologies has improved in a fast pace that we cannot predict what will the future introduce to us tomorrow. These hard and soft technologies provide immersive, enriched, situated and seamless learning experiences through mobile and ubiquitous learning. Considering the technology centric learning models, this chapter examines the mobile learning and augmented reality in terms of the opportunities they offer for learning. Following that, this study explains ubiquitous learning as a future learning model and use of augmented reality within this perspective.

C

Cacciamani S. (2017), Experiential Learning and Knowledge Building in Higher Education: an Application of the Progressive Design Method, *Journal of e-Learning and Knowledge Society*, v.13, n.1, 27-38. ISSN: 1826-6223, e-ISSN:1971-8829 28 *

Progressive Design Method (PDM) attempts to connect the Experiential Learning perspective with Knowledge Building model. The aim of the present study was to analyse the implementation of PDM in terms of patterns of online participation and interaction, and the relationship between online participation and interaction with participation in F2F meetings. The implementation was introduced in a Guided Practical Experience at the University of Valle d'Aosta, involving 17 students in their 2nd year of a Psychological Sciences and Techniques degree course. Following PDM, the students worked in teams to create a project about the use of digital technology in school or other formative contexts. An online environment, Knowledge Forum (KF), supported the activity with specific areas (views) where students could present themselves, analyse the KB model and share their project. The project was developed in different steps and after each step each team received a feedback from all the members of the community. The results for participation show a positive correlation between notes written and read in each view, as well as a correlation between notes read between different views. We also found a correlation between Weighted Indegree and Outdegree in each view. Finally, F2F participation correlated with the total number of notes written and read and with the total number of Weighted Indegree and Weighted Outdegree. Implications of these results for PDM implementations are discussed.

Carter, B. et. al. (2017). Developing a Sense of Knowing and Acquiring the Skills to Manage Pain in Children with Profound Cognitive Impairments: Mothers' Perspectives. *Pain Research & Management* (4, article 11) · April DOI: 10.1155/2017/2514920 *

Children with profound cognitive impairment (PCI) are a heterogeneous group who often experience frequent and persistent pain. Those people closest to the child are key to assessing their pain. This mixed method study aimed to explore how parents acquire knowledge and skills in assessing and managing their child's pain. Eight mothers completed a weekly pain diary and were interviewed at weeks 1 and 8. Qualitative data were analysed using thematic analysis and the quantitative data using descriptive statistics. Mothers talked of learning through a system of trial and error ("learning to get on with it"); this was accomplished through "learning to know without a rulebook or guide"; "learning to be a convincing advocate"; and "learning to endure and to get things right." Experiential and reflective learning was evident in the way the mothers developed a "sense of knowing" their child's pain. They drew on embodied knowledge of how their child usually expressed and responded to pain to help make pain-related decisions. Health professionals need to support mothers/parents to develop their knowledge and skills and to gain confidence in pain assessment and they should recognise and act on the mothers' concerns.

Corscadden, K. & Kevany, K. (2017). The TREEhouse: A hybrid model for experiential learning in environmental education. *Applied Environmental Education and Communication An International Journal* · February 2017
DOI: 10.1080/1533015X.2017.1282334

This article addresses the need to integrate experiential learning into environmental and sustainability curriculum and considers the challenges faced by academic institutions in providing relevant experiential learning opportunities at an appropriate scale. Through an experiential case study, this article illustrates how adopting a "hybrid approach" served to expand traditional perception and infrastructure at Dalhousie University, Faculty of Agriculture, while affording graduate students a space for developing knowledge through the experience of doing. This article discusses the barriers and presents the methodology used to achieve a paradigm shift. This overcomes traditional approaches and could be duplicated for infrastructure transformation into active laboratories for the provision of experiential learning tools for environmental education programs

Joshua Cuevas and Bryan L. Dawson. (2017). A test of two alternative cognitive processing models: Learning styles and dual coding. *Theory and Research in Education* 1 –21 DOI: 10.1177/1477878517731450 *

This study tested two cognitive models, learning styles and dual coding, which make contradictory predictions about how learners process and retain visual and auditory information. Learning styles-based instructional practices are common in educational environments despite a questionable research base, while the use of dual coding is less ubiquitous, and thus measured examination of the two methods has implications for practical application. The study involved 204 university students who were surveyed on their preferred learning style and then presented with information that they were prompted to process via either imagery or linguistic means. The results showed there was no significant interaction effect between learning style and condition, suggesting the most basic prediction of the learning styles hypothesis should be rejected. In a regression analysis, none of the four learning styles (visual, auditory, read/write, or kinesthetic) predicted students' retention of the material. However, there was a highly significant

main effect of condition with those in the visual condition retaining twice as much information as those in the auditory condition regardless of learning style, a result that strongly supports dual coding theory. Implications of the findings would suggest that learning styles instruction is an ineffective method for teachers to employ, and that, instead, incorporating principles of dual coding would have a much greater benefit to student learning.

D

Dane, E. (2017). Where is my mind? Theorizing mind wandering and its performance-related consequences in organizations. *Academy of Management Review**

Although it is widely recognized that the human mind is prone to wander, some lines of research suggest that this tendency is costly and unfortunate while others suggest that mind wandering is beneficial and adaptive. Accounting for these divergent perspectives and developing theory on mind wandering, I explore the nature and performance-related consequences of mind wandering in organizations. To this end, I argue that whether mind wandering contributes to or compromises task performance over time in work settings depends on its content - that is, the specific types of thoughts workers tend to generate as their minds wander. In making this case, I theorize relationships between various types of mind wandering content and task performance over time, specify mechanisms accounting for these relationships, and consider job-related boundary conditions. Together, the arguments presented here advance and reorient research on mind wandering and open new windows into cognition in organizations

Da Silva, A. B., Santosana, A. T. D. & Bispo, C. K. D. A. (2017). THE COMICS AS TEACHING STRATEGY IN LEARNING OF STUDENTS IN AN UNDERGRADUATE MANAGEMENT PROGRAM. *RAM, REV. ADM. MACKENZIE (Mackenzie Management Review)*, 18(1) • SÃO PAULO, SP • JAN./FEB. 2017 ISSN 1678-6971 (electronic version) • <http://dx.doi.org/10.1590/1678-69712017/administracao.v18n1p40-65>.*

Purpose: This article aims to evaluate the use of comics as an active teaching strategy in learning of students in a management undergraduate program.

Originality/gap/relevance/implications: The proposal presented in this article brings a theoretical-practical contribution to education in management, since it describes the steps for the use of a strategy involving use of comics as a teaching tool by the professor in the classroom, and also promotes the researcher's reflections on innovative teaching strategies for education in management in Brazil.

Key methodological aspects: The study is qualitative and the research method adopted followed the assumptions and steps of the action research of Cousin (2009): recognition, planning, action, observation and reflection. Cousin's description was adapted to the context of teaching.

Summary of key results: The results obtained indicate that using presentation of comics as a teaching strategy can enhance competence development, assist in the development of innovation and flexibility,

and also contribute to reducing the gap between theory and practice. In addition, it can help students develop a critical sense, help to establish relationships between events and managerial situations, and encourage the exchange of experiences, assisting in decision-making and allowing students to represent a professional situation based on theoretical precepts. Finally, it contributes to the development of reflective practice in the learning environment and, in particular, promotes the development of creativity, something that was observed throughout the implementation of the strategy.

Key considerations/conclusions: It is expected that the study will contribute to the dissemination of the strategy in other programs and institutions and encourage teachers to use comics in the learning processes of their students

E

Ewing, D. R. & Ewing, R. L. (2017). Leveraging Experiential Learning to Encourage Role Transition From “Student” to “Professional”: Insights From Identity Theory. *Journal of Marketing Education* Vol. 39(3) 132 –DOI: 10.1177/0273475317724844 *

Drawing on identity theory, this conceptual inquiry posits a need to redefine the standard that individuals use to judge themselves as a “business student.” Learners will be more likely to succeed in a corporate context if they experience daily interactions throughout a curriculum that approximate a professional environment. These social interactions will reinforce a revised business student identity if carefully orchestrated. A conceptual argument is presented to this end that builds toward a curricular-level solution emphasizing experiential learning that has broad focus beyond marketing students to all business students. A number of obstacles and opportunities are identified while developing a set of propositions linking curriculum design with granular day-to-day interactions. Experiential learning is presented as a path forward but must be implemented in an exhaustive and theoretically sound manner in order to facilitate student transition from an academic to a corporate environment.

F

G

Gemmell R.M., (2017) "Learning styles of entrepreneurs in knowledge-intensive industries", *International Journal of Entrepreneurial Behavior & Research*, Vol. 23 Issue: 3, pp.446-464, <https://doi.org/10.1108/IJEER-12-2015-0307> *

Purpose – The purpose of this paper is to explore whether there is a prevalent entrepreneurial learning style trait associated with successful knowledge industry entrepreneurial practice.

Methodology - The article reviews prior entrepreneurship studies utilizing experiential learning theory and examines the learning style preferences of 168 knowledge-industry entrepreneurs to deduce a hypothesized entrepreneurial learning style. The entrepreneur

participants' Kolb Learning Style Inventory (LSI) scores are modeled to explore causal links to individual and firm level entrepreneurial success.

Findings - Preference for the Kolb Active Experimentation learning mode over Reflective Observation, predicts adoption of a key entrepreneurial innovation behavior and significant entrepreneurial performance benefits. In contrast to published theories, the Reflective Observation learning mode exhibits surprising negative effects on entrepreneurial performance. Data analysis also reveals that 90% of sampled co-founder/partners had at least one partner with the hypothesized entrepreneurial style.

Implications - The study fills a major research gap in entrepreneurial learning literature by identifying learning style traits associated with entrepreneurial success. The study findings can also be used by educators, practitioners and investors to help identify, appraise and develop entrepreneurial talent.

Originality/Value - The study provides novel insights into the learning styles of practicing technology entrepreneurs by establishing a significant preference within this community for the Active Experimentation and Concrete Experience learning modes. The study illustrates the negative effects of the Reflective Observation learning mode which has previously linked to successful entrepreneurial practice.

Gil, A. J.& Mataveli, M.(2017) "Learning processes and job satisfaction in the Spanish wine sector: The moderating effect of organizational size and employees' educational level", *Personnel Review*, Vol. 46 Issue: 3, pp.624-643, doi: 10.1108/PR-01-2015-0013 *

Purpose – The purpose of this paper is to analyse the relationship between learning processes (LP) – group learning (GL) and training processes – and job satisfaction (JS), by taking into consideration the mediating role of organizational size (OZ) and employees' educational level (EEL). Design/methodology/approach – Data were collected from the Spanish wine sector. The survey was addressed to the workers, and 230 valid questionnaires were obtained. The authors have proven their model of research through a model of structural equations, that is, by means of the partial least squares technique. Findings – This paper proposes that LP play a significant role in determining the effects on JS, and OZ and EEL mediate the relationship between GL and JS. Research limitations/implications – Owing to certain features of the sample and the use of measurement scales, the final results should be considered with caution. Further research in other contexts using qualitative methods is needed to validate these findings. Practical implications – When seeking to improve employee JS, practitioners should take into account the link between LP and JS. It is especially necessary to consider the diversity in learning groups. Originality/value – This paper provides an empirical analysis of the relationship between LP and JS and checks the mediation of OZ and worker education of workers between group learning and JS.

Grady, D. J. (2017). *A Critical Review of the Application of Kolb's Experiential Learning Theory Applied Through the use of Computer Based Simulations Within Virtual Environments 2000-2016*. MS thesis, University at Albany, State University of New York School of Education Department of Educational Theory and Practice. *

This integrative research review aims to examine the application of Kolb's theory of experiential learning through the use of simulations within virtual learning environments. It will first cover the framework of experiential learning as stated by Kolb, a learning

theory that is finding new life within the context of simulations, role-playing games (RPGs), massive multiplayer online role playing games (MMORPGs) and virtual environments. This analysis was conducted by making use of combined research strategies that focused specifically on both qualitative and quantitative reviews that utilized Kolb's experiential learning theory (ELT) within the context of the application of computer based simulations in virtual environments used to facilitate learning. The review was guided by three principle questions: From the year 2000 to 2016, which research studies that examine the use of simulations to facilitate learning, use experiential learning theory as its foundational theoretical approach? Of the works that were selected, which studies were computer based simulations in virtual environments and demonstrated firm connections between Kolb's ELT and the results of the study? And lastly, within the final group of studies identified, what patterns emerge through the application of Kolb's ELT within the context of computer based simulations in virtual environments?

Gross, Z. & Rutland, S.D. (2017). Experiential learning in informal educational settings *Int Rev Educ* 63: 1. <https://doi.org/10.1007/s11159-017-9625-6> *

This special issue of the International Review of Education – Journal of Lifelong Learning explores ways in which we can conceptualise, study and document experiential learning in education in diverse national contexts, across varying ages, from school to university pre-service students, within multilingual and multi-religious educational settings. Taking a global perspective, this compilation includes articles from four different continents: Europe, Asia, Australia, and North America. Its main focus is on how experiential learning interacts and functions in the contexts of both formal and informal educational settings, and on the implications which follow from our particular conceptions of experiential learning for the fields of both formal and informal education.

Günes, G., Bati, K. & Katranci, M. (2017). An Examination of the Epistemological Views and Learning Styles of Pre-Service Teachers. *International Journal of Progressive Education*, Volume 13 Number 3, 2017 *

Epistemology is the branch of philosophy that investigates human knowledge, in particular its source, nature, limitations, system, and accuracy. The most critical issues in epistemology are considered to be belief in the nature of knowledge and belief in the nature of knowing. Since epistemology involves the structuring processes of knowledge, it assumed to be associated with individual differences, which are influential in determining an individual's ability to organize their thoughts and behaviors as well as personal choices. In addition, the most typical reflections of individual differences are observed in learning styles. Therefore, in this research, we aimed to examine the relationship between the epistemological views and learning styles of pre-service teachers. The study was based on a quantitative design and the epistemological views of the pre-service teachers were determined using the Scientific Epistemological Beliefs Scale developed by Elder (2002) and adapted to Turkish by Acat, Tüken and Karadağ (2010). In addition, the index of learning styles developed by Felder and Soloman (1996) and adapted to Turkish by Samanci and Keskin (2007) was used to identify the participants' learning styles. A total of 698 pre-service teachers from two state universities in Turkey constituted the sample of the research. According to the overall results, the pre-service teachers adopted philosophical skepticism and were inclined towards an active/sensing/visual/sequential learning style. Furthermore, a statistically

significant relationship was found between the participants' learning styles and their epistemological views.

Gunter, J., Berardinelli, P., Blakeney, B., Cronenwett, L. & Gurvis, J. (2017). Working with horses to develop shared leadership skills for nursing executives. *Organizational Dynamics* 46, 57—63*

Horses have much to teach us about leading in complex, uncertain environments that result in agile, adaptive organizations. Horses have been creating healthy, sustainable communities for millions of years. They have learned to masterfully navigate uncertainty on a constant moment by-moment basis. In a herd of horses, leadership is shared. When the time comes for the herd to move, the leaders move into positions that reflect their role and work collectively to ensure safe passage to their new destination.

H

Ismail El Haddioui 1*, Mohamed Khaldi 2 (2017). Study of learner behavior and learning styles on the adaptive Learning Management System Manhali: Results and analysis according to gender and academic performance. *Journal of Software* April 2017 doi: 10.17706/jsw.12.4.212-226 * KLSI

This paper presents the detailed results of the study that we performed on our adaptive Learning Management System Manhali. This study was addressed to first year university students in Computer Engineering. The experiment was in the form of an online course intended to analyze and evaluate learner behavior on the e-learning platform and to identify their learning styles according to two learning styles theories: Kolb's theory and Felder's theory. The main objective was to study two important relationships in e-learning systems: The relationship between the behavior of a learner and their academic performance, and the relationship between the gender of the learner and their learning style.

Hariyanto, D. & Köhler, T. (2017). An Adaptive User Interface for an E-learning System by Accommodating Learning Style and Initial Knowledge *Advances in Social Science, Education and Humanities Research*, volume 102 *

There is a conception among researchers that every student has his or her own learning style preferences. One student cannot be treated as same as the other students. A specific strategy is required to provide a learning environment that is suitable for different students' preferences. In the context of technology-enhanced learning, it is urgently necessary to design an adaptive e-learning system based on multiple learning criteria. This paper presents the design of a user interface for an e-learning system that can adapt to multiple learning styles and initial knowledge levels. To evaluate the design concept, an application has been developed and then tested based upon a

functional test approach. As a result, it was found that the elearning system could react as intended, presenting the learning material and navigation components based on both the learning styles and initial knowledge of the students.

I

J

K

Kelley, K. L. *The Role of Student Teaching in Balancing Student Teachers' Educator Role Profile*. Oklahoma State University, ProQuest Dissertations Publishing, 2017. 10276031

Over the past several years, agricultural education has faced a shortage of qualified teachers to fill the ever-growing vacancies throughout the United States. This lack of qualified teachers has put the pressure on teacher preparation programs to take on the challenge of preparing student teachers to thrive in the experiential world of agricultural education. Previous studies have focused on teacher preparation but few studies have examined the effectiveness of teacher preparation programs, specifically the effectiveness of the student teaching experience, in preparing student teachers to be experiential educators. This non-experimental survey design study aimed determine the impact of the student teaching experience on student teachers' experiential educator skill development. Thirty-six student teachers from four representative universities in Oklahoma and Texas completed a modified summated needs assessment version of Kolb, Kolb, Passarelli and Sharma's (2014) Educator Role Profile three times: pre-, mid- and post- student teaching. The findings of this study revealed that student teachers were highly involved in high school agricultural education and the FFA but most did not grow up on a farm. It also found student teaching enhances all four roles in varying amounts and ways, narrows the gaps between importance and competence and between competence and authentic assessment, and grows perceived competence in all educator roles. Student teachers do not find being an expert important nor do they think they are good at it, are predominately coaches, and grew the most between the mid- and post-administrations in both importance and competence. Authentic Assessment revealed growth only in the facilitator role. Needs assessments in each administration indicated that student teachers have different skill needs at distinctive stages of their student teaching experience. Recommendations include providing opportunities to connect with the agricultural industry and agricultural content, reevaluating agricultural education course requirements, using the ERP as a part of the student teacher feedback process, educating student teachers are the importance of utilizing the stages of ELT and the ERP roles in their classrooms and providing cooperating teachers with training on the educator roles to improve evaluation

Khalil, G. et. al. (2017). From the Experience of Interactivity and Entertainment to Lower Intention to Smoke: A Randomized Controlled Trial and Path Analysis of a Web-Based Smoking

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Background: Web-based programs for smoking prevention are being increasingly used with some success among adolescents. However, little is known about the mechanisms that link the experience of such programs to intended nicotine or tobacco control outcomes. Objective: Based on the experiential learning theory and extended elaboration likelihood model, this study aimed to evaluate the impact of a Web-based intervention, A Smoking Prevention Interactive Experience (ASPIRE), on adolescents' intention to smoke, while considering the experience of interactivity and entertainment as predictors of reduced intention to smoke, under a transitional user experience model. Methods: A total of 101 adolescents were recruited from after-school programs, provided consent, screened, and randomized in a single-blinded format to 1 of 2 conditions: the full ASPIRE program as the experimental condition (n=50) or an online, text-based version of ASPIRE as the control condition (n=51). Data were collected at baseline and immediate follow-up. Repeated-measures mixed-effects models and path analyses were conducted. Results: A total of 82 participants completed the study and were included in the analysis. Participants in the experimental condition were more likely to show a decrease in their intention to smoke than those in the control condition (beta=-0.18, P=.008). Perceived interactivity (beta=-0.27, P=.004) and entertainment (beta=-0.20, P=.04) were each associated with a decrease in intention to smoke independently. Results of path analyses indicated that perceived interactivity and perceived entertainment mediated the relationship between ASPIRE use and emotional involvement. Furthermore, perceived presence mediated the relationship between perceived interactivity and emotional involvement. There was a direct relationship between perceived entertainment and emotional involvement. Emotional involvement predicted a decrease in intention to smoke (beta=-0.16, P=.04). Conclusions: Adolescents' experience of interactivity and entertainment contributed to the expected outcome of lower intention to smoke. Also, emphasis needs to be placed on the emotional experience during Web-based interventions in order to maximize reductions in smoking intentions. Going beyond mere evaluation of the effectiveness of a Web-based smoking prevention program, this study contributes to the understanding of adolescents' psychological experience and its effect on their intention to smoke.

Kolb, A. Y. & Kolb, D. A. (2017). Experiential Learning Theory as a Guide for Experiential Educators in Higher Education. *ELTHE: A Journal for Engaged Educators*, 1(1): 7-44 *

Core concepts of Experiential Learning Theory—the learning cycle, learning style, and learning space—have been widely used by experiential educators in higher education for nearly half a century. We examine the latest thinking about these three concepts and highlight some exemplary applications from the many disciplinary applications of experiential learning in higher education.

Kolb, A. Y. & Kolb, D. A. (2017). *The Experiential Educator: Principles and Practices of Experiential Learning*. Kaunakakai, HI: EBLS Press

For teachers, college professors, coaches, consultants and organizational leaders a big part of the job is to help others learn. Those who have discovered Experiential Learning

Theory and applied its principles in their work have experienced a transformational impact on the learners they serve and on their own professional development.

In *The Experiential Educator* Alice and David Kolb show how you can use these principles and practices to maximize learning. Their comprehensive handbook examines the philosophy of experiential learning as expressed in the works of foundational scholars from William James and John Dewey to Carl Rogers and Paulo Freire. They explore the basic concepts of experiential learning theory, describing the current state of the art of research and practice in

- the concepts of the learning cycle and learning style;
- experiential learning and the brain;
- how the spiral of learning leads to development;
- developing a positive learning identity;
- helping learners to develop skills in mindful deliberate learning;

Application of these principles to promote individual, team and organizational learning include

- creating hospitable spaces for learning that offer challenge and support;
- creating learning spaces to develop expertise and sustained lifelong learning; and
- key roles that educators need to teach around the learning cycle.

Krassmann, A. L. Filho, T. A. R., Tarouco, L. M. R. Bercht, M. (2017). Initial Perception of Virtual World Users: A Study about Impacts of Learning Styles and Digital Experience. Online-ISSN 2411-2933, Print-ISSN 2411-3123 *

Virtual Worlds emerge as three-dimensional environments that have the potential to stimulate advances in the educational field by promoting interactivity, freedom and autonomy for students. However, its effective adoption in educational institutions is still considered very limited, and few studies have so far sought to identify more specific causes for such limitation. This research aims to contribute to the theme through a preliminary study about the impact of individual characteristics of learning styles and digital experience on users' initial perception about 3D Virtual Worlds. An experiment was conducted with a sample consisting of potential influencers in the decision making process for adoption of this type of approach, being composed by professionals from educational area that experimented a 3D virtual laboratory for the first time. As a result, some insights about the mentioned characteristics' influence on user first impression are identified and some potential adjustments necessary to better fit different profiles are suggested, envisioning to disseminate the Virtual Worlds emerge as three-dimensional environments that have the potential to stimulate advances in the educational field by promoting interactivity, freedom and autonomy for students. However, its effective adoption in educational institutions is still considered very limited, and few studies have so far sought to identify more specific causes for such limitation. This research aims to contribute to the theme through a preliminary study about the impact of individual characteristics of learning styles and digital experience on users' initial perception about 3D Virtual Worlds. An experiment was conducted with a sample consisting of potential influencers in the decision making process for adoption of this type of approach, being

composed by professionals from educational area that experimented a 3D virtual laboratory for the first time. As a result, some insights about the mentioned characteristics' influence on user first impression are identified and some potential adjustments necessary to better fit different profiles are suggested, envisioning to disseminate these of Virtual Worlds in Education. use of Virtual Worlds in Education.

L

Labib, A. E., Canos, J.H. & Penad, M. C. (2017). On the way to learning style models integration: a Learner's Characteristics Ontology. *Computers in Human Behavior* 73:433-445*

On the way to increasing customization in e-learning systems, the learner model is the main source of variability. Such a model includes a number of psychological characteristics and study preferences that describe the learner's personality traits related to learning. During the last decades, the design methods and tools for e-learning have been designed assuming specific learner models. Therefore, in the search for a learning environment suitable for as many learner models as possible, we need tools to explore – and exploit- such models. In general, the learner's characteristics can be linked to the so-called learner's learning style (which is a part of the learner model) to provide the instructor with extensive knowledge about the learner's characterization in perceiving and processing information. Numerous learning styles have been proposed in the last decades, in some cases with overlapping characteristics with the same or different names. Thus, the heterogeneity of the learning style space makes it difficult to handle customization effectively. In this paper, we introduce a Learner's Characteristics Ontology based on creating interconnections between the different learning style model dimensions and learning styles with the relevant learner's characteristics, that: (1) helps instructors to improve and personalize the learning content; (2) can recommend learning materials to learners according to their learning characteristics and preferences; (3) can provide both instructors and learners with extensive knowledge about how they can improve their teaching and learning abilities; and (4) can improve communications and interaction between humans and computers by specifying the semantics of the learning style models' characteristics.

Lim, H. & Park, E. H. (2017). KOREAN EFL STUDENTS' LEARNING STYLE PREFERENCES AND THEIR WRITING STRATEGY USE: REVISITING HONEY AND MUMFORD'S CLASSIFICATION. 2017 *Int. J. of Pedagogies & Learning*, 12(2), 161-173. *

The present study investigated whether the subgroups formed by students' information processing styles (e.g., learning style preferences) create differences in their second writing strategies. Two hundred ninety-five Korean college students learning English as a foreign language (EFL) (234 females, 61 males; mean age 22.24 years) completed the Learning Styles Questionnaire and the Writing Strategy Questionnaire. Results showed significant correlations between learning style preferences and writing strategy use. A two-step cluster analysis yielded three distinctive learning style groups (Balanced, Reflector/Theorist, and Activist). A multivariate analysis of covariance showed that the three groups significantly differed in their employment of writing strategies (i.e., planning, composing, and revising). Overall the results suggested that learning style

preferences are a significant variable in explaining differential use of writing strategies. Pedagogical implications and suggestions for future research were discussed.

Lowe, A. (2018). High Fidelity Simulation-Based Training in Radiography. *NEW INNOVATIONS IN TEACHING AND LEARNING IN HIGHER EDUCATION* *

This chapter contributes to the book *New Innovations in Teaching and Learning in Higher Education* as I introduce high-fidelity simulation-based training (SBT) of radiography students as a complementary teaching strategy to the pedagogical toolkit of educators. I define high-fidelity SBT in a health education context as the use of highly realistic, but artificial, representations of real-world clinical scenarios to achieve specific educational outcomes by means of experiential learning. The simulation experience (SimX) used to collect data for this chapter entailed a fully equipped casualty department in a hospital with high-fidelity patient simulators, a full staff complement, a family member, functional heart rate monitors, and appropriate additional sound effects. The combination of all these components provided an authentic clinical setting fit for experiential learning, which is the process whereby students learn and create new knowledge by linking new experiences to existing knowledge and understanding through the deliberate practice of reflection (Kolb, 2015).

M

Manolas, E. (2017). Short Stories and Climate Change: An Application of Kolb's Experiential Learning Model. In *Handbook of Climate Change Communication: Vol. 2*, pp.37-46 DOI · 10.1007/978-3-319-70066-3_3

This chapter reviews the emergence of climate fiction as a literary phenomenon, discusses the importance of short stories as a teaching tool, presents David A. Kolb's experiential learning model and finally attempts to apply the model via the use of short stories which include some aspect of climate change in their plot. The application suggested is followed by some observations which will be useful to those who wish to apply this method in their settings

Mazo, L. B. (2017). *University Educators' Instructional Choices and Their Learning Styles Within a Lesson Framework* (Doctoral dissertation, Walden University). *

Research on learning styles often focuses on the learning style of the student; however, the learning style of the educator may affect instructional choices and student learning. Few studies have addressed the lack of knowledge that exists in universities with respect to educators' learning styles and a lesson framework (development, delivery, and debriefing). This sequential mixed methods study explored university educators' conscious, reflective instructional choices as they related to learning styles application within a lesson. Two theoretical frameworks and one conceptual framework drew on Kolb's experiential learning theory; Bloom's, Reigeluth's, and Gagné's instructional design theories and models; and Fiddler and Marienau's events model of learning from experience. Research questions addressed learning styles, usage patterns, instructional choices, and reflections of university educators within a lesson framework. An online inventory recorded 38 university educators' instructional choices, learning styles, and

learning styles patterns within the framework of a lesson. Interviews were conducted with 7 of the university educators to document their conscious reflections regarding their instructional choices. Results from the inventory identified that more than 56% of university educators applied the accommodation learning style during the stages of development and delivery of a lesson, and 34% applied the assimilation learning style during the debriefing stage; these findings were supported by detailed reflections about participants' instructional choices in relation to their learning styles. The knowledge acquired about learning styles applications within a lesson framework may benefit university educators' teaching, thereby providing a foundation for positive social change within academic and social communities.

McIntyre, N., Mainhard, T. & Klassen, R. (2017). Are you looking to teach? Cultural, temporal and dynamic insights into expert teacher gaze. *Learning and Instruction*. DOI: 10.1016/j.learninstruc.2016.12.005 *

We know that teachers' gaze patterns affect student learning, that experts and novices differ in their gaze during teaching and that gaze patterns differ by culture in non-educational settings. However, teacher gaze research is limited to Western cultural contexts and largely to laboratory settings. We explored expert and novice teacher gaze in real-world classrooms in two cultural contexts: Hong Kong and the UK. Forty teachers wore eye-tracking glasses during teacher-centred activities. We analysed 'communicative gaze' (gaze during talking) and 'attentional gaze' (gaze during questioning). We compared static (i.e., aggregated) and dynamic (i.e., structural) measures across expertise and cultures. Expert teachers looked longer at students and showed greater gaze efficiency than novices did, during attentional and communicative gaze. Expert teacher gaze was also more strategically consistent. In terms of cultural differences, UK teachers displayed greater attentional efficiency whereas Hong Kong teachers displayed greater efficiency in their communicative gaze. Our research underscores the value of going beyond conventional static analyses for culturally sensitive gaze research.

Mento, C., Merlo, E. M. & Settineri, S. (2017) , Italian adaptation of the Kolb's Learning Styles Inventory-2: A preliminary study *Mediterranean Journal of Clinical Psychology MJCP* ISSN: 2282-1619 VOL 5 N.1 *

The ability to understand Learning Styles, provided by Kolb's studies, suggests that the instrument can be used on the Italian population in a translated and adapted form. In this study, correlational and factorial re-analysis, in line with the psychometric evidence in the literature, shows how the four scales, Abstract Conceptualization (AC), Concrete Experience (CE), Reflective Observation (RO), Active Experimentation (AE), come together as in the original Kolb's hypothesis, in a bipolar dimension. The assessment of the Learning styles applied to the students of Medicine and Surgery, is interesting for the many different approaches into medical science and different professional choices

Meyer, I. S., Louw, A. & Ernstzen, D (2017). Physiotherapy students' perceptions of the dual role of the clinical educator as mentor and assessor: Influence on the teaching-learning relationship. *South African Journal of Physiotherapy*

Moen, F., Myhre, K., Allgood, E. & Reistad, I B. (2017). Views about Knowledge Acquisition for Coaching Practice. *Operant Subjectivity: The International Journal of Q Methodology* 38/3-4 (2016): 1-15, DOI: 10.15133/j.os.2016.011 *

This study explores coaches' subjective views about how they acquire knowledge for their coaching practice. A Q sample of 45 opinions about different sources for knowledge acquisition, and how such sources affect learning at personal, relational, and content knowledge levels, was presented to sport coaches. Forty-five coaches from 11 different sports on both elite and national medium levels were asked to consider and rank-order the statements through a Q sorting procedure. Following Centroid factor extraction and Varimax rotation, a three-factor solution was chosen. The factors reflected three points of view about sources of knowledge acquisition for coaching practice. Some implications for coaching practice are noted and discussed.

Montgomery, S. P. (2017). The Playful Art Museum: Employing Creativity as a Tool for Visitor Engagement. Master of Arts Thesis in the Graduate School of the Ohio State University. *

Using Simon Sinek's 'Golden Circles' framework, this study begins by identifying what a hub for creative engagement is—a space that provides opportunities for visitors to foster creativity through participatory engagement. This study then explores how large regional art museums implement hubs for creative engagement. Using the Wonderkamers in the Gemeentemuseum in the Netherlands and the Center for Creativity in the Columbus Museum of Art in the United States as case studies, this study relies on a mixed-methods approach of synthesizing publicly available sources, curator interviews, and participant observations to understand how these spaces impact visitor creativity and visitor engagement. Participant observations reveal that visitors of all ages are attracted to hubs for creative engagement, that visitors are more likely to choose participatory over passive engagement when given the option, and—per Stuart Brown's (2010) typology of play—that social, creative, and object play occur most frequently when they participate. By comparing these findings to the curators' intentions for these spaces, this study also reveals how effectively these hubs for creative engagement meet their intended goals. Finally, this study finds that creativity and innovation are understood in largely the same way in both the United States and the Netherlands, making hubs for creative engagement an asset for art museums in more than one region of the world. Consequently, this study provides a framework for how to implement a hub for creative engagement that can be utilized by any applicable art museum.

Moorhouse M. Dieck, C. T. & Jung, T. (2017). Augmented Reality to enhance the Learning Experience in Cultural Heritage Tourism: An Experiential Learning Cycle Perspective. *eReview of Tourism Research* *

Augmented reality (AR) applications are a powerful, modernized tool with the potential to engage students to develop skills for the future, and enhance the overall learning experience. Kolb's Experiential Learning Cycle has been widely adopted in education studies to develop more appropriate learning opportunities. However, the adoption of the specific model in the context of AR as a learning tool for school children in cultural heritage tourism remains scarce. Hence, this study aims to address the gap in the literature, with an aim to assess how utilizing new and innovative technologies can enhance the overall learning experience in the cultural heritage tourism context.

Experiments and three focus groups were conducted and analyzed using thematic analysis, and findings demonstrate a positive response from participants, revealing that new knowledge was gained as a result of the AR experience, thus, supporting the potential of AR in education, and in cultural heritage tourism.

Myers, C. (2017). Coactive Vicarious Learning: Towards a Relational Theory of Vicarious Learning in Organizations. Published online before print December 11, 2017, doi: 10.5465/amr.2016.0202 ACAD MANAGE REV December 11, 2017 amr.2016.0202 *

Vicarious learning - individual learning that occurs through being exposed to, and making meaning of, another's experience - has long been recognized as a driver of individual, team, and organizational success. Yet existing perspectives on this critical learning process have remained fairly limited, often casting vicarious learning as simply an intrapersonal, one-way process of observation and imitation. Largely absent in prior perspectives is a consideration of the relational dynamics and underlying behaviors by which individuals learn vicariously through interacting with others - rendering these perspectives less useful for understanding learning in the increasingly interconnected work of modern organizations. Integrating theories of experiential learning and symbolic interactionism, I offer a theoretical model of coactive vicarious learning, a relational process of co-constructed, interpersonal learning that occurs through discursive interactions between individuals at work. I explore how these interactions involve the mutual processing of another's experience; are influenced by characteristics of the individual, relational, and structural context in organizations; and lead to growth not only in individuals' knowledge, but also in their individual and relational capacity for learning and applying knowledge. I close by discussing the implications of this conceptual model for the understanding and practice of vicarious learning in organizations

Meyer, I. S., Louw, A. & Ernstzen, D. (2017) Physiotherapy students' perceptions of the dual role of the clinical educator as mentor and assessor: Influence on the teaching-learning relationship *South African Journal of Physiotherapy* ISSN: (Online) 2410-8219, (Print) 0379-6175

Background: Clinical education is widely considered to be the cornerstone of health care professionals' education. Clinical educators (CEs) fulfil many roles and act as both mentors and assessors in the learning process of students' undergraduate health care professions education. However, changing from being a mentor to being an assessor may present particular challenges for both the CE and the students. Objective: To explore students' perceptions of how the dual role of a CE as mentor and assessor influenced the teaching-learning (T-L) relationship. Method: A qualitative descriptive study, involving seven individual semi-structured interviews and two focus group discussions, was conducted with students in the Division of Physiotherapy, Stellenbosch University. A contextualised interpretive content analysis was used to analyse the data. By following an iterative process, themes were identified and categories were reviewed and refined. Results: Challenges were experienced when CEs had to act and change as both mentors and assessors to the needs of the students. This influenced the T-L relationship and consequently impacted the learning of students. The expectations of students and CEs were often not fulfilled. Contradictions were disclosed regarding the dual role of CEs. Conclusion: The findings of the study, grounded in the perceptions and experiences of students on the dual role of the CE, are highlighted. It is important to consider the

challenges that the students face in order to minimise any negative effects these challenges could have on students' learning processes.

N

O

Optimal Snowsports & Parallel Dreams Coaching (2017). Six lessons to develop your skiing performance and enjoyment Lesson 2 - Purposeful Practice. *

Statements such as 'correct practice makes perfect' and 'practice makes permanent' are commonly used in relation to improving skills and there is no doubt that without sufficient practice you cannot expect to develop your skills to a high level let alone achieve mastery. But practice needs to be more sophisticated than simple repetition. It needs to be purposeful and if possible deliberate. In this lesson I will look at what purposeful and deliberate practice are and how you can ensure that the time you spend developing your skiing skills is time well spent. I will also look at what 'mastery' is and how you can remain motivated to achieve such high skill levels.

P

Petelczyc, C. A., Capezio, A., Wang, L., Restubog, S. L. D. & Aquino, K. (2018). Play at Work: An Integrative Review and Agenda for Future Research. *Journal of Management* Vol. 44 No. 1, January 2018 161 –190 DOI: 10.1177/0149206317731519 *

Play has gained increasing interest among progressive-minded managers as an important driver of motivation and productivity in work contexts. Despite its popularity in contemporary organizations, there is little consensus in the academic literature about the role of play in the workplace. This review organizes and synthesizes the current state of knowledge of play at work in order to gain a more comprehensive understanding of what play at work is, when individuals engage in play at work, and the effects of workplace play on work outcomes. First, we review existing definitions of play and their limitations. We then introduce a recent conceptualization of play in adulthood that defines play based on three core features and discuss its relevance in the workplace. Second, we review theoretical perspectives on play and extant empirical research on the antecedents and consequences of play at work, organizing it according to three levels of analysis. Third, we propose a promising agenda for future research by focusing on a number of important issues that have emerged from our review of existing work. These issues are organized into two sections: refining and extending the current research on play, and generating novel ideas and new research directions on unexplored areas of inquiry. We believe this review makes important and timely contributions to the research on play at work by providing comprehensive analysis of the diverse and fragmented literature on play in the workplace

Peterson, K. & Kolb, D. A. (2017). *How You Learn Is How You Live: Nine Ways of Learning That Can Transform Your Life*. San Francisco: Berrett-Koehler

Pipitone, J. M. (2018). Place as Pedagogy: Toward Study Abroad for Social Change. *Journal of Experiential Education* 1 –21 DOI: 10.1177/1053825917751509 *

Background: Emergent bodies of literature have uncovered problematic trends in U.S. study abroad that reproduce hierarchies of power and colonialism, perpetuate views of an exotic cultural “other,” and privilege tourism over education. Purpose: This work responded to these problems by exploring ways of teaching and learning in study abroad that embrace the pedagogical power of place to foster awareness of the self in relation to other, cultivate relationality, and deconstruct the exotic. Methodology/Approach: Reflecting on two major findings from a longitudinal comparative case study with 19 students on short term study abroad programs to Morocco and Bali, this article considers how educators can adapt the intentions and practices of their programs to embrace the pedagogical potential of place to foster the renegotiation of representations and heightened relationality. Findings/Conclusions: Findings indicate engagement with place was fundamental to the production of experiential learning space, mediated through pedagogies that engaged students with local rhythms, meanings, and histories; social interactions; and cultural tools that engaged students in alternative ways of knowing and being in the world before and during the trip. Implications: This article offers five epistemological commitments and several pedagogical strategies to guide future program development with an eye toward social change

Priddis, L. & Rogers, S. L. (2017). Development of the reflective practice questionnaire: preliminary findings. *Reflective Practice* DOI · 10.1080/14623943.2017.1379384 *

This study introduces a new reflective practice questionnaire (RPQ) that can be used for investigating the experiences, benefits, and potential pitfalls of reflective practice and reflective supervision. This questionnaire sets itself apart from previous self-report measures of reflective practice by the ability to administer to individuals working in any service industry (e.g. psychology, nursing, education, and others). This will allow for future investigations that can compare and contrast across different contexts and professions. This will further the understanding of how reflective practice impacts those engaged with the process. The present study provides preliminary evaluation of the questionnaire with samples from the general public (Study 1), and mental health practitioners (Study 2). The questionnaire includes a number of short four-item sub-scales for evaluating reflective practice including: reflective-in-action; reflective-on-action; reflective with others; self-appraisal; desire for improvement; confidence (general); confidence (communication); uncertainty; stress interacting with clients; and job satisfaction. A six-item attitude towards reflective supervision scale is also included in the research. Results suggest that reflective practice can foster confidence and further a desire for self-improvement. However, results also indicate how reflective practice might increase uncertainty and stress in some individuals. Study 2 reveals that a more positive appraisal of reflective supervision is associated with greater self-reported reflection, desire for improvement, and confidence.

Priddis, L. & Rogers, S. L. (2017). The reflective practice questionnaire (RPQ) scoring guide. *

Q

R

Reiersen, I. A., Haukedal, T. A., Hedeman, H. & Bjørk, I. T. (2017). Structured debriefing: What difference does it make?, *Nurse Education in Practice*, Volume 25, 2017, Pages 104-110, ISSN 1471-5953, <https://doi.org/10.1016/j.nepr.2017.04.013>. *

Debriefing in simulation is a cornerstone of learning. However, in-depth studies examining simulation debriefing are scarce. This study explored four key debriefing attributes—feedback, reflection, knowledge development, and psychological safety—prior and subsequent to the implementation of a new pedagogical intervention in a pre-clinical scenario simulation course. The scenarios focused on patients with deteriorating conditions and took place at bachelor's nursing degree level. The new intervention for the debriefing sessions contained a detailed observation tool describing specific, correct nursing actions for deteriorating patients; video playback watched only by students acting as nurses, and debriefing organized into two sections. The study design was explorative. To generate data, 12 debriefing sessions were audio and video recorded in 2013 and 11 in 2014. Two student groups participated each year, comprising 16 and 10 students, respectively. Qualitative analysis was performed to examine the transcribed audio and video recordings. Relative to the 2013 cohort, the reflections of observers and the students acting as nurses were more assertive, and students' feedback was more specific and comprehensive in the 2014 cohort. Conducting in-depth studies examining debriefing is important to increase knowledge regarding the impact of pedagogical underpinnings on debriefing content and processes

Roberts, R. & Montgomery, D. (2017). Using Epistemological Positions and Orientations to Instruction to Explore SchoolBased, Agricultural Educators' Perceptual Identities: A Q-Sort Study. *Journal of Agricultural Education*, 58(1) 151-171.
<https://doi.org/10.5032/jae.2017.01151> *

Mounting empirical evidence suggests the conflation of teachers' instructional orientations and personal epistemological beliefs helps form the perceptual identity of educators. The current study, therefore, sought to describe in what way Oklahoma agricultural education teachers' epistemological beliefs and orientations toward instruction combine to form the dominant perceptual identities of school-based, agricultural education (SBAE) instructors. To accomplish this, a Q methodological approach was employed. Findings revealed three key perceptual identities of SBAE instructors: Diligent Educator, Daring Educator, and Devoted Educator. Each perceptual identity stressed the importance of experiential learning. However, positions differed in how they believed experiential learning should be delivered to students. For example, Diligent Educators maintained that learning should involve a well-designed educational plan that stresses hard work. Devoted Educators, however, placed emphasis on nurturing students throughout the learning process. Meanwhile, Daring Educators contend knowledge is more fluid and self-constructed. Using Perry's (1970) epistemological development scheme and Bowden's (1990) conception of phenomenographic pedagogy, recommendations for praxis are offered for each perceptual identity.

S

Singh, B. & Mishra, P. (2017). Process of Teaching and Learning: A Paradigm Shift. *International Journal of Education*, Issue June 2017, Vol. 7, UGC Approved Journal (S.No.63022) ISSN(Online):2347-4343, Web Presence: <http://ijoe.vidyapublications.com> *

This is the necessity to secure the future of education. Therefore, the teacher is the role-hero that can do it by imparting the education through self-learning methods with the appropriate learning styles and speed of learner. Earlier it was believed that teaching and learning are teacher based/centred process, but after the change of perspectives, it became child oriented/focused. The teacher of today is not only a teacher; now he has become supporter, helper, partner and colleague of the learner. Therefore, the need of the time is to change the process of teaching and learning according to the needs of the learner with careful cultivation of experiences. The teacher in present era must create an environment of divergent thinking about research and teaching to find out the missing links between theory and practice to fulfil the gap which has always existed. It is a unique responsibility of teacher as a social reformer to satisfy the needs of not only societies but of a country. This research article emphasises on the innovative changes of the teaching and learning.

Slentz J. E. (2017). *YES, YOU MAY TOUCH THE ART: NEW MEDIA INTERFACES AND RHETORICAL EXPERIENCE IN THE DIGITALLY INTERACTIVE MUSEUM*. PhD Thesis Department of English CASE WESTERN RESERVE UNIVERSITY *

New media technologies, particularly touchscreen interfaces, are playing a highly visible role in new exhibition practices within museums. Many museum studies scholars see the participatory experiences mediated by such technologies as potentially redefining relationships between the institution and the public by allowing museum visitors access to roles and discourses traditionally reserved for a cultural elite. In these pages, I employ rhetorician Gregory Clark's (2010) theory of rhetorical experience to investigate the claim by museum studies scholars that a "paradigm shift" is being enacted by digital technologies within museums. I show that digitally mediated experiences, particularly those facilitated by touch, can induce actions on the part of the visitor that shift their engagement in the museum from the private, solitary practices of viewing and interpretation, to the documented, public roles of educator, curator, researcher, and critic. I also show that the rhetorical nature the experiences that invite visitors to participate in such activities can effect changes in attitude and identity on the part of the visitor from visitor-as-spectator to visitor-as-co-producer. This qualitative study takes place in two public institutions with recent installations of groundbreaking exhibition technologies, the Cleveland Museum of Art, in Cleveland, Ohio, and the National Archives Museum in Washington, D.C. I use ethnographic methods, including participant observations and interviews, to identify what I term the "habits of interaction" afforded by the touchscreen interfaces in these hybrid spaces of physical and digital activity. Interrogating the integral relationship between one's ability to take up new interpretive positions through participation in digitally mediated experiences and one's previously existing digital literacies, I closely examine the rhetorical experiences visitors engage in through interaction with touchscreen interfaces. Museum visitors interacting with these interfaces

see themselves as actually “able to touch the art” and thus as active participants in the work of the museum. Such experiences can shift visitors’ interpretive positions by persuading them to take up the roles of instructor, researcher, critic, and curator, which are traditionally reserved for the institution itself.

Smith, K. L. & Rayfield, J. (2017). Student Teaching Changed Me: A Look at Kolb’s Learning Style Inventory Scores Before and After the Student Teaching Experience. *Journal of Agricultural Education*, 58(1), 102-117. <https://doi.org/10.5032/jae.2017.01102> *

Student teaching as the culminating experience of a teacher preparation program has been shown to be of great importance in the preparation of pre-service agricultural educators (Harlin, Roberts, Mowen, Edgar, & Briers, 2007; Roberts, Mowen, Edgar, Harlin, & Briers, 2007; Kitchel & Torres, 2006, 2007; Myers & Dyer, 2004). Kolb’s Learning Style Inventory (KLSI) is an instrument designed to examine individual preference for learning in four learning modes: active experimentation (AE), reflective observation (RO), concrete experience (CE), and abstract conceptualization (AC). In addition, the KLSI examines learning preferences in the dimensions of grasping and transforming experience. This descriptive study examined the KLSI scores for two semesters of student teachers (N = 37) from Texas A&M University at both the beginning and end of their student teaching experience. Student teachers were observed as falling into all nine learning styles as indicated by Kolb and Kolb (2013) at both the beginning and end of the student teaching experience. Results indicated that there was wide range of changes in individual student teachers. Active experimentation was the learning mode showing the greatest amount of change among the population, and changes in the group were more apparent in the dimension of transforming experience than in grasping experience.

SREENIDHI S K1, TAY CHINYI HELENA (2017). Styles of Learning Based on the Research of Fernald, Keller, Orton, Gillingham, Stillman , Montessori and Neil D Fleming. *INTERNATIONAL JOURNAL FOR INNOVATIVE RESEARCH IN MULTIDISCIPLINARY FIELD* ISSN – 2455-0620 Volume - 3, Issue – 4 *

This article helps the readers to understand the different learning styles like visual, auditory and kinesthetic, based on the research work of Fernald, Keller, Orton, Gillingham, Stillman , Montessori and Neil D Fleming. Learning styles are different approaches or ways of learning. Most people would have a preference to identifiable method of interacting with, taking in, and processing information. It involves personalizing the educating methods, particular to an individual that are presumed to allow that individual to learn best. This article explains the importance of Based individualized "learning styles" that originated in the 1970s. Learning styles are influenced by many factors such as individual experience, different intelligences and personality factors such as a preference for learning alone or in a group. Our learning style will influence how we cope with regular tasks in our life such as reading a map, reading book, a project plan etc. This article throws lights on the usage of this concept by students and adults to understand their learning style and use this knowledge to their advantage in order to excel in their life.

T

Takeda, Y. (2017). Tacit knowing in motion: Learning process in Korean traditional performing arts – new socio-technological contexts. *Social Science Information* 2017, Vol. 56(2) 284 –308
DOI: 10.1177/0539018417694771 *

This article aims to explore the present state of tacit knowing of expertized motion that has been passed along from generation to generation in the learning process of Korean traditional performing arts. The current status of, and changes in, the learning process were observed in a questionnaire survey, and the effects of the use of motion-capture technology were examined in an experimental class. In the learning process of Korean traditional performing arts, active feedback loops exist and have been strengthened in which the learners monitor external information and reflect it with language, sensory images and somatic feelings through instructed and imitative learning. Although the traditional apprenticeship style of situated learning has tended to diminish, the learners are expanding their social networks beyond the boundaries of discipline and specialty. In the trial applying motion-capture technology, when imitative learning was partially substituted by instructive learning with visual expression and language, the students became sensitive to differences between the ideal motion and their actual performance. Motion-capture technology also provides new means of imitative learning with computer models. Emerging technologies will provide new opportunities to support tacit knowing in motion.

Tangen, J. L. (2017): Learning styles and supervision: A critical review, *The Clinical Supervisor*, DOI: 10.1080/07325223.2017.1388897 *

Attending to supervisees' learning styles is a noted component of supervision best practices. However, the extant literature on learning styles is complex and controversial, leaving supervisors with little direction on whether or not—or how—to use them. In the following critical review, the literature on learning styles is reviewed and discussed, and recommendations for supervision practice and future research are provided.

Tews M. J. Tews & Noeb, R. A. (2017). Does training have to be fun? A review and conceptual model of the role of fun in workplace training. *Human Resource Management Review*
<https://doi/10.10/jhrmr.2017.11.003> *

The role of fun features in training has yet to be systematically examined from an academic perspective. The purpose of this paper is to aid academic research and training practice by addressing four important issues. First, we discuss the meaning of fun in the context of workplace training. Second, we review and critique the existing research on fun features in training. Third, based on Kahn's (1990) theory of psychological engagement, we propose a conceptual model to guide research to help increase our understanding of the role of fun features in training. Fourth, we discuss opportunities for future research as well as practical implications and caveats. Our intent is to provide a stronger theoretical basis for understanding and researching fun features in training and to provide more nuanced guidance for training practice.

Torres, S. M. (2017). Patterns of Similarities between the Learning Style Inventory (LSI) and the Productivity Environmental Survey (PEPS). *Institute for Learning Styles Journal* • Volume 1, Page 8-23 *

The purpose of this study was to determine if a relationship exists between the Learning Style Inventory (LSI) developed by Kolb (2000), and the Productivity Environmental Preferences Survey (PEPS) developed by Dunn, Dunn, and Price (2003). These two (2) inventories are used to determine individuals' preferences in learning. To understand this relationship results from studies conducted by Maldonado Torres (2011, 2014, 2016) were used. A correlation was found between seven of the elements of the PEPS and the Kolb modalities of learning. The PEPS element of Tactile correlated negatively with the Kolb Reflective Observation (RO) modality of learning ($r = -.181$, $p = .006$). Late Morning ($r = .115$, $p = .20$) positively correlated with the Abstract Conceptualization (AC) modality of learning. Four of the elements on the PEPS-Persistence ($r = .161$, $p = .015$), Structure ($r = .144$, $p = .030$), Alone ($r = .158$, $p = .017$), and Kinesthetic ($r = .134$, $p = .043$) positively correlated with the Active Experimentation (AE) learning modality

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Verkuyl, M., Romaniuk, D., Atack, L., & Mastrilli, P. (2017). Virtual Gaming Simulation for Nursing Education: An Experiment. *Clinical Simulation in Nursing*, 13(5), 238-244.

Background. Increasingly, simulation is replacing some clinical hours as nursing schools struggle to find quality clinical placements for students.

Methods. An experimental study was conducted to compare a virtual gaming simulation with a laboratory simulation regarding three outcomes: students' pediatric knowledge, self-efficacy, and satisfaction.

Results. Both groups made modest knowledge gains. They made significant gains in self-efficacy scores with the gaming group making greater gains. Satisfaction survey scores were high for both groups.

Conclusions. Virtual gaming simulation combined with hands-on simulation could become part of the suite of best teaching and learning practices we offer students.

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Woods, J., Mazur, N. & Gales J. (2017). TEACHING THE FUNDAMENTALS OF CIVIL ENGINEERING MATERIALS THROUGH EXPERIENTIAL LEARNING. Proc. 2017 Canadian Engineering Education Association (CEEA17) Conf. CEEA17; Paper 029 University of Toronto; June 4 – 7, 2017*

This study presents an overview of a civil engineering materials course curriculum at Carleton University developed by the authors. The curriculum aims to move away from traditional civil engineering materials courses, which focus heavily on concepts related to material science, and instead concentrate on concepts that are more relevant to today's practicing civil engineers. The rationale, application, and analysis of the integration of these concepts through an advanced application of case-based and experiential learning is

discussed. Central to this new course curriculum is a hands-on experiential learning activity on the construction and experimental testing of reinforced concrete beam specimens in lab sections of approximately 25 students. The goal of the lab is to provide students with a hands-on learning experience and use this as a tool to cover advanced topics related to civil engineering; for example, environmental sustainability and resilience. The assessment of the students' understanding of the concepts taught in class were performed through the use of an anonymous questionnaire distributed at the end of the course and through traditional examination and assignments. Results of the survey were compared between classes who engaged in the advanced experiential learning laboratory and those who did not. The results demonstrate that after introducing experiential learning into the course curriculum, students were more likely to form an educated opinion on the potential sustainability of a material. Experiential learning is shown to be a valuable tool for engineering education that, when used efficiently, can seamlessly incorporate newly emerging engineering concepts to ensure that graduating students are equipped with the knowledge and tools they require to be competitive in the job market. The relation of the course to contemporary accreditation of Graduate attributes is discussed at length along with critical information regarding the effectiveness of balancing student engagement in STEM subjects.

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