#### **Proposed Title**

# Student Centered models in Instructional design, evolution, and the application of technology in secondary education

### Introduction

The focus of my research is to explore how current technological advancements relate, and could be advancing, student centered models of instruction, particularly in secondary education. The following list of sources is preliminary, but each source deals with either a design model that is student centered or tech integration models that have the potential to increase the model's effectiveness. Extrapolating on previously applied integration designs and suggesting new and innovative ways of creating learning environments with current technological practices will support the application section of this paper.

#### Source

Jochems, W., van Merriënboer, J., & Koper, R. (2004). *Integrated E-Learning:Implications for Pedagogy, Technology and Organization*. New York, New York, United States: Falmer Press.

## The Use of Computer Tools to Support Meaningful Learning

Author:	<u>Jared Keengwe; Grace Onchwari; Patrick Wachira</u>
Publisher:	Association for the Advancement of Computing in Education. P.O. Box 1545, Chesapeake, VA 23327-1545. Tel: 757-366-5606; Fax: 703-997-8760; e-mail: info@aace.org; Web site: http://www.aace.org/pubs/aacej
Edition/Format:	Article : English
Publication:	AACE Journal, v16 n1 p77-92 2008
	Peer-reviewed
Database:	ERIC The ERIC database is an initiative of the U.S. Department of Education.
Summary:	This article attempts to provide a review of literature pertaining to computer technology use in education. The authors discuss the benefits of learning with technology tools when integrated into teaching. The argument that introducing computer technology into schools will neither improve nor change the quality of classroom instruction unless teachers and educational leaders are able to evaluate and integrate the use <u>Read more</u>

#### Analysis

This text deals directly with the subject matter I am trying to approach and it's relatively recent publishing makes it a valuable asset to my research since technology is a very time sensitive tool. There are several extended passages that deal directly with secondary education as it applies to e-learning, e-learning courses and enrichment activities through e-learning. There is also a chapter on Domain Model, which also could fit into my research.

The lead author is a very well respected academic as seen here: <a href="http://www.ou.nl/eCache/DEF/17/856.html">http://www.ou.nl/eCache/DEF/17/856.html</a>

Keengwe, J., Onchwari, G., & Wachira, P. (2008). The Use of Computer Tools to Support Meaningful Learning. *AACE Journal*, *16* (1), 77-92.

#### Source

Jonassen, D. H. (2000). Revisiting Activity Theory as a Framework for Designing Student-Centered Learning Environments. In D. H. Jonassen, & S. M. Land, *Theoretical Foundations of Learning Environments* (pp. 89-121). Mahwah, New Jersey, United States: Lawrence Erlbaum Associates, Inc.

#### Analysis

This source is from our reading for this week. This chapter deals with presenting case studies to a graduate level class and implementations of constructivist principles. For my research, this source is interesting because it goes into detail about the student centered learning environment, which is a focus of many Instructional Design Models. A student-centered approach is an important component of design implementation when considering the implementation of technology in the secondary classroom. The case they explore also deals with tech integration (albeit the tech is from 2000 so it is quite old). The author is part of our course reading so that would infer this sources credibility.

#### Source

Lockyer, L., Bennett, S., Agostinho, S., & Harper, B. (2009). *Handbook of Research on Learning Design and Lerning Objects: Issues, Applications, and Technologies.* Hershey, PA, United States: IGI Global.

#### Analysis

This text is also quite recent and covers exactly the information I am attempting to address. In particular, I am interested in the chapter on "Representing Models of Practice" which discusses the enhancement of models of design through the implementation of technology. The lead researcher on this text is a senior lecturer at the University of Wollongong and Deputy Coordinator of the Centre for Research in Interactive Learning Environments.

#### Source

Smith, P. L., & Ragan, T. J. (2005). *Instructional Design.* Hoboken, New Jersey, United States: John Wiley & Sons Inc.

#### Analysis

This source provides an excellent overview of Instructional Design and the many models and theories that have aided development in the field. I intend to use this as an aid towards better understanding some of the Models I have come in contact with in other sources. I am particularly interested in their discussions on student-centered models of instruction such as the Smith and Ragan Model. The authors are widely cited and well known in the field of Instructional Design so it would be only natural to include them in my research.

#### Source

Rabinowitz, M., Blumberg, F., & Everson, H. T. (2004). *The design of instruction and evaluation: affordances of using media and technology.* Mahwah, New Jersey, United States: Lawrence Erlbaum Associates.

#### Analysis

This source attempts to look beyond the behavioral or cognitive perspectives of learning and seeks to meld these two learning perspectives through the promise afforded by the implementation of media and technology. In this way it represents an outlying, but exciting perspective on the evolution of the student centered learning environment and how technology may be altering the way traditional models are considered. Many of the chapters deal directly with learning in a secondary environment and the lead author is a faculty member of the graduate school of education at Fordham University. <a href="http://fordham.academia.edu/MitchellRabinowitz">http://fordham.academia.edu/MitchellRabinowitz</a>

#### Source

Ragbir, D., & Mohan, P. (2009). Creating Reusable Lesson Plans for E-Learning using the IMS Learning Design Specification. *International Journal of Education and Developmetn*, 5 (4), Online.

#### Analysis

This source focuses on the creation of re-useable lesson designs, which points the way towards a repository of lessons that all educators could eventually draw from. This type of thinking exemplifies what my paper points towards (particularly in the Application Section). In the application section I will discuss the enhancement of all Instructional Design models based around current technologies and thinking. The authors of this article are currently in the Mathematics and Computer science department at the University of the West Indies.

#### Source

Reigeluth, C. M., & Duffy, F. M. (2007). Trends and Issues in P-12 Educational Change. In R. A. Reiser, & J. V. Dempsey, *Trends and Issues in Instructional Design and Technology* (pp. 209-220). Columbus, Ohio, United States: Pearson.

#### Analysis

This source is also crucial to my application section since it examines how one might implement sustainable change (particularly in the American educational system). Rather than advocating 'Piece meal' change, the authors argue forcefully for systematic change and provide a basic blueprint. This idea goes to the heart of my thoughts on including the word 'evolution' in the proposed title for my paper. The two lead authors are on staff at Florida State University and University of South Alabama, which lends to the authenticity of this source.