The (ViPER) Virtual Project Environment for Research Taxonomy

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ABSTRACT

The PROS (**P**romoting **R**esearchers **O**nline **S**upervision) project aims to provide the necessary resources and tools to support the online supervision process for projects and research. One of the objectives is to develop a mediation tool to aid the instructional designer and the subject matter expert during the conversion process of traditional face-to-face teaching to web-based delivery and collaboration.

Web-constuctivism and the Transitional Autonomy Model (TAM) are the supporting theories for this study. This is the adaptation of Constructivism to a virtual learning environment. It also incorporates Transactional Distance Theory.

This paper offers the **Vi**rtual **P**roject **E**nvironment for **R**esearch (ViPER) taxonomy as the solution. A 'taxonomy' is a scheme of classification or, in this study, a matrix that is defined as a situation that aids a person (or society) grow and develop. This document argues that the ViPER taxonomy supports the online learning and development process. As applied to this study, the definition of an educational taxonomy can be refined to: *'A general sequence in the growth of the structural complexity of many concepts and skills that may be used to guide the formulation of specific targets or the assessment of specific outcomes.'*

Several topics are discussed leading to the design of the taxonomy. The virtual learning environment (VLE) set-up and construction elements include the student/supervisor model, the conventional-to-web conversion process, content presentation, communication-feedback and assessment methodology.

Methods of data representation are discussed. A rationale is offered for not using conventional paper-based (1 and 2 dimensional) models. The presentation of the taxonomy is developed into a three-dimensional (3D) model. Two examples are offered: a real-world tool and an online 'navihedron'.

An interactive Javascript form is used to input the taxonomy data producing a graphical guideline for the instructional designer as to the appropriate online tools to use in supporting the learning process.

Expert review will be the evaluation method used to assess the taxonomy. Online pedagogical academics will be interviewed and surveyed to gauge the value of the research.