Institute for Completion (IFC)

IFC – Research Brief No. 1

November 2015

Contextualized Learning:

What does the research data say?

Dr. Kathryn Jameson-Meledy

Despite the methodology problems of measuring the effectiveness of contextualized learning, contextualization seems to be a promising direction for accelerating the progress of academically unprepared college students. Contextualization addresses limited transfer of skill and low motivation. Available quantitative evidence indicates that implementing contextualized learning does have the potential to increase completion (Perin, 2011).

Review of the Literature

Definition. Contextualization - a diverse family of instructional strategies designed to more seamlessly link the learning of foundational skills and academic or occupational content by focusing teaching and learning squarely on concrete applications in a specific context that is of interest to the student. A conception of teaching and learning that helps teachers relate subject matter content to real world applications, teaching of basic skills in the context of disciplinary topic areas (Mazzeo, 2008; Perin, 2011; U.S. Department of Education Office of Vocational and Adult Education, 2001). Also known as content-area literacy, embedded instruction, situated cognition, theme-based instruction, anchored instruction, academic-occupation integration, and functional context education to name a few (Perin, 2011). Some researchers have coined the term CTL, or Contextualized Teaching and Learning (Mazzeo, 2008).

Characteristics. Kalchik and Oertle (2010) and USC Center for Excellence in Teaching (n.d.). As opposed to traditional academic models, contextualized learning includes the characteristics: abstract ideas through sensory methods; personalizes the instruction for each student; effectively combines academic learning with relevant career applications; strives to focus on concrete skills and knowledge required for work and life; contextualized learning presents information in smaller increments. Contextual learning strives to emphasize problem-solving and is anchored in teaching to students' varied life contexts. Faculty present reinforcement and engagement for students to learn from each other and collaboratively. The issue of transportable skills, or the students' ability to demonstrate the proficiencies learned through one context in another, has become a more defined goal in many contextualization plans. The measure of transportable skills can be evidenced by performance in placement tests or by the ability to function effectively in the next level of coursework. From a metacognitive perspective, transportable skills can be seen as the end product, implying that the student has developed into a better learner by becoming more aware and self-directed transferring that knowledge to other fields. Evaluation and research assessing the effectiveness of CTL is continuing to expand and include a more detailed analysis of specific outcomes (Baker, Hope, & Karandjeff, 2009).

Examples. In community colleges, allied health students in a developmental math course learned to solve math problems taken from curricula in medical laboratory, occupational therapy, physical therapy, radiology, and respiratory therapy. An ESL class learning vocabulary from a carpentry project; and integrating mathematical concepts in Culinary Arts (Illowsky, 2011). Math faculty connecting proportionality to linear functions which are introduced in the context of money on a trip to Mexico, looking at exchange rates, sales tax, and ratings for different cars including fuel usage for calculating miles per gallon (Chaplot, Rassen, Jenkins, & Johnstone, 2013).

Key Required Components for Effective Implementation. Baker, Hope, and Karandjeff (2009) along with Kalchik and Oertle (2010). Faculty collaboration and partnerships formed across disciplines encourage contextualized innovative strategies. Faculty select or develop relevant context which helps students recognize the purpose and value of basic skills development to their education and career completion. This enhances the learning process and facilitates the students' mastery of material. Professional development and institutional support are also key components. Professional development can assist instructors with clarifying the learning outcomes to be measured by an integrated contextualized curriculum. Institutional support is vital to the success and sustainability of contextualized learning intervention strategies. Resource needs vary according to the scope of embedding contextualization practices and the stipends for professional development opportunities. Ongoing research and evaluation is vital to gather evidence before and after implementing any new strategies to support continuous improvement.

The REACT Strategy. The Texas Collaborative for Teaching Excellence (2007), suggested that instruction based on contextual learning strategies should be structured to encourage five

essential components of learning: Relating, Experiencing, Applying, Cooperating and Transferring, or REACT. Relating: Instruction that wants to place learning in the context of everyday life experiences must start by calling the student's attention to those everyday events and then relating the events to new information which is to be absorbed or a problem-solving. Experiencing: the heart of contextual learning through exploration, discovery and invention. Applying: to present and apply concepts within the context of their use and possible careers for learners. Cooperating: interpersonal communication, sharing, responding, and communicating with other learners. Transferring: building new learning experiences on what students already know, in the context of existing knowledge uses, builds on what the student is already familiar with. The REACT strategy is closely aligned with the five components that Merrill and Gilbert (2008) recommended for an effectively designed contextualized problem-centered learning experience: 1) engagement of learners in a progression of assignments leading to a logical conclusion, 2) activation of present cognitive structures of recollection and experience, boosted through teamwork and demonstration, 3) learner observation of skills and connection to concepts being learned, 4) application of new knowledge followed by feedback, and 5) integration of new data with an everyday life skill and demonstration of that new knowledge.

Methodology

The researcher for this literature review research brief found ten publications focused on researching or discussing research results for contextualized teaching and learning practices. A thorough review was conducted of publications that were peer reviewed, studies released by research entities such as the Research and Planning (RP Group) for California Community Colleges and the Community College Research Center (CCRC), or articles published discussing the applicable research of contextualized teaching and learning practices. Review of literature produced recurring themes in the effectiveness of contextualized teaching and learning. Findings and conclusions for this research brief are drawn from the conclusions of the literature reviewed.

Findings and Conclusions

While some instructors are concerned that contextualization may limit a learners' knowledge to a particular subject area such as ESL and carpentry or Math and the culinary arts; the extant of research for this brief would suggest that the majority of researchers found that contextualization does not translate to limited understanding. A well-contextualized course will continue to build learners' skills in all facets of a subject while engaging students in areas of interest deepening their participation and commitment to learning (Chaplot et.al. 2013). The long term goal of contextualized learning is to create the environment for increased effective learning as evidenced by higher retention and completion rates. Studies identified for one research review where all outcomes for basic skills achievement were positive, provided support for that researchers' hypothesis that low-skilled students can learn more effectively and advance to college-level programs more readily through the contextualization of basic skills instruction (Perin, 2011).

Continued intervention strategies utilizing contextualization in disciplinary content appears to be an encouraging direction toward the preparation of academically unprepared students for the reading and writing demands of the postsecondary curriculum (Perin, Peverly, Mason, & Vaselewski, 2011). America's community colleges need to increase contextualized learning and address the methodology problems of measuring the effectiveness for relevant education data.

References

Baker, E. D., Hope, L., & Karandjeff, K. (2009). Contextualized teaching and learning: A Faculty Primer. Sacramento, CA: Research and Planning Group (RP Group) for California Community Colleges, Center for Student Success.

Chaplot, P., Rassen, E., Jenkins, D., & Johnstone, R. (2013). Principles of redesign: Promising approaches to transforming student outcomes. (RP Group and CCRC).

Illowsky, B. (2011). Integrating contextualized learning and basic skills: Instructional strategies that increase student success

Kalchik, S., & Oertle, K. (2010). Office of Community College Research and Leadership,

Mazzeo, (2008). Supporting student success at California community colleges. Prepared for the Bay Area Workforce Funding Collaborative Career by the Career Ladders Project for California Community Colleges.

Perin, D. (2011). Facilitating student learning through contextualization: A review of evidence. Community College Review

Perin, D., Peverly, S., Mason, L., and Vaselewski, M. (2011). A Contextualized Intervention for Community College Developmental Reading and Writing Students.

Texas Collaborative for Teaching Excellence (2007). info@texascollaborative.org

USC Center for Excellence in Teaching. (n.d.) retrieved from http://cet.usc.edu/resources/teaching_learning/learn/contextual_learning.html

U.S. Department of Education Office of Vocational and Adult Education. (2001)