KEYNOTE

Karmel Oration

Making learning visible: Moving from nouns to verbs

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Dr Diane DeBacker is the founding director of the Center for Certification and Competency Based Education (C3Be), an education research centre within the Achievement & Assessment Institute at the University of Kansas. C3Be focuses on responsive learning systems including learning maps, stackable micro-credentials, credit for prior learning, and authentic, outcomes-based assessments. Dr DeBacker's passion for education has taken her from her first high school classroom in Manhattan, Kansas, to advising the Abu Dhabi education system in the United Arab Emirates, from Chief Academic Officer in Seattle Public Schools to serving as Commissioner of Education for the State of Kansas, and as Executive Director of Business and Education Innovation for the Kansas Department of Commerce. In her 40 years in education, DeBacker has provided clarity to complex education issues including state education governance structures, school finance, federal education legislation, education policy, and workforce development and training.

Abstract

This presentation focuses on the need to make learning visible for all constituents: learners, educators, employers, policymakers, and future employees. As K–12 and higher education move to a post-pandemic world, it's imperative we find different ways to identify learner outcomes and evaluate learning. By moving from nouns to verbs; by moving from course titles to competencies; by moving from transcripts to learner outcomes, learning becomes visible. This presentation will focus on the work of the Center for Certification and Competency-Based Education (C3Be) at the University of Kansas in the United States. It discusses how learning is made visible through a proven process of mapping learning outcomes, assessing both new and prior learning using innovative technology, issuing stackable micro-credentials, and working with policymakers and employers to meet workforce demands.

Discussion

Course titles. Grade Levels. Grades. Transcripts. Education across all levels has historically been represented in examples such as these. Algebra 1. First Grade. Literature 101. A-B-C-D-F. Excellent. Satisfactory. Unsatisfactory. While titles and achievement reporting systems like these are familiar to students, parents, school personnel, and the public in general, they tell only a small portion of a learner's journey – the beginning (course titles and grade levels) and the end (grades and transcripts). As the world discovered during the COVID-19 pandemic, teaching and learning became more visible with the use of remote learning. What was once done in school buildings and, in many cases, behind closed classroom doors, became public. Parents, guardians, siblings, and anyone within a household could hear and see what educators were teaching and how learners were responding.

This deprivatisation of education certainly made teaching and learning more visible. Course titles and grade levels became blurred, especially for households with multiple children learning at the same time and in the same environment. Remote learning made even more obvious than before the necessity for education systems to better address the needs of learners and educators.

There are many components of a system to better address the needs of learners and educators — ideas such as competency-based education, stackable micro-credentials, just-in-time learning, demonstration of learning through authentic assessments, personalised learning, and credit for prior learning through life experiences are a few examples. C3Be has been exploring some of these ideas through proof-of-concepts. Specifically, a proof-of-concept learning map in cyber defense, a proof-of-concept process for issuing stackable micro-credentials, and a proof-of-concept for issuing credit for prior learning.

Learning maps

Learning maps are an effective tool for making learning visible as they go beyond a course title to the competencies (knowledge, skills, abilities) required for successful completion of a course. Learning maps are created from a synthesis of research within the domain or discipline, a structure that defines that domain, a set of hypotheses, and a mechanism for supporting growth. (DeBacker & Dudek, 2021). Learning maps include nodes (the competencies) and connections (the relationship between nodes). Together nodes and connections create clusters and neighborhoods of related knowledge and skills. In the proof-of-concept map completed by C3Be for an undergraduate cyber defense course, learning was made visible by moving from four course outcomes to approximately 140 nodes and connections. Educators, learners, and employers have all benefited from this more detailed view of a course within the profession of cybersecurity.

Micro-credentials

Micro-credentials are another way to make learning visible. Micro-credentials are related to a formally approved or accepted set of standards or competencies. They can be 'stacked' up to achieve a credential, certification, or degree that is recognised both within education systems, and business and industry. As such, micro-credentials offer a more granular way to move through the content/competencies than a traditional degree or certification program. Micro-credentials are also a way to address equity. The Credential As You Go initiative at SUNY State College (Saratoga Springs, New York, United States) aims to attract students who have some higher education but not a degree. From the SUNY State College website, 'Learning not sealed within a credential is often not valued and remains as undocumented learning, reducing employment opportunities especially for minority and low-income students'.[1] Micro-credentials offer a timelier and more formative unit from which to be assessed resulting in lower stakes and lower cost for the learner. (DeBacker et al., 2021).[1] The process for issuing micro-credentials includes a thorough examination of the entire course of study leading to a certificate, credential, degree, or license. Included in this examination is discussion of the appropriate chunks of academic content to be considered and how many smaller chunks of information comprise a micro-credential. Finally, a decision on who will issue the micro-credential – an educational system, a professional organisation, a credentialing company – must be made. The micro-credential proof-of-concept work done by C3Be took place over the course of eight months as we collaborated weekly with the staff from Dynamynd (Scottsdale, Arizona, United States) to examine a youth specialist advocate professional development program in conation. The project included the review of existing course materials, the development of learner outcomes, revision of assessments, and options for issuing micro-credentials.

1 Credential As You Go Symposium | SUNY Empire State College (esc.edu)

Credit for prior learning

Despite the many initiatives by education to acknowledge and address prior learning, we tend to return to what we are most familiar with: a traditional education system that starts all learners at the same place, keeps them on the same track, and expects them to reach the destination at the same time. The willingness of formal education programs to acknowledge an individual's prior learning regardless of where and how the learning took place has not been extensively or widely explored until recently. The COVID-19 interruption of learning resulted in learners, specifically learners in higher education, to re-examine their educational pursuits. As they experienced during the pandemic, learning was accessible 24 hours a day and took place beyond classrooms and campuses. While distance/remote/online learning has been around for decades, it has not been universally available, especially to underrepresented learners. Additionally, as unemployment rates skyrocketed during that time, employers began to consider qualifications other than a traditional college degree more seriously. Credit for prior learning (CPL) can be achieved by a variety of avenues including credit for military service; credit by standardised exams such as Advanced Placement, International Baccalaureate, or the College Level Examination Program; credit for industry credentials, certifications, or licenses; credit for portfolio(s); and credit by exams such as end-of-course exams. In a proof-of-concept CPL project for a bachelor's degree in information technology at the University of Kansas-Edwards campus (Overland Park, Kansas), C3Be has partnered with faculty and staff on an alignment study of industry-recognised certifications to courses within the degree program. It is anticipated that up to nine credit hours will be available for CPL beginning the fall semester of 2022.

Through the use of learning maps, stackable micro-credentials, a system for acknowledging prior learning and lived experiences, innovative technology, and partnering with employers and others, learning and the learner's journey is made visible.

References

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