In October 2013, Capella University launched FlexPath, America’s first federally-approved direct assessment program at the bachelor and master degree levels. Students in these offerings advance by demonstrating competencies according to faculty judged performance across multiple authentic assessments. This case study describes the offering’s development, operations and performance, and includes evidence suggesting that students save both time and money compared to credit-bearing programs while maintaining comparable levels of academic achievement.
LAK15 Case Study 3: Flexpath: A Case Study In Building Competency-Based, Direct Assessment Offerings.

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Executive Summary

This case study has been published as part of the practitioner track of the Learning Analytics and Knowledge conference LAK15, Scaling Up: Big Data to Big Impact, 16-20 March 2015\textsuperscript{1}.

Capella University’s FlexPath degree programs are a first-to-market, direct assessment offering that permits post-secondary students to advance through their program based on demonstration of curricular competencies. This type of program differs from the traditional credit-based programming that links financial aid disbursement to grade point averages, regular interactions with faculty, and seat time requirements. The broadly shared hope for direct assessment offerings is that select students will advance more quickly, graduate at higher rates, and save tuition monies while maintaining equivalent learning and career outcomes.

Since 2002, Capella University has refined and advanced its competency-based educational model used across all of its credit-based programs. These developments enabled the university to map credits to competency demonstrations and quickly develop direct assessment programming at scale. Significant for FlexPath was the development of professionally-aligned program curricula, authentic course assignments, criterion-reference scoring guides, and the implementation of a fully-embedded assessment model.

In August 2013, the US Department of Education approved FlexPath as the first direct assessment offering at the bachelor’s and master’s degree levels. In October 2013, Capella University enrolled its first students into FlexPath. To achieve these milestones, several cross-functional teams collaborated to develop operations within the university’s existing technical environment and governance structure. FlexPath disaggregates the faculty role by focusing on student assessment of competency demonstration and providing personalized formative feedback. A FlexPath coach provides consistent advising support throughout the program and FlexPath tutors are available for 1-on-1 content support. The university-wide launch of a student dashboard, called Competency Map, enabled FlexPath students to track their academic progress in real time throughout the program.

After more than one year of having used FlexPath, it is delivering strong results for enrolled students. Compared to Capella University’s credit-bearing programs, FlexPath students save both time and money while maintaining comparable levels of academic performance. Despite financial incentives to move quickly, many students value the flexibility to progress at their own rate and have chosen to take only one course per quarter. To date, FlexPath has had 52 graduates across its multiple offerings. Qualitative surveys and interviews with several FlexPath students have shown consistently high levels of satisfaction with the overall program and specifically with faculty’s assessment practices and feedback. Collectively, we feel these results illustrate that direct assessment can be an effective model for adult students.

\textsuperscript{1} http://lak15.solaresearch.org/
1. Introduction

For learning analytics to realize its promise, higher educational institutions need to improve their student assessment practices. Despite prominent calls for such improvements (Pellegrino, et al., 2001), curricular and assessment practices in higher education have a long disappointing history (Bok, 2008) and remain mostly responsive to accreditation requirements (Kuh, et al., 2014). The result for learning analytics is a fragmented and incomplete data set concerning student learning, which often regulates research to the analysis of log files, interactions, persistence, and grades as proxies for student learning. That said, the 2015 Horizon report identified some encouraging recent trends that will benefit future learning analytics research, such as, increasing cross-institution collaboration and a growing focus on measuring student learning (Johnson, et al., 2015).

An obstacle to developing more robust student learning measures has been institutional reliance on grades and the credit hour as sufficient means for tracking student learning and awarding degrees. Course grades aggregate student performance across all of the course’s educational objectives, meaning that a student’s successful performance on a few objectives will compensate for deficiencies on others. Moreover, most instructors distribute grades based on several factors beyond academics, including attendance, participation, punctuality, effort, improvement over time, and relative performance. Credits indicate that a student has obtained a minimally acceptable level of academic achievement (often at least a course grade of “D”). The specific number of credit hours awarded is determined by estimates of the amount of time the student engaged in substantive interaction with faculty and academic content. These practices persist because many regulations, conventions, and technologies have been codified around grades and credits (such as financial aid disbursement, student information systems, transcripts, transfer practices), instead of direct assessments of student learning (Laitinen, 2012).

Competency-based education (CBE) is a promising educational reform effort to improve student assessment practices and replace credits and grades with measures of learning. Competency-based education has a long and diverse history across multiple educational sectors (Kamnetz, 2013) and countries (Ford, 2014). A seminal report sponsored by the US Department of Education defines the term competency as “a combination of skills, abilities, and knowledge needed to perform a specific task in a given context” (Jones, et al., 2002). Similar to credit-based programs, CBE programs often define high-level learning outcomes all students are expected to demonstrate at the end of the program. CBE programs then work backwards from these outcomes to design curricular, instructional, and assessment practices around supportive competencies. Institutions vary in how they define specific competencies, but the important point for students is that their learning experience will be coherent and cumulative throughout their program. In 2013, the US Department of Education issued a “Dear Colleague” letter in which a process was specified for direct assessment programs to apply for financial aid disbursement eligibility. A direct assessment program is defined as “an instructional program that, in lieu of credit hours or clock hours as a measure of student learning, utilizes direct assessment of student learning, or recognizes the assessment of student learning by others.” (for complete text, see Title 34 CFR 668.10).

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2 http://ifap.ed.gov/dpcletters/GEN1310.html
3 http://tinyurl.com/DirectAssessment
2. About This Case Study

Institutional Context
Capella University is a mission-driven institution, founded in 1993 to extend access to high-quality higher education for working adults (Capella University, 2015). Its bachelor’s, master’s, and doctoral degrees and certificate programs have been offered online through a learning-outcomes- and competency-based curriculum since 2002. Degrees are offered in the areas of business, technology, psychology and counselling, public service leadership, education, nursing, and general undergraduate studies. Capella’s programs attract professionals seeking career advancement and the fulfilment of their personal and professional potential. Capella’s faculty are scholar-practitioners who merge successful working experience and top academic credentials. Capella’s students represent a diverse population of working adults and the university’s strategic decisions aim to serve this diverse learning community by offering affordable competency-based academic programming of the highest quality.

Case Study Context
FlexPath is a self-paced, direct assessment offering where learning takes place outside of the classroom and sometimes on the job, there are no pre-set deadlines for assessments, and students are able to spend more time on areas that are less familiar and move quickly through areas where they have experience and knowledge. Each student leverages his or her own prior learning, combining it with emergent learning to demonstrate a degree-level-appropriate integration of knowledge, skills, and abilities in an efficient and effective process of assessments. In addition, FlexPath tuition is subscription style: students pay one flat rate for a term and complete as many courses as they are able. A direct assessment model, then, provides students the opportunity to receive the same high-quality education as those available in credit-bearing programs but with a new kind of flexibility and the potential to save money and reduce opportunity costs.

3. FlexPath Development
FlexPath was a natural extension of Capella University’s mission to serve adult learners and of its competency-based educational model. Since 2002, the university has completed multiple supportive action projects to improve its curricular and assessment practices. Capella University’s curricula are aligned with professional success factors as defined by employers, professional organizations and standards, disciplinary standards or expectations, and specialized accrediting bodies. These professional success factors are translated into expected learning outcomes, which are then disaggregated and mapped to supportive competencies. Sets of competencies are, in turn, clustered into sequenced courses. These competencies form the degree requirements for FlexPath students who must demonstrate all competencies at required levels to successfully complete a course.

Competency demonstration is determined by faculty judgment on criterion-referenced scoring guides. Over several years the university implemented a fully-embedded assessment model in which all course assignments were revised to assess course competencies and program-level learning outcomes. Assignments were designed to be authentic assessments of student learning that simulated future performance conditions. For Capella’s adult students, that approach means that their course work is often directly applied to their current employment. Program-level learning outcomes are then directly assessed through an integrative capstone course. Capella relies upon the
collaboration and expertise of faculty subject matter experts, instructional designers, and assessment specialists to build assessments that enable authentic demonstrations of competency.

Since 2006, faculty in Capella’s credit-based courses have relied upon this fully-embedded assessment model as the basis for connecting their grading practices with students’ demonstration of course competencies; a practice codified in the university’s grading policy (Capella University, 2006). This consistency of assessment practices has supported the university’s efforts to create a solid base for the reliability and validity of faculty judgments using innovative psychometric techniques. Through this work with the university’s existing credit-based degree programs, faculty have established a solid measurement basis for FlexPath’s curricular and assessment practices.

4. **FlexPath Operations**

Based on this history (Jankowski, 2011) and associated accolades⁴, in August 2013 Capella University became the first institution to receive the approval of our regional accreditor, the Higher Learning Commission, and the U.S. Department of Education to offer a direct assessment delivery option—called FlexPath—at the bachelor’s and master’s degree levels. In October, 2013, we began offering FlexPath options to a limited number of students in the Bachelor of Science in Business with a specialization in Business Administration and the Master of Science in General Business Administration (MBA) degree programs. FlexPath serves as an alternate pathway to degrees that Capella is already accredited to offer. In the direct assessment model, graduation requirements are based solely on demonstrating competencies rather than on earning credit hours or fulfilling seat-time requirements. This makes the model uniquely suited to busy, working adult learners who are self-motivated, have work experience, and are seeking to advance in their chosen careers.

Faculty resistance and alienation from their curriculum has been a reoccurring part of higher education’s discussion of direct assessment and competency-based education. In our experience at Capella, the case has been the opposite. FlexPath faculty employ their time and expertise in a focused and essential way by improving curriculum, assessments, and by providing individual students with personalized, formative feedback. The academic advising and tutoring aspects of the traditional faculty role have been assigned to other roles—the FlexPath Coach and FlexPath Tutor—filled by individuals whose expertise is in helping students navigate these aspects of their educational journey. In this disaggregated model, faculty are spending more of their time and energy with students on the subject matter in which they are expert and less on the other tasks that often fall to instructors. Dr. Cheryl Bann, chair of Capella’s MBA program in the School of Business and Technology, has recently discussed her faculty’s reactions to teaching and working in the FlexPath model⁵.

As a fully online university, technology and data management have also been key to the operations of FlexPath⁶. For example, concurrent with the launch of FlexPath, Capella University launched a competency map that visualizes for students their academic progress against specific competencies⁷. The competency map displays a student’s status on each competency being assessed using a

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⁶ [https://www.youtube.com/watch?v=HMDxKb47fKl](https://www.youtube.com/watch?v=HMDxKb47fKl)
⁷ [http://media.capella.edu/NonCourseMedia/iGuide_CompetencyMap/CompetencyMap/wrapper.asp](http://media.capella.edu/NonCourseMedia/iGuide_CompetencyMap/CompetencyMap/wrapper.asp)
coloured wheel, with the amount of colouring indicating the number of criteria assessed relative to the total number of criteria used to measure the competency and the colour hue indicating the student’s academic performance via a stoplight metaphor (see Figure 1). The competency map is updated in real-time as faculty utilize criterion-reference scoring guides to evaluate student’s submitted work. Students using this dashboard have been shown to persist in their program at higher rates than students who do not utilize the dashboard, a moderate but significant effect even after controlling for multiple covariates (Grann & Bushway, 2014). We believe this visualization increases student motivation by fostering students’ metacognitive reflection and mastery goal setting, and by enriching students’ interactions with advisors and faculty. FlexPath students are required to demonstrate all of the program’s competencies in order to progress through their program and the competency map visualizes this information for students to monitor in real time.

Figure 1: An example of Capella University’s Competency Map.
5. **FlexPath Performance**

Although FlexPath has only been in operation for a little over a year now, we have enrolled over 1,000 adult learners and gathered some encouraging quantitative and qualitative performance data on the direct assessment model. Compared to students in comparable credit-based programs, FlexPath students as a group are completing more courses per quarter, while simultaneously demonstrating competencies at equivalent or even higher levels of performance. Due to FlexPath’s subscription tuition model, completing more courses per quarter results in significant tuition savings for students. Given this financial incentive to progress quickly, it has been somewhat surprising that some of Capella’s adult students intentionally complete only one course per quarter, suggesting that these students value the flexibility of scheduling their own learning and assessments across the quarter. To date, more than 50 students have graduated from FlexPath offerings, suggesting that direct assessment is also a productive model for adult learners. We are regularly engaging these FlexPath alumni and intend to report on their career outcomes in the future.

Qualitatively, FlexPath students are consistently satisfied with their experience in the program. 90% percent of FlexPath respondents have been satisfied/very satisfied with the overall program and 93% are likely to recommend the program to others. We believe these strong results stem from the performance of our faculty and the high quality of our authentic assessments. Over 91% of FlexPath respondents have been satisfied/very satisfied with the timeliness and fairness of faculty’s assessments. Over 85% of FlexPath respondents have also been satisfied/very satisfied with faculty’s balance of feedback between recognizing accomplishments and pushing for improvements. These encouraging survey results are corroborated in the testimonials and personal reflections of FlexPath students themselves, including Rodney Showmar, Maybeth Moses, John Scafide, Tapitha Jamison, and Tracy Dudley. Collectively, these data and personal stories indicate that competency-based, direct assessment programs effectively and productively support a segment of adult learners’ educational needs.

6. **Conclusions**

Direct assessment is a significant opportunity for higher education to improve student assessment practices and establish a more direct path between student learning and awarding credentials. At Capella we have designed our direct assessment model to support working adult learners, and in so doing also improve the affordability, accessibility, learning effectiveness, and completion rates for bachelor’s and master’s degree students. Based on our experience, we believe developing competency-based, direct assessment programs can both reduce students’ time to degree and increase institutional quality through a renewed focus on measuring student learning. By sharing FlexPath’s development, operations, and initial performance as a case study we hope to encourage

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9. [https://www.youtube.com/watch?v=QiFQR_NzaVc](https://www.youtube.com/watch?v=QiFQR_NzaVc)
10. [https://www.youtube.com/watch?v=74fBFwbM2_o](https://www.youtube.com/watch?v=74fBFwbM2_o)
future empirical research into these models and promote the development of competency-based, direct assessment programming at other institutions. Such developments will enhance the broader field of learning analytics by establishing a more robust measurement basis for understanding and optimizing student learning.

7. Further Reading
FlexPath Self-Paced Learning: http://www.capella.edu/flexpath/

8. References


About this Paper

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About the Learning Analytics Review

Background
The Learning Analytics Review provides a series of stand-alone series of articles aimed primarily at people who want to make decisions about what they are going to use learning analytics. While they will be of an authoritative and scholarly character, they will generally be white papers or briefings. The white papers and briefings are complemented by additional papers related to various aspects of learning analytics which will be of interest to the broad learning analytics community.

About this Learning Analytics Review Paper
To support the LACE project’s community-building work a series of three papers have been published based on sessions which were presented at the LAK 15 conference. These are:

   This paper was scheduled to be presented on 18th March 2015 in the Students At Risk session and on 19th March 2015 in the Technology Showcase session.
   This paper was scheduled to be presented on 18th March 2015 in the MOOCs—Discussion Forums (Practitioner) session.
   This paper was scheduled to be presented on 19th March 2015 in the Learning Strategies and Tools session.

About the LACE project
The LACE project brings together existing key European players in the field of learning analytics & educational data mining who are committed to build communities of practice and share emerging best practice in order to make progress towards four objectives.

Objective 1 – Promote knowledge creation and exchange
Objective 2 – Increase the evidence base
Objective 3 – Contribute to the definition of future directions
Objective 4 – Build consensus on interoperability and data sharing

http://www.laceproject.eu/