Validation of Strategic Coaching Model for FlexIT-Pro Online-based Competency-based Education Program

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Abstract

Competency-based education (CBE) is a growing movement of higher education institutions to educate non-traditional adult learners. Coaching quality influences CBE's success as coaches share learning responsibility with students. FlexIT-Pro is a modified CBE program. After years of effective coaching, we developed a FITP Strategic Coaching Model and implemented it. This paper will present the Strategic Coaching Model, the assessment of the model, and the modified version of the model.

1. Introduction

Competency-based education (CBE) is a growing movement of higher education institutions to educate non-traditional adult learners. Coaching quality influences CBE's success as coaches to share learning responsibility with students (Klein-Collins, 2013; Ford, 2014; McClarty and Gaertner, 2015; StrategyLabs, 2017). Therefore, many institutions have coach development programs to ensure successful CBE (Cunningham, Key, and Capron, 2016; ODHE, 2021; Pearson, 2021).

The Master of Science program (MS-ITAM) of the Department of Information Technology and Administrative Management (ITAM) at Central Washington University (CWU) has offered FlexIT-Pro (FITP) since 2018. FITP is a modified CBE program. To make it successful, we developed a FITP Strategic Coaching Model and implemented it. This paper will present, assess, and modify the model.

2. Competency-based Education

While traditional instruction focuses on knowledge acquisition, CBE focuses on knowledge application. In CBE programs, high grades mean a high ability to apply the knowledge learned in the classroom to real-world situations (Klein-Collins, 2013; Ford, 2014; McClarty and Gaertner, 2015; Cbenetwork1, 2017; StrategyLabs, 2017).

CBE uses tailored and self-paced instructions. Therefore, it can provide more flexible schedules and learning paths to students. Also, CBE can accelerate the time necessary to complete the program by considering prior learning, prior knowledge, and mastery of competencies. In CBE, coaches serve as facilitators and supporters instead of being a teacher (Cunningham, Key, and Capron, 2016; ODHE, 2021; Pearson, 2021).

As CBE assesses students' competencies, it is important to define competencies for students' performance assessment. Many institutions have developed benchmarks for mastery (LuminaFoundation, 2016). With various measurements, we must assess students' ability to integrate, synthesize, and use the knowledge and skills required in the real world (AACN, 2020; Mathematica, 2021).

There are four components in CBE design: learning resources for students, effective assessment of competencies, clear faculty roles, and clearly defined traits of successful students (Kellogg, 2018; Peek, 2021). CBE faculty can use objective assessments such as questioning or performance-based assessments to measure students' competencies. Performance-based assessments include papers, group activities, observation, analytics, and projects. A mixture of the two assessment types will help the faculty develop a benchmark for each student. In CBE, coaching and mentoring are two types of faculty roles. Coaches will facilitate student learning. Mentors will support their learning. Four major traits for coaches and mentors are self-direction, resilience and dedication, work experience, and previous learning (Cunningham, Key, and Capron, 2016; LuminaFoundation, 2016; Mathematica, 2021).

3. CBE Coaches' Traits

Effective CBE coaches satisfy seven traits. They should be experts in chosen fields and life experiences to use their own competencies in coaching. Also, they must be able to utilize their own life experiences to pay attention to students' learning conditions. Then, they are expected to continuously improve their professional expertise and life experience (ODHE, 2021; Pearson, 2021).

Offering students opportunities to demonstrate real-world skills and abilities is important. Coaches should facilitate knowledge application to let their students demonstrate their competencies (ODHE, 2021; Pearson, 2021). Ideally, they should share learning responsibilities with students. As CBE is personalized learning, they need to know various learning styles and pedagogies to support the learning of students who have jobs and family responsibilities (Kellogg, 2018; Calstate, 2021; Peek, 2021).

Obviously, they should be able to measure competencies in multiple ways. First, they need to know appropriate measurements for students' prior learning. Then, they should master five dimensions of CBE learning outcomes to measure competencies. The five dimensions are applied learning, intellectual skills, specialized knowledge, broad knowledge, and civic learning. There are three types of students' competencies: knowledge, skills/behaviors, and attitudes/values (ODHE, 2021; Pearson, 2021).

In addition to the appropriate ways of competency assessment, coaches should know several ways to serve the needs of non-traditional adult learners to bring their knowledge out to apply as competencies. Also, they should know appropriate coaching techniques to support students' self-direction in learning, resilience and dedication to learning, and applications of work experiences and previous learning (Cbenetwork2, 2021: ODHE, 2021).

Understanding the principles, characteristics, practices, and policies of CBE is very important when they develop learning materials or modify existing materials. Also, understanding these will help them to let students fully accept learning objectives, systems, rules, and assessment criteria (LuminaFoundation, 2016; Kellogg, 2018; Peek, 2021).

Finally, collaboration with staff members is important to develop optimum learning environments and systems for students. Coaches and mentors should actively participate in curriculum developments, modifications, and faculty development programs (O'Sullivan and Bruce, 2014; Peek, 2021).

4. FlexIT-Pro Program

FlexIT-Pro (FITP) is a modified CBE program that the Master of Science program (MS-ITAM) of the Department of Information Technology and Administrative Management (ITAM) at Central Washington University (CWU) has offered since 2018. In FITP, the faculty member called "Content Coach" is assigned to a specific course within their academic and professional expertise, who coaches students on course content and evaluates their competencies related to the course outcomes.

Faculty members called "Mentors" are assigned to support a caseload of students from intake

and orientation through a degree or program completion. Mentors assist with learning strategies, time management, program planning, and career planning; and support students in communicating effectively with Content Coaches. They also serve as faculty advisors for the students assigned to them.

We call faculty who have served as Content Coach and/or Mentor "Core Faculty," who are engaged in the overall development of the FITP modality.

5. Strategic Coaching

Strategic coaching means carefully designed coaching that satisfies five conditions of successful CBE. The five conditions are student readiness, learning environment, competency integration, competency application, and student satisfaction (O'Sullivan and Bruce, 2014; LuminaFoundation, 2016; Kellogg, 2018; Calstate, 2021; Cbenetwork2, 2021; Pearson, 2021; Peek, 2021).

CBE coaches ensure student readiness to learn in the CBE model immediately. They can focus on learning without confusion. Coaches are also responsible for developing and maintaining the best possible learning environment for students. Obviously, coaches must maintain a high level of coaching quality, including effective instructions, tracking students' progress, ongoing assessment of students' learning, intervention, and time management of students. They know ways of leading students in the process of emerging, transforming, and applying the students' competencies in each class. They will help students do competency integration. They will allow students to make competency applications. They will help students recognize their emerged, transformed, and applied competency through the summative assessment. Finally, they are responsible for student satisfaction by letting students experience accomplishment, rapport with coaches, and the entire learning experience.

6. FITP Strategic Coaching Model

In FITP strategic coaching model, coaches ensure students' readiness by offering a standardized overview module in each CANVAS course shell. The module includes course description, learning outcomes, course overview, faculty introduction, student confirmation of participation, introductory assignment, and student introduction. They host an onboarding to ensure all students are ready to start learning. Also, they host onboarding and refreshers for all CBE faculty (coaches and mentors) to ensure the quality of coaching and mentoring.

Coaches made clear written instructions for each assessment to ensure the best possible learning environment. The term "clear" means clearly written instructions and supplemental explanations via video/audio. They explain the timing, methods, and value of formative and summative assessment/feedback. They develop mutual commitments for more than two substantive interactions and prompt communications, including e-mail replies and feedback.

Coaches develop course content with multiple media types such as articles, books, videos, and practice quizzes to encourage students' competency integration. More technical courses tend to offer scaffolded/sequenced shorter assignments to strengthen students' competency.

Competency application is an important aspect of CBE. Coaches try to let students apply their competency by offering a comprehensive project, analysis, and/or paper that requires synthesis and application of all course outcomes. In some courses, they use a portfolio rather than a single artifact.

Coaches and administrators pay attention to maximizing student satisfaction. Coaches are asked to do at least two surveys with each student to gather his/her perceptions on course design, interactions with coaches, evaluation of their learning, and overall program satisfaction. Also, we use mentors for regular pro-active outreach to gauge student progress and troubleshoot obstacles or challenges.

7. Methods

We used three information sources: eight years of student surveys, two years of faculty development records, and minutes of three focus group discussions for the assessment. Ninety-eight students participated in the student surveys. The focus group had five coaches, two mentors, and two administrators. The faculty development committee had one administrator, two coaches, and one mentor. We used certain keywords to categorize the information from the sources. Then, we summarized all information to develop data for the assessment.

8. Analysis

Students' feedback on the strategic coaching was very positive. Almost all students appreciated coaching with a high level of learning satisfaction. However, we conducted a student survey and interviews with selected coaches to find out chances to improve coaching performances.

First, strategic coaching has successfully introduced CBE methods to students to ensure their learning readiness. According to the survey, they comfortably started self-paced CBE with their coaches. However, the survey showed areas for improvement.

They suggested that the main landing page needed a better interface with more interactive content. We found they used the page mostly at the beginning. Then, access to the page quickly diminished once a quarter started. At the same time, they started asking various questions and concerns which could be answered and solved on the main page if we used a better interface with more interactive content.

The interview with the focus group prevailed on the need for class-specific landing pages in addition to the main page. Students would be more comfortable having such class-specific pages as each class had different requirements and expectations. The interview also suggested a course lead for each class to manage a class-specific landing page.

Second, the survey confirmed that we offered them appropriate CBE learning environments. However, the student survey and the interview suggested two major ideas to improve the environment. For example, we will need to consider technical or non-technical class characteristics to optimize the learning environment. Especially, the depth of active interaction will be a more critical environmental factor in technical classes. At the same time,

brief but frequent two-way communications will be more important in non-technical classes.

Also, we need to strengthen our learning partnerships with students by improving synchronous sessions. Finding stressless synchronous session designs for coaches and students will be very important. As students are working professionals, timing and participation requirements must be mutually agreed upon between coaches and students.

Third, students suggested that formative assessments would be more beneficial if they could receive all assessments quickly. At the same time, the interview found that coaches were stressed out with pressure on fast feedback requests from students. Formative assessments could be very time-consuming. While coaches tried time management, feedback might be a little late under certain circumstances. We need to improve the efficiency and effectiveness of the formative assessment to develop less time-consuming approaches.

There are possible ways to improve the assessment. Using a quick video recording function of CANVAS to offer faster but visible assessments to students will be a good way. Students can also use the function to comment on the assessments. This will also improve two-way communications between coaches and students. We could encourage students to use existing university learning support systems such as a writing center and an e-tutoring center to improve the quality of students' work. Improved works will reduce the burden of the assessment. We could offer students quizzes on CANVAS to ensure a basic knowledge of a class subject. While these quizzes will not be counted towards the final grade, these will improve the quality of students' work. When there are repeated issues in an assignment, a coach may give an example to fix a problem. Then, the coach can encourage the student to fix similar problems by using the example.

Fourth, the interview suggested integrating formative assessments into the summative assessment to improve the overall assessment efficiency and effectiveness. As students will bring the final projects/assignments with the highest quality through a series of effective formative assessments, our summative assessment can focus on assessing students' competency applications and transformations. This will increase students' learning satisfaction as they can see their levels of competency applications.

Finally, we should add career preparation and development to classes for better learning satisfaction. One idea for our coaches is to develop a professional network through social media to maintain skills and knowledge in their fields of expertise. Then, they can share various information and knowledge from the network with students to improve their career readiness. According to the survey, they wanted to advance their careers or seek better career opportunities by strengthening their own competencies.

9. Result

While students' feedback on our strategic coaching was very positive, we could find critical elements to improve the model. We need the main landing page with a better interface with more interactive content. We need class-specific landing pages in addition to the main page. Students would be more comfortable having such class-specific pages as each class had different requirements and expectations. Also, we learned that a course lead for each class

should manage a class-specific landing page.

We learned that brief but frequent two-way communications would be more important in non-technical classes. Also, we need to strengthen our learning partnerships with students by improving synchronous sessions. Finding stressless synchronous session designs for coaches and students will be very important.

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Finally, we need fast and two-way communications in the formative assessment process. Using a quick video recording function of CANVAS to offer faster but visible assessments to students will be a good way. Ideally, we should integrate formative assessments into the summative assessment to improve the overall assessment efficiency and effectiveness. Effective communication and assessment must include career preparation and development aspects.

10. Conclusion

We found the following actions to improve coaching efficiency and effectiveness based on our assessment. We need the main landing page with a better interface with more interactive content and class-specific landing pages. We need to design stressless synchronous sessions. We need to improve our formative assessment to be less time-consuming approaches. We need fast and frequent two-way communications in the formative assessment process. Finally, we must include career preparation and development aspects in our curriculum.

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Appendix A

Modified FITP Strategic Coaching Model

Areas of Strategic Coaching	Strategic Coaching

Introduction/Readiness	• Landing pages for MS-ITAM faculty, FITP faculty, MS-cohort students, and FITP students.
	
	• Send a welcome message in the discussions as the first contact, then follow-up with sending students a course policy statement with your expectations, then just back and forth communication as needed.
	
	• Students onboarding to train students for CBE.
	    o Collaboration with students by sharing learning responsibility
	
	• First Communication with students:
	    Post a Content Coach Welcome/Expectations video in your classroom (ie. Panopto, zoom, etc.) that addresses:
	
	• Why the student is taking this course (purpose and importance of the course content)
	
	• What is expected for communication with you as Content Coach
	
	• What is expected with the Final Assessment(s)
	
	• Anything else you briefly want to address to help the student be successful in your class.
	
	• Faculty onboarding to train all technical things for CBE.
	    o Landing pages for MS-ITAM faculty, FITP faculty, MS-cohort students, and FITP students.
	    o FDC: Training, refreshing, and mentoring coaches.
	    o Collaboration with other coaches, mentors,

	coordinators, and staff
Learning environment	• Clear written instructions for each assessment (supplemental explanations via video/audio highly encouraged); opportunities for formative assessment/feedback on progress; requirement for at least two substantive interactions with faculty; commitment to return messages and feedback promptly
	• Active interactions and knowledge sharing with students.
	• Active Feedback: Providing a video for every formative and summative assessment and the expectations for each assessment.
	• Post a welcome video as well as adding short articles of interest or relevance (ungraded) throughout the course pertinent to specific modules can be helpful to students for understanding different concepts – and can make the course more interesting/memorable for the students. Also, you might want to suggest students keep a "proverbial" tool bag of articles, concepts, ideas as they move through the course to make their own opinions stronger in the final assessment(s).
	• 24/48 Rule of Communication:
	○ Respond to students' communication/questions preferably within 24 hours; but no later than 48 hours.
	○ If you don't have the answer within that amount of time, please respond the students indicating that you will follow-up with the feedback. Make sure that you put the issue on your to-do list as a reminder.
	○ Inform students (and the program coordinator) if you will be out of communication for more than 24 hours, or if your response time will be slower than usual.
	• Out-of-the-office Rule: If you are going to be out-of-the-office (vacation, emergency, medical, travel, etc.) let the FITP program coordinator know and your plans/needs during that time. Also, let your students know.
	• Balance academic freedom and universal design

Integration of Competency	- Course content offered/open 24x7x365; multiple types of content (articles, books, videos, practice quizzes, etc); in more technical courses, scaffolded/sequenced shorter assignments to build expertise. - Formative Assessment: - As they enroll in your course, establish your expectations for formative assessment, which helps students develop their final (summative) assessments. - Develop on-demand 3-min video-taped instructions and feedback messages. These messages have a high level of access. Ask students to use video recording to answer or send brief messages. Instructors will make video-recorded brief replies (30 – 60 seconds). Specific comments (Video) plus general written comments. Video-taped instructions and feedback for more technical hands-on subjects. - Drafts assessment: In writing-intensive courses, formative assessment might take the form of working with drafts. Rather than providing complete issue-by-issue feedback using track changes, which could easily be revised by the student just accepting the changes, you might want to provide one or two specific comments (or refer them to the content/resources – ie. CWU Writing Center, e-tutoring, Canvas modules, textbook, and offering a chance to meet with them; for their own learning) and add a comment that the student needs to go through the rest of the document to revise other similar issues accordingly – which provides the student the knowledge and empowers self-learning and development. If your course has periodic checkpoints throughout the course that work as formative assessment, that may be enough for draft review. - Concept/practice quizzes: In more technical courses, setting up concept quizzes or practice quizzes can help students test themselves on specific knowledge areas. This can make for a messy gradebook, however, so be sure to indicate clearly that these quizzes are not part of the final grade. - Preliminary steps/journal entries/reflections: Some courses build in shorter assignments, including preliminary

	steps, journal entries or brief reflection papers, that track student learning as part of the progress toward the final assessment. As with quizzes, be sure to indicate clearly that these assignments are not part of the final grade. • Synchronous sessions (Zoom, Skype, Teams): Several faculty have found that scheduling synchronous sessions creates valuable give-and-take regarding formative feedback. These 1:1 sessions are held in real-time, giving the opportunity to deal with questions and clarify expectations quickly. For classes with multiple students on the same timeframe, group study sessions or Q&A sessions can also be useful. Note: With FITP, attendance at synchronous sessions cannot be mandatory or graded, but definitely a good idea for any student desiring to attend. Content coaches can require a 1:1 consultation as their way of granting points for content coach interaction.
Application of Competency (Final assessment)	• Summative Assessment: • Provide feedback/grades preferably within 3 days; but no later than 5 days. If grading will take longer than 5 days, communicate with the student; copy the program coordinator and/or the student's mentor. Students are often on tight deadlines for grades for financial aid or other reasons, and we track this closely. • If a student does not achieve a minimum passing grade of 80% on the first submission of the final assessment(s); then the student must resubmit to raise his/her grade to achieve the 80% passing grade for FITP courses. With this situation, you might want to offer a meeting/virtual meeting to go over the results and how to improve for a passing grade. • Jointly review the requirements of the final assessment(s) as they start a class; then work in an iterative process with the module content, going back and forth as they develop their final assessment(s).
Student/Learning Satisfaction	• Regular surveys to gather student perceptions on course design, faculty interactions, evaluation of learning, mentor

	support, and overall program satisfaction.
	• Regular pro-active outreach from Mentors to gauge student progress and troubleshoot obstacles or challenges.
	• Career preparation: Write down your own experience and knowledge about career preparations. Use the information to support students. Apply knowledge from your own expertise development activities (conferences, training, etc.) when you consult with students regarding their career preparation.
	• Find professionals who can support your students' career development.
	• Improve your own expertise through social media and share with students to gain professional knowledge and insights as well as industry trends.
	• Develop a professional network.

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