

QUALITY FRAMEWORK FOR
COMPETENCY-BASED EDUCATION PROGRAMS:
A USER'S GUIDE

COMPETENCY-BASED
EDUCATION NETWORK 

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QUALITY FRAMEWORK FOR COMPETENCY-BASED EDUCATION PROGRAMS: A User's Guide

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WHY QUALITY? WHY NOW?

The C-BEN Quality Framework for CBE Programs was developed in response to a growing need for definitions of quality relating to competency-based education. As the number of CBE programs continues to grow, many constituents are looking for guidance to identify high quality CBE programs. Potential students and their families need to know that credentials earned through CBE programs will support them in achieving their goals. Accreditors and regulators want to support innovation and maintain guardrails to protect against fraud and abuse. Institutions need guidance as they create new programs. This Framework is foundational in enabling the ongoing innovation and growth of the CBE field.

HOW WAS THIS FRAMEWORK DEVELOPED?

It became clear to the leaders of C-BEN that efforts to grow demand, build capacity and remove barriers for CBE were hindered by the lack of a quality definition. In response to this need, the C-BEN Quality Standards Task Force was created. The members of this Task Force drew from the Shared Design Elements and Emerging Practices of Competency-Based Education, and brought together leading program designers and system administrators from C-BEN institutions representing an array of models. This task force worked together over 2016 to create the first edition of Quality Principles & Standards for Competency-Based Education Programs through an iterative and inclusive process, developing principles and standards universal enough to apply to all CBE programs, regardless of model variations. In the future, we envision these universal principles and standards will be augmented by additional stackable principles and standards based on research, as well as model-specific, programmatic features.

The Task Force's goal was to provide elements of quality with related principles and standards that are at once accessible and aspirational. This was achieved by the use of performance indicators embedded in the Development Guides designed to make the principles and standards multidimensional. The performance indicators for each of the principles were released in draft form in May 2017, and feedback was gathered from Spring, 2017 C-BEN convening attendees as well as through an online portal established to solicit feedback from the field. This feedback was incorporated into the final version Development Guides.

The process of developing the Framework has been inclusive of both the C-BEN community and the wider field. Not only did C-BEN members from 30 institutions and four state university-systems offer feedback, but also over a hundred other individuals from around the country provided guidance that informed this final version. In addition, a convening of roughly 40 C-BEN members and more than a dozen national experts and regulators was held in late 2016 to finalize the standards and begin ongoing work on development guides.

C-BEN knows full well that the evolution of the field and the growth of the evidence base will require that these principles and standards be regularly revisited and updated to reflect the state of knowledge. This edition of the Quality Framework for CBE Programs is intended to inform strong program design, ease accreditation, and build the confidence of regulators working to create safe space for responsible innovation. Ongoing refinement and revision from the field at-large will be necessary to ensure its use and relevancy in building and refining quality competency-based education programs.

WHO SHOULD USE THE FRAMEWORK?

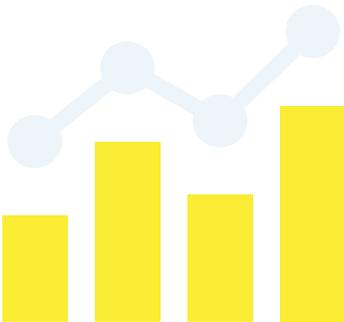
C-BEN's aim with this work is to provide guidance to the field, allowing institutions to draw on these elements, principles and standards to inform the design, implementation or scaling of high-quality programs. The Framework also can provide guideposts and assurances to policymakers and accreditors tasked with regulating this vibrant, and still emerging, field of practice.

HOW SHOULD WE USE THE FRAMEWORK?

For institutions, the Framework document by itself can feel overwhelming, and perhaps even confusing. In order to support institutional adoption and use of the Framework, this "workbook" has been developed. Several institutions have already used the Framework to guide their development of CBE programs, and we think that other institutions can benefit from this process as well. This workbook is intended to serve as a support layer between the Framework and institutions wishing to use the Framework. Our goal is not to offer a pathway or the "right answers" to developing and/or improving CBE programs, but rather to offer the high-level, high-leverage questions to be considered to accelerate and enable your work.

01

Demonstrated Institutional Commitment To and Capacity For CBE Innovation



In order to produce a high-quality CBE program, the institution must build a foundational infrastructure in support of competency-based education. This includes the development of a CBE philosophy and commitment as it relates to the institution’s mission, the design of the program structure and the definition of appropriate supports for the program and its learners (including people, policy and process supports). The institution must also make appropriate financial investments in the program, understanding that the returns on investment (ROI) for CBE programs are generally longer-term, and recognizing that such investments are often necessary both to achieve regulatory and accreditor compliance and to provide learners with an adequate and appropriate support structure.

Key Considerations

Key People at the Table:	Resources Needed:
<ul style="list-style-type: none"> • Executive sponsor • Representatives from governing board/president • CBE steering committee • Budget/finance representatives • Faculty from program’s department • Financial aid • Registrar • Instructional designers • Curriculum influencers • Institutional research • IT staff • Marketing • Advising 	<ul style="list-style-type: none"> • CBE program sponsor • Project management • Link to/knowledge of accreditation • Information about how other institutions deliver CBE • Time and space • Change management plan • Staff to implement CBE program as designed • Intake and screening tools • CBE specific orientation

INSTITUTIONAL ILLUSTRATION #1:

X College has decided to seriously consider offering a CBE program. As a part of the exploration process, they form a small working group to gather information regarding CBE models, success, challenges and current state programs. They decide to complete both a literature review and to attend a number of conferences in order to learn both the theory and the practice of CBE. They spend a few months gathering information and then come together to synthesize what they learned from college visits, conferences, books and articles. This synthesis results in a recommendation for X College's own variety of a CBE program, as well as which credential ought to be offered first via CBE.

INSTITUTIONAL ILLUSTRATION #2:

X College is ready to design and develop their first CBE program. They start with a kick-off meeting to engage many of the internal and external stakeholders of the College. During this meeting, they share market data they have gathered about the need for this program, alignment of this program to the College's strategic plan, and how the University is defining CBE. They offer a short overview of how CBE is being implemented nationally and explain the vision for X College's approach to CBE. They construct a process to engage attendees deeply – collecting their concerns, hopes, challenges and fears about CBE generally and CBE at X College specifically. They build a series of communications and meetings based on the issues identified at this kick-off meeting.

QUESTIONS TO CONSIDER:

- How does CBE fit with your institution's mission?
- What does CBE look like at your institution?
- What are your regulatory requirements? (institutional and programmatic)
- What institutional policies need to change to accommodate CBE?
- What is your business model?
- What data can you use to measure student success?

WHERE TO START?

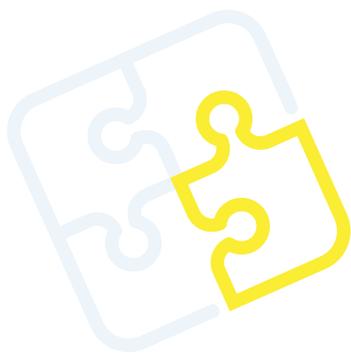
Clarify your institution's "why" for this work, and create a roadmap for what you want to accomplish.

PRO TIP:

Have an answer to the question "why are we doing this?". Involve all stakeholders early. Develop a guide or roadmap for CBE at your institution. Understand institutional policies and accrediting bodies.

02

Clear, Measurable, Meaningful and Integrated Competencies



Each competency is explicitly stated and provides unambiguous descriptions of what a learner must master to complete a program of study. Each competency includes the theory and the application of theory required for mastery at the appropriate level for the credential being earned. Each competency connects to content and learning activities designed to support learners in developing the proficiencies required by the program to award a credential. Each competency is measurable and can be reliably and validly assessed.

Key Considerations

Key People at the Table:

- People who understand and can represent industry standards
- Employers
- Faculty
- Staff
- Instructional designers

Resources Needed:

- C-BEN Competency Development Guide
- National Institute for Learning Outcomes Assessment (NILOA) resources
- Relevant professional organization standards and accrediting body resources
- Time for faculty and SMEs
- Project manager

INSTITUTIONAL ILLUSTRATION #1:

X College is ready to get to work on identifying the competencies for their first CBE credential. Because it is a healthcare credential, they have invited the local hospital and clinic administrators to attend a daylong workshop. They also have included the faculty with expertise in these programs. At the end of the day, they want to have a rough draft of program-level competencies. After setting a time for the meeting and gathering commitment from external partners to attend (the hardest part of this work), the CBE planning group at X College select a few resources from their earlier work to share with the group. These resources include a case study of another institution's program in a similar area, requirements from employers to hire people with this credential, any relevant licensing requirements and any specialized accreditor requirements. The day begins with an orientation to CBE and an explanation of the vision and definitions for CBE at X College. Small groups review requirements from employers, accreditors and licensing boards, pulling out essential competencies. The groups share their initial competency lists, looking for similarities and gaps. At the end of the day, the group has developed a draft of the overarching competencies for this program, with strong buy-in from across the group.

INSTITUTIONAL ILLUSTRATION #2:

X College is ready to move ahead with the competencies for the credential that they intend to offer. Now, they have to build the base of the program – they have to scaffold and organize the competencies so that the assessments can be built to align to the competencies. At X College, this means that they pulled together a smaller working group of faculty experts, instructional designers and an assessment specialist. Since this is the first CBE program at X College, this team had to develop a hierarchy and nomenclature system (and a glossary to capture this) that supports moving from the larger competencies to units and tasks that are transparent and more easily assessed. In this case, X College decided to move to a learning hierarchy that looked like this: Competency – Sub-Competency – Learning Outcome – Criteria. Then, as a team, they tackled each previously defined competency and articulated the flow down to criteria. They were careful to check that they were inclusive of the entire domain covered by each competency, including both cognitive and “soft” skills where relevant.

QUESTIONS TO CONSIDER:

- How have you defined competencies so that they can be distinguished from outcomes or learning objectives?
- How have levels of achievement for each competency been identified appropriately for the credential being earned?

WHERE TO START?

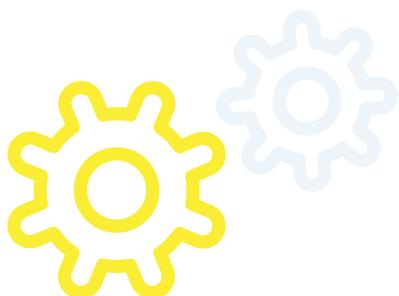
Gather resources and people to develop competencies, onboard/orient stakeholders regarding quality CBE (e.g.: backwards design, assessment), and determine where competencies are mapped and the levels of achievement required.

PRO TIP:

Once the competency development process is established, it can be replicated. Remember that competencies are not complete without clear assessments.

03

Coherent, Competency Driven Program and Curriculum Design



Competency-based education programs use an intentional and transparent approach to curricular design that provides a learner with the full range of competencies necessary to meet post-graduation demands. These programs intentionally seek to reduce racial, ethnic, socioeconomic, gender and other potential bias in their design, delivery and implementation. This academic model, which provides clear pathways to completion, builds a unified body of knowledge that leverages frameworks, disciplines, standards, national norms, workforce and societal needs. Learners are at the core of the program's design, and the logic of the program (as well as its associated assessment strategy) supports flexibility in pacing. The curricular design ensures that the level and complexity of the competencies are congruent with the achievements required for the academic level of the credential.

Key Considerations

Key People at the Table:

- Faculty
- Instructional design team
- Assessment office
- CIO or IT staff
- Employers (industry)
- Students
- Accrediting body
- Legal affairs
- Financial aid staff
- Governance groups

Resources Needed:

- Project plan
- Financial resources
- Market analysis to establish the business case
- Sample curriculum (lexicon)
- Communication plan

INSTITUTIONAL ILLUSTRATION:

Once X College had built the framework for competencies, one of the next steps (along with assessment creation) was to build out the curriculum. For this work, the faculty and instructional designers broke into smaller working teams, each focused on a specific competency and the pathway to demonstration of mastery for that competency. Each team considered what content was necessary for successful student acquisition and demonstration of their assigned competency. They also considered best delivery format and how to best support any areas that were likely to present larger challenges to students. They began to consider how to best provide and/or acquire this content and support material. They recommended a blend of textbook, open educational resources and some homegrown content in the form of videos and formative quizzes.

QUESTIONS TO CONSIDER:

Do you anticipate internal resistance out of fear of change or concerns about watering down of existing curricular requirements?

WHERE TO START?

Start with a needs analysis. How does your CBE program solve a gap or “problem” for employers or your community? Identify key stakeholders, internally and externally. Seek external validation through other frameworks and employer input.

PRO TIP:

Build in methods to gather data for continuous improvement of curriculum.

04

Credential-Level Assessment Strategy with Robust Implementation



Authentic assessments and their corresponding rubrics are key components of CBE, which is anchored by the belief that progress toward a credential should be determined by what learners know and are able to do. The overarching assessment strategy is comprised of assessments designed both to inform the learning journey (often referred to as “assessment for learning”, or formative assessment) and to validate mastery (often referred to as “assessment of learning”, or summative assessment). In CBE models, assessments are intentionally aligned to competencies and cognitive levels, and use a range of assessment types and modalities to measure the transfer of learning and mastery into varied contexts. Authentic assessment design and use follow best practices for assessment professionals.

Key Considerations

Key People at the Table:

- Faculty (specialty faculty and generalists)
- Instructional designers
- SME/field experts
- Assessment specialists
- IT staff
- Accessibility experts
- Learning analytics experts

Resources Needed:

- Expertise in assessment methods
- Incentives for doing the work
- Plan for revision and improvement of assessments
- Technology resources
- Professional development training on assessment methodologies
- Built-in flexibility to fit your needs and culture

INSTITUTIONAL ILLUSTRATION:

X College recognized that the faculty at their college used varying forms of assessment, and that many faculty were quite passionate about the approaches they used. They gathered a group of faculty who were affiliated with this new CBE credential to discuss the assessment approach to be used for this credential. They decided to bring in an external CBE assessment expert, as well as their internal assessment team and instructional designers. The group spent two half days together. First, they discussed the goals of assessment in the CBE program and defined terms such as “authentic assessment” for their institution. They spent time discussing what assessment means in a “mastery” environment vs. a grades-based environment. They considered what it means to develop assessments that scaffold along with the content to capture demonstration of competency at the credential level rather than at the assignment or “course” level. At the end of the two days, they emerged with a set of assessment principles for their program and a shared sense of the work to be done next.

QUESTIONS TO CONSIDER:

- How is your institution equipped to make the mind-set and practice shift?
- What are the learning analytics you want to collect and analyze?
- What is needed to support the design of the overall assessment framework and to map it to your roadmap?

WHERE TO START?

Gather resources and people to develop competencies, onboard/orient stakeholders regarding quality CBE (e.g.: backwards design, assessment), and determine where competencies are mapped and the levels of achievement required.

PRO TIP:

Consider using external experts to evaluate your institution’s assessment strategy and the training associated with it. Align assessment strategies to other institutional efforts and strategic plan.

05

Intentionally Designed and Engaged Student Experience



CBE professionals (faculty and staff) comprehensively understand the strengths and needs of their target learner population, and put those needs at the core of all decisions, processes and systems. CBE programs offer proactive and personalized support for learners, from determining program fit through alumni relations. Faculty and staff are invested in and involved with understanding and improving the entire learner lifecycle by designing, guiding and supporting the learning journey, including processes that facilitate and encourage meaningful interaction with individual learners. A full array of wraparound learner services and social supports, appropriate to the learners being served, is offered by CBE professionals through a wide range of roles and responsibilities.

Key Considerations

Key People at the Table:

- Librarians
- Counseling/career development office
- Partnership development
- Student affairs
- Accessibility experts
- Student academic support offices (tutoring, writing centers)
- Alumni office
- Student representation
- Faculty
- Instructional designers
- Financial aid
- Business office

Resources Needed:

- Professional development time and resources (possible topics: what are wraparound services? CBE deeper dives, training on specific customer-centered processes)
- Support for doing the research
- Student experience integration definition (level of users, built into the design, software development cycle, use data gathering, advanced/intermediate technology challenge, stressing testing)
- Collect data and integrate this into development
- Research on learner experience (building continuous improvement model)
- Conversation with development teams

INSTITUTIONAL ILLUSTRATION:

X College decided to consider three groups of students as they designed the student experience for this credential: underprepared, prepared, and highly-prepared. They first built the learning pathway (including content, placement of both formative and summative assessment, mandatory advising contact, peer interaction, etc.) for the prepared student. From this base, they built a model of support and engagement for the underprepared student, based on the areas in which they were demonstrating their lack of preparation. Then, they considered how to “get out of the way” of highly prepared students without sacrificing quality or failing to meet any regulatory requirements.

QUESTIONS TO CONSIDER:

- What is the life cycle of your current student services? Consider using performance indicators to survey students and faculty.
- How is your team ready to consider new approaches for the CBE work?

WHERE TO START?

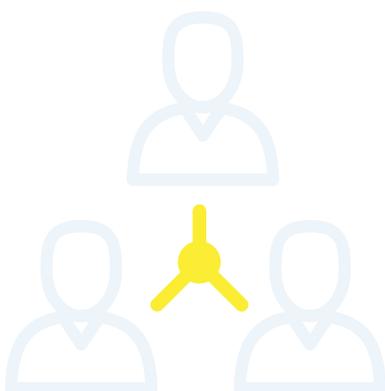
Use Quality Framework performance indicators to locate your program’s current state and consider how to move to the next level. Develop processes to review data and use continuous improvement process. Consider leveraging existing processes, such as annual program reviews.

PRO TIP:

Think about the data from project inception. Consider how the learning activities integrate with the other section of the 8 elements in the CBE Quality Framework. What does it mean to truly engage the learner – consider how to use transformational elements (i.e., Facebook or social learning).

06

Collaborative Engagement with External Partners



Institutions strategically identify and secure the commitment of multiple external partners to inform and support the achievement of their CBE programs' purpose and their institutional equity goals. External partners are meaningfully engaged in the design, delivery and evaluation of the institutions' CBE programs. They work collaboratively to inform and validate CBE program competencies and curriculum, and to ensure the authenticity of assessments. The result is a relevant, transparent credential and authentic learning experience that is endorsed and trusted by external partners as well as learners.

Key Considerations

Key People at the Table:

- Advisory board members
- Faculty
- Core CBE personnel
- Institutional alumni
- State representation
- Economic development leaders in the community
- Instructional designers
- Professional associations
- Accrediting partners

Resources Needed:

- Labor data (BLS, ONET, EMSI)
- Program curriculum
- Competency review
- Assessment validation

INSTITUTIONAL ILLUSTRATION:

For the credential being developed, X College brainstormed about local and regional firms who would possibly hire graduates with that credential. They contacted the HR heads and CEOs for each of these firms and informed them of X College's goal to create this new program, explaining the innovative role X College was hoping that employers would play in the design and development of the credential. They followed up the conversations with emails asking for levels of interest and commitment in participation. They got responses from 5 employers who were willing to meet and help design the competencies. X College pulled together this team for two separate half days during the early phase of the credential development. The first half-day was an explanation of CBE along with an active review of the competencies drafted by the internal team. The goal of this session was to arrive at a shared set of competencies required for graduates from this credential that would allow employers to hire these graduates with confidence. Later sessions were planned to include input into assessment methods and to develop a system of feedback from the employers to X College regarding graduates' performance on the job.

QUESTIONS TO CONSIDER:

- What existing external partnerships do you have? Or, how will you develop external partners?
- Do you have the right external partners at the table?
- Are you asking the right questions to your partners?
- How does your existing model need to change to adapt to a CBE model?
- What adequate communication channels do you have for partners?
- How will your partners provide components of the learning journey?

WHERE TO START?

Look at existing practices and programs. Integrate already existing curriculum approaches, such as DACUM (Developing a Curriculum) to identify necessary skills/curriculum.

PRO TIP:

Showcase employer logos on your website and/or materials. Promote or get commitment from employer partners to provide opportunity for apprenticeships or internships. Leverage the Developing a Curriculum (DACUM) approach, or other resources to support the work.

07

Transparency of Student Learning



One of the central differentiators of CBE programs is their transparency regarding the learning required to earn a credential. This means that the competencies and their alignment, the pathway to mastering those competencies, the assessment methodologies, and the performance requirements for successful demonstration of competency are clearly articulated to learners and all other stakeholders. Transcription practices make demonstrated competencies transparent to learners, faculty, staff, employers, transfer institutions, accreditors and regulators, often in digital form. Transcripts are designed to support portability and transferability to non-CBE environments and include an “extended or comprehensive record” with details about the learner’s complete accomplishments.

Key Considerations

Key People at the Table:

- Registrar
- Employers
- Faculty
- Instructional designers
- IT staff (related to digital platform)
- Students
- Enrollment advisors should be informed

Resources Needed:

- CBE program alignment documents
- Program sequence where applicable
- Technology options (budget)
- Lumina and other credential/badges resources
- Examples from other institutions

INSTITUTIONAL ILLUSTRATION:

X College pulled together a working team including the registrar, their transcript provider, faculty, students, employers and IT staff to consider how they hoped to transcribe the CBE program. They developed a vision with an engaging set of visuals as well as a “crosswalk” between competencies and courses. They then held conversations with their current transcript provider regarding capabilities to achieve their vision. From these conversations, and conversations with the internal IT team, they developed a roadmap to move from current state of transcription to the desired future state. They plan to initially start with a course based transcript that articulates the competencies in each course “bucket”, but have a plan to “flip” this as the program develops and as their capabilities are enhanced.

QUESTIONS TO CONSIDER:

- How will your institution address this challenge?: Competency programs are often mapped to courses. Many times this mapping is not included on transcripts.
- How can your institution create transparency in both directions (course to competency and competency to course equivalency) for students and other stakeholders?

WHERE TO START?

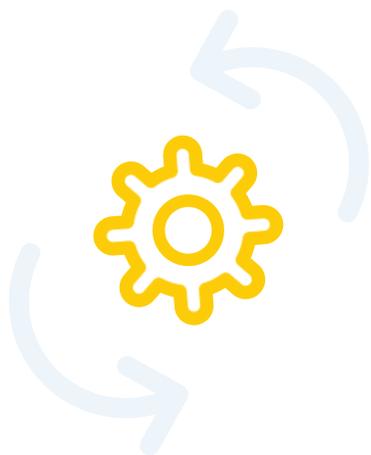
Look at options (badges, credentials) to visualize the competencies demonstrated in your program. Determine your institutional goal and vision for transparency of learning. Review the work of other institutions using tools such as the extended transcript that includes competencies.

PRO TIP:

Look for and use solution examples from other institutions.

08

Evidence-Driven Continuous Improvement Processes



An evidence-driven, continuous improvement methodology is an essential dimension of competency-based education. To ensure program effectiveness, data are collected and analyzed at regular intervals during the program and post-completion. These data are reported and used to inform learners and faculty, identify and prioritize improvements, evaluate and refine assessment strategy and implementation, monitor equitable learner achievement across diverse groups, optimize learner supports to impact program persistence and completion, and enable external validation of learning. Where performance gaps are identified, the institution actively implements and monitors solutions.

Key Considerations

Key People at the Table:

- Data scientists (IR)
- Learning analysts
- Assessment leadership
- Curriculum/journey design
- Evangelizers
- Translators (dashboards)
- IT/ed tech/ITS
- External informants
- Consultants from employers
- Alumni research
- Research/impact/ROI study people
- Accreditation leadership
- Policy advocacy and legal affairs
- Student experience leadership

Resources Needed:

Varies based on vision, but most aspirational would include:

- Technology budget
- Staff expertise
- Consultants
- IT foundation, including integration capacity, migration strategy, data security/protection, data dictionary, glossary of measurement, and tech stacks/architecture/framework
- QA process and strategy, management strategy/process/cadence/rationale, to build capacity for change
- Discipline to practice

INSTITUTIONAL ILLUSTRATION:

X College has been offering its CBE program successfully for about two years. Due to broader institutional considerations, they are migrating to a new learning management system (LMS) platform. This offers the team an opportunity to revise and reconsider the metrics that they have been using for continuous improvement. The new LMS offers new metrics and cannot produce some of the old metrics the institution has been monitoring for quality and continuous improvement purposes. The team pulls together a series of meetings to map out a new set of metrics, enhancing the clarity of the expectations without losing the momentum gathered through use of the past set of metrics. Once a new draft set is developed, this draft set of metrics is reviewed with employers as well as students and a broader group of faculty. Changes are made to the proposed set of metrics based on this input, and these metrics are implemented, with a planned review process.

QUESTIONS TO CONSIDER:

- What is your existing continuous improvement strategy?
- What infrastructure and/or expertise do you have to engage in continuous improvement of the program?
- How strong is your change leadership?
- What data do you want to collect? How will you collect it? What will you do with it?

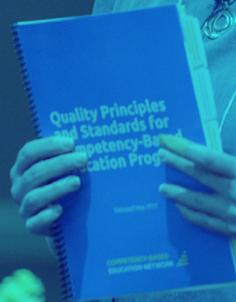
WHERE TO START?

Self-assess on the Quality Framework development guide, and ask what do you as an institution or CBE program do/know/need.

PRO TIP:

Start with a cultural commitment to data driven decisions and insights. Build the capacity for evidence-based decision-making. Expand your community of experts, advocates, and accountability partners within and outside of higher education.

NOTES



Consulting Services & Technical Assistance

C-BEN offers consulting services and technical assistance to help institutions, state systems, and other organizations build new and enhance existing CBE programs. If you would like to learn more about how you can best leverage this resource and C-BEN's services, please contact:

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