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Evidence-based inquiry cycle: A model for meeting the council for the accreditation of educator preparation standard 5

Leah P. Peterson

Nicholls State University 906 East 1st Street Thibodaux, LA, 70301 985 448 4320, USA.
Email: leah.peterson@nicholls.edu

ABSTRACT

This article outlines the need for support and best practices for educator preparation providers (EPPs) to meet the Council for the Accreditation of Educator Preparation (CAEP) standards, specifically, CAEP's Standard Component 5.1 Quality Assurance System. The purpose of this article was to identify a continuous improvement model that EPPs can be utilized to support quality assurance processes in meeting CAEP Standard Component 5. The article used a secondary analysis methodology to examine past theories, models and research to outline best practices for EPPs. The findings provided a strong case for teacher education programs to utilize an evidence-based inquiry cycle for the foundation of their quality assurance systems and positive change in general. Additionally, best practices were identified to aid in maintaining such a system including support for providers, collaboration with stakeholders, an emphasis on positive culture, and a focus on quality outcomes and data. This article has implications not only for EPPs but for other providers focusing on quality assurance measures that should be supported through inquiry, strong evidence, and continuous improvement efforts. A practical recommendation of this study is that EPPs should use an evidence-based inquiry cycle to assist in developing, implementing, and modifying each provider's quality assurance system to better serve their candidates.

Contribution/Originality: This article contributes to the limited field of research concerning accreditation and quality assurance for EPPs. This study found out that although inquiry theory has been integrated into teaching for decades, there has yet to be a focus on evidence-based inquiry which can support EPPs in operational effectiveness.

1. INTRODUCTION

The quality of education, especially in teacher preparation, has become a major issue with the introduction of institutionalized quality assurance (Seyfried & Pohlenz, 2018). The close examination of Educator Preparation Providers (EPPs) and their ability to meet certain outcomes has become an integral part of institutional practice as well as faculty and staff's daily efforts. This has spurred competition among EPPs to find the most effective and efficient ways to improve current practices and rankings in the midst of more complex measures (Morgan, Jobe, Konopa, & Downs, 2022). Evaluation systems began as an act to incentivize institutions to enhance quality of their programs, but these changes transformed into media influenced ranking systems with high stakes accountability and related consequences (Dittrich, 2018). Despite these pressures, continuous improvement efforts based on recent

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trends can help ensure the high-quality preparation of future educators and have a long-lasting impact on Pre K-12 teaching and learning (Birch, Goekler, Auld, Lohrmann, & Lyde, 2019). In today's climate of increased accountability and scrutiny of EPPs, it is more important than ever for educators to understand what they do and do not do well (Bisplinghoff, 2005).

With the quality of teaching and learning becoming a major issue within higher education institutions, the Council for the Accreditation of Educator Preparation (CAEP) is the organization that sets the minimum criteria for Educator Preparation Providers (EPPs) to ensure high quality program admission, progression, and impact (Council for the Accreditation of Educator Preparation, 2022; Heafner, McIntyre, & Spooner, 2014; Seyfried & Pohlenz, 2018). The accreditation process set forth by CAEP places the responsibility on EPPs to demonstrate a commitment to rigorous professional standards (Birch et al., 2019). While Council for the Accreditation of Educator Preparation (2022) provides key concepts, guiding questions, and potential sources of evidence for each of its five standards; guidance is limited and best practices are not specifically addressed (Heafner et al., 2014). "It is important to note that the guiding questions and descriptions of quality evidence with possible sources of evidence are not exhaustive as EPPs may have different evidence based on EPP systems, structures, and/or mission") Council for the Accreditation of Educator Preparation, 2022). Quality can mean different things to various stakeholders, so it remains a challenge to provide EPPS guidance when determining what is most relevant and vital to improvement efforts (Morgan et al., 2022; Seyfried & Pohlenz, 2018).

One of the more intricate standards to unpack is CAEP Standard 5: Quality Assurance System and Continuous Improvement, particularly its first component R5.1 Quality Assurance System (QAS). As Morgan et al. (2022) explained, defining quality in higher education and teacher preparation is difficult because the term carries a variety of meanings and measures. It is even more concerning that, in the last few decades, there have been an increasing number of protocols established to determine quality including additional requirements for collecting data as well as supplementary inspections and evaluations of institutions (Dittrich, 2018). Specific to CAEP and Standard 5, this standard is one of the most highly cited components because it is an overarching structure and processes component connected with all other standards and components (Council for the Accreditation of Educator Preparation, 2022). CAEP provides only three potential sources of evidence to meet this standard: a graphical representation, a crosswalk, and a system demonstration (Council for the Accreditation of Educator Preparation, 2022). While this is not an exhaustive list due to the unique nature of each EPP, it still provides minimal guidance for programs attempting to demonstrate the development, implementation, modification, and functionality of a system as Council for the Accreditation of Educator Preparation (2022) requires.

The lack of support in relation to this standard along with the increased requirements and inspections tied to CAEP R5.1 Quality Assurance provided a strong rationale for further research. As Cibulka (2014) explained, "Thus, despite extensive data reporting, both schools of education and their critics tend to share a frustration that today's approach to data collection is insufficient for quality assurance or program improvement" (p. 421). Furthermore, the burden caused by increased efforts in data collection, reporting and other quality assurance measures has been cited as one of the greatest concerns and a main factor in stress of academic staff (Dittrich, 2018). This provides a strong case for EPPs to focus on the intricacies of the QAS while developing and sharing best practices that enable quality control and continuous improvement efforts.

Inquiry theory has been integrated into teaching and learning since Dewey, (1938) proposed his theories long ago. However, there has yet to be a focus on how evidence-based inquiry can support EPPs in quality assurance and operational effectiveness while also addressing the complexities of CAEP Standard 5. This secondary analysis of literature, particularly of CAEP Standards in relation to inquiry models and theories, provides a strong foundation for using inquiry and data together to support EPPs. Moreover, within the *CAEP 2022 Revised Standards Workbook* description of CAEP Standard 5, EPPs are prompted to use inquiry and data collection to establish priorities, improve programs, and highlight innovative practices (p. 40). With accreditors understanding that all EPPs are

different, an evidence-based inquiry cycle has the potential to provide significant programmatic improvements and efficiencies when related processes include support, promotion of collaboration, an emphasis on positive culture, and a focus on quality outcomes and data, as the research suggests (Bisplinghoff, 2005; Cibulka, 2014; National School Reform Faculty, 2022; Schön, 1992; Timperley, 2009; Timperley & Parr, 2007). This has implications not only for EPPs but for other higher education departments investigating ways to ensure program quality through an evidence-based agenda (Seyfried & Pohlenz, 2018). While there are various studies that have investigated models of inquiry, none have examined the potential impact that an evidence-based inquiry cycle can have on teacher preparation programs.

2. CAEP OVERVIEW

The Council for the Accreditation of Educator Preparation (CAEP) is an accrediting body formed in 2012 by the National Council for Accreditation of Teacher Education (NCATE) and Teacher Education Accreditation Council (TEAC). CAEP developed its first set of standards in 2013, becoming the sole accrediting body for education preparation providers (EPPs) with the mission to "advance equity and excellence in educator preparation through evidence-based accreditation that assures quality and supports continuous improvement to strength P-12 learning" (Council for the Accreditation of Educator Preparation (2020b), "Mission"). Despite its mission and comprehensive standards, CAEP does not yet describe standard practice for providers (Cibulka, 2014; Heafner et al., 2014). They do, however, require rigorous self-study reports and site visits to illustrate EPPs' abilities to graduate certified teachers (Heafner et al., 2014; Petchauer & Mawhinney, 2017). These procedures have become standard practice as accountability is now a more integral part of candidate preparation than ever before (Seyfried & Pohlenz, 2018). While the more rigorous standards, comparison of educational outcomes, and rankings weigh heavily on EPP faculty and staff; these heightened measures are a way to ensure the appropriate professional preparation and development of future teachers (Birch et al., 2019; Morgan et al., 2022; Seyfried & Pohlenz, 2018).

The most recent processes, outlined in the *CAEP 2022 Revised Standards Workbook*, vary slightly depending on state requirements, but require each EPP to submit a Self-Study Report (SSR), an SSR addendum in response to CAEP's Formative Feedback Report (FFR), schedule and conduct an extensive Site Review, followed by a final response from CAEP's Accreditation Council including any potential Areas for Improvement (AFI's) and Stipulations. If an EPP earns a Stipulation, the traditional seven years of accreditation are minimized to two years, and the provider is required to submit a targeted response effectively addressing the stipulation(s), or the accreditation is revoked (Council for the Accreditation of Educator Preparation, 2020a). The accreditation process for EPPs is rigorous with new standards of quality that can differentiate programs like never before and with the possibility of closing preparation programs (Heafner et al., 2014). As Morgan et al. (2022) explained, "Even with regulations established by the United States Department of Education and well-established institutional and programmatic accrediting bodies, quality standards and quality assurance measures in higher education are complex and ever-changing" (p. 99). With limited guidance and higher standards, EPPs are challenged like never before (Heafner et al., 2014). It has become vital that providers establish and share best practices to aid in meeting the ever changing and demanding accreditation requirements.

3. CAEP STANDARD 5

CAEP has produced several sets of revised standards with individual components since the council's formation. The most current set of standards include seven categories: Standard 1: Content and Pedagogical Knowledge, Standard 2: Clinical Partnerships and Practice, Standard 3: Candidate Recruitment, Progression, and Support, Standard 4 Program Impact, Standard 5: Quality Assurance System and Continuous Improvement, Standard 6: Fiscal and Administrative Capacity, and Standard 7: Record of Compliance with Title IV of the Higher Education

Act. For the purposes of this examination, CAEP Standard 5: Quality Assurance System and Continuous Improvement was the focus due to it being the most highly cited standard for improvement.

Council for the Accreditation of Educator Preparation (2022) defined a Quality Assurance System as "Mechanisms (i.e., structures, policies, procedures, and resources) that an educator preparation provider (EPP) has established to promote, monitor, evaluate, and enhance operational effectiveness and the quality of the educator preparation provider's candidates, educators, curriculum, and other program requirements". CAEP Standard 5 ensures providers use valid data, multiple measures, and continuous improvement efforts (Council for the Accreditation of Educator Preparation, 2022). The standard is broken down into four components: R5.1 Quality Assurance System, R5.2 Data Quality, R5.3 Stakeholder Involvement, and R5.4 Continuous Improvement. CAEP Standard 5 and its components are important to EPPs because Standard 5 acts as an umbrella to the other standards. R5.1 is considered an *overarching structure* to which all other components are connected, R5.2 references data quality in *any* standard, R5.3 connects all standards since stakeholder involvement is embedded throughout, and R5.4 is an *overarching theme* to which all standards are listed as being connected (Council for the Accreditation of Educator Preparation, 2022). This complex connection to all other standards and various components provides a compelling argument to make CAEP Standard 5 a focus for improvement efforts and establishing best practices.

4. INQUIRY CYCLES, THEORIES, AND PROTOCOLS

An inquiry cycle can be defined as a process of learning that uses information to identify gaps that can be closed through careful adjustment. "The inquiry cycle is an ongoing process of reflecting on practice, undertaking professional learning, implementing that professional learning, and assessing impact" (Australian Institute for Teaching and School Leadership, 2020). Inquiry cycles take on different forms; these cycles can act as action research, learning models for students and teachers, or even utilized for broader institutional change (Australian Institute for Teaching and School Leadership, 2020; Thibodeau, 2011; Timperley, 2009). Inquiry cycle models are increasingly being utilized in teacher education environments for their ability to transform certain practices (Pella, 2012).

The foundation of inquiry began with Dewey (1938) Theory of Inquiry which identified the gaps between thought and action and research and practice (Dewey, 1938; Schön, 1992). Inquiry was described as beginning with a challenge with an unclear solution where the inquirer is "in it and in transaction with it" Schön (1992). Schön (1992) used Dewey's Theory of Inquiry to focus on reflective practice with three specific components: knowing-in-action, reflection-in-action, and reflective conversation with the situation. Within knowing and reflecting in action, an important concept is outlined. Schön (1992) explained that those working and reflecting upon their practice often have difficulty describing what is already known or may give inaccurate descriptions adding to the overall confusion. The idea of action without knowledge is common but not always recognized. Action without knowledge is also significantly relevant to quality assurance and the challenges that EPPs face identifying best practices that make a substantive difference in candidate and program performance. Schön (1992) concepts derived from the original Theory of Inquiry outline the importance of using inquiry as educators to become increasingly responsive and consciously reflective to have a greater impact on current practices.

Timperley (2009) illustrated a similar challenge to Schön (1992) knowing-in-action and reflecting-in-action: "For a long time we have known more about the potential for using assessment data to improve teaching practice and student learning than how to do it" Timperley (2009). EPPs have multiple measures for analyzing performance but often without a deep understanding of or the opportunity to reflect upon the conditions that have the greatest impact (Schön, 1992; Timperley, 2009). Timperley (2009) specifically addressed best practices for assessment data needed to improve programs and teaching. Conditions were outlined for using systematic inquiry and knowledge building cycles based on assessment data. Figure 1 illustrates Timperley's (2009) teacher inquiry and knowledge building cycle that promotes valued student outcomes with certain elements that can be applied to EPPs.

Timperley (2009) outlines, "Teacher inquiry and knowledge-building cycle to promote valued student outcomes" (p. 22). While these are student-centered, the five portions of the figure can be applied to educator providers and quality assurance practices on a broader scale. The main concept behind the Figure 1 is the call for more active engagement in evidence-based cycles of inquiry that build upon current professional knowledge in the area of educator preparation. Timperley (2009) concluded that educators have a significant impact on teaching and learning when they are given the opportunity to use high quality assessment data in the right way. However, an emphasis must be placed on the conditions of the system in which these programs and educators operate.
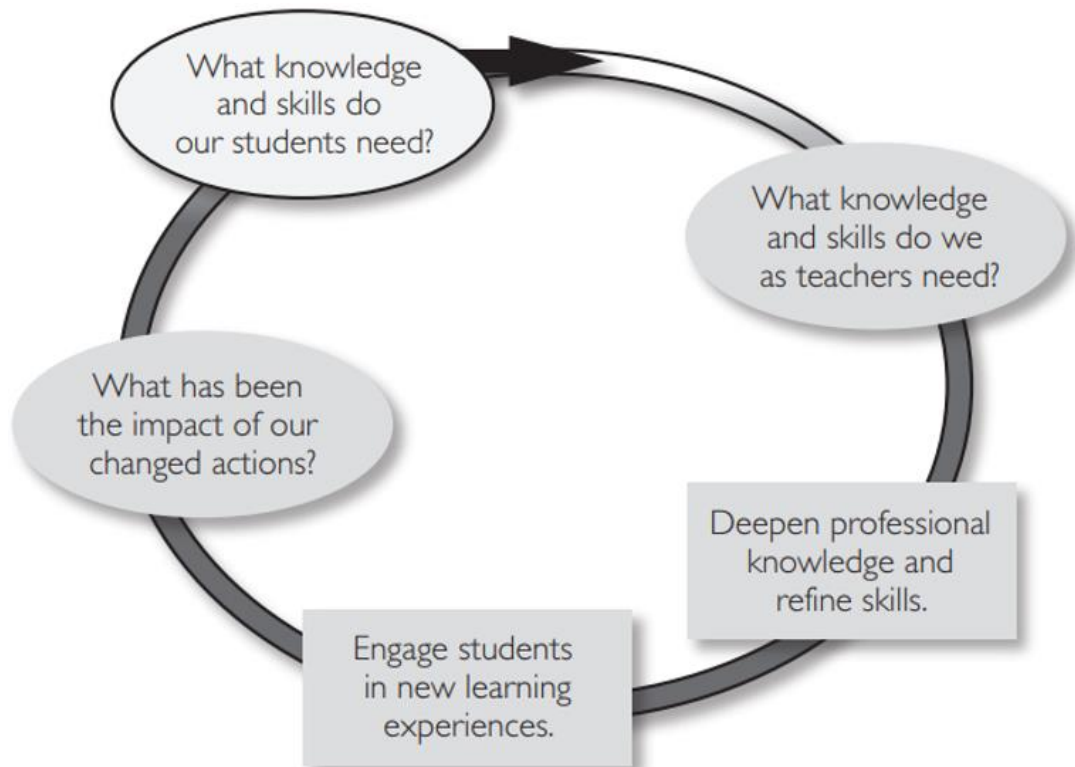
Figure 1. Teacher inquiry and knowledge-building cycle to promote valued student outcomes.
Note: Timperley (2009).

The National School Reform Faculty (NSRF) is an organization that was established to train and support educators in improvement processes that create lasting change (National School Reform Faculty, 2022). As a part of NSRF's work, the organization provides protocols and activities that help educators interpret data, improve teaching and learning, and create improvement plans for outcomes and objectives. This includes protocols to support inquiry for professional learning community activities such as those associated with the quality assurance of EPPs (National School Reform Faculty, 2022). NSRF's Cycle of Inquiry, illustrated in Figure 2, is focused on desired outcomes and theories of learning with five processes outlined in the cycle: Analyze Data, Frame or Reframe Key Issues or Questions, Investigate Literature and Field Expertise, Develop and Tune Action Plan, and Carry Out Strategies and Collect Data (National School Reform Faculty, 2022). National School Reform Faculty (2022) explained within this protocol that those participating in the Inquiry Cycle can enter it at any point, move back and forth between steps, and that they should be revisited periodically for refinement. Bisplinghoff (2005) further supported NSRF's protocols, specifically the Inquiry Cycle, because it emphasizes strength-based thinking to have a more positive influence on current practices. "The Inquiry Circles Protocol recognizes the power of our questions to influence our actions—in this case, actions that affect the cultures of our schools" (Bisplinghoff, 2005).
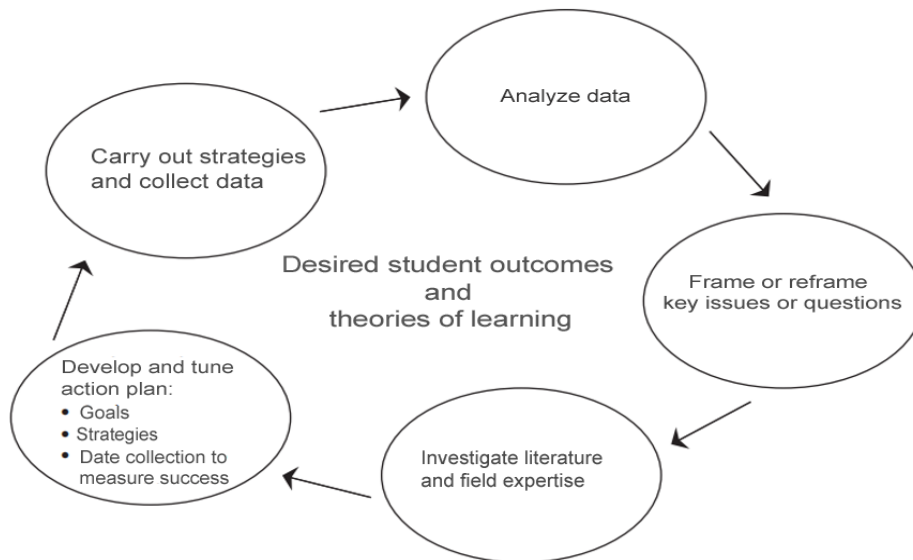
Figure 2. National school reform faculty cycle of inquiry.

Note: National School Reform Faculty (2022).

Appreciative inquiry is a theoretical framework similar to inquiry theory and evidence-based inquiry models that emphasizes the positive aspects of action research (Thibodeau, 2011). National School Reform Faculty (2022) described appreciative inquiry as a protocol that leads school transformation by intentionally building upon what is good. The National School Reform Faculty (2022) supported the use of appreciative inquiry to enhance professional environments by utilizing it as a protocol and an adaptation of their Cycle of Inquiry in Figure 2. (Thibodeau, 2011) studied how appreciative inquiry could be applied to accreditation activities. Appreciative inquiry integrated as a best practice for continuous improvement in the areas of accreditation and institutional effectiveness has the ability to positively affect institutions and individuals, but the chance of success was dependent on factors such as administrative support and inclusivity (Thibodeau, 2011). Common themes among research related to appreciative inquiry for utilizing in quality assurance best practice illustrate that intentionality, active participation, and communication are vital to the success of appreciative processes (National School Reform Faculty, 2022; Thibodeau, 2011). Furthermore, participants need to be supported in robust practices of inquiry encouraging an evidence-based, positive environment for institutional reform and continuous improvement efforts to meet certain accreditation standards (National School Reform Faculty, 2022).

Specific to the university and EPP setting, the University of Central Arkansas (UCA) created a handbook aligned to the revised CAEP Standard 5 to detail its quality assurance system. Within the handbook are graphical representations of the UCA EPP conceptual framework, advanced program alignment, program review cycle, assessment of learning, program assessment, data analysis on various levels, quality of assessments and surveys, faculty calibration, and curriculum revision processes (University of Central Arkansas, 2020). The most relevant visual representation was the "Overview of Assessment Learning" which is depicted as an example of ongoing inquiry and an iterative cycle used to align assessments to relevant standards and ensure high quality assessments of candidate performance (University of Central Arkansas, 2020). While not defined as such, it is an example of how reflective inquiry and data-based decision making can support EPPs in assuring quality and meeting the components of CAEP Standard 5. As CAEP (2022) stated, the provider is required to use" the results of inquiry and data collection to establish priorities, enhance program elements, and highlight innovation" (p. 40). "The UCA model illustrates many of the same concepts of previously identified research and theories. Figure 3 illustrates the model that aligns with Timperley (2009) emphasis on measuring impact, builds upon (Schön, 1992) focus on knowledge and action, as well as National School Reform Faculty (2022) cycle that similarly pinpoints data collection, analyses, and evidence-based decision making.
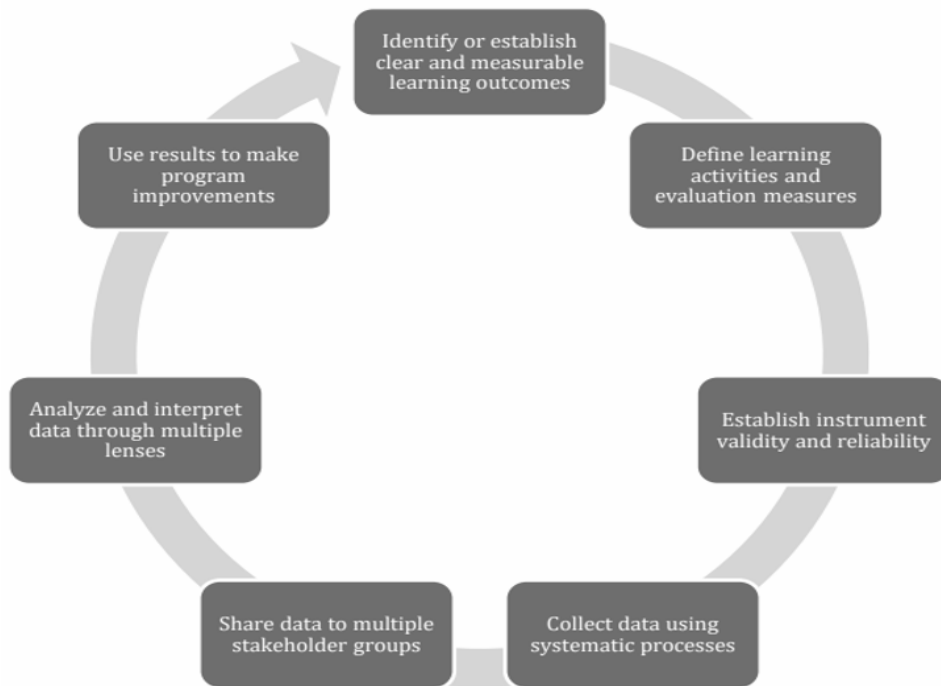
Figure 3. Overview of assessment learning.

Note: University of Central Arkansas (2020).

5. EVIDENCE-BASED INQUIRY CYCLE

Evidence-based inquiry cycles are informed by research, relevant practice, collaborative efforts, and gathering and analyzing data (Timperley & Parr, 2007). The correlation between an evidence-based inquiry cycle and the CAEP standards is significant. The Council for the Accreditation of Educator Preparation (2022) *Revised Standards Workbook* specifically mentions EPPs using the results of inquiry in the description of Standard 5. Furthermore, the term "evidence" is mentioned 310 times in the *CAEP 2022 Revised Standards Workbook*, and the term "data" is mentioned 243 times (Council for the Accreditation of Educator Preparation, 2022). Accreditation is described by Council for the Accreditation of Educator Preparation (2022) as "a means for EPPs to strive for equity and excellence in their P-12 educator preparation through *evidence* and discussion" (p. 5). Additionally, the components of an effective evidence-based cycle as described by Timperley and Parr (2007) align almost directly with CAEP's *Steps in Preparing to Write the Self Study Report* taken from the handbook (Council for the Accreditation of Educator Preparation, 2022). This research provides support for using an inquiry cycle, one that is evidence-based, to aid in meeting CAEP standards, specifically, CAEP Standard 5. See Table 1.

Table 1. CAEP steps in correlation to evidence-based inquiry cycle.

Resource	Step 1	Step 2	Step 3	Step 4
Council for the Accreditation of Educator Preparation (2022)	1. Review the CAEP scope of accreditation, CAEP standards, and the workbook	2. Review current data and processes against the components.	3. Engage internal and external stakeholders in the process.	4. Analyze and interpret the evidence, and then formulate the case for each component.
Timperley and Parr (2007)	"Coherence between research and practice"	"Gathering data to ensure program fidelity"	"Is directed by, or occurs in collaboration"	"Responsible for articulating effective instructional practices" "Analyzing student data to determine if what is enacted is having the desired effect"

6. CHALLENGES

EPP's have known for a long time that the utilization of data and evidence-based decision-making aids in improving current practices, but much less is known about the most efficient and effective ways to do so. Even so, Timperley (2009) provided seven conditions for using assessment data as a part of inquiry and knowledge building cycles to have an impact. The most relevant in this context were: "Teachers need sufficient knowledge of the meaning of the assessment data to make appropriate adjustments to practice" and "All within the school need to be able to engage in systematic evidence-informed cycles of inquiry that build the relevant knowledge and skills identified above" Timperley (2009). A lack of knowledge and systematic processes are the two main barriers highlighted here which align with the same barriers of EPPs experience and are the focus of heightened accountability measures (Norris, 2013). Further support is added by Dittrich (2018) that stated that EPPs must be self-critical to develop a better educational environment. An evidence-based inquiry cycle has the potential to address both. Just as Heafner et al. (2014) concluded, EPPs need to consider a comprehensive evaluation model as a guide to meet new and complex standards.

As previously stated, a requirement for using data as a part of an effective inquiry cycle is knowledge about the data (Timperley, 2009). Without an understanding of data or how it is used in decision making, the opportunity for impact diminishes. Effectiveness depends on the knowledge of EPPs as well as the provider faculty, staff, and candidate engagement. Furthermore, EPPs need a variety of ways to assess (Timperley, 2009). As an example, CAEP Standard 5 requires data to be derived from "multiple measures" that are also "evidence-based" (Council for the Accreditation of Educator Preparation, 2022). Therefore, EPPs and their stakeholders must have knowledge and an understanding of multiple sources of data used in decision making (Council for the Accreditation of Educator Preparation, 2022). A particular focus of an evidence-based inquiry cycle is learning. Creating opportunities for learning as well as a commitment to learning are imperative in creating coherence for program improvement efforts "Coherence was not established through more detailed implementation manuals, but through a deeper understanding of the project approach and the knowledge, skills, and rationale to enact those principles" (Timperley & Parr, 2007). The challenge remains, however, on the exhausting endeavor of understanding how various data sharing arrangements and integration can work together to identify best practices (Goldhaber, 2019).

The second condition highlighted above is the level of *engagement* in the evidence-based inquiry cycle (Timperley, 2009). Engagement is not just participation in these processes but actively taking advantage of opportunities to learn, apply new information, and understand implications (Timperley, 2009). Engagement is also being strategic and intentional in continuous improvement efforts (Birch et al., 2019). With what EPPs currently ask of their faculty, staff, and program leaders; this type of involvement can be challenging especially because it is meant to be cyclical i.e., ongoing. EPPs need the type of engagement that can have a profound impact on organizational change where data-based decision making and collaborative problem-solving become everyday practice (Caena & Redecker, 2019; Timperley, 2009). This is an important concept as it is also emphasized by CAEP in its guiding questions. CAEP asks EPPs to identify whether its faculty, staff, candidates, and stakeholders can articulate their roles and engagement in the quality assurance system (Council for the Accreditation of Educator Preparation, 2022). CAEP further described their expectations for engagement in evidence-based practices by asking EPPs to document how it achieves operational effectiveness including the processes of development, implementation, and modification as well as how data is collected, reported, and used in decision making (Council for the Accreditation of Educator Preparation, 2022). Engagement, especially in improvement processes, goes beyond blind participation of EPP faculty, staff, and stakeholders and is consistently supported and emphasized by CAEP. Even without the backing of an external entity, there is an increasing amount of evidence pinpointing engagement as vital to the success of ensuring quality in educator preparation (Birch et al., 2019; Caena & Redecker, 2019; Timperley, 2009).

The only constant in educator preparation is change. In the last ten years, major organizations like NCATE and TEAC were merged into CAEP. During that time, EPPs were still required to meet previous areas for improvement while transitioning to more rigorous CAEP standards. Furthermore, those standards have since been updated and revised requiring EPPs to realign their quality assurance processes to meet these new requirements. Curtis, Bordelon, and Teitelbaum (2010) explained that the dedicated faculty and staff tasked with undertaking rigorous reform efforts must continuously monitor the credibility of feedback and data that can dramatically impact teaching and learning in the PK-12 school systems. EPPs would benefit from what Bisplinghoff (2005) described as clarity on what each EPP does well and sharing practices that better meet the needs of students. An evidence-based inquiry cycle has the ability to meet this need for EPPs. As Pella (2012) stated, "Models for teacher education and professional development that include sustained inquiry cycles and contextualized investigations of student learning have been widely recognized by both scholarly and practitioner communities for their contribution to transformed teaching practices" (p. 58). Certain processes derived from an evidence-based inquiry cycle can aid institutions in moving away from disconnected, unintentional practices and closer to understanding educators' work to have a positive impact on candidate performance all supported by reliable and valid evidence (Bisplinghoff, 2005; National School Reform Faculty, 2022; Pella, 2012; Timperley, 2009).

7. BEST PRACTICES

It is important to note that each EPP is different, so integrating an evidence-based inquiry cycle to meet quality assurance requirements most likely differ for each provider. Just as University of Central Arkansas (2020) and National School Reform Faculty (2022) have established cycles specific to their needs, individual EPPs should do the same. Research outlines some commonalities for establishing, implementing, and supporting inquiry cycles in professional settings. While EPPs know it is both necessary and beneficial to evaluate quality and effectiveness, many are still investigating how to evaluate (Heafner et al., 2014). Research suggests that evidence-based inquiry requires support for providers, promotion of collaboration, an emphasis on positive culture, and a focus on quality outcomes and data (Bisplinghoff, 2005; Caena & Redecker, 2019; Cibulka, 2014; National School Reform Faculty, 2022; Schön, 1992; Thibodeau, 2011; Timperley, 2009).

For inquiry cycles to be effective, especially in teacher preparation, providers must be supported in relation to their knowledge, understanding, and proper utilization of reflective processes (National School Reform Faculty, 2022; Schön, 1992). Teachers and faculty are often disconnected from the ability to reflect and build upon their skills which is the exact premise inquiry theory and models aim to support (Schön, 1992). National School Reform Faculty (2022); Schön (1992) and Timperley (2009) illustrated reflection as centrally important to bridging the gap between thought and action. However, this type of growth does not happen for programs and practitioners outside of systematic inquiry and knowledge-building cycles (Timperley, 2009). Furthermore, it is imperative that there is a focus on EPP leadership supporting faculty and programs to lead the type of change required for reflective, evidence-based practice (Timperley, 2009). The support can come in a variety of forms including increased professional development opportunities, utilizing of ongoing professional learning communities, and enhanced organizational conditions where reflection and learning from data become integral to everyday practice (Birch et al., 2019; National School Reform Faculty, 2022; Timperley, 2009). As Caena and Redecker (2019) explained, support that leads to the ongoing professional development of EPPs plays a key role in refining teacher competencies and student learning in the 21st century. This best practice also directly relates to improving "attitudes for reflection" as well as "analysis of practice, innovation, and collaboration" (Caena & Redecker, 2019).

Similar to support from EPP leaders, collaboration is a key best practice for successful utilization of evidence-based inquiry. While collaboration among EPP leaders and faculty is imperative, both Bisplinghoff (2005) and Goldhaber (2019) emphasized relationship building across all levels while inviting others to share the power of collaboration. Council for the Accreditation of Educator Preparation (2022) not only supports but emphasizes

collaboration and stakeholder involvement stating that EPP quality assurance systems must be "developed and maintained with input from internal and external stakeholders" (p. 40). Goldhaber (2019) specifically cited the importance of EPPs working collectively to improve programs. Moreover, CAEP R5.3 is dedicated purely to stakeholder involvement. Examples of collaboration include sharing best practices, failures, and successes; leaders and experts supporting novice practitioners; advocating for continuous improvement efforts, and cooperative studies and research to name a few (Bisplinghoff, 2005; Goldhaber, 2019; National School Reform Faculty, 2022; Schön, 1992). Schön (1992) explained, in regards to teaching as a reflective conversation, that the process of teaching, learning, and inquiry should be "a collaborative, communicative process of design and discovery" (p. 133). In support of inquiry, Morgan et al. (2022) described the use of a diverse group of stakeholders to improve, grow, and co-create new and innovative practices in higher education. Furthermore, Bisplinghoff (2005) considered partnerships in the process of inquiry enhances understanding of best practices and help others in similar circumstances, while fueling future reflective and evidence-based decision making.

Another element of evidence-based inquiry conducive to aiding EPPs in quality assurance is derived from appreciative inquiry. There is adequate evidence that appreciative inquiry is a type of inquiry that promotes continuous improvement efforts along with positive change (Morgan et al., 2022). The same is consistent with the findings of additional studies such as Morgan et al. (2022), Thibodeau (2011), Bisplinghoff (2005), and the National School Reform Faculty (2022). These studies have supported highlighting positive aspects of current practice while using reflective inquiry to explore and study continuous improvement efforts.

Council for the Accreditation of Educator Preparation (2022) highlighted the importance of beginning inquiry "from the best of what is" (para. 2), calling into focus "what we do well and what we value as professionals" (para. 3) and building on what works well for each EPP. Thibodeau (2011) examined the effects of appreciative inquiry and found that it has the ability to improve institutional effectiveness when coupled with training on theory utilization as well as the importance of having a positive topic to build on. Bisplinghoff (2005) illustrated that educators need to steer clear of the negativity surrounding the criticism of EPPs and focus on identifying what works while engaging in conversations to continue to grow. An emphasis is placed on aligning strengths with needs, goals, and discovery (Bisplinghoff, 2005). National School Reform Faculty (2022); Thibodeau (2011) and Bisplinghoff (2005) support the need for a positive narrative while utilizing inquiry theory.

To meet the specific needs of EPPs and external entities such as CAEP, processes related to inquiry must include an emphasis on high quality data (Bisplinghoff, 2005; Cibulka, 2014; National School Reform Faculty, 2022; Timperley, 2009). Despite differences in style and application, one similarity behind an effective inquiry cycle is being evidence-based (Timperley & Parr, 2007). Evidence-based reform, as Slavin, Cheung, and Zhuang (2021) refer to it, is described as "policies in which educators and policymakers use evidence of effectiveness as a criterion for choosing educational programs, products, and practices" (p. 8). The emphasis on evidence and data is important because it allows EPPs to start a cycle of innovation, evaluation, and improvement that can be transformative (Slavin et al., 2021).

Specifically, evidence-based inquiry provides greater availability of detailed information on what candidates know and do while giving providers data that informs teaching and learning (Timperley, 2009). It is important to note, however, high-quality evidence cannot exist without defining key constructs, identifying sources of evidence that are most useful, and proper alignment of strengths, needs, and goals (Bisplinghoff, 2005; Cibulka, 2014; Timperley, 2009). Council for the Accreditation of Educator Preparation (2022) further supports these principles in the *CAEP 2022 Revised Standards Workbook* requiring that providers maintain a system that "consists of valid data from multiple measures" and "uses the results of inquiry and data collection to establish priorities, enhance program elements, and highlight innovation" (p. 40).

8. CONCLUSION

CAEP sets a high bar with rigorous standards and high stakes making it vital that EPPs not only establish quality assurance processes but share best practices (Heafner et al., 2014). CAEP Standard 5, a center of interest for innovative practices, is one of the most highly cited standards for improvement. With a significant correlation between inquiry models and CAEP standards, an evidence-based inquiry cycle provides a strong case for utilization among EPPs, especially in addressing CAEP Standard 5 - Quality Assurance System and Continuous Improvement. An evidence-based inquiry cycle can provide a foundation for action research that can positively transform educational programs and the services provided in developing future teachers (Australian Institute for Teaching and School Leadership, 2020; Thibodeau, 2011; Timperley, 2009). The inquiry process allows for a valuable self-examination of providers, creates ideas for change, and allows for a commitment to actions that can manifest into a positive transformation of EPP operational effectiveness and continuous improvement (National School Reform Faculty, 2022; Thibodeau, 2011). There is a plethora of research surrounding models of inquiry, but none have outlined the potential impact that an evidence-based inquiry cycle can have on teacher preparation programs. With a focus on supporting EPPs in processes of inquiry, promoting collaboration and stakeholder involvement, emphasizing a positive environment, and shifting to high quality, data driven decision making; EPPs have a strong case for implementing an evidence-based inquiry cycle (Bisplinghoff, 2005; Cibulka, 2014; National School Reform Faculty, 2022; Schön, 1992; Thibodeau, 2011; Timperley, 2009). This secondary analysis of past theories, models and research provides support for an evidence-based based inquiry to be utilized as a continuous improvement model to support EPP quality assurance processes related to CAEP Standard 5. These findings are not only relevant to EPPs but to other providers as well that focus on quality assurance measures that need support in the areas of inquiry, evidence, and continuous improvement efforts.

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