

CHAPTER 9

Approaches to identifying and elaborating entrustable professional activities

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Abstract

In the evolving landscape of health care education, entrustable professional activities (EPAs), as units of professional practice, provide educators with an authentic means of connecting curricular design with professional practice. This chapter provides health professions educators with a comprehensive and practical guide to EPA development. Navigating the complexities of EPA development demands a nuanced understanding of the underlying constructs. This chapter sequentially tackles fundamental challenges: where to start, identifying key activities, shaping them into EPAs, building consensus on the framework, and piloting. By offering actionable insights, it empowers readers to navigate this challenging process effectively. Whether you are at the outset of a new EPA initiative or seeking refinement of previously developed EPAs, this chapter provides a practical roadmap for establishing purposeful EPAs that contribute to robust and relevant curricula.

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Introduction

When identifying and defining entrustable professional activities (EPAs), it is essential to remain focused on their intended purpose—describing the core work performed in the practice of that profession. Numerous publications have elaborated on the definition of EPAs and highlighted distinctions between EPAs and competencies, which are abilities acquired by learners through training.^{1–3} In addition to being an philosophical approach to health professions education, EPAs operationally describe a profession.³ While EPAs have mainly found use in developing curricula and establishing workplace assessment procedures for specialized training, the work of identifying, elaborating, and building consensus for EPAs focuses on the profession itself. Developing EPAs demands a significant investment of time and resources. Therefore, prioritizing the development of specialty-specific or national EPAs is preferable over local initiatives. This not only emphasizes the need for a robust formulation of units of professional practice that can be recognized, entrusted, and certified as a credential but also nurtures a unified vision within a specialty or profession. Individual programs working on EPA development locally can still find value in their frameworks but run the risk of missing out on broader collaborative opportunities and may face potential redundancy or contradiction with national or specialty-wide endeavors in the future.

Effective implementation of EPAs in health professions curricula requires that EPA development adheres to various quality standards, consensus norms, and validity criteria (see Chapters 5 and 11); the goal is to ensure alignment between EPA construction and intended purpose in education. These include considerations of content validity, stakeholder endorsement, EPA quality, feedback from sounding boards within a professional society, and inclusion in continuing education programs.⁴ In essence, the greater the attention given to these details, the greater the likelihood that the EPAs will ‘work’ as intended. This chapter aims to provide a practical and comprehensive overview of various approaches to identifying and elaborating EPAs that are fit for purpose. It sequentially tackles the following fundamental questions: where to start, how to identify key activities and shape them into EPAs, how to build consensus on the framework, and finally why and how the drafted EPAs should be piloted (Figure 9.1).

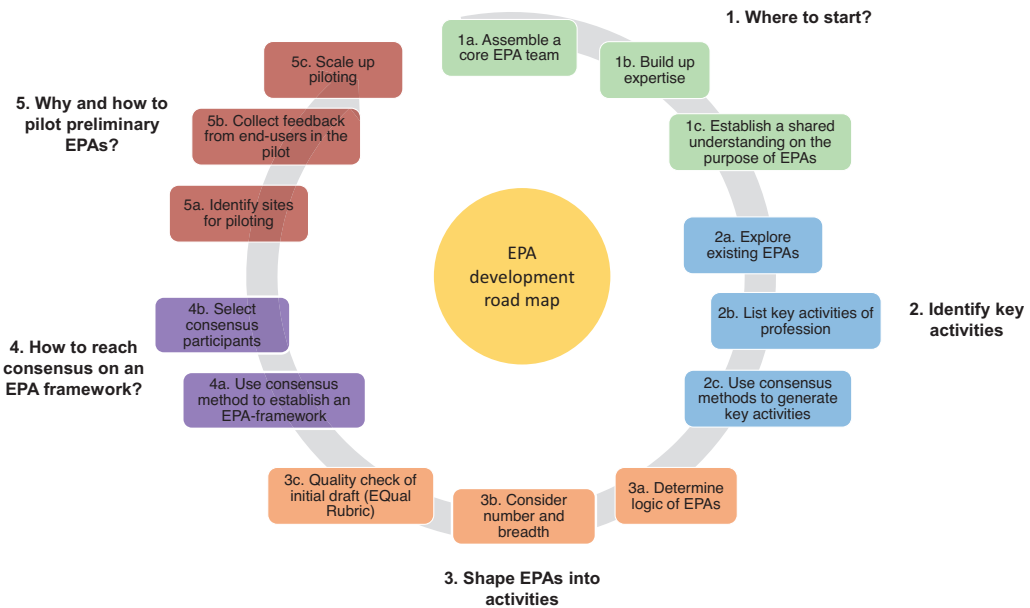


Figure 9.1: Road map to identifying and elaborating EPAs.

Where to start?

Embarking on the process of developing EPAs may initially seem overwhelming but it does not need to be. The following steps (1a through 5c; see Figure 9.1) will help establish a solid foundation for this journey.

Assemble a core team (1a)

Identifying and elaborating EPA descriptions is a team effort and often based on an official mandate, e.g., from a specialist society, government, or institutional leadership. One of the first tasks is to put together a core working group to perform this task. It is recommended that the members of the EPA core team are diverse in many ways: e.g., different (clinical) experience and hierarchical levels (e.g., from trainees to supervisors to heads of departments), varying educational expertise, and from different training centers and practice settings, as relevant.⁵ The number of core team members depends on several factors, such as whether the EPAs are being developed for a single institution or a (national) specialty group; as a general rule, core teams typically include five to six members.⁶ It is important to note that this core EPA team will play a central role throughout the process from development of EPAs to their implementation, necessitating broad stakeholder support for the group.

Build up expertise (1b)

Once the core team is established, identifying helpful resources to build and expand their expertise on EPAs is crucial. The existing literature offers a strong theoretical foundation,^{1,7,8} and provides guidelines on EPA development in general.^{2,3,5,9} EPAs have now been adopted in various professions and disciplines, providing a wealth of profession- and specialty-specific examples^{10–13} and an excellent starting point. Additionally, seeking guidance from educational experts or colleagues with experience in EPA development can offer the team valuable insights. Lastly, online resources, as well as national and international workshops and courses, provide not only a theoretical background but also hands-on experience and tools for conducting workshops and courses focused on EPAs at one's institution.

Establish a shared understanding on the purpose of EPAs (1c)

Beyond building individual expertise, establishing a common vision and fostering a shared understanding of EPAs within the core team are crucial, as they significantly enhance team performance.¹⁴ It is essential to clarify, at an early stage, the purpose and planned implementation of the EPAs in the curriculum. Important questions to address include whether EPAs will be designed for a local, regional, or national training program; the level of training expected from participants (with experienced learners typically undertaking more challenging and broader tasks); how EPAs will be used by regulators and certifying bodies; and how EPAs will be implemented within the curriculum (e.g., whether they are to be integrated longitudinally throughout the curriculum or defined for a specific training period). The responses to these inquiries will shape the number and breadth of EPAs to be developed.

Furthermore, addressing potential causes for confusion regarding EPAs is pivotal when constructing this shared mental model. Key points to consider in this regard include:

- Distinguishing competencies as abilities possessed by learners (e.g., 'conducting clinical interviews with a patient-centered approach') from EPAs, which represent units of

professional work (e.g., ‘assessing and treating a patient with chronic medical disease’—see Chapter 8).¹⁵

- Recognizing that not all competencies and objectives should or can be operationalized as EPAs. For example, essential competencies like ‘lifelong learning’ and ‘interprofessional collaboration’ are integral but do not involve discrete tasks to be mastered and performed.¹⁶
- Understanding that EPAs are tasks entrusted by society to professionals in a given field, requiring them to perform these tasks safely and at an accepted professional standard. Entrustment goes beyond clinical abilities, necessitating professionals to possess features described by the ‘A RICH’ mnemonic, namely: Agency, Reliability, Integrity, Capability, and Humility.¹⁷

Building this shared understanding among the EPA development team will strengthen and clarify the purpose of EPA development work being undertaken.

Identify key essential activities of a profession

A range of methods can be used, often in combination, to clearly articulate the daily activities integral to a profession, ultimately shaping an EPA framework.

Explore existing EPAs (2a)

Getting an overview of the existing EPA landscape in the field of interest can be helpful as it is certainly easier to shape the wheel than to reinvent it. However, caution is advised when adopting established EPAs. EPAs previously published may not consistently adhere to current quality standards. Furthermore, they were developed for a specific educational and clinical context that may differ in significant ways. Consequently, it is essential to adapt these EPAs to ensure their validity and feasibility within one’s own context, ensuring they accurately reflect the activities undertaken by professionals in that setting. Making them fit for purpose is imperative.

List key activities of daily practice (2b)

Another approach involves retrospective reflection by a representative group within the profession, where they describe their work. Importantly, the representativeness and competence of these health professionals, particularly when aiming for broad-scale implementation, are pivotal factors influencing both the process and outcomes. In addition to focusing on activities in practice, listing key activities of trainees, according to training phase (i.e., nested EPAs), may also provide valuable insights. However, it is essential to view this process through the lens of defining end-of-training EPAs. Both approaches can be augmented with additional data from logbooks, workplace observations, or published literature, including cognitive task analysis studies. Finally, seeking expert advice from colleagues in different disciplines or countries where EPAs have already been implemented may prove highly beneficial. For instance, it can help in avoiding pitfalls, identifying areas of disagreement, and pinpointing problems that arose during implementation due to EPA construction.

Use of consensus methods to generate key activities (2c)

Using established consensus methods, such as the nominal group technique (NGT) or Delphi method, may also aid the identification and prioritization of key tasks for one’s profession. The

NGT, a structured face-to-face interaction, is a particularly useful brainstorming and consensus method for this purpose.¹⁸ It provides significant benefits by fostering equal participation among team members and mitigating power differentials among participants. NGT is very useful when groups are first identifying and prioritizing EPAs for consideration. For those less familiar with NGT, literature on its use in health professions, including curriculum development, provides an excellent introduction¹⁹. The Delphi method is an iterative, survey-based, decision-making process that involves a panel of experts providing anonymous feedback on a series of questions or statements. Facilitated by a moderator, participants revise the statements or responses to questions based on group feedback in successive survey rounds. This iterative process continues until consensus is reached (generally three rounds). The Delphi method is well-suited for revising preliminary EPAs into a more refined and broadly accepted framework of EPAs.²⁰

The selection and use of different consensus methods will depend on a variety of factors, such as differences in power and experience among participants, the scope of the project, and the breadth of professional practice. Typically, formal consensus methodologies like the Delphi method are used for multi-institution projects, where they have the additional advantage of achieving buy-in from multiple stakeholders. However, such processes are more complex to set up and are time-consuming. Regardless of the chosen identification methods, careful selection of data sources and experts in the developmental process is crucial to ensure that the collected key activities represent the work of that profession and will inform the development of valid EPAs that are fit for purpose.

Shape key activities into EPAs

Navigating the process of identifying and describing the key activities of a clinical specialty to build a framework of well-constructed EPAs can be challenging. The following steps offer guidance in accomplishing this:

Determine the logic of EPAs (3a)

Three primary logics, the perspectives used by developers in medical education to break down the practice of their profession into units of professional work, are commonly employed in EPA frameworks.⁹ These are: ‘service provision,’ ‘procedures,’ and ‘disease or patient categories,’ with many programs adopting a combination of at least two of these logics. Each logic (or approach) comes with its own set of advantages and limitations. The ‘service provision’ logic defines EPAs as broadly described tasks, for example ‘assessing and treating acute patients.’ While this approach results in a smaller number of EPAs, it lacks case-specificity when applied to patient encounters. In contrast, the ‘disease and patient categories’ logic involves crafting EPA descriptions that capture the specifics of patient encounters within a specialty, such as ‘assessing and treating canine weight loss.’ However, this logic may lead to an excessive number of EPAs, especially in broad-based professions and specialties with diverse patient presentations. Consequently, when selecting the logic(s) to be used in drafting EPAs, it is crucial to consider the profession’s scope of practice. Profession-specific challenges related to feasibility and case-specificity help identify the logic(s) that best align with the actual work being done. Nevertheless, it is important to remain flexible and open to revisiting this decision when progressing in the EPA development process.

Consider the number and breadth of EPAs (3b)

The granularity of the EPAs is also an important point of discussion, as the breadth or scope of EPAs is directly linked to their total number. Opting for a few large or many small EPAs comes

with both advantages and disadvantages. For instance, if only a handful of EPAs covers an entire specialty, they inherently become broad. This risks having EPAs that are only partially observable, draw on long lists of competencies, and are only generally recognizable in everyday clinical practice or less functional in early training stage. In such cases, breaking down these larger EPAs into subordinate EPAs, known as ‘nested EPAs,’ can be beneficial. Nested EPAs allow for more focused assessment of a particular application in an earlier training stage or for specific contexts (clinical/educational) of the broader parent EPA. On the other hand, defining many smaller EPAs brings specificity and observability and facilitates rich feedback discussions. However, concerns arise regarding the potential atomization of EPAs and the logistical and administrative burden associated with managing a large number of them. High assessment quotas may threaten the feasibility and sustainability of EPA implementation, leading to a tick-box mentality that lacks formative value and creates low-quality data of little use in making high-stakes decisions. Consequently, a guideline value of a *maximum* 10 EPAs per year of continuing education or approximately 30 for a whole education program is recommended.²¹ Increasingly, programs are using 10 or fewer EPAs for an entire program, which allows for greater feasibility and inclusivity of diverse (clinical) situations and contexts. During the process of identifying and selecting preliminary EPAs, careful consideration should be given to the possibility of combining or splitting certain EPAs with this general number in mind. Subsequently, the establishment of core EPAs that all graduates must master, along with optional or ‘elective’ EPAs available for those who have the capacity to tackle more, may enhance the flexibility and effectiveness of the educational framework.

Discuss the pros and cons of logics, numbers, and breadth of EPAs with panel members at the outset, before employing the NGT. This will help shape a shared mental model for the target product to be developed. Such deliberations significantly contribute to refining EPA development strategies and can prevent problems that are difficult to address later in the process.

Quality-check initial draft of EPAs (3c)

Ensuring high-quality construction of the initial EPAs early in the process is crucial to avoid unnecessary use of resources and the need to correct problems later. To support the development of EPAs, there is a quality benchmark—the EQual Rubric tool—that should be applied right from the start to check whether a proposal for an EPA is really an EPA (see the section on the EQual Rubric tool in Chapter B11).²² Every correction of a poor-quality EPA in a later phase of the development process involves additional effort.

How to reach consensus on an EPA framework?

Once a preliminary set of EPAs is established and refined and has passed quality assurance, the next crucial step is to build broad consensus on that set.²³ At this stage, the focus shifts toward engaging the ultimate end users of the EPAs. Feedback from end users that is gathered during the consensus process allows for refinement of the elaborated components of the EPAs to better align EPA descriptions with their use in curriculum, assessment, and entrustment decisions. Additionally, consensus facilitates collaboration and buy-in from educators, supervisors, trainees, and accrediting bodies, promoting a unified approach to EPAs.

Use a consensus method to establish an EPA framework (4a)

Consensus may be achieved by simple methods like expert meetings, with the involvement of discipline-specific leadership committees, or by more formal consensus methods such as the

Delphi technique.¹¹ A common modification of the Delphi approach in EPA development provides respondents with a set of partially elaborated EPAs from the outset.²⁴ EPA descriptions provided, at a minimum, include the EPA title, specifications and limitations, and domains of competence.³ These core components establish the groundwork for understanding how to execute the EPA effectively in real-world scenarios. Once consensus is reached on these essential components, it becomes simpler and more impactful to expand and elaborate upon the other aspects of the EPA. Finally, it is important to allow respondents the opportunity to provide commentary on the entire, preliminary set of EPAs and be given the opportunity to suggest potential additional EPAs.

Participant selection for consensus methods (4b)

As respondents play a pivotal role in the Delphi process, it is essential to establish criteria for the expertise required and determine the desired number of respondents thoughtfully. A range of 10 to 50 respondents is considered adequate.²⁵ They should possess knowledge not only about the EPA concept but also about the specific (health) profession content. It is important to note that Delphi respondents may be aware that they will be working with the resulting EPAs. This can enhance their interest in participating but may also introduce bias as responses will not only reflect content expertise but also consider feasibility, implementation, and political acceptability. By contrast, involving Delphi respondents with limited understanding of EPAs or only a modest level of interest may lead to high consensus scores for EPAs with questionable validity. This can create the illusion of a high-quality product, which in turn influences the adoption and implementation of potentially problematic EPAs. EPA developers should be cautious about this potential trap when selecting Delphi respondents.¹⁸

Why and how should a preliminary EPA framework be piloted?

Once the quality of the preliminary EPAs is ensured (see Chapter 11) and broad consensus is obtained, the next step involves testing their suitability and feasibility for use in programs. Pilot-testing offers a low-risk, high-return opportunity and can be viewed as the final rehearsal for drafted EPAs.

Identify sites for piloting (5a)

Pilot-testing is typically conducted with a small sample of intended users in real-world conditions to assess the feasibility of implementing a new initiative and gauge its potential benefits on a larger scale. If a set of national EPAs has been developed, consider piloting at two to four institutions, ones that would be anticipated to have distinct implementation challenges. For local EPAs, pilot-testing with five to 10 local users (supervisors and trainees) will likely suffice.

Collect feedback from end users (5b)

Pilot-testing should also begin with a selected subset of the EPAs that can guide decisions on the feasibility of rolling out the full list of EPAs, ensuring that manageable assessment quotas are implemented.²⁶ During pilot-testing, it is crucial to go beyond simply deploying EPA-based assessment tools and reviewing assessment data collected. It is essential to conduct interviews with learners and supervisors to gather feedback on the EPAs themselves, the assessment tools used, the impact on workflow, and any barriers identified.

Scale up piloting (5c)

Scaling up the piloting of EPAs, if needed, from one to more sites and more EPAs iteratively allows for the evaluation and refinement in diverse clinical settings, ensuring they are adaptable and effective across different contexts. This approach facilitates the collection of broad feedback on practical implementation issues and the integration into various workflows, crucial for identifying and resolving barriers early.

Conclusion

Successfully navigating the development of EPAs hinges on a clear understanding of their purpose. This chapter offers a practical and thorough guide to identifying and elaborating EPAs. Key considerations include assembling a diverse core team, building expertise through literature and expert guidance, and fostering a shared understanding of EPA purpose. Methods for identifying key activities range from exploring existing EPAs to reflecting on daily practice and employing consensus-building techniques. Shaping these activities into EPAs necessitates selecting a (combination of) logic(s) and striking a balance in EPA granularity and total number of EPAs. The attainment of consensus, which may be facilitated by methods like Delphi, is paramount, while pilot-testing ensures feasibility. This comprehensive overview is designed to equip (future) developers with the tools needed to create effective and purposeful EPAs within their professional contexts.

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Competing interests

The authors declare that they have no competing interests.

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