

# Using Implementation Science to Increase Faculty Engagement with EPAs

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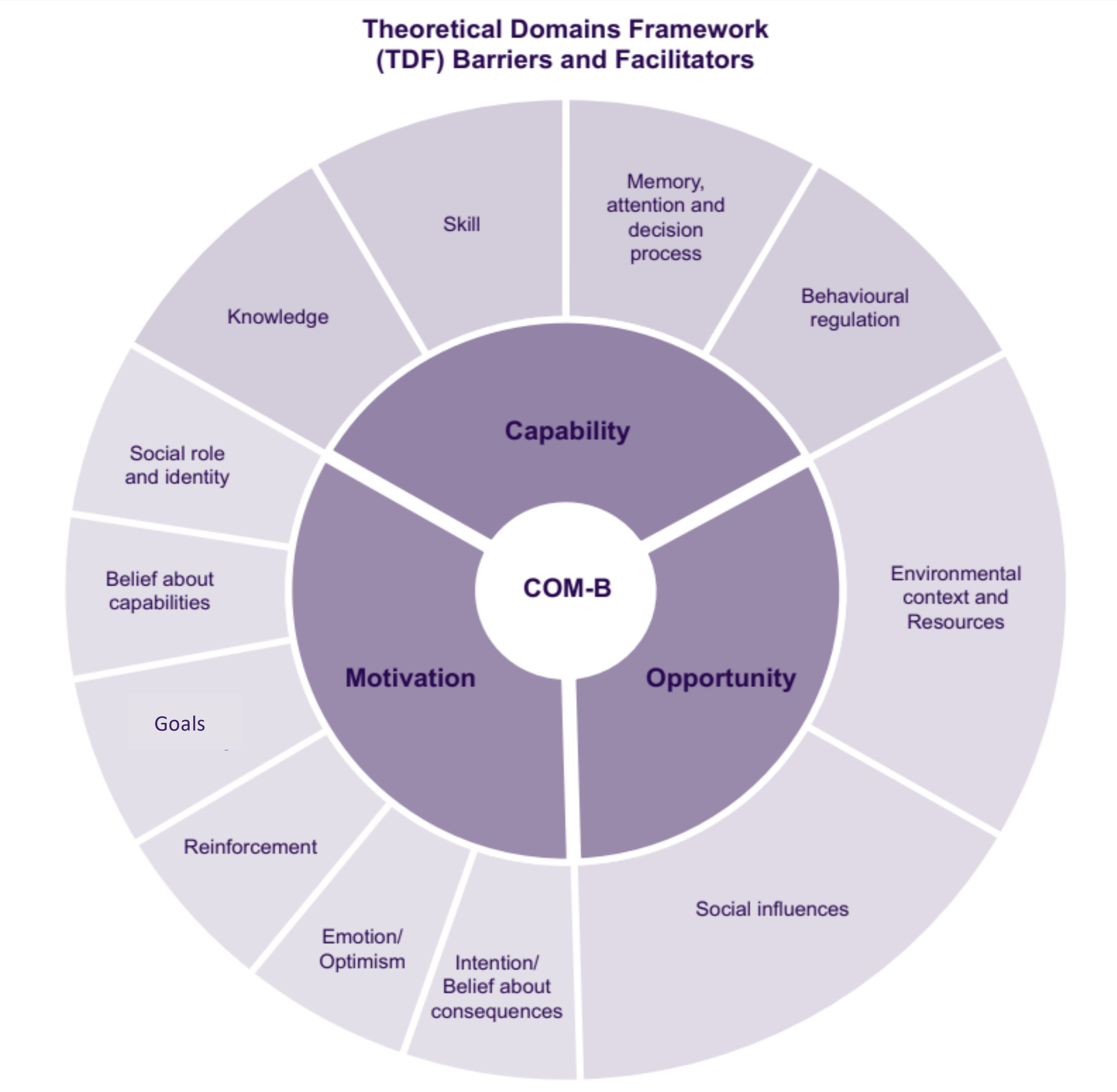
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## Background

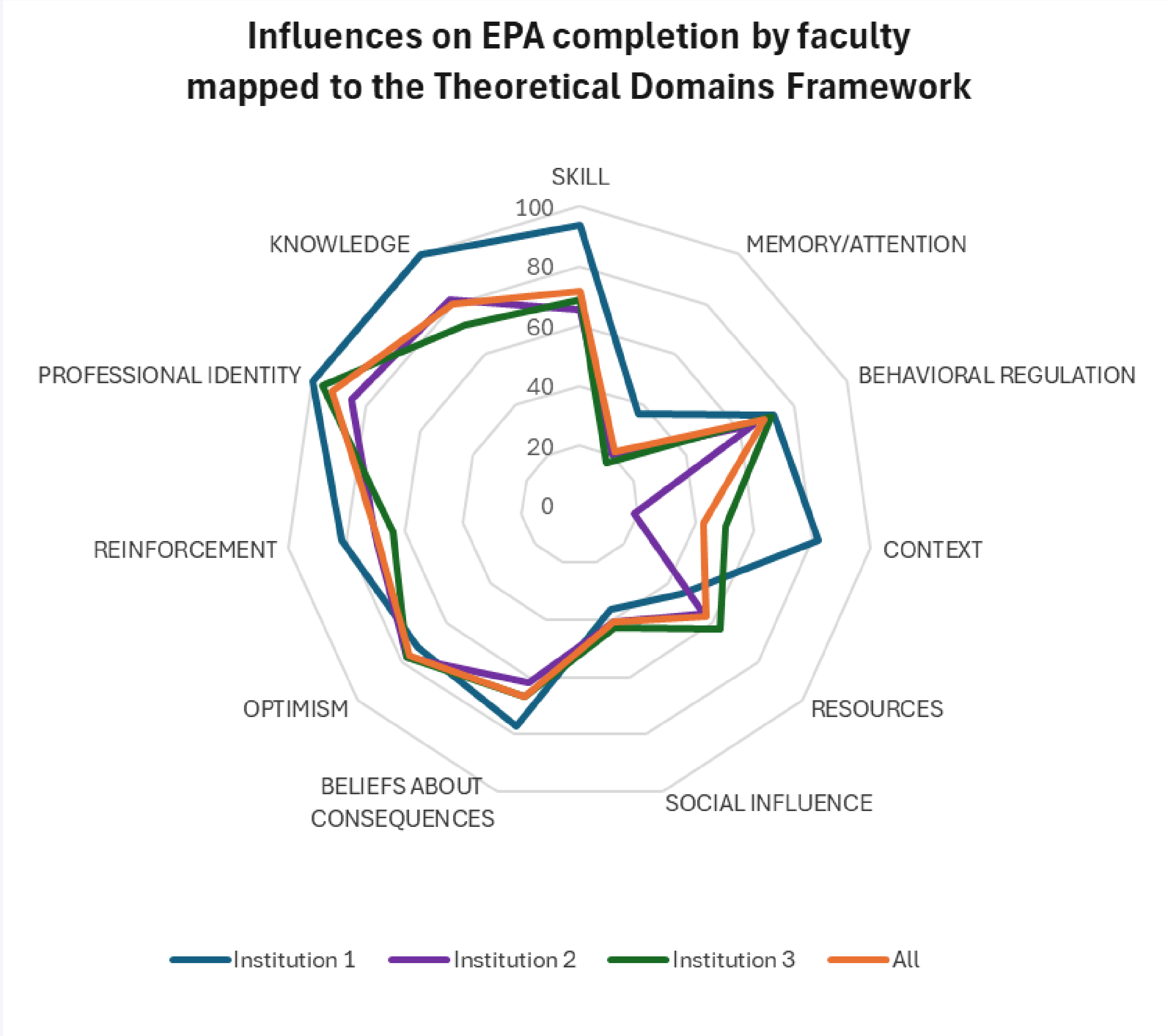
Previous studies have shown that that faculty may “buy-in” conceptually to the idea of **Entrustable Professional Activities (EPAs)** and yet may not enact the behavior of completing EPA evaluations. **Implementation Science (IS)** is the scientific study of methods and strategies that facilitate the uptake of evidence-based practice and research into regular use. The **Theoretical Domains Framework (TDF, Fig. 1)** has previously been used to identify influences on health professional behavior related to implementation of evidence-based recommendations for patient care. To encourage or reinforce new behavior, the TDF can be used to identify intrinsic and extrinsic influences on **Capability, Opportunity, and Motivation (COM-B model)**. This study used the TDF and COM-B model to characterize barriers and facilitators to faculty engagement with EPAs.

## Methods

A survey instrument constructed using the TDF was emailed to faculty that were actively engaged in the supervision and teaching of general surgery residents at three diverse general surgery residency programs in the Chicago Metropolitan area. Likert-scale results were analyzed with descriptive statistics to identify the most common barriers and facilitators to faculty engagement with EPAs, and to align these with possible interventions using the COM-B model.



**Figure 1.** Distribution of domains the COM-B framework. Domains are designed to identify unique barriers and facilitators to behavior. (Figure adapted from Lee et al, PLOS Global Public Health, 2024)



**Figure 2.** Survey results from three unique institutions mapped onto the TDF model. Higher scores represent a strong positive association with that domain indicating that these are facilitators to EPA completion.

## Results

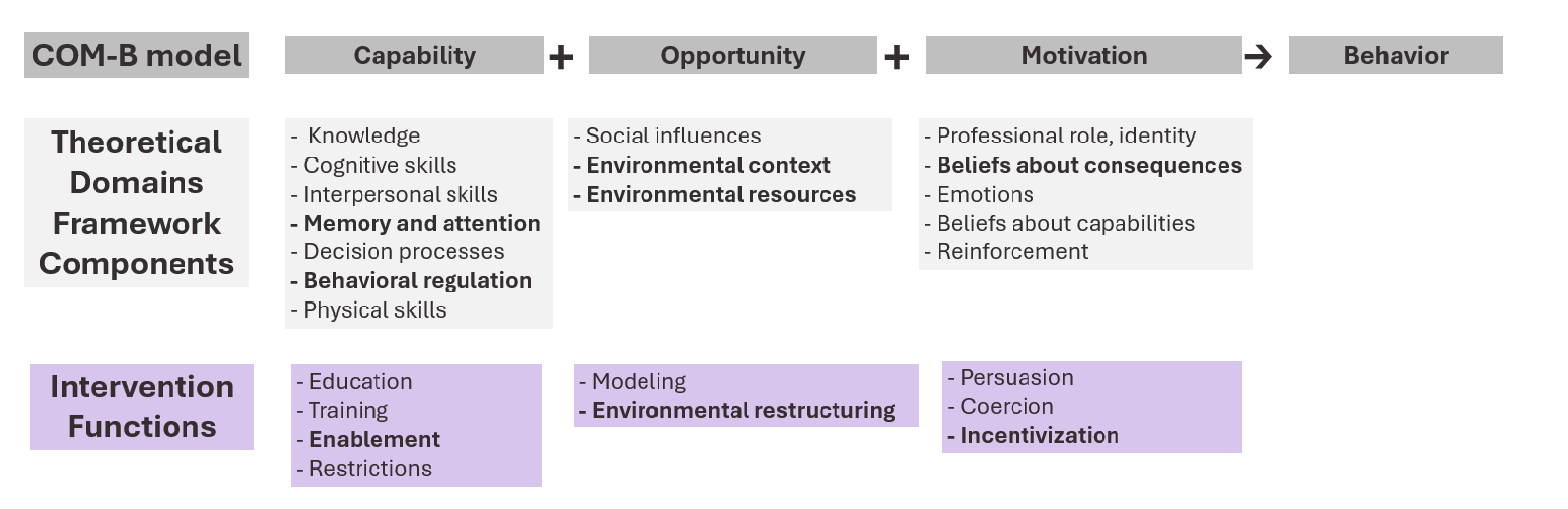
The survey results provided insightful data regarding the barriers and facilitators impacting the completion of EPA assessments among faculty across the three institutions. There was a **significant amount of similarity across institutions in multiple domains**, though context-specific factors had high variability.

**Fig. 2** depicts average faculty agreement with various domains’ contributions to EPA completion. Additional data and figures can be visualized through this QR code.

Analyzing the findings by domain, “**Capability**,” particularly in terms of knowledge and skill scored highly, indicating a **strong sense of competence among faculty**. “**Opportunity**” emerged as a significant area of concern, particularly in the dimensions of context and resources. This suggests a **perceived lack of supportive conditions and materials necessary for effective EPA completion**. “**Motivation**”-related factors, including beliefs about consequences and reinforcement, showed **moderate scores, highlighting inconsistency in how faculty members view the benefits of completing EPAs and their motivation to engage in this process**.

## Conclusions

The results from this multi-institutional study of faculty engagement with EPAs using an Implementation Science framework indicate areas where targeted behavior change interventions could be developed (**Figure 3**). Focusing on enhancing resources and contextual support – specifically via interventions such as environmental restructuring – is likely to be an impactful strategy to improve EPA completion rates across institutions.



**Figure 3.** Domains with identified as barriers to faculty engagement with EPAs during the TDF analysis (second row) and possible interventions that can be implemented to address them (third row).

Citations accessible through above QR code