# Student-defined needs during interprofessional learning: The role of faculty as facilitators

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## ABSTRACT

A limited theoretical foundation informs how faculty should facilitate interprofessional learning. This exploratory study sought to examine student needs for faculty facilitation in interprofessional learning. Qualitative methods were used to analyze the reflections of six health professions students who participated in an interprofessional quality improvement experience. Findings revealed essential moments for team formation and team performance. We described these moments as 'critical junctures'. Some critical junctures could be predicted while others emerged from the work of the team. During these critical junctures, faculty members have important roles supporting interprofessional learning and team progress. Based on these findings, we propose a framework for faculty facilitation of interprofessional learning. Faculty, as individuals seeking to bridge two or more disciplines and encourage exchange of information, should act at critical junctures to guide experiential, interprofessional learning. This model may be useful for defining the role of faculty across other interprofessional learning contexts as well.

Although increasing interprofessional practice through interprofessional education has been cited as a priority for both the health care delivery system and health professions education [1,2], implementing interprofessional education that impacts outcomes of care has been a challenge [3]. One impediment to successful interprofessional education is the limited theoretical foundation for interprofessional learning [4]. Because the learning process underpinning interprofessional education is poorly understood, faculty often struggle to facilitate learning, and realizing the benefits of increased interprofessional collaboration in practice has been slow.

One of the theories most widely applied to interprofessional learning is intergroup contact theory [5,6]. Contact theory, developed by [7]; holds that groups achieve positive outcomes only if four conditions are met: equal status among group members, common goals, cooperation, and external support from the system. The importance of these conditions has been supported by results of empirical studies of interprofessional education [8–10]. Yet, these studies inadequately define the role of faculty in supporting interprofessional learning. In interprofessional learning, faculty members often bridge two or more discrete professional communities to facilitate information exchange. Drawing from organizational learning literature, individuals with this responsibility have been called knowledge brokers [11]. In the context of interprofessional education, faculty members may function as knowledge brokers, stimulating learning by spanning knowledge boundaries. This conceptualization may better define the role of faculty as facilitators of learning within intergroup contact theory.

To examine students' needs for faculty facilitation in interprofessional learning we studied the narrative accounts of students about an interprofessional quality improvement experience. We chose a quality improvement project as the educational experience because this area has shown to be a rich source for interprofessional learning [12]. We crafted this experience to support the required elements within contact theory. After the students completed the project, each wrote a reflection paper about their learning (Table 1). Using template analysis guided by the Interprofessional Education Collaborative's interprofessional education

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competencies [13], we sought to describe the learning process of the students within each domain of these competencies. From these descriptions, we sought to develop a deeper understanding of what students need from faculty as facilitators of interprofessional learning.

## Methods

### Design

This was a qualitative study in which we used a template analytic approach [14] to analyze narrative data from student assignments related to a quality improvement project. Template analysis refers to a set of techniques that allow a researcher to thematically analyze textual data using a set of codes that are developed *a priori* [14]. The qualitative approach is optimal for discovery and for the exploration of novel subject matter [15]. These methods are also well-suited to the study of phenomena that are embedded in context, such as quality and teamwork within a complex health care environment. The study was approved by the institutional review board.

### Setting and participants

Data collection took place at a health science campus located in the mid-Atlantic region of the United States during the spring semester of 2014. The health science campus includes five health science schools and a large academic medical center. Students in their final year of the baccalaureate of science in nursing and doctor of medicine programs were informed about the details of the learning experience and were invited to participate. Two medical students and four nursing students agreed to participate. For the medical students, the experience counted as one of a number of required elective experiences. For the nursing students, the experience replaced comparable assignments in required courses.

### Description of the educational experience

Specific objectives for the experience were identified (Figure 1). Faculty from nursing and medicine collaborated with leadership staff from the performance improvement (PI) department of the affiliated teaching hospital to identify a list of current quality improvement projects classified as clinical priorities for the hospital. Then, they determined which of these projects would be practical in scope for pre-licensure student engagement and learning over a four week timeframe.

**Table 1**
Student reflection paper guidelines.

| Interprofessional quality improvement project student reflection paper questions |
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| • What did you learn by being part of the IPE QI project? What was most valuable about the experience? What was most challenging about implementing the selected QI project? |
| • What did you find useful about working with students and professionals in other disciplines? What was challenging? How did you overcome any challenges encountered? |
| • How will your experience with the IPE QI project affect your future practice? How will this experience affect your likelihood of participating in future quality improvement initiatives? |
| • What will you change in your future practice as a result of your participation in this IPE QI experience? How will you think differently as a result of your participation in this experience? |
| • How closely did your experience correlate with the competency standards described in the IPEC document or other contemporary readings on interprofessionalism? |

- Use team consensus to choose an issue from among selected quality improvement projects within the health system;
- Engage with health system stakeholders to investigate underlying causes for the quality issue under study;
- Explore evidence-based literature for examples of best practice and consider available benchmarks to support problem resolution;
- Collaborate with members of the student team to design, implement and evaluate an action plan to address the quality issue under study;
- Ensure a professional hand-off of information and progress at the termination of project period.

**Figure 1.** Objectives for the student QI project.

The experience commenced with an introductory team meeting that included the students, faculty members, and members of the PI leadership team. The session included an orientation to objectives and expectations for the experience and an overview of quality and safety concerns in the national health care system, basic principles and methods of quality improvement, and the basic tenants of the Plan-Do-Study Act (PDSA) model for rapid-cycle improvement projects. The students were briefed on each of the potential quality improvement projects and directed to work as a team over the next three days to select which of the projects they wished to pursue. Additionally, to provide all students with an opportunity for comparable background regarding the principles, tools and methods of quality improvement, learning modules from the Institute for Healthcare Improvement (IHI) Open School were assigned as homework [16].

Through a process of consensus, the students selected standardization of communication in critical care units as their project. The experience necessitated that students observe the current state of critical care rounds across multiple critical care units and collaborate to propose a future state based on best practices. During the initial phases of the rapid-cycle improvement, students collaborated to complete the following tasks: review of relevant evidence-based literature, identification of applicable benchmarks, and interview of key leaders and stakeholders in the clinical environment. With the support of a physician and nurse leaders who were key stakeholders for improving critical care rounds, the students identified possible interventions and discussed potential challenges to success. They chose to develop a comprehensive interdisciplinary rounding checklist. After receiving feedback and endorsement from stakeholders, the checklist was piloted in one of the units. Feedback from the pilot implementation of the rounding checklist indicated that use of the checklist improved communication while also revealing some opportunities for refinement.

To conclude the project, the students engaged in a hand-off of the quality improvement project to the PI team to sustain and disseminate the rounding checklist. Students also completed two required assignments: a reflection paper about their interprofessional learning and a peer evaluation for each member of the interprofessional student team.

### Data collection and analysis

The students' reflection papers served as the primary data source. Results from peer evaluations and investigator field notes provided additional context for data analysis. All data were de-identified prior to analysis.

We used a template analytic approach [14] and examined the text for exemplars that represented each theme. The themes that we identified *a priori* were the four major competency domains of the Interprofessional Education Collaborative report [13]: Values and Ethics, Roles and Responsibilities, Communication, and Teams/Teamwork. Specific competencies described within each domain were used to ensure consistency with the four major competency themes. Only one other theme emerged during the analysis, and it