

# Interprofessional Education: Building Student Resilience and Grit through Teamwork

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## Abstract

Today's global society is increasingly diverse and complex requiring resiliency to successfully navigate challenges in the workplace. Health care educators are charged with the task of developing curriculum that is highly engaging while also preparing students to address the challenges of providing safe and effective care to increasingly ill patients within complex integrated healthcare systems. Central to their success as learners and future practitioners will be the development of grit: The ability to be diligent, hardworking, and able to remain positive despite setbacks. Interprofessional education develops grit by tapping into intrinsic motivation and provides a new modality for the development of 21<sup>st</sup> century skills and competencies of teamwork, collaboration, communication, and ethical reasoning. The article will provide a discussion of IPE as a venue for promoting grit as well as developing intrinsic motivation in today's 21<sup>st</sup> century healthcare students.

## Introduction

Today's healthcare environment is complex, fast-paced, and demanding requiring students and staff to have grit to successfully collaborate in an interprofessional team. Health professional students must learn how to be resilient. They learn core knowledge, skills, attitudes and values and are asked to quickly apply learning to a clinical or professional setting. Students' ability to move from receiving direct instruction to clinical practice is facilitated through multiple learning experiences including supervised interprofessional training in simulation, experiential opportunities, and co-curricular settings that develop practitioner resilience, and grit, which predicts and is necessary for long term success. This paper describes interprofessional education (IPE) as a means of promoting grit and resiliency to prepare healthcare students for long term professional success.

## Grit Predicts Success

A major factor in predicting success in a student's education and professional development is the concept of grit. Grit is the ability to remain resilient in pursuing goals despite setbacks or encountered hardships [1,2]. Interprofessional education (IPE) engages students in intrinsically motivating experiences that can promote grit through significant and challenging learning that develops required proficiency in teamwork, ethical decision making, understanding of roles, and interdisciplinary communication [3,4,5]. These learned skills have been recognized as key 21<sup>st</sup> century attributes for success nationally and internationally by educators and employers and are now a central focus of the Interprofessional Education Collaborative Report [3]. While the IPEC Report is supported by nearly all of the health profession educator associations and accreditors in the United States of America [6], the majority of educational programs continue to provide healthcare training and education in silos, with only intermittent practice of interprofessional team-based skills [3]. The challenge to health care educators is to create learning experiences that develop grit and the skills that better prepare students for the reality of working together in interprofessional teams to address long-term, complex patient problems and improve patient outcomes [7].

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Pivotal to addressing this curricula challenge is an understanding of the key features of grit and the behaviors that are intrinsic to a gritty individual. When an individual with grit is faced with insurmountable odds and a mountain of work to reach a goal, one response may be to dig down deep and push to finish what has been started, even when those around have become discouraged and choose to pursue a different goal. A gritty individual is diligent, hardworking, and able to remain positive despite setbacks [8]. Grit entails working strenuously toward challenges, maintaining effort and interest, having stamina, and approaching achievement as a "marathon, rather than a sprint" [9]. Resiliency is often used interchangeably with grit, with a specific focus on positive adaptation in the context of significant challenges [10]. Positive adaptation demonstrates that grit can be learned through experience. As healthcare educators prepare students to work in a stressful, multifaceted, rapidly changing healthcare environment, the development of grit may be a key outcome for long term success.

## Grit through Interprofessional Education

One strategy for developing grit may be through IPE. Traditional teaching methodologies have used passive didactic instruction that was delivered in educational silos. In contrast, IPE often utilizes engaging, active pedagogies including team-based learning, problem-based learning, and simulation scenarios that involve interprofessional clinical cases [11]. The complexity of these activities challenge students' ability to apply the core content as well as team skills to problem-solve a clinical scenario. By integrating IPE as pedagogy, students must problem solve through three challenges. First, students must solve the clinical issue from their own professional perspective. Second, they must solve the scenario while communicating within an

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interprofessional team. Third, students must understand their own role in relationship to the roles of the different interprofessional team members. IPE provides students with significant and challenging learning activities that are designed to develop teamwork, ethical practice, an understanding of professional roles, and communication skills that enhance collaboration. In part, the rigor and realism of IPE creates the positive adaptation that helps to develop grit.

IPE prepares healthcare professionals who have been educated and trained to collaborate effectively in interprofessional teams to provide improved services to patients that result in stronger health outcomes and improved safety [12-14]. To that end, the Interprofessional Education Collaborative was established in 2009 by the leaders of six national healthcare education associations in the United States of America to “prepare future professionals for enhanced team based care and improved health outcomes” [15]. These health professional education organizations sought to develop innovative curricula across disciplines and prepare students to engage in interprofessional practice. Additional health and health related organizations have joined to support the mission of IPEC including the American Speech-Language-Hearing Association, American Physical Therapy Association, and the Association of Schools of Allied Health Professions (IPEC).

### IPE Competencies

During the last 15 years, multiple seminal reports have been published that explore and promote the need for IPE [3,12-14,16]. In addition, the Interprofessional Education Collaborative Expert Panel [3] published a report containing the four domains of IPE which supports the development of student skills. The four areas are values and ethics for interprofessional practice, roles and responsibilities, interprofessional communication, and teams/teamwork (Figure 1). Educators frequently develop IPE activities with learning outcomes that support one or more of the four IPE domain areas [17].



Figure 1: Four IPEC Competency Domains.

Note: Adapted from Core Competencies and Competency Statements for Interprofessional Practice, by IPEC, 2011. Washington, D.C.: Interprofessional Education Collaborative.

### 21<sup>st</sup> Century Competencies

The core competencies identified by the IPEC [3] as key elements for health care education also reflect the 21<sup>st</sup> century skills. These skills are defined by the Organization for Economic Co-operation and Development [18] as essential competencies to prepare young

people and adults to face the 21<sup>st</sup> century life's challenges, as well as to develop lifelong learning. To meet the needs of globalization and modernization, individuals need to master the use of technology, information management, and address environmental, economic and social equity issues. Individuals need to acquire highly refined skills in integration and synthesis of complex information to meet these challenges. These key competencies are particularly relevant to individuals working in intensely stressful, constantly evolving, high stakes and demanding healthcare environments (Table 1).

National Association of Colleges and Employers Top 10 Desirable Skills	21st Century Skills and Competencies Included in OECD Survey
1. Ability to work in a team structure	1. Creativity/innovation
2. Ability to make decisions and solve problems	2. Critical thinking
3. Ability to communicate verbally with people inside and outside an organization	3. Problem solving
4. Ability to plan, organize and prioritize work	4. Decision making
5. Ability to obtain and process information	5. Communication
6. Ability to analyze quantitative data	6. Collaboration
7. Technical knowledge related to the job	7. Information literacy
8. Proficiency with computer software programs	8. Research and inquiry
9. Ability to create and/or edit written reports	9. Media literacy
10. Ability to sell and influence others	10. Digital citizenship

Table 1: Top 10 Skills and Competencies to Face 21st Century Challenges

Note: Adapted from Education for life and work: Developing transferable knowledge and skills in the 21st century by The National Research Council, 2012, Washington, DC: The National Academies Press and the Professional Competencies for college and Career Services Practitioners, by the National Association of Colleges and Employers, 2013.

Similarly, the National Association of Colleges and Employers in the United States of America [19] conducted a survey of managers asking what skills they prioritize when recruiting new college and high school graduates. Highest ranking skills include an ability to function effectively as a member of a team and communicate successfully with a wide variety of communication partners. Table 1 lists in order of importance the top 10 skills that employers report they most actively desire in employees. The skills of team building, collaboration, and communication link directly to the outcome goals for IPE and are characteristics of individuals with grit (Figure 2).

### Unlocking Grit: Using Motivation to Drive Student Performance

Educators seek pedagogy that move students away from passive classroom roles to engaging in active, experiential and applied learning activities. Consideration must be given to what will engage students in the learning process. Should participation or attendance be graded? Should an activity be fun or must the facilitator be entertaining? What are the keys to motivating students to take more interest in their own learning?

Pink [5] argues that motivation can be categorized into intrinsic and extrinsic drivers. Extrinsic relies on “carrots and sticks” that reward or punish based on meeting certain goals and expectations. In an educational setting, extrinsic motivators typically center on assigning

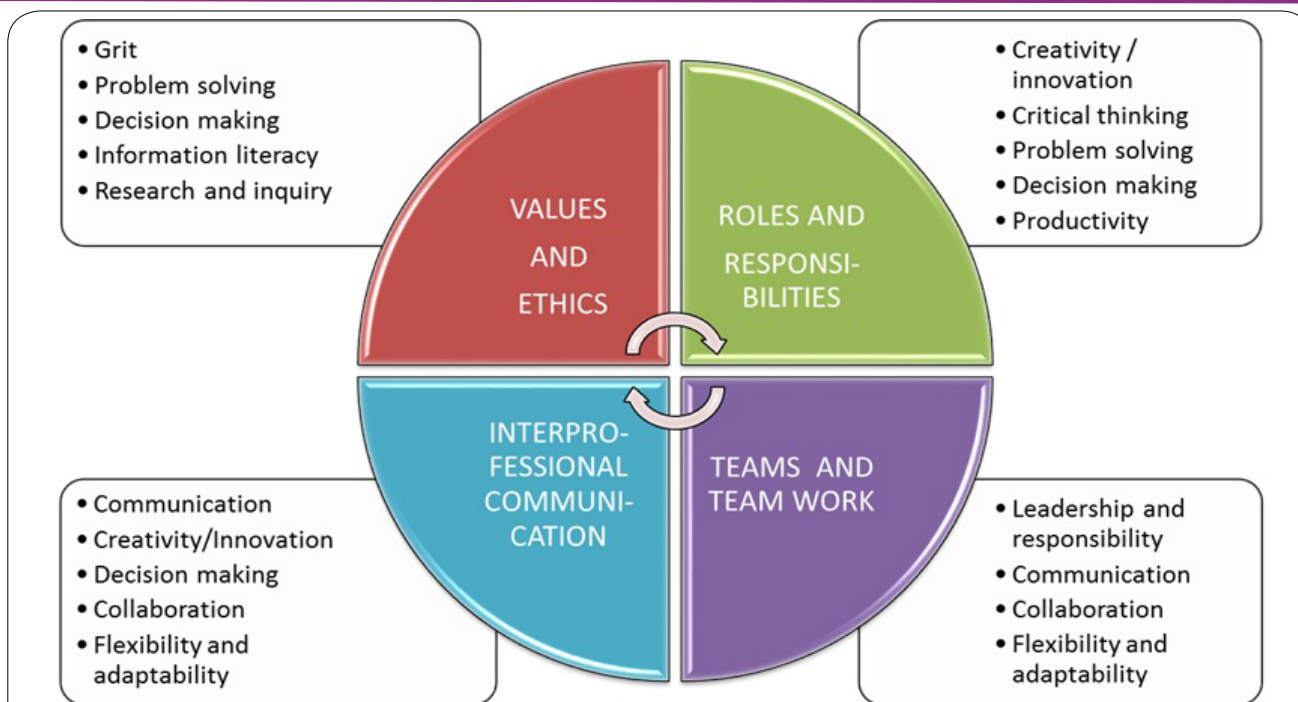


Figure 2: Linking 21st Century Skills to IPE Outcomes.

Note: Adapted from Core Competencies and Competency Statements for Interprofessional Practice, by IPEC, 2011. Washington, D.C.: Interprofessional Education Collaborative and from Education for life and work: Developing transferable knowledge and skills in the 21st century by The National Research Council, 2012, Washington, DC: The National Academies Press.

grades and to some degree identifying individuals for awards, disciplinary actions, scholarships, letters of recommendation, and occasionally fines and fees. What is surprising, considering the nearly universal reliance of extrinsic motivators in business and educational settings, is these strategies have consistently been shown to be ineffective or in some cases harmful, particularly if the project requires creativity or even minimal cognitive performance [5]. Instead, these carrots and sticks incentivize repetitive, minimally cognitive tasks and behaviors. Reliance on extrinsic motivators is of special concern when reflecting on the 21<sup>st</sup> Century Skills and the higher levels of cognition that will be required to perform to these more complex learning outcomes. Intentional learning designed to unlock the intrinsic motivators may be key. In short, although grades have been historical extrinsic motivators for students, an additional approach such as teamwork is recommended [20].

For higher order performance, Pink [20] suggests we tap into three primary intrinsic motivators: Mastery, autonomy, and purpose (Figure 3). Mastery is the desire to improve or grow, developing an area of expertise. Autonomy is the urge to self-direct with freedom to engage. Purpose involves working for goals larger than ourselves beyond our own personal interests. Well-designed IPE learning activities consistently tap into multiple intrinsic motivators.

### IPE Taps into Intrinsic Motivation

From our own observations as IPE instructors and professional development consultants, the authors have seen this intrinsic motivation in action. Interest in interprofessional engagement is unlocked in our students after virtually every IPE learning activity we have delivered. Each of the IPE experiences students engage in taps into two or three of the intrinsic motivators as outlined in Table 2.

**Intrinsic Motivators**    **Versus**    **Extrinsic Motivators**

**Mastery**  
Desire to improve

**Autonomy**  
Urge to self-direct

**Purpose**  
Larger than ourselves

**Contingent rewards**

Figure 3: Intrinsic vs Extrinsic Motivators.

Note: Adapted from Hagge, D., Nouredine, N., Brady, D., & Ofstad, W. (2015). Promoting student resiliency through Interprofessional Education Collaboration. A podium presentation at the Collaborating Across Borders V Conference, in Roanoke, Virginia.

With minimal extrinsic motivation, IPE has engaged students in the learning process and throughout the literature [21,22]. IPE is intrinsically motivating, well received and highly valued by students.

IPE	Extrinsic Motivation	Intrinsic Motivation
Classroom Case	Stick: Attendance	Mastery, Purpose
Simulation	Stick: Attendance	Mastery, Purpose
Community Service	None	Autonomy, Purpose
Clinical Education	Carrot: Recommendations	Mastery, Autonomy, Purpose

Table 2: Mapping IPE Experiences to Motivators.

### Grit Through Motivation?

So is IPE developing grit? Duckworth [8] argues that teaching

persistence in students is not well understood, but changing students to have a growth mindset and believe that they can improve is one promising hypothesis [2]. Framing this hypothesis in terms of intrinsic motivation, training students to tap into “Mastery” may develop grit or resilience [5,20]. IPE student engagement relies on these same principles of intrinsic motivation and we have observed student engagement persisting beyond the curriculum, with students sacrificing their own time and personal resources to remain engaged for multiple years in many cases. This intrinsic motivation drives engagement, which allows students to persist and overcome obstacles. These experiences and accompanying literature support IPE as one potential key to developing grit in health care professionals.

## Conclusion

Twenty-first century health care professionals will need to be resilient and gritty in order to address the challenges of caring for increasingly complex patients within constantly evolving healthcare systems. IPE enables educators to implement nationally and internationally recommended best practices in health care education. Interprofessional education may be one way to develop grit, resiliency and intrinsic motivation while also preparing students for success in the requisite 21<sup>st</sup> century skills of teamwork, collaboration, communication, and ethical reasoning.

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## Competing Interests

The author (s) declare that they have no competing interests.

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