

JAID Special Issue on Medical and Healthcare Education



Welcome to the special issue of the *Journal of Applied Instructional Design* on medical and healthcare education. My name is Dr. Atsusi “2c” Hirumi, and I had the honor of working with Dr. Don Robison, the Director of Community-Engaged Learning at Eastern Virginia Medical School, Julie Bridges, the Senior Editor of JAID, and all of the contributing authors to put this special issue together. I also have the distinct pleasure of introducing and providing you with an overview of the issue.

Since Robert Gagnè’s inception of system design and Richard Glaser’s development of instructional systems for the military in the early 1950s and 1960s, instructional designers have teamed up with subject matter experts and media specialists, and have applied systematic design tools to enhance teaching and learning across different sectors, including K12 and higher education, aviation, hospitality, and healthcare, among others. In medicine, Riesenberglittle, and Wright (2009) found that professionals with either a master’s or doctorate degree in education or a related field, or a clinical educational background with added training or experience in education have been helping prepare physicians for over 80 years. With today’s increasing demands on medical and healthcare practitioners, the popularity of such education specialists continues to grow.

In general, medical and healthcare practitioners tasked with defining curriculum and creating educational programs to prepare the next generation of professionals, receive little training in teaching, learning, and instructional design. Practitioners must now also deal with increasing documentation requirements, varying data systems and health plans, rising patient expectations, loss of autonomy, and demands to decrease costs and increase revenue, along with the continued exponential growth of information and treatment options. Given such complexity, instructional designers, educational psychologists, educational technologists, and others (hereby referred to as education specialists), with a solid understanding of learning research and theory, needs assessment, task analysis, objectives, learner assessments, curriculum development, etc. can play a vital role in designing effective, efficient, and engaging learning experiences.

For education specialists new to the field, the challenges of establishing rapport with medical and healthcare professionals, along with acquiring subject matter expertise, and a critical understanding of the contemporary issues facing a wide range of professionals in various schools, hospitals, clinics, and other health-related facilities, may seem overwhelming. To gain credibility, education specialists must also grasp medical and healthcare terminology as well as learn the methods used to facilitate medical and healthcare education, and they must do so rapidly as they demonstrate their own expertise and the relevance of grounded design and systematic processes.

The fundamental purpose of the special issue of the JAID is to nurture collaboration between academics and practitioners in instructional design and healthcare as a means of advancing learning and disseminating new ideas. To achieve our purpose, I worked with the editors of JAID to solicit and select a set of articles that will help you gain knowledge of how systematic design tools, techniques, and practices are being applied to facilitate medical and healthcare education, and identify factors to consider when collaborating with medical and healthcare faculty, staff, students and administrators. We have also

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featured articles on the design and development of educational programs that are relatively unique to medical and healthcare education to give you a taste for some of the engaging, effective, and efficient learning experiences that are being created to prepare the next generation of medical and healthcare professionals.

The special issue begins with two articles that discuss the skills, knowledge, and dispositions education specialists must have to facilitate medical and healthcare education. Specifically, in the first article, I worked with faculty, staff, and students at the College of Medicine at my home institution to characterize the design and development of medical school curriculum, learning goals and objectives, learner assessments, instructional strategies, and learning resources. We also identified key factors to consider when collaborating with MedED faculty, students and administrators from each stakeholder's perspective. The second article by Kurzeil and Marcellas provide further insights on the collaborative design process by expounding on the composition and expertise of instructional design and development team members, and exploring the need for teams of learning engineers to leverage big data, and the use of data analytics to advance medical and healthcare education.

The second set of articles describe the application of systematic tools and techniques to facilitate the design of two prevalent instructional methods specific to medical and healthcare education: that is, virtual patient (VP) simulations and interprofessional education (IPE). In the third article, King and a team of physicians and nurses illustrate how storytelling and the science of instructional design were used to create branching VP simulations that align learning objectives with decision points, consequences, coaching, and performance metrics. Breitenbach and Gronseth then posit their Content-Evaluation-Method (CEM) instructional model for guiding the design of IPE curriculum that aligns key components of IPE content, evaluations, and pedagogical methods.

The last two articles delineate current methods being widely considered in medical and healthcare education to enhance degree programs and professional development. Specifically, Wantuch and her colleagues delineate the systematic processes used to design an education concentration that was established to enhance a doctorate in Pharmacy. In the last article, Burton-MacLeod and Carliner describe the systematic process they used to create microlearning modules to support transfer and the professional development of nurses.

Taken together, the articles included in the special issue only begin to touch on the collection of systematic design tools and techniques, and the array of innovative programs that are now advancing medical and healthcare education across the nation. But it is expected that the compilation of articles will help instructional designers and other educational specialists build a solid knowledge base to promote medical or healthcare education. As the articles suggest, the complexities and challenges associated with facilitating medical or healthcare education are many, but so are the opportunities. I hope you will enjoy reading the articles and will find one or more particularly useful for facilitating your professional endeavors that will ultimately nurture fruitful collaboration between academics and practitioners to disseminate new ideas and advance learning in medical and healthcare education.