

Case Study: MGH Institute of Health Professions Innovation and Design Thinking for Turbulent Times

Summary of the Case Study: MGH Institute of Health Professions – Innovation and Transformation for Turbulent Times.

The MGH-IHP case demonstrates the principles and tools used to innovate during COVID-induced turbulence and prepare for uncertain futures and tough competition. The Institute conducted a strategic planning and visioning process, deploying best practice applications of Design Sprints (design and prototyping practices that accelerate the rapid prototyping, testing and refinement of innovative solutions), User Experience Journey Mapping, and reinvention of their Clinical Practice ecosystem.

Why Read This? Completed Journey Maps and Design Sprints quickly capture innovation and design thinking in action – necessary tools moving forward to 2030 and beyond.

The Case Study (Referenced in Chapter V)

MGH IHP is a graduate school in Boston that features opportunities for faculty and students to learn and work alongside expert practitioners in a variety of hospital, clinical, educational, and community settings. IHP is accredited by the New England Commission of Higher Education (NECHE) and enrolls more than 1,600 full- and part-time students. The IHP is the only degree-granting affiliate in Mass General Brigham (MGB), New England's largest health care provider founded by Massachusetts General Hospital and Brigham and Women's Hospital. It also includes Spaulding Rehabilitation Hospital, Newton-Wellesley Hospital, and North Shore Medical Center. This affiliation offers students unparalleled opportunities to learn and work alongside expert practitioners in a variety of hospital, clinical, and community settings. Since its founding in 1977 by Massachusetts General Hospital as an independent, not-for-profit graduate school, it has produced over 9000 graduates.

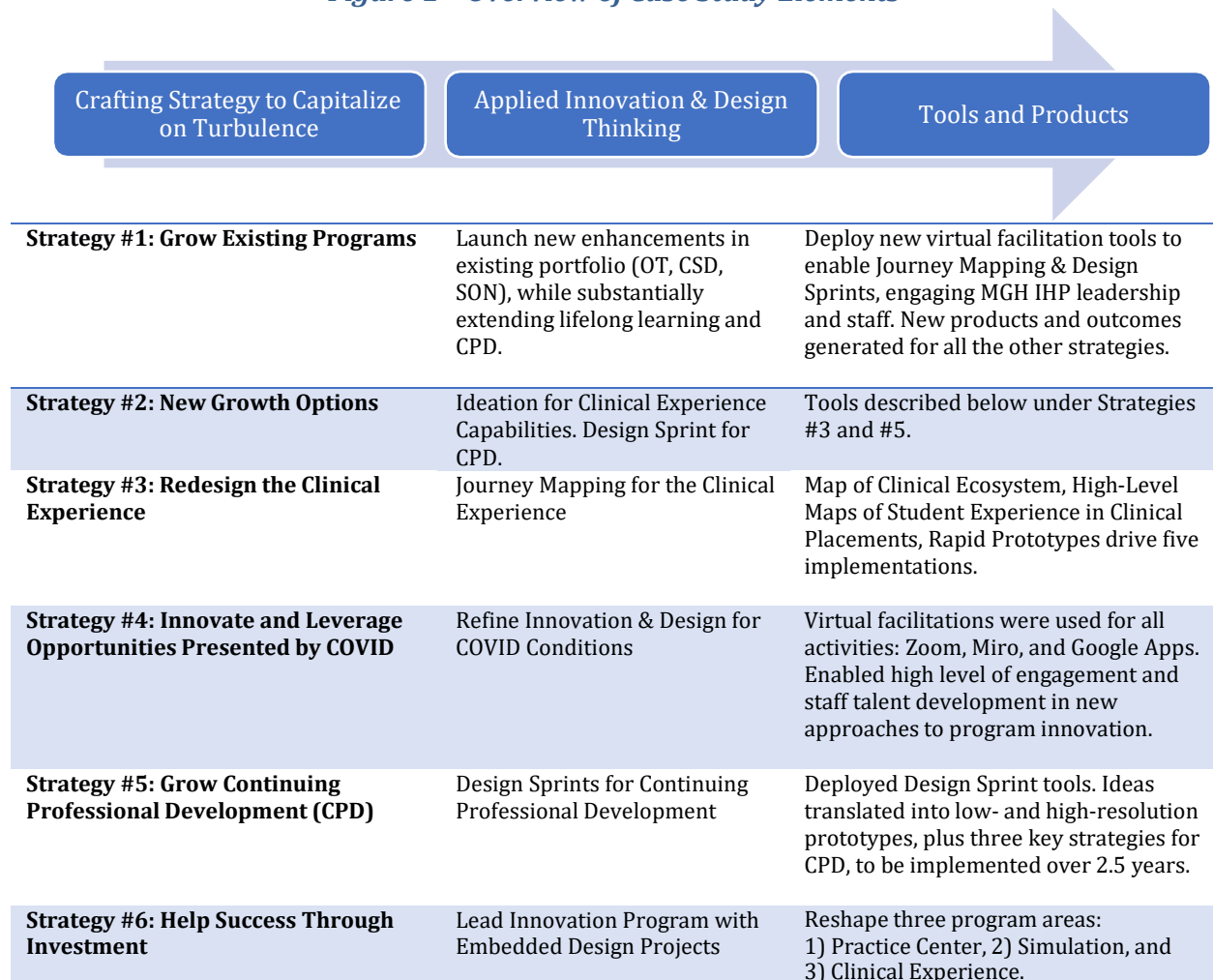
The Institute integrates classroom learning with research and clinical experience. It grants masters' and doctoral degrees and awards certificates of advanced study. It also offers continuing education to practicing professionals, as well as to baccalaureate-educated individuals entering health care from another field. The MGH Institute is composed of the School of Health and Rehabilitation Sciences (SHRS), School of Nursing (SON), School of Healthcare Leadership, and includes an emerging Continuing and Professional Development unit. Entry-level and post-professional programs in Nursing, Communication Sciences and Disorders, Genetic Counseling, Occupational Therapy, Physical Therapy, and Physician Assistant Studies are among the Institute's offerings. Other programs, including a PhD in Rehabilitation Sciences and a Ph.D. and Master of Science in Health Professions Education, have been added in recent years to meet rising demand for highly educated health care professionals, educators, and researchers.

All academic programs promote interprofessional teamwork through the school's unique IMPACT practice module and offer personalized attention in a rigorous, collaborative learning environment that is driven by the faculty's professional expertise and scholarly accomplishments. The academic experience is further enriched by the diversity of students' backgrounds and life experiences. The MGH Institute believes that knowledge begins with discovery through research. The Institute's faculty engage in original clinical research – much of it collaborative and interprofessional – aimed at ultimately improving the prevention, diagnosis, and treatment of human health conditions and disabilities.

Overview of Case Study Contents

Figure 1 summarizes the activities that are covered by this case study and discussed in the sections below.

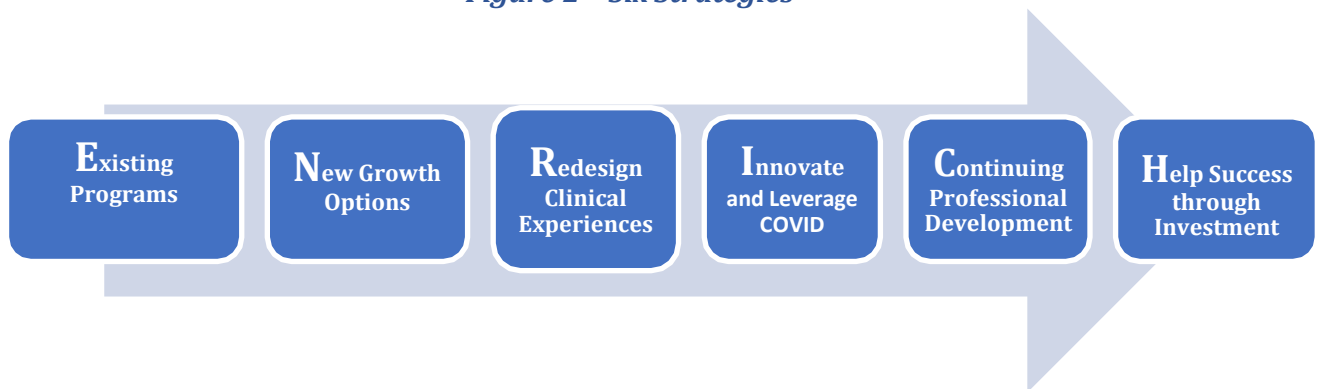
Figure 1 – Overview of Case Study Elements



Crafting Strategy to Capitalize on Turbulence

IHP is operating under the new ENRICH strategic planning effort with the goal of enhancing excellence and building growth. ENRICH was conceived and executed by IHP leadership and staff. As it embarked on ENRICH, IHP Leadership knew they needed to up their game with external consulting assistance, a fresh approach to strategy, and leading-edge practices in applied innovation and design thinking. The ENRICH effort began before COVID-19 but has been substantially accelerated by innovations required to cope with COVID. The plan targets transformative growth, diversification of revenue streams, improvements in clinical education, and leverages innovation and design thinking tools. There are six key strategies, one for each letter of the plan's name, as shown in Figure 2.

Figure 2 – Six Strategies



The first strategy focuses on existing programs, strengthening them through innovative design, delivery, and capacity building.

IHP began this strategy with most programs at capacity yet with some newer programs still growing and significant room to grow the online programs. The key opportunity for growth and competitive advantage is to launch new enhancements to the existing portfolio while substantially extending lifelong learning and continuing professional development.

The second strategy is to expand the portfolio of offerings and pursue new growth options, degrees, certificates, and schools.

One focus is to build a new school of healthcare leadership. Another is to grow new online and hybrid programs to a larger scale than could be achieved with entry-level clinical programs.

The third strategy is to redesign the clinical experience thereby extending IHP's already strong reputation.

This can also help increase access to MGB system sites for IHP placements and bolster clinical education. The school will leverage the Impact Practice Center (IPC) potential for new opportunities in telehealth and simulation experiences and better preparation of students for practice environments.

The fourth strategy is to assure that innovative approaches are utilized as these strategies are addressed – especially leveraging the innovation required and enabled by COVID-19.

This strategy explores, expands, and embeds innovation tools and processes to design, introduce, and implement change. This strategy also seeks to acknowledge the uniqueness of the IHP culture and help it evolve to be more inclusive of innovative thinking and practice.

The fifth strategy is to expand continuing and professional development infrastructure and programs.

This will help IHP extend their already strong brand and to grow revenue from non-traditional sources. In doing so, new programs should seamlessly interface with academic programs, partners, and learners while pursuing new marketing and product models. This strategy should also leverage new models of Joint Accreditation. In the end, this strategy will add value across the careers of all participants.

The sixth strategy is to invest in faculty and staff to help them succeed.

This includes investments and resources to help communication, learning, and engagement and to measure and report to stakeholders. As a culture of innovation grows, IHP should be able to acknowledge problems and failures quickly, help everyone be nimble, and support persistence until plans and solutions are in place.



Applied Innovation and Design Thinking

Led by Provost Alex Johnson, the IHP senior management team sought a partner to help drive innovation by applying design thinking principles to their strategy work and to feed the culture shift they knew would unfold over an extended period. Looking across a variety of industries, one can see that higher education has been relatively slow to adopt the tools that for some industries have been engines of change for decades. IHP provides a case study in how purposeful strategy and innovation can speed the shift in culture. Added to that was the pressure on new ideas and methods required during the COVID-19 pandemic.

Figure 3 illustrates the interaction of these forces. The Provost and the senior team were convinced that IHP needed these new tools in place to drive their strategy. These requirements matched well the strategies IHP had in play in their ENRICH strategic plan.

Figure 3 – Interactions of Strategy, Innovation, Culture Change and COVID



IHP partnered with Sierra Learning Solutions, a firm that specializes in strategy and innovation with a history of working with educational and learning organization clients. Founder Rob Brodnick started work in late 2019 with the senior team setting a course to ideate solutions to increase the organization’s capacity for clinical education. With one visit completed, the pandemic started its rapid spread around the globe.

Refining Innovation and Design Practices for COVID Conditions

Innovation is generally defined by three conditions: 1) the introduction of a new idea or using an existing idea in a new way, 2) putting that idea into practice or use in an active manner, and 3) implementation of the idea generates value. The designer’s approach to problem solving is, as Tim Brown wrote

“a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technologies, and the requirements for success.” (**Change by Design**, 2009).

Design thinking is human centered, collaborative, experimental, and optimistic. Because of this, many of the tools employed by innovation and design experts use live and highly interactive facilitation, especially when culture change is in the mix. The pandemic made this work quite difficult and the IHP senior team and Sierra Learning Solutions consultants needed to drastically revise their work plan due to the remote work requirements of the pandemic. The

shift to virtual facilitation and planning was a difficult one, but within a few months' time, the team was up and running using a blend of Zoom for meetings and facilitation, Miro for collaborative ideation and capturing results, and Google Apps for online, collaborative document and data management. Figure 4 enumerates the projects that occurred over the course of a year, the details of which are discussed in the sections to follow.

Virtual facilitation was a winning combination. The virtual facilitation toolkit produced several dividends, some of which were unforeseen. The combination of revised facilitation practices, the Miro-enabled white board presentation, and Zoom-power interaction enabled experiences that were not only *just as good* as face-to-face, but better in some respects. The level of engagement of MGH staff in the online sessions was exceptional, especially when it came to generating and voting on new ideas and opportunities. Moreover, these sessions visibly developed the skills of the participants and achieved a higher level of engagement and contribution from junior staff than typically occurs in such sessions.

Figure 4 – Projects Undertaken Using Virtual Facilitation



Ideation for Clinical Education Capacity

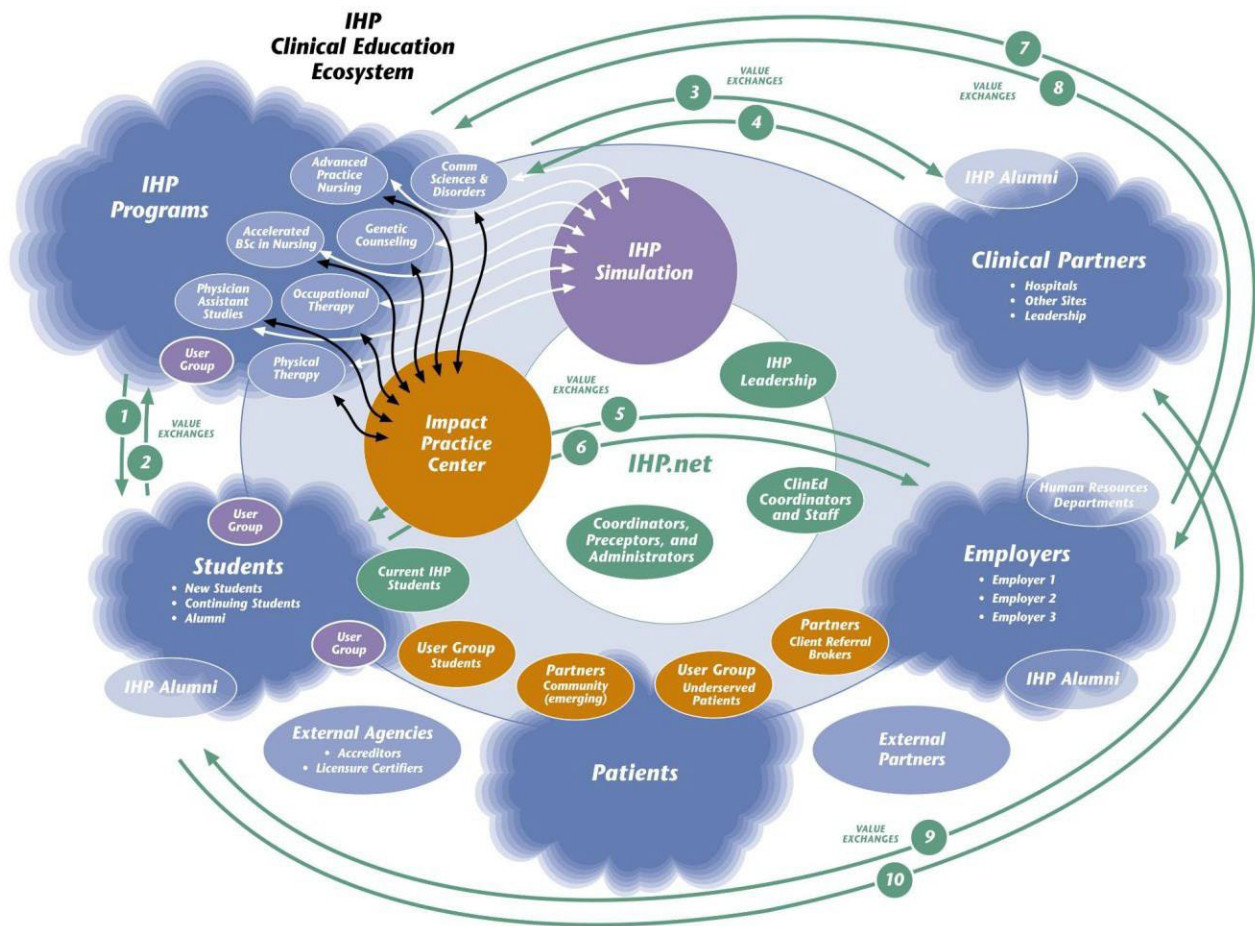
The consulting team started the virtual engagement with two projects, a series of ideation facilitations exploring how capacities for clinical education could be expanded and a design sprint for a reimagined continuing and professional development program. Each project started with a problem statement that was worked and reworked until it was clear and attainable. The task at hand was to ***enhance MGH Institute's ability to provide clinical experiences for students with a constrained supply of sites and growing enrollment, a problem exacerbated by the global pandemic and enforced social distancing.*** The team planned a series of 16 sessions with a broad collection of stakeholders starting with design sessions, empathy mapping with students, then ideation sessions with stakeholders in the clinical education process, and implementation sessions with the design team.



Mapping and Exploring the Clinical Education (ClinEd) Ecosystem

As the discovery work began to learn more about the issues surrounding clinical education capacity, the true complexity of the problem was slowly exposed. Over time, the teams noted various stakeholders, processes, and interactions that all make the delivery of clinical education possible. What emerged from this discovery work was the insight that the complexity was high enough that simple principals were not enough, we actually needed to take a broader approach; clinical education was a rich ecosystem with many agents acting in concert to create the educational outcomes necessary. While the ideation work continued, additional effort was directed towards depicting the clinical education ecosystem shown in the diagram below – Figure 5.

Figure 5 – MGH IHP Clinical Education Ecosystem



The figure shows the primary categories of agents in blue background, these include the IHP programs, their students, clients, and patients who receive care in a large variety of settings, the employers in these settings, and the clinical partners who participate in the education. Also shown are alumni, accreditors, and other external partners. There are three important aspects

of the ecosystem depicted in the foreground in different colors – the Impact Practice Center in orange (an interprofessional set of programs and spaces that support clinical education), simulation in purple, and the interdependent relationships in green which collectively are called IHP.net.

These three features of the ecosystem received particular attention during the design thinking work that followed. Over the course of several months, these sessions produced dramatic results, including:

- Built high-level maps of the student experience in clinical placements; divergent thinking used to generate more than a thousand ideas to solve problem at hand;
- Based on these ideas, the team shifted from divergence, the process of expanded thinking to create many choices, to convergence, the process of making tough choices and narrowing those down to ready the best ideas for implementation;
- Using rapid prototyping, the team aggregated a list of the top 20-25 solutions then developed low-resolution and high-resolution prototypes to test the solutions; and
- The project concluded with five implementations - three design projects to increase capacity, a research project to fully depict the multiple journeys that made up the clinical experience, and finally, the need to deliver a deeper learning program around innovation and design thinking.

Progressively reinventing the Clinical Ecosystem will present MGH IHP many opportunities for growth and enhanced experiences and outcomes.

Design Sprint for Continuing and Professional Development (CPD) Strategy

The consulting team facilitated a ***design sprint*** to develop strategies for the continuing and professional development effort. Design Sprints are specialized innovation tools used to shorten the typical design process down from months to days. It was developed at Google Ventures (<http://www.gv.com/sprint/>) as a five-day process of integrated design, prototyping, and testing ideas with users. The sprint shortcuts the build and launch stages and compresses longer design time into a single week. For IHP, the consulting team further shortened the sprint to a multi-day virtual engagement that focused on realistic prototyping and quickly created visualizations of a finished product. The project also demonstrated a collaborative design:

- Market research firm Tyton Partners joined the discovery and ideation sessions;
- UPCEA (the national professional association for continuing education) joined for convergence and prototyping; and
- UPCEA continued to work with the team to operationalize the strategies that emerged from the design sprint.

The sprint produced a wide aperture of 342 ideas for potential strategies, programs, and activities which led to 20 themes after convergence. During prototyping, the team built low-resolution prototypes and tested these with a variety of audiences, reducing the number of potential strategies and adding high-resolution features. The final strategy prototype consisted of three key CPD strategies to be implemented over a two-and-a-half-year period.

Each strategy received clearly articulated outcomes as well as potential accelerators and decelerators, forces in the environment that could either speed up or slow down realization of the outcomes. The sprint also produced a **prioritization schema** of several dozen potential programs and activities to be later evaluated and implemented.



User Journey Mapping for the Clinical Experience

The first two projects provided several actions to help drive the ENRICH strategy. The deeper the team delved into understanding the complexities of clinical education delivery in the greater Boston metro region, the more they realized the need to find a way to depict the process more fully from a variety of perspectives.

The team elected to run a full **user experience journey mapping design activity**. Journey mapping illuminates the cognitive, behavioral, and emotional components of any experience and focuses on opportunities and efforts to improve the user experience. Sometimes referred to as User Experience (UX), journey mapping is a research and design approach that organizations can use to gain insight into the needs and wants of their target audience or customer. The user experience is just that, an in-depth look into how an organization's end users experience its delivery of products or services over a period of time. An organization might choose to create a UX journey map when it wants to understand its users' points of view, including their actions, thoughts, and feelings, with the ultimate goal of enhancing their experience. It is a useful tool as it puts human-centered design front and center. The results of the journey mapping are included in the appendix to this case.

Over the course of eight sessions, the team worked together with students, faculty, staff, and clinical site representatives to build depictions of clinical education experiences, then used those depictions to generate opportunities for improvement for low points in the user experiences. To start, the team broke down the overall clinical experience into three phases

(before, during, and after), then further identified nine stages across the phases of the clinical experience. These journey maps:

- included recommendations and opportunities that emerged from the mapping process;
- served as an important bridge from the initial ideation to the more detailed design projects that were embedded in a learning program on Leading Innovation; and
- were especially useful in bolstering the important discovery phase of the more detailed design projects, using the empathy maps and deep depictions of the journeys taken by students, clinical educators, and clinical site coordinators.

The three journey maps resulting from this effort are presented as an appendix, after the Conclusion to this case study. to this case study.



Leading Innovation Program with Embedded Design Projects

The team developed a customized approach:

- to impact IHP's culture of innovation,
- give real-time experience in innovation and design thinking to key leaders, and
- deliver detailed implementation plans for the selected areas of focus from earlier work.

IHP continued to work with the consulting team to offer an applied learning program with the goal to help increase capacity to offer clinical learning experiences. Several opportunity spaces emerged from the divergence sessions in July and August 2020:

- Expand and revise IPC Operations to increase student placements “in house” via live sessions or telepractice;

- Employ simulation bridge programs to enhance clinical experiences in ways that satisfy clinical requirements via simulation and better prepare students for practicum prior to placement;
- Design a virtual health system to link various simulation experiences as a continuum of care-acute, rehab, psych, peds, post-acute community based, home care, community health etc. to ensure more immersive placements and create more in-depth and complex clinical experiences that replace external practicum;
- Design and plan IHP.net as an ecosystem for clinical education; and
- Plan a shift to more team precepting, replacing the 1:1 clinical model with fresh approaches that enhance the experience for all participants and increase capacity through efficiencies.

The team designed a modularized program for staff, administrators, and faculty that would ground them in the fundamentals of innovation and design thinking, use project-based learning about design thinking to deliver real outcomes, and develop leaders of organizational innovation and design thinking applications. The learning design featured nine customized modules that could stand alone but are combined into three program stacks resulting in a nine-module course leading to a certificate awarded at the completion of the program. Project teams of learners worked with innovation coaches to guide them through their projects and all teams and coaches were supported by the instructor, Rob Brodnick. Teams met weekly, delivered facilitated sessions, and produced outcomes materials in a supported environment.

When the projects conclude in late April 2021, learners, coaches, and instructors will process the design project experiences and reflect on the outcomes and learnings with respect to leading innovation and using design thinking tools in an organization to create change. A final, short reflective paper will be due at the end of the program. At completion, learners will be awarded a certificate.



Work in Progress

At the current time, two projects are underway, but not yet ready to describe: 1) Prototyping Two Vehicles for Change and 2) Clinical Expansion Business Model Collaboration and Innovation. They will be explored in future versions of this case study.

Conclusion

The ENRICH Strategic Planning process, accelerated by the insights and actions required to respond to COVID-19, provided MGH IHP with a great opportunity to leap forward and capitalize on the opportunities provided by turbulence. Figure 6 summarizes the outcomes projected by ENRICH, showcasing some impressive stretch goals.

Figure 6 – Summary, ENRICH Strategic Planning Process



Appendix – Perspectives on the Clinical Experience

The figures on the next three pages portray different Journey Map perspectives on the Clinical Experience.

Summary: MGH IHP Case Study

Figure 10 presents a summary of the elements of the MGH IHP Case Student, using the elements of our analytical framework



Name: Alicia Vargas
Role: Clinical Coordinator

Scenario: Alicia is deeply committed to finding students great clinical training experiences but every semester the job just seems to get harder. Balancing the sometimes unrealistic student expectations with finding good placements and what each clinic needs, not to mention what IHP needs. Did someone say Sisyphus?

Pains:

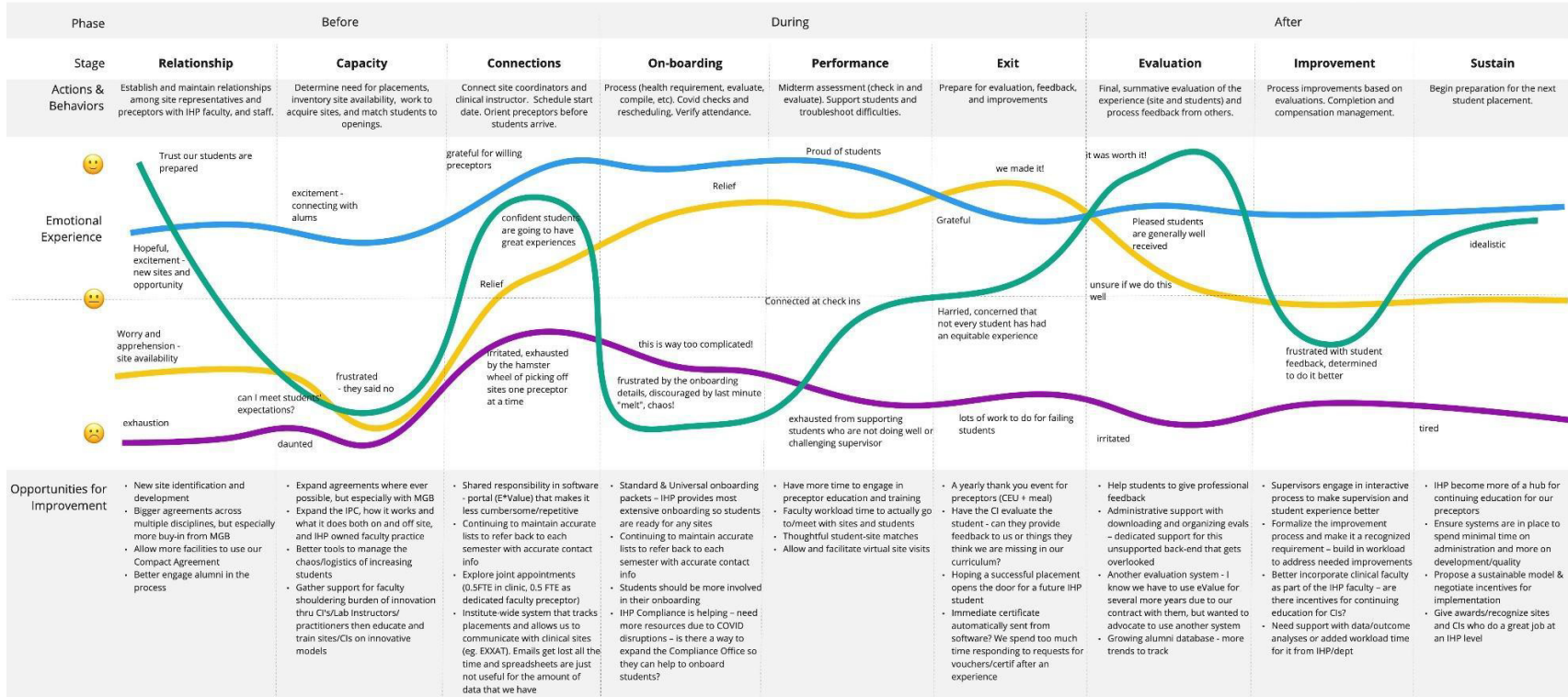
- Expected placements that don't work out
- Lack of MGB support, commitment, or priorities
- Restrictions and disruptions due to Covid
- Continually looking for more sites or convincing sites to collaborate or take more students

Gains:

- Contributing to student success and clinical experiences
- Opportunities to streamline and improve the process
- Scoring new placements and new training sites
- COVID responses, innovation, and being forced to think outside the box
- Collaborations with students, site, preceptors, and faculty

Legend

- high satisfaction/ low frustration
- high joy, gratitude, pride, involved, appreciated/low sense of purpose
- high excitement/ low stress-anxiety
- high feeling of being energized/ low exhaustion fatigue



CONFIDENTIAL DRAFT 12.4.21



Name: Heather Martinez

Faculty: BWH Clinical Supervisor

Scenario: Heather is a clinical supervisor at Boston Women's Hospital. While she's deeply committed to training new <??>, she also has a huge and growing work load. She's love to see clinical placements be much less about the mountain of admin work, and more about the students spending their time in the clinic.

Pains:

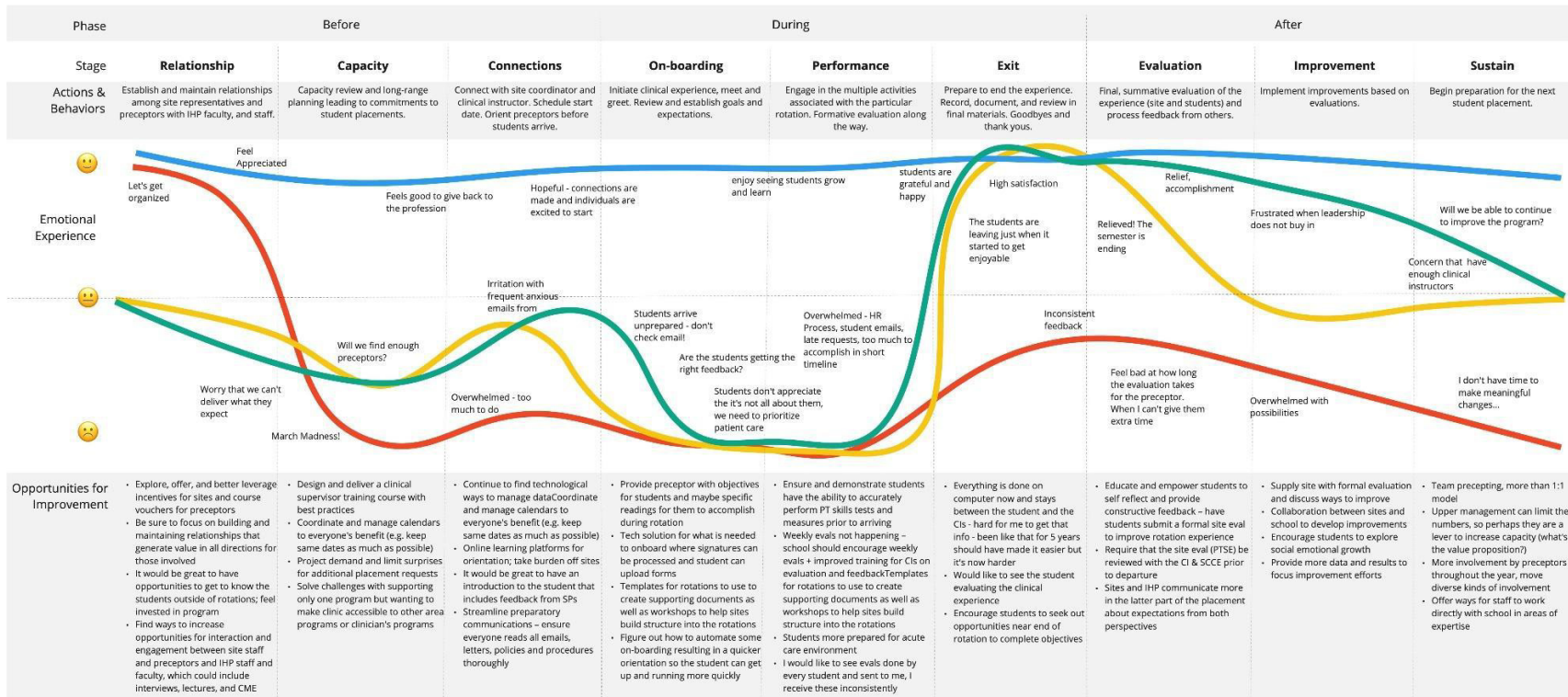
- Demand for rotations and finding preceptors and getting buy in to take more students
- Struggling students or clinical instructors
- Broader engagement to support clinical experiences
- Slow start, onboarding delays, and preparatory work

Gains:

- Working with students and seeing them learn and grow
- Excellent recruiting opportunities
- Improving the energy and capabilities of the team
- Helping the next generation
- Giving back to the profession

Legend

- high satisfaction/ low frustration
- high joy, gratitude, pride, involved, appreciated/low sense of purpose
- high excitement/ low stress-anxiety
- high feeling of being organized/low chaos



CONFIDENTIAL DRAFT 12.4.21



Name: Daylia Frankel

Faculty: Occupational Therapy

Scenario: Daylia needs to complete 4 clinical placements to graduate from MGH-IHP. She's both nervous and excited about it. She's also frustrated because information about availability of a placement and where it will be have not been shared with her.

Pains:

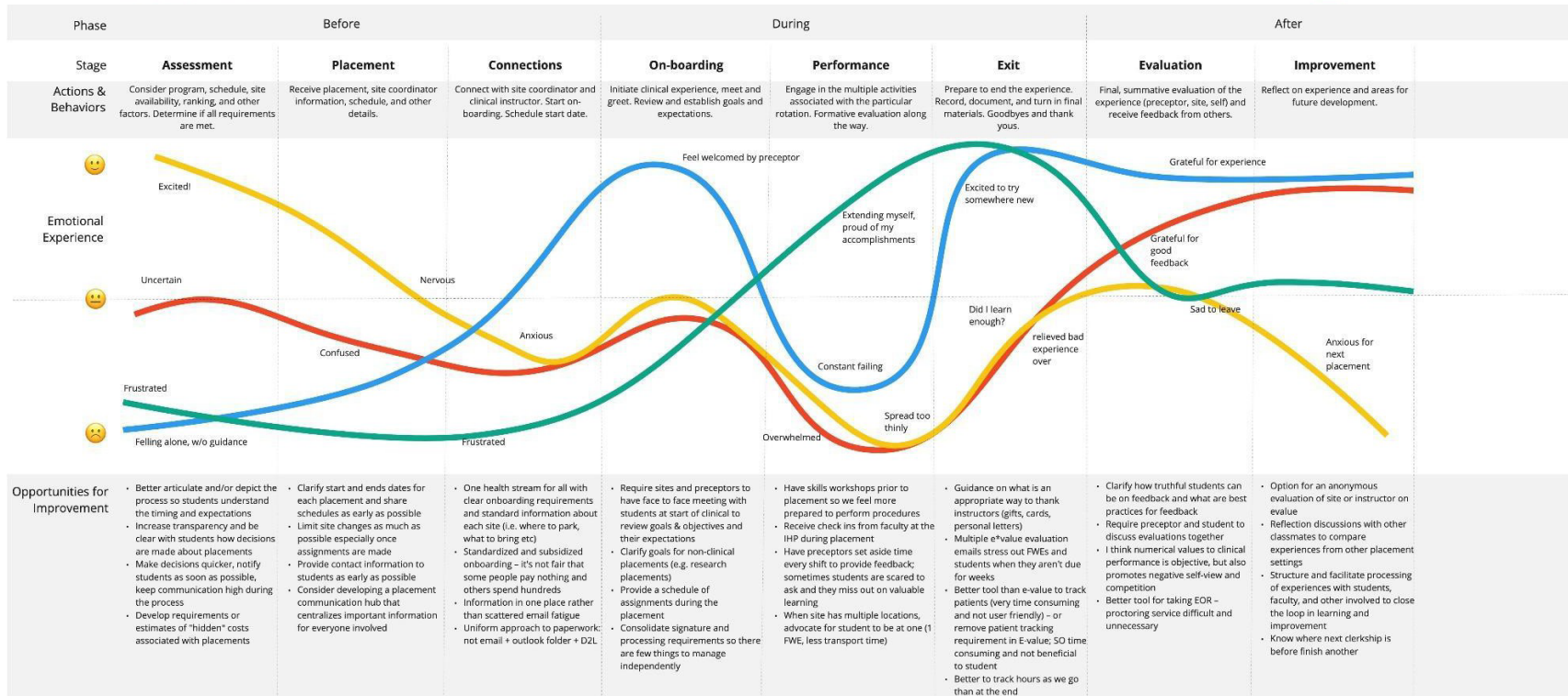
- Long commutes
- Costs, especially increased or unexpected costs to support clinical education
- Lack of integration between academic and clinical experience
- Disruptions due to Covid and being virtual

Gains:

- Finding their strengths/Excellent recruiting opportunities
- Real experience and interesting cases
- Better understanding future career possibilities
- Networking
- Learning new skills and varied perspectives

Legend

- high satisfaction/ low frustration
- high motivation, high encouragement/low motivation, low encouragement
- high excitement/ low stress-anxiety
- high confidence/ low fear-unknown-chaos



**Figure 7 - Case Study Summary: MGH Institute for Health Professions
Innovation and Design Thinking in Turbulent Times**

<i>Key Factors</i>	<i>Pre-COVID Actions</i>	<i>Actions During COVID to Prepare for the Post-COVID World</i>
<i>Sense of Urgency</i>	MGH IHP Leadership had launched the ENRICH Strategic Planning process before COVID hit, based on a sense of urgency and the perceived need to make major, strategic leaps in program performance and new programs.	<i>The results of the ENRICH Process laid out a six-element plan, calling for substantial growth in enrollments, revenues, and profit margin. ENRICH established the urgency of embedding innovation and design thinking in new and reinvented programs and experiences.</i>
<i>Foresight and Vision</i>	MGH IHP's vision was that while existing programs had incremental growth potential, substantial growth would require new programs and reinvented experiences.	<i>ENRICH laid out a course of expeditionary action for executing and extending MGH IHP's vision.</i>
<i>Guiding Coalition</i>	The ENRICH Planning Process was highly participatory and extended the number of MGH IHP staff and faculty involved. The participants served as a form of Guiding Coalition.	<i>Moving forward, substantial numbers of faculty, staff, and other stakeholders will be involved in the reinvention and refinement of new programs and experiences using design thinking-based innovation.</i>
<i>Strategies and Action Plans</i>	The ENRICH Planning Process was designed to craft strategies and establish action plans to guide transformative actions.	<i>The ENRICH Process has moved forward, involving a range of collaborating partner organizations, to flesh out the action plans, prototypes and redesign efforts required by the strategies.</i>
<i>Quick Wins, Continuing Wins</i>	The ENRICH process established a vehicle for delivering accelerated quick victories.	<i>Using design thinking techniques, the process quickly identified and tested opportunities and strategies and rapid prototyped solutions. This process is continuing.</i>
<i>Action Roadmap: Leading and Navigating Change</i>	At its start, the ENRICH process laid out a process for addressing MGH IHP's opportunities for the future and goals for cultural change.	<i>ENRICH expressly articulated the strategic intent to leverage innovation and design thinking to change organizational culture, and how to do it.</i>
<i>Organizational Capacity to be Built</i>	<i>ENRICH planned to build organizational capacity in innovation, design thinking, rapid prototyping, and new approaches to healthcare leadership.</i>	<i>In executing these strategies MGH IHP will focus on building the capacity of individuals, teams and the organization.</i>
<i>4 R's of Transformation – Realign, Redesign, Redefine, Reengineer</i>	The pre-COVID launching of ENRICH set the stage for transformative actions to come.	Realign: Deployed design thinking and innovation techniques, which were facilitated by the impact of COVID actions to both accelerate innovations and reduce resistance to change. Supported the realignment of programs to changing marketplace conditions and earners needs. Redesign: Embark on redesign of the Clinical Experience. Introduce New Masters Programs. Generate three key strategies for CPD; redesign of CPD is in the works. Redefine: New School of Healthcare Leadership will redefine best practices in leadership in the healthcare professions. Reengineer: Use embedded innovation to reengineer academic programs, the Clinical Experience, and Continuing Professional Development (CPD).
<i>Culture Change</i>	ENRICH Process established the strategic intent of changing the culture. This requires greater innovation and design thinking and talent development at all levels.	<i>Actions necessitated by COVID are accelerating the possibility of culture change and removing barriers and resistance. The strategies and actions in ENRICH will orchestrate cultural change and transformation.</i>
<i>Learning from MGH IHP</i>	MGH IHP was fortunate to have framed the ENRICH process before COVID and be able to adapt and incorporate COVID insights.	<i>To thrive in the post-COVID world, institutions must develop and leverage innovation and design thinking. This requires tools and practices not commonly practiced in higher education today.</i>