

# Creating a Teaching Platform for Course Design under the SCRUM Framework

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## Abstract

The year 2019 was a turning point for the University of Monterrey (UDEM). The most important changes were the strategic initiatives obtained by an international consulting firm, from which several projects were derived in different areas of the university. One of the most relevant academic initiatives was the introduction of Active Learning within the university's Pedagogical Model. In order to carry this out, it was decided to create agile teams which started functioning under the SCRUM framework. Following the functionality structure of this system - planning, sprints, refinement, review, retrospective, among others - and through various design thinking methods - crazy eights, insights, empathy processes - innovative ideas were generated to provide a real solution to customer needs. Through different experiments, user testing and empathies, as well as a clear definition of the Objective Key Results - engagement, collaboration and enthusiasm - *Shape Your Class* was developed. In 2020, due to the pandemic, *Shape Your Class* migrated from a physical prototype to a digital technology platform. In a way, this allowed for an acceleration to online teacher training and enabled a greater utilization and diversification of resources that physically would not have been accessible. *Shape Your Class* is a virtual space for class design based on Active Learning that provides an authentic combination of functionality and innovation. Through a set of digital cards, various design options are presented, identifying: strategic elements, essential moments (class opening, learning tactics and class closure) and complementary moments (evaluation and reflection). It provides teachers with a ludic, playful and pedagogical way for the creative process of designing their sessions. In this way, *Shape your Class* was able to position itself within a highly innovative course design model, supported by 24 experiments, 95 courses, 119 teachers, and 969 students, obtaining above 80% of satisfaction rates in all Objective Key Results, as well as testimonials from both teachers and students. The most outstanding products that have already been delivered include the digital platform, course design model, user and technical manual, video tutorial, training model, communication strategy, among others. It is important to mention that *Shape Your Class* holds a patent and is registered in the Copyright National Institute in Mexico. The next steps for *Shape Your Class* include the delivery to the operational area of the Academic Development Center, with the objective of increasing the use of the tool to a greater volume of professors. Currently, training workshops are being offered and at the same time a greater diffusion of the implementation of *Shape Your Class* in the classroom is being created, always with the objective of growing academically as one of the best universities in Monterrey.

## Keywords

Active Learning, design thinking, experiments, technology, innovation.

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## Biographies

**Alexis Torrecillas** is the Product Owner of an Academic agile team and Professor in the Engineering Department at the University of Monterrey, Mexico (UDEM). He was the Director of the Industrial and Systems Engineering Program, participating with the ABET Accreditation in 2019 and as general coordinator of the first Engineering Forum at UDEM. During his tenure as Academic Director, he motivated his students to participate in IEOM conferences, obtaining excellent results in recent years. He is an Industrial and Systems Engineer (Cum Laude) from UDEM, has a Master's in Business Administration and a Service Management Specialty from EGADE Business School. Also, he has worked as Undergraduate and General Director in other academic institutions in Mexico, as Business Development Manager in Servicios de Comercio Mundial (SCM) and as Operation Coordinator in FEMSA Logistics. He has

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**Angélica Chapa** has been a manager of curriculum design at the University of Monterrey. She is currently working as a member of an agile team. Ms. Chapa has a Master's degree in Education with a specialization in Cognitive Development from the Instituto Tecnológico de Estudios Superiores de Monterrey, Mexico, and has a Bachelor's degree in Tourism Business Administration from the Instituto Regiomontano de Hotelería. She has extensive experience in administrative and operational hotel management, convention and restaurant industry. She has been a pedagogical advisor in the development of academic and study programs at higher level education and a teacher for more than 30 years, teaching courses in administration, food and beverages, management and convention tourism. Ms. Chapa has also served as Synodal and President of the Evaluating Jury in professional exams, qualifying jury in gastronomic competitions and external collaborator in various articles for some industry and local magazines. She was a member of associations such as PCMA (Professional Convention Management Association) and AMPROFEC (Mexican Association of Professionals in Exhibitions, Fairs and Conventions).

**Manuel B. Hernández** is a member of the Transformation team at the University of Monterrey, currently participating in the development of strategies for the Strategic Transformation Unit. Hernández has a Bachelor's degree in Business Administration from the Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM) and a Master's degree in Marketing from EGADE (Escuela de Graduados en Alta Dirección de Empresa). He has participated as an adjunct professor at the Business School in UDEM, Postgraduate Director, Academic Management Chair and worked as a consultant for several companies. He has taught courses on Marketing, Brands, Innovation, Management and Communication at a corporate level. Mr. Hernández has participated in private companies as Brand Manager, Brand Category Manager, Trade Marketing Manager and in charge of channels such as Convenience and Self-Service. He has developed different consumer brands in various categories and has participated as a member of the Marketing Academic Department in UDEM and in certifications such as AACSB and AMBA. He likes to participate in leadership activities of youth sports groups and collaborate in various community aid associations.

**Mayra Angélica Hinojosa** is a member of an academic agile team within the Strategic Transformation Vice-Rectorry in the University of Monterrey (UDEM). Hinojosa has a Bachelor's degree in Psychology from Universidad de Monterrey, México. She has worked at Prepa UDEM in the Psychology Department, and as a Human Development and General Psychology teacher. Hinojosa has been a counseling advisor in the International Baccalaureate Career-related Program, motivated and helped her students to discover their vocation and make a plan for their future life. She has experience in providing psycho-pedagogical assistance, guidance and counseling for students. She has an extensive experience in learning and social service that guides the student to develop leadership skills, share their talents, skills and knowledge for the good of society.

**Corazón Beas Zertuche** works as a developer of an academic agile team within the Strategic Transformation Vice-Rectorry in the University of Monterrey (UDEM), where she works under the SCRUM framework. She holds a Bachelor's degree in Bilingual Education from Laurens University, Monterrey, Mexico, a Master of Arts degree in Human Resource Development and Consulting from the University of Lancaster, England, a Master's in Business Administration from the University of Monterrey, Mexico, and is currently a PhD student for a Doctorate in Education from the Marist University of Guadalajara. She has worked as a German and English teacher in Mexico, and as a Distribution representative for National Semiconductors in Munich, Germany. She has published a paper for Administrative Science, called "Proposal for a generational compensation model". Her research interests include education and human resources.