

The Flipped Approach to Higher Education

Designing Universities for Today's Knowledge
Economies and Societies

Innovation, Technology, and Education for Growth

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We dedicate this book to the founder of MEF Schools and MEF University, Dr. İbrahim Arıkan who sadly, due to his passing, was unable to see his ultimate dream, the establishment of MEF University, come to fruition.

Arıkan was a pioneer across all stages of education, from kindergarten to university. He promoted a democratic approach to education, implemented full academic independence for teachers at his institutions, and created a learning environment designed to nurture the individuality of each of his students.

Arıkan may now be gone, however his spirit lives on in the hearts and minds of every student and teacher that had the privilege to know him.

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Knowledge Economies and Societies

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United Kingdom – North America – Japan
India – Malaysia – China

Emerald Group Publishing Limited
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2016

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British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

ISBN: 978-1-78635-744-1

ISSN: 2059-2841 (Series)



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Foreword

Flipped Learning is a simple idea where in-class lectures are delivered via short instructional videos outside of class, which leaves class time for application, analysis, and engagement. When I helped pioneer this model in my classes in 2007, little did I know that it would become a global movement reaching from elementary classrooms to college campuses.

Flipped Learning asks one key question, “What is the best use of face-to-face class time?” University professors are beginning to realize that the lecture hall is not the best way to teach today’s connected and information-saturated students. Students today realize that there is a YouTube video about virtually everything. They expect more from their college courses, and the Flipped Learning model is meeting this need.

One of the four pillars of Flipped Learning is a “flexible environment.” One implication of a flexible environment is that there is no one way to flip a class. It is not a formula to be followed, but rather, a philosophy to be contextualized. Flipped Learning should look different in a primary classroom than a university course. It should look different in a calculus class than a history class. But herein lies the rub, how do you effectively implement Flipped Learning in the university setting? What strategies should be employed? This book dives deeply into these questions. It is both intensely practical and yet also research-based. It tells stories and offers best practices from university professors who have Flipped their classes.

This book goes beyond simply explaining how to Flip a class. It chronicles the birth and formation of MEF University; the first completely Flipped university in the world. MEF University opened in 2014 with the express intent to Flip. How and why they Flipped is a case study in excellence and innovation. The mistakes they made and the successes they achieved are outlined in the pages that follow. This book is a guideline for other schools that want to meet the needs of their students, who are expecting more from their college education.

So if you are interested in getting away from lower level content in your classroom, or you desire to radically change your institution, then read this book. Afterward, give some thought to how you can contextualize the experiences of MEF University to your particular setting.

Read on!

Jon Bergmann
Flipped Learning Pioneer, Author,
jonbergmann.com

Preface

1965 – **Geoff** is a Baby Boomer from the United Kingdom. At 18, he had a busy social life with his friends. At school, he listened to his teachers and took handwritten notes. He communicated with friends and family by sending letters through the post. Geoff enjoyed watching the two terrestrial television channels. He had an interest in what was going on locally and used to buy a newspaper to stay in touch with events. He was keen to continue his education. Universities were free at that time and the government provided grants to help support students. It was an easy decision to go to university, as he knew investing his time would pay off in the future. Indeed, Geoff graduated from university, got a steady job with a well-known company, and worked his way up through the ranks until retirement. He now lives comfortably off his pension.

1995 – **Sandra** was a Generation X adult in the United Kingdom. At 18, she had a busy social life, meeting up with her friends and chatting on the phone. She had some experience with computers, using the family computer at home and computer lab at school. She mostly communicated by sending letters through the post. However, at that time she heard about a medium called e-mail. Sandra enjoyed watching the four terrestrial television channels; some of her friends had satellite TV. She used to buy a newspaper or access Teletext on her television to stay up to date. She was keen to continue her education. Universities were taxpayer funded, although rumors of fees had begun, and stable, regular jobs were available in the market place on graduation. Going to university was an easy decision for Sandra to make as she felt investing her time would pay off in the future, Indeed, after graduation she got a good job that lasted for six years until closure of the company led to her redundancy. She entered a new field, re-trained, and did a Master's degree. She worked in the new job for three years until the company was bought out and she was made redundant again. She found a new job and, starting from the bottom again, worked her way up, participating in

adult education courses in order to stay relevant. She is happy in her job, but her experience has shown her that there is no guarantee her new job will be long lasting. She has chosen not to have a private pension since the global markets crashed and many pension funds were destroyed. She is also concerned the state pension will not adequately support her in her retirement.

2016 – Yasemin, British, at 18 is a Generation Y adult. She has a busy social life in real life and online. She uses multiple devices to access her ten favorite social media sites. She watches local and international TV through multiple satellite channels and through her computer or phone. She accesses the news 24/7 through online newspapers and social media sites where she posts comments and rates or shares articles. She has completed high school and is keen to continue her education. However, this is a big decision. Education is more expensive than it has ever been, getting a job will be difficult due to high unemployment, and she can't imagine what kind of job or career she wants. Things change so fast, she doesn't know in which field she wants to study. Making the decision to go to university is critical for Yasemin. It is a huge investment of time and money, and she knows over the last 20 years there has been a trend of diminishing returns on the value of a degree. If she goes to university, she needs to make sure she is making the right decision.

As outlined in these three examples, the types of jobs available today, the stability of the employment market, the safety net of the state, the way the world is connected and communicates, and the cost of education bear little resemblance to life 20 years ago and barely any resemblance to life 50 years ago. Yet, the structure of the education system has changed very little over this period. This leaves the potential students of today wondering whether a university education will suitably prepare them for the unknown jobs of the future; whether training for a single career will enable them to stay employed in an unstable employment market; whether they will be provided with the skills and technologies needed in the future workforce; and whether the way education is offered today is suited to how they communicate and operate in their everyday lives. Furthermore, these potential students wonder whether higher education is worth the substantial investment of their time and money, and whether they will see suitable returns on their investment that will enable them to become flexible, adaptable, technologically savvy workers in an unknown future workforce.

This book tells the story of how MEF University identified Flipped Learning as the educational approach most suited to the Generation Y students of today and the Generation Z students of tomorrow. This approach allows autonomy in learning, shares content through technological devices, incorporates high-level cognitive classroom activities, and encourages students to develop the 21st century skills and life-long learning approach they will need to stay effective, relevant, and employable over their careers.

About the Authors

Muhammed Şahin is a Professor of engineering and the founding Rector of MEF University. Şahin graduated from the Department of Geodesy and Photogrammetry (Geomatics) Engineering, Faculty of Civil Engineering, Istanbul Technical University in 1987 at the top of his class. He received his master's degree from University College London in 1991, and his PhD degree from University of Newcastle-Upon-Tyne in 1994. Şahin started his academic career in 1988 as a Research Fellow in the Department of Surveying Techniques at Istanbul Technical University and advanced through the ranks of assistant professor and associate professor. In 2002, he became a tenured professor. He was a visiting fellow at Graz Technical University in 1997 and at Berlin Technical University in 2000. Şahin was appointed as the Rector of Istanbul Technical University and served from 2008 until 2012. In 2013, Dr. İbrahim Arıkan, founder of the İbrahim Arıkan Education and Scientific Research Foundation, appointed Şahin as founding Rector of MEF University. Şahin assumed several administrative positions such as Advisor to the Rector, Director of the School of Foreign Languages, Chairman of the Department of Surveying Techniques, and Coordinator for the Graduate Program in Advanced Technologies. He was elected as a member of the Board of Directors of CESAER (Conference of European Schools for Advanced Engineering Education and Research), based in Belgium and including the most prominent engineering universities in Europe. On account of the contributions he had made to "Research and Strategy Management at Universities," he was elected unanimously to the four-member Executive Board of CESAER. He is also a member of the Advisory Board on Earthquakes of the Prime Ministry Disaster and Emergency Management Presidency. Şahin presented his vision for the implementation of Flipped Learning at MEF to representatives from the Turkish Council of Higher Education in 2014. It was both his visionary approach to understanding the needs of a new type of education, as well as his persistence that

led to MEF opening as the world's first and only fully flipped University. Since overseeing the opening of MEF University, Şahin has been invited to present MEF University's unique approach at the Blackboard International Teaching Learning Conference as well as at the American Council of Higher Education 2016, 98th Annual Meeting.

Caroline Fell Kurban is the Director of the Center for Excellence in Learning and Teaching (CELT) at MEF University. She also teaches on the Faculty of Education. She has taught, trained, and managed in schools and universities in her 20-year career. She holds a BSc in Geology, MSc in TESOL, PhD in Applied Linguistics and, being a staunch believer in life-long learning, is currently studying for a Master's degree in Technology and Learning Design. In March 2014, MEF University Founder, Dr. Arıkan, and MEF University's founding rector, Professor Şahin, invited Fell Kurban to become the founding Director of the CELT. Being one of the drivers of Flipped Learning at MEF University, she is involved in: developing learner training support in Flipped Learning for students; providing professional development for instructors who are developing and teaching Flipped courses; and developing quality assurance parameters to ensure the successful implementation and continuation of Flipped Learning at MEF University. Since starting in this role, Fell Kurban has been rapidly expanding her knowledge and experience regarding Flipped Learning. In April 2015, she was invited to co-present with Professor Şahin at the Blackboard International Teaching and Learning Conference, and also presented at EdTechIst in Istanbul. She was then invited as a speaker and panelist at the Young Universities Conference in Istanbul in May 2015 and was also a keynote speaker at the Innovative Teaching and Technology in Higher Education Conference in Istanbul in July 2015. Fell Kurban presented her experiences on Flipping English for Academic Purposes in Ankara and Dublin, and in January 2016, her paper on this subject was published. In June 2016, she was invited as the Keynote Banquet Speaker at the Flipped Learning Academy at the University of Northern Colorado. In June 2016, Dr. Fell Kurban was invited to be the inaugural Lead Research Fellow of the Flipped Learning Global Initiative.