

# Learning by Doing

by Dr. Liora Katzenstein with the support of Mr. Amos Eiran

**H**aving been raised in Israel, then a semi-socialist country like Hungary and Czechoslovakia, with all items in scarce supply and everything in sight mostly grey and ugly, my wish was to dedicate my life to the 'Creation of Plenty' (which became my definition of entrepreneurial endeavours). In fact, this is what I have been doing for the last three decades.

## My Story

My story focuses on my experience delivering entrepreneurship and entrepreneurship-related courses during the last three decades. This experience originated from my exposure to the topic in the early 1980s, at the Harvard Graduate School of Business Administration (HBS), where I then served as a teaching and research assistant. As most of you may be aware, 35 years ago the HBS teaching method was already case-study-based, rather than theory based like its European counterparts. Throughout my experience, I

became convinced that the case-study method is indeed an excellent one, but, as entrepreneurship is much more an applied skill than a cognitive/intellectual endeavour, I believed that for students to really be able to go out there and "do it" they needed to work on live cases, preferably their own. I searched for a program that reflected this way of teaching. Fortunately, in the mid-1990s, I came across Swinburne University of Technology in Melbourne, Australia (SUT), which did just that. Along with a colleague, I ventured to Australia and eventually became the licensee of SUT's Master in Entrepreneurship and Innovation (MEI). Our teaching was truly practice-based, as in all courses students had to work in groups on their own ventures. These ventures could vary from course to course and from semester to semester. For example, when we taught 'New Venture Marketing', the students had to prepare a marketing plan for the proposed venture, using the theory they had learned as background and building blocks for their proposals. Needless to say, they also had to go out and do real-life market research. In the course 'New Venture Finance', to give another example, the students had to do financial projections to-

## Definitions

### Learning by Doing

*is a concept within economic theory, by which productivity is achieved through practice, self-perfection and minor innovations. For example, a factory increases output by learning how to make better use of equipment, without adding workers or investing significant amounts of capital... Recently, it has become a popular explanatory concept in the evolutionary economics and Resource-Based View (RBV) of the firm. The Toyota Production System is known for Kaizen, which is explicitly built upon learning-by-doing effects"*

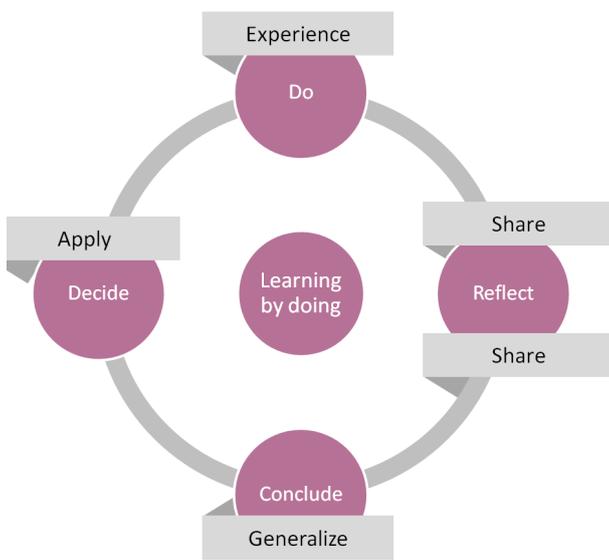
([https://en.wikipedia.org/wiki/Learning-by-doing\\_%28economics%29](https://en.wikipedia.org/wiki/Learning-by-doing_%28economics%29))

## Books

gether with balance sheets, cash flows, and financial reports for the proposed venture. In this course, the focus was not only on mere financial applications, but more on the business assumptions associated with each of the numbers, as is the case in every proper business plan. The emphasis was on encouraging students to 'learn-by-doing'.

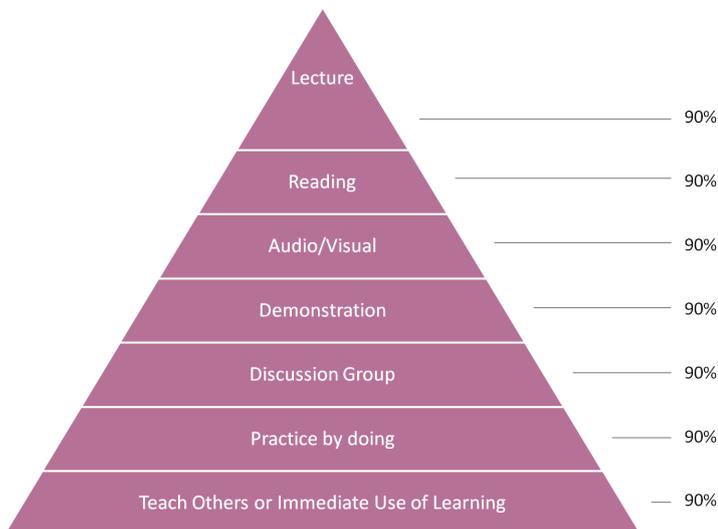
### Pedagogy

Learning-by-doing also links to Kolb's cycle of experiential learning, as depicted below.



Graphic adapted from Kolb's Cycle of experiential learning

It was later developed to become the much known 'Learning Pyramid', referring to retention rates for different methods of learning. As can be seen by the reverse pyramid below, the only way people really absorb learning is by doing it.



Graphics adapted from the learning pyramid, National Training Laboratories, Bethel, Maine



Allen, K.R. (2007) *Growing and Managing a Small Business: An Entrepreneurial Perspective*, 2nd Ed. University of Southern California, 2nd.



Buskirk, B. and Lavik, M. (2004) *Entrepreneurial Marketing: Real Stories and Survival Strategies*, New York: Thomson.



Bygrave, Z. (Ed). (2011) *Study Guide for Entrepreneurship*. New York: Cram101.



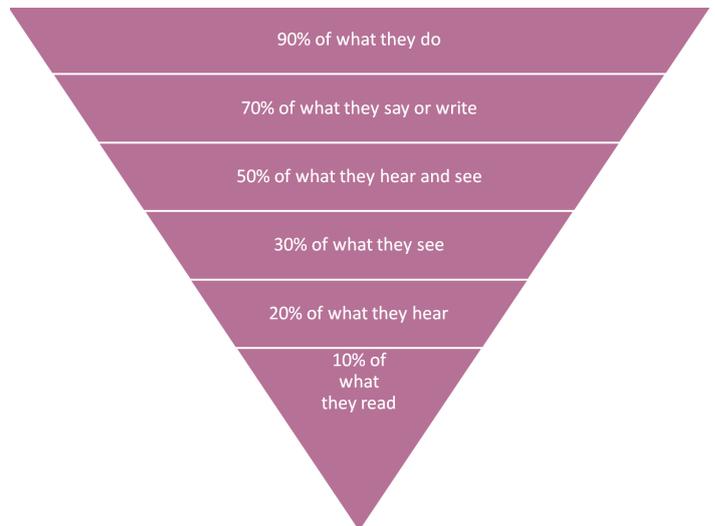
Fayolle, A. (2007) *Handbook of Research in Entrepreneurship Education: A Contextual Perspective*. New York: Edward Elgar.



Sahlman, W.A. (Ed). (1999) *The Entrepreneurial Venture: readings selected*. Rutgers University Press.

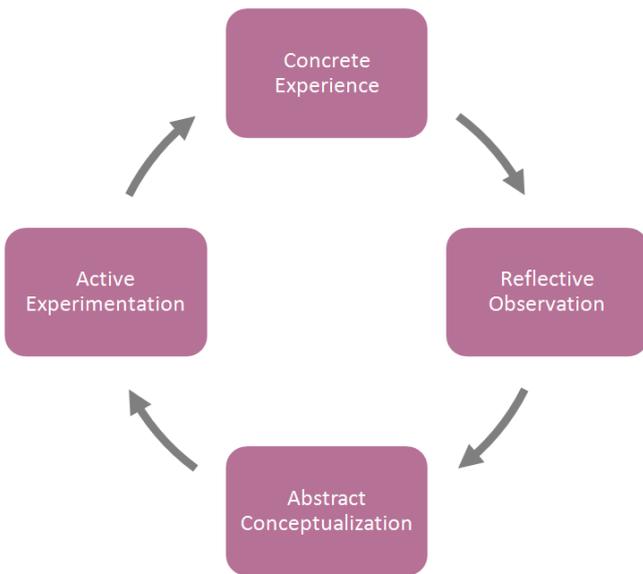


Timmons, J.A. (1985) *New Venture Creation: Entrepreneurship for the 21st Century*. New York: McGraw Hill.



### Learning Aims and Outcomes

The learning aims and outcomes of the MEI degree are set out for each of its 12 courses, and are always a combination of the intellectual grasp and proper utilisation of the course content, combined with one or more proof-of-concept application exercise(s). Generally, ISEMI described the learning aims and outcomes of its students as a 'successful



Graphics borrowing from the learning pyramid, National Training Laboratories, Bethel, Maine

venture; be it a high-tech startup, an improvement to an existing enterprise, or a social venture. It has often been said that 'success' at ISEMI is shown by the student's bank account and their contribution to society, rather than by the diploma on the wall.

## The Learning Experience

Relevance:

The aim of the program was to give the students assignments that are relevant, either to their current business ventures or to the ventures they aspire to establish.

Experience-based student ventures:

Students work in teams, with different specialisations and strengths within the team (as in a real business) so they can simulate real life experience to the maximum.

The Student as a Client:

As most of the students are in mid-life and mid-career, and inevitably have to miss between 10-20% of classes (in Israel, this is also because of wars and reserve service), a video recording is made of every class, which the students can view in their free time.

Our teaching was structured around the following elements:

- Real life research into every aspect of the proposed venture.
- Using theory as building blocks for applied learning.
- Having the students present at least twice in every course, in front of a qualified audience of entrepre-

- neurs, venture capitalists, economists, etc.

Having mixed evaluations by both practitioners and academics.

## Lessons learnt

Over the last three decades, we have delivered entrepreneurship courses in various ways. Class sizes ranged between 20 – 40 students. Groups had between 3 – 6 members. We discovered that the more entrepreneurial the student, the less they are inclined to use theory, as they prefer to go out and 'do it'. We try to hold onto them until the end of the course, which is not always possible.

The biggest challenge we faced were the more academically inclined students, who in some cases did not fully espouse this way of teaching, as it actually demanded much more work than a regular academic course!



## Resources

To find out more about 'learning-by-doing', please take a look at our online compendium of learning materials and search for 'learning-by-doing'.

You may also find the following videos helpful:

United Kills Guitars <https://www.youtube.com/watch?v=5YGc4zOqozo>

At ISEMI, we use this video for a multitude of topics. In the context of 'Learning-by-Doing', we break this video into several sections, asking the students to guess what happened next. This way, they realise that the traditional, formal method of action is ineffective, whereas a cleverly designed action (doing), based on research into the interests of the other side (learning), brings tremendous results!



Dr. Liora Katzenstein

ISEMI College, Israel

Over the last two decades, I have been involved with hundreds of early-stage technology enterprises. My role has been that of an investor, advisor, active board member, and founder of a number of successful ventures. As founder of Forum International (an Israeli business development consultancy), I have been 5 actively involved in establishing strategic partnerships between Israeli companies and firms in Asia and the US, and providing strategic advice as well as fund-raising for technology start-ups. As a partner in Consulta Associates, an international consulting firm with an active network of affiliates in North America, Europe, and the Far East, I assisted companies in evaluating and entering the Israeli market. My main academic focus since the early 1980s has been Entrepreneurship Education. In addition to numerous publications, I have lectured widely on this topic at many universities and management training insti-

tutions, leading public enterprises, and major technology based corporations worldwide. Since 1996, I have served as the Founding President of ISEMI – The Institute for the Study of Entrepreneurship and Management of Innovation. As head of ISEMI's founding team, I led the initiative of liaising with Swinburne University of Technology in teaching its Masters of Entrepreneurship and Innovation (MEI). I hold a Masters in Law and Diplomacy from Tufts University, and a PhD in International Economics from the Graduate Institute of International Studies at the University of Geneva. I was awarded a visiting doctoral scholarship to the Harvard Graduate School of Business Administration, where I served as a teaching and research assistant. Since the early 90s, I have served on over 30 public and private company boards worldwide.

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Mr. Amos Eiran

Amos Eiran has been a major presence in the business, financial, and political realm in Israel and the United States for more than 40 years. After decades in government, academia and business, Amos is currently focusing his energies on academic endeavors as well as serving on the boards of major companies worldwide. Amos holds a BA from the American University in Washington, DC, an MA from Tel Aviv University, a Diploma in Industrial Relations from the Graduate School of Business Administration at Harvard University, as well as a Diploma in Institutional Investments from the Wharton Business School, University of Pennsylva-

nia. Mr. Eiran has served as president of Haifa University, and currently serves as a member of the Board of Governors of Netanya College and Ben-Gurion University of the Negev. He has held numerous appointments as a senior guest lecturer in major universities worldwide, where he dealt with world economic and financial issues. He often participates as an invited commentator on Israeli TV and radio, evaluating political and economic developments. Previously, Mr. Eiran held prominent government positions as the Director General of the Prime Minister.

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