A Proposal to Investigate Solutions to Increase Innovative Product Development of Students at Bilkent University

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Introduction

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- The innovative approach towards education is lacking in Turkey, no matter the quality of education that students receive.
- From primary school to university, students have been regularly tested with more than 800 exams [1] and this lead them to memorize things rather than learning.

Introduction

- Turkey needs innovation in the information century, and there is no better place than Universities for producing innovation. The impact of innovation can be observed via the well-developed countries [2].
- Bilkent Faculty of Engineering has a great reputation, and this faculty should take place at the forefront of innovation in Turkey.

Problem Definition

Problem Definition

- At Bilkent University, there is excellence in theoretical learning and practical learning. Students are expected to perform in Lab courses and conduct internships, which is usually the peak of practice for a university student.
- The universities throughout the world offer technology and innovation labs for students, where they have given the opportunity work with scientists and students from other fields to make their projects become real life products.

Problem Definition

The problem that I try to provide a solution for is the lack of innovative approach through education at Bilkent University.

Proposed Solutions

Innovative Courses

- The underlying skills, tools and technologies to develop products are thought at Bilkent University by high quality faculty members.
- Some non-technical problems cannot be solved by using university learning outcomes such as building a business model, establishing a company, reaching to customers and building a team etc.

Figure 1: Stanford University

- Stanford University, which is ranked as the 3rd best university in the world [3], solves these problems by offering an Innovation and Entrepreneurship program which offers courses on design thinking, business planning, leadership, customer empathy and collaboration by Stanford faculty and industry experts with deep experience driving innovation and disruption [4].

Stanford University

- Building Business Models, Cultivating the Entrepreneurial Mindset, Demand Creation: The Secrets of Driving Growth, The Power of Stories to Fuel Innovation, Leading Collaborative Teams and Product Marketing Essentials are some courses offered by Stanford University [4].
- **To improve the entrepreneurship skills of Bilkent Engineering students, similar courses can be offered at Bilkent University so that students can gain essential skills to launch their own ventures.**

Innovation Lab

- The collaboration of scholars, graduate and undergraduate students are significant to develop projects and conduct researches.
- These labs can be managed by professors and students can provide new ideas to develop or attend to existing projects of professors or other students in the fast paced university environment.

New York University Game Innovation Lab

Figure 2: New York University

New York University, which is ranked as the 27th best university in the world [3], has a Game Innovation Lab (GIL) which brings together faculty and students who are focused on engineering side of games [5].

New York University Game Innovation Lab

GIL has funded by Yahoo Research, Microsoft Research, Bell Labs, and the National Science Foundation [5]. **This collaboration can improve students' technical expertise by working with faculty and provide engineering students with an environment for innovation.**

Northeastern University Law Innovation Lab

Figure 3: Northeastern University

Northeastern University, which is the 8th most innovative university in the world [6], has a School of Law Innovation Lab which provides law, engineering and other students with an environment which can solve law related problems with technology [7].

Innovation Lab

A lab with engineering faculty members and a collaborative lab with other disciplines can be an opportunity for students to enhance their problem solving skills and build innovative products.

Funding

- Funding can be accepted as one of the most significant part of the startups since 82% of startups fail because of cash flow problems [8].
- 77% of startup founders rely on personal savings for their initial funds [8] which is a significant problem for university students since generally students does not have much personal savings to fund and operate their own ventures.

University of California, Berkeley

Figure 4: University of California Berkeley

University of California (UC), Berkeley, which is the 15th best university in the world [3], has a program called Startup@Berkeley to connect student entrepreneurs with UC Berkeley's startup ecosystem [9].

University of California, Berkeley

1. The House Fund funds Berkeley students and faculties up to $250,000 [10].
2. Dorm Room Fund gives $20,000 to Berkeley students' startups and until now they have invested in 200 startups who have raised $400 million [11].
3. Berkeley SkyDeck Funding buys 5% of the students' startup with $100,000 [12].

Funding

Bilkent University can use one of the examples like UC Berkeley to encourage Bilkent students to launch their own ventures and become a part of the funding cycle when their startups earn money.

Criteria for Assessing Proposed Solutions

Effectiveness

Effectiveness of each solution is investigated and compared to find the most effective solution. The objective of this criteria is finding the solution which produces more innovation.

Sustainability

Sustainability of each solution is investigated and compared to find the most sustainable solution. The objective of this criteria is finding the solution which produces more sustainable innovation.

Cost

Cost of each solution is investigated and compared to find the cheapest solution. The objective of this criteria is finding the solution which produces innovation cheaper.

Proposed Research Methodology

Proposed Research Methodology

- Web research
- Academic papers

References

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