

Final Course Project

SEE Pathway: Redefining Higher Education in Azerbaijan

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LDES 503: University as a Design Problem

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The Problem (H1):

What is the problem, and what makes the problem wicked? What is the dominant paradigm for this problem (“business as usual”)? What makes the current paradigm no longer “fit the purpose”?

The final paper sheds light on the wicked problem, calling for necessary enhancements, and presents a visionary outlook toward an alternative paradigm and transformative framework for higher education transitions in Azerbaijan.

A challenging issue and dominant paradigm confronting Azerbaijan's education system is the perception that **universities serve primarily as credential degree-providing entities rather than institutions dedicated to fostering learning, personal growth, and skill development among students**. This problem, commonly regarded as a wicked problem due to its multifaceted and complex nature, requires a holistic approach to identifying and implementing practical solutions that address the underlying causes of this issue, which is no longer fit for purpose.

There are two main factors behind this wicked problem, which are given below with explanations:

1. Young Azerbaijanis do not pursue their academic aspirations and personal interests in their chosen fields of study.
2. The academic environment and the quality of the education at the institution selected among available options fall short of meeting the expectations of both students and employers hiring them after graduation.

The first factor behind the wicked problem is a mismatch between the desired and actual fields of study in the Azerbaijani youth pursuing their education. There are several reasons behind this, such as:

➤ ***The cultural emphasis on formal qualifications (Gender-segregated elections)***

As Azerbaijan is a post-soviet country, the legacy of the Soviet era still permeates Azerbaijani society, influencing various aspects of life, from the economy to culture and education. During the Soviet period, higher education was widely accessible and highly regarded, as it was centrally funded by the state. The educational system was heavily centralized, with strict state

control over universities, structured around specialized departments emphasizing technical and scientific subjects. The curriculum focused on meeting the needs of the Soviet economy, with limited attention given to liberal arts or social sciences. Also, the organizational structure of higher education was divided among the different sectors of the national economy. (Suleymanov, T,2020). Consequently, a cultural legacy has persisted from this era, whereby obtaining a primary education and a diploma is seen as a fundamental goal, even if it does not align with one's interests or passions. On a micro level, there is still psychological pressure from family and society to obtain a university diploma, regardless of the field of study. Gender-segregated selections based on specialization and education are still part of societal values.

Consequently, certain professions, such as policing, military service, and piloting, are perceived as more suitable for men, who are often discouraged by arts and social sciences. Such perceptions steer young people towards prestigious universities despite the psychological impact of suppressing their desires in favor of meeting societal expectations. This often results in individuals attending educational institutions to obtain a diploma rather than gain knowledge.

➤ ***Specialized education field (specialty groups)***

In Azerbaijan, for the university admission process, students should first choose specialty groups from the ninth class and use private tutoring services to prepare for the rigorous admission exam. Until 2015, there were four specialty groups, each with four subjects. Then, authorities changed it to five specialty groups, each having five subjects. Below are the specialty groups and the respective subjects:

1. STEM

- Physics
- Mathematics
- Azerbaijani language
- Foreign language
- Chemistry

2. Business and Management

- Mathematics
- Azerbaijani language
- Foreign language
- Geography

- History

3. Social Sciences and Humanitarian :

- History
- Azerbaijani language
- Foreign language
- Literature
- Mathematics

4. Health Sciences: (this group is the most difficult one with six subjects in it)

- Azerbaijani language
- Foreign language
- Chemistry
- Biology
- Physics
- Mathematics

5. Arts (added in 2015)

- Mathematics
- Azerbaijani language
- Foreign language
- Aptitude test per chosen direction

In the centralized exam, students should take the standardized test from these subjects in the specialty groups. Thus, a young person who wants to study computer engineering must take a centralized exam for the first specialty group and take an exam in subjects such as physics, mathematics, foreign language, Azerbaijani language, and chemistry. Since these subjects are complex and require additional tutoring services and expenses to prepare for the exam, they may avoid choosing this major even if young people are interested in this field.

➤ Centralized university entry exam

To distance itself from the corrupt Soviet-era university admissions process, Azerbaijan introduced standardized testing in the university admissions process in 1992, becoming the first to do so in the post-Soviet space. The State Commission for Student Admission (SSAC) was established as the major administrative body for these tests. SSAC operates independently from the Ministry of Education (MoE) (now Ministry of Science and Education Republic of

Azerbaijan) and reports directly to the President. Currently, SSAC administers school graduation exams, organizes bachelor's and master's admission exams for both private and public HEIs (Higher Education Institutions), and implements students at HEIs.(H.Isakhanli, A.Pashayeva, 2018). This centralized university entry exam and standardized test make obstacles for the young generation. Instead of preparing for these exams for over two years, they prefer to apply to universities in countries with a less rigorous admission system. As a result, many young Azerbaijanis have chosen to study abroad or have turned to online platforms for tertiary education.

Consequently, the interest in pursuing higher education at Azerbaijani universities has been waning. According to the UNESCO Institute for Statistics, Azerbaijan has scored the lowest post-secondary (tertiary) education enrollment rate compared to other countries in the Caucasus region and Central Asia, as 77% of Azerbaijanis graduates from school do not enroll in universities. This has been attributed to "the poorly conceived and highly centralized state quota allocation system." (Mammadova, S., Guliyev, F., Wallwork, L. and Azimli, N., 2016.)

Table 1: Gross Enrollment Ratio, Tertiary (%)

	2010	2011	2012	2013	2014
Armenia	50.6	51.0	43.9	43.3	44.3
Azerbaijan	19.3	19.6	20.4	21.4	23.2
Georgia	28.9	31.2	29.2	34.8	39.2
Kazakhstan	46.0	48.5	51.3	50.1	48.5

Source: UIS.Stat, UNESCO

➤ ***State financing of priority specialties***

So, in Azerbaijan, obtaining higher education and admission to universities involves taking a centralized exam, which determines the government's allocation of educational funds to students. Consequently, the Azerbaijani youth may experience limitations in their freedom of choice when **selecting academic disciplines** as they are compelled to opt for fields that align with the government's budgetary priorities. For instance, a student interested in studying archaeology may face limited opportunities to pursue such interests and may have to turn to the options for which the government provides more funds. Such circumstances may lead students to prioritize obtaining higher education primarily for securing a diploma rather than pursuing their educational interests or gaining in-depth knowledge.

The second contributing factor to the current state of a wicked problem is that *the academic environment and the quality of the education at the institution selected among available options fall short of meeting the expectations of both students and employers hiring them after graduation.*

Presently, Azerbaijani higher education institutions emphasize supplying the labor market with more educated resources in line with **society's demand** (Azerbaijan State Program Document) rather than focusing on diversity and freedom of choice. Consequently, though completing four years of university, students still need emotional and intellectual support to enter the workforce. The prevalence of outdated facilities, inadequate resources, and subpar teaching standards in many Azerbaijani universities may lead to a lack of readiness among graduates entering the job market, hampering the nation's capacity to compete globally. It needs much attention and development as postgraduate programs do not provide students with the professionalism they need to become more specialized in their field (Z.Asadova, 2019).

Despite being enthusiastically admitted to the university, students gradually lose interest in educational institutions as they lack the desired educational environment, resulting in a shift towards solely completing their studies and attaining a diploma.

There are several reasons behind this, such as:

➤ ***Lack of academic freedom (tight control over the university curriculum)***

The Azerbaijani government continues to adhere to the previously used **top-down approach**, which maintains **tight control over the university curriculum (lack of academic freedom), study programs, and admissions plan and limits the ability of universities to offer courses that are critical of the government or that promote political dissent.** Consequently, this approach has limited the availability of diverse intellectual perspectives and worldviews within the country's higher education system.

Per a survey conducted among 573 undergraduate students of the Azerbaijan State University of Economics, a significant proportion (40.4%) of students believe that the subjects currently taught at the university do not satisfy their academic needs and aspirations, but even the demands of the current job market. Moreover, the inclusion of subjects such as Azerbaijan history, mathematics,

and Azerbaijani grammar in the curriculum for economics students, which were extensively covered in their primary education, necessitates revision in favor of more pertinent subjects, such as business and general psychology, philosophy, sports, foreign languages, financial (personal budget) and computer literacy, and soft skills (including leadership and communication skills).

➤ ***Lack of funding***

Azerbaijan is a resource-rich country, and the oil and gas sector comprises a significant part of the economy. The oil sector's share in the state budget has reached 78% and accounts for 65% of GDP, with oil and gas products making up more than 92% of exports. Despite the economy's growth, education funding did not keep pace with the overall economic improvements: the GDP allocated to education was 2.5% in 2013, with just 0.2% apportioned to higher education and science. This lack of resources led to lower quality at all levels of education. (H.Isakhanli, A.Pashayeva, 2018) . According to the UNICEF's National Budget Brief report, the government spends only a tiny portion of its budget on education. The proportion of education in state budget allocations by sectors is 13 percent for 2022. As a result, universities struggle to attract and retain qualified faculty and provide students with the resources they need to succeed. Ultimately, Azerbaijani universities cannot act as reliable sources of knowledge due to the uneven quality of education.

Simultaneously, the inadequate allocation of financial resources within the realm of education hampers the progress and accessibility of the resources mentioned above:

➤ ***Lack of CTLs at the universities***

➤ ***Lack of campus environment (residential buildings) and recreational resources for students***

➤ ***Lack of resources (online library, textbooks in Azerbaijan)***

The Shift (H3):

What is needed for improvement and meaningful change? What is the vision of an alternate paradigm (“From this to what”?)

Per the dominant paradigm, educational institutions in their present state only function as credentialing bodies rather than as holistic learning environments. However, in the future, maintaining the role of universities as exclusive and credible credentials providers is crucial in

preventing the emergence of substandard institutions that offer degrees through online courses and boot camps, where the quality of education needs to be adequately regulated and evaluated.

With this growing trend, the main aim of the alternative paradigm is to preserve the supremacy and importance of the university environment in Azerbaijan. We must change the role and prestige of the university and turn it into an institution that focuses on the global citizen with a sense of social consciousness and environmental awareness and develops skills and knowledge needed to navigate a global society implementing holistic education approaches.

In transitioning to an alternative paradigm, the university's role must change from a credential-providing organization to a transformational organization that helps society develop social, emotional, and environmentally conscious human beings. (Chun, E., & Evans, A., 2016)

Through the establishment of a holistic educational ecosystem within Azerbaijan, state universities have the potential to redefine their current role within the dominant paradigm. By transforming into dependable hubs of resources and research, these institutions can actively conduct investigations, studies, and proactive measures to address and mitigate social and environmental challenges affecting society and the country.

In the alternative paradigm, international, non-government, and civil society organizations will not struggle in Azerbaijan to conduct social and environmental research, training, and development activities. University environments will be open, holistic education spaces where they can train, and the young generation will help them spread this information through social media and other platforms. By involving them in this process, they will save time and get theoretical and practical knowledge that helps them learn and understand more deeply.

The Transition (H2):

What would effectively accelerate new behavior patterns and change around this problem?

How would you think about transitions in light of competing interests and constraints?

Several reasons effectively accelerate **new behavior patterns and change around this wicked problem, such as:**

- Access of the Azerbaijani youth to opportunities to study abroad
- The increasing number of short-term boot camps and online degree programs from overseas
- Increasing number of workplace training centers (life-long learning)
- Gender inequality
- Human rights problem
- Environmental Problems in Azerbaijan

Environmental issues are one of the current challenges for Azerbaijan. Industrial pollution emerged in the 1870s with the expansion of oil exploration operations in Baku and surrounding areas, reaching a larger scale in some places during the following periods. With the development of other industrial sectors, transport, and agriculture during the Soviet era, environmental pollution reached a larger scale in some places. The lack of public information on environmental pollution during the Soviet period, the passiveness of non-governmental organizations, the absence of environmental awareness, and the lack of sufficient government attention towards the environment made it difficult to solve these problems. (G.Bayramli, 2019)

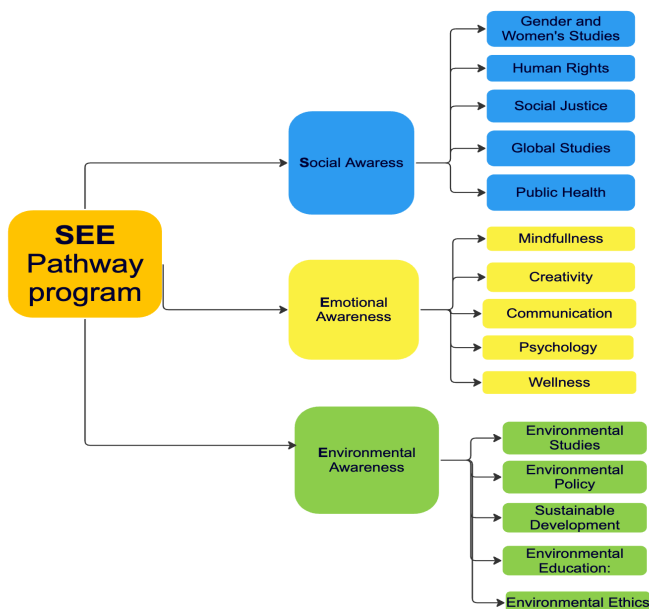
As there was no environmental awareness culture, today's Azerbaijan struggles to overcome some ecological issues alone. Therefore, it is crucial to include environmental awareness subjects such as Environmental Studies, Policies, Ethics, and Environmental education in the university curriculum to raise environmental awareness among the young generation.

Education must be pivotal in radically reconfiguring our place and agency within this interdependent world. This requires a complete paradigm shift: from learning about the world, acting upon it, and learning to become with the world around us. Our future survival depends on our capacity to make this shift. (Taylor, A., Silova, I., Pacini-Ketchabaw, V., & Blaise, M. 2020)

To do this, the first step is to create the "SEE Pathway" program at the universities through which, in the first year of education year, students will learn soft skills like communication, time management, emotional intelligence, stress management, leadership skills, self-awareness, teamwork, and gain financial literacy to navigate in the current world. One of the aims of the "The SEE Pathway" program will be to help students understand themselves, their passion, and their interests and, after that, choose a field of specialty. SEE Pathway program is Social,

Emotional, and Environmental Awareness; each direction contains five subject blocks, which can be integrated into the curriculum system of higher education regardless of the field of study in the first year of schooling. This Pathway Program will help increase social consciousness and environmental awareness and develop the skills and knowledge needed to navigate a global society.

SEE Pathway Program



By teaching these subjects in higher education, students can better understand important social issues and acquire the knowledge and skills to create positive change in their communities and the world. With the Emotional Awareness block of SEE Pathway, program participants can develop a greater sense of emotional awareness, which can help them manage their emotions, improve their relationships with others, and enhance their overall well-being.

Through instruction on the subjects as in the Environmental Awareness block above within higher education, learners may acquire a more profound comprehension of ecological dilemmas and learn how to promote a more sustainable future. They can also gain the knowledge and skills needed to make informed decisions about environmental issues and take action to protect the environment.

It is imperative for individuals employed in the educational sector operating within Azerbaijan to alter their perspective as they are not merely imparting knowledge and skills to prepare the youth

for the local workforce but rather nurturing the growth of a global citizen. Such a shift in mindset is crucial to help students develop a broader perspective, engage with diverse cultures, and become conscious of their global responsibilities. This entails creating a holistic educational environment that facilitates the development of self-awareness, emotional intelligence, and a sense of purpose in students, such that the knowledge they acquire enables them to engage more meaningfully with their social and environmental surroundings.

The Azerbaijan State University of Economics (UNEC) is presently offering a Soft Skills course that aims to equip first-year students in finance and business with a range of skills that are pivotal for the transition to the Alternative Paradigm. The course covers eight key topics: Self-Awareness, Emotional Intelligence, Communication Skills, Leadership and Teamwork Skills, time management, Thinking Skills, Public Speaking (Body Language and Presentation Skills), and Stress Management. In the previous academic year, I undertook the redesign of this course as part of my Methods of Learning and Design project. This involved conducting research, analyzing data, and developing assessment methods, learning objectives, delivery strategies, and subject content. The university has implemented some aspects of the redesigned course since the spring semester.

According to estimates from the World Economic Forum, 65 percent of children starting primary education today will not work in the professions currently available in the future. Acknowledging that the university environment can no longer solely appeal to Generation Z and Alpha to produce a labor force for the job market and economy is crucial. The new generation graduating from the same field as their parents and taking away the freedom of choice in education will decrease interest in universities shortly. We are witnessing a trend where young Azerbaijanis prefer short-term boot camps, online courses, studying abroad, and programs over studying at traditional universities in Azerbaijan, which are the fundamental external forces for creating change.

One potential approach to enhancing education in Azerbaijan is through effective interventions, such as professional development opportunities, evidence-based teaching strategies, and the adoption of successful education models from other nations. In light of the current disruptive forces and the imperative to move towards a Holistic Education framework, universities should

prioritize their faculty's professional development as a starting point, and public and private enterprises should reduce the emphasis on credential-based requirements during recruitment. Therefore, the experienced business sphere in Azerbaijan requires individuals to hold diplomas, including master's degrees, as a prerequisite for employment in finance and government organizations. This creates barriers for graduates without these credentials, making the need for a diploma inevitable.

Fostering collaboration between these business sectors and universities can equip graduates with the necessary skills, knowledge, and resources to thrive professionally instead of creating a diploma barrier.

This partnership can encompass various forms of support, including financial assistance through scholarships, internships, or sponsorships for research projects. Additionally, businesses can engage with universities by providing guest lectures, industry-specific training programs, and mentorship opportunities. By doing so, they can help shape the curriculum to align with industry demands, ensuring that graduates are well-prepared and market-ready.

Moreover, this collaboration can extend beyond the immediate benefits of financial aid and skill development. By actively involving themselves in the education system, businesses can tap into a pool of talented individuals with a global perspective, cultural diversity, and innovative thinking. Armed with a broad range of skills and experiences, these graduates can become valuable assets for local and international companies operating in Azerbaijan.

Such cooperation between professional businesses and universities can ultimately establish a symbiotic relationship, benefiting both parties. While enterprises gain access to a skilled and diverse talent pool, universities receive vital support that enhances their educational offerings and prepares students for the real-world challenges they will face upon graduation. This collaborative approach empowers individual graduates and contributes to the overall growth and prosperity of Azerbaijan's economy and society.

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