

Phenomenology of virtual education culture in the Iranian higher education

Abstract

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This qualitative phenomenological study explored the culture of virtual education in Iranian higher education, focusing on the lived experiences of 31 professors and students. Employing structured interviews and thematic analysis, the research identified one overarching theme and six primary subcultures: interaction and communication, scientific and academic processes, emotional dynamics, exclusion, acceptance, and neutrality. The findings revealed that virtual education reshapes traditional academic norms by enabling wider scientific communication, reducing knowledge monopolies, and increasing collaboration across institutions. However, challenges such as diminished emotional connections, weakened academic commitment, increased superficial learning, and reduced in-person engagement also emerge. Students' and professors' attitudes toward virtual education varied, ranging from full acceptance to indifference. These orientations are influenced by personal values, learning styles, technological familiarity, and institutional support. While virtual education fosters academic freedom and access, it simultaneously disrupts emotional and spatial dimensions of learning environments. The study concludes that understanding the cultural dimensions of virtual education is crucial for policymakers and educators to enhance its effectiveness. Tailoring educational planning to account for emotional, structural, and communicative factors will be essential in ensuring the long-term sustainability and equity of virtual education in higher education contexts.

Key Words: Higher Education, Phenomenology, Virtual Education Culture

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1. Introduction

The relationship between culture and curriculum is a topic that has become the common thread of many experts in the field of curriculum in the last few decades (Banks, 2018). Some experts consider curriculum and culture as the cause and effect of each other (MacDonald et al., 2023), and some theorists consider culture and curriculum as two inseparable elements (Yang & Li, 2022). Today, learning and teaching is considered a cultural phenomenon from the perspective of theorists and researchers. In fact, the curriculum is a reflection of cultural beliefs, folk traditions, values and moral and political organizations of the society (Sadeghi, 2012). In other words, curriculum can be considered an extract from society (Finn et al., 2022). Therefore, understanding culture is very important in this field (Ke et al., 2023).

In order to understand this relationship, culture must first be defined. In this context, several definitions of culture have been presented. Damen (2017) considers culture to be learned and shared human patterns or models for living and daily life that have penetrated all dimensions of human social interactions. He defines culture as the basic human adaptation mechanisms. Abbasi et al. (2020) consider culture as common group norms in a society. Wormley et al. (2021) define culture as a set of habits, beliefs and rules. Kuper (2018) does not consider culture as artifacts, tools and other objective cultural elements, but rather how group members interact and use these tools and artifacts. He believes that values, symbols, interpretations and views are what distinguish one nation from another in today's modern society, not objects and other objective dimensions of human societies. Muminova (2021) refers to the three dimensions of interaction, sharing and compatibility as the main elements in culture. Gorski (2016) gives an expanded definition of expressive culture. He believes that culture is a complex whole consisting of knowledge, belief, art, ethics, law, customs and any other type of habit and characteristic acquired by humans as a member of society. Culture, as a mediator in the direction of transferring different values and attitudes to learners, facilitates the opportunity to achieve education and learn the curriculum. Grant (2019) considers culture to be patterns derived from thinking and behavior that are passed from one generation to the next. Hopkins (2016) considers culture as a systematic system of symbols and meanings according to which social interactions take place. In any case, due to the

increasing expansion of culture in all dimensions of human life, all issues are viewed from this cultural framework.

As in education and in the field of curriculum, the cultural approach can be considered in such a way that the design, implementation and evaluation of courses can only be done successfully if all the processes of design, implementation and evaluation of courses take into account the social context (Fazeli, 2016). In fact, all aspects of the curriculum reflect culture; culture and curriculum are containers of each other (Hawa and Goa, 2021). As Sadeghi (2012) has mentioned, culture is a mirror to describe and interpret the curriculum in several cases and explains that using a cultural perspective makes us see the curriculum not only as a goal (content), but also as a set of intertwined dynamics. Conceptualizing the curriculum as culture allows us to be more aware of belief systems, values, behaviors, language, artistic expressions, educational environment, power relations, and most importantly, the norms that are the basis of our interpretation of the right and wrong things to be sensitive. Therefore, paying attention to the relationship between the curriculum and culture makes the curriculum closer to the real experiences of the learners, which provides the basis for learning and, as a result, effective education. Curriculum culture also means basically beliefs about the teaching-learning process (Kim, 2018).

Apart from the definition of culture in traditional and formal education, it seems that paying attention to the culture of education with regard to new technologies has become an important issue in the curriculum. New technologies have led to a special kind of culture. Paying attention to these technologies and the culture that emerges from them in teaching and education is one of the necessities of the present era (Matusov, 2023). Virtual education with the slogan of education centers is closed, but education is not closed created huge changes in the education system and moved education from face-to-face to virtual and integrated (Jenkins, 2013). Access to social and communication networks and the emergence of the information society have led universities and schools to train individuals who are simultaneously compatible with the goals, missions, and information mechanisms and, on the other hand, are its promoters (Harbison & Rex, 2010). Therefore, some universities and schools, realizing the importance of this issue, gradually encourage their students to enter virtual environments. According to the results

of a study by Hawkins (2019), more than 97% of American universities and 95% of British universities and higher education institutions use virtual learning environments. Also, in some countries such as America, Canada, Australia, and England, every student is required to take at least two lessons of their academic courses virtually. Therefore, it is clear and obvious that with the help of information technologies based on the Internet, a huge revolution has been created in learning (Paudyal, 2020; Perso, 2012). Such a revolution has led to efforts at all levels of education, including higher education (Peters, 2016).

This issue has put higher education institutions under severe pressure to provide virtual and online courses (Jenkins, 2013; Lombardi, 2013, Pappano, 2012). One of the techniques of online education is virtual education (Erdogan, 2018). In virtual education, learners are able to determine their learning speed according to their abilities and achieve educational goals (Saif, 2015). Virtual education is the connection point between distance education and education based on Internet technologies (Hua & Gao, 2021). In other words, virtual education can be defined as an educational program based on multimedia facilities that uses Internet resources to create a meaningful learning environment, to provide growth and support for learning (Edmundson, 2013). Virtual education is a well-known tool for storing, presenting, collecting, sharing, processing and using information. Virtual education has many advantages for learning (Kim, 2018). Virtual education is focused on providing course content online and includes a variety of multimedia facilities such as visual, audio, drawing, demonstration, animation and video. (Grothaus, 2022). In virtual education, it is possible to present courses in a multimedia environment (Yang & Li, 2022). In addition, access to materials and content is available at any time and place (Damen, 2017). One of the distinctive features of virtual education is its repeatability in the sense that it can be repeated many times so that the learner can fully achieve the predetermined goals (Hua & Gao 2021). Further, it is easy for students to access professors and other students in this type of education (Christudas et al., 2018).

These affordances have led to the formation of a special atmosphere in virtual education, so, due to its breadth and scope and the simultaneous presence of students from different geographical locations, cultures, backgrounds and interests, virtual education provides many challenges and opportunities (Macleod et al, 2015). With the

movement of students towards virtual education (Nesterko & Glaesmer., 2016) and the increase of virtual education courses, a special type of learning communities is being formed that never existed before (van Breda-Verduijn & Heijboer, 2016). In virtual education, the way of interactions between different elements of learning is completely different from conventional and traditional ones (Du et al., 2023). In other words, virtual education is changing the way of learning by providing a special kind of learning culture (Christudas et al., 2018). Xiaojun and Peng (2010) believe that such a culture affects the way people think and their behavioral patterns by changing their attitudes. Such a culture requires a unique adaptation in learners due to its special pedagogy (Mathiasen, 2015). For example, in virtual education, the way of interaction between educational elements, including the instructor and the learner, is completely different from traditional education and is more focused on the individualization of the learning process (Gasparini et al., 2012; Mirza & Chatterjee, 2012).

Therefore, understanding the atmosphere of virtual education and the culture of this type of education requires paying attention to some specific indicators. In this type of education, paying attention to the individualization of the content and on cooperative learning are two of the main indicators of the learning culture (Swierczek & Bechter, 2010). Therefore, one of the characteristics of the learning culture in virtual education is to pay attention to the preferences of the learners. In this type of education, the correspondence between content and learners' preferences is very important (Christudas et al., 2018). The next indicator of the learning culture of virtual education is related to the format and shape of the content, the content in virtual education occurs in various formats including text, text-image, video, image or a combination of these (Christudas et al., 2018). In fact, virtual education tries to facilitate learning experiences by providing different forms of content (Limperos et al., 2015). Another indicator is the way of teaching and presenting the content. In virtual education, teaching is based on the background of the learners and the learning style of the learners, their motivation and expectations are taken into consideration (Sfenrianto et al., 2014; Yang and Chang, 2013).

According to the above indicators, the culture of virtual education can be defined as the behaviors, methods and how learners engage with the Internet and technology as a part of the learning process (Collins & Halverson, 2009). Therefore, the culture of virtual

education should be sought in the use of technology and the Internet in learning (Nussbaum, 2013). Because in this type of education, the use of technology and the Internet have a direct relationship with the learning skills of the learners (Kljunić & Vukovac, 2015). In addition, the manner of interaction and personality of learners in virtual education is also affected by the special atmosphere of this type of education (Stachl et al., 2017). For example, Kolikant (2019) believes that in virtual education, the use of technology and the Internet brings two aspects of seriousness and entertainment together for learners.

Many studies have been conducted on virtual education, which indicate that the style and method of learning have undergone fundamental changes with the emergence and spread of virtual education (Boswell et al, 2024; Christudas et al., 2018, Akinkuolie & Shortt, 2021; Karimi, 2021; Kazempour et al., 2021; Qoraishi-Khorasgani, 2022). In other words, changes have occurred in learners and instructors that did not exist before virtual education. For example, Boswell (2024) argued that the interactions that occur in virtual education between various educational elements, including the instructor and the learner, have never existed before. Akinkuolie and Shortt (2021), emphasizing the emotional dimension in virtual education, noted that the level of individualism in virtual education is increasing sharply. Elvik and Kenzaro (2021) and Qoraishi-Khorasgani (2022) emphasizing the knowledge dimension in virtual education, remarked that the level of promotion of superficial information in virtual education is increasing. Karimi (2021) and Kazempour et al. (2021) also stated that in virtual education, the preferences and expectations of learners and educators have undergone dramatic changes. In other words, in this type of education, the mere transfer of information is not the issue.

As is clear from the above investigations, each of them has focused on a specific dimension of virtual education; for example, the expectations, knowledge, and emotional dimensions have been examined separately. However, important issues such as the atmosphere governing virtual education have not been given much attention. On the other hand, examining the lived experiences of people involved in virtual education in order to understand them in depth has been sparse. Hence, the study of the culture of virtual education in higher education from three dimension of why learning, how to learn and where to learn are very important (Ming-tso, 2019). Based on the above points, this study

tried to address the following research question:

- What are the characteristics and components of virtual education culture in the Iranian higher education based on the lived experiences of professors and students?

2. Method

2.1. Design

The current research was conducted using qualitative and phenomenological (descriptive) method. The purpose of phenomenological research is to describe life experiences as they happened in life. Streubert & Carpenter (2003) consider phenomenology as a practice whose purpose is to describe specific phenomena or the appearance of things and life experiences. The focus of phenomenology is on life experiences, because these are the experiences that make the meaning of any phenomenon for the individual and reveal the real facts (Haj Bagheri et al., 2017), and because the phenomenological method tries to describe human experiences in the context and context in which they occur and provides the richest and most descriptive information, using this method was suitable for clarification and deep description.

2.2. Participants

The research participants included professors and students who had virtual education experience. The number of participants in the research were 31 professors and students. They were selected based on criterion-based and chain sampling. Based on criterion-based sampling, only professors and students who had the experience of virtual education were selected. The number of samples was determined based on theoretical data saturation; that is, the number of interviews progressed until the researcher's information about the phenomenon was saturated and no other information was added after that. The characteristics of the participants in this research are presented in the following table:

Table 1.*Characteristics of participants of the research*

Number	Field of Study	Education	Gender	Age	Years of experience
1	Sociology	Ph.D	Female	52 years	2 years
2	Family counseling	Ph.D	Female	46 years	4 years
3	Curriculum Development	Ph.D	Male	59 years	3 years
4	Psychology	Ph.D	Male	49 years	2 years
5	Agricultural Engineering	Ph.D	Male	41 years	4 years
6	Electrical Engineering	Ph.D	Female	48 years	3 years
7	Biology	Ph.D	Male	45 years	3 years
8	Geology	Ph.D	Female	62 years	2 years
9	Political Science	Ph.D	Female	55 years	4 years
10	Law	Ph.D	Male	44 years	3 years
11	Physical education	Ph.D	male	53 years	2 years
12	Mathematics	Ph.D	Female	48 years	3 years
13	Industrial Management	Ph.D	Male	61 years	4 years
14	Accounting	Ph.D	Female	47 years	4 years
15	History	Bachelor	Female	21 years	2 years
16	Educational psychology	Bachelor	Female	23 years	1 years
17	Philosophy	Ph.D student	Male	31 years	3 years
18	Computer Engineering	Master	Male	24 years	2 years
19	Geography	Bachelor	Female	20 years	1 years
20	Educational management	Master	Male	25 years	2 years
21	Civil Engineering	Bachelor	Female	21 years	2 years
22	Biology	Bachelor	Female	21 years	1 years
23	Mathematics	Master	Male	26 years	2 years
24	Psychology	Bachelor	Female	20 years	2 years
25	Literature	Ph.D student	Male	27 years	3 years
26	English language teaching	Master	Male	25 years	2 years
27	Political Science	Bachelor	Female	21 years	2 years
28	Law	Ph.D student	Male	28 years	3 years
29	Psychology	Bachelor	Female	20 years	1 years
30	IT Engineering	Master	Male	26 years	2 years
31	Philosophy	Ph.D student	Female	29 years	3 years

2.3. Research Instruments

Structured interviews were used to collect data. Each interview lasted between 35 and 45 minutes. All interviews were conducted in Persian. Some interviews were conducted online and some were conducted in person at the participants' workplaces. The participants' consent was obtained and all of them were assured that their information

would remain confidential. In order to measure the validity of the research, the interview questions were modified and approved by 4 expert professors in the relevant field after they were designed. Also, all interviews were audio recorded. Then, the recorded interviews were carefully listened to by the researcher and translated into English and transcribed verbatim. After the recorded interviews were transcribed, the "peer review" method was used to confirm the validity of the interviews. In this way, the interview transcripts were sent to the participants to confirm the accuracy of the content and to edit it if necessary.

2.4. Data Analysis

Data analysis was done following thematic analysis method. The recorded interviews were listened to carefully by the researcher and transcribed verbatim. After the recorded interviews were transcribed, a "member review" method was used to verify the validity of the interviews. In this way, the transcript of the interview was sent back to the participants to confirm the accuracy and completeness of the content and to correct it if necessary. In the next stage, the data was coded into basic, organizing, and comprehensive themes. In the first stage, the researchers familiarized themselves with the interview texts by reading them. In the second stage, the primary themes (basic themes) were extracted from the interviews. In the third stage, the themes that had the highest frequency (organizing themes) were selected. In the final stage, the researcher tried to categorize the themes (comprehensive themes) based on their similarity.

3. Findings

After analyzing the interview data, one comprehensive theme, six first-level comprehensive themes, 22 second-level organizing themes, and 52 basic themes were identified which will be presented below. As Table 2 indicates, the first comprehensive theme which emerged was "Interaction and Communication Subculture".

Table 2.*Interaction and Communication Subculture*

Interaction and Communication Subculture	The dimension of scientific synergy	- Increasing the volume of scientific interactions - Accelerating scientific interactions - Disappearance of traditional barriers to scientific interactions
	Modification and optimization dimension	- Getting closer to each other within academic circles - Networking between university professors - Increasing interdisciplinary communication within the university
	The dimension of correction and optimization of inter-university scientific communication	- Increasing communication between different universities - Increasing communication between professors of different universities
	The dimension of reforming and optimizing international academic communication	- Increasing international scientific interactions - Accelerating the sharing of knowledge with international scientific societies
	The dimension of modification and optimization of interpersonal scientific communication	- Using new communication methods in scientific discussions - Improving and increasing communication efficiency between professors

Some extracts representing this category are as follows:

Participant No. 3:

In the past, when training was delivered through traditional methods, scientific communication among colleagues was relatively slow. However, with the advent of virtual training, the speed and efficiency of this communication have significantly increased.

Participant No. 7:

If desired, one can quickly connect and engage with extensive scientific networks using a mobile phone or laptop.

Participant No. 11:

In the past, there was limited communication between different university departments. However, virtual education has helped bridge that gap by enabling the

creation of various online platforms, associations, and academic circles that foster closer collaboration across disciplines.

Participant No. 7:

In the past, it was common for professors in each department or faculty to work independently in their own offices. However, with the rise of virtual and online education, these physical boundaries have been removed, leading many professors to engage in interdisciplinary and collaborative projects.

Participant No. 1:

The point I would like to emphasize concerns our own university: the promotion of virtual education has led to the development of a broad and effective connection between our university and other universities across the country.

Participant No. 14:

A key advantage of virtual education is the opportunities it has created for professors across different universities, fostering closer communication between faculty members at both small and large institutions.

Participant No. 6:

A simple comparison of scientific interactions before and after the rise of virtual education in the country's universities reveals a significant increase in international academic collaboration.

Participant No. 9:

Virtual education has facilitated access to international scientific communities, allowing for the easy exchange and sharing of knowledge.

Participant No. 8:

The use of various online systems and tools has enhanced the efficiency and speed of communication among professors, contributing to increased scientific productivity.

Participant No. 13:

By using various online communication tools, you can engage with colleagues anytime and anywhere, enabling real-time discussion of scientific matters.

As indicated in Table 3, the second comprehensive theme which appeared was “Scientific and Academic Processes Subculture”.

Table 3.

Scientific and Academic Processes Subculture

Scientific and Academic Processes Subculture	The dimension of academic commitment	- Decrease in compliance with academic standards and commitments among professors - Increasing the level of knowledge among professors - Increasing plagiarism
	The dimension of knowledge production and teaching implementation	- Improving the teaching process - Improving knowledge production using new methods - Collaborative teaching

A few extracts illustrating this theme are provided below:

Participant No. 10:

Unfortunately, virtual education has led to a diminished emphasis on scientific ethics, and the strong sense of commitment that once prevailed has, to some extent, weakened.

Participant No. 1:

One of the drawbacks of virtual education is the easy availability and repeated use of existing content without prior critical engagement. Some professors repeatedly present material already available online, resulting in little to no contribution of new knowledge.

Participant No. 6:

Virtual education has led to a diminished regard for copyright, resulting in widespread instances of scientific plagiarism.

Participant No. 13:

In traditional education, the primary teaching tool was the textbook, but with the growth of virtual education, a wide variety of teaching tools have become available.

Participant No. 5:

Online training and its associated tools have fostered creativity and synergy in knowledge production, while also accelerating the pace at which new knowledge is generated.

Participant No. 2:

Many professors have begun collaboratively teaching joint courses by forming online groups, which has enhanced the effectiveness of instruction.

“Emotional Subculture in Education” was the third comprehensive theme which emerged from data analysis. Table 4 displays the details of this theme.

Table 4.

Emotional Subculture in Education

Emotional Subculture in Education	Student	- Lack of emotional contact with the professor by the student - A loss of emotional connection between teacher and student
	Faculty Members	- Lack of emotional support among professors - Professors' individual emotional experiences in teaching - Loss of shared emotional connection between professors
	The physical dimension of the university	-The lack of vitality in the university's physical environment - The diminishing significance of the university's physical presence

The following extracts further demonstrate this theme:

Participant No. 7:

The physical presence of the professor in the classroom provides a sense of encouragement and security for students—an aspect that is unfortunately lacking in virtual education.

Participant No. 4:

In face-to-face education, an emotional bond develops between the professor and students, extending beyond academic and cognitive matters. This emotional connection tends to be lost in virtual education.

Participant No. 8:

The physical presence of professors within the faculty and the emotional support they offer each other are very important—yet these elements are largely absent in virtual and online education.

Participant No. 13:

In virtual education, professors often teach alone, isolated in a room. This method diminishes the socio-educational life of the professor, whereas in face-to-face settings, they benefit from the presence and interaction of fellow faculty members.

Participant No. 6:

Years of collaboration among faculty members in face-to-face education foster a shared emotional bond and a kind of emotional language that rarely develops in virtual environments.

Participant No. 10:

The very survival and vitality of a university depend on the physical presence of professors and students. Without them, this life force gradually disappears.

Participant No. 3:

Universities that fully transition to virtual education risk losing their physical and organic identity.

The next comprehensive theme was “Exclusion Subculture” the subcategories of which are presented in Table 5.

Table 5.

Exclusion Subculture

Exclusion Subculture	Student dimension	-Disappearance of student identity -Disappearance of student associations -Disappearance of student academic circles
	The faculty dimension	- Loss of professors' identity - Lack of effective communication and networking between professors - Loss of collaborative scientific projects
	Ideological dimension	-A perspective on virtual education -Strangeness with virtual education

	Structural dimension	-Destruction of the physical structure of the university - one-sided communications
	Learning dimension	-Increase in superficial learning -Increase in academic fraud

Below, a few quotes extracted from the participants' views are shown:

Participant No. 8:

Since the rise of virtual education, students are no longer the same as before. Classes are often not conducted effectively, and examinations lack integrity. The very notion of student identity has come into question.

Participant No. 2:

In the past two or three years, during the spread of COVID-19 and the rise of virtual education, most student associations and academic circles ceased to function, primarily because their activities were rooted in physical presence.

Participant No. 16:

With the growth of virtual education, many professors have shifted their focus to non-academic ventures. Some have become more engaged in business than in teaching or research, which has, in turn, diminished their professional identity.

Participant No. 7:

Virtual education has eliminated face-to-face interactions among professors, and as a result, many spontaneous brainstorming sessions—where some of our most creative research ideas emerged—no longer happen.

Participant No. 11:

In my view, virtual education cannot match the productivity of in-person learning. When comparing the outcomes of both, it's clear to me that face-to-face education yields stronger results.

Participant No. 9:

We need to first establish the necessary principles, rules, and norms for virtual education. Instead, we have jumped into it without proper preparation or understanding.

Participant No. 13:

Virtual education has halted the development and utilization of physical classrooms and university facilities. As a result, many resources remain unused, which is a significant loss.

Participant No. 3:

In a face-to-face classroom, you can easily engage with the instructor and receive immediate feedback. But in an online setting, poor internet connectivity and delayed instructor responses disrupt communication.

Participant No. 10:

Learning through online education is often incomplete and ineffective. Frequent internet disruptions make it difficult to follow the professor's explanations, and many students treat online classes casually, almost like a pastime.

Participant No. 1:

Since the introduction of online learning at universities, academic dishonesty has become widespread. One of my classmates used the same person to take all their exams and even organized a cheating group.

“Acceptance and Accessibility Subculture” was another theme which emerged from the interview data. Table 6 provides a synopsis of this theme and its sub-themes.

Table 6.

Acceptance Subculture

Acceptance Subculture	Scientific dimension	- Promotion of academic freedom - Reduction of academic authoritarianism - Elimination of exploitative academic practices - Removal of unofficial hierarchical influence among faculty members
	Educational dimension	- Enhancement of collaborative learning environments - Facilitation of accessible and transparent academic discourse - Improvement in overall student satisfaction with the learning experience

Example extracts which illustrate this theme are given below:

Participant No. 5:

One important point I'd like to emphasize is that virtual education has expanded academic freedom for both students and professors.

Participant No. 17:

In traditional classrooms, teachers often held excessive authority and saw themselves as the sole academic authorities. Thankfully, virtual education has shown us that there are multiple ways to acquire knowledge, and that teachers are not the only source of insight.

Participant No. 4:

Cyberspace, by its nature, allows large groups to interact simultaneously, which has significantly enhanced collaborative learning in education.

Participant No. 15:

Online education has introduced students to a wide range of educational software and tools. As a result, a shared technical language has emerged among them.

The last comprehensive theme which emerged from data analysis was "Neutrality and Indifference Culture". Table 7 provides details of this theme and its sub-themes.

Table 7.*Neutrality and Indifference Subculture*

Neutrality and Indifference Subculture	Knowledge dimension	- Limited technological literacy - Viewing virtual education as distant or impersonal
	Attitudinal dimension	- Comparable learning outcomes in face-to-face and virtual education - Recognizing the futility of the debate between virtual and face-to-face education - Empowering students to choose their preferred mode of education - Lack of sufficient infrastructure for both virtual and in-person education
	Intellectual dimension	- Condition-based educational planning - Prioritizing the principle of meaningful learning over delivery mode

The following excerpts further explain this theme and its dimensions:

Participant No. 8:

Some students and professors are not very familiar with technology, so the format of education—virtual or in-person—makes little difference to them.

Participant No. 12:

Unfortunately, a negative perception exists among some in our academic community who always view traditional, face-to-face education as superior and believe virtual education should only be used in emergencies.

Participant No. 9:

Whenever I talk to friends about virtual versus in-person education, some always claim there's no real difference between the two and say it doesn't matter which one is implemented.

Participant No. 3:

Some professors and students believe there should be no hierarchy between virtual and face-to-face education because prioritizing one over the other is unproductive.

Participant No. 11:

When there's a lack of educational infrastructure, it doesn't matter whether the mode is virtual or face-to-face—the problem remains the same.

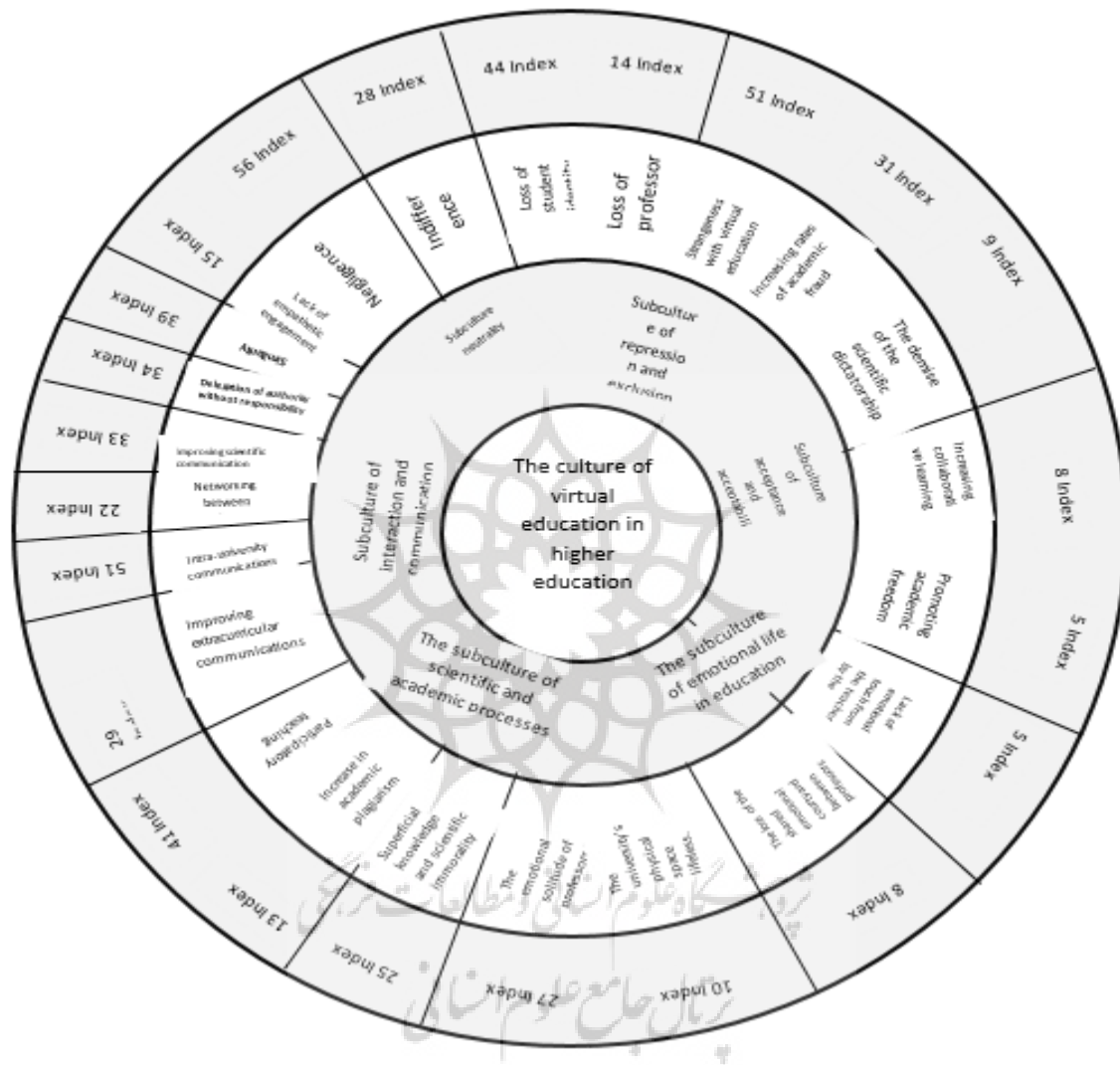
Participant No. 1:

There is no one-size-fits-all solution; the choice between face-to-face and virtual education depends entirely on the specific circumstances.

Participant No. 4:

It doesn't matter whether the education is delivered virtually or in person; what truly matters is that meaningful learning takes place—learning must be at the core of all educational activities.

The final model of this research on the culture of virtual education in higher education is illustrated in the following figure.

Figure 1.*Model of virtual education culture in higher education*

4. Discussion and Conclusion

The results of the present study can be analyzed at both the student and professor levels. At the student level, three key subcultures are evident: the subculture of exclusion, the subculture of acceptance, and the subculture of neutrality and indifference. Students' responses to virtual education range from enthusiastic acceptance to outright rejection. Their beliefs, values, and learning styles significantly influence how they interact with and

perceive virtual education. These findings are consistent with prior research by Stoel (2017), McVey et al. (2017), Wang et al. (2015), Javadi et al. (2023), and Green et al. (2015). For example, Variki et al (2025) argue that the environment of virtual education is largely shaped by the attitudes of its participants. Motivation is particularly critical: students who lack interest often view virtual education as mere entertainment, leading to superficial engagement. Because virtual learning minimizes interpersonal communication and often takes on a game-like format, the entertainment dimension can overshadow its academic seriousness.

Beningoff (2015) emphasizes that networking and collaborative learning strategies enhance the effectiveness of virtual education. Some students view the instant and continuous nature of communication in virtual environments as a unique strength. Unlike traditional classrooms, where learning is confined within physical walls, virtual education allows learning to transcend those boundaries.

Hosseini et al. (2015) found that both organizational factors (structure, culture, leadership, technology) and individual factors (teacher expertise, student personality, and commitment) significantly affect the success of virtual education. Noraddin, (2015) concluded that e-learning challenges disciplinary, individual, and collective identities. Virtual education, therefore, has the potential to reshape the academic identities of both students and professors. Students whose personalities or identity structures conflict with the demands of virtual education may experience cognitive dissonance or even academic decline. Conversely, students who align well with the virtual learning environment often show significant academic improvement.

Another key feature of virtual education is the erosion of knowledge monopolies previously held by professors. Virtual platforms have broken the confinement of knowledge within the classroom and reduced opportunities for academic exploitation by a few dominant figures. Furthermore, virtual education introduces a new technical language, primarily involving educational software and hardware. Familiarity with this digital language enhances learning opportunities, while a lack of familiarity can significantly hinder learning.

A major drawback of virtual education is the elimination of in-person scientific

meetings, which, despite expanded access to online communication, has reduced the effectiveness of scholarly debate. In-person interactions still provide more meaningful engagement due to non-verbal cues like body language and facial expressions.

Additionally, superficial learning and academic dishonesty have become increasingly widespread in virtual settings. With diminished supervision, opportunities for academic fraud increase, and the reliability of information decreases. Students are central actors in virtual education, and understanding its impact on their learning styles necessitates a deep exploration of their lived experiences.

Due to its nature, virtual education brings with it distinct implications. The modes of communication, content delivery, and educational structure differ significantly from traditional models. These changes have resulted in new patterns of symbols, methods, practices, and traditions—constituting what can be described as the culture of virtual education.

In general, students can be categorized into three orientations: supporters of virtual education, who view it as liberating and empowering, especially in terms of academic freedom and reduced dominance by professors. Critics, who argue that it has undermined both student and professor identities and diminished academic seriousness and collaboration. Neutral participants, who perceive little difference between virtual and traditional education and advocate for context-driven approaches to educational delivery. Understanding these subcultures is essential for implementing virtual education effectively. Educational stakeholders and policymakers must account for these attitudes when designing or reforming virtual education systems.

At the professor level, three subcultures emerged: the subculture of interaction and communication, the subculture of scientific and academic processes, and the subculture of emotional education. These dimensions reveal that the culture of virtual education is deeply intertwined with how professors experience communication, scientific engagement, and emotional connection.

These findings are consistent with previous research by Harvey (2022), Grothaus (2022), Dudian et al. (2022), Hosseini et al. (2015), and Wang et al. (2015). For example, Kok et al. (2024) argue that virtual education has significantly expanded scientific

communication, both within and beyond university settings. This increase in interaction has promoted scientific synergy and accelerated the pace of knowledge production. Beningoff (2015) also confirms that collaborative and networked learning approaches are effective within virtual environments.

Professors have used digital tools to dismantle traditional physical boundaries, forming new academic networks that promote collaboration and knowledge exchange. However, concerns persist regarding academic integrity. Borderick (2020) notes that virtual education often lacks strict adherence to scientific ethics, resulting in increased plagiarism and diminished scholarly rigor. This aligns with findings in the current study, where some professors admit to neglecting copyright and proper academic adaptation in online contexts. Despite these challenges, virtual education offers benefits such as innovative teaching tools and more engaging instructional methods through modern communication technologies.

A particularly critical dimension is the emotional life of professors and students. Spriti & Badrhani (2025) identified emotional disconnection as a major weakness of virtual education. The shift to online formats has disrupted emotional ties between teacher and student, among colleagues, and between individuals and the university environment. In many cases, this results in what may be termed emotional death—a profound sense of disconnection and loss of academic community.

Virtual education disrupts emotional bonds and reduces the vibrancy of physical university spaces. As the physical presence of professors and students diminishes, the symbolic and emotional significance of the campus erodes. While some professors emphasize the communicative and academic advantages of virtual education, others stress its emotional shortcomings. For the former group, virtual education facilitates broader academic interaction and access to teaching tools. For the latter, it contributes to emotional fragmentation, social disconnection, and a declining sense of community—issues that extend to the university's physical and symbolic identity.

Given these insights, the culture of virtual education—especially from the perspective of professors—offers critical lessons for curriculum designers and decision-makers. Educational stakeholders must consider these cultural dimensions to ensure the

success and sustainability of virtual education. Given the presence of a subculture of exclusion, it is recommended that the value-based and attitudinal dimensions of stakeholders be assessed and addressed. The existence of a subculture of neutrality and indifference calls for increased awareness and sensitivity regarding the complexities of virtual education. Since emotional life is disrupted in virtual education, greater attention should be paid to the emotional experiences of both professors and students. As the spatial dimension is diminishing in virtual settings, it is essential to rethink and redefine the concept of place in virtual education. Regarding emotional life, the concept of the "other" in virtual education should move beyond current stereotypes and be reimaged. In light of the emotional challenges identified, it is vital that emotional engagement becomes a central consideration for planners of virtual education.

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