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Research Article

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Shaping Faculty Teaching Beliefs

Jeyran Aghayeva

Abstract

Background/purpose. Faculty beliefs influence their teaching behaviors, making understanding how these beliefs are formed an important research topic. Yet little is known about the phenomenon in culturally and economically diverse settings. This paper explores the role of various factors in shaping faculty teaching beliefs in post-Soviet Azerbaijan.

Materials/methods. The qualitative data in this study were collected through two-cycle semi-structured interviews with faculty members working in Azerbaijani higher education institutions. The smallest meaningful units were identified and used to construct categories.

Results. The results show that the faculty's teaching beliefs are embedded in larger environments within which they live and interact with others. The data suggest that environmental, individual, and institutional-level factors shaped participants' beliefs about teaching.

Conclusion. Faculty teaching beliefs are formed and can be further shaped as they engage in learning within and outside academe. The findings suggest that supportive institutional environments can facilitate faculty learning to promote faculty engagement in a specific teaching method.

1. Introduction

To attract local and international talent and to increase their share of the global education market, many higher education institutions (HEIs) worldwide encourage their faculty to adopt innovative teaching methods (ITMs), which arguably improve student learning outcomes (Barr & Tagg, 1995; Svinicki & McKeachie, 2014). Yet, the last two decades of teaching-related innovations and policy changes in Azerbaijan have yielded minimal results: faculty at these HEIs still resist ITMs, and Soviet-style traditional teaching approaches still dominate in college classrooms. Research investigating faculty resistance documented a relationship between resistance to a specific teaching strategy and faculty teaching beliefs (Gibbons et al., 2018).

Abundant studies on teacher beliefs utilize various definitions of the concept. In his work, Pajares (1992) undertook a challenging task of reviewing conceptual differences among the various definitions of the term “beliefs'', underlining the complexity of the concept. Rokeach (1968), for instance, defined the term as "any simple proposition, conscious or unconscious, inferred from what a person says or does, capable of being preceded by the phrase, 'I believe that . . . '" (p. 113). He suggested that beliefs can be descriptive, evaluative, or prescriptive, and he differentiated between the cognitive (knowledge), affective (emotion), and behavioral components of beliefs. Beliefs are claimed to direct an individual's decisions (Rokeach, 1968), which suggests faculty beliefs direct their teaching behaviors. Given the importance of the concept, Pajares (1992) directed scholars’ attention to the exploration of teacher beliefs. Similarly, to promote faculty engagement in ITMs, understanding what shapes faculty teaching beliefs is important.

This paper explores how faculty beliefs about ITMs are formed and uses data collected from Azerbaijani faculty members to achieve this goal. For the purposes of this paper, ITMs are defined as methods and approaches in teaching and learning that are relatively new and non-traditional to the higher education setting in Azerbaijan, such as learner-centered/learning-centered/student-centered teaching, active learning, interactive teaching, flipped learning, and collaborative learning, among others. The term also captures, but is not limited to, the use of innovative education technologies. The data in this study suggest faculty learning, which happens within formal and informal platforms throughout their lives, shapes their teaching beliefs. In the next sections, I review the literature, discuss the study design, and present the findings. The final section of the paper introduces the discussion and the study's implications.

2. Literature Review

Faculty Teaching Motivation Model ([FTMM], Aghayeva, 2019; Aghayeva & Wawrzynski, 2023) guided this study. Informed by the *Self-Determination Theory* (Deci & Ryan, 1985, 2008; Ryan & Deci, 2000) and *the Self-Control Strength Model (Muraven et al., 1998), FTMM (Figure 1) posits that* faculty teaching motivation is embedded in a larger environment and is influenced by several individual and institutional-level factors. When combined with faculty self-control strength, the ongoing interaction among these factors may promote or hinder faculty engagement in an intended form of teaching. This assumption suggests faculty teaching beliefs, which affect their teaching motivation (Dirkx et al., 2004; Fairweather, 1999; Gibbons et al., 2018), do not exist in isolation and can be shaped by a wide range of mutually influential factors. The model served as a framework for reviewing the literature on this topic, designing the interview protocol, and analyzing the data.

Figure 1 shows the Faculty Teaching Motivation Model.

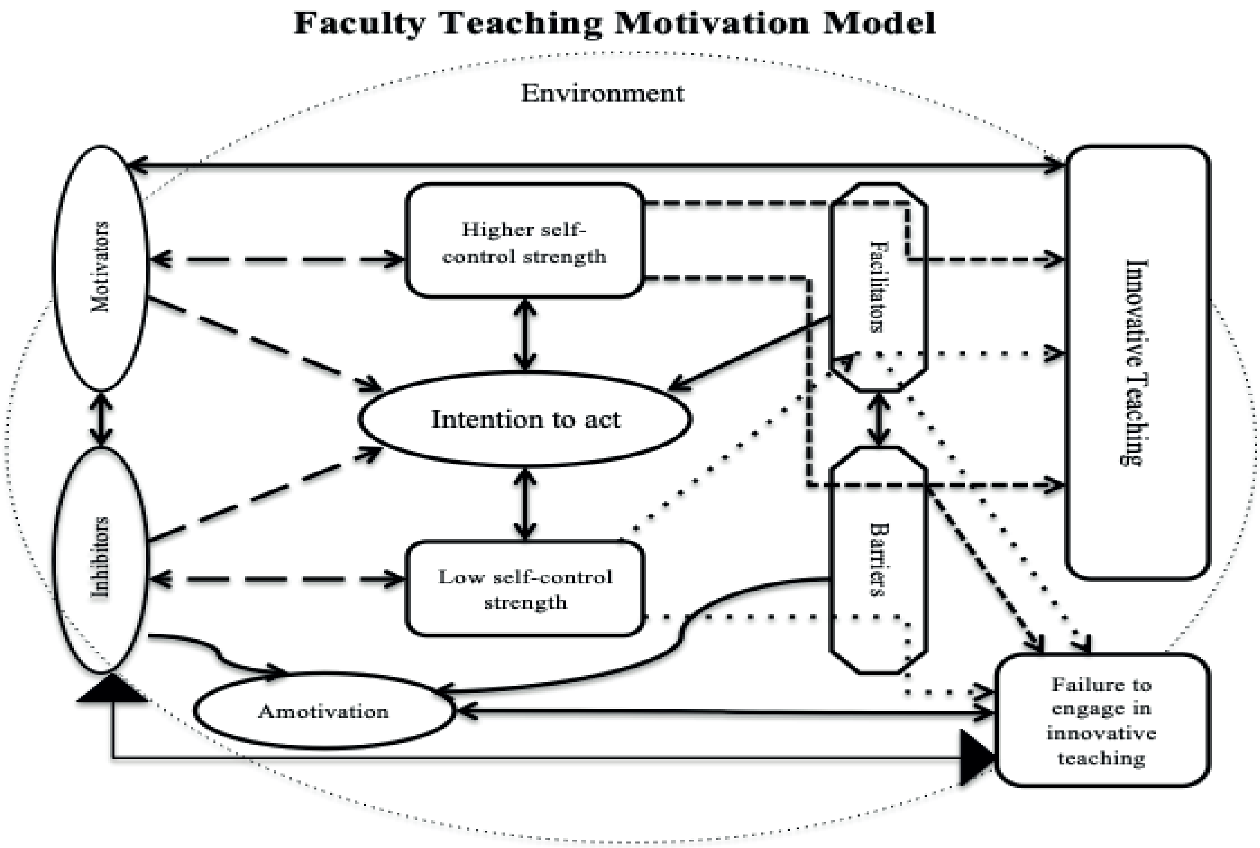

Figure 1. Faculty Teaching Motivation Model. In this Model, Motivators/Inhibitors Represent Individual-Level Factors and Facilitators/Barriers Represent Institutional-Level Factors.

Evidence suggests individual-level inhibitors and motivators may shape faculty teaching beliefs. To this list belong factors such as dissatisfaction with current/traditional instructional methods (Bauer et al., 2013), the link between engagement in new strategies and self-efficacy (Orgill et al., 2015), and challenges in implementing new teaching approaches (Gallos et al., 2005). In one study, Bauer and colleagues' (2013) professional development workshops demonstrated that change occurs as individuals experience dissatisfaction with their prior beliefs about teaching and learning. Faculty adoption of new teaching ideas can be inhibited by negative beliefs about the implementation challenges they encounter as they engage in new teaching practices (Gallos et al., 2005). On the other hand, positive emotions and results associated with new teaching strategies can positively affect individuals' self-efficacy, which is the perceived ability to complete a task, shaping their beliefs about a particular teaching method (Orgill et al., 2015). The lack of literature on the Azerbaijan faculty, however, limits our understanding of individual faculty members' experiences and their influence on faculty teaching beliefs.

Among environmental factors, family influence (Oleson & Hora, 2014) and students' attitude (Blickenstaff et al., 2015) have been highlighted in the literature. A study by Oleson and Hora (2014) showed that family members play an active role in shaping participants' teaching beliefs. Similarly, evidence suggests students' learning needs and attitudes influence faculty beliefs and direct their teaching behaviors (Hora, 2014).

At the institutional level, institutional culture (Austin, 1994) and the availability of teaching-related professional development opportunities (Dirkx, 2012) can shape faculty teaching beliefs. Cultural models that are simplified theories about the relationships among people, practices, and events (Quinn & Holland, 1987) have been utilized to study the role of culture, including disciplinary and institutional culture, in shaping teaching beliefs (Austin, 1994; Ferrare & Hora, 2014; Umbach, 2007). Austin (1992a, 1994) argued that faculty beliefs result from interactions among multiple cultures within which faculty work. These cultures influence how faculty conceptualize and understand their roles in the academe and serve as the basis for their interactions with students and instructional decisions.

In their study, Oleson and Hora (2014) found that disciplinary culture shapes individuals' teaching beliefs when they enter academia as students and later as teaching faculty members who interact with other colleagues. As students, many faculty members' teaching beliefs are influenced by their own learning needs and their teachers' instructional decisions. The authors also documented the influence of disciplinary culture as individuals began working as teachers and learning from others in the same discipline.

Given the mutually influential nature of the factors affecting faculty teaching motivation in FTMM, many institutional-level factors may also indirectly shape faculty teaching beliefs. This relationship, however, is understudied in the existing literature. In addition, the unique nature of institutional and broader environments in Azerbaijan creates a need to explore their role in shaping Azerbaijani faculty members' teaching beliefs. Particularly, the behaviors of faculty who demonstrate counter-cultural behavior by persisting in relatively new teaching approaches and methods require further research.

3. Methodology

The study used a qualitative interview approach to explore the factors shaping faculty teaching beliefs regarding ITMs. The participants in the study are faculty members who exhibit innovative teaching practices compared to the traditional teaching setting in Azerbaijani higher education. They believe in the effectiveness of ITMs and regularly use them in their teaching. Purposeful sampling was used to identify and recruit study participants until the point of saturation (Lincoln & Guba, 1985). Through two-cycle interviewing with 10 participants, the sample yielded 20 interviews (approximately 20 hours). The participants' names have been masked to protect their identities.

Of the 10 participants, six are women and four are men, with teaching experience ranging from 1 to 32 years. The disciplines represented are humanities, social sciences, business, and natural/applied sciences. Of the 10 participants, three are adjunct faculty, two have part-time faculty positions, and five have full-time faculty positions. Additionally, six participants have two jobs, of which three are non-education-related. Several participants hold degrees from foreign institutions or have participated in short-term professional training abroad. All participants are fluent in two or more languages, including English, making foreign research more accessible to them. Some participants hold a graduate or undergraduate degree in education, whereas others have never had a formal pedagogical education.

In this qualitative research, data were collected through two-cycle semi-structured interviews, documents, and the researcher's memo (Merriam & Tisdell, 2016). The interview protocol included questions about faculty backgrounds, teaching philosophies, immediate environments, and more. The researcher conducted pilot interviews to improve the protocol.

To triangulate the data, faculty memos and reflections on their own classes, syllabi, lesson plans, materials from the workshops/trainings, written feedback they received from their peers and administration, formal observation documents, peer evaluation documents, documents reflecting the results of student evaluation of faculty, documents related to the administrative evaluation of the faculty, and self-evaluation documents by faculty members were collected. These documents helped account for changes in faculty beliefs over their careers.

The researcher kept a record of her personal thought process as she proceeded with data collection. Birks, Chapman, and Francis (2008) observed that memoing is a useful tool that enables the researcher to transition from raw data to abstract concepts that represent phenomena within a particular context. The researcher referred to her observations and notes from the memo to further facilitate data collection and analysis processes.

The data analysis was conducted simultaneously with data collection. The smallest meaningful units of data (Lincoln & Guba, 1985) were identified and used to construct categories. The data were collected in two languages, based on participants' preferences: Azerbaijani, their native language, and English. To avoid misinterpretation and data loss, coding was performed on the original transcripts. The coded units were then translated into English. Three peer reviewers checked the accuracy of the translations of the coded units and the quotes that were used in the presentation of the findings.

To ensure the trustworthiness of the study findings, strategies such as triangulation (Denzin, 1978), member checks (Merriam & Tisdell, 2016), peer examination, and rich and thick description (Patton, 2015) were used. The data collection tools were reviewed and approved by the Institutional Review Board of Michigan State University. Confidentiality, informed consent, and data access issues were dealt with within the ethical boundaries.

One limitation of this study is its small sample size. Because the study used qualitative inquiry and an interview approach, a large sample size would have required more time and financial resources, which were limited in this study. Another limitation is the lack of representation from faculty outside the capital city. In addition, faculty who resist changing their teaching behaviors have not been included in the sample.

4. Results

This paper is part of a larger study that explored the factors influencing faculty motivation to engage in ITMs in Azerbaijani HEIs. Participants in the study defined ITMs as learning-centered teaching that requires a shift from traditional faculty-student relationships and viewed them as a blend of traditional and non-traditional teaching methods that positively influence student learning outcomes. Their definition encompassed methods and approaches such as interactive lecturing, flipped learning, active learning, student-centered teaching, problem-based learning, collaborative learning, and the use of modern educational technologies in the classroom. In this paper, I present the findings related to factors shaping faculty teaching beliefs in Post-Soviet Azerbaijan.

4.1. Factors Shaping Faculty Teaching Beliefs

The data in this study suggest that faculty's teaching beliefs can change and be shaped throughout their lives. The study participants engaged in new learning experiences across various platforms throughout their lives, which shaped their beliefs about teaching and learning, in turn facilitating faculty engagement in one or another form of teaching. Figure 2 shows two distinct categories of learning sources that shaped study participants' teaching and learning beliefs: those outside academe and those within academe.

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Figure 2 shows the sources of learning within faculty environments.

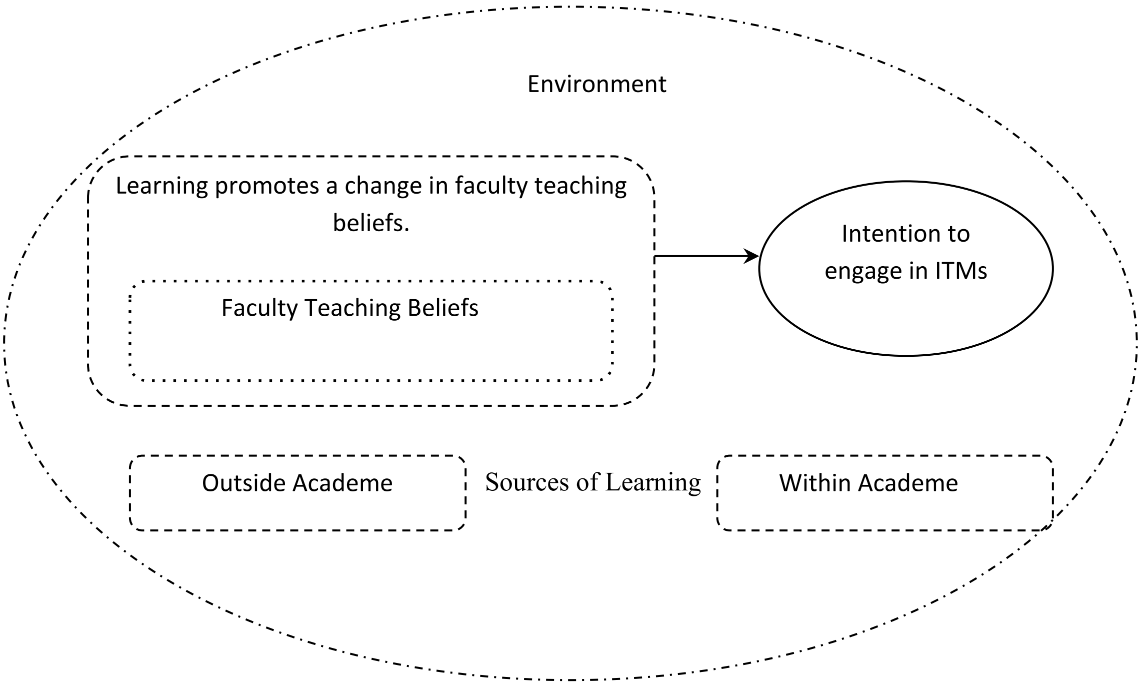

Figure 2. Faculty Teaching Beliefs and Engagement in ITMs.

4.2. Learning Sources Outside Academe

The environment within which faculty live and interact with others facilitates their learning. The data suggest that agents of learning outside academe can vary from macro-level factors, such as a country's culture, to micro-level factors, such as participants' families.

One source of learning that shaped participants' beliefs about teaching is various aspects of a country's life. Ms. Jabbarova, for instance, stated the economic transitioning of the 1990s significantly changed her values as a teacher, as she shared, “During the Soviet period we, students, had a lot of content knowledge, but we did not achieve much in practice". She began questioning her beliefs about the knowledge and skills necessary for an individual in a newly established economic reality and came to appreciate the role of practical knowledge and skills in a person’s success.

Another common thread in participant responses was societal expectations that shaped their teaching beliefs and behaviors. Several participants used phrases such as “exemplary teacher,” who ideally conforms to society’s expectations for faculty-student relationships (formal and distant) and displays a reserved demeanor in and out of the classroom. Sharing his experience on this issue, Mr. Alimardanli said, “You cannot be very relaxed in your personal life because even outside academe, people expect you to be exemplary as a teacher.” These societal expectations shaped his beliefs about the ideal teacher and guided his behavior inside and outside the classroom.

The influence was not one-directional: some individuals rejected these stereotypes. Mr. Rahimov, who refused to conform to the existing norms, said:

> In our society, due to our mentality, older faculty do not shake hands with students, and greetings are brief and formal. But I usually initiate a handshake with my students because I think it shows respect and positively influences faculty-student relationships.

Mr. Rahimov explained that by disregarding this commonly accepted behavior, he managed to overcome a barrier to positive faculty-student relationships. Given that existing societal expectations are more traditional, their rejection could help faculty display a countercultural teaching behavior.

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At the microlevel, the family appeared as another valuable source of learning for faculty. Speaking about her family's role in learning, Ms. Khaligli said, "My daughter helps me a lot in my professional development. I ask her for advice because she is my students' age, and she knows better what will be more attractive and what will be less." Ms. Khaligli viewed her daughter's perspective as a valuable addition to her professional development because her daughter represents her students' generation. These examples suggest the factors outside academe inform faculty beliefs about teaching and learning.

4.3. Learning Sources within Academe

Faculty teaching and learning beliefs are shaped within two stages of their lives as they enter the academe: (a) learning happening during student years and (b) learning happening throughout their teaching experience. Several environmental, individual, and institutional-level factors shape faculty teaching beliefs, skills, and knowledge at these stages.

Student experience. Many participants stated that their teaching beliefs were formed when they were students. Participants' own learning needs and styles were among the individual-level factors shaping their teaching beliefs. For instance, speaking about the role of her own student years, Ms. Sadigova said, "I imitate my teachers whose teaching methods worked for me and made learning easier for me. I try to use the methods that helped me learn best when I was a student." This data suggests Ms. Sadigova's teaching beliefs were informed by her own learning style.

Another source of learning was participants' microenvironments, such as their university peers and teachers. Mr. Ahmadov, for example, observed his peers' attitudes toward various teaching strategies used by his teachers and reflected on their reactions to these methods, which helped him with his own teaching. For Ms. Khaligli, her own teachers' behaviors were the source of learning. She said, "I can say that I was imitating their [my teachers'] work. I had some role models in my mind. Definitely, their teaching left a trace."

Unlike the participants who imitated their teachers early in their careers, several participants avoided the teaching behavior their teachers displayed. For example, Mr. Rahimov described how his teachers' discriminatory attitudes put him under a lot of stress as a student. Speaking about the college environment, he said, "If a student is from a rural region, they are automatically ignored." Having undergone this experience, Mr. Rahimov became a firm believer in equal treatment for students from all backgrounds. In addition, some participants described their experiences in traditional college classes as dull, uninteresting, and demotivating, as well as long. Participants who had similar college experiences avoided imitating a teaching behavior (namely, traditional teaching methods) that was associated with these negative feelings.

Teaching experience. The changes happening throughout participants' teaching careers are tied to several internal and external factors that promote faculty learning. This stage of faculty life introduces channels of personal and professional growth that shape faculty teaching beliefs. The findings indicate the following factors can be critical in shaping faculty teaching beliefs in this period: national and global education standards, institutional policies, collaboration and feedback, teaching professional development (TPD), and students.

National and global education standards. The analysis of the documents on the websites of the Ministry of Education of the Republic of Azerbaijan and several Azerbaijani HEIs shows governmental and institutional-level policies on the quality of education are tied to international education standards, which points to a relationship between global education standards and faculty teaching beliefs. According to Article 9 of the Education Law of the Republic of Azerbaijan (2009):

> [In Azerbaijan] the level of education quality is determined in accordance with the system of corresponding quality indicators (educational programs – curricula, the readiness level of

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> matriculates, material and technical foundation, infrastructure, information resources, professionalism and scientific-pedagogic level of educators, progressive teaching technologies, etc.) by each academic level, having adjusted to the principles of international and European education systems under the national educational standards adopted in the country. (para. 10)

A comparative analysis of various data sources showed participant statements of their teaching philosophy included similar descriptors mentioned in the Law on Education, such as “prepare them [students] for life and professional activity”, “train progressively thinking and competitive specialists and personnel”, and “protect and promote national, moral, and universal values”. The discussion of the aforementioned qualities and values was dominant in participants’ responses, suggesting that changes in the country's education standards were another source of learning for many participants.

Institutional policies, collaboration, and feedback. Several participants’ responses also indicate that institutional-level encouragement of a particular teaching method influenced their engagement in various teaching methods. Comparing her teaching at the current institution to the previous workplace, Ms. Khaligli said:

> At first, I myself was very skeptical about it [the use of ITMs], but luckily, time proved that some of them were quite effective. Let us say that when I started teaching at this institution, a lot of space was given to peer and group work. I did not like this idea because I could not check these students individually at each stage of the lesson. So, this is the main focus of Soviet methodology, an individual approach at every stage of the lesson. But once you start group work, peer work… I just did it because I was told to, but by the end of the first academic year here, I saw that it was justified. It is strongly recommended in teaching because it fosters students’ autonomy, which is very important as they have entered adult life and will transfer these skills to the workplace as well.

The institutional requirement to engage in ITMs gave Ms. Khaligli the opportunity to change her perspective on these methods, which later encouraged her to use them regularly.

Within the institutional environment, the participants highlighted the role of institutional focus on collaboration and professional development in facilitating their learning and engagement in ITMs. The data also indicate that many Azerbaijani HEIs neglect collaboration and feedback. Several issues related to collaboration and feedback were prominent in the interviews, interfering with participants’ professional development.

First, there is little collaboration among faculty working in the same departments at the institutions covered by this study. Several participants felt they needed to seek and/or initiate collaboration within their institutions, which suggests institutional policies do not enforce collaboration among academic staff. The unstructured nature of individually initiated collaborations speaks to the possibility of the lack of collaboration among those who do not seek it or are not motivated enough to collaborate with those who reach out to them. Ms. Muradova shared that in her first year at the current institution, she felt the need for guidance by an experienced mentor familiar with the institutional mission and culture. She said, “It was my personal desire to go find [someone/a mentor] and talk to [them].” Given that collaboration was one of the main sources of teaching knowledge and motivation for many participants in this study, the lack of collaboration among faculty at HEIs in Azerbaijan could lead to epistemic isolation for many faculty left outside such a collaborative network.

Second, the data show that even the established systems of collaboration at several Azerbaijani HEIs fail to function effectively due to certain barriers. One such barrier discussed was the cultural expectations that exist among Azerbaijani faculty. Ms. Abbasova shared that faculty refrain from

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providing constructive feedback (i.e., pointing out weaknesses) to one another because such feedback is usually taken quite personally. She said:

> Faculty think pointing out someone's mistakes will hurt their colleagues' feelings. Therefore, classroom observations are nothing more than a formality that does not reflect the true picture of the observed classes.

Sharing these issues, Ms. Abbasova also stated that this unwritten cultural expectation interfered with her professional development and prevented her from contributing to other faculty members' professional growth because she could not provide honest, constructive feedback.

Another barrier to participant learning was the way these collaborations, especially faculty evaluations, were implemented at the institutional level. For instance, Mr. Ahmadov expressed dissatisfaction with the way faculty evaluations were handled at his institution. He said, "Faculty evaluation at my institution was not successful because, summative in its nature, this evaluation did not contribute to faculty professional development." In his opinion, to contribute to the faculty's professional growth, feedback should be formative.

Third, existing collaboration and feedback policies at Azerbaijani HEIs do not address the entire faculty population with varying employment terms; adjunct faculty are excluded from this collaboration network and do not receive any formative feedback. Participants who were employed on an adjunct basis (Mr. Rahimov, Mr. Verdiyev, and Ms. Musayeva) reported little involvement in institutional life. These participants did not collaborate with their colleagues to the desired extent, which would have contributed to their professional growth as teachers. While one big barrier to their involvement was the lack of time, other reasons contributing to this issue were the lack of institutional encouragement and the lack of a common shared space for faculty working together. When describing the relationships with his colleagues, Mr. Rahimov stated, "We only go to the university when we have classes, and we have only 5 or 10 minute breaks between classes during which we talk to students. Therefore, we rarely meet colleagues; only when there is an exam or a quiz." Faculty interaction and collaboration in his department were limited to rare instances of collaboration on syllabus design early in the semester and to faculty interaction via social networks. This type of collaboration, however, seemed to lack when issues related to classroom teaching were involved.

The majority of the adjunct participants reported being intrinsically motivated to teach; this motivation encouraged them to learn about teaching and learning throughout their experience in academe. These participants compensated for this lack of feedback by learning through intentional and careful observation of their teachers and peers and by participating in various TPD. Given the possibility that not all adjunct faculty may be intrinsically motivated to teach and learn, limited learning opportunities stemming from a lack of collaboration and feedback among colleagues may interfere with faculty learning and engagement in ITMs.

TPD. The study's findings show that another factor influencing and shaping faculty's teaching beliefs throughout their careers is professional development opportunities focused on classroom teaching. The participants stated that exchange programs that send and bring faculty to/from foreign countries, as well as teaching-related training, influenced and shaped their teaching beliefs. Participants shared that interactions with foreigners, both within and outside the country, positively influenced their teaching development. For Ms. Khaligli, who said, "More exposure to foreign culture was a gigantic part of my professional development.", even "playing board games" with foreign colleagues facilitated learning and boosted creativity.

Speaking about TPD, Ms. Abbasova shared, "Teaching-related trainings help us learn more about teaching and learning and motivate us to be more creative in terms of classroom teaching." Further,

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she added that these training sessions provided a space to meet “interesting teachers, colleagues” who contributed to her own learning and helped build relationships with faculty from other departments and institutions.

While participants spoke about possible benefits of teaching-related training, many also indicated a lack of institutional support for TPD. First, institutions do not provide enough training related to teaching. Speaking about teaching-related trainings, for instance, Mr. Alimardanli said, “To be honest, the number of teaching-related trainings is not satisfactory; only a small amount of trainings offered are teaching-related.” Second, participants’ workloads and the lack of institutional financial support also interfered with their ability to attend TPD. Ms. Muradova, for instance, explained, “With the workload she had, engagement in various professional development opportunities was 'very hard. Mr. Verdiyev spoke about the financial side of the problem. He said, “I decided not to participate in these TPD sessions because of the participation fees. I am not saying they are extortionate, but for a teacher’s budget, these trainings are too expensive.”

Document analysis and participant responses indicate that the lack of institutional support for various forms of professional development is even greater for adjunct faculty. Ms. Musayeva, who is an adjunct faculty member, shared, “Adjunct faculty do not receive any institutional support for participating in exchange programs or TPD.” She stated that exchange opportunities and financial support for TPD were more often available to the core academic staff than to those working on an adjunct basis.

The data point to the problems related to TPD, an important source of faculty teaching knowledge. Limited access to TPD may undermine faculty engagement in ITMs, as there may be a relationship between faculty teaching beliefs and their use of a particular teaching method. The lack of financial support for TPD, which limits learning opportunities, can make it more challenging for faculty to develop positive beliefs about ITMs and can lead to faculty resistance.

Students. The findings show that student feedback and student success are important facilitators that shape faculty teaching beliefs. Both factors contribute to faculty perceptions of students' academic needs and shape one or another form of teaching behavior. Participants used expressions such as “student interest”, “active student participation”, “to like”, “motivated students”, “unmotivated students”, and “grade-oriented students” to describe various forms of student feedback on class content and teaching strategies. Several participants shared that positive feedback from their students shaped their understanding of how students learn best and which methods are most effective for advancing student learning outcomes.

Student success is another factor shaping faculty beliefs about student needs. What helped students succeed academically and in their personal lives influenced participants’ perceptions of students' needs. However, student success seemed to be a complex phenomenon in participant discussions. They used expressions such as “students’ grades”, “getting employed/finding a job”, “career success”, “personal growth”, and “practical skills” as they were defining student success. Speaking about student success, Ms. Khaligli offered the following perspective:

> For me, it [seeing her student succeed] was a motivation. I realized that [content knowledge] is not the only component of my success as a teacher and his success as a student. So, we cannot isolate one from the other; we are all humans and a part of a community, and we have to be supportive at each stage of life.

Participants expressed that teacher success should be measured by students’ success, as student success indicates the achievement of teaching and learning objectives. Given that participants expressed satisfaction with their students' learning outcomes or their students’ employment success, and related these success stories to their teaching decisions (i.e., engagement in ITMs), student success could inform participants' beliefs about the effectiveness of ITMs and their judgment of their own teaching skills and knowledge.

5. Discussion

The data indicate that faculty teaching beliefs are formed, shaped, and changed throughout their lives. Consistent with the FTMM (Aghayeva, 2019; Aghayeva & Wawrzynski, 2023), various environmental, individual, and institutional-level factors mentioned by participants play a key role in shaping their teaching behavior through faculty learning. Sources of learning within and outside academe can facilitate or impede faculty engagement in ITMs. When existing institutional and environmental factors favor ITMs over other traditional teaching methods, faculty are more likely to believe in their effectiveness, thereby engaging in ITMs more regularly.

Within academe, faculty's prior experiences (Hora, 2014) are essential to their learning and formation of their teaching beliefs. Two categories of learning experiences influenced participants' teaching beliefs: their student experience and teaching experience. The findings are consistent with the literature, which suggests that faculty teaching beliefs are influenced by their own learning styles and needs, by their peers' attitudes toward various teaching methods, and by their university professors' teaching behaviors (Oleson & Hora, 2014). For example, the majority of the teaching methods and approaches favored by the participants were those they believed worked best for student learning, based on their own student experience. Many participants imitated the teaching behavior of their university professors, particularly in the early years of their teaching career. The changes in participants' teaching occurred as they gained more teaching experience, during the second phase, when faculty teaching beliefs are shaped. Faculty beliefs formed in the first phase (i.e., student years) act as pre-existing knowledge (Ferrare & Hora, 2014) influenced by the culture within academe (Austin, 1992b) and participants' individual learning styles and needs.

The second phase (i.e., teaching years), on the other hand, introduces sources of learning that help faculty transform the nature of their teaching (Dirkx, 2012). The sources of learning that shaped faculty teaching beliefs in this phase include national and global education standards, institutional policies, collaboration and feedback, TPD (Dirkx, 2012), and students' attitudes (Blickenstaff et al., 2015). In addition, the data in this study also show that faculty working at Azerbaijani HEIs face several institutional barriers, such as a lack of institutional support for TPD, limited collaboration opportunities for faculty with varying employment terms, and a lack of formative feedback to faculty teaching.

The findings are consistent with the literature, which suggests that faculty who are skeptical of a teaching method can later develop a different perspective when they integrate ITMs into their teaching. Ms. Khaligli's example illustrates that a mutual relationship exists between faculty teaching beliefs and the integration of new teaching methods (Andrews & Lemons, 2015; Orgill et al., 2015; Struyven, Dochy, & Janssens, 2010), which means engagement in ITMs can help shape faculty teaching beliefs about these methods.

Outside academe, the sources of learning that shape faculty members' teaching beliefs include their immediate family, societal expectations, and environmental changes in the country. Consistent with the literature, family appeared to be a useful source of learning (Oleson & Hora, 2014). Discussing their teaching decisions with family members and observing the family members learn shaped participants' beliefs about the effectiveness of various teaching approaches and methods.

The findings of this study not only confirm multiple cultures within which faculty work influence their teaching beliefs (Austin, 1992b; 1994) but also indicate that the culture that influences faculty teaching beliefs is not limited to this collegial culture: the culture of society also influences faculty teaching beliefs. This relationship, however, does not suggest that societal or disciplinary culture directs faculty teaching behavior (Gibbons et al., 2018), which implies that faculty conform to the existing culture. In fact, many participants in this study rejected embracing many traditionally accepted teaching behaviors within their disciplinary and societal cultures. By reflecting on existing cultural expectations and widely accepted teaching practices within and outside academe, the participants approached their teaching from a different perspective. These cultural expectations contributed to participants' learning and informed their teacher identity and beliefs.

The relationship between faculty teaching beliefs and the current economic situation in the country is a key finding of the study. The participants' responses suggest that the realities of day-to-day life, including economic hardships, can transform their beliefs about the purpose of higher education and the knowledge and skills necessary for student success. The economic transition of the 1990s facilitated faculty learning and shaped their teaching beliefs.

6. Conclusion

The data in this study suggest that faculty teaching beliefs are formed, shaped, and changed throughout their lives. Faculty learning, which may occur within academe (e.g., teacher influence, individual's own learning needs and preferences) and outside academe (e.g., the country's environment and family), is the key factor contributing to this change. Institutional environments and disciplinary culture are key to facilitating or obstructing faculty learning about teaching. When existing institutional and environmental factors favor ITMs over other traditional teaching methods, faculty are more likely to believe in their effectiveness, thereby engaging in ITMs more regularly.

7. Suggestions

To support faculty learning, which shapes faculty teaching beliefs, institutions and departmental units should take the following steps. First, institutions must provide constructive feedback on course design and other teaching-related decisions to faculty with all employment terms, including adjunct faculty. Second, institutions should support faculty professional development by (a) providing financial support to attend TPD, (b) offering more teaching-related trainings and workshops, (c) arranging post-training follow-ups, (d) creating exchange opportunities with foreign institutions, (e) enforcing interdisciplinary and interdepartmental collaboration among academic staff, and (f) lowering faculty teaching loads. The findings also suggest that a further study exploring the nature of faculty learning should be conducted using different research designs.

Declarations

Acknowledgement. This paper is a part of a larger doctoral study conducted by the author.
The author declares no conflict of interest.
Ethical Approval. Michigan State University gave the approval for the study, Institutional Review Board (MSU Study ID: STUDY00001014).
Data Availability Statement. Michigan State University, College of Education holds the data reported in this study.

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