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# Faculty Members' Agency in Teaching and Research: A Comparative Study of Applied Linguistics and Chemistry

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**Abstract:** This study explored how agency is perceived and exercised in teaching and research among Iranian academics in Applied Linguistics and Chemistry. Using a qualitative narrative inquiry design, data were collected through semi-structured interviews with ten faculty members from two Iranian universities and analyzed thematically. The findings revealed clear disciplinary differences in the construction and enactment of agency. Applied Linguistics faculty viewed agency as relational, pedagogical, and classroom-centered, with teaching as the primary domain of professional influence. Research was mainly seen as a resource for enhancing instructional practice, while agency was exercised through reflective teaching, responsiveness to students, and pedagogical adaptation. In contrast, Chemistry faculty viewed agency as strategic and research-centered, expressed through research planning, scholarly productivity, resource management, and academic leadership. Interpreted through Priestley et al.'s (2026) ecological model, the findings further showed that agency emerged through the interplay of iterational, practical-evaluative, and projective dimensions. Applied Linguistics faculty drew on past teaching experiences, evaluated present classroom conditions, and oriented future agency toward pedagogical development, whereas Chemistry faculty drew on research experiences, evaluated research resources and institutional conditions, and oriented future agency toward publication, productivity, and scholarly advancement. Overall, the findings demonstrate that faculty agency is discipline-sensitive and context-dependent, shaped by disciplinary histories, present conditions, and future professional goals, highlighting the need for contextually responsive approaches to understanding and supporting faculty agency in higher education.

**Keywords:** Applied Linguistics Versus Chemistry Faculty Members, Disciplinary Cultures, Faculty Agency, Iranian Higher Education, Teaching- Research Nexus.

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## Introduction

The academic profession is becoming more demanding as universities are under more pressure to show accountability, produce impactful research, enhance their international reputation, and maintain high teaching standards. Faculty members are expected to conduct high-quality research, teach effectively, supervise students, and help develop the institution. These growing expectations have changed academic work and increased interest in understanding how faculty members manage the opportunities and challenges in their professional environments (Cong-Lem, 2024).

Within this context, the concept of agency has emerged as a valuable lens for understanding academic work. Agency refers to individuals' capacity to make choices and take purposeful actions within socially and institutionally structured environments (Priestley et al., 2026). In higher education, faculty agency is reflected in the ways academics interpret institutional expectations, pursue professional goals, and shape their teaching and research practices. A recent review of empirical studies identified pedagogical innovation, research engagement, professional learning, curriculum development, and well-being as key domains in which agency is enacted, highlighting its central role in faculty development and professional practice (Cong-Lem, 2024).

The enactment of agency is particularly important in teaching and research, the two core dimensions of academic work. Traditionally viewed as mutually reinforcing activities, teaching and research have become increasingly shaped by higher education systems that emphasize measurable research outputs, publication records, and international rankings. These pressures can create competing demands on faculty members' time and resources, making agency crucial for understanding how academics navigate and balance their teaching and research responsibilities (Tight, 2016).

Disciplinary context further shapes the enactment of agency. Academic disciplines vary in their epistemological traditions, research practices, publication rules, and the ways they define and evaluate academic success (Becher & Trowler, 2001). Consequently, faculty members working in different disciplines may experience distinct opportunities and constraints when balancing teaching and research responsibilities. Applied Linguistics, as a soft discipline, is generally characterized by interpretive, socially situated, and educationally oriented inquiry (Almadhady, 2023), whereas Chemistry, as a hard discipline, is typically associated with laboratory-based research, experimental methodologies, collaborative experimentation, and strong norms regarding scientific productivity and publication in high-

impact journals (Becher & Trowler, 2001; Carpenter et al., 2014; Robeva et al., 2020). These differences may influence how faculty members understand their professional roles and exercise agency in their academic work.

Despite increasing scholarly attention to agency in higher education, several important gaps remain. First, much of the existing literature has focused on agency in relation to teaching, educational reform, or professional development, while comparatively less attention has been devoted to understanding how faculty members enact agency across both teaching and research domains. Second, comparative disciplinary investigations remain limited, particularly studies examining how faculty agency is enacted across disciplines with substantially different epistemological traditions and professional cultures. Although Iranian universities increasingly emphasize research productivity and international publication while maintaining substantial teaching expectations, relatively little is known about how faculty members navigate these demands through agentic action. Furthermore, limited research has compared the experiences of academics working in different disciplinary contexts within Iran. Addressing this gap may provide valuable insights into how disciplinary cultures shape faculty agency in contemporary higher education.

Therefore, the present study investigated faculty agency in teaching and research among Applied Linguistics and Chemistry faculty members in Iran. Specifically, it explored how faculty members in these two disciplinary communities enact agency within their professional lives. By adopting a comparative disciplinary perspective, the study aimed to contribute to understanding of the relationships among agency, teaching, and research in higher education.

## Theoretical Underpinnings

### *Faculty Agency: An Ecological Perspective*

Agency is a central concept in educational and higher education research, explaining how individuals shape their professional practices within socially structured environments. Although related to autonomy, the two are distinct. Autonomy emphasizes self-determination, independent choice, and freedom from external control (Benson, 2013), whereas agency concerns how individuals intentionally act and exercise influence within specific social, cultural, and institutional contexts (Emirbayer & Mische, 1998). From an ecological perspective, agency is not a fixed individual capacity but emerges through the interaction between individuals and their contexts (Priestley et al., 2026).

Accordingly, an ecological approach highlights how agency is enabled or constrained by the resources, relationships, norms, structures, and affordances within particular environments. This is especially relevant to faculty agency, as academic professionals act within complex institutional and disciplinary contexts where opportunities are shaped by both individual intentions and contextual conditions. An ecological perspective therefore examines not only faculty members' capacity to act but also how agency is achieved, negotiated, and reshaped within the professional contexts of teaching and research.

Early sociological perspectives describe agency as a temporally embedded process in which individuals draw on past experiences, respond to present circumstances, and work toward future possibilities. Rather than existing independently of social structures, agency emerges through the ongoing interaction between individuals and the contexts in which they work (Emirbayer & Mische, 1998).

Building on this foundation, Priestley et al. (2026) proposed an ecological model of agency in which agency is not a fixed individual trait but an achievement emerging from the interaction between personal capacities and contextual conditions. The model identifies three interrelated dimensions: the iterational dimension, drawing on past experiences and professional histories; the practical-evaluative dimension, involving responses to current cultural, structural, and material conditions; and the projective dimension, concerning future aspirations and goals (Priestley et al., 2026). Agency is therefore understood as contextually situated and continuously evolving.

Recent studies have increasingly applied ecological perspectives to understand agency in higher education contexts. Research has shown that faculty agency influences academics' engagement in teaching innovation, curriculum development, research productivity, professional learning, and institutional change (e.g., Leijen et al., 2020). Moreover, agency is often shaped by organizational structures, performance expectations, available resources, and disciplinary cultures, suggesting that academics exercise agency differently depending on their professional environments (Eteläpelto et al., 2013). Consequently, the ecological perspective provides a useful framework for examining how faculty members navigate teaching and research responsibilities within contemporary universities.

### *Disciplinary Cultures and Academic Work*

Faculty agency is also shaped by the disciplinary cultures in which academics work. Becher and Trowler (2001) argued that academic disciplines function as distinct cultural

communities, each with its own epistemological assumptions, values, research traditions, and definitions of professional success. These disciplinary characteristics influence how academics approach knowledge production, teaching, research, and career development, and consequently shape the ways in which they understand and exercise agency.

Research has demonstrated that disciplinary contexts significantly affect academics' professional identities, work practices, and perceptions of success (Neumann et al., 2002; Pifer & Baker, 2016). Faculty members working in different disciplines often experience distinct expectations regarding publication, collaboration, teaching, and professional recognition. Consequently, disciplinary cultures create different opportunities and constraints for the enactment of agency.

The contrast between Applied Linguistics (as a soft science) and Chemistry (as a hard science) provides a particularly useful context for examining these issues. Applied Linguistics is generally associated with interpretive, socially situated, and educationally oriented approaches to knowledge production (Almadhady, 2023), whereas Chemistry is characterized by laboratory-based research, experimental methodologies, and strong norms regarding scientific productivity (Ciriminna et al., 2024). Such differences may influence how faculty members prioritize teaching and research and enact their agency.

Existing studies have shown that agency influences academics' professional learning, pedagogical practices, research engagement, and responses to institutional change. Nevertheless, several important gaps remain in the literature. First, much of the existing research has examined faculty agency in relation to either teaching or research, often treating these domains as separate aspects of academic work. Within the teaching domain, scholars have shown that agency enables educators to interpret, adapt, and respond to institutional reforms and classroom challenges rather than simply implementing externally imposed policies.

For example, Priestley et al. (2026) argued that teacher agency emerges through the interaction of individual capacities, professional experiences, and contextual conditions. Similarly, Tao and Gao (2017) found that university teachers actively negotiated curricular reforms by drawing on their professional identities, beliefs, and prior experiences, demonstrating that agency played a critical role in shaping pedagogical decisions. Biesta et al. (2015) further highlighted that teachers' beliefs and values influence how they exercise agency in their instructional practices.

In contrast, research on academic work has largely examined agency in relation to research engagement and scholarly productivity. Blackstone and Gardner (2017) found that faculty seeking promotion must enact agency through publication, particularly in prestigious journals and through citations, while Fumasoli et al. (2020) showed that institutional policies, evaluation systems, and disciplinary expectations shape agency in pursuing research and career goals. Although these studies highlight the importance of agency in teaching and research, few have examined their reciprocal relationship. Despite research on the teaching–research nexus and agency separately (e.g., Brennan et al., 2019; Tight, 2016), comparative disciplinary studies remain limited, particularly in understudied contexts such as Iran. This study addresses these gaps by examining how faculty in Applied Linguistics and Chemistry perceive and enact agency across teaching and research.

Second, the relationship between agency and academic work has often been conceptualized as unidirectional, with studies mainly examining how agency shapes teaching or research practices. For example, Kusters et al. (2025) found that lecturers exercised agency by navigating institutional constraints, adapting to challenging teaching situations, and shaping instruction. Similarly, Strubbe et al. (2019) showed that faculty agency influenced how pedagogical goals were interpreted and teaching approaches implemented. In research, agency has been linked to pursuing research interests, developing scholarly agendas, and responding strategically to institutional expectations. El-Adawy et al. (2023), for instance, found that greater professional agency increased faculty members' confidence and engagement in educational research, supporting their transition into new research areas. Overall, these studies position agency mainly as an antecedent of teaching and research, while giving less attention to the possibility of reciprocal relationships.

Finally, comparative disciplinary research remains limited. Academic disciplines differ in epistemological traditions, research practices, publication cultures, and professional expectations (Becher & Trowler, 2001; Neumann et al., 2002), which may shape how faculty perceive and enact agency in teaching and research. However, most studies focus on single disciplines, limiting understanding of how agency operates across fields. Little is known about how faculty in contrasting disciplines such as Applied Linguistics and Chemistry perceive the relationships among agency, teaching, and research. Addressing this gap, the present study examines faculty agency in these disciplines in Iran, focusing on perceptions of agency in teaching and research and their reciprocal relationships across the two disciplinary contexts.

1. How do Applied Linguistics and Chemistry faculty members perceive their agency in teaching and research, and how do their perceptions compare across the two disciplines?
2. In what ways do faculty members in these disciplines perceive the interplay between agency, research, and teaching?

## Methods

### *Design*

The present study adopted a qualitative narrative inquiry approach grounded in constructivist and naturalistic paradigms (Phakiti et al., 2018). Specifically, a descriptive narrative design was employed to explore how faculty members describe and make sense of their agency in teaching and research. Descriptive narrative inquiry is particularly appropriate for examining participants' experiences and the meanings they attribute to those experiences within their social, cultural, and professional contexts (Rezvani & Riazi, 2026; Rezvani & Riazi, in press; Rezvani et al., 2024). This design was well suited to the present comparative study because it enabled the researchers to capture faculty members' accounts of how they perceive and exercise agency in teaching and research, while also considering the disciplinary contexts of Applied Linguistics and Chemistry. Through participants' narratives, the study sought to identify similarities and differences in how faculty members understand and experience agency across the two academic disciplines.

### *Participants and Context*

Participants were selected through purposive intensity sampling (Patton, 2015; Rezvani et al., 2026), which identifies information-rich cases with substantial experience of the phenomenon under investigation. Rather than focusing on extreme cases, intensity sampling selects participants with meaningful and sustained engagement with the phenomenon. This approach was appropriate because it enabled the researcher to select faculty members with direct experience of both teaching and research who could provide detailed accounts of agency. The study included ten faculty members from two Iranian universities: five Applied Linguistics faculty members (all male) and five Chemistry faculty members (two female and three male). Participants varied in academic rank, professional experience, and career stage, with ages ranging from 35 to 60 years.

Prior to data collection, all participants were informed about the study's purpose, their participation, and the use of the data for research purposes. They received sufficient information and provided voluntary written informed consent. Participants were assured of confidentiality and anonymity throughout the research and reporting processes. Pseudonyms replaced real names, and identifying institutional details were excluded from the findings to protect participants' identities and the confidentiality of the information provided.

**Table 1.** Participants' Demographic Information

| Participants | Gender | Age | Field of study | Academic degree | Professional ranks | Years of experience |
|---|---|---|---|---|---|---|
| **AL. 1** | Male | 42 | TEFL | Ph. D | Associate professor | 11 |
| **AL. 2** | Male | 35 | TEFL | Ph. D | Assistant professor | 5 |
| **AL. 3** | Male | 58 | TEFL | Ph. D | Full professor | 30 |
| **AL. 4** | Male | 47 | TEFL | Ph. D | Associate professor | 18 |
| **AL. 5** | Male | 60 | TEFL | Ph. D | Full professor | 28 |
| **C 1** | Female | 44 | Nanotechnology | Ph. D | Associate professor | 16 |
| **C 2** | Male | 52 | Polymer Chemistry | Ph. D | Associate professor | 14 |
| **C 3** | Female | 46 | Physical chemistry | Ph. D | Associate professor | 16 |
| **C 4** | Male | 57 | Inorganic chemistry | Ph. D | Full professor | 25 |
| **C 5** | Male | 41 | Nanotechnology | Ph. D | Associate professor | 17 |

***Note.*** Participant codes are used instead of participants' real names to protect their confidentiality and anonymity. **"AL"** refers to *Applied Linguistics* faculty members, while **"C"** refers to *Chemistry* faculty members. The numbers distinguish individual participants within each disciplinary group (e.g., AL.1 = Applied Linguistics participant 1; C.1 = Chemistry participant 1).

### *Instruments*

#### *Semi-structured interview*

To explore Applied Linguistics and Chemistry faculty members' perceptions of agency in teaching and research, semi-structured interviews were conducted with all participants. Each interview lasted about 30 minutes. The interview protocol was designed to ensure both consistency across interviews and sufficient flexibility for participants to elaborate on their experiences. The development of the interview guide was informed by an extensive review of the literature on faculty agency, academic work, and the teaching–research nexus. In addition, the interview questions were closely aligned with the study's research questions to ensure that the data collected addressed the objectives of the investigation. The questions encouraged participants to reflect on how they perceived and enacted agency in their teaching and research activities, how teaching and research influenced their sense of agency, and how their agency shaped their engagement in these two core dimensions of academic work.

### *Data Collection Procedure*

The data collection process for this comparative study was carried out through a series of systematic steps to ensure the credibility and consistency of the findings. Initially, the semi-structured interview protocol was developed based on a review of literature on faculty agency, teaching, and research in higher education contexts. The interview protocol was developed collaboratively by the research team. A pilot study was then conducted with two faculty members who were not part of the main sample. The pilot interviews were conducted by the first researcher, and the research team jointly reviewed the pilot feedback and discussed the necessary revisions. Their feedback led to several revisions, including the clarification of ambiguous questions, reordering of items to improve logical flow, and the inclusion of additional prompts to more comprehensively address aspects of agency in teaching and research. The revised interview guide was subsequently reviewed by three university academics, whose input further enhanced the clarity, relevance, and focus of the instrument.

For the main data collection, faculty members from the Applied Linguistics and Chemistry departments at two Iranian universities were contacted directly. After receiving a detailed explanation of the study's aims and confirming voluntary participation, ten faculty members agreed to take part. All interviews were conducted by the first researcher in private settings within participants' offices during non-teaching periods over a three-week period.

Each interview lasted approximately 20 to 30 minutes. Interviews with Applied Linguistics faculty were conducted in English, whereas interviews with Chemistry faculty were conducted in Persian. All Persian data were subsequently translated into English by the researcher and cross-checked by an English language expert to ensure equivalence of meaning and nuance. The translation was completed by the first researcher, while the cross-checking was conducted by an English language expert. With participants' consent, all interviews were audio-recorded using a smartphone device and transcribed verbatim. The research team was involved in reviewing the transcripts and ensuring their accuracy prior to analysis. As part of the member-checking process, participants were invited to review their interview transcripts and confirm the accuracy of the transcriptions and the representation of their views. Their feedback was incorporated where necessary, thereby enhancing the credibility and trustworthiness of the findings.

***Data Analysis Procedure***

The transcribed interview data were analyzed using inductive thematic analysis, following Braun and Clarke's (2006) six-phase framework, with the assistance of MAXQDA (VERBI Software, 2024). MAXQDA was used to facilitate the organization, coding, retrieval, and management of the qualitative data. An inductive approach was specifically adopted because the analysis was data-driven, with codes and themes developed from participants' accounts rather than imposed through predetermined theoretical categories (Rezvani & Riazi, 2026, in press; Riazi et al., 2023a, 2023b). The analysis followed the six phases of thematic analysis proposed by Braun and Clarke (2006). First, the researchers familiarized themselves with the data by repeatedly and actively reading the interview transcripts to gain a thorough understanding of the participants' accounts. The interviews were conducted by the first researcher, while all researchers participated in the analysis. During the second phase, initial codes were developed through a systematic, line-by-line examination of the transcripts. Relevant segments, ranging from short phrases to longer excerpts, were coded in relation to the research questions. The researchers independently examined relevant portions of the transcripts and then compared and discussed their coding decisions to develop a shared interpretation of the data.

In the third phase, the researchers searched for potential themes by reviewing, organizing, and refining the initial codes. Codes that reflected related aspects of participants' accounts were brought together into broader categories, particularly those concerning agency

in teaching and research. In the fourth phase, the emerging themes were reviewed and refined through several rounds of discussion. The researchers examined the themes against the relevant data extracts and across the dataset to ensure that each theme was coherent and sufficiently distinct from the others. In the fifth phase, the themes were defined and named according to their central meanings and their relevance to the research questions. The final themes were then compared across the Applied Linguistics and Chemistry groups to identify similarities and differences in how faculty members perceived and enacted agency within their respective disciplinary contexts. Finally, in the sixth phase, the findings were organized and reported, with all researchers contributing to the interpretation of the themes and the comparison of the two disciplinary groups. This process kept the analysis closely connected to participants' accounts while allowing disciplinary similarities and differences to become evident during the analysis. Although the coding and theme development were primarily inductive and grounded in participants' accounts, the final interpretation of the themes was informed by the ecological model of agency (Priestley et al., 2026). Thus, the model was not used to impose predetermined categories during the initial analysis; rather, it provided a conceptual lens for interpreting and discussing the patterns that emerged from the data.

Several strategies were used to strengthen the credibility, dependability, confirmability, and transferability of the findings (Rezvani & Riazi, 2026). Credibility was enhanced through member checking, whereby participants were invited to review their interview transcripts and confirm the accuracy of their accounts. The researchers also repeatedly reviewed the transcripts and maintained reflective field notes during data collection. These practices helped the researchers remain attentive to the context of participants' responses and to their own interpretations of the data. Dependability was supported by maintaining a systematic and transparent analytic process based on Braun and Clarke's (2006) six-phase framework. All researchers participated in the analysis. After the initial codes were developed, relevant sections of the transcripts were independently examined, and the coding decisions were subsequently compared and discussed. Where differences in interpretation arose, they were addressed through discussion until agreement was reached. Codes and emerging themes were also revisited and refined throughout the analysis as the researchers developed a fuller understanding of the dataset. Given the interpretive orientation of the study, no statistical inter-coder reliability coefficient was calculated (Rezvani & Farzaneh, 2026). Instead, consistency and dependability were supported through independent examination of the data, collaborative comparison, discussion, and consensus-based refinement of codes and themes

(Riazi et al., 2023b). The researchers also kept detailed records of coding decisions and theme development to provide an audit trail and make the analytic process transparent.

Confirmability was addressed by keeping the interpretations closely grounded in participants' accounts and by using relevant interview excerpts to support the findings. Reflective notes and discussions among the researchers also provided opportunities to question and reconsider interpretations and potential biases. Finally, transferability was supported by providing detailed information about the research context, participants, disciplinary backgrounds, data collection procedures, and analytic process. Such contextual detail allows readers to determine the extent to which the findings may be relevant to similar higher education and disciplinary settings.

## Results and Discussion

### *Theme 1: Locating the Core and Nature of Professional Agency*

#### *Applied Linguistics Faculty: Agency as Pedagogical, Reflective, and Relational*

As shown in Figure 1, Applied Linguistics faculty consistently positioned teaching as the core of their professional roles, which shaped how they understood and enacted agency. One participant explained:

> *"If I want to define myself professionally, I would say I am a teacher rather than a researcher. Of course, I conduct research and I publish, but my main concern has always been teaching. When I enter the classroom, I feel that this is where my real professional identity is realized. Research is meaningful to me because it supports my teaching."*

Another faculty member emphasized the same orientation:

> *"Between teaching and research, my preference is teaching. I cannot completely separate them, but teaching is dominant in my professional life. Even when I am engaged in research, I am thinking about how it can help me improve my classes."*

These accounts indicate that Applied Linguistics faculty primarily locate their professional influence in teaching, associating agency with their ability to make pedagogical decisions and shape students' learning experiences. This finding supports ecological perspectives, which view agency as emerging through interaction between individuals and their professional contexts and as closely linked to professional identity (Biesta et al., 2015; Priestley et al., 2026). It also aligns with research showing that language educators often

experience professional agency through teaching, particularly reflection, adaptation, and student engagement (Tao & Gao, 2017).

Research was primarily valued for its contribution to teaching. One participant explained:

> *"Research is actually a tool for teaching. For example, when I conduct studies on writing instruction, I directly apply those findings in my classroom. It changes how I give feedback, how I evaluate assignments, and how I guide students through the writing process."*

This account shows that research provides faculty with knowledge and evidence that can be translated into pedagogical decisions. A similar connection emerged in participants' descriptions of how research influenced specific teaching practices:

> *"I use what I have learned from my research to focus more on the process of writing rather than only the final product. That shift in my teaching approach came directly from my research experience."*

Rather than functioning as an independent source of professional influence, research was therefore primarily used to expand pedagogical knowledge and improve classroom practice. This finding is consistent with Rahimi and Weisi (2018), who found that research engagement can contribute positively to professional teaching practice.

Agency was also evident in faculty members' responses to changing classroom conditions. One participant described this process as follows:

> *"In my classes, I constantly observe what is happening. If I realize that a particular method is not effective, I revise it. I redesign activities, I adjust my approach, and I try different strategies. I don't feel obligated to repeat the same structure every semester."*

Another participant emphasized the role of student feedback:

> *"Student feedback influences my decisions a lot. Sometimes their reactions show me that I need to modify something. I reflect on that and make changes. So, my teaching decisions are not fixed; they develop over time."*

These accounts show that agency is enacted through continuous evaluation and adaptation rather than fixed instructional routines. Faculty assess classroom experiences and student responses to determine how their teaching should change. This aligns with Priestley et al.'s (2026) ecological model, particularly its practical-evaluative dimension, which

emphasizes assessing present circumstances, and with Schön's (1983) concept of reflective practice, whereby professionals modify their actions in response to experience and feedback.

Finally, agency was not limited to individual classroom decision-making but was also enabled through collegial relationships. One participant explained:

"If you have a good relationship, you can ask one of your colleagues to read your paper…if you come up with a problem, you can just consult them. They will help you."

This account highlights the relational dimension of agency, as faculty members draw on collegial feedback and professional interaction to develop ideas and address scholarly problems. This finding supports sociocultural understandings of agency that emphasize the importance of social networks, collaboration, and professional communities in enabling purposeful action (Eteläpelto et al., 2013). Overall, Applied Linguistics faculty's agency was primarily teaching-centered but was supported by research engagement, reflective practice, student interaction, and collegial collaboration.

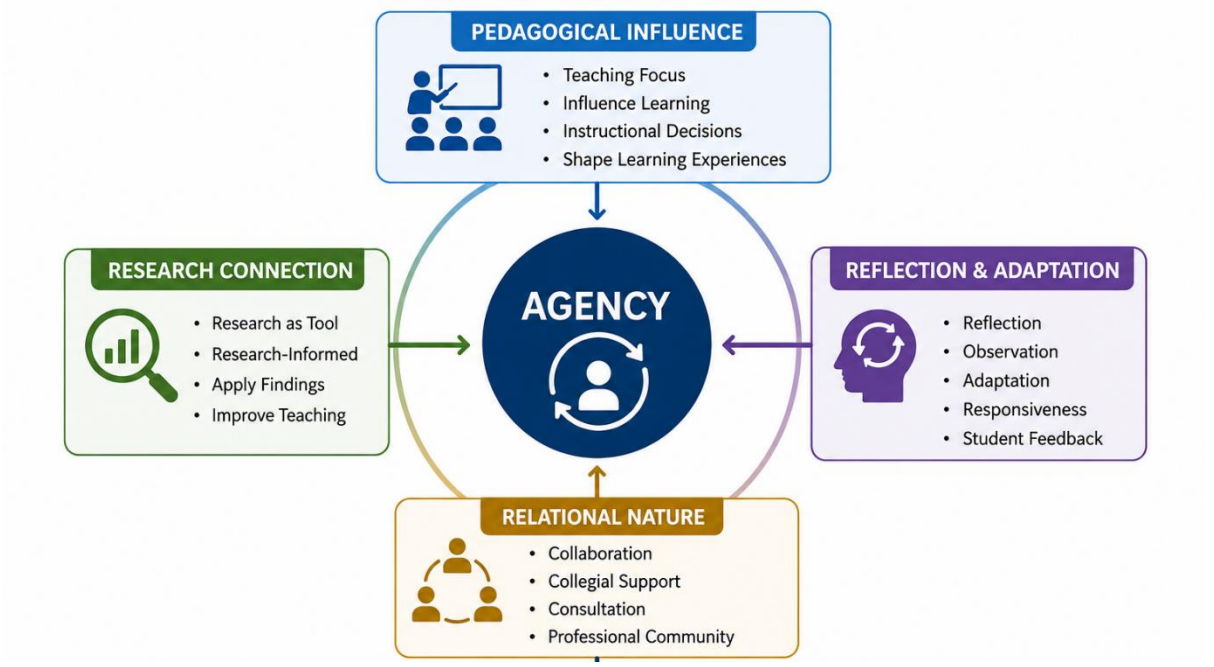



**Figure 1.** Enactment of Agency Among Applied Linguistics Faculty

***Chemistry Faculty: Agency as Strategic and Research-Oriented Action***

As indicated in Figure 2, chemistry faculty consistently position research as the core of their profession. This orientation shapes how differently they experience and exercise agency. One participant explained:

*"I would say teaching is important, but research is more important. In practice, research requires long-term planning. We usually follow a five-year research plan, and our projects are aligned with that trajectory."*

Another emphasized strategic publication goals:

*"In our department, Q1 publications are very important. When we design a research project, we consider its potential for publication in high-impact journals. Research is strategic. We select topics carefully, apply for grants, and move step by step."*

These accounts show that Chemistry faculty conceptualize agency largely through managing long-term research trajectories. Unlike Applied Linguistics faculty, whose agency is embedded in daily pedagogical interactions, Chemistry faculty associate agency with planning, strategic decision-making, and scholarly achievement. This finding aligns with research showing that academics in research-intensive environments often experience agency through establishing research agendas, securing resources, and pursuing long-term scholarly goals (Lu & Zhang, 2026).

Chemistry faculty also perceive agency as operating within structural boundaries rather than through unrestricted freedom.

*"We have sufficient freedom in choosing our research topics. There are general national priorities, but within that framework, we decide the specific direction of our work. The orientation of the research group depends largely on our decisions."*

Similarly, another participant noted:

*"We do what we can in research. As much as facilities, grants, and resources allow, we work and publish papers within our capacity."*

Participants acknowledge the influence of funding availability, institutional priorities, and resource limitations, yet still describe themselves as capable of making meaningful choices regarding research direction. This finding reflects a contemporary view of agency as something that is both supported and limited by structural conditions (Gulati & Srivastava, 2014; Haslanger, 2024). Rather than resisting institutional structures, faculty members strategically navigate them to achieve professional goals.

Research leadership further illustrates how agency is enacted:

*"As a faculty member, I define the overall direction of my research group. I supervise graduate students, distribute tasks, and determine which collaborations to pursue. That is where I feel I have the most influence professionally."*

This statement highlights agency as professional influence and leadership. Participants derive their strongest sense of agency from directing research agendas, coordinating collaborations, and mentoring graduate students. Such findings support studies suggesting that academic agency in research-intensive disciplines often extends beyond individual scholarly work to include leadership, supervision, and the coordination of collective research activities (Bates & Burbank, 2019; Tao & Wang, 2024).

Teaching, by comparison, is described as operating within predetermined structures:

*"For teaching, the syllabus is usually defined by the Ministry. We follow that framework. Of course, we have flexibility in how we present the material, but the overall structure is predetermined."*

Another participant similarly observed:

*"Naturally, the Ministry of Science determines the course outlines…in teaching and in research, we also have to work within a defined framework—usually a five-year plan—that we set and then move within that direction."*

These accounts indicate that teaching is perceived as more externally regulated than research. Although faculty acknowledge some instructional flexibility, their narratives emphasize research-related activities. Consequently, agency is experienced primarily through research planning, scholarly decision-making, publication strategies, and leadership. This pattern reflects disciplinary cultures in the natural sciences, where research productivity and scholarly achievement are often central indicators of professional success and influence (Carpenter et al., 2014).

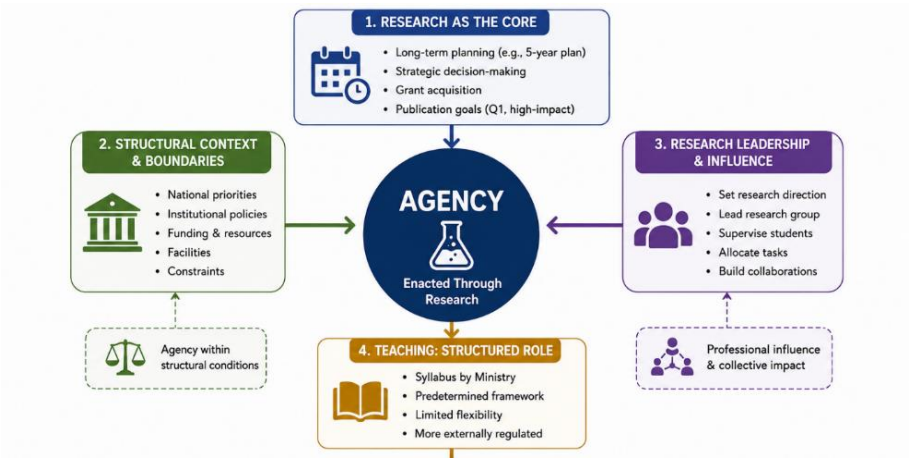



**Figure 2.** Enactment of Agency Among Chemistry Faculty

***Theme 2: The Interplay Between Agency and Teaching***

As illustrated in Figure 3, the findings indicated that teaching functions as a primary site of agency development for Applied Linguistics faculty, where professional decision-making is continuously shaped through classroom experience and student interaction. Participants consistently describe teaching as a dynamic space in which they actively revise and refine their decisions. One faculty member explained:

> *"When I teach, I am constantly making decisions. I pay attention to students' reactions, think about what is working and what is not, and then adjust my teaching. Every class gives me new information, so I continuously revise my methods rather than repeating the same approach."*

This statement suggests that teaching is not merely one component of academic work but the primary context through which faculty experience and develop agency. Participants' accounts show that professional influence is exercised through pedagogical decision-making, adaptation, and engagement with students. This finding aligns with recent research suggesting that agency emerges through educators' active engagement with teaching contexts and their responses to contextual opportunities and challenges (Cong-Lem, 2024; Leijen et al., 2020).

The findings also indicated that agency plays a central and transformative role in shaping teaching practices among Applied Linguistics faculty. Participants consistently describe their teaching as highly responsive to professional judgment, classroom experience, and research engagement, suggesting that agency is deeply embedded in pedagogical decision-making (as presented in Figure 3). Two stated that:

> *"I do not simply follow the same lesson plan every semester. I watch how students respond, reflect on what is working, and then modify the activities, materials, or even the whole approach if necessary. My teaching develops through experience and continuous adjustment."*
>
> *"Nobody tells me exactly how I should teach. I decide what works best for my students and adjust my classes accordingly."*

Rather than simply implementing predetermined instructional approaches, faculty members actively evaluate, modify, and refine their teaching practices in response to contextual demands. This finding is consistent with studies that conceptualize teacher agency as educators' capacity to make purposeful pedagogical choices and shape their professional practice within specific social and institutional contexts (Sang, 2022).

Rather than viewing agency as a stable individual characteristic, Applied Linguistics faculty describe it as something that develops through ongoing participation in teaching practice. Teaching experiences also appear to generate opportunities for agency by requiring continuous adaptation in instructional design and classroom management. For instance, participants describe modifying workload, incorporating graduate assistants, and adjusting teaching strategies based on classroom needs:

> *"I may make use of TAs… or I decrease the load on my classes… so I try to do both in a good way."*

These accounts show how agency grows through professional judgment and decision-making based on contxt. Faculty members actively navigate competing demands and find solutions that help them maintain teaching quality while handling other responsibilities. Recent studies reveal similar patterns. They show that agency develops when educators respond to institutional conditions and local teaching challenges (Robinson, 2012).

A particularly important mechanism through which teaching shapes agency is reflective practice. Faculty members repeatedly describe evaluating the effectiveness of their teaching and making adjustments based on classroom experiences:

> *"If I realize that a particular method is not effective, I revise it. I redesign activities, I adjust my approach."*

This finding suggests that teaching does not simply provide opportunities for agency but actively contributes to its development. Through cycles of observation, evaluation, and modificatin, faculty members strengthen their confidence and capacity to make pedagogical decisions. Such findings align with recent conceptualizations of agency as a dynamic and developmental process that evolves through engagement with professional practice (Molla & Nolan, 2020).

Student feedback also emerged as an important contributor to agency development:

> *"Student feedback influences my decisions a lot… I reflect on that and make changes."*

> *"I pay close attention to students' feedback because it guides my decisions. Their comments help me identify what needs to change, so I continuously improve my teaching rather than repeating the same methods."*

This finding highlights the interactive nature of teaching agency. Faculty engage with student perspectives to evaluate instructional effectiveness, refine their approaches, and strengthen confidence in professional decision-making (Mandouit, 2018). Consequently,

teaching becomes an evolving process shaped by continuous interaction between professional judgment and learner needs, consistent with research emphasizing the relational nature of teacher agency and its development through engagement with students and educational contexts (Priestley et al., 2026).

Agency is also evident in ongoing classroom reflection and experimentation. Faculty members report continuously evaluating their teaching and adjusting it when necessary:

> *If I believe a different approach will help students learn better, I am willing to change the way I teach."*

These accounts suggest that agency functions as a mechanism for pedagogical improvement. Through continuous reflection on classroom experiences, faculty members identify challenges, test alternative approaches, and refine their instructional strategies. This finding aligns with Leijen et al.'s (2020) argument that agency strengthens reflective engagement with professional practice.

On the contrary, for Chemistry faculty, teaching plays a more limited and structured role in shaping agency. While teaching requires professional preparation and engagement, participants generally do not describe it as a major source of professional growth or decision-making ability. Instead, teaching is perceived as operating within established institutional structures that define many aspects of instructional work. Participants frequently emphasized the externally regulated nature of teaching (as shown in Figure 3). One faculty member noted:

> *"In teaching, most of the framework is already determined. The syllabus, the course objectives, and much of the content are specified in advance. My role is to decide how to present the material effectively, but I cannot change the overall structure."*

This perception suggests that teaching agency is relatively constrained. Although faculty retain flexibility in presenting content and interacting with students, they report limited influence over broader curricular decisions. This aligns with research showing that faculty agency is shaped by regulations, accountability systems, and institutional norms (Buchanan, 2015). Teaching is therefore experienced primarily as a responsibility to fulfill rather than as a domain that substantially expands agency.

As indicated in Figure 3, for Chemistry faculty, agency influences teaching in a more constrained and indirect way, largely because teaching operates within established institutional and disciplinary norms. Although participants express some sense of agency over

classroom practices, they generally describe teaching as governed by predefined curricular requirements that limit opportunities for broader pedagogical decision-making. One participant explained:

> *"The curriculum and course objectives are already determined, so there is not much room to change what we teach. My decisions are mostly about how to explain the concepts or organize the class, rather than changing the overall structure."*

This statement suggests that faculty have limited influence over curriculum design and course content; thus, teaching agency is exercised mainly through implementation rather than curricular redesign. This aligns with ecological perspectives, which view professional action as shaped by institutional opportunities and constraints (Leijen et al., 2020), and with research showing that faculty agency varies according to organizational expectations and disciplinary norms (Cong-Lem, 2024).

Overall, the findings revealed a clear disciplinary contrast in the relationship between agency and teaching. For Applied Linguistics faculty, teaching is a primary site where agency is developed and exercised through classroom experience, reflection, student feedback, and pedagogical decision-making. In contrast, Chemistry faculty experience teaching as a more structured domain, with agency exercised mainly through instructional implementation while broader curricular decisions remain externally defined. Thus, teaching serves as a central site of agency development for Applied Linguistics faculty but a more constrained domain for Chemistry faculty.

***Theme 3: The Interplay Between Agency and Research***

The findings showed that research indirectly influences faculty agency by strengthening Applied Linguistics faculty members' ability to make informed teaching decisions, reflect on their practice, and adapt instruction to students' needs. Rather than being viewed as a separate responsibility, research is closely connected to teaching and serves as a resource for improving classroom practice. Participants described research as deepening their understanding of teaching and increasing their confidence in instructional decision-making (see Figure 3). Thus, research supports faculty agency by expanding their capacity for professional judgment in the classroom:

> *"Research is actually a tool for teaching. For example, when I conduct studies on writing instruction, I directly apply those findings in my classroom. It changes*

*how I give feedback, how I evaluate assignments, and how I guide students through the writing process."*

This account shows that research provides faculty with perspectives and evidence that inform their teaching. Rather than relying solely on past experience, they draw on research to evaluate practices, make informed decisions, and adapt instruction to better support student learning. Thus, research strengthens their capacity to act purposefully and confidently in the classroom, while teaching remains the primary context of agency. These findings align with research suggesting that research engagement promotes reflection, strengthens professional judgment, and enhances informed teaching decisions (Eriksen, 2022; Wyatt & Dikilitaş, 2016).

Research also appears to strengthen agency through reflection and professional learning. Participants describe using research experiences to evaluate previous decisions and refine future scholarly and pedagogical activities. One faculty member reflected:

*"I now think I regret my past research…in different areas. I try to be more focused…then I can come up with new ideas to do research in that area."*

This statement suggests that research contributes to agency by fostering self-evaluation and strategic thinking. Engagement in research enables faculty members to reflect on past experiences, identify areas for improvement, and make more purposeful decisions regarding future professional activities. Such findings align with recent scholarship emphasizing that agency develops through reflective engagement with professional experiences and continuous learning (Eddy et al., 2019).

As Figure 3 shows, Applied Linguistics faculty exercise research agency through collaboration, connections to teaching, and ongoing reflection. Research is viewed not as isolated scholarly production but as a collaborative, context-sensitive process shaped by teaching needs and collegial exchange. This finding aligns with research suggesting that academic agency is often exercised through social interaction, collaboration, and engagement with professional communities rather than individual autonomy alone (Leijen et al., 2024). One faculty member explained:

*"If I have time and also my colleague does have time, I ask my colleague to read my manuscript. They have provided me with comments, and vice versa."*

This account highlights the relational nature of research agency. Faculty members rely on collegial dialogue, feedback, and mutual support to refine ideas and improve scholarly work. Research decisions are therefore shaped through interaction with others rather than

through solitary decision-making. Similar findings have been reported in studies showing that collaborative networks and professional relationships enhance academics' capacity to pursue research goals, solve scholarly problems, and sustain research productivity (Bozeman et al., 2013).

The influence of agency is also evident in the application of research findings to instructional practice. Participants consistently described using research outcomes to modify teaching approaches and improve student learning. One faculty member explained:

> *"Research as a tool for teaching…if you just consider teaching separate from research, teaching is dominant, but I make use of research in order to do my teaching career better."*

The finding suggests that agency influences both the choice of research topics and the interpretation and application of findings. Rather than viewing research as an end in itself, participants used it to address practical teaching and learning challenges. Thus, agency enables faculty to orient research toward outcomes that are contextually meaningful and pedagogically relevant, consistent with research showing that academics align research with their professional values and local contexts (Priestley & Drew, 2019; Willcoxson et al., 2011).

For Chemistry faculty, research is the primary domain through which agency is developed and exercised. Unlike Applied Linguistics faculty, who connect research to teaching, Chemistry faculty view research itself as the central arena for professional decision-making and scholarly control (as seen in Figure 3). One participant explained:

> *"We have sufficient freedom in choosing our research topics. There are general national priorities, but within that framework, we decide the specific direction of our work. The orientation of the research group depends largely on our decisions."*

Research also gives faculty a way to set their own academic goals and decide on research paths. While they recognize bigger organizational and national guidelines, they still feel they can greatly influence their work's direction. This shows they have a sense of independence where they can make important choices even with existing limits. Other studies have found similar feelings of independence among academics when it comes to setting goals, planning research, and making scholarly choices (Hirst et al., 2020).

Research also enhances agency through leadership responsibilities. Participants describe supervising graduate students, managing research groups, and coordinating collaborations. One faculty member explained:

> *"As the principal investigator, I decide the direction of the project. I assign responsibilities to graduate students, monitor their progress, and coordinate our collaborations. These decisions are an important part of my role as a faculty member."*

This account demonstrates that research contributes to agency by positioning faculty members as leaders. Being a leader isn't just about doing research; it means helping others, shaping group projects, and building research communities. Recent studies also suggest that in research-intensive settings, academic agency ties closely to leading, supervising, and managing group research tasks (Yang et al., 2024).

Strategic planning also emerged as an important mechanism through which research affects agency. Participants frequently referred to publication goals, funding opportunities, and long-term project development. One faculty member noted:

> *"Before starting a project, we think carefully about its long-term potential. We consider funding opportunities, possible publications, and how it fits into our research plan. Those decisions shape everything we do afterwards."*

This finding indicates that research strengthens agency through strategic decision-making and long-term planning. Faculty evaluate opportunities, manage resources, and prioritize projects according to disciplinary expectations and institutional objectives. Rather than restricting agency, these conditions provide opportunities for professional judgment. This aligns with research showing that academics develop agency through engagement with research management, funding systems, and scholarly performance expectations (Chau & Pham, 2022).

Another participant highlighted the role of resources in shaping agency through research activity:

> *"The resources available to us have a significant impact on what we can do. We have to consider our funding, laboratory facilities, and equipment before deciding which projects are realistic."*

This finding suggests that faculty members exercise agency by making strategic research decisions within the opportunities and constraints created by available resources.

Rather than limiting agency, funding, facilities, and institutional support shape how faculty prioritize research goals and adapt their plans (Ryazanova & Jaskiene, 2022).

For Chemistry faculty, agency plays a more direct and influential role in shaping research activity. Unlike Applied Linguistics faculty, who often see their research as a secondary domain to agency development, Chemistry faculty describe research as the primary domain in which they exercise agency. Participants emphasized their ability to determine research directions, manage projects, and coordinate scholarly activities while working within institutional and disciplinary expectations (as illustrated in Figure 3). As one participant explained:

> *"Yes, we've always had choices, and those choices have led to new research…higher-level organizations guide us, but more as encouragement than restriction."*

This account suggests that faculty members perceive themselves as having meaningful influence over research decisions despite operating within institutional and national priorities. This finding is consistent with recent conceptualizations of academic agency that emphasize professionals' ability to navigate structural opportunities and constraints while maintaining control over important aspects of their work (Adler & Lalonde, 2020).

Agency also shapes research through decisions regarding topic selection and resource utilization. As one participant stated:

> *"We do what we can in research. As much as facilities, grants, and resources allow, we work and publish papers within our capacity."*
>
> *"We have sufficient freedom in choosing our research topics. There are general national priorities, but within that framework, we decide the specific direction of our work."*

This finding highlights the strategic nature of research agency among Chemistry faculty. Participants considered resources, funding opportunities, and institutional conditions when setting research priorities. Rather than pursuing research solely according to academic interests, they balanced scholarly goals with practical realities. This aligns with research showing that academics increasingly exercise research agency by navigating funding systems, institutional expectations, and resource constraints (Cong-Lem, 2024).

Agency is further expressed through research leadership and long-term planning. Participants describe defining research trajectories, supervising graduate students, organizing collaborations, and managing research groups. One participant explained:

*"When I start a research project, I usually think several years ahead. I consider how the current study can lead to subsequent projects and contribute to a coherent research line."*

*"I have established a small research group with colleagues from different universities. We meet regularly, plan future projects, and identify potential publication opportunities together."*

This statement demonstrates that agency extends beyond individual research activities to include intellectual and organizational leadership. Faculty influence research programs, set scholarly priorities, and guide students and collaborators. This aligns with research showing that academic agency in research-intensive environments is often expressed through leadership, project coordination, and management of collaborative research activities (Yang et al., 2024).

Although the disciplinary patterns were generally consistent, some accounts revealed variation. For example, one Applied Linguistics faculty member described research itself as a meaningful source of professional agency, noting:

*"I do not see research only as something that helps my teaching. When I develop a research idea and pursue it independently, I feel that I am also shaping my own professional direction."*

This account suggests that, although teaching remained central for Applied Linguistics faculty overall, research could also provide a direct sense of intellectual autonomy and professional influence. Similarly, one Chemistry faculty member emphasized the importance of teaching as a source of professional satisfaction and agency:

*"Research is very important to me, but teaching is also where I feel that I can make an immediate difference. I have freedom in how I explain concepts and how I respond to students' difficulties."*

This perspective represents a departure from the predominantly research-centered pattern observed among Chemistry faculty and suggests that teaching can also constitute a meaningful site of agency when faculty perceive sufficient room for pedagogical judgment.

These accounts indicate that disciplinary cultures establish dominant orientations toward teaching and research but do not determine faculty agency in a uniform manner. Individual professional histories, personal values, and the opportunities available within particular institutional contexts may mediate how faculty members experience and enact agency. Thus, the distinction between teaching-centered agency in Applied Linguistics and

research-centered agency in Chemistry should be understood as a predominant pattern rather than a rigid binary.

Overall, the findings showed that research is an important but differently positioned source of faculty agency across the two disciplines. It primarily supports teaching-centered agency among Applied Linguistics faculty, whereas it constitutes the central arena for strategic, leadership-oriented, and resource-sensitive agency among Chemistry faculty. This contrast reflects differences in epistemic cultures and the relationship between knowledge production and professional practice. In Applied Linguistics, the close connection among knowledge, pedagogy, language use, and classroom interaction makes the boundary between research and teaching more permeable, allowing research to inform instructional decisions and strengthen pedagogical judgment.

By contrast, Chemistry is more strongly organized around laboratory-based knowledge production, specialized research programs, publications, funding, and disciplinary collaboration. Research is therefore not merely a resource for another professional activity but a central means of producing knowledge, establishing expertise, leading research groups, and advancing academic careers. The perceived audience of research may also contribute to this distinction: Applied Linguistics faculty tend to connect research with students and classroom practice, whereas Chemistry faculty more often orient it toward disciplinary peers, research groups, journals, funding bodies, and broader scientific communities.

These differences align with research showing that disciplines develop distinct ways of producing and valuing knowledge, shaping how research is conducted, and academic work is evaluated. Disciplinary norms and institutional expectations also influence academics' professional priorities and agency. In this study, Chemistry faculty connected their agency more strongly to research productivity through publication planning, funding, research leadership, and long-term goals. Applied Linguistics faculty also engaged in research and responded to institutional expectations but viewed it primarily as supporting teaching. Thus, the difference is not simply a preference for teaching or research but reflects how disciplinary contexts shape connections among knowledge production, professional practice, disciplinary audiences, and academic success.

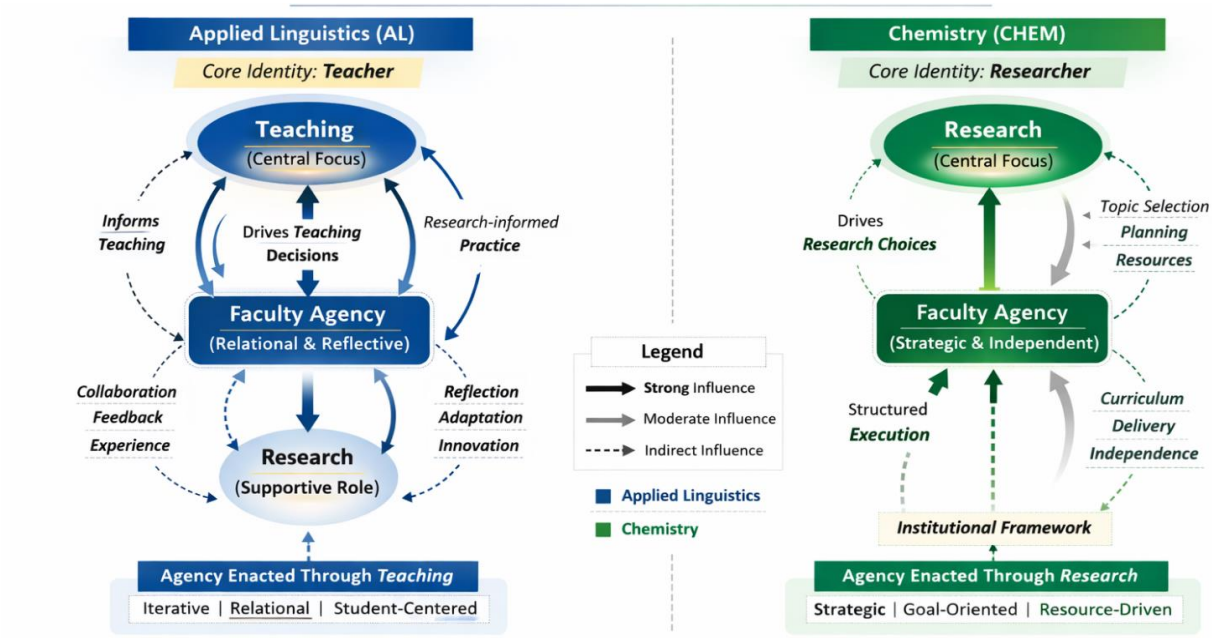



**Figure 3.** Faculty's Agency, Teaching, and Research: A Comparative Model of Applied Linguistics and Chemistry Faculty

***Agency through an Ecological Lens: Iterational, Practical-Evaluative, and Projective Dimensions***

**Table 2.** Faculty Agency Through the Ecological Model

| Dimension | Applied Linguistics Faculty | Chemistry Faculty |
|---|---|---|
| **Iterational** | Agency shaped by past teaching experiences, classroom interactions, and pedagogical reflection. | Agency shaped by past research experiences, project management, publication, and supervision. |
| **Practical-evaluative** | Agency enacted through responding to classroom needs, students, and curricular conditions. | Agency enacted through evaluating research resources, funding, facilities, and institutional conditions. |
| **Projective** | Future agency oriented toward improving teaching and pedagogical development. | Future agency oriented toward research productivity, publication, and scholarly advancement. |

As Table 2 shows, the findings are interpreted through Priestley et al.'s ecological model of agency, which conceptualizes agency as emerging through the interplay of iterational, practical-evaluative, and projective dimensions. Agency is therefore not a fixed

individual capacity but develops through faculty members' past experiences, evaluations of present conditions, and orientations toward future action. This framework helps explain why faculty in the two disciplines constructed and enacted agency differently across teaching and research. Although both groups demonstrated agency, its sources and forms were shaped by distinct disciplinary histories, institutional conditions, and future goals.

***Iterational Dimension: The Influence of Previous Experiences***

The iterational dimension refers to how past experiences, professional knowledge, and established patterns of action shape responses to present situations (Priestley et al., 2026). The findings suggested that previous professional experiences contributed to differences in how faculty understood and enacted agency. For Applied Linguistics faculty, accumulated teaching experiences were particularly influential. Repeated classroom encounters, student interactions, reflection, and experimentation with teaching strategies helped develop their professional judgment. Agency was therefore built through ongoing classroom experience, as faculty drew on past teaching situations to adapt instruction, respond to students' needs, and make pedagogical decisions. Their experiences thus strengthened a primarily relational, reflective, and teaching-oriented form of agency.

For Chemistry faculty, by contrast, previous research experiences played a more prominent role in shaping agency. Their accumulated experience in conducting research, managing projects, publishing, supervising students, and collaborating with scholars informed how they approached professional responsibilities. These experiences provided the knowledge and confidence to determine research directions, manage scholarly activities, and pursue long-term goals. Thus, while Applied Linguistics faculty drew more strongly on their histories as teachers, Chemistry faculty drew more on their histories as researchers. This difference suggests that the iterational dimension of agency is closely linked to disciplinary cultures and the professional activities that faculty have historically been encouraged to prioritize.

***Practical-Evaluative Dimension: Agency within Present Conditions***

The practical-evaluative dimension concerns how individuals assess their present circumstances, including the social, cultural, institutional, and material conditions shaping action (Priestley et al., 2026). The findings showed that agency in both disciplines was enabled and constrained by these conditions, although their nature differed considerably.

For Applied Linguistics faculty, classroom demands, student diversity, curricular expectations, and opportunities for pedagogical adaptation provided important contexts for exercising agency. Despite working within institutional curricula and broader educational requirements, faculty used professional judgment to adapt teaching methods, respond to students, and modify classroom practices. Thus, constraints did not eliminate agency; rather, faculty evaluated their circumstances and exercised agency through adaptation and negotiation. Research was similarly evaluated in terms of its usefulness for teaching, with its practical value often determined by its contribution to classroom practice.

For Chemistry faculty, the practical-evaluative dimension of agency was more closely tied to the material and organizational conditions of research. Laboratory facilities, funding, equipment, institutional support, collaboration opportunities, and publication expectations shaped the possibilities available to them. Their agency therefore involved evaluating whether existing resources and institutional conditions allowed them to pursue particular research directions. Although Chemistry faculty could exercise considerable agency in setting research agendas and managing projects, this remained dependent on available material and institutional resources. By comparison, teaching provided a more restricted space for agency because it was more strongly structured by curricular requirements and institutional expectations.

The contrast between the groups shows that agency is contextually distributed across professional activities. Applied Linguistics faculty primarily exercised practical-evaluative agency by responding to immediate pedagogical conditions, whereas Chemistry faculty did so by strategically evaluating research resources, institutional expectations, and scholarly opportunities. This difference helps explain why agency was more visible in teaching among Applied Linguistics faculty but more strongly associated with research among Chemistry faculty.

***Projective Dimension: Future-Oriented Professional Agency***

The projective dimension concerns individuals' future-oriented aspirations, goals, and imagined possibilities (Priestley et al., 2026). The findings showed that faculty in the two disciplines differed in how these orientations shaped agency.

For Applied Linguistics faculty, future-oriented agency was primarily directed toward improving teaching and developing as effective educators. Research was often connected to enriching instructional practice, developing pedagogical knowledge, and responding more

effectively to students' needs. Their future orientation was therefore closely tied to pedagogical development, with agency involving the pursuit of better ways of teaching through professional learning and research.

Chemistry faculty, by contrast, showed a more strategic and long-term projective orientation toward research, focusing on future publications, research planning, funding opportunities, project development, and scholarly advancement. Agency was therefore exercised through building future research trajectories and organizing present activities around anticipated scholarly outcomes. Research was not simply a current responsibility but a means of pursuing future academic achievement and maintaining disciplinary standing.

The projective dimension thus reinforces the distinction between the groups. Applied Linguistics faculty tended to envision their professional futures through the ongoing development of teaching practices, whereas Chemistry faculty oriented their agency more toward long-term research productivity and scholarly achievement. These future orientations also shaped how faculty allocated attention and resources between teaching and research.

## Conclusion

This study examined faculty agency in relation to teaching and research among Applied Linguistics and Chemistry faculty in Iran. The findings demonstrate that agency is not a fixed or universal construct but is shaped by disciplinary cultures, professional priorities, and the relative positioning of teaching and research within academic work.

A clear disciplinary distinction emerged in how faculty conceptualize and enact agency. Applied Linguistics faculty primarily experienced agency as relational, pedagogical, and teaching-centered. They exercised agency through reflection, adaptation of instructional practices, and responsiveness to students, while research was largely viewed as a resource for strengthening teaching. Chemistry faculty, by contrast, experienced agency as strategic, structurally situated, and research-centered. Their strongest sense of professional influence was associated with research planning, scholarly productivity, resource management, and academic leadership, whereas teaching was more strongly shaped by standardized curricula and institutional structures.

The findings also revealed discipline-specific relationships among teaching, research, and agency. For Applied Linguistics faculty, teaching was the main context in which agency was developed and exercised, while research informed and enriched pedagogical practice. For Chemistry faculty, research was the primary domain of agency, with research knowledge

and experience contributing indirectly to teaching. These differences show that the teaching–research nexus operates differently across disciplines and contributes to distinct forms of professional agency.

Priestley et al.'s (2026) ecological model further explains these differences through the interplay of iterational, practical-evaluative, and projective dimensions. For Applied Linguistics faculty, agency was shaped by accumulated teaching experiences, present classroom conditions, and future goals for pedagogical development. For Chemistry faculty, it was shaped by accumulated research experiences, present institutional and material conditions, and future goals related to publication, funding, and scholarly achievement. Thus, disciplinary differences in agency reflect the interaction of professional histories, contextual conditions, and future-oriented goals.

These findings have implications for discipline-sensitive faculty development and institutional policy. For Applied Linguistics faculty, professional development should support pedagogical innovation, reflective teaching, and the integration of research into practice. For Chemistry faculty, greater emphasis should be placed on research leadership, grant development, and access to research resources. At the institutional level, policymakers and university administrators should address structural constraints such as rigid curricula, limited research funding, inadequate laboratory resources, and narrow evaluation criteria. More flexible, discipline-sensitive evaluation and support systems could create better conditions for faculty to develop and exercise agency.

However, the findings should be interpreted in light of the study's small, discipline-specific sample and Iranian higher education context, as well as the use of different interview languages (English for Applied Linguistics faculty and Persian for Chemistry faculty), which may have influenced the articulation and interpretation of participants' experiences and may limit the transferability of the findings to other disciplinary contexts. Future research could extend this comparative perspective to other disciplines and higher education contexts to further examine how academic cultures and institutional structures shape faculty agency.

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The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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