On the Relationship between Neuro-Linguistic Programming and Professional Identity: A Case Study of EFL Teachers

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Abstract

The present study investigates the application of Neuro-Linguistic Programming (NLP) as an innovative approach in second language teaching (SLT) to explore its impact on the professional identity of English as a Foreign Language (EFL) teachers. Employing a sequential explanatory mixed methods design, the research involved 148 Iranian EFL teachers of both genders. The quantitative phase employed NLP and Teacher Professional Identity questionnaires, with a selected group of 20 teachers participating in a four-week NLP training workshop designed to enhance their understanding and application of NLP in classroom discourse. A researcher-designed observation checklist measured teachers' use of NLP techniques. The subsequent qualitative phase involved two rounds of semi-structured interviews with the workshop participants. Spearman rho analysis revealed a significant positive correlation between NLP and the professional identity of EFL instructors. Thematic analysis of qualitative data further affirmed NLP's potential to enhance teaching quality and contribute to teachers' professional identity development. These findings underscore the substantial role of NLP in positively influencing teachers' professional development.

Keywords: *Neuro-linguistic Programming (NLP), Teacher Professional Identity (TPI), EFL Teachers, Second Language Teaching (SLT), Professional Development*

Introduction

The journey of becoming a teacher is recognized as a complex process with significant implications for students' achievement and school quality (Torres, 2010). Language teaching experts advocate a comprehensive examination of the political, cultural, individual, and professional identities of teachers to achieve a holistic understanding of them (Varghese et al., 2005).Teacher identity, encompassing both personal and professional dimensions, is defined as "the knowledge of who I am, what kind of person I am" (Wu & Wurenbilige, 2012, p. 92).

English as a foreign language (EFL) teachers, upon entering the teaching realm, become members of a new community where they shape and negotiate their identities (Wenger, 1998). An English teacher's identity entails many assumptions and values which can be manifested in their actions and decisions regarding the learners, curriculum, and teaching methods (Farrell, 2011). On the one hand, the role of an English teacher as a whole person and his or her contributions to language learning have been highlighted in the realm of English language learning research (Yesilbursa, 2012). Teacher education programs with the aim of learning how to teach lead to the development of teacher professional identity (Beauchamp & Thomas, 2009). To some educational experts (Carey et al., 2010), the existing relationship between teaching and learning parallels the interaction between art and science. Neuro-Linguistic Programming (NLP) as a novel approach to second language instruction, on the other hand, is perceived to hold significant potential for enhancing teaching and learning processes.

NLP, a psychology field, enhances self-communication and reduces negative emotions (Nompo et al., 2021). It is crucial for emotional regulation and improving self-communication (Gehlbach & Robinson, 2021), while also enhancing interpersonal relationships (El-Ashry, 2021). With new language instruction methods, educators need effective strategies to engage students (Purnama et al., 2023), adopting personalized instructional methods (Herman et al., 2022). NLP seeks to enhance personal flexibility and resourcefulness through understanding language and behavior patterns (Thakre et al., 2023; Saraswat, 2023). NLP is essential in learning by addressing learner needs (Siddiqui, 2018) and enhancing language instruction (Espinales & Moreno, 2021; Helm, 2009; Nazim & Yousaf, 2021; Thornbury, 2001). It impacts learners' mental states (Bandler & Grinder, 2012) and helps teachers manage classroom challenges (Tosey & Mathison, 2003) and build relationships (Keezhatta, 2019). As an assistive technology, NLP fosters critical thinking, academic achievement, emotional intelligence, and empathy (Begum et al., 2022). It improves communication, decision-making, and motivation (Thakre et al., 2023), enhances flexibility (Saraswat, 2023), and supports effective learning environments and motivation (Anjomshoaa et al., 2021; Seitovaa et al., 2016).

NLP proves beneficial in addressing the cognitive-emotional domain of learners through classroom discourse, playing a key role in teacher-student relationships and identity development (Javadi & Azizzadeh Asl, 2020; Millrood, 2004).Establishing effective relationships with students is crucial for identity development, and NLP aids in creating such relationships (Anjomshoaa et al., 2021; Tarnopolsky, 2016). NLP enhances second language acquisition by allowing EFL learners to express feelings and experiences (Khalandi & Zoghi, 2017; Winch, 2005). It positively impacts teachers' professional identity (Dragovic, 2007) and shows effectiveness in language teaching in various countries (Purnama et al., 2023). Instructors should emphasize communicative methods (Van Thao et al., 2021). By creating an interactive learning environment, NLP enhances problem-solving abilities and student-teacher rapport, fostering a highly communicative and conducive atmosphere for learning (Thakre et al., 2023).

In essence, NLP emerges as a powerful tool in the multifaceted landscape of language teaching, influencing both educators and learners alike. Numerous recent studies, such as those by Anjomshoaa et al. (2021) Begum et al. (2022) , Purnama et al. (2023), and Zhang et al. (2023) attest to the significant role of NLP particularly in the English language learning and teaching process. Despite the widespread application of NLP in various domains, its academic

recognition remains limited, often facing skepticism and criticism. Labeled as "pseudoscience" or "psychobabble," NLP has been challenged for lacking scientific evidence supporting its efficiency (Diamantopoulus et al., 2008; Heap, 2008; Grimley, 2016). Wikowski's analysis of over 300 NLP papers revealed mixed results, with 18.2% supporting NLP, 54.5% non-supportive, and 27.3% uncertain (Wikowski, 2010). Vaknin (2010) and Craft (2001) question the scientific language and theoretical coherence of NLP.

In response to critics like Craft, some researchers (e.g., Sandhu, 1994; Stanton, 1994; Tosey & Mathison, 2003) defend NLP in education. Tosey and Mathison (2003) argue for its theoretical identity and relevance to educational practice. Vieira and Gaspar (2013) emphasize NLP's focus on practical learning over theory, advocating it as an effective method for second language acquisition. NLP, perceived as a "practical theory," is defined through its use and prioritizes the phenomenological perspective, exploring inner perceptions of individuals' mental processes (Petitmengin, 2006; Dragovic, 2007). Some NLP studies (Anjomshoaa et al., 20221; Begum et al., 2022;; Hosseinzadeh & Baradaran, 2015; Keezhatta, 2019; Purnama et al., 2023; Sunitha et al., 2021; Zhang et al., 2023) aim to depict NLP accurately, particularly in language learning and teaching. Furthermore, NLP "can help the teacher to develop a plan of actions in class aimed at creating an atmosphere of interest, improvement of learning motivation, and, consequently, improvement of work effectiveness" (Seitovaa et al., 2016, p. 1147). What seems to be lacking here, however, is exploring the potential impacts of NLP on teachers' professional identity, which the current study aimed to take it under meticulous examination and bridge the gap in this area.

Literature Review
Understanding the Concept of NLP
NLP, created by Richard Bandler and John Grinder in the early 1970s, conceptualizes an individual as an integrated mind-body system. This system includes interconnected neurological processes (neuro), the communication system (linguistic), and the capacity to (re)organize thoughts to achieve desired outcomes (programming) (Shah, 2011).Encouraging individuals to articulate precise goals, adopt a positive mindset, and make purposeful efforts, NLP serves as a tool for effective personal development (O'Connor & Seymour, 1990). NLP enhances flexibility by expanding individuals' choices and perspectives, motivating students, and aiding language acquisition (Thakre et al., 2023). Saraswat (2023) describes NLP as an interpersonal communication model linking behavior patterns to subjective experiences, facilitating personal development. This makes NLP a valuable tool for meaningful change, especially in education (Khalandi & Zoghi, 2017; Moore, 2009).

The Potential Contribution of NLP to Education
NLP has proven to be a powerful methodology in language education, enhancing various aspects. Research highlights its multifaceted contributions, with Van Thao et al. (2021) advocating for a communicative focus in teaching and Purnama et al. (2023) emphasizing its role in enhancing communication skills, and Zhang et al. (2023) noting its ability to tailor instruction to individual preferences. These studies collectively underscore NLP's pivotal role in advancing educational practices through better communication and personalized learning experiences.

NLP has also demonstrated its value as a tool for teachers' professional development. Carey et al. (2010) and Blaskova et al. (2015) assert that NLP aids educators' professional growth by supporting the development of key competencies, including teaching, professional, and communication skills. Additionally, research indicates that NLP can be efficiently imparted to novice educators who lack educational proficiency (Blaskova et al., 2015). Silva (2017) emphasized that managing emotions in learning with NLP principles fosters a positive classroom environment, enabling dynamic and relaxed learning. Instructors skilled in NLP can help students identify motivations, thus enhancing education quality. Anjomshoaa et al. (2021) examined the effectiveness of NLP and cognitive-behavioral approaches in reducing anxiety, depression, and stress among adolescents, finding significant improvements in psychological issues. These studies collectively show that NLP can create supportive learning environments and address emotional and psychological challenges, thus improving educational outcomes.NLP helps teachers identify students' learning styles, enhancing content delivery (Khalandi & Zoghi, 2017). It improves teacher-student interaction, communication skills, motivation, and professional success (Millrood, 2004; Turan et al., 2016)). Begum et al. (2022) describe NLP as a promising communicative technique, with their study confirming its benefits in boosting communicative skills, motivation, and success in language learners.

Carrying out a study to explore the effect of NLP in the teaching-learning process of English as a foreign language, Narcisa and Moreno (2021) accentuated its underutilization in this field. Their qualitative research, including document analysis, showed that NLP techniques improve language acquisition by catering to different cognitive processes and intelligences. Their findings underscore the potential of NLP to offer tailored educational approaches that cater to diverse learning needs, improving learning outcomes. Only recently, ELT practitioners have developed NLP-based classroom activities (e.g., Hedayat et al., 2020; Begum et al., 2022; Marashi & Abedi, 2017; Sunitha et al., 2021; Tarnopolsky, 2016; Zhang et al., 2023). Hence, applying NLP techniques to second language teaching has culminated in significant achievements particularly in SLA. Helm (2009) suggests that NLP, focusing on the interconnectedness of the brain and behavioral patterns, can be an alternative tool for language teaching, improving instructional effectiveness.

As to the beneficial nature of NLP in EFL setting, an illustrative example is Pishghadam et al. (2011) study. They explored NLP's impact on high school EFL teachers' success by developing a questionnaire based on Millrood's (2004) taxonomy. Their confirmatory factor analyses revealed a positive correlation between NLP constructs and teacher success. Similarly, Ginting and Hartati (2023) explored EFL teachers' views and use of NLP techniques, noting their positive impact on communication and subject understanding. Teachers prioritize student-centered methods, focusing on personalized interactions and visual learning. These studies underscore NLP's applicability and effectiveness in enhancing classroom pedagogy and EFL teaching success.

Concentrating on the interplay of NLP and development of language skills and components, Caballero and Rosado (2018) studied the effect of NLP on Spanish EFL learners' pronunciation of past verb endings, finding that teacher's use of NLP techniques improved pronunciation. In another attempt done in 2021, Sunitha et al. explored NLP's impact on receptive English skills. Their study, involving 40 students in control and experimental groups, found significant improvement in the latter's performance post-NLP intervention. Both studies highlight NLP's

effectiveness in enhancing language skills and essential workplace competencies. In a more recent scholarly endeavor aimed at investigating the impact of NLP within the domain of ELT, researchers Zhang et al. conducted an experimental study in 2023. Their rigorous examination revealed that NLP proved to be effective in enhancing the educational performance, emotional intelligence, and analytical thinking skills of EFL learners. While NLP has shown promise in transforming language teaching and learning, it is essential to acknowledge the necessity for more rigorous research and critical assessment, as emphasized by Tosey and Mathison (2003). The positive association between NLP and aspects of language education highlight its importance. For NLP to gain wider acceptance and integration into mainstream educational practices, ongoing research and universal regulations of practice are crucial as the field continues to evolve. (Kotera & Sweet, 2019).

Teachers' Professional Identity
Over the past two decades, scholarly attention to teachers' professional identity has increased, highlighting its importance in the development of second language educators and their teaching practices (Gu & Benson, 2015; Xu, 2014). Despite this, definitions remain varied lacking a unified definition (Beijaard et al., 2000; Cooper & Olson, 1996). This article explores the multifaceted nature of professional identity, shaped by individual and contextual factors.

Kelchtermans (1993) defines teacher professional identity as how teachers perceive themselves within the context of teaching as a profession. This process is complex and influenced by various factors such as personal history, education, beliefs, emotions, racial background, ideologies, occupational commitment, and job satisfaction (Abedi Ostad et al., 2019; Bressler & Rotter, 2017; Fan & De Jong, 2019; Golombek, 2015; Pishghadam et al., 2022 ; Yazan, 2018; Zhang & Wang, 2022).

Identifying factors that impede professional identity construction is crucial for understanding teachers' challenges. Eslamdoost et al. (2020) found conflicts between personal beliefs and external expectations among EFL teachers in Iran, while Wang (2021) highlighted constraints from institutional structures, norms, and broader social contexts as obstacles for first-year EFL teachers in China. In Wang and Wang's (2023) study, the demanding nature of teaching is underscored, emphasizing the pivotal role of teachers. They advocate for self-directed professional development (SDPD), citing benefits such as personalized learning and autonomy. Despite challenges, 82% of participants favored SDPD, urging a shift in EFL educators' approach to professional development. Professional identity extends beyond a mere understanding of teaching practice; it encompasses teachers' philosophy, passions, commitments, values, morals, and emotional experiences (Luehmann, 2007; O'Connor, 2008). Research by Motallebzadeh and Kazemi (2018) showed a positive and significant relationship between self-esteem and professional identity among Iranian EFL teachers. In 202, a study validated an assessment instrument for teacher professional identity, focusing on initial teacher training periods. The research emphasizes the need for reliable tools to measure and understand TPI, aiding in providing better support for teachers. Additionally, it highlights that TPI is dynamic, evolving with experience and contextual changes (Zeng & Liu, 2024).

The connection between professional identity and teaching practices influences teachers' efficiency, adaptability to changes, and use of innovative methods. Teachers' views on their professional identity shape their teaching styles and understanding of students' learning,

highlighting its importance in education discussions. Transitioning to the intersection of NLP and professional identity, the article highlights the need for further exploration in the EFL/ESL context. While some NLP aspects in ELT have been studied, this research aims to fill gaps in understanding NLP's role in teacher education and its impact on professional identity development. The following research questions guided this work:

RQ1: Is there any statistically significant relationship between NLP and EFL instructors' professional identity?

RQ2: How do Iranian EFL teacher construct their professional identities through the use of NLP techniques?

A sequential explanatory mixed methods design, also known as an instrument development design (Creswell & Clark, 2011), was employed in this study to address the research purpose and questions comprehensively. Mixed methods research, combining quantitative and qualitative data (Tashakkori & Teddlie, 2003; Dornyei, 2007), is well-regarded. The quantitative data provided a foundation for exploring the topic, while the qualitative data complemented and enhanced the initial findings, addressing previously unexplored aspects.

Method

Participants

The study involved 148 EFL instructors from various language institutes in Tehran, Iran, aged 23 to 47, with 4 to 27 years of teaching experience. Participants included both genders, holding BA, MA, and PhD degrees, primarily in English education, with some from other fields. Convenience sampling was used, and ethical approval was obtained. Participants were assured confidentiality and anonymity. Unlike the centralized policies of public schools in Iran, language institutes offer greater teacher autonomy in curriculum and methodology choices. The study focuses on these institutes to explore the impact of NLP on the professional identity of EFL instructors

Instruments

Given the study's mixed methods design, a variety of data collection methods were utilized to ensure thorough data collection procedures.

Neuro-linguistic programming questionnaire

In line with the purpose of the study, the researcher employed a questionnaire that is developed and validated by Pishghadam et al. (2011), modified from an earlier version (Milrood, 2004). The instrument is a 38-item questionnaire and includes eight constructs according to eight factors: "flexibility, anchoring, elicitation, modeling, individual differences, leading, establishing a rapport, and emotional and cognitive boosters" (Pishghadam & Shayesteh, 2014, p. 2098). Participants rated their agreement with each of the 38 statements on a five-point Likert scale, where 1 indicated strong disagreement and 5 indicated strong agreement.The scoring of some items including 24, 32, 33, 34, 36, 37 and 38 was reversed as they were negative statements. That is (5) "strongly disagree" to (1) "strongly agree".

The rationale for selecting this questionnaire was the fact that it was constructed and validated using factor analysis in the context of Iran (Pishghadam, et al., 2011) and demonstrated a reliability of .82. Additionally, it was revalidated using the Rasch-rating scale

model (RSM) by Pishghadam and Shayesteh (2014), which found an item reliability of .88 and a person reliability of .83.

Teachers' professional identity questionnaire
The researcher examined EFL teachers' professional identity using a modified questionnaire comprising 43 items derived from Beijaard et al. (2000) and Starr et al. (2006). The Likert-scale questionnaire rated responses from 1 (strongly disagree) to 5 (strongly agree). Additional items were incorporated to address NLP-related constructs. Reliability and validity were computed, detailed in tables 3 and 4. Beijaard et al.'s (2000) 14-item scale focused on teachers' self-perception as subject matter, didactical, and pedagogical experts. Starr et al.'s (2006) 37-item scale assessed global teacher identity and various dimensions. The final questionnaire, tailored for this study, incorporated sub-constructs and modified items for relevance (Beijaard et al., 2000; Starr et al., 2006).

Workshop
The author conducted a comprehensive 16-hour NLP in-service teacher training workshop, involving 20 EFL teachers (12 females, 8 males) selected through convenience sampling from the 148 participants who completed both questionnaires. The workshop aimed to introduce NLP concepts, raise awareness of NLP's role in classroom discourse, and guide teachers in integrating NLP techniques for professional development. Crafted by five PhD experts in NLP and TEFL, the four-week workshop covered theoretical and practical aspects of NLP. Prior to the workshop, a semi-structured interview revealed that only 25% of participants had some familiarity with NLP, with none having received prior training. The sessions included lectures, research overviews, slideshow presentations, and participatory practical exercises based on Millrood's (2004) taxonomy. Group discussions fostered collaboration, while feedback questionnaires gathered participants' reflections and recommendations for future workshops.

Classroom observation
Classroom observation stands as a crucial method for data collection, providing rich, rounded, local, and specific insights (Mason, 2002). Following the workshops, with participant and authority consent, 27 class sessions from 9 teachers were observed, each lasting 90 minutes. Each teacher was observed three times. The non-participant observation allowed the researcher to evaluate learning outcomes and teacher behavior in natural settings, aligning with the study's focus. As no existing observation checklist suited the study's purpose, the researcher developed a bespoke observation checklist to systematically assess classroom behaviors.

   The checklist comprises 37 items with regard to Rapport (5 items), Flexibility (4 items), Pacing (4 items), Modeling (4 items), Leading the Learner (3 items), Anchoring (5 items), Individual Differences (4 items), Elicitation (5 items), and Reframing (3 items). The researchers were required to rate the degree of implementation and practice of each item on a five-point Likert scale from "never observed" to "consistently observed" (1= never observed, 2= rarely observed, 3= often observed, 4= frequently observed, 5= consistently observed). The observation results are presented in table 4.

Teacher interview

To gain comprehensive insights into participants' experiences with NLP techniques, two rounds of semi-structured individual interviews were conducted, each lasting 60 to 90 minutes and spaced six months apart to give participants the opportunity to reflect on their pedagogical practices and the inclusion of NLP in teaching. Continuous guidance via Skype and email was provided during the interim. The first round, guided by nine open-ended questions, explored EFL teachers' perspectives on the applicability of NLP techniques, their reflections on NLP's implications in teaching English, and its relation to their professional identity. The second round, exploring similar themes, traced professional identity development through NLP techniques and confirmed initial findings.

Data Collection

The current study employed a sequential explanatory mixed methods design (Creswell & Clark, 2011), starting with quantitative data collection and analysis. Subsequently, qualitative data were collected and analyzed based on the initial findings (Creswell, 2009). Utilizing various collection methods such as questionnaires, observations, and interviews facilitated triangulation and increased methodological validity (Flick, 2006).

Two questionnaires, piloted with 50 participants for reliability, were distributed to 185 participants via email and social networks, yielding an 80% response rate (148 participants). Following questionnaire analysis, a four-week NLP training workshop was conducted with 20 EFL teachers. Classroom observations (27 sessions, 9 teachers) used an observation checklist for triangulation. Two rounds of semi-structured interviews (60–90 minutes each) with workshop participants followed, guided by questions validated with consultation from five PhD experts in TEFL and NLP, based on Dornyei's (2007) guideline. Recorded interviews were transcribed, categorized, and analyzed to complement and validate quantitative findings. This comprehensive approach enhances methodological validity and provides a nuanced understanding of the impact of NLP techniques on teaching quality and professional identity.

Data Analysis

In order to investigate the reliability of the questionnaires of this study, the data were collected from 50 EFL teachers, who were similar to the main participants employed in this study and then Cronbach alpha as a measure of internal consistency reliability was computed for them. Table 1 presents the Cronbach's alpha for both questionnaires which ranges between .72 and .78, which can be considered quite acceptable, hence high internal consistency reliability.

Table 1
Reliability Statistics for the Questionnaires (NLP & TPI)

Scale	Cronbach's Alpha	N of Items
NLP	.72	38
TPI	.78	43

Notes: NLP= Neuro-Linguistic Programming; TPI= Teachers' Professional Identity

The construct validity of the professional identity questionnaire was examined running Principal Component Analysis (PCA). The first PCA output table is the Kaiser–Meyer–Olkin

measure (Table. 2) on the sampling adequacy for the analysis (KMO = .80) which is acceptable. Field (2005) states that KMO values below .50 are a sign that the sample is not large enough. Bartlett's test of sphericity was found significant for the Teacher Professional Identity questionnaire (p < .00) indicating large enough correlations between items for PCA; therefore, this sample can be considered adequate for running PCA on the questionnaire.

Table 2

KMO and Bartlett's Test for Teacher Professional Identity Questionnaire

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.80
Bartlett's Test of Sphericity	Approx. Chi-Square	5153.28
	Df	1711
	Sig.	.00

Concerning the classroom observations, quantitative analysis was conducted using an observation checklist. Mean scores for each teacher across all observed sessions were calculated within each component of the survey, and the data were presented through a bar graph. The observation checklist's validity was endorsed by five experts in the fields of NLP and teacher education, who thoroughly examined and provided comments on its content.

The study's interview questions underwent thematic analysis. Initially, all interviews were transcribed, summarized, categorized, and analyzed, leading to the identification of dominant patterns. Subsequently, themes were coded, and frequency counts were utilized for analysis. Descriptive statistics were then applied to enhance the precision of result interpretation. To bolster credibility and trustworthiness (validity), member checking was employed. Specifically, five interview participants were engaged in reviewing and confirming the generated codes during and after the coding process, in accordance with Heigham and Croker (2009).

Results

As outlined earlier, the data were gathered through questionnaires, observation checklists, and semi-structured interviews. The subsequent sections delve into the quantitative results, encompassing questionnaire and observation checklist outcomes, followed by the presentation of qualitative findings obtained from semi-structured interviews.

The Questionnaires

In order to investigate the possible relationship between NLP and EFL teachers' professional identity, the correlation coefficient between NLP and TPI was calculated, Evidently as table 3 presents, the correlation is positive and significant, rho = .26, p < .01 small to medium effect size according to Cohen's (1988) guidelines. Specifically, this result means that as NLP varies, by some small to medium level of probability, TPI also changes in agreement with the level of NLP. All in all, the above analysis indicates that there is a statistically positive and significant relationship between NLP and EFL instructors' professional identity.

Table 3

Correlations (Neuro-Linguistic Programming and Teacher Professional Identity)

			TPI	NLP
Spearman's rho	TPI	Correlation Coefficient	1.00	.26[**]
		Sig. (2-tailed)	.	.00
		N	148	148
	NLP	Correlation Coefficient	.26[**]	1.00
		Sig. (2-tailed)	.00	.
		N	148	148

**. Correlation is significant at the 0.01 level (2-tailed).b

Observation Checklist

The classroom observation checklist was designed to assess instructors' incorporation of NLP techniques in EFL classrooms. To interpret the checklist responses, the mean for each item (ranging from "never observed" to "consistently observed") was calculated. Table 4 presents the average mean scores across all instructors for each of the nine subscales.

Table 4

Total Mean Scores for Nine Teachers on Each Dimension

Group	Mean
Rapport	4.32
Flexibility	4.58
Pacing	4.21
Modeling	4.14
Leading the learner	4.09
Anchoring	3.79
Individual differences	4.01
Elicitation	3.90
Reframing	3.67

Table 4 indicates that Flexibility achieved the highest mean value of 4.58 among the various subscales. Teachers predominantly demonstrated adaptability by tailoring their instruction to accommodate students' proficiency levels. Rather than rigidly adhering to pre-established lesson plans, they exhibited a keen awareness of potential adjustments and consistently made informed decisions regarding content inclusion, omission, or review within the classroom context. The subsequent prominent subscale score was observed in "Rapport," suggesting that instructors actively considered their students' concerns and needs. They engaged in an investigative process of understanding the context and subsequently tailored their teaching practices to align with learners' expectations and requirements. The students were afforded opportunities for collaborative work, enabling them to share knowledge and interests in pair-based activities.

To attain a favorable rating in the Pacing subscale, instructors employed diverse activities within a single lesson, communicated clear objectives at the class onset, adjusted teaching pace according to student learning, fostered active participation, designed learner-centered activities, and conducted a comprehensive review of the lesson at its conclusion. As indicated by the data, the subscale "Modeling" achieved a mean score of 4.14. This suggests that teachers regularly assessed students' comprehension through questions, offered reliable sources, such as native or proficient speakers, for correct language forms, and promoted collaboration and

peer learning. The participants attained a mean score of 4.09 on the Leading subscale, indicating that instructors demonstrated confidence in their learners. They actively circulated around the room, encouraged questions, monitored the performance of all students, and facilitated connections between the concepts taught and the real-world applications. The mean score for items related to "Individual Differences" was 4.01. This suggests that teachers consistently practiced active listening, attentiveness to all students' ideas and needs, and provided adequate wait time after posing questions to the class.

The three remaining subscales (Elicitation, Anchoring, and Reframing) received relatively lower scores, although they still fell within the "often" to "frequently observed" range, indicating performance above the midpoint of the scale. This suggests that teachers provided constructive feedback on students' work, encouraged learners to generate information themselves, and adjusted content based on students' prior knowledge. Additionally, instructors aimed to establish connections between internal responses and environmental triggers through visual, auditory, and verbal anchors. Efforts were also made to bolster students' self-esteem and reframe their perceptions of their abilities, addressing any negative feelings about language learning. In summary, the findings from the observation checklists indicate that teachers employed NLP techniques in their language classes to differing extents. Figure 1 illustrates the variations in means across the nine categories mentioned above.

As the bar graph shows, the mean scores across categories for the nine teachers were almost all high. Items contributing to "Rapport", "Flexibility", " Pacing", "Modeling", "Leading the learners", and " Individual Differences" were all between "frequently" and "consistently" observed. All of the other categories (Elicitation, Anchoring, and Reframing) had mean scores ranged from 3.90 to 3.67 (i.e. between "often observed" and "frequently observed").

Figure 1

Average Mean Scores for all Instructors for Each of the Nine NLP Subscales
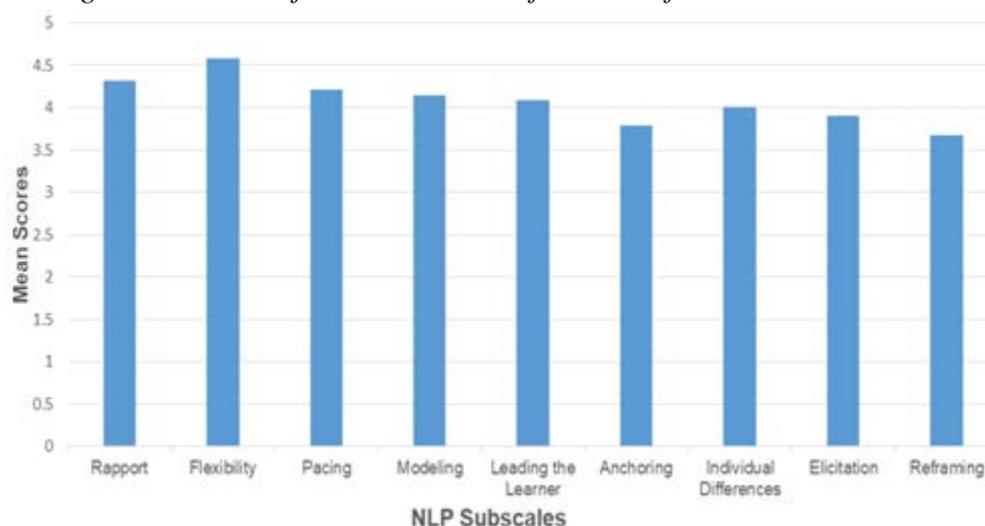
Teacher Interview

The qualitative research question aimed to explore NLP's influence on the construction of professional identities of Iranian EFL teachers. Thematic analysis revealed that NLP enhanced teachers' interpersonal skills, aiding in effective rapport with learners. It also helped adapt

teaching styles to diverse learning preferences and engaged learners' minds and established a connection between their emotional states and language practices through multiple channels (visual, auditory, kinesthetic). Teachers noted improvements in pedagogical knowledge, coaching skills, and overall professional development, highlighting NLP's positive impact on language learning and teaching. Selected excerpts illustrate these roles:

Incorporating NLP techniques has highlighted the importance of strong rapport and a stress-free environment, improving student performance. Committed to reducing anxiety, I apply these techniques to enhance communication and foster effective learning and interaction, both in the classroom and beyond.

This is also emphasized by another interviewee, who directed attention to the intricacies of the teacher-student relationship and the principle of student empowerment:

NLP techniques offer teachers a valuable avenue to better understand their students. Practices like building rapport empower teachers to forge robust connections, enabling students to see their teacher as a reliable confidant rather than just an authority figure. This shift fosters a more open and collaborative classroom atmosphere.

The comments provided underscore NLP's prominent role in fostering a constructive teacher-learner relationship. The positive, non-threatening environment created by NLP encourages active participation, freedom to share ideas, and a willingness to take risks in learning a new language. Additionally, the subsequent samples indicated another facet of NLP, emphasizing its capacity to enhance teachers' adaptability.

Every teacher's teaching style is unique. Incorporating NLP techniques into classes, whether consciously or not, influences their professional identity. For example, adjusting speech pace for lower-level students extends beyond the classroom, affecting social interactions. This adaptation demonstrates the teacher's flexibility and efforts to reduce perceived gaps with others.

In a similar way, another interviewee confirmed this by contending that EFL teachers need to be versatile in dealing with different individuals in their classes in the sense that:

Regarding teachers' professional identities, simply fulfilling the role of an instructor is insufficient. Teachers must also adopt the role of a professional psychologist. Proficiency in interacting with students significantly impacts both the teacher's teaching style and the students' learning experiences.

Likewise, another interviewee mentioned that:

When a teacher adeptly selects an activity tailored to a specific context or situation, they are better equipped to make informed decisions on how to effectively teach various language aspects to diverse students.

The above samples highlight that employing NLP techniques allows instructors to assume a more advisory role, fostering increased student engagement and greater autonomy in independent work. Interviewees unanimously acknowledged a specific aspect of NLP—the interconnectedness of mind and language. Subsequent transcriptions elaborate on this noteworthy feature:

A profound connection exists between the mind and language within the framework of NLP. Thus, a skilled EFL teacher is one who recognizes and acknowledges this relationship, actively considering the cognitive processes occurring within students' minds as they are exposed to various facets of a new language.

Further support for this point was provided by another interviewee who believed that:

NLP techniques help teachers to move into the minds of their learners. You learn that you should consider the learner's mind and how it functions when teaching them. It's a great skill for every teacher which can't be taken for granted.

At the end, interviewees stated that incorporating neuro-linguistic aspects into English classrooms makes language learning more tangible, fostering active engagement and meaningful contributions from learners. This leads to enhanced learning outcomes and can empower teachers, especially when students show notable success in language acquisition. The subsequent excerpts encapsulate the sentiments expressed by the teachers:

Deepening my understanding of NLP techniques enables me to stay abreast of developments and transcend the role of a passive consumer of theories. The transformative potential of NLP techniques is evident in their capacity to reshape routine tasks in EFL classes into creative and diverse activities, effectively addressing and challenging various facets of students' abilities.

Centrally addressing the affective dimension of NLP techniques' influence on teachers' identities, another interviewee articulated:

Fascinatingly, the understanding of NLP has proven instrumental in fostering a strong rapport with my students and earning their trust. I believe I've transcended the conventional role of a teacher. Being informed about the latest trends and theories in English Language Teaching enhances my confidence as a professional educator. It instills the assurance that I always possess valuable resources to support and assist my students.

This assertion was further substantiated by another interviewee who articulated the

advantages of employing these techniques for broader professional development:

On the whole, NLP undeniably influences a teacher's pedagogical performance, including mine. My classroom behavior and teaching methods have been significantly impacted by NLP, leading to heightened productivity. It has helped me focus on every aspect of the class and effectively address my weaknesses.

Additionally, one interviewee remarked that:

NLP unquestionably influences teachers' performance, priorities, aims, methodologies, tactics, and classroom behaviors. Personally, it has expanded my leadership knowledge and imparted skills in using language to inspire and motivate students. Crucially, it has facilitated my professional development by acquainting me with valuable techniques applicable in challenging situations.

Furthermore, another interviewee underscored the influence of NLP techniques on the character development of both teachers and students, stating:

Teaching not only shapes the character of students but also molds that of educators. Incorporating NLP and its innovative techniques has expanded my understanding of teaching English. NLP principles and similar teaching approaches have made me a more insightful teacher, fostering a profound awareness of classroom dynamics and a deeper understanding of my students.

In summary, interviewees asserted that the application of NLP techniques in EFL classes significantly empowers teachers to consider contextual requirements and utilize effective teaching techniques, mitigating the risk of teacher burnout. This approach fosters a sense of achievement and motivation. Consequently, NLP techniques have the potential to enhance teachers' competence, leading to improvements in both teaching skills and professional attitude and identity.

Discussion

The findings of the current study indicate that NLP plays a significant role in the development of teachers' professional identity. This is consistent with numerous studies highlighting the crucial role of teacher-student interaction in shaping professional identity (e.g., Beijaard, 1995; Van Lankveld et al., 2016). Similarly, recent findings from Anjomshoaa et al. (2021), Ginting and Hartati (2023), Javadi and Azizzadeh Asl (2020), Thakre et al. (2023), and Van Thao et al. (2021) support this notion. Their research indicates that NLP techniques positively impact communication skills and subject comprehension, fostering an interactive environment. Additionally, these studies emphasize the role of such an environment in enhancing teacher-student relationships, which are crucial for teachers' professional identity development.

Research findings indicate that a teacher's professional identity is intricately linked to various concepts, including motivation, self-esteem, flexibility, self-efficacy, and commitment (Luehmann, 2007; Motallebzadeh & Kazemi, 2018; O'Connor, 2008; Tajeddin & Khodarahmi,

2013; Wolff & De Costa, 2017). These aspects can be enhanced through the application of NLP techniques in classrooms, as demonstrated by multiple studies (Begum et al., 2022; Gehlbach & Robinson, 2021; Purnama et al., 2023; Saraswat, 2023; Seitova et al., 2016; Thakre et al., 2023). The prevailing view among these researchers is that the role of NLP in enhancing these critical elements of teachers' professional development is incontrovertible. The results of the quantitative research question indicated that there was a significant positive relationship between NLP and Iranian EFL teachers' professional identity ($p < .05$). It can be argued that NLP techniques have several advantages that can affect teachers' professional identities positively. These techniques offer teachers opportunities to enhance language learning context understanding and teaching quality. Supported by Blaskova et al. (2015), Dragovic (2007), Carely et al. (2010), Pishghadam et al. (2011), Wang and Wang (2023), and Zhang et al. (2023), teachers can evolve from theory consumers to critical thinkers, considering diverse perspectives. NLP can further motivate teachers to conduct action research, improving their professional competence. When combined with professional development, it enhances teaching effectiveness, fostering innovation for a dynamic learning environment.

However, this finding contrasts sharply with studies by Diamantopoulus et al. (2008), Heap (2008), Rosen (1997), Singer and Lalich (1996), and Wikowski (2010) in which NLP regarded totally ineffective especially for instructors. The varied perspectives from these studies highlight the complexity of integrating NLP techniques into educational settings. However, they also emphasize the importance of considering multiple viewpoints to inform educational practices effectively, underscoring the need to carefully weigh the benefits and challenges of NLP implementation in education. NLP techniques require teachers to be highly adaptable throughout various teaching stages. Tosey and Mathison (2010) highlight that this adaptability involves addressing students' individual interests, preferences, needs, goals, and expectations. Competent teachers skilled in these techniques can leverage their personal experiences to tailor language instruction, improving language acquisition while also shaping their professional identity as English language educators.

The qualitative findings indicate that Iranian EFL teachers' professional identity can be enhanced through NLP techniques. Interviewees emphasized the critical role of incorporating NLP in EFL classes, allowing educators to consider contextual necessities and employ highly efficient teaching methods. Moreover, the undeniable importance of contextual factors in shaping teacher professional identity, as highlighted by Zeng and Liu (2024), underscores the pivotal role of NLP in this developmental process.

Brown (2004) highlights NLP's potential to enhance understanding of communication preferences and motivational factors, benefiting teachers in understanding both themselves and their students (p. 518). This aligns with findings from previous studies (e.g., Keezhata, 2019; Khalandi & Zoghi, 2017; Kudliskis & Burden, 2009; Nazim & Yousaf, 2021; Tosey et al., 2005; Vieira & Gasper, 2013). These studies indicate that NLP helps teachers better understand their students' learning needs and create an environment where students can express their learning concerns and beliefs. This discovery adds substantial depth and richness to the quantitative research question, empirically confirming the strong relationship between NLP and teachers' professional identity. According to the interviewees, these techniques improve teachers' understanding of students' expectations and emphasize creating a conducive language learning environment by fostering comfort, friendliness, and recognizing students' diverse

abilities and potentials. This aligns precisely with the conclusions of previous studies, such as those by Anjomshoaa et al. (2021), Narcisa and Moreno (2021), Seitova et al. (2016), and Thakre et al. (2023). Essentially, these techniques help teachers become more versatile, allowing them to engage effectively with a wide range of students (Purnama et al., 2023; Van Thao et al., 2021; Zhang et al., 2023). The results are consistent with those of earlier studies (e.g., Helm, 2009; Milrood, 2004; Tosey & Mathison, 2003; Wich, 2005) as well as more recent research (Anjomshoaa et al., 2021; Begum et al., 2022; Espinales & Moreno, 2021; Siddiqui, 2018; Silva, 2017; Sunitha, 2021; Zhang et al., 2023), which conclude that NLP effectively enhances language instruction and greatly improves the learning experience for EFL students. The interviewees were also of the opinion that NLP helps teachers improve their decision-making skills by understanding the link between mind and language. This insight into students' cognitive processes allows educators to make informed decisions about interventions, extra practice, or corrective measures tailored to students' individual needs.

In sum, the findings underscore that the utilization of NLP techniques, characterized by their diversity and innovation, can significantly augment teachers' self-efficacy, attitude, and motivation. These techniques facilitate the establishment of positive teacher-student relationships, fostering trust and positively influencing learners' perceptions of teaching quality.

However, it is crucial to critically evaluate the scope and application of NLP, as its effectiveness can vary based on contextual factors and individual teacher adaptability. While NLP techniques can enhance teachers' professional identity, their integration should be approached with a clear understanding of both their benefits and limitations. This balanced perspective ensures informed and effective adoption of NLP in educational settings, ultimately improving teaching practices and learning outcomes.

Conclusion

This study employed a sequential explanatory mixed methods design to elucidate the connection between NLP and EFL teachers' professional identity. The findings highlight NLP's significant influence on teachers' identity, providing comprehensive insights and alternative solutions to language teaching challenges. This research contributes to the literature by proposing that NLP models can improve educators' effectiveness in language teaching and offers valuable insights for its application in the field. Teacher education programs can leverage insights from this study to reform their training frameworks, enhancing language learning outcomes. Trainer educators can develop programs focusing on NLP techniques to better prepare instructors, benefiting EFL teachers by enhancing their understanding of NLP and refining their teaching approaches. Additionally, language institute administrators can broaden their perspectives and enhance English instructors' proficiency by incorporating the NLP questionnaire into their selection processes. These findings offer valuable guidance for institutions aiming to elevate the quality of English language instruction.

Nevertheless, it is important to recognize the study's limitations when interpreting its results. The small-scale nature, focusing only on EFL instructors from specific language institutes in Tehran, restricts the generalizability to other contexts, like school teachers or English instructors in different cities. Therefore, caution is warranted in making broad generalizations. Future research on a larger scale could better control for variables, addressing

limitations associated with small-scale, practitioner-led investigations. Furthermore, this study does not consider variables like age, gender, motivation, and ethnicity. Future research could explore correlations between NLP and these variables. Additionally, the use of audio recordings for interviews limits the study's depth. Conducting videotaped classroom observations would offer a more detailed understanding of how NLP techniques are implemented, allowing for a nuanced analysis. Ultimately, this research offers a snapshot of Iranian EFL teachers' professional identities within a specific timeframe. Given that identity evolves throughout an individual's life, conducting a longitudinal study spanning an extended period would provide valuable insights into the development and changes in professional identity over time.

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Ethics Declarations

Competing Interests

No, there are no conflicting interests.

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