Measuring the Effects of Teacher Candidate Preparation:

A Novel Assessment of Attitudes Toward Non-Standard Features of English

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Abstract

Teacher preparation curricula often require candidates to complete a course on working with linguistically diverse learners. Such courses usually address attitudinal biases regarding linguistic diversity. While qualitative approaches are most frequently used to assess the impact of such courses, we present a novel assessment developed from methods in sociolinguistics (the matched-guise technique) to quantitatively measure the effects of coursework on attitudes teacher candidates have toward non-standard features of English. Findings showed that teacher candidates (a) demonstrated differences in their attitudinal responses toward non-standard English at pretest and (b) their attitudinal responses changed at posttest. Recommendations for future research are provided.

Keywords: teacher candidates, teacher preparation, multilingual learners, English language learners, emergent bilinguals, attitudinal responses

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Introduction

The linguistic landscape of US schools is changing rapidly (Scott et al., 2021). Between 2011 and 2021, the number of students identified as English learners (ELs) rose from 4.6 million to 5.3 million (National Center for Education Statistics [NCES], 2024). Although ELs often attend urban schools, they are also becoming an important component of the student population in suburban, town, and rural schools in the US (NCES, 2024). Despite the growing number of linguistically diverse students, most teachers are anglophone and monolingual (Barros et al., 2021; Lucas & Villegas, 2010; Lindahl et al., 2021; Scott et al., 2021). This linguistic mismatch has implications for student-teacher and parent-teacher interactions in addition to impacting educational outcomes for multilingual students.

Many teacher preparation curriculums require teacher candidates (TCs) to complete at least one course on working with emergent bilinguals and multilingual learners. Coursework often covers second language acquisition processes, pedagogical practices that support ELs, and teacher attitudes and dispositions related to working with diverse students. Stakeholders and researchers have a vested interest in determining whether such courses are effective. Course outcomes in terms of TC knowledge related to second language acquisition processes and pedagogical practices can be ascertained through assessment and in-field observations. However, TC attitudes and dispositions are not as reliably assessed. Research on how to reliably evaluate the effects of such courses on TCs' attitudinal reactions toward aspects of linguistic diversity is needed. In this paper we report on a pilot study that applied a technique from sociolinguistics, known as the matched-guise technique (MGT) to assess the effects of coursework on TC attitudes and dispositions toward non-standard language and linguistic diversity.

Literature Review

Attitudinal Bias Toward Linguistic Diversity

A key feature of courses designed to prepare TCs to work with ELs is to address attitudinal bias regarding linguistic variation and diversity. Attitudinal bias is a critical topic since preservice teachers' professional practice can be influenced by the preconceived notions they may hold regarding language and multilingualism (Barros et al., 2021). For example, monolingual teachers are more likely than their multilingual counterparts to hold a deficit perspective regarding multilingualism which can impact learning outcomes for students (Barros et

al., 2021; Kolano & King, 2015). Research has demonstrated that in-service teachers have erroneously interpreted a lack of English proficiency as indicative of a learning disability or low IQ (Klingner & Harry, 2006). As documented by Klingner and Harry (2006), second language acquisition and language issues of ELs have been a confounding variable in terms of the special education referral process. Preconceptions related to non-standard linguistic variation have also been found to contribute negatively to parent-teacher interactions during the referral process for special education (Klingner & Harry, 2006). Additionally, research has shown that many teachers still espouse a "dominant school language narrative" (Metz & Knight, 2021, p. 252) related to the predominance of standard English for academic and work purposes rather than a "critical language narrative" (Metz & Knight, 2021, p. 252) emphasizing linguistic equity and justice. Thus, the dichotomy between the linguistic composition of the student versus the teacher populaces may have important implications because general education teachers, rather than specially trained EL teachers, are often responsible for linguistically diverse students (Doorn & Schrumm, 2013; Stairs-Davenport, 2021).

Measuring Changes in Attitudinal Bias Toward Linguistic Diversity

Given the negative impact of attitudinal bias toward linguistic diversity, researchers have sought to determine whether specially designed courses can move the needle from a deficit to an asset mindset regarding multilingualism (Ladson-Billings, 1995). This research has largely relied on participant self-report. Kolano and King (2015) examined the effects of a course focused on teaching ELs and TCs' attitudes. These researchers analyzed qualitative data gleaned from student narratives. Kolano and King (2015) found that the majority of the 43 participants reported positive effects on their perceptions and beliefs related to teaching students who are linguistically diverse. Only two participants wrote narratives that contained biased views towards linguistic diversity. Similarly, Hutchinson (2013) utilized a pre- and post-Language Attitudes of Teachers Scale (LATS) survey (see Byrnes & Kiger, 1994) to measure change in TCs' language attitudes across three domains: (a) Language Politics, (b) Limited English Proficiency (LEP) Intolerance, and (c) Language Support. The survey consisted of 13 statements accompanied by a Likert scale allowing students to indicate their level of agreement with each statement. For Language Politics, findings indicated a slight increase in mean scores in terms of participants' agreement with statements related to the importance of speaking English, especially in public spaces. In terms of LEP Intol-

erance, there was an increase in tolerance reported by TCs following the target course. Finally, for Language Support, TCs reported a rise in tolerance related to the need to provide support for linguistically diverse students. Hutchinson (2013) also had the participants complete classroom observations which they summarized in a written report. Qualitative analyses of the participants' classroom observations revealed that the participants overwhelmingly reported a tolerant and strengths-based stance toward linguistically diverse students. Instances where participants made observations that did not reflect course learning (such as concerns about parents only speaking the students' primary language in the home or use of students' primary language to scaffold learning) were rare. Clark-Goff and Eslami (2016) also employed survey data to measure change in language attitudes for 354 TCs following targeted coursework. These researchers also reported a positive effect on TCs' attitudes and beliefs towards linguistically diverse students. Conversely, Pontier (2022) shared less promising results. Participants were asked to write responses related to their beliefs surrounding bilingualism and bilingual education before and after an English for Speakers of Other Languages course for TCs. Pontier (2022) reported that TCs largely did not show significant change in attitudinal bias.

Although self-reports can provide insight into TCs' views on how their beliefs were impacted by a course, there are issues inherent to this type of data. Notably, self-reports can be unreliable as there exists the possibility that participants may monitor their responses and consciously tailor the content to match what they believe to be the more desirable answer (Harrison & Lakin, 2018). Harrison and Lakin (2018) wrote that "self-representation and social desirability factors" (p. 87) can skew findings gleaned from subjective measures. As an alternative, we align with Deutschmann et al. (2023) in proposing the use of a well-established method from sociolinguistics research, known as the Matched-Guise Technique (MGT) to measure TC's language attitudes. We suggest that the MGT, which collects quantitative data and is less susceptible to bias, can be adopted by education researchers to evaluate the effects of courses that aim to address attitudinal bias regarding multilingualism and language variation. While Deutschmann et al. (2023) did not examine the impact of a given course, they did use the MGT to study TC attitudes toward and evaluations of second language (L2) accented Swedish. Deutschmann et al. (2023) then used the results to facilitate focus group discussions about the impact of linguistic stereotyping in education settings. Interestingly, they found that TCs were not particularly harsh in their evaluations of accented speech and

rated L2 accented speech more favorably than unaccented speech due to a phenomenon known as "shifting standards", which means that once the listeners identified the speakers as likely non-native, they applied a different set of standards when evaluating their language-use (p. 270). Such a nuanced finding and explanation was possible due to the nature of the MGT and further demonstrates the value of additional methods beyond self-reports.

Sociolinguistic Approaches to Measuring Language Attitudes

The perceived information that listeners attach to variable speech patterns often leads to language attitudes, which are evaluative responses to a given speaker or linguistic feature of speech (Garrett, 2010). Research within experimental sociolinguistics has established that listeners connect social information to speech that includes even a single sociolinguistically variable feature such as speaker's gender and pronunciation of alveolar fricatives (i.e., "s" sounds) in American English (Laycock & McGowan, 2025), gender, sexual orientation, ethnicity, in Hawaiian English (Drager et al, 2021), and speaker characteristics and quotatives (i.e., "be like," "go") in British English (Buchstaller, 2014). Another example of a sociolinguistically variable feature is the presence of "-in" vs. the presence of "-ing" in varieties of English (e.g., Vaughn, 2022). For instance, the way a speaker who says "somethin" or "speakin" is evaluated by listeners is different compared to speakers who use standard forms such as "something", "speaking" (Campbell-Kibler, 2011). Much of this research has been conducted by way of a research technique called the matched-guise technique (MGT) that was developed to gather speaker evaluations (i.e., attitudes) toward different language varieties (Lambert et al, 1960). This technique includes creating matched-pairs of stimuli (audio or written) that contain a linguistic feature of interest (general accent, a single sound, grammatical item) for which there are at least two variants such as 'runnin' and 'running'. Other than the feature of interest to the researcher, all aspects of the stimuli are identical including the speaker voice. The stimuli are incorporated into a survey, and participants are asked to evaluate the speaker or author of the short text using a response scale. Responses are compared to determine whether one of the two variants influenced listener's attitudes or evaluation of the speaker. This technique allows linguists to access and study language attitudes indirectly, as opposed to directly where the participants are asked overtly to think about a specific type of person or language characteristic before providing an evaluation. Using the MGT, linguists can collect more re-

liable measures of attitudes. The MGT has been widely applied within sociolinguistics research but rarely applied to the context of TC preparation (see Deutschmann et al. [2023], for a recent application). The current study seeks to make inroads in this area of education research by incorporating the MTG in both audio and written formats to answer important questions in teacher education related to matters of linguistic variation and diversity. We approach linguistic variation and diversity broadly including the L2 language use of emergent bilinguals, traditionally called "ELs," as well as regional nonstandard language use of native speakers (e.g., Appalachian English, African American English).

Theoretical Framework: Defining Attitudinal Responses to Linguistic Variation

To quantify and assess change over the course of a semester in attitudinal responses toward linguistic variation and diversity, we must determine the components of attitudinal responses that are of interest when preparing TCs to work with multilingual students. Our assessment of attitudinal biases toward linguistic variation is grounded in the *Framework for the Preparation of Linguistically Responsive Teachers* proposed by Lucas and Villegas (2010).

Two pivotal components of this framework are (a) sociolinguistic consciousness, and (b) value for linguistic diversity. Lucas and Villegas (2010) described sociolinguistic consciousness as the connection between language, culture, and identity. Thus, the *linguistically responsive teacher* is aware of how language is an extension of identity and group affiliation and can unlearn and limit the influence of harmful stereotypes and assumptions that connect non-standard language with evaluative judgements of character or ability (Lucas & Villegas, 2010). The second component of the framework is valuing linguistic diversity. Lucas and Villegas (2010) proposed that linguistically responsive teachers are keenly aware of the potential effect that their language attitudes can have on students. We centered our assessment of TCs' attitudes on these two pillars. The two research tasks and response prompts map onto either (a) sociolinguistic consciousness and attitudes or (b) valuing linguistic diversity to capture TCs' attitudinal responses.

The Current Study

While research has provided support for the assertion that courses related to working with ELs/Emergent Bilinguals can positively impact TCs' attitudinal responses towards linguistic diversity, this re-

search has been largely reliant on TCs' self-reports and may not be a true reflection of attitudinal change. Accurately measuring growth and development of TCs' language attitudes can be a challenge. As such, in the present pilot study, we draw from methodologies available in sociolinguistics (i.e., MGT) to develop a more objective assessment of language attitudes as an indicator of sociolinguistic consciousness and valuing linguistic diversity among TCs before and after completing a course dedicated to teaching ELs/Emergent bilinguals.

We propose that this study might contribute to our understanding of (a) TCs attitudinal responses to non-standard linguistic variation, thus providing an initial benchmark of what preconceptions TCs may hold and (b) whether current coursework in working with ELs/Emergent bilinguals impacts attitudinal responses to non-standard linguistic variation. Our study introduces a more objective measure of attitudinal responses to linguistic variation and explores changes in these attitudinal responses as a result of coursework dedicated to working with emergent bilingual populations. The research questions that guided our inquiry are as follows:

1. Did TCs show attitudinal responses to non-standard linguistic variation (i.e., English ING, and typical L2 English forms)? If so, what was the nature of the attitudinal responses TCs had toward non-standard linguistic variation?

2. Did individual factors condition the nature of attitudinal responses (i.e., academic experience with an additional language, bilingualism/multilingualism, home dialect region [American English], gender, and age)?

3. To what extent did a course dedicated to the teaching of emergent bilinguals and linguistically diverse students influence the attitudinal responses that TCs exhibited toward non-standard linguistic variation in English?

Methods

Design

This pilot study employed a pretest-posttest design. As the treatment condition in this study consisted of the students' participation in a semester long course dedicated to working with emergent bilinguals and linguistically diverse students, the duration of the study was one semester (i.e., 15 weeks) and included 3 hours per week of class time. Pretest data were collected during the first three weeks of the spring semester and posttest data collection occurred during the final two weeks of the spring semester. For both the pretest and posttest, par-

ticipants completed the same set of research tasks: an audio stimuli MGT, a written stimuli MGT, and a background questionnaire.

Participants

This study was conducted in compliance with all policies and procedures set by the university's Institutional Review Board. Participants met the following inclusionary criteria: The participant was (a) enrolled in a 200-level course designed to prepare TCs to work with students who are ELs; (b) 18 years of age or older; (c) a TC or planned to become a teacher; and (d) had not taken any previous university-level coursework explicitly geared toward teaching ELs. A total of nine TCs participated in the study. Participants self-identified as female (n = 7), male (n = 1), or non-binary (n = 1). Two participants reported hearing English plus exposure to an additional language (Spanish and American Sign Language) before their 18th birthday.

Task Design and Presentation

The research tasks used in both the pretest and posttest were applications of the MGT (see "Sociolinguistic Approaches"), a commonly used method in applied linguistics for the study of language attitudes. The goal of this technique is to access language attitudes indirectly such that the participant is not totally aware of the object of the study. We employed ING as the linguistic feature of focus in this task because it has been documented in nearly all varieties of English and has been widely studied for decades and yielded rather consistent results in terms of the social perceptions that listeners have towards it (Campbell-Kibler, 2011). The variant "-ing" is considered standard across the English-speaking world and the variant "-in" is considered to be informal and non-standard. This feature is subtle and often not noticed by a listener and so a language attitude task built around this feature can serve as a snap-shot evaluation of how a listener responds to non-standard language use and the social value they place on it. In what follows, we provide descriptions of how each task was designed and how it was presented to the participants.

Audio Task

The audio task design was adapted from materials reported on in Michalski (2025). The process of designing and creating the MGT began first with drafting stimuli that were general in terms of content but included 'carrier words' containing instances of "-in" and "-ing" such that either option was plausible to the ear while also aligning with the

linguistic constraints known to condition this variation. A set of ten total stimuli were drafted and checked with native speakers of English. Seven female speakers were then recruited to record the stimuli using both "-in" and "-ing" as well as to record lists of those carrier words that contained the variation. The speakers were all college educated women who had lived most of their lives in either Ohio or Indiana. From these recordings, the first author used phonetic analysis software known as Praat (Boersma & Weenik, 2024) to isolate and remove all instances of the carrier words. These were then replaced with segments of the same word from other audio files recorded by the same speaker to create a pair of "guises" that were otherwise identical except for the carrier words spliced in, such that one guise contained the word with '-in' and the other guise contained the words with "-ing". Each guise contained two carrier words.

From the large set of guises two pairs were randomly selected to be included in the audio matched-guise task each from a different speaker (for stimuli text see Appendix A). These were then organized within the task separated maximally by a total of six distractor items for a total of 10 items. Each audio guise was followed by a series of six-point semantic differential response formats that asked the participant to consider various characteristics of the speaker completing the prompt "She sounds….". The attributes used for the semantic differential scales (kindness, pleasantness, likeability, formal, intelligent, and educated) were adapted from previous literature (e.g., Campbell-Kibler, 2011) and have been used successfully in previous studies to elicit attitudinal responses to '-in' and '-ing' usage.

Written Task

The written task was adapted from Janopoulos (1992), who collected evaluations of sentences containing typical L2 English features (what some might call "errors"). A number of these sentences were organized into two short paragraphs, each simulating a short, written answer that a science student might provide on an assignment. For each paragraph, two versions were created such that one featured the typical L2 English features, and the other did not and used standard English features in place of the L2 English features (See Appendix B). The L2 English features include article selection before nouns ('a' vs. 'an'), tense/aspect ('have distinguished' vs. 'have made distinguished', it deletion ('is called' vs. 'it is called'), relative pronouns ('whose' vs. 'which'), and preposition selection ('in' vs. 'from'). The paragraphs were then assembled into a Qualtrics survey task and presented to participants as examples of stu-

dent writing. Each sample was followed by prompts and six-point semantic differential response formats that asked participants to evaluate the authors of the texts according to the following attributes responding to the prompt "this person seems…": kind/not kind, likeable/not likeable, annoying/pleasant, intelligent/not intelligent, low level of education/high level of education. Each participant rated a version of text with typical L2 features and a text with standard English.

Data Collection

The study took place at a medium-sized university campus located on the periphery of an urban center in the northeastern part of the United States. Data collection began with a pretest during the first three weeks of the semester and a posttest in the final two weeks. The data collection took place in one of two settings, either a computer lab on campus or remotely from participants' residences using their own device. TCs enrolled in the course dedicated to teaching ELs who were interested in participating in the study emailed the primary investigator and were provided with a single link to the Qualtrics survey. They followed the link and were prompted to read the study information summary and an implied consent form. They were then prompted to check the connection of their headphones and complete a practice version of the research task. After which, they advanced to complete the three tasks (audio matched-guise, written matched-guise, and background questionnaire). The background questionnaire collected information related to (a) gender identity, (b) age, (c) institutional grade level, (e) educational history, (f) city/town of origin, (g) history of courses taken, (h) professional aspirations, (i) history of travel, and (j) experience with languages other than English/speakers of other languages. The posttest took place in the final two weeks of the semester and consisted of the same exact procedures described for the pretest condition.

Course Content

The introductory course in which all participants were enrolled focused on the development of foundational knowledge related to working with ELs and linguistically diverse students in the U.S. The course was designed to develop essential dispositions, skills, and knowledge for TCs to best meet the needs of multilingual students and emergent bilinguals. Learning objectives were centered on five pillars: (a) language, (b) culture, (c) instruction, (d) assessment, and (e) professionalism. Two pertinent goals related to language and culture were: (a) Demonstrate knowledge of language systems, structures, functions, and

variation, and (b) Understand the importance of cross-cultural competence in interactions with colleagues, administrators, school and community specialists, students and their families. Course activities included lectures, group discussions, reading responses, community study, ESL lesson observations, interviews, the development of an annotated lesson plan, and an EL teaching philosophy as a final assignment.

Data Analysis

The data output from the semantic differential response format produced ratings that ranged from one to six. These values each correspond to an attribute. Often, certain attributes will be rated similarly by all participants. To identify such cases and to combine the attribute categories, a Factor Analysis with Kaiser Rule was applied to the data set from the six semantic differential scale ratings. This led to two combined factors (Zahn & Hopper, 1985): (a) Social Attractiveness (Kindness/Likeability/Pleasantness); and (b) Social Superiority (Professionalism, Formality, Intelligence, Education Level). Next, the participant ratings collected from the semantic differential scales (values of one to six) were converted into normalized z-scores that represent the relative distance from the mean attitudinal response for each speaker voice listened to.

The z-scores were then used to construct a series of linear mixed-effect models in SPSS (IBM Corp, 2021) that were used to identify the relative influence of independent variables as both fixed and random effects. The individual participants were set as random effects, while other variables manipulated as part of the study design were set as fixed effects. The variables incorporated into the audio models were speaker voice, pretest/posttest, linguistic variant ('-in' or '-ing'), while the variables included in the written task models were version (L1 or L2 English), Item set (1 or 2), pretest/posttest. All models included "home language" as a variable. The model also included several motivated interactions between fixed effects (pretest/posttest with other factors, speaker voice with linguistic variant). By creating models from the participant evaluations, we were able to identify the role that the independent variables play in conditioning the variation present within listener attitudes, as indicated by their evaluative responses.

Results

Audio Task

The mixed-effect models selected several factors as significant main effects that conditioned the nature of listener attitudes toward

the audio guises featuring ING and IN (see Table 1, left-side column). Namely, speaker voice and the interaction of speaker and ING/IN were selected as significant by the social attractiveness model, and speaker voice, ING/IN, interaction of Speaker and ING/IN, interaction of Pretest/Posttest and ING/ING were selected as significant for the social superiority model. To understand how these significant factors influenced attitudinal responses, we consulted box and whisker plots overlaying individual rating data points for social attractiveness ratings (see Figure 1) at pretest and posttest. The y-axis corresponds to the z-scores and is centered around zero, where zero is the mean rating across all listeners. Each box plot is labeled with the corresponding mean. When we compared the social attractiveness ratings for IN and ING at posttest, the ING guises were rated only slightly higher. Meanwhile, for ratings of social superiority (see Figure 2), we see much clearer differences, especially when comparing ratings of the IN guises at pretest vs. posttest. The mean social superiority rating at posttest was higher, despite greater overall variability (i.e., greater range and dispersion of values), when compared to pretest. For ING guises, the differences are limited to a slight decrease in the mean at posttest.

Written Task

The models for the written task responses (see Table 1, right-side column) selected only pretest vs. posttests as a significant main effect for the social attractiveness model, while for the social superiority model, a few significant main effects were selected, including pretest vs posttest, task version and item set, and the home language of the participants. Most importantly, the participants' attitudes were conditioned by some of the variables manipulated within the task, namely whether they were reading texts featuring typical L2 non-standard English features, or standard L1 English features. Consulting Figure 3, we can see that for social attractiveness, participants rated the standard vs. the non-standard guises at the start of the course (pretest) nearly identically, the one difference is that on average the non-standard guises were rated slightly higher. Meanwhile, when considering posttest results, both the standard and non-standard guises were on average rated higher than at the start of the course, although the non-standard guise ratings had a slightly lower mean and a wider interquartile range.

In terms of the ratings for social superiority on the written task (see Figure 4), we see differences between standard and non-standard guises and how they were rated by participants. In both pretest and posttest, the non-standard guises were rated lower. However, when we compared

Table 1

Summary of all Mixed Effects Models with Type III tests of Fixed Effects

Fixed Effects	*Social Attractiveness*	*Social Superiority*	*Fixed Effects*	*Social Attractiveness*	*Social Superiority*
Speaker Voice	X*	X****	Pretest/Posttest	X****	X***
Pretest/Posttest	X	X	Version (L1 Eng/ L2 Eng)	X	X**
ING/IN	X	X****	ItemSet (1 or 2)	X	X**
Speaker+ ING/IN	X**	X**	Pre/Post + ItemSet	X	X
Pre/Post+ ING/IN	X	X*	Pre/Post + Version	X	X
Home Lang	X	X	Home Language	X	X*
Random Effect: Participant ID					
n / R^2	n=144 / 33.2%	n=216 / 40%		n=72/ 53%	n=108 / 37%

p value: X**** = <.001 X***= <.005 X**= <. 05 X* = <.075 X= included but not significant

Figure 1

Pretest and Posttest Ratings of Social Attractiveness for Audio Stimuli

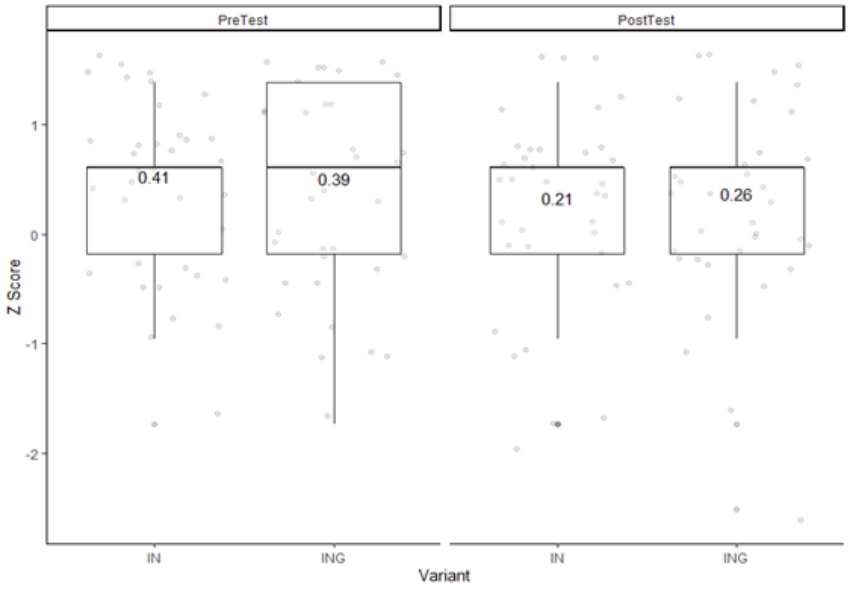


Figure 2
Pretest and Posttest Ratings of Social Superiority for Audio Stimuli

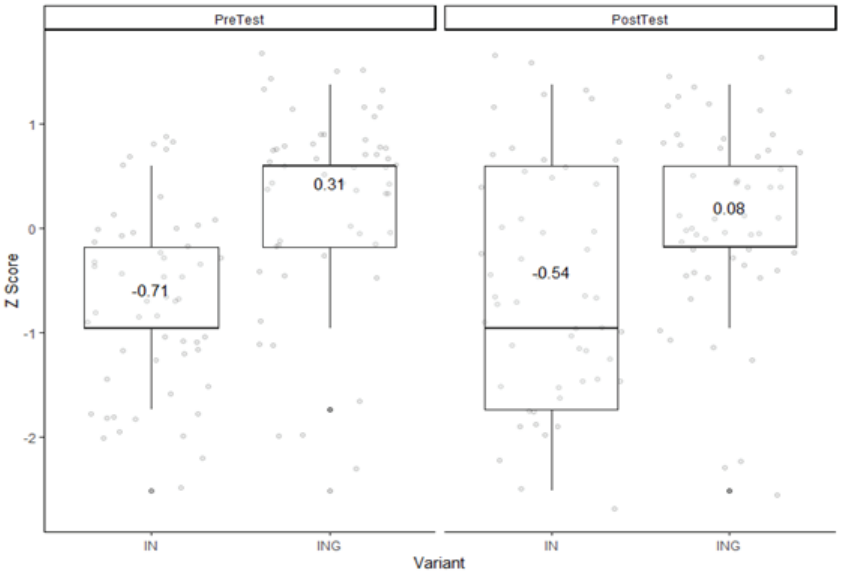


Figure 3
Pretest and Posttest Ratings of Social Attractiveness for Written Stimuli

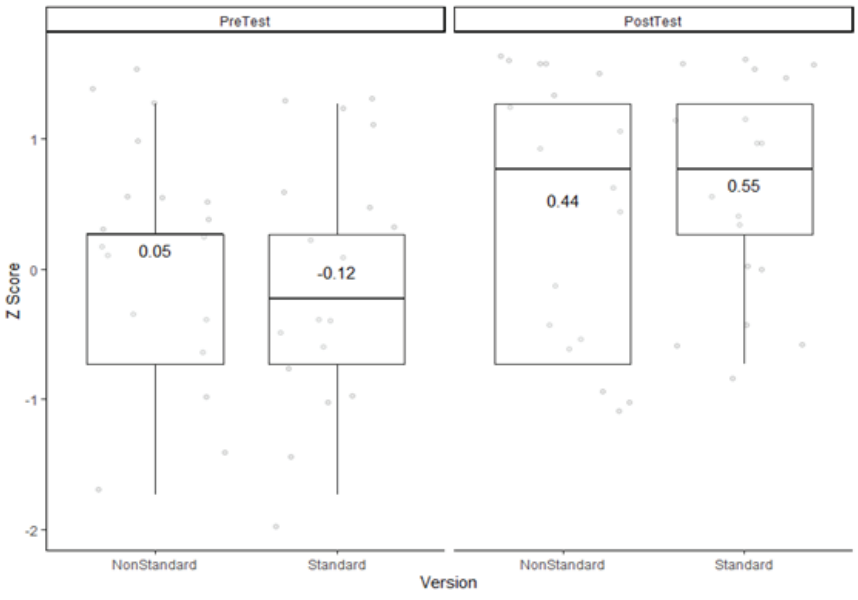
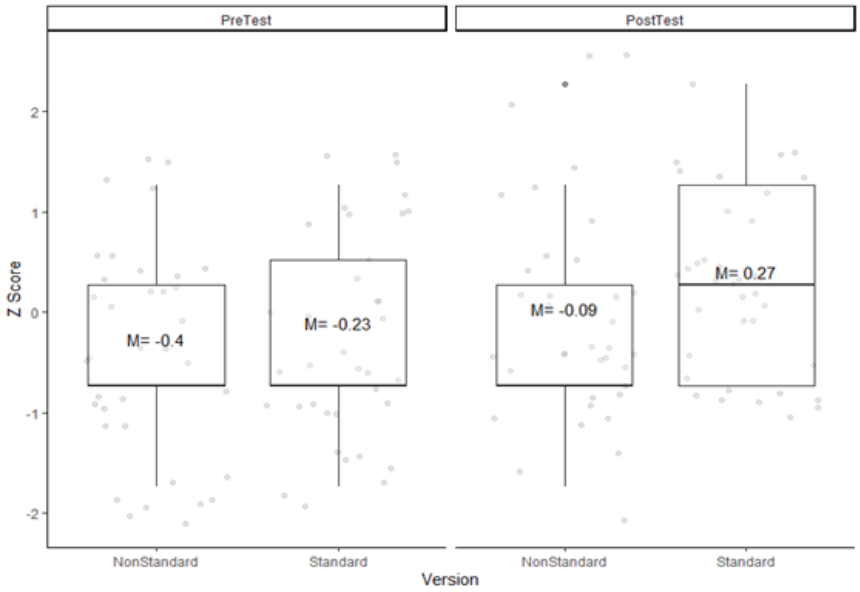


Figure 4
Pretest and Posttest Ratings of Social Superiority for Written Stimuli



within ratings of the guises containing standard language, there was an average increase in the mean at posttest with the range of responses extending much higher compared to the pretest. For the non-standard guises, the distribution of ratings extended across a similar range of values, but on average the participants generally rated the guises higher in social superiority at posttest. Additionally, given the distribution of ratings, there appears to be more uniformity (evidenced by grouping) among participants at posttest compared to pretest. These findings suggest that the participants' evaluations of non-standard language-use did change after the semester long course experience.

Discussion and Conclusion

This pilot study provides an initial exploration of TCs' attitudinal responses to non-standard English variation. Our first research question was confirmed-TCs do show evidence of attitudinal responses to non-standard linguistic variation. The statistical model demonstrated that a range of factors conditioned the nature of the attitudes as measured by the ratings provided. For the audio task focused on -ing' vs. -in' the individual speaker voice and linguistic feature were significant factors and demonstrated that listeners were responding

to the language-related cues when forming attitudes. For the written task, the linguistic features (standard L1 English vs. L2 English) were significant in conditioning participant attitudes demonstrating, again, that language cues contributed to attitudinal responses. Much like the work of Deutschmann et al. (2023) we also interpret our findings to be indicating that the MGT tasks were successful in identifying and measuring TC language attitudes toward a specific linguistic feature (ING) as well as a range of features that are typical in L2 writing.

Finally, with respect to the effect of the semester long course on language attitudes, the model did not select the pre/posttest as significant for the audio task response data, though some minor differences were observable by way of the data visualization plots. This is likely due to the limited number of participants in this pilot study. However, and most importantly, for the written task the pre/posttest differences were significant, and we saw that TCs rated non-standard L2 written English as more socially attractive and slightly more socially superior after the semester long course. Continued research is needed to be able better understand why and how TCs evaluate L2 language in this way, the role of the semester long course, and how these findings align with prior research that is closely related to ours. For example, as noted previously, Deutschmann et al. (2023) found that listeners adjusted their standards once they determined a speaker to be nonnative speaker, leading to more favorably ratings. It is possible that this effect of shifting standards is evidenced within our pilot data as well.

Ultimately, our findings demonstrated that TCs did show differences in their attitudinal responses toward non-standard variations of English, and we propose that this finding may have important implications when it comes to how TCs engage with linguistic diversity in the classroom, teacher/student and teacher/parent interactions, and special education referrals. Additionally, the fact that participants' attitudinal responses changed following participation in a course geared towards best practices with regards to teaching students who are emergent bilinguals or linguistically diverse is promising. Future research should include a greater number of participants and a control group consisting of TCs who do not receive any exposure to coursework related to working with linguistically diverse students to strengthen the internal validity of the study by addressing concerns related maturation effects on the independent variable. In practice, we believe that the MGT along with other sources of data such as narrative reflections, focus groups, and direct measures can be used to document and describe TCs' development and preparation as linguistically responsive educators.

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Appendix A

Text of Audio MGT Stimuli

1. I enjoy having/havin' some music playing/playin' in the background while I'm at work.

2. Lately I've been feeling/feelin' very accomplished at work, but early on in my career I remember really struggling/strugglin'.

3. What I like most about my job is interacting/interactin' with clients and helping/helpin' them get what they need.

4. After work, I prefer to be relaxing/relaxin' with my family and watching/watchin' our favorite TV shows.

Appendix B

Written MGT Text

Adapted from:
Janopoulos, M. (1992). University faculty tolerance of NS and NNS writing errors: A comparison. *Journal of Second Language Writing, 1*(2), 109-121.

The following excerpts are from essays written by college students. Read each series of excerpts and answer the questions that follow.

Version 1A
When two metals are combined, the new product is called an alloy. For example, when we combine zinc with copper it is called an alloy. We have distinguished two kinds of metals. The Nobel Prize winner this year was interested in this subject.

Version 2A
Acids are divided into two groups: those that always contain the element carbon which can be found in growing thing and those that do not contain the element carbon. Inorganic acids are obtained from nonorganic matter. Citric acid that is found in lemons and oranges is an organic acid.

Version 1B
When two metals are combined, the new product is called alloy. For example, when we combine zinc with copper is called an alloy. We have made distinguished two kinds of metals. The Nobel Prize winner this year was interesting in this subject.

Version 2B
Acids are divided into two groups: those that always contain the element carbon whose can be found in growing thing and those that do not contain the element carbon. Inorganic acids are obtained in nonorganic matter. Citric acid that is founded in lemons and oranges is an organic acid.