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From the Editor

The *Excellence in Education Journal* is an open access, refereed, online journal that promotes and disseminates international scholarly writing about excellent practices in all aspects of education. Nine years ago, this journal was founded with the goal of sharing these practices to benefit the education of children and adults worldwide**.** We encourage teachers, professors, and other professionals worldwide to write about practices that promote the improvement of education. Submissions are double-blind, peer reviewed and are accepted year round with publication occurring twice annually.

In support of our mission, we provide assistance with writing and formatting in English to international writers who seek our assistance with preparing their manuscripts. There are no fees to submit or publish manuscripts so that cost will never be a barrier. Typeset and graphics are intentionally simple in order that the journal can be more easily accessed on a variety of devices worldwide to fulfill the mission of the journal.

I am pleased to share that the United States Department of Education Institute of Education Sciences indexes all articles published in this journal on its ERIC database.

I hope that the practices discussed in this journal will be helpful to you, our readers.

Ann C. Gaudino, Ed.D., Founder and Editor-in-Chief
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Examining Decision Making in Higher Education: A Study of Teacher Educators' Choices within Writing Methods Courses

Joy Myers and Judy Paulick

Abstract

Determining what to include in higher education courses can be complex. In teacher preparation, methods courses include both content and pedagogy instruction. Teacher educators often struggle to determine how to balance these aspects. Thus, this study examined the influences on teacher educators' instructional decision making. We focused on writing methods instructors because this content is often deprioritized in teacher preparation programs. The participants represented eight different institutions in one focal state. The results indicated that although the university context varied greatly, the lack of dedicated writing methods courses and challenges associated with field placements consistently shaped decision making. Similarly, participants shared overlapping responses related to decisions regarding designing the course content to address the needs of their students. Furthermore, teacher educators reported that the candidates themselves influenced instructional decision making. These findings and their implications are discussed.

Keywords: writing methods, preservice teachers, instruction, teacher education

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"Teaching is, essentially, a learned profession. A teacher is a member of a scholarly community" (Shulman, 1987, p. 9). If pK-12 teaching is a learned profession, it follows that teaching in the realm of higher education is also a learned profession. Nevertheless, like most in higher education, teacher educators have historically learned their trade with much variability and with little guidance (Darling-Hammond & Bransford, 2007). Unlike many of their higher education colleagues, however, teacher educators are tasked with teaching both content (subject area expertise and human development expertise) and pedagogy in their preparation of professionals.

Over time, the situation for teacher educators has become increasingly complex. The No Child Left Behind Act (2001), Response to Intervention, Race to the Top, progress monitoring, value-added teacher evaluation, and Common Core State Standards have left literacy teacher educators, for example, trying to fit as much as possible into methods courses (Kreutter et al., 2013; Stumbo & McWalters, 2011). The challenge is compounded by competing calls regarding what content to include and which pedagogies work best to support the development of candidates' literacy expertise (Martin, Chase, Cahill & Gregory, 2011). Despite calls for improved preparation of teacher candidates in writing instruction and more writing courses in all teacher preparation programs (National Commission for Writing, 2003), candidates still receive little instruction in writing (Cutler & Graham, 2008; Graham, Capizzi, Harris, Hebert, & Morphy, 2014; Myers et al., 2016).

Without a framework or curriculum for writing methods instruction, teacher educators are often left on their own to make decisions. Thus, teacher candidates - who deserve to have equitable experiences with writing content and pedagogy - are likely to be leaving teacher preparation programs with a range of skills and competencies. This led us to wonder: In the absence of systematic training and induction into their practice, how do teacher educators make

decisions about their writing methods courses and teaching? And while this is a question particularly pertinent to writing methods instruction, it is also relevant for higher educators more generally, particularly those who are not inducted into their teaching in a systematic way.

Related Literature

Influences

Teacher educators choose from among different alternatives each time they plan and teach methods courses. Their decision making is complex, and research suggests several factors that influence decision making. First, coming from different backgrounds, teacher educators may recognize, understand, and emphasize different aspects of education (Kleickmann et al., 2012). These perspectives are anchored by the educators' views and their personal and professional understandings from experience (Hinchman & Lalik, 2000) which influences their instructional decision making (Prachagool, Nuangchalerm, Subramaniam, & Dostal, 2016).

Second, the context in which a teacher educator teaches influences, informs, and impacts decisions (Martin & Dismuke, 2015). The context can include the political, philosophical, and cultural context(s) of the teacher education program, the department, the school of education, the institution as a whole, or the broader communities. These contexts can often inspire collaboration or foster isolation. Some institutions of higher education value individual scholarship rather than the sharing of common goals and student outcomes. Thus, many instructors lack opportunities to engage with other teacher educators on the critical topic of teaching practices (Kluth & Straut, 2003) and connect individual contexts with broader understandings (Cochran-Smith & Lytle, 1993). In addition, research suggests that the decisions teacher educators make may differ based on their roles and responsibilities (Shulman, 1992) in those particular contexts. Just like classroom teachers, teacher educators enhance their decision making through professional

experiences, including peer observations, opportunities to work with various stakeholders, and opportunities to be engaged with research and policy.

The contexts in which educators teach is also shaped by students. Seven teacher educators at different universities, in a study by Kreutter et al. (2013), recognized that they focused much of their decision making based on knowledge of their students. The teacher candidates at their institutions ranged in terms of level of education, SES, age, and race. Based on the specific needs of their students, the teacher educators deliberately chose content and taught in a way they thought their students could best absorb the information. A participant in that study shared, "You can't just walk in and teach the same course to everybody. You have to know your group and work accordingly" (p. 29).

Challenges

In many ways, all teacher education courses—all higher education courses—are constrained by time (Martin et al., 2011). Often, teacher educators report trying to squeeze as much as possible into every class, while at the same time fretting about what was left out (Kreutter et al., 2013). These decisions may feel overwhelming, because as Gulliksen and Hjardemaal (2016) note, it is often a struggle to balance what is practically possible to cover in one course. Teacher educators question if they should try to teach as many skills as possible, or instead teach general concepts and leave the learning of specific skills for later (Kennedy, 1987). An additional challenge, for teacher educators, is contrasting views presented by research in the field. For example, Snow, Griffin, and Burns (2005) believe it is imperative for candidates to understand the theoretical and empirical underpinnings of literacy development. Honan and Mitchell (2016) instead stress the need to prepare candidates with the skills, knowledge, and understanding required to work within the complex context of public schools. The Core Practices Consortium takes a somewhat different tack, focusing on the role of teacher education in

preparing candidates to engage in particular teaching practices that are demonstrable, attainable, important for high-quality teaching, and generally transcend content area (Core Practices Consortium, 2013).

An additional time constraint may be how much time candidates spend or do not spend in field experiences, including student teaching. Not only does this often impact the decisions instructors make in terms of assignments but also guides the types of discussions they have in class. Kreutter et al. (2013) found that she and her colleagues spent a lot of time scaffolding students' conceptual development with discussion and situated practice specifically through classroom simulations and field placements. Martin et al. (2011) encourages teacher educators to be cognizant of the attention or lack of attention they give to field placements. The decisions we make as teacher educators may also be informed by how much time we spend in the field (Snow & Martin, 2014).

Regardless of the influences or challenges involved in the process of decision making, each instructor makes decisions that privilege some types of information over others or one form of instruction or assessment over another. Martin et al. (2011) argue that in doing so, teacher educators inadvertently frame candidates' understandings of teacher practices.

Impact on Teacher Candidates

Research on teacher development indicates the decisions teacher educators make, in terms of providing learning experiences, affect change and growth for teacher candidates (Valencia, Place, Martin, & Grossman, 2006). Risko and colleagues (2008) found that methods courses in strong teacher education programs contributed to teacher candidates' understandings within and across particular subject areas. In other words, there is a coherence of strategies that candidates can transfer across topics and across content areas. In another study, Martin et al.

(2011) found that the quality of the methods courses impacted the candidates' ability to transfer and coordinate understandings to unique and uncertain contexts.

Further impacting K-12 teacher candidate development is the ability for teacher educators to unpack teaching and learning (Loughran, Korthagen, & Russell, 2008). Grossman et al. (2000) found the modeling of practical tools in literacy courses, coupled with opportunities for candidates to use these tools in a practicum, supported teachers' early instructional practices. Thus, the decisions the teacher educators made in that study regarding the content and the pedagogy of their methods courses impacted candidates' level of success in the classroom.

Some educators feel that the decisions they make in terms of what to include in methods courses should reflect the reality of today's schools (Kreutter et al., 2013). Others choose to try to balance practical information and teaching theory (Hinchman & Lalik, 2000), often with the goal of preparing candidates not only to teach in schools as they are but also to be equipped to improve schools. Regardless of the philosophy of the teacher education program, candidates must have opportunities to acquire knowledge throughout their training (Holloway, 2001) and their instructors must engage in ongoing reflection in order to provide the most comprehensive program possible (Korthegan, 2010).

It is clear from the research highlighted above that instructor decision making is complex and that there is not yet agreement on how best to engage in teacher education. The current study sheds light on the dilemmas of selecting what to include in methods instruction by examining what influences teacher educators' decision making in writing methods courses.

Theoretical Framework

For the purposes of our study, we focused on how the content and pedagogy, the candidates, and the context influenced the decision making of elementary writing methods instructors. We framed our analysis in the work on teacher professional knowledge (Shulman,

1987). First, teachers need to have a deep understanding of what is to be learned by students. In the case of elementary writing methods instruction, that content might include the writing process, the elements of writer's craft, and writing assessment. Instructors also need to know how teacher candidates learn, including making the content relevant and engaging.

Second, teachers need to understand who their students are, their background knowledge and experiences, and how they learn. Elementary writing methods instructors must understand their students' experiences with, and knowledge about, writing and writing instruction, including what coursework they have already engaged in and what role writing plays in their lives. These instructors can also be aware of any discomfort or anxiety that students may have around language arts.

Third, teachers need to understand the context in which they are teaching and how to adapt their instruction in order to meet the needs of their students within that context. For elementary writing methods instructors, this may mean being able to contextualize writing methods within a teacher preparation program and understanding the broader political context around writing instruction. These aspects of Shulman's theoretical framework support our research question: In the absence of systematic training and induction into their practice, how do teacher educators make decisions about their courses and teaching?

Methods

We used survey (Babbie, 1990), interview (Schensul, Schensul, & LeCompte, 1999), and observation methodology to investigate the ways teacher preparation programs in one focal state prepare their elementary teachers to teach writing. The research team began by developing and piloting a 30-item electronic survey designed to provide information about demographics, a description of teacher preparation coursework, and information about the instructional strategies utilized by writing methods educators. We piloted the survey and used expert feedback to modify

the format and hone the questions.

The survey began by asking questions specific to the literacy program each instructor taught in such as how many literacy courses are required of candidates, how many hours of class time is devoted to writing methods instruction, how much ownership they feel they have over the course. Then the survey questions shifted to the contexts in which candidates are placed for field experiences and thus asked questions like what are the writing programs the schools/school divisions tend to use in the schools where their candidates tend to teach, and approximately how many hours are devoted to writing instruction each week. The third section of the survey delved into the instructors' specific teaching practices, asking for a brief outline the key assignments for the course and an approximate of what percentage of class time across the semester they used for the following activities: lectures, whole-class discussions, demonstrations (live or video), small group discussions, small group tasks/projects, presentations by students, preparing for and/or taking exams, and other. Additional questions included: What do you feel works particularly well in your course? and What more would you like to know in order to inform your practice?

The survey link was sent to a total of 40 elementary writing methods instructors at the 35 institutions that offer teacher preparation programs in the focal state. Seventeen participants responded, representing thirteen of the institutions and a 43% response rate. This is a typical return rate for online surveys (Jackson, 2009). Out of the thirteen institutions, 54% were public and 46% private. Of the seventeen participants from the survey, 88% were female and 12% male, and 94% had a terminal degree.

Researchers charted and presented quantitative survey element data in tables and graphs. A research team read and coded qualitative survey responses, then submitted the data to a second team for verification of coding and themes, filtering for teacher educator decision-making

practices. Based on the survey results, eight of the seventeen instructors agreed to be interviewed and observed as part of phase two. See Table 1 for participant information.

Table 1

Participant Information

Participant	University	Location	Dedicated Writing Methods Course
Dr. Darrow	Public	Urban	No
Dr. Everett	Private	Rural	No
Dr. Church	Public	Suburban	No
Dr. Cole	Private	Rural	No
Dr. Avell	Public	Rural	No
Dr. Combs	Public	urban	Yes
Dr. Schoon	Public	urban	Yes
Dr. Oakes	Public	Rural	No

The 45-minute interviews used a semi-structured interview protocol (Schensul et al., 1999) and asked the instructors to share information such as if there were researchers or curriculum developers who influenced or impacted their teacher education practice. In addition, there were questions that specifically asked them to expand on their survey responses such as: In the survey, you indicated that _____ works particularly well in your course. Tell me more about that. In the survey, you indicated that _____ is something you'd like to learn more about or work on in your teaching practice. Tell me more about that.

The observations were conducted during a class period of the instructors choosing. Since some of the classes lasted 3 hours and others lasted 1.5 hours, the time of each observation per participant varied. The observation protocol was divided into four constructs: relationships (interactions with and among students), context (set up of the classroom, aspects of cultural competence), physical artifacts (what the instructor brings/uses to facilitate teaching) and content (connections to prior learning, goals, activities, assessment). The researchers took observational notes in the second column and in the third column added comments or questions.

All interviews were transcribed and coded for analysis. Data analysis of the interviews and observations occurred in three phases, following Miles and Huberman's (1994) recommendations of data reduction, data display, and drawing and verifying conclusions.

Findings

This study examined what influenced writing methods teacher educators' instructional decision making. For the purposes of this paper, using Shulman's (1987) facets of teacher professional knowledge, we focus on teacher educators' decisions related to the university context, course content and pedagogy, and their teacher candidates.

Context

The results from the survey, interviews, and observations indicated that teacher educators often made decisions regarding what to include in their writing methods courses based on challenges stemming from their context. These contextual challenges varied across participants but two themes emerged during analysis: a lack of courses specifically focused on writing methods instruction and the varied amount and quality of time candidates spent in schools seeing and/or teaching writing. In the survey, every instructor indicated that time is an issue—time for TCs to practice the skills they are learning and time for the instructors to teach them those skills.

No dedicated writing methods course.

Only 38% of the survey respondents' institutions offered a specific course that focused on writing methods, despite the fact that on average most universities required candidates to take three or more literacy courses. Teacher educators who did not teach a stand-alone writing methods course revealed that they spent anywhere from one class session to 50% of a literacy course on writing. Furthermore, in every program, respondents reported that writing was prioritized the same as reading (35%) or less than reading (65%). No respondents indicated that writing instruction was prioritized more than reading. While 8 of the 17 respondents reported

that they were very satisfied with the course that included writing methods instruction, 9 of the 17 reported that they were only somewhat satisfied or minimally satisfied with the course.

The interview participants described how challenging it was to not have an entire course dedicated to writing methods. For example, Dr. Darrow (all names are pseudonyms) described her course as "a jack of all trades," because it had several foci within a short timeframe. She felt, "we are only scraping the tip of the iceberg," and she added, "Writing is taught badly because I don't think teachers get enough writing instruction and pedagogy in their teacher prep programs." Dr. Darrow would like a 12-week writing methods course so she could go into detail about what writing looks like in K-6 classrooms, be able to share different approaches, and delve more into writing theories and practices.

Dr. Everett made the decision to turn the challenge of not enough time to teach writing using specially chosen texts. She explained that since there is not enough time to read all of the books she would ideally have candidates read, and because the methods courses bring together students interested in different things, she uses literature circles. Dr. Everett said, "So if they're interested in learning about early childhood, I have them read books by Katie Wood Ray. If they are interested in ESL (English as a second language), I have them read a book about writers' workshop in multicultural settings." During the observation in Dr. Everett's class, near the start of class, the candidates met in literature circle groups during which she gave them time to discuss their plan for their book presentations the following week. Since she feels the candidates also need practice and learn more about teaching with technology, Dr. Everett requires them to use various forms of technology to present.

Field placements.

Another contextual challenge that shaped teacher educators' decision making was the quality and the amount of time candidates spent in schools. The survey results showed that on

average the teacher educators estimated that 3.6 hours per week were devoted to writing instruction in the schools where candidates were placed for practicum. The types of writing programs used in the schools varied, including Being a Writer, 6 Traits, Writing Workshop, Write Bright, and the 4 square writing approach. Some of the survey respondents did not know which programs were used, or reported that the schools had no formal writing program. Just 44% of instructors reported that candidates had opportunities to observe writing instruction in schools. Many of the teacher educators wrote comments explaining that although their candidates spent time in schools, how much writing they saw depended on the practicum placement. One survey respondent wrote: *Some teachers are doing a wonderful job teaching writing and embedding it across the school day - so candidates see a lot of writing. Just down the hall at the same school, a candidate might see writing one day a week.*

In interviews, the teacher educators provided more depth about how field placements shaped their decision making. For example, at her university, Dr. Everett's candidates teach two lessons in the schools, "but we don't make it mandatory that it's a writing lesson because, sadly, our students aren't seeing classes where there is a writing workshop structure in the class." To combat this, Dr. Everett often showed short video clips, which she did during an observation. On one particular day, she used a 10-minute video of a teacher using reading/writing workshop in her class. Afterwards, she engaged the candidates in a rich discussion about the practices evident in the video. Dr. Everett made the decision to talk about Writing Workshop and show examples because, as she said, "we know (Writing Workshop) works and have seen it work, they just don't see it in the local schools."

Although Dr. Church teaches in a different part of the state, she faces some of the same challenges as Dr. Everett. In her experience, the practicing teachers with whom candidates are placed are often told by administrators that writing is, "not tested, so don't worry about it." Dr.

Church stated, "As passionate as we are in teaching it, if they're not seeing it, it's hard for them to actually conceptualize where it fits in the day and how to do it." Thus, Dr. Church made the decision to have candidates visit a few *particular* teachers who are implementing the teaching techniques she wants them to observe. Other teacher educators, like Drs. Cole and Avell, decided to include specific assignments to be completed during field experiences so even if the cooperating teacher did not focus on writing, candidates could still experience designing and teaching a writing lesson.

Dr. Combs, whose students are not in practicum classrooms during the course, chose to spend class time examining components of writing assessments used in local schools. She went on to say, "I do have a list of local teachers who are willing for students to come in and I've had a few students take advantage of that over the semester, not as many as I would like, but a few."

Like Dr. Combs, Dr. Schoon does not have a field placement associated with her course. She said, "It's so frustrating not to be able to have them trying it out with real students." One of the decisions Dr. Schoon made as a result of her candidates not being in the field was to have them teach the part of their lessons to a small group of their peers during class. "At least they're having to get the words out … even it if it's not an entirely authentic situation," she said.

Whether or not their candidates had opportunities to observe writing instruction in their field placements, the teacher educators in this study created spaces in their courses for the candidates to see or experience writing instruction. How that looked differed from instructor to instructor; nevertheless, across the instructors, decisions to include strong models were intentional.

Content and Pedagogy

Many of the teacher educators described piecing together their course, since there is not a specific curriculum or common approach to writing methods instruction. This led to varied

decisions about what content to include in the courses as well as their pedagogy. In describing their own philosophy of writing methods instruction, six of the 17 respondents indicated that the most important goal is that candidates identify as writers themselves, while 11 of the 17 respondents prioritized the development of pedagogical skills.

Designing the course content.

When survey respondents were asked to share two to four objectives for the stand-alone writing methods course or the course that housed writing methods instruction, the objectives ranged from understanding phonemic awareness, word recognition, fluency, and comprehension to planning lessons that would facilitate that learning. Some objectives included specific mention of oral communication, literature, writing, research, children's literature, word study, and even content area literacy. In other words, the range of content was very broad. The most-cited goals for the courses were that candidates would learn to lesson plan for writing instruction (53% of respondents mentioned this), assess writing (29% of respondents), demonstrate an understanding of writing standards (24% of respondents), and understand the theory behind writing instruction (24% of respondents). When asked how much ownership they had over the course, 94% of the survey respondents reported that they had a lot of ownership. On average, the respondents' satisfaction with the course was a 3.38 out of 4 (SD=0.62). Feelings of ownership and satisfaction did not, however, mean that the teacher educators found designing the course easy.

Four instructors noted in the surveys that they, themselves, did not have the connections with schools that they would like to have. Being new to the state, Dr. Schoon spent time in local classrooms to better understand the current state of writing instruction in K-6 schools before designing the course. One of Dr. Schoon's goals was to embed more writing into the language arts course. Dr. Schoon said the content of her course was also influenced by the need to include information about working with English learners because, "that's not currently included in any

other course in our program." Similar to Dr. Darrow, the course that Dr. Schoon taught was expected to cover more than writing.

Since Dr. Avell currently teaches at a university that does not have a writing methods course, she had to make decisions about how much writing to include in an "intermediate grade level general literacy course." During the observation, the researchers saw how Dr. Avell incorporated having the candidates write as part of a mentor text mini lesson. First, she had candidates do a quick write about something they were an expert in. She listed some examples such as baking, motocross, photography, fostering animals, and scuba diving. "While you're writing I will also be writing, because as teachers we want to model that we are writers." Then as a class, they "mined" the mentor text *A Black Hole is Not a Black Hole,* looking closely at the nonfiction text to find examples of strong sentences. After identifying certain sentences that stood out to them, like starting with a hook or a question or using onomatopoeia, the candidates revised their own writing using one of the sentence styles from the mentor text. Although the purpose of this part of class was to introduce the idea of mentor texts to the candidates, Dr. Avell decided to incorporate time for the candidates to write as part of the lesson.

Choosing pedagogies.

On the survey, the participants were asked to sort a list of activities based on how much course time those activities comprised. The respondents reported that small group discussions, tasks or projects take up the most time followed by demonstrations (live or video), whole class discussions, presentations by students, lecture, and exam preparation/other. Specifically, 16 of the 17 respondents reported using small group work (discussion, tasks, or projects) as one of the top three ways class time was used. Fifteen of 17 respondents reported demonstrations as one of the top three ways time was spent. Nine and eight respondents, respectively, reported lectures and class discussion comprised the most class time. When asked what works well in the course,

several of the respondents specifically mentioned modeling writing pedagogy through videos of teaching and live demonstrations, students' role play (i.e. practice taking on the role of a teacher/student), as well as examining and critiquing existing curricula and teaching strategies. Every instructor shared that hands-on, active learning seemed to work well for their TCs.

Through the interviews, the researchers got a better understanding of how the teacher educators made decisions about pedagogy. Dr. Darrow said, "I try as much as possible to bring in the tools that I would use as a teacher or that I would like them to use in a classroom." During an observation this was seen when Dr. Darrow gave candidates time to look through various personal narrative picture books. She wanted them to think of a prewriting strategy and a quick writing suggestion that could be used with the text as a springboard for their student's own writing of personal narratives. After working in small groups, the candidates shared out a summary of their book and how they might use it as a mentor text.

Several of the instructors, including Drs. Schoon, Avell, and Combs, reported employing similar types of instruction such as having candidates conduct writing conferences where one first acts like the teacher and the other is the student before switching roles. Dr. Combs shared, "More active things I find effective." During an observation in Dr. Combs' class, it was clear that she valued candidates being engaged. During one part of the three-hour class she had them stand in a circle and read aloud a favorite part of Alice Walker's *The Other Dancer*. Combs engaged the candidates in this activity in order to show them one way they could help their future students get more comfortable reading aloud so they can eventually transition to reading their own writing aloud.

Content and pedagogy clearly drove many of the decisions the teacher educators made related to how to teach writing. The instructors chose what and how they taught based on what

they thought would be most effective. Their own experiences, coupled with the constraints and affordances of the context, shaped those decisions. So, too, did their particular candidates.

Candidates

The open-ended survey responses as well as the interviews revealed teacher educators made decisions specific to writing instruction based on teacher candidates' writing identities and proficiencies as writers. Depending on the context, some instructors voiced varying levels of concern regarding candidates' comfort with and preparation for the content of writing instruction.

Candidates' identities as writers.

Some teacher educators made comments about the importance of candidates' writing identities in the survey when describing their philosophy of teaching writing. For example, one respondent wrote: *We must help our candidates see themselves as writers and value writing as a process if we hope that they will make time to teach writing effectively in their future classrooms.*

One way the instructors made decisions related to supporting candidates' identities as writers was getting them involved in the writing process. On the survey, participants wrote statements such as: *I believe it's important for students to experience writing themselves and think about their own experiences with writing* and *I have the candidates experience what it is like to be writers and take a piece through writer's workshop.* Numerous participants shared that they have candidates write in various genres and keep a writer's notebook or journal.

The interviews and observations also showed evidence of teacher educator decision making specific to supporting candidates' identities as writers. Dr. Everett said, "Having the experience of doing their own writing, you can't replace that. because if you don't take the time to do that then it's not going to work." Dr. Everett, who teaches a combined social studies and language arts methods course, still makes the decision to build in time for candidates to write.

"Writing every day is important in elementary schools," said Dr. Oakes. Thus, she encourages her candidates to also write throughout the week. During an observation in Dr. Oakes classroom, her passion for having candidates develop as writers themselves was seen by her choice to start class with a quick write, asking them to think back to when they were younger and to describe their most prized possession.

Candidates' proficiency as writers.

In the surveys, two instructors indicated that their TCs' skill levels presented a challenge. Beyond that, in interviews, many of the teacher educators spoke about candidates' trepidation around writing and how that shaped their decision making. Dr. Cole shared "I find that a lot of candidates are afraid of writing, and they don't know how to teach it." Other teacher educators described how they worked to create developmentally appropriate presentations of the content and used pedagogies they hoped candidates would use in future teaching. For example, Dr. Combs decided to place candidates in writing groups so they had opportunities to practice doing self-evaluations, and getting and giving feedback on writing. This is important, according to Dr. Combs, because college students typically revise as they write. Slowing the process down, "like we want them to do with elementary school students in the classroom," is key to successful teaching. During an observation in Dr. Combs class, candidates were given 40 minutes to work with their writing teams. As the candidates listened to each person's personal narrative, they wrote questions, then they took turns sharing "a glow and a grow." Dr. Combs clearly valued supporting candidates' proficiency as writers by deciding to devote that much class time to this activity.

Dr. Oakes indicated that although her candidates are required to take a college-level writing course, many of them still struggle with writing. As a result, she decided to incorporate assignments intended to develop her candidates' confidence as writers, such as having them go

through the writing process, step-by-step, while creating a personal narrative. During the observation, Dr. Oakes supported the candidates' vocabulary development. The previous week, she had asked them to look for unfamiliar words in their readings. In class, as they discussed the words, Dr. Oakes asked them to identify where they would put the words on their "continuum of word knowledge— never heard it before to totally got this." The candidates then determined where the words fit on their individual continuum. Dr. Oakes said, "If they're going to teach kids to be word conscious, they have to be word conscious themselves." Dr. Oakes made decisions to try to build the candidates knowledge of literacy as she taught them how to teach it.

Discussion

This data shows that the university context, course content and pedagogy, and the teacher candidates' characteristics all influenced teacher educators' decision-making regarding planning and instruction in a professional preparation program. We focused on elementary writing methods, since it is a particularly neglected area of teacher preparation and teacher educator preparation (Graham et al., 2014; Myers et al., 2016). Although the university context varied greatly across the state, from large public research institutions to small private teaching colleges, the lack of dedicated writing methods courses and challenges associated with field placements remained consistent. Similarly, participants shared overlapping responses in terms of decisions related to course content and pedagogy; specifically, they faced challenges associated with designing the course content to include more writing and choosing pedagogies to best prepare candidates to teach writing. Finally, teacher educators across the state reported that the qualities and characteristics of the candidates themselves influenced instructional decision making.

What we found across institutions and instructors, was intentionality in decision making. Instructors considered the affordances and constraints of their contexts and candidates and worked to incorporate what they knew from their own backgrounds in order best to prepare their

candidates to teach writing. Furthermore, across instructors, we found that they were doing their decision making and planning in relative isolation. This is consistent with the literature on teacher educators (Swennen & Bates, 2010). Although our participants sought out resources, including rare opportunities to convene with other literacy scholars (at conferences like the State Reading Association) and writing teachers (like the Writer's Project), those opportunities were rare. A lack of access to other teacher educators, in particular, meant that they made decisions in a vacuum. We build on the work of Martin and Dismuke (2015) in considering communities of practice of writing methods' teacher educators as a way to be continually responsive to contexts and candidates. We look to Patton and Parker (2017) for next steps regarding how to initiate and sustain such communities.

There are several limitations of the current study, including the small sample of teacher educators from one focal state. Expanding data collection to include teacher educators from a larger geographic area would add to the richness of our understanding about decision making not only in writing methods courses but also in other content areas. Furthermore, expanding data collection to higher educators more generally - both in academic and professional preparation programs - can help us to understand how instructors make decisions in the absence of guidance.

Implications

Regardless of the specific challenges that the teacher educators in this study faced, they tackled them alone. Beyond the factors that influence individual instructors' practice, membership in groups that support each other's development can influence decision making. Communities of practice (Lave & Wenger, 1998) can be formal, like professional organizations, or informal, like small groups of colleagues meeting. Regardless of the size, these communities have shared goals, resources, and a common vocabulary. Having opportunities to discuss and debate pedagogical choices allows for more purposeful and informed choices. What we found in

this study is that our participants, overall, were making decisions without access to robust – or often any – communities of practice. On the contrary, most decisions were made individually and without discussion or support from within or beyond the institution. This is, unfortunately, not unusual for teacher educators (Swennen & Bates, 2010).

It is important to be aware of the way challenges impact decisions. We know that decision making is challenging to process in the moment and requires reflection. Without a community of practice, it is difficult to individually reflect on the impact of context, content/pedagogy, and candidates. Moreover, it is challenging to look across institutions to see the bigger picture of how, as sister institutions, we are preparing future professionals.

While we do not suggest a specific curriculum that should be adhered to for preparing elementary teachers to teach writing, we do suggest that teacher educators and other instructors in professional preparation programs should have access to communities where they can share ideas, reflect on their practice, and articulate their values (Patton & Parker, 2017). The contexts and clients we have described are dynamic and shifting, and communities of practice are able to support improvement that mirrors that dynamism. Researchers have suggested that these communities are marked by dialogue, reflection, communication, and mutual respect (Tannehill, Parker, Tindall, Moody, & MacPhail, 2015) and that communities provide, "a way for both the individual and the collective to engage in continual improvement of practices" (Martin & Dismuke, 2015, p. 5).

Ongoing conversations that honor instructors' professional decision making, the constraints of their particular contexts, and the dynamic nature of teacher education itself will assist in helping decisions be more informed. Furthermore, these communities can offer support and encourage instructors to think more deeply as they problematize their practices (Martin & Dismuke, 2015). Finally, we believe that communities of practice have the potential to form the

basis for collective action to challenge the lack of prioritization of writing methods, about which the majority of our participants described at least some feelings of discontent.

Conclusion

We return to Shulman's words as we reflect on the fact that higher education more generally and teacher education specifically is a learned profession. It is clear from this study that although teacher educators are resourceful and caring, the lack of communities of practice through which to provide and receive support and continually evolve work has led to what is likely unnecessary labor and perhaps a lack of continuous growth. Although differences in contexts, content, and candidates will always exist, having spaces in which to explore a range of resources, strategies, and practices would be an invaluable asset for elementary writing teacher educators as well as others who teach in higher education.

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Teachers' Perceptions of Professional Learning to Increase Classroom Physical Activity: Supporting School Policy Implementation

Sean Bulger, Eloise Elliott, Annie Machamer, and Andrea Taliaferro

Abstract

The purpose of this study was to determine classroom teachers' and school administrators' (*N*=146) perceptions of physical activity (PA) integration into the academic classroom after participating in a day-long professional development (PD) workshop, and one year following the workshop. A retrospective pretest survey was administered to all participants at the close of the PD and one year later to measure participant perceptions across two levels: reaction to workshop quality and personal learning. Indicators of quality supported that the workshop was well planned, managed, and delivered. Results of paired-sample t-tests indicated a statistically significant improvement in participant understanding, ability to demonstrate comprehension, and apply concepts. Overall results of the one-year follow-up revealed that the levels of learning remained favorable and provided insight regarding the longer-term outcomes of teacher and student behaviors. The discussion addresses the importance of student-centered instruction, content specificity, professional collaboration, and school support in teacher professional development.

Keywords: professional development, classroom physical activity, policy

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During the 2014-2015 school year, one state's board of education, in the United States, initiated a policy modification requiring elementary and middle schools to provide 30 minutes of daily physical activity through access to recess and/or other opportunities that extend beyond formal course requirements in physical education and health. The impetus for this particular policy change was an emergence of scientific research supporting linkages between physical activity and health-related fitness in school-aged youth, and improvements in cognitive performance, academic performance, and mediating variables like concentration, self-esteem, and depression (Castelli, Hillman, Buck, & Erwin, 2007; Davis et al., 2007; Esteban-Cornejo, Tejero-Gonzalez, Sallis, & Veiga, 2014; Hollar et al., 2010; Ménard and Ellemberg, 2010; Norris, Shelton, Dunsmuir, Duke-Williams, & Stamatakis, 2015; Phillips, Hannon, & Castelli, 2015; Reed et al., 2010). Leading researchers and professional organizations have responded to these findings, and other health-related outcomes, by calling for increased access to physical activity opportunities before, during, and after the regular school day (American Alliance for Health, Physical Education, Recreation & Dance, 2013; Centers for Disease Control and Prevention, 2013; Cook & Kohl, 2013; Erwin, Beighle, Carson, & Castelli, 2013; Pate et al., 2006; Society of Health and Physical Educators, 2016).

Given the amount of time that children and adolescents are sedentary within the typical PreK-12 school setting, the integration of physical activity into the classroom has attracted considerable attention as an approach to facilitate the achievement of the recommended amount of 60-minutes or more of physical activity each day (Donnelly et al., 2009; Donnelly & Lambourne, 2011; DuBose et al., 2008; Pate et al, 2006). As with any environmental change in schools, modification of the traditional classroom to integrate higher levels of physical activity represents a considerable challenge. Teachers must take into account a multitude of factors when they plan, instruct, manage, and assess classroom lessons that integrate movement, such as goals

and objectives, content, availability of instructional resources, physical space and equipment, developmental level of the learners, and individual differences. It follows that teachers who are asked to implement active classrooms require additional support in the form of access to pedagogical instruction, modeling of best practices, and opportunities to create and deliver integrated movement lessons (Miller, Lindt, & McIntyre, 2014).

While classroom teachers typically lack experience directing physical activity, research indicates that they are willing to explore ways to promote physical activity during academic instruction, particularly if these activities are compatible with their philosophy and they are provided with appropriate support (Cothran, Kulinna, & Garn, 2010; McMullen, Kulinna, & Cothran, 2014; Raymond, 2013; Strampel et al., 2014; Webster et al., 2013). As discussed by Goc Karp, Scrubbs, Broan, and Kelder (2014), however, there are issues inherent in training classroom teachers to implement classroom-based physical activity. Teachers have identified challenges unique to the implementation of classroom physical activity including difficulty maintaining class control during activity, space constraints, and returning to on-task behavior after activity (McMullen et al., 2014; Strampel et al., 2014).

Structured professional development (PD) experiences have the potential to positively influence teacher behavior and are essential to building confidence in teachers toward implementing physical activity during the school day (Carson, 2012; Castelli, Centeio, & Nicksic, 2013; Goc Karp et al., 2014; Till, Ferkins, & Handcock, 2011). McMullen et al. (2014) and Goh et al. (2014) found that classroom teachers prefer activity breaks that are easy to implement, are connected to academic content, and that promote student enjoyment. McMullen et al. (2014) therefore suggested that related PD for classroom teachers focus on areas including: providing teachers with ideas for PA breaks that are easy to implement and do not disrupt classroom management and control; training on how to connect academic content to physical

movement; how to promote a school-wide effort in physical activity breaks; encouragement on selecting activity breaks that will be enjoyable to their unique group of students; and a consideration of teaching philosophies and priorities.

Purpose Statement

With the primary intent of better preparing school personnel to meet the previously referenced state mandate through the integration of movement in classrooms as a preferred instructional strategy, the state's public education officials organized a series of PD workshops in collaboration with leaders and representatives from the state's Department of Health and Human Resources, local colleges and universities, non-profit organizations, and a statewide health and physical education organization. The purpose of this study was to determine the perceived readiness of PreK-8 teachers and administrators to integrate physical activity into the academic classroom following participation in one of these day-long PD workshops using a retrospective pretest design. Further, this study sought to determine the long-term impact of these PD workshops and explore how physical activity was being integrated into the academic classroom.

Method

Participants

Participants in the study included PreK-8 classroom teachers and school administrators from the previously referenced state who attended a one-day PD workshop focused on integrating physical activity into the academic classroom (N=146). Following Institutional Review Board Approval and completion of the workshop, attendees were asked to participate in the study voluntarily. Participants ranged in age from 21-55 years and included males (n=22) and females (n=124). Participant teaching backgrounds were varied: 50 taught grades PreK-2; 51 taught grades 3-5; 37 taught grades 6-8; 13 were school administrators; and 8 self-identified as other. Fifteen participants indicated employment across multiple previous categories. With

respect to years of teaching experience: 54 (38.6%) had 0-4 years of experience, 32 (22.9%) had 5 to 9 years of experience, 27 (19.3%) had 10 to 14 years of experience, 7 (5%) had 20 to 24 years of experience, 5 (3.6%) had 20 to 24 years of experience, and 15 (10.7%) had 25 or more years of experience (*N*=140 total responses).

Procedure

Officials from the state's Department of Education organized two PD workshops focused on preparing school personnel to integrate physical activity into classroom instruction within the elementary and middle school context. Organizers held the workshops in the northern (Workshop 1) and southern (Workshop 2) geographic regions of the state to increase access. Attendance was comparable across sessions (Workshop 1=78 participants and Workshop 2= 68 participants). The one-day workshops included educational lecture sessions (morning) and interactive activity sessions (afternoon). The lecture sessions provided background information on children's physical activity, the related benefits, guidelines for best practice in integrating physical activity in the classroom, and evidence-based instructional resources like Active Academics® (http://activeacademics.org/). The afternoon sessions engaged attendees in demonstrations of sample activities across grade levels, content areas, and contexts (e.g., small space and large space). Immediately following the completion of each session, the participants were asked to complete an anonymous retrospective pretest to determine workshop quality and effectiveness. The PD workshop structure is described in greater detail in Table 1.

Instrument

Retrospective pretest designs are recommended as an alternative approach for determining change or learning based on pre-intervention behavior (Allen & Nimon, 2007; Campbell & Stanley, 1963; Lamb & Tschillard, 2005). This method is particularly useful in PD settings within which traditional pretest-posttest models are often impractical to administer based

on contextual constraints. Retrospective pretest designs afford researchers the added benefit of minimizing risk for 'response shift effect' as a possible source of invalidity 'when participants are unable to give reasonably accurate estimates of their knowledge and skill levels on a pretest' (Lamb & Tschillard, 2005, p. 1). In the present study, researchers used a previously developed and field-tested retrospective pretest instrument to measure the perceptions of participants across two levels: Level 1 Reaction to Quality and Level 2 Learning (Allen & Nimon, 2007). The first level includes nine items specific to workshop quality (e.g., coverage of important topics, sufficient detail, focus of discussion, learner participation) rated on a five-point Likert scale, ranging from 1 (poor) to 5 (excellent).

The second level includes three items addressing personal learning (participant understanding of content, ability to demonstrate comprehension, and readiness to apply concepts) using the same Likert scale. Each item is rated two times: (1) retrospectively before the workshop and (2) upon completion of the workshop. An open-ended prompt afforded participants the opportunity to supplement their ratings with written comments. Researchers added participant demographic questions for the purpose of data analysis and interpretation (e.g., workshop date, gender, grade levels taught, and years teaching). Measured across 75 PD sessions and over 1,200 responses, Allen & Nimon (2007) reported the following coefficient alpha values for the entire instrument (0.788 to 0.970), Level 1 subscale (0.905 to 0.992), Level 2 retrospective pretest subscale (0.876 to 0.994) and posttest subscale (0.754 to 0.990). Allen and Nimon called for replication across multiple settings to establish instrument validity.

Follow-up Survey

One year after the PD workshop, participants were asked to complete an online survey to assess their continued degree of personal learning (participant understanding of content, ability to demonstrate comprehension, and readiness to apply concepts). Using the same Level 2

prompts as above, open-ended items were added seeking to investigate how participants were implementing physical activity in the classroom. All initial workshop attendees were emailed a request to participate and a link to the online survey. A total of 52 participants (9 male, 43 female) responded to the online follow-up survey. Of these, 11 taught PreK-2, 13 taught grades 3-5, 11 taught grades 6-8, 7 were administrators, and 9 responded 'other.'

Data Analysis

Researchers used descriptive statistics to summarize participant demographics, reaction to workshop quality, and personal learning. Preliminary analysis indicated no significant differences between the two workshop groups at baseline for the dependent variables, so data were analyzed collectively. Measures of internal consistency reliability (Cronbach's Alpha) were determined for each survey level, as well as correlations among dependent variables. As an indicator of personal learning, three paired sample t-tests were conducted to estimate the impact of the workshop on participant understanding of the content, ability to demonstrate comprehension of the subject, and ability to apply concepts to an actual problem or situation. The SPSS statistical software package (version 21) was used for data management and analysis. Researchers reviewed participant responses to the open-ended questions to help interpret the statistical results.

Results

Internal Consistency Reliability

Internal consistency reliability of the instrument subscale measuring reaction to workshop quality (Level 1), personal learning retrospective pretest subscale (Level 2), and personal learning retrospective posttest subscale (Level 2) was investigated using Cronbach's Alpha. For the workshop quality subscale (Level 1), Cronbach's Alpha = .947 indicating excellent internal consistency reliability; all Cronbach's Alpha if item deleted scores were at or less than .945. For

the three retrospective pretest items (Level 2), Cronbach's Alpha = .930, indicating a high level of internal consistency reliability; all Cronbach's Alpha if item deleted scores were at or less than .913. For the three retrospective posttest items (Level 2), Cronbach's Alpha = .837, indicating a good level of internal consistency reliability; all Cronbach's Alpha if item deleted scores at or less than .832. All items were consequently retained for use in the analysis.

Workshop Quality

Items from the Level 1 subscale revealed that participants perceived the PD workshop to be of high quality. Item scores ranged from an average of 4.50 to 4.71 on a 5-point Likert scale, with the highest scoring items of 'the presenter created an atmosphere in which all or most learners participated' (*M*=4.71, *SD*=.61), 'the presenter responded to the learner's questions with appropriate and relevant answers' (*M*=4.71, *SD*=.55), and 'the presenter created an atmosphere in which all learners felt free to ask questions' (*M*=4.7, *SD*=.54). See Table 2 for a summary of participant responses related to workshop quality.

Personal Learning

All data were screened for assumptions of independence of observations and normality prior to analysis. Researchers conducted separate paired-samples t-tests to determine the impact of the PD on the participants' understanding of the subject, ability to demonstrate comprehension of the subject, and ability to apply concepts to an actual problem or situation. There was a statistically significant increase in participants' *understanding* scores from pre-workshop (*M*=2.75, *SD*= .891) to post-workshop (*M*=4.46, *SD*=.514), $t(145) = -23.624$, $p<.001$. Eta squared = .79, indicating a large effect size. There was a statistically significant increase in participants' *demonstrate comprehension* scores from pre-workshop (*M*=2.61, *SD*=.890) to post-workshop (*M*=4.28, *SD*=.562), $t(144)=-23.114$, $p<.001$. Eta squared = .79, indicating a large effect size. There was a statistically significant increase in the participants' *apply concepts* scores

from pre-workshop (*M*=2.59, *SD*=.862) to post-workshop (*M*=4.26, *SD*=.613), *t*(144)=-23.412, p<.001. Eta squared = .79, indicating a large effect size. See Table 3 for a summary of participant responses related to personal learning.

Outcomes

Impact on teacher behavior.

Results from the one-year follow up survey of a sample of 52 participants indicated a slight decrease from post-workshop scores. Despite this decrease, levels of personal learning remained favorable (see Table 3): understanding of the subject (*M*=4.0 *SD*=.71), ability to demonstrate comprehension of the subject (*M*=3.83 *SD*=.83), ability to apply concepts to an actual problem or situation in this subject area (*M*=3.83 *SD*=.78). On a five-point Likert scale (no effect=1 to major effect=5), 94.2% (49/52) of respondents indicated that their participation in the workshop had a moderate or major effect on their professional practice (*M*=4.15, *SD*=.69). Participants reported that they integrated physical activity into the classroom an average of 4.27 days per week (*SD*=.99), with the majority indicating that their current integration of physical activity in the classroom was somewhat more (24/51, 47.06%) to much more (12/51, 23.53%) than in previous years.

Impact on student behavior.

On a 5-point Likert scale of strongly disagree (1) to strongly agree (5), participants reported that after integrating physical activity into the classroom, students were more focused and on task (*M*=4.20, *SD*=.69), they observed a decrease in behavioral issues and referrals (*M*=4.08, *SD*=.84), students enjoyed being physically active during lessons in the classroom (*M*=4.54, *SD*=.67), and physical activity breaks were motivational and enjoyable for students (*M*=4.58, *SD*=.53).

These data were supported by open-ended responses in which participants further described observations regarding their use of physical activity in the classroom. For example, teachers described positive outcomes of physical activity implementation on student behavior, focus, and motivation by stating, "behavior is better, students are able to focus better, wiggle and fidget less" and "It increases my students' engagement during and after the activity." Another teacher noted, "It's a wonderful positive behavior reinforcement! Students want to earn their brain breaks and it's great to motivate them." Teachers reported a similar impact of physical activity implementation on student learning:

> Students enjoy the activity and therefore seem to retain the lesson being taught. Example: They could not catch on to prepositions... I taught the activity using the plane, chair, small dry erase boards and WOW! (90%) of the students passed their preposition test!!!! Amazing.

Lastly, one teacher noted positive outcomes of physical activity integration in many areas by describing that, "behaviors decreased, attention increased, love for school increased, dread for schoolwork decreased, fine motor increased, core strength improved (able to sit still for longer periods during necessary not-so-fun instructional time)."

Discussion

The PD workshops evaluated in this study provided classroom teachers and school administrators with resources to incorporate more physical activity throughout the school day, training on comprehensive school physical activity programming, and innovative ways to incorporate physical activity into the academic setting. Findings support that the workshops were effectively delivered, made a significant impact on the perceived readiness of teachers to integrate movement into their classrooms, and had a positive influence on teacher professional practice. Beliefs of personal learning remained favorable from post-workshop to one year follow

up, and resulted in positive outcomes on student and teacher behaviors. The following section includes a discussion of four factors that have been found to contribute to the effectiveness of PD and related implications for the current study: (1) student-centered instruction, (2) content specificity, (3) professional collaboration, and (4) school support (Armour & Yelling, 2004a, 2004b, 2007; Betchel & O'Sullivan, 2006; Taliaferro & Housner, 2009; Keay & Lloyd, 2009; McCaughtry, Martin, Kulinna & Cothran, 2006).

Student Centered Instruction

Teachers enter most PD workshops wanting ideas and resources that will positively impact their teaching – what to do, how to do it, and so forth. Once established, teachers begin to look for indicators that this new information will increase students' positive learning experiences (Patton & Parker, 2014). Teachers know that most all children enjoy physical activity and would like to have more opportunities to be physically active in schools, but are often reluctant or lack the competence to incorporate physical activity in their classrooms or throughout the school day. Cothran et al. (2010) determined that when classroom teachers integrated physical activity in the academic classroom, they were better able to create an exciting and motivating learning environment. The PD workshops strived to demonstrate actual instructional practices that teachers could adopt to include developmentally appropriate physical activities. One teacher commented that she, "would like to see more workshops so more teachers could attend and understand implementation is not difficult."

Classroom teachers often cite needs pertaining to integrating movement into the classroom such as information on pedagogical strategies for classroom management, locating and using good resources that will provide active lesson ideas, and how to make movement meaningful and enjoyable for the students (Miller et al., 2014). The workshop presenters in the current study were mostly veteran teachers who discussed instructional strategies necessary to

make the activities run smoothly, prompted participants to share ideas for adaptations to meet the needs of their students, and made the teachers feel comfortable and confident in integrating physical activity with little disruption to the normal classroom environment. Participant comments such as, "I learned so many ways to engage my kiddos, especially in areas they tend to not enjoy," and, "the speakers were great and the activities they shared were ones kids would enjoy and not much prep work for teachers" are all indicators that the workshop content helped participants view the integration of physical activity into their classrooms as something they can do, that their students will enjoy, and that may help them better engage in learning.

Content Specificity

A common criticism of PD workshops for teachers is the limited relevance of the content covered and/or its application to practice. By contrast, PD should engage teachers with content in new ways that promote innovation and increase professional curiosity, growth, and empowerment (Betchel & O'Sullivan, 2006; Parker, Patton, Madden, & Sinclair, 2010; Patton & Parker, 2014; Patton, Parker, & Pratt, 2013). Teachers want concrete examples of movement activities and suggestions for adaptations and better yet, self-creation. They also want to observe, and then participate in, best practices of movement integration. During the workshops in this study, educators had the opportunity to experience firsthand specific activities and how they could be implemented in the classroom.

The workshop lecture sessions provided general education content that crossed all grade levels and content areas and were relevant and important for today's schools. As displayed in Table 1, afternoon workshop activity sessions were organized according to grade levels and content areas, with grade and content-specific experiences for participants. Activities not only focused on giving students a short break from normal classroom activity, but on enhancing academic content in areas such as math, language arts, social students, science, health, and

physical education. Using the resource used for the afternoon sessions, Active Academics® (www.activeacademics.org), participants have the ability to search by subject and grade level to find content that is relevant to their students' academic subjects through alignment with the Core Content Standards in math and language arts, and with the National Content Standards in other subject areas.

If one teacher or one administrator has a positive PD experience and feels empowered to provide physical activity opportunities for their children, he/she may become an advocate for integrating more physical activity into the classroom (Patton et al., 2014). Teacher advocacy may begin by sharing with others in their schools what they have learned and how they plan to implement more movement in their classroom. The eventual demonstration of advocacy may be to share resources, encourage other teachers to do what they are doing, and become leaders of the 'physical activity movement' in their schools. Encouraging post-workshop comments from participants included, "I am excited to get back and implement more physical activity into my classroom and hopefully light the fire throughout the school," and "can't wait to take this back to my school."

Professional Collaboration

PD is most effective when it occurs within collaborative networks of professionals allowing frequent opportunities for peer interaction (Armour & Yelling, 2007; Deglau, Ward, O'Sullivan, & Bush, 2006). This collaboration can involve a range of key stakeholders including teachers, school administrators, professional consultants, state association members, and university researchers (Taliaferro & Housner, 2009). Development of the PD workshops in this study involved collaboration across a range of the state's key stakeholders who share a common interest in the successful implementation of the new statewide school policy regarding increased physical activity in PreK-8 schools. Stakeholders including the Department of Education's

Office of Secondary Learning, the Department of Health and Human Resources, the state health and physical education organization, university researchers and interventionists, and others, each made unique contributions to the success of the workshops (e.g. funding, facilities, resources, presenters, etc.). This collaborative partnership also led to the workshop content that allowed for peer-to-peer interaction.

Miller et al. (2014) identified the importance of modeling of best practices in helping teachers to feel comfortable integrating movement into their classroom. As mentioned earlier, the workshop presenters were mostly veteran teachers who could share personal experiences in movement integration. The presenters also asked participants to discover ways to change the activities to make them most applicable to their classroom and to share their ideas with the session group. The peer-to-peer interaction between the participants, and between the participants and presenters, allowed for effective modeling during workshop sessions.

A limitation of the workshops was the lack of time for all participants to prepare lesson activities and present them to their peers for feedback. In planning future workshops, more peer interaction that fosters planning and practice opportunities should be considered as this would give the teachers more confidence in their pedagogical skills and knowledge to successfully integrate physical activity with their students (Miller, 2014). Also, key stakeholders should work to facilitate future opportunities for those already trained that foster peer-to-peer interaction and encourage idea sharing and collaboration beyond the workshop.

School Support

The sustainability of any PD effort is dependent in part on school support that helps to communicate the related value. This support can come in multiple forms including providing the necessary resources for teachers to participate, allocating funds to purchase necessary supplies and equipment, and granting access to continued technical support focused on the transfer of new

information into school classrooms. In fact, PD efforts that are not fully supported by school administrators and are poorly resourced are often perceived to be of low value and resisted by teachers (McCaughtry et al., 2006).

The PD workshops evaluated in this study were fully funded by the state Department of Education and its partner agencies. Teachers' travel expenses and the cost of continuing education credits were covered. The fact that 13 school administrators were in attendance supports that they perceived value in the workshop content and may prioritize school physical activity integration. This administrative support and prioritization can lead to additional physical activity opportunities for all students, more resources, and increased funding for teachers to provide these opportunities.

At the conclusion of the workshops, participants received a flash drive with all materials presented in the sessions, and information on accessing the online Active Academics® resource. Educators expressed value in these shared resources by providing comments such as, "very good tools, thank you for the jump drive and all of the resources to take back and give to my other teachers." By having the additional external resources provided, teachers are better positioned to integrate PA in the academic classroom, as well as to educate and gain support from their school community. Interestingly, follow up data indicated that not all participants were utilizing these resources despite their continuous availability, with 62.75% of respondents indicating they use the free Active Academics® online resources sometimes, often, or a great deal. Future research should explore how to further promote the use of these readily available external resources to maintain and increase physical activity in the classroom.

In order for all teachers to 'buy in' to physical activity integration in the classroom, school administrators have to recognize the value of comprehensive school physical activity programs, encourage a school culture dedicated to promoting lifelong physical activity, and

support teachers by providing additional PD opportunities (Erwin et al., 2013). Administrators also need to be educated on the value and benefits of physical activity for children and how to best implement physical activity throughout the school day. Although the workshops developed in the present study continue to reach some classroom teachers throughout the state, there are many more teachers who have not been reached. These points were supported by follow-up responses in which teachers suggested that regional offerings and more opportunities around the state for workshops, additional workshops/activity trainings, equipment and resources, training for administrators, and short refresher courses would be helpful in providing PA opportunities. Therefore, it is imperative that four strategies are the focused in order to continue to promote children reaching the recommended 60 minutes of physical activity each day: (1) to provide PD workshops and presentations targeting school administrators, (2) to provide continuing PD opportunities and refresher courses for those already engaged in these workshops and others, (3) consider regional PD opportunities to reach a wider target audience, and (4) find new avenues to engage those new to physical activity integration in the schools.

Conclusion

The purpose of this study was to determine the perceived readiness of teachers and administrators to integrate physical activity into the classroom following participation in a PD workshop using a retrospective pretest design, and to explore the effects of this PD workshop after one year. The findings indicate that well-designed PD emphasizing student-centered instruction, content specificity, professional collaboration, and school support can positively influence teacher readiness to integrate movement into their classrooms and have a resulting impact on teacher professional practice.

The findings support that comparable PD opportunities are needed regarding the implementation and evaluation of new state or local policies in school-based settings. When

confronted with policy changes that directly impact classroom instruction, administrators at the school, district, and state levels are often challenged to provide teachers with access to quality training, supporting instructional resources that will enable them to experience some degree of immediate success. As described by one participant, the PD opportunities examined in this study provided a, "Great tangible overview of policy and how it looks in practice." Due to these initial successes, additional research is needed to explore in more detail the reach and influence of the PD workshops on teacher and student behavior through the use of interviews, focus groups, and site visits.

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Table 1

Overview of All-day Workshop Format and Content

Morning Education Lecture Session Focus Areas				
Topic 1	State policy and school physical activity (PA)			
Topic 2	Comprehensive School Physical Activity Programs (CSPAP)			
Topic 3	Need, Benefits, and Recommendations for Children's Physical Activity			
Topic 4	Classroom Physical Activity – Lessons Learned from In-service Teacher			
Topic 5	Resources for Classroom Physical Activity Integration			
Afternoon Activity Sessions (40 minutes each) Participants Rotated to All Applicable Sessions by Groups K-2A, K-2B, 3-5, 6-8				
Session 1	K-2 (A) Math / Science	6-8 Lang Arts / Social Studies / Brain Breaks	3-5 Big Play Space	K-2(B) Computer Lab (Resources)
Session 2	K-2(B) Math / Science	3-5 Lang Arts / Social Studies	6-8 Lunch Break/Drop In	K-2(A) Computer Lab
Session 3	3-5 Math / Science	K-2 (A) Lang Arts / Social Studies	K-2(B) Big Play Space	6-8 Computer Lab
Session 4	6-8 Math /Science/ Brain Breaks	K-2 (B) Lang Arts / Social Studies	K-2(A) Big Play Space	3-5 Computer Lab

Table 2

Descriptive Statistics for Level 1 Reaction to Quality

The presenter(s)…	*Mean*	*SD*
Covered important topics of the content area	4.59	.60
Covered topics in sufficient detail	4.55	.61
Kept the discussion focused on the topic	4.62	.56
Refocused the discussion when it began to wander	4.58	.59
Created an atmosphere in which all or most learners participated	4.71	.61
Created an atmosphere in which all learners felt free to ask questions	4.70	.54
Responded to the learner's questions with appropriate and relevant answers	4.71	.55
Asked questions of learners which lead to lively and relevant discussions	4.50	.70
Asked questions of learners which were relevant to topic objectives	4.59	.61
Overall mean	4.62	

Note: The following response options were used (1) Poor, (2) Fair, (3) Good, (4) Very Good, and (5) Excellent.

Table 3

Descriptive Statistics for Level 2 Personal Learning

	Pre		Post		Follow up	
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*
My understanding of the subject	2.75	.891	4.46	.514	4.00	.71
My ability to demonstrate comprehension of the subject	2.61	.890	4.28	.562	3.83	.83
My ability to apply concepts to an actual problem or situation in this subject area	2.59	.862	4.26	.613	3.83	.78

Note: The following response options were used (1) Poor, (2) Fair, (3) Good, (4) Very Good, and (5) Excellent.

Using Student Generated Questions to Foster Twenty-First Century Learning: International Collaboration in Uganda

Amelia Spencer, Cora Brasfield Causey, James M. Ernest, and Gay F. Barnes

Abstract

Teacher-questioning has been acknowledged as critical in teaching and learning. A less researched topic is the ability for students to develop their own questions to deepen understanding. Student questions are important for engagement and to stimulate the understanding of new information. Traditionally, Ugandan teachers rarely instruct in ways that facilitate student questioning. The purpose of this study was to examine the effect of teacher professional development on the ability of Ugandan students to ask meaningful questions. Professional development focused on promoting student questioning and students were assessed using a formative language assessment. Findings indicate that teachers can teach students to ask meaningful questions.

Keywords: Pedagogy, teacher questioning, student engagement, Uganda

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Introduction

Questions have been a longstanding strategy for teaching and are a cornerstone for what has been termed a Pedagogy of Inquiry (Pagowsky, 2015). Pedagogy of Inquiry is a method of teaching that involves student-centered classroom questioning and learning that leads to academic discussion and metacognition. The push for inquiry has been considered a response to what Paulo Freire (1970) has called a "banking model" of education. With the banking model, teachers may use authoritative texts to deposit skills in children without critical reflection. In contrast, in an environment of inquiry, instruction is designed around curricular big ideas and facilitated by essential questions that lead students to ask more questions and adopt the learning as their own (Pagowsky, 2015). Questioning is critical to student understanding and should be fostered and developed by teachers (Koechlin & Zwaan, 2014).

Questions are an integral part of meaningful learning. Learning which requires critical thinking creates the conditions for students to recognize they have important questions (Caram & Davis, 2005; Chin & Brown, 2002). It is the question itself that constitutes the learning. Both inside and outside the classroom, the ability to formulate questions is a creative endeavor that stimulates individuals to learn something new (Rothstein & Santana, 2011). In fact, the question is often more important than the answer, and one can argue as Joseph Joubert (1842/1896) once said, "It is better to stir a question without deciding it, than to decide it without stirring it" (p. 35).

Questioning by Teachers

Teacher-questioning has long been established as critical in deepening the learning of students in the classroom and as Fisher, Frey, and Rothenberg (2008) note, "Teacher questions can either stimulate or inhibit student talk" (p.50). Thoughtfully planned questions embedded in lessons ensure that student talk is elevated to a higher cognitive level (Brown & Palinscar, 1982).

Questioning is one of the most common instructional strategies employed by teachers. Leven and Long (1981) found that teachers ask as many as 300-400 questions a day (or roughly one per minute of the school day) and more recent research from Albergaria-Almedia (2010) indicates that teachers ask on average two questions per minute. Although questioning is a frequently used strategy, teachers are often unaware of how frequently they use classroom questioning. Albergaria-Almeida (2010) found that when lessons were recorded, teachers were surprised at the high number of questions they ask.

In addition to the number of questions asked by teachers, the types of questions asked have also been well researched. The majority of questions posed by teachers represent a low-cognitive-level and most are related to recall of factual information. These questions are effective in checking for basic understanding errors but do not facilitate critical thinking on the part of students (Albergaria-Almedia, 2010; Tovanni, 2015). In contrast, high-cognitive-level questions allow for multiple answers and require the students to comprehend their learning, predict further learning, detect anomalies in their learning, and use information in new situations. Achievement gains are found in classrooms where high-cognitive-level questions are often utilized (Redfield & Rouleau, 1981). In inquiry-based classrooms, students can participate in learning that goes beyond standardized assessment goals to learning and understanding (Commeyras, 1995; Redfield & Rouleau, 1981).

Student Questions

A less-researched issue is the ability of students to generate and ask questions about their own learning. Research has found that teachers ask up to 93% of all classroom questions; this leaves few opportunities for students to ask questions they may have (Floyd, 1960). Tovani (2015) notes that not only do teachers ask most of the questions, but the questions they ask infrequently require any critical thinking by students in order to answer them. This leaves very

little classroom time for students to think and formulate their own questions. Graesser and Person (1994) estimated that students ask as few as one question per week in the classroom. Regardless of the frequency of student questions in a classroom, there is general agreement that students ask few questions.

Despite the lack of student questioning, the literature indicates good theoretical, empirical, and policy reasons for the importance of students' generating questions to support their learning. Asking questions is a crucial part of academic discourse and understanding and is a pillar of twenty-first century learning (Almeida, et al, 2008; Caram & Davis, 2005; Chin & Osborne, 2008; Minigan & Beer, 2017). Furthermore, Chin and Osborne (2008) associate students asking questions with driving knowledge construction, fostering discussion and debate, helping students to learn to monitor and self-evaluate their own understanding, and increased motivation. The scarcity of student generated questions makes it difficult for researchers to evaluate what types of questions are asked and the value of such questions. For example, Dillon (1988) observed academic discussions in six different high schools in 27 different classrooms and found that only 6% of students' classroom talk were questions and less than 1% of these questions were information-seeking questions.

When teachers assume sole responsibility for creating all of the questions, students learn to rely on the teachers; however, when students are supported in learning to ask effective questions, they are engaged as critical thinkers (Bowker, 2010; Pedrosa, Almeida, & Teixerira, 2007). Questions raised by students serve to activate their prior knowledge, focus their current understanding, and allow them to elaborate on their knowledge (Schmidt, 1993). Initially, questions are used to fill student knowledge gaps and eliminate misunderstandings. But by formulating their own questions, students can evaluate their understanding of a new concept, reconcile new ideas with prior knowledge, and identify areas of confusion. Student-generated

questions place students in control of their learning. Furthermore, questioning facilitates students' engagement, comprehension, and wonderment. In addition to the student benefits, student-generated questions give teachers insight into the students' understanding of a new concept and gaps in learning (Tovanni, 2015). Much is lost in a school environment that does not stimulate comprehension and curiosity.

Education in Uganda

Before Uganda's independence from England in 1962, education was provided by missionaries and was only for the wealthy. Although education was taken over by the Ugandan government at that time, the legacy of colonial education was maintained for decades (Odaet, 1990) and still functions as a system that is teacher-centered and focused on high-stakes testing. Universal Primary Education (UPE) was implemented in 1997. This policy allowed all children to attend primary school doubling school attendance during the next decade, from 3.1 million in 1996 to 7.5 million in 2007 (Uganda Ministry of Education and Sports, 2008). This influx of students caused issues including overcrowded classrooms, a lack of qualified teachers, a lack of instructional supplies and books, and wanting school infrastructure (Ojijo, 2014; Ssewamala, Wang, Karimli, & Nabunya, 2011). During the 1990s, the Education Policy Review Commission made recommendations to move to a more child-centered approach to learning reflected in the Ugandan Government White Paper of 1992 (Uganda & Uganda, 1992; Sikoyo, 2010). One of the child-centered instruction recommendations included students facilitating learning, which hinges on students' abilities to question and draw conclusions thus anchoring their learning. According to a 2010 study of primary UCE schools, teachers, and learners, child-centered pedagogy was more effective for all learners in regards to improvement of education quality (Guiloba, Wodadala & Bategeka, 2010); however, teachers were found to use teacher-centered pedagogy in their classrooms, focusing on writing notes on the board and rote learning.

In addition to the challenges inherent in overcoming a colonial past, social and cultural expectations in African cultures, like Uganda, often demand an authoritarian classroom with strong teacher control. Cultural norms support pedagogy where teachers transmit knowledge to the student and the student is expected to listen and learn (Sikoyo, 2010; Tabulawa, 1997). Outside the classroom, adults are seen as keepers of the knowledge and children are to respect and learn from their elders. Questions from students in the classroom may be seen as a lack of respect for adults. There is some argument that learner-centered pedagogy is an affront to the African culture. For example, Tabulawa (2003) argued that the government and aid agencies preference for this type of education elevates democracy and undermines the cultural foundation of Africa. In contrast, others, including the Ugandan Ministry of Education and the National Curriculum Development Centre, believe that schools must engage students differently, through a learner-focused pedagogy, enabling students to think and solve problems. The belief is that students taught in a learner-focused classroom will be successful in the ever-changing world of the 21st century in life and work by learning to think, research, and ask relevant and appropriate questions. With these skills students become more engaged and active in their own learning and are more in charge of their own academic growth (Caram & Davis, 2005; Mitana, 2018; NCDC, 2000).

Purpose of Study

In Uganda, there has been a long-standing conflict between indigenous culture and the Government's aspiration for all students to receive an education that allows them to become literate in the 21st century (Uganda & Uganda, 1992). It has been argued that when students develop a better capacity to take ownership of their own learning, learning becomes more authentic and engaging (Gordon, n.d.). Child-focused, inquiry-based pedagogy allows teachers to bring relevant, current problems and ideas into the classroom. One important component of a

child-centered pedagogy is expecting students to ask questions and allowing students to propose solutions. Teaching students to ask questions is a basic first step toward inquiry-based teaching (Gordon, n.d.).

Albergaria-Almeida (2010) described a Professional Development (PD) initiative to increase teachers' awareness of classroom questioning. The PD involved the analysis, reflection, and discussion about each of the secondary biology teachers' classroom questioning practices. Results of their study indicate that following the PD, each teacher's questioning practices changed; teacher questions decreased, and student questions increased. Teacher questions decreased from three per minute to one or two, while student questions increased from one every three minutes to one every minute. These results indicate that by increasing teachers' awareness of their own practice, they can change their own questioning practices. When teachers asked fewer questions, it provided space and time that allowed for increased student questions. Also, teachers learned how to provide a safe environment for students to question and learn as well as establish the expectation that students will generate questions about their learning. Furthermore, teachers taught students how to ask relevant questions within the context of their learning, allowing for deeper and more student-focused learning.

The purpose of this study was to examine the effect of a similar model of teacher professional development on the ability of Ugandan students to ask meaningful questions. The study seeks to answer this question: Does focused professional development on questioning and child-centered instruction assist teachers in becoming more aware of their questions and, as a result, increase their students' overall quality and quantity of questions?

Background of Study

Education at Ugandan Primary School

A liberal arts college in the southeastern United States partnered with a primary school located in the rural Mukono region of Uganda. The primary school is a tuition-based private, non-profit school for students preschool (ages 4-6) through Primary Grades P-1 to P-7 (ages 7-15). The school serves impoverished families. The majority of the students attending the Ugandan primary school have gaps in their education due to delays in starting formal school or periods of time when they do not attend school in order to help their families at home when needed. All 300 enrolled students pay a subsidized tuition fee and this includes breakfast and lunch every school day. The school currently employs eight primary teachers.

In 2004, with the help of local and international partners, the school began as a free preschool for children, and over the next decade, grew to include all primary grades. During the past three years, the school has added a class of P-7 students, the final primary school year in Uganda's education system. The mission of the school is to educate and enrich the quality of life for all children. The stated goals include quality education from caring and attentive teachers, small class sizes, hands-on and child-centered learning, and vocational training. The school is founded on the principles of constructivist teaching based on the work of Lev Vygotsky (1962, 1986) and John Dewey (1944). The school's curriculum is based on the Ugandan education learning standards for each grade, and integrates hands-on, child-focused learning through reading, writing, mathematics, science, music, and art and promotes a growth mindset of learning.

Continued Education from School Partners

One of the international partners of the primary school is the service- learning and education departments at a liberal arts college in the southeastern United States. The college and

primary school have partnered together allowing preservice teachers from the U.S. to co-teach with Ugandan teachers. Faculty and preservice teachers worked alongside Ugandan students and teachers to facilitate hands-on, child-centered learning to engage students during trips from 2016 to 2019. The visits allow faculty and teacher candidates to work for two full weeks, both in and out of the classroom. College faculty provided onsite support of the teaching to strengthen the instructional strategies of the student teachers and Ugandan primary teachers.

Using the Ugandan curriculum, the college's preservice student teachers and Ugandan primary teachers plan lessons to prepare for the first two weeks of school. These lessons are collaboratively revised with the Ugandan co-teacher during meetings before school starts. The co-teachers taught in their assigned classrooms every day, and then they reflected on and adjusted lessons accordingly each afternoon. Professional development sessions were led by college faculty after school hours during the two-week classroom experience. Professional development topics were determined by the primary teachers and administrators. Beginning with the first visit in 2016, feedback was received directly from the teachers for self-selected opportunities for growth, and to more closely align with the school's mission and focus. The following topics were identified for professional development: teaching writing, teaching reading, child-centered teaching strategies, classroom community, and classroom management. To address these school-wide areas of interest during each visit, two or more afternoon professional development sessions were designed and implemented, along with co-teaching and faculty modeling. Faculty from the United States presented the research undergirding constructivist and child-centered teaching during each January trip. One consistently identified specific area of interest for the January 2019 time together was child-centered teaching and hands-on-activities. Though required to demonstrate child-centered lessons for the school, teachers report that they have not been taught the methods of child-centered pedagogy or the

research behind it in their teacher education programs. Using a workshop model, college faculty identified the benefits of child-centered pedagogy and facilitated a brainstorming session to identify strategies for both upper and lower primary classrooms. Following the workshop, Ugandan teachers collaboratively taught lessons with college faculty and preservice teachers focused on child-centered teaching. Faculty also modeled lessons for Ugandan teachers when they requested this format.

In addition, there was a one-time year-long placement of a college alumna, inservice teacher during the 2018-2019 school year. As a recent graduate of the partner college's teacher education program, this visiting teacher modeled best practices, a culture of inquiry, and provided ongoing daily support to fellow teachers for child-focused instruction.

Methods

Evaluation of Students' Oral Language

The original goal of the partnership was to teach English to the students to improve their ability to speak, read, and write English. To determine the growth and areas of need for the Ugandan primary school students, the Oral Language Acquisition Inventory (OLAI) and the OLAI-2 were utilized (Gentile, 2004 & 2011). The OLAI is a formative assessment used to identify a student's stage of language development. This assessment allows teachers to identify and understand the language development of specific students or a class, giving specific lesson suggestions. Also, the assessment allows the administration of the Ugandan primary school and the college faculty to identify gaps in student learning and related professional development needs for teachers.

To administer the OLAI, teachers explained the assessment to students in Luganda, the native language of the Ugandan primary students. The assessment was administered to students in the teachers' lounge building and the testing time ranged from 30 minutes to 90 minutes. The

assessment was given individually by one of two assessors (college faculty). Interrater reliability was gained by scoring test protocols separately and together. All test protocols were evaluated for the number and type of questions. Triangulation was reached by identifying and defining the types of questions asked by the Ugandan students. Assessors evaluated each question together to reach agreement in identification of the type of question.

For the purposes of this study, only a portion of the OLAI assessment was used. Three components of the assessment, Story Reconstruction and Narrative Comprehension, Picture Drawing, Narration and Dictation, and Information Processing and Critical Dialogue, require more spontaneous language. This allows the student to have several opportunities to converse with the assessor. The Story Reconstruction and Picture Drawing components require a student to retell a story using supportive pictures and the Picture Drawing requires a student to describe a picture he or she draws. The Information Processing component (called the Expository Reading and Writing in the OLAI-2) allows the student to answer questions about a non-fiction reading. Several changes were made to the OLAI-2 regarding the spontaneous language assessment, but because of the low language development of most students at the Ugandan primary school the procedures for the OLAI were used in both 2018 and 2019.

The spontaneous language portion of the OLAI was used to evaluate questioning. The students' ability to formulate a relevant question in English was noted during the use of the OLAI for language assessment, as this is an important indicator of student engagement and comprehension. The OLAI provides one opportunity for an assessor to prompt the student to ask a question. Specifically, during the Information Processing component of the assessment, the assessor reads to the student a short nonfiction passage paired with pictures to illustrate the information. This informational text is used to create a critical dialogue between the assessor and the student. During this dialogue, the assessor asks a question to prompt the student to ask a

question, for example, "What is the most important question about kangaroos?", and the student must either formulate a question or indicate that he or she has no questions.

Professional development, based on self-identified teacher need, is a critical piece of the partnership between the U.S. College and the Ugandan Primary School. In January 2019, all eight primary teachers were interviewed to better understand their perspectives of the influence of professional development. The interviews were guided by a single open-ended and broad-based question, "How has the partnership influenced your teaching practice?" These results were used to triangulate results from the student evaluation.

Subjects

Subjects for this study were 32 primary students, ages 9 to 14 years of age. During January 2018, all students were originally assessed. Because of school attrition, 20 of these students were available for post-intervention assessment and an additional seven students were added during January 2019. Participation was voluntary and all students agreed to be assessed. Interested students were required to have written parental permission before testing. Subjects live in a rural area near the school and pay a subsidized fee for school attendance. Middle grade students were chosen for the research because of their understanding of simple English. Additionally, these students will likely attend the school for several years, allowing for follow-up research. Table 1 shows the number and gender of students evaluated by year.

Table 1
Number and Gender of Students Evaluated by Grade

Grade Level	Pre-Intervention, 2018	Post-Intervention, 2019
P-3	12 (6 girls, 6 boys)	0
P-4	7 (5 girls, 2 boys)	7 (3 girls, 4 boys)
P-5	13 (6 girls, 7 boys)	11 (8 girls, 3 boys)
P-6	0	9 (7 girls, 2 boys)

Pre-Assessment

During the Information Processing and Critical Dialogue (OLAI) and Discourse section of the OLAI-2, in January 2018, most Ugandan primary students were unable to formulate a single question in English. The data collected in January 2018 from the spontaneous language portions of the OLAI revealed that only15% (5 of the 32) of assessed students asked questions, even when prompted. In total, there were only six questions asked and only two of those were higher order/wonderment questions.

PD Intervention

Professional development on student questioning was provided to the Uganda primary teachers. During the afternoon sessions, teachers were presented with research regarding the importance of student questioning ability. They discussed how questions might be solicited from students, and also the importance of creating a safe environment in which students are encouraged to ask questions. In addition to the professional development, an ongoing collaborative relationship between Uganda primary teachers and the college continued during the 2018-2019 school year. A college alumna taught at the Uganda primary school during this year immediately following her graduation from the college. Her collaboration with the P-3, P-4, and P-5 teachers and students facilitated the implementation of child-centered classroom and an environment of inquiry. Teachers shared strategies to encourage oral language and student generated questions in the classrooms which they learned through both the professional development sessions as well as interacting with the visiting teacher.

Results

Frequency of Student Questions

Results indicate that students were able to learn to ask questions as demonstrated in the increase in questions during the OLAI between pre-intervention assessment (2018) and post-

intervention (2019). The number of student questions was recorded during the retelling, drawing, and critical dialogue components of the OLAI. During the pre-intervention assessment in January 2018, the OLAI data revealed only 19% (6 of 32) of the students asked questions, even when prompted during the Critical Dialogue section of the OLAI assessment. In contrast, during January 2019, 67% (18 of 27) of the students assessed were able to ask a question. The number of students who asked questions, by class, is recorded in Figure 1. In addition, Figure 1 provides data to indicate that as students move from one grade to the next grade, they continue to ask questions. For example, only 8% of children in P-3 asked questions in 2018, but in 2019, 43% of the students that moved to the P-4 classroom asked questions.

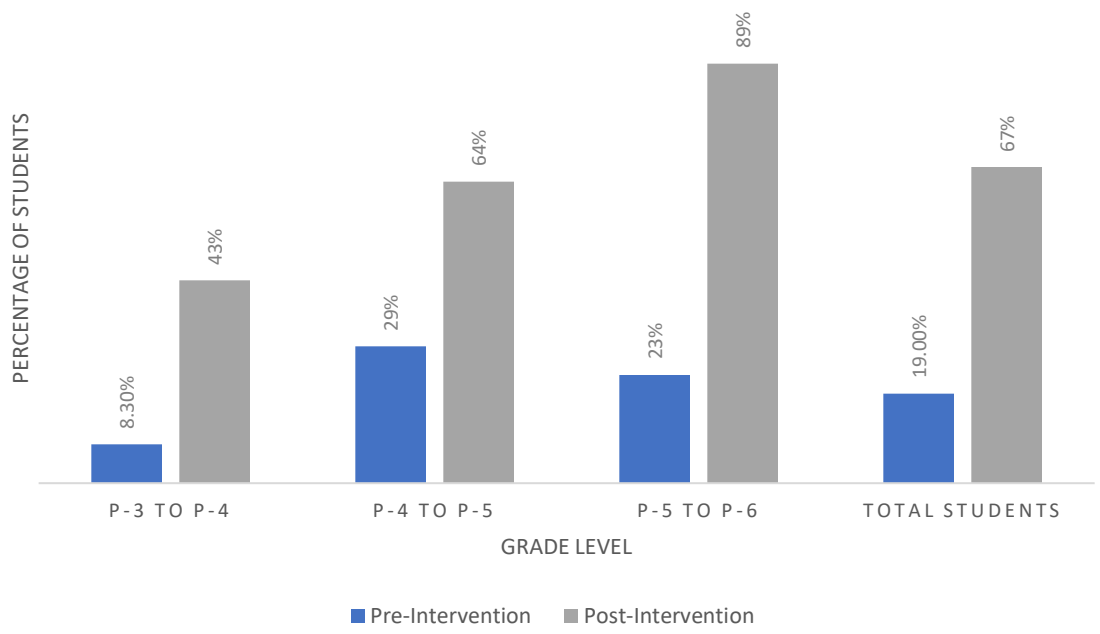

Figure 1. Change in percentage of students, per class, who asked questions during the OLAI assessment

Furthermore, Figure 1 shows the percentage of students per class who asked at least one question during the OLAI Assessment. There is a clear increase in students' abilities to ask questions between the pre- and post-intervention assessments. Between 2018 and 2019, the

percentage of all students who asked one or more questions during the OLAI Assessment increased from 19% to 67%. During the 2018 school year assessment, only 6 of 32 (19%) primary students asked questions. In contrast during the 2019 school year assessment, 18 of 27 (67%) students asked questions, more than triple the rate from 2018.

Figure 2 shows the percentage of students per class that asked *two or more questions* during the OLAI Assessment. As discussed above, the OLAI provides one opportunity for the student to ask a question. The student must either formulate a question or indicate that they have no questions. Because students typically did not ask questions, even when prompted, an interesting finding was that some students asked questions beyond the OLAI prompting. Some students were able to formulate spontaneous questions during the OLAI assessment that displayed their more sophisticated command of English as well as the academic content. In 2018, only 1 of 32 tested students (3%) asked spontaneous questions without prompts. In comparison, in 2019, the number of students who asked spontaneous questions grew to a total of 7 of 27 tested students (27%). This indicates a growth of six times the number of students who asked spontaneous questions between 2018 and 2019. Figure 2 shows the percentage of students each year who asked spontaneous questions while taking the OLAI assessment.

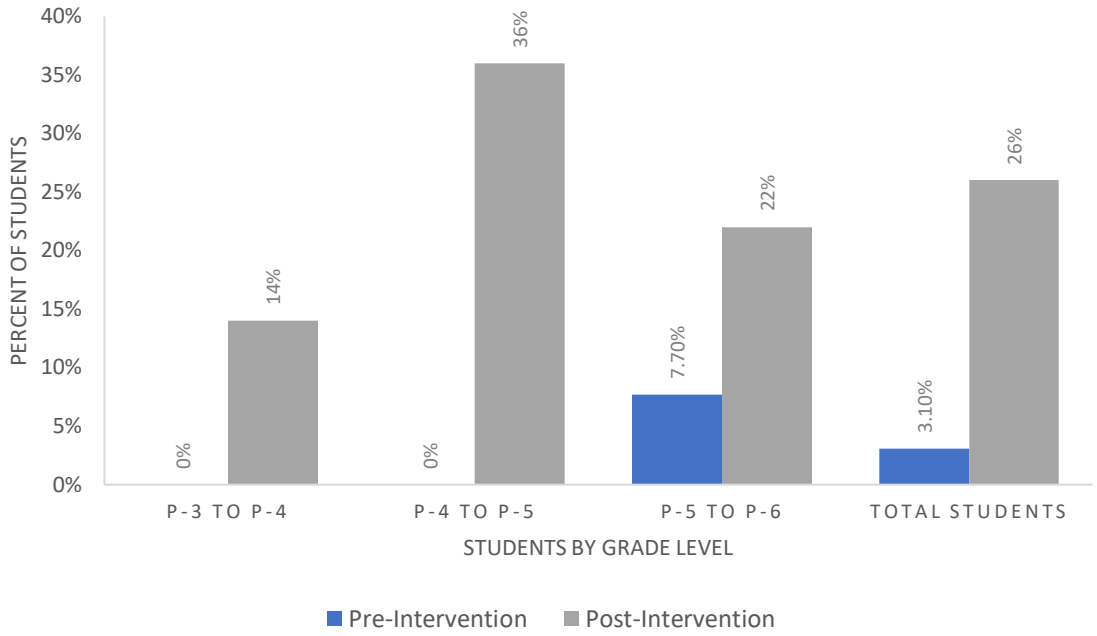

Figure 2. Percentage of students, per class, who asked two or more questions during OLAI assessment

Types of Questions

Another consideration of student-generated questions is the type of questions students ask. The ability to compose a sophisticated question indicates that students are engaged and interested in a topic. Also, these questions allow for greater critical and higher order thinking to occur. Teachers often believe that students do not have to be taught to ask relevant questions; although, teaching students to ask questions regarding new topics and expecting students to generate thoughtful questions allows students to practice and participate in furthering their learning.

During the OLAI administration, assessors transcribed all student questions during the spontaneous language portion of the OLAI (Story Retell, Picture Drawing, and Information Processing and Critical Dialogue). The students' questions were analyzed according to the purpose of the question. Chin and Bruce (2002) organized student questions in two broad

categories: basic information questions and wonderment questions. Basic informational questions included questions seeking facts and recall. Most were closed-ended questions requiring a factual answer or a simple observation. Other basic informational questions were procedural, regarding instructions for a task.

Wonderment questions were high-order, critical thinking questions developed to seek information or explanation of content. Wonderment questions were divided into five types of questions. These types included: 1) questions seeking an explanation of not yet understood content, 2) questions involving prediction or hypothesis, 3) questions expressing skepticism or regarding discrepant ideas, 4) questions regarding the application of content, or strategy related questions, and 5) questions involving planning.

Questions for this study were identified as basic information questions or wonderment questions using the categories established by Chin and Brown (2002). Table 2 shows the types of student questions for both pre-intervention and post-intervention. An obvious increase is evident in all types of questions between pre- and post-intervention assessments. There are more basic information questions at both assessment periods. There were two wonderment questions during the pre-intervention assessment focused on comprehension and understanding. For example, a student asked, "I wonder, do kangaroos eat people?"

During the post-intervention assessment, the wonderment questions increased from 2 to 30. This increase in sophistication of student questions indicates the students' ability to use questioning to further their understanding of a new topic. For example, a student asked, "Why are stars gone during the day?" When looking at the wonderment questions during post-intervention assessment there is a sharp increase in the number of questions. The increase indicates that students are better able to formulate appropriate questions to engage with new information. There is also more variety in types of wonderment questions. During Pre-

Intervention, both wonderment questions were explanation/comprehension. However, during post-intervention, students asked prediction, discrepancy, and application questions. For example, 16 of the 30 wonderment questions were embedded in the story-retell portion of the assessment. Students demonstrated their ability to use questioning related to a real-life story. During the story, a student had one character ask another, "What happens if you fall off the bicycle?"

Table 2
Types of Student Questions Pre- and Post- Intervention

Types of Questions	Student Questions Pre-Intervention (2018)	Student Questions Post-Intervention (2019)
Basic Information Questions	4	4
Factual Questions	2	4
Procedural Questions	2	0
Wonderment Questions	2	30
Explanation/Comprehension Questions	2	5
Prediction Questions	0	6
Discrepancy Questions	0	5
Application Questions	0	14
Planning Questions	0	0

Discussion

Key findings from this research indicate focused professional development on child-centered learning and student questioning had a significant effect on student questioning. This study utilized the OLAI assessment, allowing students one-on-one English language time with an assessor. During this period of time, ranging from 30 to 90 minutes, assessors recorded spontaneous language while the students retold a story using pictures, described a picture they

drew, and answered questions about a non-fiction reading. None of the formal assessment scoring was used from the OLAI.

Thirty-two students were assessed pre-intervention in January 2018. Because of school attrition, 20 of the students were available for reassessment in 2019. This rate of attrition is still much lower than the typical drop-out rate of 68% in primary education in Uganda (UNESCO, 2012) and provides another indicator of the success of the school. An additional seven students were assessed in January 2019; the majority of whom had attended the school but had not been in attendance during testing in January 2018. The results show an increase in the total number of questions during assessment. During the pre-intervention, only six questions were generated from 5 of the 32 students, even when students were provided a direct prompt for questioning during the assessment. During post-intervention, 34 questions were generated, more than five times the number of questions asked during the pre-intervention. Further, when examining the number of students who were able to ask questions, more students asked questions during the post-intervention evaluation. During the pre-intervention evaluation, only 15% of the students asked questions during assessment; however, during the post-intervention evaluation, 81% of the students asked questions. This is five times as many students who were able to ask questions during the post-intervention evaluation. This is significant given that students who are provided inquiry-based learning opportunities allowing them to think critically and generate questions can become active participants in their own learning (Caram & Davis, 2005). Furthermore, when classes are designed to encourage questioning, students begin to engage in creative dialogue and learn from the varied perspectives of their peers.

This study also identifies the types of questions asked pre- and post- intervention, to investigate the effect of teacher professional development on the depth and purpose of student questions. Findings indicate that, with professional development, teachers are able to make

changes in the classroom that allow students to not only ask more questions, but also ask questions that are higher order. For this study, questions were sorted into two main categories, basic information questions and wonderment questions (Chin & Brown, 2002). Basic informational questions included factual questions or procedural questions. Wonderment questions were described as a higher conceptual level, including comprehension, prediction, discrepant ideas, and application. The number of basic informational questions was found to remain the same between pre- and post-intervention assessments. Both times, students asked four informational questions. The major difference between pre- and post-intervention assessments was shown in the wonderment questions. During the pre-intervention assessment, only two wonderment questions were asked, compared to 30 wonderment questions post-intervention. During the post-intervention assessment, wonderment questions spread across the categories, illustrating a variety of conceptually higher questions. For example, "How can you see the moon when the sun is up?" and "Where does the sun go when it is dark?"

The change in the quantity and quality of questions between assessments indicates that after professional development regarding questioning in the classroom, students are able to ask a greater number of higher-order, critical thinking questions. The increase in wonderment questions is noteworthy because high quality questions generated by students can stimulate critical thinking. The act of generating questions directs the attention of students to academic content and allows them to check their understanding of the content (Rosenshine, Meister, & Chapman, 1996). Further, for students, the act of generating high quality, wonderment questions can activate prior knowledge, focus learning efforts, and broaden knowledge (Chapman, 1996).

Professional development was provided to the Ugandan primary teachers based on their self-identified needs and focused specifically on questioning and classroom community as part of child-centered pedagogy. Teachers actively participated in grade level groups during the PD to

identify strategies to promote an atmosphere of inquiry in the classrooms. Post intervention, during January 2019, teachers were interviewed to learn about their perspectives of the influence of the provided professional development. Their responses indicate a positive influence in three areas: teachers becoming aware of their questioning, changes in questioning, and providing a safe environment for student generated questions. Teachers noted that working with the college preservice teachers increased their awareness of how to ask effective questions. A P-3 teacher reported, "...they ask questions that make students think and they also give children time to ask questions and they want children to ask questions." A P-2 teacher reported, "[The college preservice teachers] ask, 'What questions do you have?' And they want to know so they can teach better."

The Ugandan primary teachers also commented on changes they could make in questioning. A P-3 teacher stated, "We ask, 'Is everyone together?' and children say, 'yes'. But do they really understand? Your preservice teachers are not afraid of those questions and they like those questions. We need to do that. Our students need to learn to ask those questions." A P-2 teacher noted, "...we ask if everyone has understood but we do not find out if they have understood. [The college preservice teachers] teach so children understand not just to complete the syllabus." A P-1 teacher shared, "We often give the answer to the children and do not allow the children to discover by themselves, but [the college preservice teachers] have the children discover."

The Ugandan primary teachers also indicated the professional development influenced their understanding of the role of a safe classroom environment for student generated questions. A P-1 teacher reports, "[The college preservice teachers] give them ideas and then the children discover something on their own." A P-3 teacher shared that, "the [college alumna and teacher 2018-2019] taught me how to manage a classroom better. I have learned that when students are

active and participating in a lesson, they act better and learn more. She also showed me to welcome the students in the class."

The results of the teacher interview triangulate the success of the PD intervention. Students are able to ask more questions that are wonderment questions and the teachers report that they learned how to facilitate an environment of inquiry in the classrooms.

The results of this exploratory study need to be interpreted with caution due to the small sample size. While the increase in questions from pre-intervention to post-intervention is meaningful, more study must be done to determine effective professional development and co-teaching modeling. Another potential limitation of this study is the conflict between culture and pedagogy. As discussed, the African culture is one of respect for elders, especially one in authority. Teachers are seen as authority figures who have knowledge to share with students. As a result, a classroom culture, in which student questions are expected may impact students, families, and community cultures in negative ways.

Building on the findings of this study, it will be important to investigate the methods teachers are utilizing to foster questioning in their classrooms. Though we believe that the increase was a direct result of the professional development and modeling of an inquiry-based classroom, more information regarding the actual changes in the classroom would be informative. Future research regarding student questioning in classrooms will also be meaningful. Next steps in this area of research would include further interviews with teachers and classroom observation of conversation, specifically questioning.

Conclusions

A classroom based on the pedagogy of inquiry is designed to provide an environment supportive of student questioning and wondering. Often the inordinate number of questions asked by the teacher takes up most of the instructional time, leaving little time for students to

consider a new concept and formulate their own questions (Albergaria-Almedia, 2010; Floyd, 1960; Leven & Long,1981). Moreover, in a classroom of inquiry, student questions and ideas are prioritized. Young children are naturally curious, and so one would expect that this dynamic would drive student generated questions in the classroom. That that is not the case is likely because teachers do the majority of the talking and questioning.

This study suggests that professional development that focuses on child-centered learning and student questioning will allow teachers to explore specific strategies to support students in generating questions. Teachers who implement a pedagogy of inquiry support student questioning in the classroom. As a result, students are found to increase both the number of questions and the depth of questions they ask. Both teachers and students can facilitate learning in a classroom when the value of questioning is understood. When teachers create an environment to facilitate curiosity, students will learn to *ask* questions rather than *answer* them.

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Practice-based Technology Teaching Assistantship Program: Preparing Teacher Educators to Support Teacher Candidates' Integration of Technological, Pedagogical, and Content Knowledge

Li-Wei Peng

Abstract

This exploratory study focused on the Technology Teaching Assistantship (TTA) Program at the College of Education in a Midwest university as a strategy tool to improve the preparation of teacher educators to coach teacher candidates in and model design and implementation of technology-enhanced learning experiences; emphasizing discipline-specific content standards and student technology standards. The purpose of this study was to analyze the TTA Program's features and impacts on teacher educators' development of technological, pedagogical, and content knowledge (TPACK). The results were used to enhance teacher educators' professional development to support teacher candidates' integration of technology. The problems and goals of this work-in-progress TTA Program are discussed to gain feedback and to establish contact with similar projects for improvement and extension.

Keywords: teacher preparation, technology integration, faculty professional development

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Introduction

Standards

As per the Council for the Accreditation of Educator Preparation's (CAEP) website, CAEP creates "standards to ensure educator preparation providers impart future teachers with knowledge and skills to support the development of all students" (2015, para. 1). Standard 1: Content and Pedagogical Knowledge, for instance, addresses that, "[t]he provider ensures that candidates develop a deep understanding of the critical concepts and principles of their discipline and, by completion, are able to use discipline-specific practices flexibly to advance the learning of all students toward attainment of college- and career-readiness standards" (CAEP, 2015, para. 1). In particular, Standard 1.5 emphasizes that, "[p]roviders ensure that candidates model and apply technology standards as they design, implement and assess learning experiences to engage students and improve learning; and enrich professional practice" (2015, para. 6).

Problems

Not all teacher educators (TEs) are systemically prepared to support teacher candidates' (TCs) integration of technology. Many TEs have not ever received or continued receiving proper training on up-to-date digital tools for 21st century learning. Besides, many TEs have limited or no time to coach TCs on technology-enhanced learning experiences. Though many TEs believe they are preparing TCs to apply technology, evidence to support this is lacking. Additionally, K-12 administrators show different perceptions. A school principal's comment, collected in the 2015 - Spring 2018 Employer Satisfaction Survey (ISU, 2018) indicated:

> Young graduates continue to struggle to effectively integrate emerging technology tools and resources to create digital-age learning experiences maximizing the learning of all students. Also, it is extremely hard to special education teachers, let alone when we require them to integrate technology for differentiated instruction to be highly qualified in

areas in which they did not focus in college. This is unfair and places too high of an expectation on a population of teachers that are in great need already.

Furthermore, one of the answers to the open-ended question, *Are there any areas that you believe the University did not prepare you for?* (ISU, 2018) indicated that, "I believe that the University did not prepare me for some of the realistic aspects of teaching, especially in terms of the vastness of technology being used within the classroom" (ISU, 2018).

Possible Supportive Programs

Universities in the Midwest use professional development tools such as instructional design certificates, teaching strategy training sessions, and instructional designers to evaluate new technologies to discover innovative and better ways to enhance instruction and assist faculty in discovering methods of improving their instruction with or without technology (The Instructional Technologist's Blog, 2008; Syberworks, 2018), as well as to model the technological, pedagogical, and content knowledge (TPACK). Other external resources (e.g., conferences, workshops, and webinars) are also accessible to TEs for inspiring and sharing a vision of the comprehensive integration of technology to promote excellence in the instructional environment. However, these programs are often optional, not mandatory. Moreover, there is no clear line of responsibility and accountability for the decisions TEs make after participating in these programs.

Technology Teaching Assistantship (TTA) Program

This study explored the Technology Teaching Assistantship (TTA) Program which was initiated in Spring 2016 at a College of Education in a Midwest university. The TTA arose in response to the CAEP Standards that providers ensure candidates model and apply proper technology standards as they implement learning experiences and improve K-12 students' learning. Since TTA Program's inception, the objective of the TTA Program has been to

contribute to the capacity of the TEs, through multidisciplinary, practice-based faculty professional development, to support TEs in hands-on TPACK, to work with TEs in the development and dissemination of innovative uses of technology in teaching and learning, and to prepare TEs to support TCs' integration of technology in K-12 settings.

The College of Education's Instructional Technology Director, Dr. Li-Wei Peng (the author) designed the TTA Program's contents and delivery formats. The author held a series of informational consultations with the College of Education's Instructional Technology Committee members and faculty development program leaders on campus. These key informants provided comments about what they perceived to be effective practices in faculty development to enrich the quality of the TTA Program. The plan of the TTA Program and the TTA Recruitment Application including guidance on recruitment priorities, selection criteria, and application requirements was reviewed and approved by the Dean of the College of Education.

The College of Education launched the TTA Program in 2016 with funding from the state government focused on faculty development. The stated aims were:

- To share a common constructivist vision for learning using instructional technologies;
- To brainstorm strategies to make instructional practice dynamic and purposeful;
- To apply the Substitution, Augmentation, Modification, and Redefinition (SAMR) Model as a guide to aid TEs integration of technology into teaching and learning;
- To provide TEs with extensive and sustained support;
- To build a successful iPad/technology-enriched community at the College of Education (TEs & TCs) and reap the benefits of iPad/instructional technologies; and
- To create a technology professional development model for in-service teachers in K-12 Professional Development Schools.

Recruitment and Selection of Technology Teaching Assistants

The Technology Teaching Assistants were recruited through a TTA Recruitment Announcement and Application distributed to all College of Education students via posters, emails, e-newsletters, websites, and social media (i.e., Facebook and Twitter). Faculty members in the College of Education were also contacted to promote the program within their courses and to nominate applicants. In addition to an application form containing biographical questions and answers, applicants needed to submit a resum*é*, a transcript of current study program, a statement of interest, and three letters of professional recommendation.

Application packages were judged based on the following criteria:

- Capacity of applicant to carry out the assigned TTA tasks;
- Alignment of interest with the intersection of instruction and technology integration;
- Potential for working independently and in a team; and
- Readiness to follow direction and take responsibility to meet high expectations.

Applicants also needed to pass a timed, hands-on assessment addressing the range of issues related to the intersection of instruction and technology integration. Therefore, an applicant with a well-balanced application package and assessment performance would be selected as a Technology Teaching Assistant.

Four Technology Teaching Assistants were selected from a pool of 12 applicants. They included one male and three females. One of the Technology Teaching Assistants was completing a Master of Arts in Education with a track in Technology Integration. One was a senior majoring in Secondary Education with a minor in Mathematics Education. Two were Elementary Education majors in their junior year. In common, they all received the highest possible grades in their instructional technology related courses.

Program Structure and Activities

The four Technology Teaching Assistants served in the TTA Program for 2 years during which time they took part in a five-day intensive orientation and professional development training offered by the author in order to continue to grow their skills in practice-based TPACK. Afterwards, under the close supervision of the author, the Technology Teaching Assistants demonstrated their proficiency in technology application operations and troubleshooting. They also provided their assigned TEs with one-on-one assistance on a fixed, three-hour weekly schedule or call-out basis according to the TEs' needs. The Technology Teaching Assistants were made aware that their responsibilities included:

- To meet with their assigned TEs on time to provide technological, trouble-shooting support for instruction and assessment tools required across university departments (e.g., Sakai, LiveText, Google Sites);
- To help their assigned TEs advance their TPACK, as well as to assist them in learning at least one tool on the SMART Board/Intelliboard and at least one iPad app that their assigned TEs could integrate into their lessons every week;
- To facilitate the integration of technology in TEs' class sessions as needed;
- To submit a weekly journal of activities with specific descriptions and associated photos/videos to the Instructional Technology Committee for effectiveness and quality verification; and
- To participate in the annual regional iTeach and iLearn Showcase Conference hosted by the College of Education to present their TTA work with their assigned TEs in a 25-minute, hands-on technology workshop to TEs, TCs, undergraduate and graduate students, in-service teachers, and friends from the community.

Not only had this TTA Program built a technology-enriched community in the College of Education for the TEs, but it also supported an ecosystem designed to empower undergraduate and graduate students while allowing them opportunities to shine and receive a scholarship for tuition. Most importantly, the TTA Program addressed the problems of TEs' optional attendance and limited accountability.

The TTA Program Support System had been developed and was tested with, and applied to, a number of formats as follows:

- hAPPy Friday Tools/Apps Learning – Every Friday, TEs and TCs were introduced to one instructional technology tool/app through the RSS feed College of Education website. These materials accommodated interpersonal learners. TEs and TCs watched and followed five-minute tutorial videos created by the Technology Teaching Assistants as many times as needed for a quick how-to;
- Technology Workshops – All TEs and TCs were invited to attend the technology workshops conducted by the Technology Teaching Assistants. Every month, TEs and TCs could receive 50 minute face-to-face, team-based training in instructional technology tools/apps introduced by hAPPy Friday or any other technology-related queries. Each workshop session was recorded for study at a later date;
- One-on-One Technology Assistance – To accommodate TEs' schedules and to meet their particular needs, all TEs in the College of Education were equipped with Technology Teaching Assistants for one-on-one assistance;
- Showcases – The annual regional iTeach and iLearn Showcase Conference was an opportunity for TEs, TCs, and Technology Teaching Assistants to showcase lesson ideas and examples of how curricula were infused with technology effectively to broad audience.

Conceptual Framework and Theoretical Underpinning of the TTA Program

Practice-based learning is the key conceptual framework or theoretical underpinning that informed the design of the TTA Program.

Practice-Based Learning

This study utilized Practice-Based Learning (PBL) as its theoretical framework. The term 'practice-based learning' is often used interchangeably with 'experiential learning', which is simply learning by doing (Eyler, 2009). Gherardi (2001, 2008) explains that people create knowledge by negotiating the meanings of words, actions, situations, and material artifacts; practicing the information gained; and actually using it in different contexts. The PBL approach strives for greater learner participation, increased collaborative decision making, and a shared commitment to an interconnected community (Weber, Belsky, Lach, & Cheng, 2014).

PBL can be utilized in classrooms and professional development experiences alike. According to Munkvold (2010), PBL emphasizes the active and productive process of knowledge. Practice-based knowledge is gained by experience in the learner's chosen field. Practice-based knowledge can be developed using many methods. Regardless of the method, the learning always begins with the instructor or expert leading learners in PBL activities. These activities or methods can include modeling, explanation, coaching, scaffolding, exploration, articulation, and reflection (Dennen, 2004). In this proposal's study, the Technology Teaching Assistants guide TEs through technology-rich instructional design experiences. The Technology Teaching Assistants usually begin with modeling, explanation, and coaching through a combination of experiences including hAPPy Friday Tools/Apps, Technology Workshops, and One-on-One Technology Assistance. Once scaffolded learning occurs, the Technology Teaching Assistants encourage TEs to explore, articulate, implement, and reflect on their technology-enriched instruction in their classrooms where, most importantly, TEs simulate the PBL strategy

modeled by the Technology Teaching Assistants to support TCs' integration of technology in K-12 settings.

PBL allows learners to make decisions during the experience, but then to also reflect and review actions later (Reichelt & Skjerve, 2012). The authors suggest that reflecting and sharing these practice-based experiences help to "provide new, important, and scientifically sound contributions to our knowledge base" (p. 3). Considering their findings, the TTA Program fosters reflection and sharing. Prior to the end of the semester, TEs, TCs, and Technology Teaching Assistants present best practices in the annual showcase event.

Develop Practice-Based TPACK

The TPACK model is related to the demand for ICT (information, communication, and technology) integration into classrooms. This is an important progression as it greatly contributes to technology-enriched student-centered learning (Chai, Koh, & Tsai, 2010). TEs and TCs have faced challenges for learning and enhancing TPACK. Creating new knowledge bases built on different teaching components can be difficult for TEs and TCs because it requires a deep understanding of core knowledge and interpretation (Pamuk, 2011). Pamuk's point suggests that TEs and TCs often lack required foundational knowledge to introduce more technical skills, especially technological aptitude. This happens, in particular, when educational training focuses more on classical pedagogical practices, which are helpful in the traditional lesson planning, but provide little preparation for the advancement and integration of TPACK.

The research questions that guided this exploratory study were:

- RQ1: What are teacher educators' perceptions of practice-based TTA Program with regard to developing and applying their TPACK?
- RQ2: How effective is the practice-based TTA Program preparing teacher educators to support teacher candidates' integration of technology?

Participants

This study's participants were 12 TEs from the College of Education who participated in the TTA Program for 2 years. The TEs' participation was mandatory. Two TEs were in the Early Childhood Education Program, four were in the Elementary Education Program, three were in the Secondary Education Program, two were in the Special Education Program, and one was from the Community Education Program. Nine participants were female and three were male. One TE was ranked as Full Professor, three were ranked as Associate Professor, five were ranked as Assistant Professor, and three were ranked as Instructor. Two TEs had more than 20 years of teaching experience in the Teacher Education Program, two had 10-15 years, and eight had 2-5 years. According to Rogers' Diffusion of Innovations (1962), five were laggards, three were late majorities, two were early majorities, one was an early adopter, and one was an innovator. The participants received PBL experience through TTA Program's hAPPy Friday Tools/Apps, Technology Workshops, One-on-One Technology Assistance, and Showcases for approximately 48 hours (3 hours per week for 16 weeks) per semester, and 4 semesters in total.

The Study

A survey containing 10 five-point Likert Scale questions (5 = strongly agree; 1= strongly disagree) and one open-ended question was applied to investigate the first research question. Answers collected from the open-ended question were examined through a general inductive approach for qualitative data analysis (Thomas, 2003). As defined by Thomas (2006), "inductive analysis refers to approaches that primarily use detailed readings of raw data to derive concepts, themes, or a model through interpretations made from the raw data by an evaluator or researcher" (p. 238).

The five-point Likert Scale prompts were:

- hAPPy Friday Tools/Apps improved my TPACK;
- hAPPy Friday Tools/Apps prepared me to apply my TPACK in teaching;
- Technology Workshops improved my TPACK;
- Technology Workshops prepared me to apply my TPACK in teaching;
- One-on-One Technology Assistance improved my TPACK;
- One-on-One Technology Assistance prepared me to apply my TPACK in teaching;
- Showcases improved my TPACK;
- Showcases prepared me to apply my TPACK in teaching;
- Participating in the practice-based TTA Program improved my TPACK; and
- Participating in the practice-based TTA Program prepared me to apply my TPACK in teaching.

The one open-ended prompt was:

- What are your perceptions of practice-based TTA Program with regard to developing and applying your TPACK? Please provide specific explanation and example(s).

Content analysis was utilized to answer the second research question. Hsieh and Shannon (2005) stated, "qualitative content analysis is defined as a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (p. 1278). Qualitative data collected for analysis included: Technology Teaching Assistants' weekly journal reports, TEs' responses to a semi-conducted interview, and classroom observations of TEs and TCs. In total, 38 entries of information from the three resources were triangulated to maximize the validity and reliability in the content analysis process (Rourke & Anderson, 2004). This study followed Prasad's (2008) six-step

content analysis process "to convert recorded raw phenomena into data, which can be treated in essentially a scientific manner so that a body of knowledge may be built up" (p. 182).

Findings

The four instructive approaches (i.e., hAPPy Friday Tools/Apps, Technology Workshops, One-on-One Technology Assistance, and Showcases) in the TTA Program demonstrated the usefulness of the PBL framework in the formation and augmentation of TEs' TPACK development and application for supporting TCs' integration of technology. Data analysis revealed that the implementation of the TTA Program benefits TEs and TCs in four main ways.

First, hAPPy Friday Tools/Apps' *3-Minute Teaching with Tech Tip Video Series* stimulated TEs and TCs, identified as early majorities or early adopters, to think about ways to integrate new technology tools/apps for blended/online instruction, flipped classrooms, or other teaching and learning applications. Each technology tool/app was selected and recommended based on national awards and its accreditation for effectiveness and age appropriation. The subject-based videos were organized systematically to save TEs and TCs time. Each video included audiovisual and printed step-by-step instructions to increase self-learners' retention and ability to transfer information (Mayer & Moreno, 2003) and to enhance learner engagement with videos (Thomsen, Bridgstock, & Willems, 2014). The participants reported that lesson examples introduced in the videos were most inspirational. The TEs stated:

> I looked forward to receiving the College of Education e-newsletter every week because I found the hAPPy Friday Tools/Apps was very helpful for me to keep on top of the emerging educational tools in a timely manner. The tools were organized by subjects, grade levels, and content areas. I did not have time to search tools for my class. The hAPPy Friday Tools/Apps was a trustworthy place for me learn new tools that I could use in my class immediately.

> I liked hAPPy Friday Tools/Apps which used a variety of media. I am a professor and I know using pictures, narrations, and texts could help prevent learner's cognitive resources from becoming overloaded and improve learning transfer. Diverse media helped students with different learning styles retain more information.

> I never imagined using Minecraft to teach social studies concepts. These lesson examples blew my mind! I feel like this program could be used in many different classrooms in a variety of ways. I am already thinking of ways to incorporate that sort of technology into my science curriculum.

Second, team-based instructional strategies (Michaelsen, Knight, & Fink, 2002) from the monthly Technology Workshops helped late majority or early majority TEs to identify partners for peer-cooperative learning and projects for collaboration. Marcinek (2014) observed that finding time to integrate technology is an overwhelming task for anyone. In the Technology Workshops, the TEs worked together in a small group setting to accomplish a shared goal – maximizing their competence or mastery in the technology tools/apps and TPACK being studied. In addition, the TEs co-designed intradisciplinary or interdisciplinary lesson plans to co-teach the integration of technology collaboratively. They found that integrating technology helped save time and paper. One TE stated:

> I felt a bit overwhelmed with the workload every week and to top it off I had to learn a new program! But, truthfully, once I got started, I found the structure of this workshop was extremely user-friendly as it had a relatively low learning curve and incredible outcomes. I wish that I could co-teach the integration of technology with my colleagues more because it would be a delightful way to enhance what my students know about a particular concept or skill.

Third, one-on-one technology assistance strengthened technology integration among the laggard TEs by giving them strong face-to-face attention and high levels of personal control over when, where, and how they would integrate technologies into their teaching and letting them see exactly how other laggards have successfully adopted the innovation of technology in teaching (Robinson, 2012). One TE noted:

> I have been teaching reading literacy for more than 20 years. I have had my students create handmade books every semester in the past. I truly believe it is the way to teach. The Technology Teaching Assistant's one-on-one technology assistance really let me feel safe to try new technology tools. She could help me immediately since sometimes I did not even know what I was doing. I am using the Book Creator app to write my first eBook. You should be proud of me.

Lastly, the early adopter and innovator TEs were the first group of registered presenters for the iTeach and iLearn Showcase Conference. They were excited and committed to spend time, energy, and creativity on developing new ideas and projects in the field of technology integration (Robinson, 2012). Most importantly, these TEs loved to present and share. They found that real learning occurs when the showcase events gave them an opportunity to review and reflect on their experiences in the TTA Program and then to train and recruit other educators. One TE indicated, "The best part of the program is the showcase. I can engage my audience with the work I have accomplished." The learning circle supported TEs in expanding and deepening their technology integration approach to teaching, thereby increasing the participation and quality of TCs in model and apply technology standards in their classrooms.

All that being said, there are critical limitations and challenges to consider for the TTA Program. For example, even though the TTA Program was mandatory for all TEs, it lacked consequences for those who refused to participate or faded out during the semester. Additionally,

the funding to support the TTA Program could be affected by state government budgets. Also, the high ratio of Technology Teaching Assistants to TEs could have negatively impacted the quality of program outcomes. However, considering the positive effect TEs recognized the TTA Program had on themselves and TCs, the author perceived that the program model and evaluation data about its influence, as well as key insights and perspectives gained through participation, should be broadly disseminated. Further studies to examine and establish alternative technique, sustainable funding, opportunities, and administrative support for TE's assistance in TC's integration of TPACK will be conducted.

Conclusion

This study aimed to contribute to PBL research and practice through exploring the design and implementation of TTA Program to prepare TEs to support TCs' integration of technology. The TTA Program is a multidisciplinary, practice-based program offering a supportive TTA-mentoring network paired with financial support for faculty professional development in TPACK. The long-term goals of the TTA Program are to build individual TE and TC capacity for TPACK in the College of Education, catalyze institutional support, and further benefit TCs and school-university partnerships (e.g., professional development schools). The key in all of this is sustainable funding along with a consistent vision built by the administration. Ntuli and Suh (2019) noted that administrative support in policy and funding process is the first critical factor for success in TPACK learning and practical applications to education. Because Ntuli and Suh (2019) found that when university policies and administrators are unsupportive, TEs cannot insist on modeling or coaching TCs' integration of technology when they have limited or no access to the type of technology tools or resources that should be implemented in the curriculum. In addition, it is vital for the administrators, TEs, and TCs to promote a culture that values the importance of TPACK. They must encourage technology integration along with an approach and

pace following the Substitution Augmentation Modification Redefinition (SAMR) Model that is comfortable for every level of user. Technology skills and motivation have been evidenced to be the causes that influence most educators' decision to maximize the integration of technology in the classroom (Herner-Patnode & Lee, 2009). The use of the TPACK and SAMR models as reflective tools for the integration of technology into learning activities increases educators' motivation and technology skills (Hilton, 2016; Robson, 2002). Without TPACK and SAMR, most educators, in spite of administrative encouragement, may not succeed in supporting TC's technology integration (Ntuli & Suh, 2019). Future research and practice in this area may include formal assessments and evaluations of the TTA Program from the perspectives of diverse stakeholders (e.g., teacher candidates, technology teaching assistants, teacher preparation program administrators, K-12 educators). This research would draw upon preparing TEs to support TCs' integration of technology so that the researcher may continue to improve both the framework and program.

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Application of Meta-Cognitive Strategy Instruction in Listening Comprehension to the Level III Student Teachers

Evangelin Whitehead

Abstract

This study investigated the impact of meta-cognitive strategy instruction on the listening comprehension of level III student-teachers. Sixty-eight student participants were selected whose listening proficiency was at the average to below average level. The selected students were randomly assigned to experimental and control groups. The experimental group (n=34) received the meta-cognitive strategy instruction but the control group (n=34) received no meta-cognitive instruction. Listening comprehension modules of their course books were utilized to test the listening skills of the participants in both groups before and after the treatment. The results of tests revealed that the experimental group significantly outperformed the control group on the post-test. The pedagogical implications of the study are discussed as well.

Keywords: Meta-cognitive strategy, student teachers, self-learning styles, organizational planning, monitoring and self-assessment

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Introduction

Listening has been a growing interest of EFL/ESL researchers and teachers in the last 50 years because the majority of learners view listening as one of the most problematic skills. Many English teachers conduct listening courses in nearly the same way. They present and explain some vocabulary items, which are assumed to be new to students, then play a tape recording of those vocabulary words once or twice. After that, listening exercises in the textbooks are required to be done. Listening exercises, which are similar to one another in different units, involve matching, filling in the blank, or ticking off the correct answers.

Non-native speakers have long been known to have trouble understanding academic lectures due to the methods followed in improving listening skills. Listening to lectures is difficult, especially for students who have just entered the university. Recently, there have been discussions on teaching listening with the emphasis on strategy instruction for better achievement in listening comprehension. Hence, the researcher designed this quantitative study to investigate how to help learners overcome their challenges. In the current study, the meta-cognitive strategy was used to promote students' awareness on meta-cognitive strategy instruction and its application in listening comprehension to find out whether meta-cognitive strategy instruction is effective in improving students' listening performance.

The goal of any strategy training is self-diagnosis, awareness of how to learn the target language most efficiently, developing problem solving skills, experimenting with familiar and unfamiliar learning strategies, making decisions about how to approach a task, monitoring and self-evaluation, transferring successful learning strategies to new learning contexts, and enabling students to become more independent, autonomous, and lifelong learners (Oxford, 2003)

Anderson (2003) classifies language learning strategies into seven major strategy categories: cognitive, meta-cognitive, mnemonic or memory related, compensatory, affective,

social, and self-motivating. O'Malley and Chamot (1990) have differentiated the range of cognitive categories into two main types: meta-cognitive and cognitive strategies. Meta-cognitive strategies oversee, direct and regulate the learning process. These kinds of strategies involve thinking about the learning process, planning, monitoring and evaluating learning. Meta-cognition asserts the awareness, analysis and knowledge that a person has of his/ her cognitive (learning, thinking) processes.

Meta-cognition

The simplest definition of meta-cognition is thinking about one's thinking. A more complex definition that is widely cited within educational literature is an appreciation of what one already knows, together with a correct apprehension of the learning task and what knowledge and skills it requires, combined with the ability to make correct inferences about how to apply one's strategic knowledge to a particular situation and to do so efficiently and reliably (Taylor, 2014). In simpler terms, this means that meta-cognition is being aware of what one knows and doesn't know, understanding what one will need to know for a certain task and having an idea of how to use one's current skills to learn what one doesn't know.

Review of Literature

O' Mally and Chamot (1990) assert that meta-cognitive strategy has a hierarchical relationship among meta-cognitive, cognitive and social/affective strategy. They give a detailed description of meta- cognitive strategy. Among the main aspects of meta-cognitive strategy are: advance organizers, directed attention, selective attention, self-management, advance preparation, self-monitoring, delayed production, self-evaluation and self-reinforcement.

Hacker (2009) encourages people to take charge of their own learning through meta-cognitive strategies. This involves awareness of how they learn, an evaluation of their learning needs, generating strategies to meet these needs and then implementing the strategies. Learners

often show an increase in self-confidence when they build meta-cognitive skills. Self-efficacy improves motivation as well as learning success. Meta-cognitive skills are generally learned during a later stage of development. Meta-cognitive strategies can often (but not always) be stated by the individual who is using them.

Vandergrift (2004) observes that initially most listening strategy studies investigated patterns and strategies used by successful compared with less successful learners. Gradually the line of research shifted to focus on effective strategies based on process-oriented approaches to teaching listening skills in order to guide the students to learn how to listen so that they can better listen to learn. Therefore, Mendelsohn (1995) asserted that listening instructors have the responsibility of teaching students to take advantage of strategies rather than merely providing students with oral passages and testing them.

Ridley et al. (1992) stated that the outcomes of utilizing meta-cognitive strategies include:

- Regulation and prediction of learning activities such as a conscious control of learning, planning and choosing strategies.
- Monitoring the process of learning, correcting errors, and analyzing the effectiveness of learning strategies.
- Changing learning behaviors and strategies when necessary.

Rubin (1975) defined meta-cognition as a construct that refers to thinking about one's thinking or the human ability to be conscious of one's mental processes. Research has shown that language learners can learn more effectively when they learn strategies that have been identified as defining characteristics of a good language learner. Anderson (2003) states that meta-cognitive strategies play a more significant role than other learning strategies in this

process because once a learner understands how to regulate his/her own learning through the use of strategies, language acquisition should proceed at a faster rate.

Movahed (2014) examined the effect of meta-cognitive strategy instruction on the listening performance, meta-cognitive awareness, and listening anxiety of EFL beginner learners. The strategy instruction to the experimental group was based on the work of Vandergrift and Tafaghodtari (2010). This study showed that the experimental group performed considerably better than the control group on the post-tests confirming the positive impact of the meta-cognitive strategy instruction on learners' listening performance, meta-cognitive awareness and listening anxiety.

According to Marcia Lovett (2008), language learners can develop their independence by applying cognitive, meta-cognitive and socio-affective strategies to gain control of their own learning. Actually, teachers can educate students to become what Lovett deems as 'expert learners'. She believes that educating students to develop their meta-cognition entails three particular processes:

- Instructing students that their ability to learn not only alters, but that they can influence how that skill extends,
- Instructing them how to sketch for achievement and set aims, and
- Providing them with many situations to monitor their learning and adjust their own learning strategies.

Seferoglu and Uzakgoren, (2004) assert that, in many educational settings, meta-cognitive strategy instruction is not an inner part of many listening course books and instructors do not focus on these strategies when they design their lessons. Listening does not obtain its due significance and learners do not look as if to be effectively taught about the listening strategies.

Goh (2008) highlights that more study is required to examine the role of meta-cognitive teaching in listening performance in diverse contexts. The more that students know how to learn, the better they learn. Hence, this study aims to investigate the impact of meta-cognitive strategy instruction on EFL learners' meta-cognitive awareness in listening to reduce the complexity of listening comprehension.

Zahra Ratibi (2013) aimed to investigate the types of meta-cognitive strategies used by Iranian university students majoring in English, and the differences in the use of these strategies between listeners across two levels of high and low proficiency. The results revealed that Iranian university students used problem-solving strategies most frequently and person-knowledge strategies less frequently. It was also found that more proficient listeners used meta-cognitive strategies more frequently than less proficient listeners and there was a significant difference in the use of person-knowledge strategies between high and low proficient listeners. The results of the study have some implications for students, teachers, syllabus designers and EFL textbook designers.

Objectives of the Study

The major objective of this study was to apply Meta-cognitive strategy in listening comprehension of the EFL student-teachers to find out whether this strategy is more effective than the traditional approach.

Hypotheses

a) There exists no significant difference between the pre and post mean scores of the Experimental group.

b) The Control and Experimental groups do not differ in their academic achievement scores.

Methodology

In the present study, a non-randomized control group pre-test/post-test design was adopted. The groups were formed according to the requirement for administrating meta-cognitive strategy in the course of Listening Comprehension.

Sample Selection

In the present study, the experimental group and the control group were selected. The two groups were selected from the researcher's regular classroom. Level III student-teachers of a reputed College of Education in Saudi Arabia were potential subjects. Although the two groups were equal in terms of achievement scores, the subjects in each group varied in terms of their academic abilities. The composition of the listening comprehension teams was based on the achievement scores of the learners. The subjects of the two groups were selected and the application of randomness led to the classification of the Control and Experimental groups.

Selection of the Experimental Group

The experimental group was formed on the basis of the academic achievement scores of the students. Thirty-four students were selected for the experimental group based on the first term examination scores of the Listening Comprehension Course. Below average and average students were selected.

Selection of the Control Group

The Control group consisted of 34 students who studied in the same class of the same college. This group was exposed to the traditional method of instruction and no novel treatment was given to this group.

Research Tools

The investigator's self-made achievement tests were used for the pre-test and post-tests of both the groups. The same question papers were used for both the groups to evaluate the pupils'

skills in the Listening Comprehension of the course books *Headway III* and the *Skills for Success III* covering selected topics of the content of both the books. At the beginning of the test, the instructions for answering were given and the subjects were asked to write the answer. The time allotted for answering was one hour.

Both the groups were administered a pre-test in which proper instructions were given to the students for answering. Selected topics from both books were utilized in the administration of the pre-test. In order to increase the reliability and validity of the post-test performance and to eliminate the testing effect of the pre-test, two other achievement tests were constructed. These tests were a slight modification of the pre-test. The same type of questions and same number of questions were used for these two tests. The procedures adopted in developing the pre-test tool were employed while constructing post-test tools as well. Other important units from both the books were selected for administering the other two tests.

The survey was conducted by the researcher herself during the students' regular English classes. The listening tests were conducted during the students' class time. The participants were informed about the purpose of the test and they were assured that their performance would be used for research purposes only and the scores of the tests had no relation with the final scores of the course. The researcher was present in the classroom to ensure that the subjects could fully understand what they were supposed to do and that they finished the test on their own. They were not permitted to discuss any aspects of the test with each other. No discussions or references were allowed during the process of the tests. At the end of the tests, all test papers were collected on time regardless of whether the students had finished them or not. Each of the listening tests consisted of two passages with 20 blanks in total. The listening test was designed in a 100 score scale, thus each blank was assigned a score of five. The researched graded all tests.

Test Validity

The content of both tests was validated by a team of English language specialists. The team validated the content and instructions of the test, the relevance of the questions to the content, its suitability for attaining the goals, the number and arrangement of questions, and time allotted. The remarks and suggestions of the team were taken into consideration and the researcher made the necessary modification before application.

Test Reliability

A pilot group of 30 students were randomly selected from the population of the study and test-retest method was used to check the reliability. A test was administered to them and then repeated with them two weeks later. The reliability correlation coefficient of the tests result were calculated using Pearson correlation method. The obtained value of the Pre-test was 0.753 which was an indication of its reliability. The obtained value of the Post-test was 0.78 and 0.81 respectively.

Test Administration Procedure

Both the experimental and comparison groups followed the routine syllabus when the meta-cognitive strategy-centered model was being carried out in the experimental group. Listening comprehension tests were involved in the present study. At the very beginning of the training, a pre-test was given to every student in both the groups to serve as the starting point for the comparison of the results of present pedagogy with the results at the end of experiment. Selected topics of both books were considered for the administration of the pre-test. Then, after a semester's training, all the subjects took a post-test which resembled the parts of the pre-test in pattern, difficulty and time limitation. Both the pre-test and post-test were used to measure the subjects' listening comprehension proficiency.

Administration of Meta-Cognitive Strategy in Listening Comprehension

Planning Stage

Meta-cognitive strategy was administrated in three stages. The first stage is the Planning Stage and the meta-cognitive strategies involved in this stage were planning and directed attention. The researcher gave the definition of these strategies and provided the students with some examples to contextualize them in listening situations. The researcher also provided some pre-questioning forms of advance organizers along with explanations to highlight the significance of these strategies. Next, the topic of the given text was made familiar to the students and it was written on the board. Before listening to the oral text, students were asked to write their idea about the topic in a sentence or a few words.

Listening Stage

In this session, the students listened to the task three times. Experimental students were asked to sit in pairs. In the first listening, they were asked to write new information that they heard and understood. The meta-cognitive strategies involved in this stage were selective attention and monitoring comprehension. The teacher demonstrated these strategies for the students and assisted them with focusing on key listening points.

Students compared their information and predictions they perceived in the first listening session. They focused on the missing information in the first listening and prepared to focus on areas that needed more attention in the second stage listening. The meta-cognitive strategies involved in this stage were monitoring, planning and selective attention.

Next, students listened to the task for the second time. They attempted to focus on areas of missing information and areas that had been difficult for them in the first listening. They monitored and corrected the information that they had predicted incorrectly and also added additional points they perceived. Meta-cognitive strategies involved in this stage were problem

solving, monitoring and selective attention. The teacher drew a distinction between listening and hearing and its significance. The students explained the main points they had perceived.

In the third listening, students adapted to various conditions encountered in listening. Students listened more carefully on the points which they could not get in the previous listening. The meta-cognitive strategies involved in this stage were selective attention, problem solving and self-management.

Post-listening Stage

This stage is a self-assessment stage. Students engaged in class discussion to judge how well they accomplished a learning task. They utilized a check back system to analyze how their classmates arrived at the meaning of certain words or parts of the text that they failed to recognize. They kept a learning log and noted their peers' strategies and tactics used to listen and comprehend. Finally, students answered comprehension questions based on the task for which they listened. The meta-cognitive strategies used in this session were reflection and evaluation.

Results and Discussion

The results of the study are presented in the Tables 1-6 with interpretation.

A Pre-test was administered to both the control and the experimental groups. The standard of $p < .05$ was adopted to determine significances throughout the study. That is to say, a relationship can be regarded as statistically significant if the results are significant at the special alpha of .05 (i.e., probability of chance occurrence). This means that a result is considered statistically significant if it could have occurred by chance fewer than 5 times out of 100.

Table 1

Comparison of the Pre-test Between Experimental and Control Groups

Group	N	M	SD	't'
Experimental Group	34	32	6.9	1.0
Control Group	34	30	8	

Table 2

Comparison of the Pre-test and Post-test I of the Experimental Group

Group	N	M	SD	't'
Post-Test 1	34	52.4	7.5	11.72
Pre-test	34	32	6.9	

Table 3

Comparison of the Post- test I and Post-test II of the Experimental Group

Group	N	M	SD	't'
Post-test II	34	64	8.7	5.85
Post-Test 1	34	52.4	7.5	

Table 4

Comparison of the Post-test I of the Experimental Group and the Post-test of the Control Group

Group	N	M	SD	't'
Post-Test I Experimental Group	34	52.4	7.5	6.13
Post test Control Group	34	41	7.9	

Table 5

Comparison of the Post-test II of the Experimental Group and the Post-test of the Control Group

Group	N	M	SD	't'
Post-Test II Experimental Group	34	64	8.7	11.5
Post test Control Group	34	41	7.9	

The mean score of the experimental group in the pre-test was 32 and that of the control group was 30. Both groups do not differ in their pre-test mean achievement scores as demonstrated by the 't' value of 1.0 which is not significant at 0.05 level of significance.

Achievement scores of the Pre-test and Post-test I of the experimental group were compared. The experimental group showed significant difference between its Pre- test and Post-test -1 mean achievement scores. The 't' value of this comparison was 11.72 which is significant at 0.05 level of significance. The performance of the experimental group was found better in the Post-test -1 when compared with its pre-test performance.

Achievement scores of Post-test 1 and Post-test II of the experimental group were compared and there existed significant difference between these two scores in that the 't' value was 5.85 which is significant at 0.05 level of significance. It was observed that the academic performance of the experimental group in Post-test II was far better when compared to the scores of the pre-test.

Achievement scores of the Post-test 1 of the experimental group were compared with the Post-test of the control group. The mean value of the experimental group's Post-test 1 was 52.4. The mean value of the control group's Post-test was 41. The comparison of these two scores demonstrated that a significant difference existed between these two scores in that the 't' value is 6.13 which is significant at 0.05 level of significance.

Achievement scores of the Post-test 1 of experimental group were compared with the Post-test of the control group. The mean value of the experimental group's Post-test II was 64. The mean value of the control group's Post-test was 41. The comparison of these two scores demonstrated that a significant difference existed between these two scores that the 't' value was 11.5 which was significant at 0.05 level of significance. The results showed that the application of meta-cognitive strategy instruction had reasonable impact on the listening comprehension skills of the experimental group. The results of the comparisons clearly demonstrated that both hypotheses were rejected.

Findings and Conclusion

The results of the experiment show that meta-cognitive strategy instruction facilitates English listening comprehension. Data obtained suggests that meta-cognitive instruction can improve students' awareness of meta-cognition, equip learners with meta-cognitive strategy and finally improve students' listening proficiency. Limitations of this study included that the experiment was conducted for only one term with a very small group in a single class of students. Moreover, many other variables like the attitude of the students, motivation, and learning styles were not considered in this experiment which may influence the statistical results.

In conclusion, teachers should provide a pattern and purpose for listening so that students will become aware of the specific information they need before listening. The results show that using meta-cognitive strategy instruction in listening comprehension definitely improve students' listening skills so that students become accountable for their own learning and move toward meaningful learning. It is recommended that curriculum designers incorporate this type of teaching strategy in their course books and design activities which value the importance of language learning strategy instructions, especially meta-cognitive strategies.

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Other People's English Accents Matter: Challenging Standard English Accent Hegemony

Pierre W. Orelus

Abstract

We live in a society where standard accents are highly valued. Generally, people who speak with a Standard English accent are seen through a positive lens linguistically; those whose English is accented are stigmatized. Accent discrimination affects linguistic minorities from diverse linguistic and ethnic backgrounds, including foreign-accented English speakers. This article uses a sociolinguistic framework and draws from participants' *testimonios* garnered over the course of a year to explore the ways in which linguistic minorities, across ethnicity, race, language, and nationality, experienced various forms of accent discrimination. Participants' testimonios suggest that these factors play a significant role in the different ways and the degree to which they were subjected to accent discrimination.

Keywords: Accent discrimination, testimonios, linguistic minorities, bilingual students, administrators and professors of color, standard accent, accented English.

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There are unearned privileges attached to standard accents. We live in a society where standard accents are highly valued. Generally, those who speak with a Standard English accent are seen through a positive lens linguistically; those whose English is accented are stigmatized. Accent discrimination affects linguistic minorities from diverse racial, ethnic, and social class backgrounds, including foreign-accented English speakers (Baugh, 2018; Lippi-Green, 2012; Orelus, 2014, 2016a). Depending on where one's accent originates, one may be subject to insidious forms of accent discrimination. In the United States, for example, immigrant minorities are routinely subjected to linguistic discrimination because of their non-standard English accent (Garcia & Kleifgen, 2018; Orelus, 2014, 2016b).

People's age, linguistic, socio-economic, and racial backgrounds impact their accents (Baugh, 2018; Levy & Crowley, 2012). Other factors, including one's social environment also influence people's accent (Kitamura, Panneton, & Best, 2013; Labov, 2011). When individuals or groups enunciate words in ways deviating from the socially constructed standard accent, they are labeled as "speaking with an accent," often resulting in discrimination against them (Lippi-Greene, 2012).

Accent discrimination is systemic and infringes upon the inalienable linguistic rights of minority groups speaking with accents deviating from the alleged Standard English accent (Baugh, 2018). Linguists, such as Baugh (2018), examined the salient effects of accent discrimination on linguistic minorities. Specifically, Baugh's scholarly linguistic work helps understand various kinds of accent discrimination, including linguistic profiling, that African Americans and Latinx have encountered in American schools and society.

Likewise, bilingual scholars and researchers have examined accent discrimination that linguistic minorities, including emerging bilingual students and professionals, have encountered in American schools and society (Cummins & Swaim, 2014; Garcia & Kleifgen, 2018; Nieto &

Bode, 2018). These scholars and researchers underscore ways in which these students use *testimonios* to resist linguist oppression in schools. Similarly, this article draws from *testimonios* of minority professors, administrators, and students from diverse ethnic, linguistic, and cultural backgrounds to underscore various ways in which they have been subjected to systemic forms of accent discrimination.

More specifically, this article uses a sociolinguistic framework and draws from participants' *testimonios* garnered over the course of a year to explore various ways in which bilingual students and professors across language, ethnicity, race, and nationality experienced accent discrimination in American schools and other institutions. The following questions guided the article: (1) Have you ever personally felt discriminated against because of your accent and/or have you ever witnessed close friends, family members, classmates, or co-workers experiencing accent discrimination? (2) If so, in what ways and to what degree, might have this experience affected you?

Testimonio

Testimonio plays a major role in this article. Therefore, it is worth explaining what it entails at the outset. According to Cervantes et al. (2019), "Testimonios allow individuals to name their realities and to share specific experiences of oppression or trauma that they have endured" (p. 2). Scholars from different backgrounds and with different foci in the academy have used *testimonios* both as a methodology and a genre to challenge the dominant narrative and assert themselves in the world. Indeed, historically oppressed groups in both developing and under-developed countries have used *testimonios* as a form of resistance to systemic oppression (Cervantes, 2012).

Testimonios have been "giving voice to silences, representing the other, reclaiming authority to narrate, and disentangling questions surrounding legitimate truth" (Delgado Bernal

et al., 2012, p. 365.) *Testimonios* emerge from and reflect people's daily living and breathing realities. As such, *testimonios* of and about linguistic minority professors and students from participants' backgrounds are incorporated and analyzed herein to underscore the ways in which they were subjected to systemic forms of accent discrimination. Similar to the term *testimonio,* it is worth reviewing the literature on accent discrimination, as it is intrinsically connected to this article.

Accent Discrimination

Accent discrimination is a systemic linguistic oppression that affects the day-to-day lives of minoritized groups, including African Americans, bilingual, and multilingual speakers, whose accent does not meet the definition of Standard American English accent (Baugh, 2018; Lippi-Greene, 2012). This form of discrimination is linked to a dominant sociolinguistic mindset that favors accents socially constructed as standard over others labeled as non-standard. As a result, minoritized linguistic groups speaking with an English accent deviating from the standard American English accent are often routinely subjected to accent discrimination. They are assumed not to be as smart as those who speak Standard English, who are usually given the benefit of the doubt about their intelligence (Baugh, 2018; Gluszek & Dovidio, 2010; Matsuda, 1991).

Accent discrimination is interlocked with one's native tongue, race, ethnicity, social class, and country of origin; these factors play a major role in the ways linguistic minoritized groups, particularly those speaking with an accent, have been treated in schools and society. For instance, although African Americans are native speakers of English, they have been discriminated against for speaking Ebonics (Baugh, 2018; Labov, 2011). Ebonics is rooted in the history of African Americans, including the Atlantic Slave Trade. Enslaved Africans came from different tribes, spoke various dialects, and intermingled with other enslaved Africans during this

trade. Through such interactions, the captured Africans were exposed to new dialects and accents influencing their native languages and accents (Baugh, 2003, 2010, 2018).

The colonial legacy has affected African Americans, including the ways in which they have been linguistically perceived and treated in society in comparison to those who speak the so-called Standard American English. The inferiority construction of African American Vernacular English must be challenged, as no scientific research has proven that certain accents or languages are better than or superior to others (Baugh, 2010, 2018; Labov, 2011). The accent discrimination against African Americans indicates that being an English native speaker does not necessarily guarantee that those from marginalized racial and socio-economic backgrounds are exempt of accent discrimination.

Underlying factors, such as race, linguistic and ethnic heritage, and social class are intrinsically linked to accent discrimination. For example, Rosa and Flores (2017) documented ways and the degree to which Latinx, born and raised in the United States, are often mistaken for immigrants and treated as second language English learners because of their ethnicity/race and social class. According to Rosa and Flores, the speech patterns of working-class Latinx are often associated with their ethnicity and assumed immigrant status.

Before Rosa and Flores's study (2017), Otheguy and Zentella (2012) conducted a study about Puerto Ricans who lived in New York. Otheguy and Zentella looked at ways in which these linguistically disenfranchised groups faced accent discrimination from individuals who did not appreciate other ethnic groups using variations of English to communicate with one another. In specific terms, these researchers examined ways in which Puerto Ricans and other Spanish immigrants from Latin America and the Caribbean were routinely subjected to accent discrimination because of their English dialects and also for code-switching in Spanish and English.

Minoritized linguistic groups often feel pressured to speak Standard American English \ in schools and at work to fit in, as it is the accent most valued in these institutions (Lippi-Greene, 2012; Rosa & Flores, 2017). However, when they return home from work or school, they every so often have to switch back to speaking with the English accent familiar to their family members, friends, or neighbors—something those from dominant linguistic groups do not have to do (Rosa & Flores, 2017).

Standard English accent is a social construct. Such construct has historically favored monolingual privileged groups over disfranchised linguistic minorities speaking English, for instance, with an accent (Lippi-Greene, 2012). This article demonstrates ways in which the hegemony of Standard American English accent affected (and continues to affect) disfranchised linguistic minority groups in ways that might have gone unrecognized.

Method

Testimonio

Two main venues were used to collect data, namely testimonios, for this article. Some *testimonios* were gathered from a classroom**.** A colleague helped me recruit students from his class. This colleague was an instructor at the same University located in Las Cruces, New Mexico where I previously taught. In a presentation I was invited to do in his class about my research on accent, I learned that a great number of his students were immigrants whose English was not their first language. I had the opportunity to interact with some of the students during and after my presentation on accent, and they shared with me that they had experienced accent discrimination in schools and other settings.

The rest of the *testimonios* stemmed from teachers, professors, administrators, and former students who participated in a workshop on accent and language diversity that I was invited to do at a middle school located in Las Cruces, New Mexico. To be exact, a former doctoral student,

who was the middle school principal, invited me to conduct a workshop on accent and language diversity for her teachers there, as she felt they could benefit from my research. Other people from the community also attended this workshop. For example, I invited colleagues and former students to attend, and some did so. Likewise, some of my colleagues invited their students to attend the workshop, and they did.

The former student who invited me to do the workshop became familiar with my research on accent, as she was taking a doctoral seminar class on language, literacy, and culture with me. She allowed me to use the workshop as a platform to ask attendees to consider participating in a study on accent that I was conducting. She informed people in advance, who registered for the workshop about my research, which was on going. At first, all attendees agreed to participate in the study, but some ended not writing their *testimonios* about their experiences with accent discrimination as they initially promised.

Selection of *Testimonios*

Data collected both from the workshop and my colleague's classroom entailed *testimonios* from students, college professors, and administrators, who had been subjected to accent discrimination and/or witnessed family members, friends, and classmates enduring this form of discrimination. At both the workshop and in the classroom, participants were given prompt questions serving as guidance as they were writing their *testimonios*. The same prompt questions guided this article. The workshop was designed for bilingual teachers, administrators, professors, parents, and whoever else was interested in accent and language issues from the community where the middle school was located.

A focus group of 12 middle school teachers, college students, university professors, and administrators, most of whom were bilingual, participated in the workshop, which lasted over two hours. Although all the workshop attendees were invited to participate in the case study,

only five agreed to do so. The rest of the participants were from my colleague's classroom. Initially, 20 people agreed to take part in this case study, including people attending the workshop. In the end, only eight followed through with the *testimonios* they agreed to write about their experiences with accent discrimination. As explained later in the study, quotations analyzed in the article are from participants' *testimonios;* they are divided into two main sections. Five quotations are from participants' *testimonios* gathered at the workshop, and the other three are from my colleagues' students.

The Workshop

The workshop attendees were primarily teachers, administrators, professors, and former students who spoke a different language from English while growing up, even though a few of them were born in the US. While some stated they personally experienced accent discrimination, others claimed that they witnessed family members, friends, classmates, and neighbors being subjected to it. I designed the workshop in a way that created space for participants to talk about their experiences with accents, including accent discrimination.

Specifically, I began the workshop by first engaging the attendees to get to know them a bit before proceeding to a brief lecture on accent and language diversity followed by a group work activity. That is, after the mini-lecture, I engaged participants in a brief group activity and encouraged them to (1) talk about their experiences with accent discrimination and (2) document such experiences through written *testimonios*. They were given about 45 minutes to write freely about their experiences with accent discrimination. They were then encouraged to share such experiences with the whole group. Most of them volunteered to do so.

After the workshop ended, I followed up with individual participants who showed interest in writing about their experiences with accent discrimination. They shared their *testimonios* with me and granted me permission to use them. Some participants wrote testimonial

accounts about accent discrimination at the workshop, while others started theirs at the workshop and expanded on them later.

Participants' Backgrounds

While some participants were US-born, others were from other parts of the world, including Germany, Colombia, Mexico, Erithia, and the Philippines. For some, English was their native tongue, while for others, English was their second or third language. They were native speakers of Spanish, German, and French, among other languages. Furthermore, while some were K-12 school administrators and teachers pursuing doctoral degrees, others were university professors. Finally, their age varied from 20s to 60s at the time of the study, and they were at different stages in their academic and professional lives.

Validity

For validity and transparency purposes, I explained to participants what the study entailed before they decided to write their *testimonios*, which are incorporated and analyzed in this article. They were given the opportunity to revisit them before the article was submitted for peer review. Specifically, I emailed participants my interpretation of their *testimonios*, drawing from my analysis of the whole data set. While some commented on such interpretation, others simply approved it. Some participants wrote about their personal experiences with accent discrimination, while others talked about classmates, friends, and family members they witnessed experiencing this form of discrimination. They expressed their opinion about these issues drawing from personal, academic, and professional experiences.

Delimitations

It also worth noting that given its scope with only eight participants involved, this article does not purport to fully document all forms of accent discrimination that linguistic minority students and professors in the United States have been facing in schools and society. This article

has its limitations. One of its drawbacks is that all the participants are middle class bilingual students, administrators, and professors. Their stories do not reflect the reality of all linguistic minorities. Therefore, more research needs to be done on accent discrimination facing linguistic minorities of all backgrounds, looking further into its insidious effects. Nonetheless, those interested in knowing various ways and the degree to which college bilingual students, administrators, and professors particularly have been subjected to accent discrimination in American schools and society at large might find the following data interpretation and analysis of their lived and professional experiences helpful.

Data Analysis

From the data set, linguistic minoritized groups were selected based on their experiences with accent discrimination. Since participants' native languages were diverse as well as their experiences with accent discrimination, I compared and contrasted such experiences. This comparative analysis was necessary to underscore various ways in which diverse English speakers might have been subjected to various degrees of accent discrimination depending on their backgrounds.

Narrative Analysis

I used narrative analysis drawing from Johnson's (2014) work in sociolinguistics to interpret and analyze the data. Narrative analysis helped me understand the social context of the participants' testimonios. Indeed, such analysis helped capture participants' various experiences with language and accent discrimination as well as their views on it. I began the data analysis process by focusing on identifying specific themes emerging from participants' narratives. Patterns, variances, resemblances, and differences in participants' accounts about accent discrimination were noted. I carefully identified and highlighted themes embedded in participants' *testimonios* to illuminate various ways in which they experienced accent

discrimination. Quotations from their *testimonios* were divided into two sections for analysis. They underscored their various experiences with accent discrimination.

Theme Analysis

The analysis of their *testimonios* entailed an examination of theme patterns emerging from their various experiences with accent discrimination. Participants' views on accents and personal experiences with accent discrimination across social class, ethnic, racial backgrounds, and nationality were analyzed. A preliminary analysis of the whole data set was performed to determine which parts were relevant to the study.

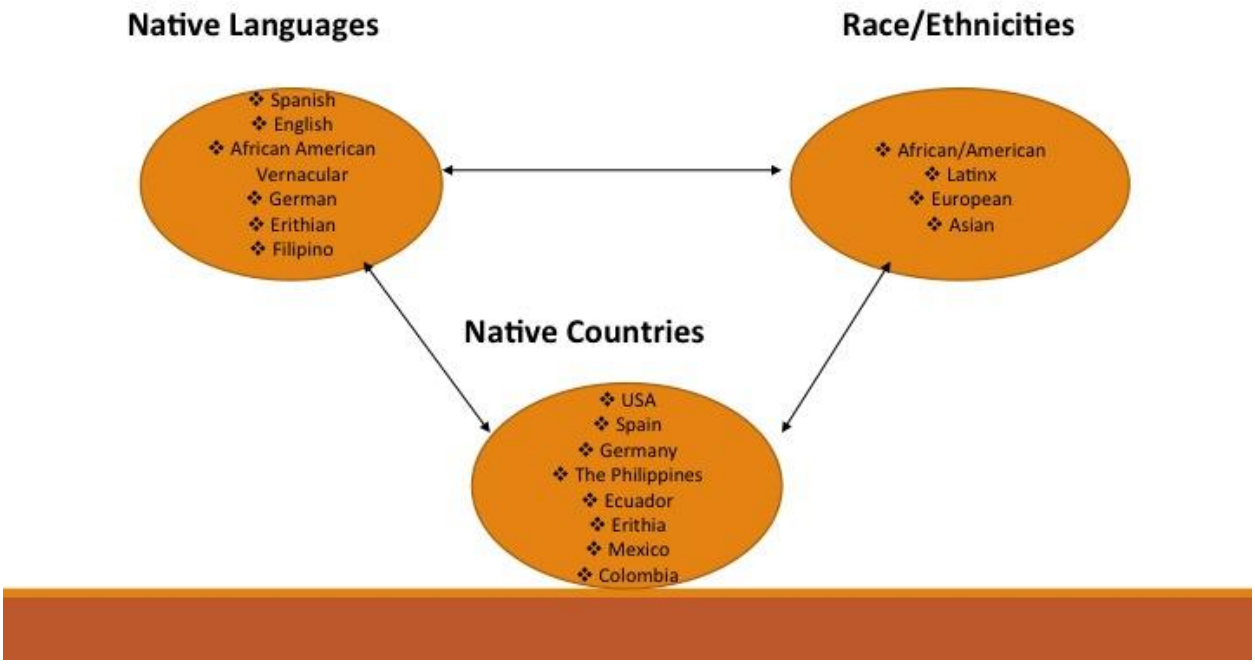
Resemblances, variances, restatements, and contradictions throughout participants' accounts were noted and analyzed. Some of the issues participants addressed in their narratives were not directly connected to the focus of case study; they, at times, talked about unrelated, yet important data that provided a broader scope of understanding of the issues at hand.

I arranged participants' narratives by themes, from which two sections of data were carefully crafted and analyzed. Relevant information about each section is provided for clarity purposes. In both sections, attention is drawn to various ways in which people's biases prejudices against linguistic minority groups in this study might have affected them, including bilingual college students and professors. Both sections highlighted various experiences of accent discrimination that linguistic minorities have experienced, including immigrant French bilingual students from African countries. The table and figure that follow encapsulate participants' age, social class, gender, social status and social class, race/ethnicities, nationality, country of origin, and native languages, respectively.

TABLE 1
Participants' Age, Gender, Social Class and Social Status

Total 8	1	1	1	1	2	2
Age	48	40	24	34	22/36	61/42
Gender	Female	female	female	female	Males	Male/ female
Social Class	Middle Class	Middle class	Middle Class	Middle Class	Middle Class	Middle Class
Social Status	Student/ Administrator	Administrator	Student.	Student/ teacher	Student/ Professor	Professor/ student

FIGURE 1
Participants' Native Languages, Ethnicities, and Countries of Origin



Data Analysis

The data analysis was performed on both similarities and differences in themes emerging from participants' *testimonios*, as their experiences with accent discrimination varied. As such, the first section of data analysis that follows is made of *testimonios* of participants who directly experienced accent discrimination. They spoke about their own experiences with accent discrimination while taking a stance on it. By a slight contrast, the second section contains *testimonios*, for which participants indirectly experienced accent discrimination. They, for example, witnessed members of their families and peers being subject to accent discrimination in schools and public places, but they did not feel that they experienced it themselves.

Discussion of Testimonios

Section One: Linguistic Minorities Personally Experienced Accent Discrimination

Vob's case.

Vob was born in Germany and immigrated to the United States with his parents when he was 11 years old. He was in his early 20s, pursuing a master's degree at a university located in the East Coast of the United States at the time of the study. Vob often receives unpleasant treatment, including being subjected to interrogation, because of his perceived foreign English accent. Unlike his monolingual White American friends, he encounters accent discrimination while traveling.

> I remember various instances wherein I felt that I was being profiled based on my accent, alone. A simple, "Hi, how is it going?" uttered by me was usually met with an agent's assertive, "Country of citizenship?" or "Where are you from?" type of request. While I am happy to comply with their requests and understand that a lot of what they do simply has to do with following procedure, which usually results in my visa/passports being inspected and questions being asked, I feel that there must be a better way to communicate with people in my situation (International Student, people visiting from other countries, etc.).

Vob finds remarks made and questions asked about his accented English to be linguistically biased and discriminatory. While his native-born, White, American friends and classmates face no accent challenges going through the checkpoint, Vob faces institutional linguistic hurdles going through the same process because of his accent.

> It is hard to explain how these exchanges go to my American friends because when we travel through the checkpoint together (or when they go through it alone), the whole process usually seems to be quite pleasant, speedy, and inconsequential. I think it is the

> mere idea of being recognized as someone who is different solely by the sound of my voice and consequently being communicated with differently that makes me feel quite unwelcome and isolated in those moments.

As a German, Vob is not necessarily part of ethnic minority group in the Unites States in recent history of this country. However, as a second language English learner, he has been subjected to similar, if not the same, unpleasant linguistic discriminatory practices that minorities and immigrants of color have faced in the United States. It seems as if all linguistic minorities have been subject to accent discrimination differently, depending on their ethnicity, nationality, and country of origin and the context in which they find themselves. Leanne's experience with accent discrimination is a case in point, in addition to Vob's.

Leanne's case.

Leanne was pursuing a doctorate degree at a state university located in the Midwest of the United States at the time of the study. She was in her 30s and was born and raised in Colombia. In addition to Spanish as her native language and English, which has become her second language, she studied French and other languages. Specifically, Leanne considers herself bilingual but has studied at least five other languages throughout her life. She has taught English as a foreign language overseas in different European and Asian countries. Because of her non-standard English accent, Leanne has had several unpleasant accent discrimination experiences, one of which occurred with her boyfriend present, who is a native speaker of Standard English.

> A person from Australia invited me to have dinner at her place. [On] this occasion, I went there with my boyfriend, who is American. The next time this person from Australia met my boyfriend, she asked him if we had communication issues in our relationship. She told him, "It must be very difficult for you to be in a relationship with someone who is not a native English speaker. Her accent is very strong." She was laughing about it. As

> you can imagine when my boyfriend told me, I did not find it funny at all. On the contrary, situations like that affected my personal and professional confidence.

Leanne felt offended by her boyfriend's friend's comment, which she did not find funny. Such comments seem to have psychologically impacted her, particularly her confidence. Regardless of her sociolinguistic and cognitive abilities, as a Spanish native speaker, she has taught English as a foreign language overseas in different European and Asian countries, Leanne's accent was made fun of. Leanne's non-standard accent does not seem to be appreciated in the mainstream monolingual American society. Leanne experienced other forms of accent discrimination connected to the first one.

> As a native English speaker, my boyfriend had mentioned numerous times to me that in order to be taken seriously as a professional in this country, I had to do something about my accent. He reminded me about the incident with the Australian lady and recommended me to sign up for accent reduction therapy. So, for two years I went to the speech and hearing clinic to work on accent reduction. I'm not sure if the therapy helped to "reduce" my accent, but what I can say for sure is that I was always very aware of it, and I did not like to speak in front of groups of people because I was always very self-conscious about my accent.

Leanne was told that her accent did not sound like the typical American English accent that her boyfriend's friend expected to hear. As a result, she was pressured by her boyfriend to take accent reduction courses. According to Leanne's boyfriend, doing so would help her improve her communication English skills, which in turn would make people take her more seriously. This argument is yet to be substantiated because there are linguistic minorities, like African Americans, Latinx and Asians born and/or raised in the United States, who have been discriminated against because of their accents (Baugh, 2018; Lippi-Greene, 2012). Like Leanne's

narratives, other study participants' narratives, like that of Francois, suggest that factors, such as one's ethnicity, race, and nationality are connected to accent discrimination.

Abdels' case.

Abdel was born and raised in Eritrea and moved to the United States in 1969 on a government scholarship to pursue higher education and other opportunities. Specifically, he came here as a student to complete a master's degree in his field of study, which he had begun in Eritrea. Abdel spoke English before immigrating here (in addition to two other languages). He completed his undergraduate studies in English, as this was the language of instruction at the University in Ethiopia (Eritrea was under Ethiopia at that time). He was a US university professor at the time of the study. Because he spoke perfect English before moving to the United States, Abdel was shocked when people could not understand him. He attributed this to what he called "his heavy Ethiopian/Eritrean accent."

> It was very frustrating when I had to repeat myself several times to be understood. I was an excellent student, and my accent did not cause me much of a problem, although I was feeling the pain when I see my professors having a hard time understand[ing] me. But I have never experienced being discriminated against because of my accent. However, I suspect that I have missed some promotion opportunities due to my accent.

Abdel seems ambivalent in his statements about accent discrimination. On one hand, he claims that he was surprised that his peers and professors did not understand him because of his accent. On the other, he stated, "I have never experienced being discriminated against because of my accent." He then contradicts himself by saying, "I suspect that I have missed some promotion opportunities due to my accent." Later in his *testimonio,* he confirmed that he has, indeed, been subjected to accent discrimination.

> In class, I have some students who comment on the course evaluation saying, "He is teaching a tough course, and he is making the course more difficult by his accent." But such comments were from few students. Despite my accent, I have won several teaching excellence awards over the years.

Like the two previous immigrant participants, Abdel proudly identified himself as a hard-working professional. Apparently, he wants to fit in the mainstream American English world but has faced systemic linguistic hurdles, namely accent discrimination. Abdel is not alone. Other immigrant minority native speakers of English face similar forms of accent discrimination in the United States by individuals from the dominant linguistic group, as Malda's case illuminates.

Malda's case.

Malda was born and raised in the Philippines. She immigrated to the United States after she met her husband, a US veteran, who was then stationed in the Philippines. Malda already spoke English as her dominant language before moving to the United States. She stayed home to take care of her son for years while her husband was in the military before she decided to return to school to pursue a doctorate degree, which she completed on time. Malda identifies herself as someone who believes in the ideals of the United States, which she claims she loves as the wife of a US veteran soldier. She talked about the way she has faced accent discrimination and xenophobia since she has been living here because of her English accent and ethnicity.

> My experiences with accent discrimination as an educated woman who came from Southeast Asia and has lived in the United States for 27 years has been challenging. My most recent experience was at [a] Walmart counter where a cashier, upon seeing me and hearing my accent, started the conversation, "I am so impressed that your country really perfected making freeze dried food."

Madla often has to challenge those who have ill-perceived and poorly treated her because of her non-dominant English accent. So, she did not remain silent when at the employee at Walmart made insensitive comment about her ethnicity. Malda replied asking, "Did you mean Japan?" She said, "Yes." I replied, "But I'm not Japanese." She said, "You know what I mean." At that point, I turned my face and left.

As Malda's counter-narrative indicates, she often has to correct people to get the respect that she deserves—something those who are linguistically privileged do not have to do. Malda was not alone facing this challenge. Findings of this unit suggest that all the participants were subjected to patterns of ethnic, racial, and linguistic stereotypes associated with their accents. They experienced this form of accent discrimination from American native speakers who did not appreciate the diversity of accents. The following section explores cases in which participants felt they never personally experienced accent discrimination but witnessed close relatives and peers experiencing it, and they shared how they were affected by such experience.

Discussion of Testimonios

Section Two: Participants Witnessed Families and Peers Facing Accent Discrimination

Aseya's case.

Aseya is a 24-year-old, African American, undergraduate college student who grew up the middle class in the Southern part of the United States. Growing up, she witnessed her mother's best friend, an immigrant woman from Egypt, being subjected to discrimination because of her "foreign" accent. Specifically, as a child, while accompanying her mother's friend to the local supermarket to buy grocery, she witnessed people insulting her because of her accent.

> When I was younger, my mother had an Egyptian friend that was having a hard time adjusting to living in America. My mother would make me go to the supermarket and

> other stores with her to help out. I can recall how people would treat me, a 9-year-old, with more respect and kindness than they treated Ms. Hannah because I spoke English without an accent, and she had an accent.

Using her mother's friend as a prime example, Aseya unravels the common assumption made about people who speak English in distinct accents. Her narrative points out the extent to which people who speak in non-dominant accents are often assumed to be foreigners who are to be feared, while others are perceived as less intelligent than those who speak in Standard English accent.

> My mother's friend would get treated like a low-class citizen because of her Egyptian accent. People would get frustrated because they couldn't understand her; they would yell curses and tell her to go back to her country.

Having an accent does not interfere with one's cognitive or intellectual capabilities. However, Aseya's narrative about her mother's friend seems to suggest that immigrants who speak in non-dominant English accents are looked down upon and treated as unintelligent. Based on the content of her narrative, she seems to have been affected by such experience. Akayla, another participant, witnessed minority immigrants, including bilingual students at her school, being subjected to ridicule because of their accent.

Akayla's case.

Akayla is a 48-year-old, married Mexican woman. She was born in Mexico and immigrated to the United States with her family when she was a child. She identifies herself as middle class. She was a middle school principal pursuing a doctorate in education at the time of the study. Like Aseya, personally Akayla never felt discriminated against because of her accent. However, she witnessed and continues to bear witness to people, including immigrant students and classmates, being discriminated against because of their accents.

> Growing up in Chicago, I found accents to be fascinating. I enjoyed listening to people speak and tried guessing their country of origin. I knew that I, too, had an accent, but I never felt discriminated against because of my accent. When I was in high school, I remember that students who were newcomers were often made fun of when they communicated in class.

Akayla first acknowledges the beauty in diverse accents and then expresses empathy about those who are subject to accent discrimination saying, "I saw how the students sank into their seats and became withdrawn. I feel bad for the students and knew that aggressors would eventually grow out of their immature behavior." Although she admits that she, too, has an accent, personally Akayla never feels linguistically mistreated because of it.

However, she witnessed immigrant peers facing accent discrimination, which is, as Akaylas' narrative suggests, pervasive in schools and has affected the lives of linguistic minorities, including immigrants of color. Accent discrimination is influenced by dominant ideology leading to systemic linguistic oppression of groups or individuals speaking in accents deviating from the so-called standard accent. Akayla is not the only participant who bore witness to accent discrimination occurring. Joanne, a person of color of mixed heritage also witnessed her mother, an immigrant from the Philippines, being discriminated against because of her accent.

Joanne's case.

Joanne is a 40-year-old, Filipina-American woman, whose father is a U.S. veteran, and her mother was an immigrant from the Philippines. She was an assistant school principal when she participated in this study. Like the previous participants, Joanne believed accents are beautiful and stated that she never felt being discriminated against because of her accent.

However, she witnessed her immigrant mother being humiliated and insulted by strangers for speaking in an accent perceived and treated as "foreign."

> I have witnessed my mother experience accent-based discrimination. She was born in the Philippines and lived there until she was 21 years old. My father, who was in the U.S. Navy, brought her to the U.S. after they met and married in the Philippines. I witnessed my mother experience accent discrimination as a young child when people [would] tell her to go back to where she's from upon hearing her speak English.

Joanne's view about accent is that it reflects one's identity and where one is from. Joanne personally never experienced accent discrimination. However, she witnessed her immigrant mother from the Philippine enduring this systemic oppression. Joanne's *testimonio* suggests that those who speak in non-standard accents are routinely linguistically profiled (Baugh, 2018).

Pablo's case.

Pablo was born and raised in Spain. He is in his 30's and is married with three children, who are bilingual. Pablo is mixed. His mother is a Spaniard, while his father is an immigrant from Ecuador. Pablo, a former EFL (English as a foreign language) teacher, is currently an assistant professor at a university located in the West Coast of the United States. Pablo immigrated to the United States to work as a Spanish teacher.

He then pursued graduate studies after years of teaching both in his native land and in the United States. Upon finishing his doctoral studies, he pursued and secured a university faculty position. Pablo stated that in many of his encounters with people in the United States and Europe, they often make positive comments about his Spaniard accent, while looking down on that of his wife, who is from Ecuador.

> People seem to celebrate more some countries over others, same as they do with races. They probably celebrate some countries over others influenced by country

> variables. When some people have asked me where I'm from and when I say Spain, some of them seem to kind of celebrate. However, when they ask my wife, who is from Ecuador, I notice they don't celebrate anything.

Pablo's narrative further illustrates unequal power relations between standard Spaniard Spanish accent and Latin American Spanish accents. People who are from Spain speaking in standard Spaniard accents tend to be seen through positive linguistic lenses, whereas those from former colonized Spanish territories are often perceived and treated poorly. This linguistic disparity is connected to the persistent effects of the Spanish colonial legacy on Latin America, as linguistically diverse individuals from Latin America and the Caribbean are often ridiculed because of their marked accents.

> Although some people probably celebrate because they know more about Spain than about Ecuador, it seems that some as race (people in Spain are lighter than in Ecuador, a country that is more associated to Indigenous peoples), ethnicity (the culture in Spain is considered better than the culture in Ecuador), class (a European country versus a third-world country), and language (some people tell me about the Castilian Spanish and insist that the Spanish from Spain is the correct and formal Spanish and that Spanish in Latin America is wrong, informal, and non-educated).

Spanish accents from Latin America and the Caribbean are treated as such because of European colonial legacy. They tend to be from different social class and cultural backgrounds than their White European or American counterparts, particularly White middle-class Europeans or Americans, complicating the accent matter. The colonial legacy lingers on and, consequently, places colonized subjects from Latin America in disadvantageous linguistic position.

Discussion of Overall Findings

Accent discrimination is pervasive. Depending on where one's accent originates, one may be subject to insidious forms of accent discrimination. As the case study finding suggests, in the United States, immigrant minorities are routinely subjected to linguistic discrimination because of their non-standard English accent and related factors, such as ethnicity/race and nationality, in addition to their native language. For example, immigrants, including university professors and college students involved in this study whose accents differ from the alleged standard American accent, experience accent discrimination in spite of their academic and professional achievements.

Participants spoke to various ways in which they personally and professionally experienced accent discrimination, including witnessing family members, classmates, and friends being subjected to this form of linguistic oppression; their narratives expose accent biases about non-standard English speakers. Uninformed and biased viewpoints about non-standard accents have influenced the way dominant linguistic groups perceive and treat linguistic minorities, including college bilingual students and professors of color involved in this study. Their *testimonios* also reveal ways in which they challenged accent discrimination and English language hegemony.

Participants' *testimonios* illustrate ways and the degree to which accent discrimination variously affected the lives of linguistic minorities, like Leanne, who personally experienced it. Even though some participants, including Akayla and Joanne, did not personally experience accent discrimination, they witnessed their family members and classmates experiencing it. They took a strong stance against it, claiming that all accents are beautiful. Specifically, Alkayla and Joanne believe that accents reflect a great deal of linguistic diversity, from which American schools and society can benefit.

Drawing from the participants' *testimonios*, it can be argued that having an identifiable non-dominant accent adds many layers to the identity of linguistically and culturally diverse groups, including immigrant students and professionals. However, it is not speaking with the dominant accent that seems to be the issue; rather, it is people's unfavorable attitude toward noticeable non-dominant accents. Accent discrimination has affected native speakers of English, including African Americans and Latinx.

The content of participant's *testimonios* about accent discrimination suggests that one's protection from this systemic oppression depends on what type of English (dialect) one speaks. Linguistic protection is a privilege granted to those who are dominant speakers of Standard English; non-standard speakers of English are often treated unfairly. Their accents are often seen as deviants from Standard English. Abdel's accent, for example, was called "heavy"—a marker particularly associated with immigrant bilingual speakers. Accents constructed as "heavy" do not seem to be appreciated in American classrooms and society at large, even though such an accent is a linguistic asset that can and has contributed to linguistic diversity in American schools and society. Participant's *testimonios* speak to the ways in which the degree of accent discrimination variously affected their lives.

Conclusion

This article documented various ways in which accent discrimination occurred in American schools and other institutions. It highlighted how accent discrimination affects linguistic minorities across language, race, ethnicity, social class, nationality, and gender. As various linguists have documented, people who speak English "with an accent" have often been denied opportunities, including employment, housing, and job promotion (Baugh, 2010, 2018; Lippi-Green, 2012). Very limited opportunities in institutions, like higher education, have been given to those who speak English with a noticeable non-standard accent. In universities and

colleges rarely does one find administrators who English speak "with an accent" occupying key administrative positions, like provost or president.

Denying people opportunities because of their accent–something they do not have control over–is a violation of their linguistic right. Accent discrimination is a systemic linguistic oppression that needs to be taken seriously. It needs to be examined in depth and brought up to the forefront of debates focusing on linguistic and educational issues. Just as there are people who are discriminated against because of their race, ethnicity, religion, sexual orientation, gender, disability, and social class, there are those who are subjected to various forms of linguistic discrimination because of their accents. Linguistically marginalized individuals and groups are frequently prejudged, made fun of, and denied opportunities because of their non-standard accented English. The right to speak with and maintain one's accent is a human right that cannot and should not be denied. This article provided insights into insidious ways in which accent discrimination might have psychologically, academically, and professionally affected linguistic minorities, namely college students, professors, and other professionals. It aimed to raise awareness about and increase interests in accent issues, particularly accent discrimination and language hegemony, and their effects on linguistic minorities, including immigrant bilingual students, professors, administrators, and other professionals.

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