Writing Motivation and Writing Performance of

Culturally and Linguistically Diverse Elementary School Students

by

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ABSTRACT

The purpose of this study was to examine the relationship between writing motivation and performance for students in grades three to five, and whether scores differed based on students' language status, gender, or grade level. Three student language groups were included: (1) emergent bilingual students currently receiving services for English language development (ELD); (2) reclassified bilingual students who had exited ELD programs; and (3) native English-speaking students.

The district administered a performance measure and a motivational measure to participating students ($N = 1126$). Intrinsic and self-regulatory motivation scores were significantly higher for emergent bilingual students (intrinsic $M = 2.07$; self-regulatory $M = 2.48$) and reclassified bilingual students ($M = 1.99$; $M = 2.71$) than their native English-speaking peers ($M = 1.67$; $M = 2.30$). On extrinsic motivation for writing, reclassified bilingual students ($M = 2.69$) scored significantly higher than both emergent bilingual students ($M = 2.49$) and native English speaking student ($M = 2.57$).

Fourth and fifth graders scored significantly higher than third graders on extrinsic ($M = 2.68, 2.74, 2.31$, respectively) and self-regulatory motivation ($M = 2.53, 2.59, 2.21$ respectively), while only fourth graders scored significantly higher than third graders on intrinsic motivation ($M = 1.90, M = 1.76$). The only significant difference by gender was found on extrinsic motivation, where girls ($M = 2.67$) scored higher than boys ($M = 2.53$).

On the district writing test, native English speaking students ($M = 5.15$) scored significantly higher than both reclassified ($M = 4.95$) and emergent bilingual students ($M = 3.94$). Reclassified bilingual students scored significantly higher than emergent bilingual students. In terms of grade, gender, and performance, fifth graders ($M = 5.58$)

scored significantly higher than fourth ($M = 4.56$) and third graders ($M = 4.31$), and girls ($M = 5.07$) scored significantly higher than boys ($M = 4.64$).

Finally, after accounting for significant variance in district writing scores according to language status, gender, and grade ($R^2 = .22$), the motivational incentives for writing significantly predicted an additional 1% of the variance. Findings are discussed according to the Writer(s)-Within-Community model (Graham, 2018).

DEDICATION

Mom – this is for you.

Thank you for your strength, selflessness, dedication, friendship, and unconditional love.

Thank you for never taking the easy road.

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Writing is a dynamic, multifaceted tool that children and adults use for many purposes. Young learners use writing at school to help them better understand reading materials and classroom concepts (Bangert-Drowns et al., 2004; Graham et al., 2020). They also write to demonstrate what they know (Tavşanli et al., 2020) in terms of content knowledge and rhetorical skill (e.g. informing, persuading). Teaching writing improves student outcomes in reading as well (Graham & Hebert, 2011). Beyond school tasks, children and adults use writing for maintaining personal connections (Freedman et al., 2016), social communication on digital platforms, storytelling and imagining in multiple modes, healing psychological and physiological wounds (Graham, 2019; Harris & Graham, 2016;), expressing thoughts and ideas, exploring their identities, addressing social issues, and more (Harris & Graham, 2017; Harris et al., 2019). These purposes expand as children become adolescents, and as adolescents become adults who use writing to complete everyday tasks like making shopping lists or emailing (Rex et al., 2010). Success in college, career, and social life also demands strong literacy skills (Bausmith, 2012) So, if students do not have strong foundations as competent writers, they are at a distinct disadvantage today (Harris & Graham, 2016; Pelatti et al., 2014).

It is not only important that students learn to become competent writers, but that they are motivated writers as well. Researchers have consistently found a positive association between writing motivation and students' writing. Students who are more motivated to write are better writers (Pajares & Johnson, 1996; Pajares & Valiante, 1997; Bruning & Horn, 2000; Graham, 2006; Troia et al., 2012). As Graham and Weiner (2012) indicated, motivation affects "why individuals or organisms behave as they do: What gets their behavior started, and what directs, energizes, sustains, and eventually terminates

action," (2012, p. 367). Accordingly, students' motives for composing influence why, what, and how they write. These contentions are supported by prior research which demonstrates that more motivated writers are more strategic, persistent, and successful writers than less motivated writers (Bruning & Horn, 2000).

Most of the research on children's motivation to write has focused on students' writing in English (see Camacho et al., 2020). Very little research has addressed the writing and writing motivational beliefs of children who attend schools where their native language is not spoken and they are still in the process of an additional language used at school (Camping et al., 2020). In the United States where this study took place, many different terms are used to refer to students whose native language is not English, including English learner, limited or fluent English proficient student, and more. In the current study, the term *emergent bilingual student* was used, as it emphasizes the possibilities of becoming bilingual without focusing on language deficiencies or limits (García, 2009).

This study, which examined children's motivations for writing, included two groups of students learning English at school, and who spoke a different heritage language at home (see Valdés, 2001). One group was *emergent bilingual* (EB) *students* who were actively receiving services for English language development (ELD) as determined by their scores on the English language proficiency assessment utilized by the state. The second group included *reclassified bilingual* (RB) *students* who had previously received ELD services but exited the programs because they reached proficiency as determined by their scores on the state assessment. The study included a third group of

children for comparative purposes. These were *native English* (NE) *speaking students*. Language status (EB, RB, and NE) was determined by the participating school district.

The present study examined if third to fifth grade emergent bilingual and reclassified bilingual students' motives for writing differed from their native English-speaking peers. It was further investigated if children's motives for writing accounted for variance in their writing performance. This study relied on a view of motivation that emphasizes incentives for engaging in writing (Deci & Ryan, 2000; Perkun, 1993; Schiefele et al., 2012), including writing for intrinsic purposes (writing because it is inherently satisfying; Ryan & Deci, 2000), extrinsic purposes (writing because of the prospect for instrumental gain or loss; Cerasoli et al., 2014), and self-regulatory purposes (writing because it provides a mechanism for regulating emotional, psychological, physical, or behavioral states; Zimmerman, 2011).

Theoretical Framework

The theory guiding this study was the Writer(s)-within-Community model (WWC; Graham, 2018). The WWC is based on the premise that the context (i.e., community) in which writing is undertaken as well as cognitive capabilities, resources, and beliefs of those who produce it individually and interactively shape and bound what students write. In terms of motivation, the WWC contends that writers' motivational beliefs influence whether one engages in writing, how much effort is committed, what actions are taken, and how the writers interact with other members of the writing community. Within the WWC model, motivation concerns intention to write. A student can be more or less motivated to write a specific paper (i.e., state) or more or less

motivated to write in general (i.e., trait). The present study focuses on writing motivation as a trait: the habitual and stable intentions to write.

The WWC Model: Writing Motivation

The WWC assumes that there are different amounts and kinds of motivations (Ryan & Deci, 2000), and beliefs about writing motivations operate independently, but they can influence each other (Cerasoli et al., 2014). The model identifies seven writing beliefs that can impact motivation to write. These include: (1) reasons for writing (e.g., intrinsic and extrinsic motivational incentives for writing; Ryan & Deci, 2000) as well as a means for regulating emotional psychological, physical, or behavioral states (Zimmerman, 2011); (2) judgements about the value and utility of writing (e.g., expectancy values; Eccles, 2005); (3) views about one's own writing competence (Elliot & Dweck, 1988); (4) inherent interest in writing as an activity (Hidi & Boscolo, 2007); (5) beliefs about why one is or is not a successful writer (Weiner, 1985); (6) writing identities across time and task (Bazerman, 2016); and (7) views on writing communities and their value (Graham, 2018).

This first belief on intrinsic, extrinsic, and self-regulatory reasons to write was of primary interest in this study. The additional six beliefs in the WWC model were not included in this study as they commonly serve as antecedents, consequences, or both to the reasons for writing examined here (see Schiefele & Schaffner, 2016; Schiefele et al., 2012 for a parallel discussion about reading). To illustrate, the effects of intrinsic motivators depend on antecedents such as competency beliefs about writing capabilities, attitudes about writing, identity as a writer, as well as conceptions of the value and utility of writing. Moreover, these and other beliefs can also be viewed as a consequence of

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reasons for writing. Intrinsic motives for writing about interesting topics may, for example, lead students to write more frequently, resulting in changes in beliefs about the value and utility of writing, competence as writers, interest and attitudes toward writing, identities as writers, and why they are or are not successful when writing (Camping et al., 2020).

The current investigation elucidated reasons why emergent bilingual, reclassified bilingual, and native English-speaking students write (i.e., motives for writing) as related to language status, gender, and grade. Intrinsic, extrinsic, and self-regulatory reasons for writing do not assess all possible writing motivations. But these motivators, which were assessed with the Writing Motivation Questionnaire (WMQ; Graham et al., 2021), have been shown in prior investigations to predict the writing performance of children in general (Camping et al., 2020; Limpo et al., 2020; Rocha et al., 2019).

Intrinsic motivation as measured by the WMQ focused on writing because one can learn new things and write about interesting and important topics (curiosity), and imagine, identify, or immerse themselves in a topic (involvement). Extrinsic motivation, in contrast, involved writing to obtain better grades (grades), be a better writer than others (competition), and be recognized for one's writing (social recognition). Self-regulation motivation with the WMQ focused on writing as a means of addressing or managing feelings (emotional regulation) as well as using writing as a means for alleviating boredom or to pass the time (relief from boredom).

The WWC Model: Experience Writing, Biological, and Environmental Factors

In addition to the writing motivational beliefs that students hold in their long-term memory (LTM) which influence their writing, the WWC model also contends that

there are other influential factors at work. These include students' experiences writing (as they learn by doing) as well as biological and environmental factors. For example, older students tend to be more developed writers, girls are generally more developed writers than boys, and because of environmental and societal barriers there are differences in the writing of students of different races (Harris & Graham, 2016; Graham, 2006). While the WWC model does not directly address the relationships between writing motives, experience with schooling, gender, and race, it seems likely that these factors also influence writing motivation. Even so, previous research has produced mixed results on this topic as to the direction of the relationships between writing motivation and grade level, as well as writing motivation and gender. Camacho et al. (2020) reviewed recent research on writing motivation for students in grades 1-12 and found that girls generally evidenced higher motivation than boys, while no discernible pattern could be found across grade levels. Ekholm et al. (2018) synthesized research on writing attitudes across pk-20. The authors "unanimously found that females tend to have more positive writing attitudes than do males" (p. 18), evident as early as first grade. In terms of grade level, the authors reported a declining trend over time, but also noted that "This decline may not begin immediately when students enter school nor does it necessarily persist throughout students' K-12 education" (Ekholm et al., 2018, p. 18).

These conclusions about writing motivation, gender, and grade level have generally come from studies involving native English speaking students, which leaves a large gap in the knowledge base concerning emergent and reclassified bilingual students. As a result, the student groups in this study were purposefully constructed so that the native English speaking group was matched to the combined emergent and reclassified

bilingual group on grade, gender, and race. This was done to minimize the possible influence of those variables when comparing emergent and reclassified bilingual students to native English-speaking students, and it has only been done in one previous investigation (Camping et al., 2020). In addition, interactive relationships between gender, grade, and students' language status (emergent or reclassified bilingual, and native English speaker) were examined in all analyses involving motivation for writing and writing performance, and variance due to grade and gender were controlled when the relationship between writing motives and writing performance was analyzed.

Previous Research on Writing Motivation and Emergent Bilingual Students

Neugebauer and Howard (2015) studied the writing self-perceptions and performance of 409 native Spanish speakers and native English speakers in fourth grade two-way immersion settings. The authors adapted an existing self-perception scale by adding the phrase "in Spanish" or "in English" at the end of each item (e.g. "I think I am a good writer in Spanish" and "I think I am a good writer in English"). The measure was comprised of subscales about one's perceptions of her/his writing abilities and identity as a writer. The authors sought to delineate whether native Spanish and English speakers differed in their writing self-perceptions in either language or both languages. They found that writing self-perceptions predicted writing performance in both respective languages, but that native English-speaking students scored higher than native Spanish-speaking students in terms of writing performance, perceived progress as writers, and perceived writing skills. Additionally, they reported that self-perceptions were highest for both groups in their native language compared with their new language. Native Spanish speakers had statistically higher scores on writing to improve physiological state (e.g. "I

like how writing makes me feel insider."), observational comparison (e.g. "I write better than other kids in my class."), and total self-perception score when compared to their scores on the other subscales of general progress, specific progress, and social feedback.

In a much earlier study, Ferris and Politzer (1981) investigated writing performance and achievement motivation across two groups of middle school students whose heritage language was Spanish. Group A included students born and schooled in Mexico until 3rd grade receiving instruction in Spanish only, but who moved to the U.S. and received instruction in English only from 4th grade on. Group B included bilinguals born and educated in the U.S. from birth who received only English instruction for all their elementary and middle grade schooling. The motivation measure assessed students' self-reported effort in school ("I try pretty hard to get good grades", or "I try very hard") and the amount of time they spent discussing their progress with teachers ("A little", "Sometimes", or "Often"). Of the 30 students in Group A, 26 reported trying very hard, and 24 reported discussing progress sometimes or often with their teachers. Of the 30 students in Group B, 16 reported trying very hard, and 15 reported discussing progress sometimes or often with their teachers. The authors hypothesized that these differences were the result of either cultural differences in how schools and teachers are valued, or the "congruence between school and home culture" (p. 272) present for the students in Group A.

Chen et al. (2017) conducted a case study with a smaller sample of five "ELLs" between the ages of 9 and 13. Relying on students "Funds of Knowledge" to determine narrative writing topics, the authors provided technological tools for the students to use during composing. Data sources included "home-visits, interviews, questionnaires, pre-

and post-essays, informal observations, and field notes" (p. 31). After triangulating the data, the authors reported positive outcomes in motivation to write and interest in writing when students wrote about topics important to them.

These researchers examined factors related to writing motivation for students acquiring English as a new language. But they did not involve elementary students in common public school settings, actual motivational incentives for writing, or rigorous research designs. This study addresses these issues by including third, fourth, and fifth graders from a large urban public school district, inclusive of students at various level of proficiency. Most importantly, this study examines the unique writing motivations of these students and the relationship of their motivation to their performance. As is seen in the next section, research on writing performance for emergent bilingual students is also lacking.

Previous Research on Writing Performance and Emergent Bilingual Students

Four reviews of research have been conducted in attempts to synthesize what is known about the writing of emergent bilingual students. In their first review of experimental and quasi experimental literacy research with emergent bilinguals, August and Shanahan (2006) located only six studies that involved writing for students between ages 3-18.

August and Shanahan updated this review in 2010, adding just one study with reported writing outcomes for "English language learners". Relevant to the current study, the authors concluded across both reviews that "some amount of teaching of students in their home language was beneficial to English literacy learning (better than English immersion) and that instruction that focused on enhanced teaching of particular literacy

components (e.g., decoding, spelling, writing, comprehension, fluency) was generally beneficial with second-language learners" (p. 342). They also noted in their conclusions that more information was unknown than known in terms of effective literacy instruction and literacy outcomes for "ELLs". Critiques of this review noted the "monolingual English lens" through which the authors summarized existing research (Escamilla, 2009, p. 434). This was problematic in that it led to assumptions about the literacy development of "language minority students" based on what was known for native English speakers, given the lack of research with "second language learners" (Escamilla, 2009, p. 436). An important takeaway here was the need for researchers to delineate writing development specifically for emergent bilingual and reclassified bilingual students by conducting studies with them, rather than relying on what was established in research with native English-speaking students. This need is addressed in the current study by including all three of these student groups.

Fitzgerald (2006) conducted a review of existing literature, but focused specifically on writing research for multilingual students in preschool through twelfth grade rather than literacy research broadly. Unlike August and Shanahan, Fitzgerald included all studies regardless of design or methodology that had been conducted between 1988 and 2003, which revealed a total of fifty-six. Her analyses led her to conclude that "few of the 56 studies demonstrated methodological rigor that might be judged by many to be 'sufficient,'" (2006, p. 338). Fitzgerald offered one contention relevant to the current study: "knowledge/skill can transfer between first- and second-language writing" for students in "primary- and intermediate" grades (p. 350). However, she also noted that any conclusions about writing should be tempered by the fact that it

was only the focus of seven studies. Despite its importance, writing does not seem to be a prominent research domain in literacy studies involving multilingual students. The current study addresses both the need for simply more research in this field, as well as the need for this research to be rigorously designed.

Leki, Cumming, and Silva's (2008), "interpretive, narrative synthesis" and "analytical discussion" of L2 writing research (p. ix) was also relevant to the current study. L2 meant a new/non-heritage language. The authors addressed learning to write in English by reviewing the history of this literature and highlighting certain works. They concluded that "more in-depth study of L2 writing and literacy development, particularly among young writers in elementary and secondary schools," (p.15) should be undertaken, as it could benefit both the fields of L2 literacy research and second language acquisition research to a large degree. Finally, as it relates to the current study, they noted the complex nature of this research in terms of the many factors at work within and around young emergent bilingual writers. The current study addresses these many factors as they pertain to dimensions of writing motivation, as well as the influences of grade and gender which are known to correlate with performance outcomes (National Center for Education Statistics, 2011; Kim et al., 2015; Bruning & Horn, 2000).

Research Questions

The research summarized here showcases the need for further experimental investigations of writing motivation and writing performance among emergent bilingual students in the elementary grades. To answer this call, three research questions were constructed for this study:

RQ 1: Are there statistically significant differences in the intrinsic, extrinsic, and self-regulatory writing motivation scores of students who are identified as emergent bilingual, reclassified bilingual, and native English-speaking; boys and girls; and students in grades three four, and five; and are there any significant interactions between language status, gender, and grade?

RQ 2: Are there statistically significant differences in scores on the district writing test of students who are identified as emergent bilingual, reclassified bilingual, and native English-speaking; boys and girls; and students in grades three four, and five; and are there any significant interactions between language status, gender, and grade?

RQ3: After accounting for grade and gender differences, do intrinsic, extrinsic, and self-regulatory writing motivation scores collectively and uniquely account for a statistically significant portion of the variance in district writing test scores for emergent bilinguals, reclassified bilinguals, and native English-speaking students?

Hypotheses

RQ1: Writing motivation according to language status, grade, and gender. Citing the conclusions of Neugebauer and Howard (2015) that students had their highest writing self-perception scores on social feedback and physiological states in their native language (Spanish or English), the first hypothesis was that *native English speaking students* would score higher than their *emergent bilingual and reclassified bilingual* peers on *extrinsic* and *self-regulatory* writing motivation (given that that measure was administered in English). In terms of *intrinsic* motivation, it was hypothesized that *emergent and reclassified bilingual students* would evidence *higher scores* than *native English speakers* based on Chen et al.'s (2013) findings on the impactful role of utilizing

interesting and important writing topics. Per the mixed findings across major literature syntheses, *no hypotheses* were made for writing motivation based on *gender* or *grade* in the study.

RQ2: Writing performance according to language status, grade, and gender. As reported in several individual research studies (e.g. Kuball & Peck, 1997; Miles, McFadden, & Ehri, 2019, O'Conner, Abedi, & Tung, 2012), higher writing performance scores for native English speaking students as compared with emergent bilingual students was a common finding, and this is also consistent with the most recent national assessment data for writing (National Center for Education Statistics, 2011). Furthermore, as language proficiency increases, students will likely show subsequent performance gains in writing in that language (Lanuaze & Snow, 1989; Echevarria et al., 2006). Thus, it was hypothesized that *native English-speakers* would *score higher* than *reclassified bilinguals* on the district writing measure, and *reclassified bilinguals* would subsequently score *higher* than *emergent bilinguals*. It was also hypothesized that *girls* would *score higher* on the district writing test than *boys* based on prior literature (Graham, 2006) and national data (National Center for Education Statistics, 2011), and that writing scores would *increase with each grade level* given an assumed increase in knowledge over time.

RQ3: Relationship between writing motivation and performance. The hypothesis about the predictive power of writing motivation on writing performance for native English speaking students was based on extant literature supporting this positive relationship (see Lepper et al., 2005; Graham, 2006; Troia et al. 2012). While the dearth in the relevant research base has been outlined for these outcomes as they pertain to

emergent and reclassified bilinguals, a hypothesis was made according to Neugebauer and Howard's (2015) findings of a significant relationship between writing self-perceptions and writing performance for native Spanish and native English speaking students. Thus, across language status groups (EB, RB, and NE) it was hypothesized that *writing motivation scores would predict writing performance scores for all students*.

Method

Setting

The study took place in an urban school district in the Southwest United States. Over 11,000 students were enrolled in the district. The district level demographic data indicated that 51% of students were Latino/a, 21% White, 12% Black, 7% Native American, 2% Asian, and 1% Pacific Islander. In terms of socioeconomic status, data on free and reduced lunch revealed that 74% of students in the district were eligible for these programs.

In grades three to five, the core language arts program used by the district was Harcourt Journeys, which "provides an instructional system for reading both literature and informational texts, for acquiring foundational skills, and for developing mastery of speaking, listening, and writing," (Houghton Mifflin Harcourt, 2019). The district also followed the state's College and Career Ready Standards for writing and reading. These standards were highly similar to the Common Core State Standards.

In addition to the district wide curriculum and standards, the state had in place a mandated model called structured English immersion (SEI) for students with a reported primary home language other than English. The stated goal of the SEI program was for students to rapidly acquire English and transition as soon as possible to mainstream

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instruction. Students who were enrolled in this model participated in four hours of pull-out English instruction every day across the four main literacy domains: speaking, listening, reading, and writing. To determine English language proficiency for initial placement in structured English immersion, and to reassess proficiency on a yearly basis, all districts utilized a state-designed measure that evaluated English literacy skills.

Participants

A total of 1,126 students participated in this study. These students were part of a larger districtwide database examining the writing motivation and writing achievement of students in grades three to eight. Table 1 displays the characteristics for students in each language status group in the current study. Students who were absent on the day of testing and students who were receiving special education services at the time of the study were excluded. First, to form the participant groups by language status, all bilingual participants were identified (those currently in ELD programs and those who had exited/been reclassified) and included in the sample, $N = 563$. The native English-speaking group was then created (also $N = 563$) using stratified random selection, which resulted in a matched sample according to race, gender, and grade. The purpose of this detailed matching procedure was to control for error variance based on demographic differences, and is a unique feature of this study given the impact it has on reducing noise in the analyses based on non-equivalent groups.

Emergent Bilingual Students

A total of 189 students currently receiving services for ELD were in the emergent bilingual group. Of these students, 58 were Latina/o, six were Black, four were Native American, four were Asian, eight were Pacific Islander, eight were White, and one was

Multiple Races. A total of 76 students were in third grade (41 girls, 35 boys, 63 Latina/o, 1 Black, 1 Native American, 2 Asian, 4 Pacific Islander, 5 White). In fourth grade, there were 51 emergent bilingual students (25 girls, 26 boys, 45 Latina/o, 3 Black, 3 Pacific Islander). In fifth grade, there were 62 emergent bilingual students (35 girls, 27 boys, 50 Latina/o, 2 Black, 3 Native American, 2 Asian, 1 Pacific Islander, 3 White, 2 Multiple Races). 101 females and 88 males who were emergent bilingual students participated across all grades.

Table 1

Student characteristics by language status group for grade, gender, and race.

	EB $N = 189$	RB $N = 374$	NE $N = 563$
Grade			
3	76	80	156
4	51	143	194
5	62	151	213
Gender			
F	101	210	311
M	88	164	252
Race			
Latino/a	158	329	487
Black	6	7	13
Native American	4	7	11
Asian	4	18	22
Pacific Islander	8	9	17
White	8	4	12
Multiple Races	1	0	1

Note. EB = emergent bilingual group; RB = reclassified bilingual group; NE = Native English speaking group.

Reclassified Bilingual Students

Because the reclassified bilingual students had exited the structured English immersion program, they were no longer required to take the state English proficiency exam (i.e. all had achieved the *Proficient* designation). There were 374 total students in the reclassified bilingual group. In terms of demographics, 329 were Latina/o, seven were Black, seven were Native, 18 were Asian, nine were Pacific Islander, and four were White. There were 80 reclassified bilingual students in third grade (51 girls, 29 boys, 69 Latina/o, 1 Black, 2 Native American, 5 Asian, 3 Pacific Islander). In fourth grade, there were 143 (76 girls, 67 boys, 125 Latina/o, 4 Black, 3 Native American, 8 Asian, 3 Pacific Islander). And a total of 151 students in this group were in fifth grade (83 girls, 68 boys, 135 Latina/o, 2 Black, 2 Native America, 5 Asian, 3 Pacific Islander, 4 White). Across all grades, there were 210 females and 164 males who were reclassified bilingual students.

Native English-Speaking Students

The third group of students in this study was native English-speakers ($N = 563$). These were students whose primary home language was English, and they were from the same district and at the same grade levels as their bilingual peers. Of the 563 native English-speakers, 487 were Latina/o, 13 were Black, 11 were Native, 22 were Asian, 17 were Pacific Islander, 12 were White, and one was Multiple Races. There were 156 in third grade (92 girls, 64 boys, 132 Latina/o, 2 Black, 3 Native American, 8 Asian, 6 Pacific Islander), 194 in fourth grade (101 girls, 83 boys, 170 Latina/o, 7 Black, 3 Native American, 8 Asian, 6 Pacific Islander), and 213 in fifth grade (118 girls, 95 boys, 185 Latina/o, 4 Black, 5 Native American, 7 Asian, 4 Pacific Islander, 7 White, 1 Multiple

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Races). A total of 311 females and 252 males participated in the native English speaking student group across these three grades.

Measures and Scoring

Writing Motivation Questionnaire

The Writing Motivation Questionnaire (WMQ; Appendix A) was utilized for measuring intrinsic, extrinsic, and self-regulatory motivations to write (Graham et al., 2019). The WMQ stemmed from Schiefele and Schaffner's (2016) reading motivation questionnaire, which relied on self-determination theory (Ryan & Deci, 2000) to ascertain incentives for engaging in reading. Graham et al. (2019) adapted the reading motivation questionnaire into the Writing Motivation Questionnaire, tested and factor analyzed the measure with a large sample of fourth and fifth graders, and concluded with this hypothesized three-factor structure for writing motivation:

- intrinsic motivation to write (i.e. because of curiosity – to learn more about a topic of interest – and involvement – to become part of the writing experience);
- extrinsic motivation to write (i.e. for social recognition – to obtain recognition for one's writing, for grades – to improve performance at school, and for competition – to do better academically than other students); and
- self-regulatory motivation to write (i.e. for emotional regulation – to cope with negative emotions, and for relief from boredom – to write to overcome tedium).

Rocha et al. (2019), Limpo, Filipe, et al. (2020), and Limpo, Vigário, et al. (2020) also confirmed with this structure in their research.

Four items were removed from the WMQ prior to data analysis in the current study because they cross-loaded on more than one factor in previous validation research

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for the development of the WMQ (14, 16, 21, 27; Graham et al., 2021). Using student responses from the current study, a principal component analysis (PCA) was conducted with direct oblimin rotation to determine if the forced three-factor structure held. Communalities and factor loadings were evaluated via the pattern matrix, and four additional items on the WMQ (2, 4, 12, and 28) double loaded at greater than .40 on two factors. These items were removed and the PCA was rerun. After removing these, all items loaded on a single factor and aligned with the three-factor structure of writing motivation, accounting for 41.75% of score variance. Factor 1 was intrinsic motivation, factor 2 was extrinsic motivation, and factor 3 was self-regulatory motivation. The removed items were on factor 2, writing for extrinsic motivation. Each of these items specifically assessed a student's motivation to write for getting good grades. Reliability coefficients (alpha) for the three motivational subscales (intrinsic, extrinsic, and self-regulatory) were 0.75, 0.73, and 0.75 respectively.

In terms of administration and scoring, students selected the extent to which they agreed with each item statement based on the following options: Very True, Mostly True, Sometimes True, or Not True At All. These were scored from one to four, and then reversed during analyses so that higher scores equated to higher reported agreement (e.g. 4 = Very True, 1 = Not True At All).

District Writing Test

To assess writing performance, data from the district's existing writing test were used. This test was designed to parallel the state's standardized writing test in order to support instructional preparation based on students' outcomes. Students in grades three to five were given an informative/explanatory prompt about the advantages and

disadvantages of technology. They were provided three relevant articles and a video on the topic, and were encouraged to draw from the sources to find facts and information to include in their writing. Students were directed to use their time strategically as they reviewed sources, wrote, revised, and edited. They had the full school day to complete their essays. A composite score was derived for each student based on three dimensions of writing quality: purpose/focus and organization (four points), evidence and elaboration (four points), and conventions (two points). A grade-level proficient writing score was between eight and ten. A partially proficient grade-level writing score was between five and seven. Minimal proficiency at grade level was between zero and four. Reliability (based on kappa) for scoring students' essays was 0.83 for purpose/focus and organization, 0.85 for evidence and elaboration, and 0.77 for conventions.

Procedures and Data Collection

Approval from the Institutional Review Board, consent, and assent were received prior to any research activities involving students and their data. All students were first administered the Writing Motivation Questionnaire and then the district writing measure in fall of the school year by their classroom teachers, according to the regular test administration processes in place across the district. Teachers read aloud the instructions for each test, and also read aloud each item on the Writing Motivation Questionnaire.

Analysis

The first step in the analysis was testing assumptions of normality, equal variances between groups, and independence of observations. No violations resulted. Then to answer research question 1, three analyses of variance were conducted – one each with intrinsic, extrinsic, and self-regulatory writing motivations as dependent

variables. The results of each 3 (language status) X 3 (grade) X 2 (gender) Analysis of Variance (ANOVA) were evaluated, and pairwise comparisons utilized for post hoc follow up on significant main effects. Fisher's (1935) least significant difference procedure was used, as described by Levin, Serlin, and Seaman (1994) for situations where there are three groups ($k = 3$ and DF = 2).

For research question 2, a single 3 (language status) X 3 (grade) X 2 (gender) ANOVA was conducted with district writing score as the dependent variable. Any significant main effects were followed up by post-hoc analyses in the same manner as for research question 1.

Finally, for research question 3, a hierarchical linear regression was conducted. Each block was constructed based on causal priority, such that "no IV entering later should be a presumptive cause of an IV that has been entered earlier," (Cohen et al., 2013, p. 158). Accordingly, student language status, gender, and grade were entered into the first block. These categorical variables were dummy coded for the analysis so that the reference group was female native English-speaking students in third grade. Then the three motivational incentives were entered into the second block to determine if they collectively and/or uniquely predicted writing scores (the outcome variable). These were mean centered prior to the regression and prior to calculating interaction terms in order to reduce issues of multicollinearity. The last block included hypothesized interactions with language status and the motivational incentives.

<center>**Results**</center>

RQ 1: Relation of Language Status, Gender, and Grade to Writing Motivation

Intrinsic Motivation

   Students' intrinsic motivation scores by language status, gender, and grade are presented in Table 2. A 3 (language status) x 2 (gender) x 3 (grade) ANOVA revealed that students evidenced differences in their intrinsic motivation. Statistically significant main effects for language status, $F (2, 1108) = 58.25$ at $p < .001$, and grade-level, $F (2, 1108) = 6.40$ at $p = .002$, were obtained. Post hoc analyses for language status using Fisher's LSD indicated that both emergent bilinguals ($M = 2.07$) and reclassified bilinguals ($M = 1.99$) had statistically higher intrinsic motivation scores than native English speakers ($M = 1.67$) at $p = .001$. Emergent and reclassified bilinguals did not differ statistically. Post hoc analyses for grade-level indicated that fourth-graders ($M = 1.88$) had higher intrinsic motivation scores than third-graders ($M = 1.74$) at $p = .001$. No other statistically significant differences were found for grade-level. Additionally, the main effect for gender was not statistically significant, and none of the interactions were statistically significant.

Extrinsic Motivation

   Students' extrinsic motivation scores by language status, gender, and grade are presented in Table 2. A 3 (language status) x 2 (gender) x 3 (grade) ANOVA revealed that students evidenced differences in their extrinsic motivation. Statistically significant main effects for language status, $F (2, 1108) = 4.22$ at $p = .015$, grade-level, $F (2, 1108) = 29.65$ at $p < .001$, and gender, $F (1, 1108) = 5.34$ at p = .021 were obtained. Post hoc analyses for language status using Fisher's LSD indicated that reclassified bilinguals (M

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= 2.70) scored statistically significantly higher than both emergent bilinguals ($M = 2.49$) and native English speakers ($M = 2.57$) at $p = .001$ and $p = .005$ respectively. Emergent bilingual students and native English speaking students did not differ statistically. Post hoc analyses for grade-level indicated that both fourth-graders ($M = 2.68$) and fifth-graders ($M = 2.74$) scored statistically significantly higher than third-graders ($M = 2.31$) at $p < .001$. No other statistically significant differences were found for grade-level. Additionally, the main effect for gender was statistically significant, with girls ($M = 2.67$) scoring higher than boys ($M = 2.53$) at $p < .05$. None of the interactions were statistically significant.

Self-Regulatory Motivation

Students' self-regulatory motivation scores by language status, gender, and grade are presented in Table 2. A 3 (language status) x 2 (gender) x 3 (grade) ANOVA revealed that students evidenced differences in their self-regulatory motivation. Statistically significant main effects for language status, $F (2, 1108) = 38.52$ at $p < .001$, and grade-level, $F (2, 1108) = 18.70$ at $p < .001$, were obtained. Post hoc analyses for language status using Fisher's LSD indicated that both emergent bilinguals ($M = 2.48$) and reclassified bilinguals ($M = 2.71$) scored statistically significantly higher than native English speakers ($M = 2.30$) at $p = .001$ and $p < .001$ respectively. Reclassified bilingual students scored statistically significantly higher than emergent bilingual students as well at $p < .001$. Post hoc analyses for grade-level indicated that both fourth-graders ($M = 2.53$) and fifth-graders ($M = 2.59$) scored statistically significantly higher than third-graders ($M = 2.21$) at $p < .001$. No other statistically significant differences were found for grade-

level. The main effect for gender was not statistically significant. None of the interactions were statistically significant.

RQ 2: Impact of Language Status, Gender, and Grade on District Writing Test

Students' district writing scores by language status, gender, and grade are presented in Table 2. The overall mean scores for emergent bilinguals, reclassified bilinguals, and native English speakers were 3.94, 4.95, and 5.15 respectively. Emergent bilinguals' scores fell in the minimally proficient range (zero to four), while reclassified bilinguals' scores were nearing the proficient range (five to seven), and native English speakers scores had reached the proficiency range. A 3 (language status) x 2 (gender) x 3 (grade) ANOVA revealed that students evidenced differences in their writing performance. Statistically significant main effects for language status, F (2, 1108) = 47.74 at $p < .001$ at $p = .015$, grade-level, F (2, 1108) = 79.89 at $p < .001$, and gender, F (1, 1108) = 15.87 at $p < .001$ were obtained. Post hoc analyses for language status using Fisher's LSD indicated that native English speaking students ($M = 5.15$) scored statistically significantly higher than both reclassified bilingual students ($M = 4.95$) and emergent bilingual students ($M = 3.94$) at $p = .026$ and $p < .001$ respectively. Reclassified bilingual students scored statistically significantly higher than emergent bilingual students as well at $p < .001$. Post hoc analyses for grade level using Fisher's LSD revealed that fifth-graders ($M = 5.58$) scored statistically significantly higher than both fourth-graders ($M = 4.56$) and third-graders ($M = 4.31$) at $p < .001$. Fourth graders also scored statistically significantly higher than third graders at $p = .019$. Additionally, the main effect for gender was statistically significant, with girls ($M = 5.07$) scoring statistically

significantly higher than boys ($M = 4.64$). None of the interactions were statistically

significant.

RQ 3: Relation of Motivation to Writing Performance

In order to determine if writing motivation accounted for unique variance in

students' scores on the district writing test, a hierarchical multiple regression was

performed. Given the categorical nature of the demographic variables, dummy codes

were computed and utilized such that the reference group was third-grade female native

English speakers. The main effects of language status, grade, and gender were entered

into block one. The predictors of intrinsic, extrinsic, and self-regulatory writing

motivation scores were entered into block two. The interaction terms of language status

by motivation scores were entered into block three.

Block one of demographic characteristics was statistically significant, F (5, 1120)

$= 63.36$ at $p<.001$, accounting for 22% of the variance in district writing scores. The

addition of writing motivation scores at block two was statistically significant and

accounted for an additional 1% of variance in district writing scores, F (8, 1117) = 41.55

at $p = .005$. Block three was not statistically significant, F (14, 1111) = 23.98 at $p = .684$,

$\Delta R^2 = .003$.

At block two, the mean district writing score of the reference group (third-grade

female native English speakers) was 4.384. The language statuses of emergent bilingual

($B = -1.098$) or reclassified bilingual ($B = -.258$) negatively predicted district writing

scores, $p <.001$ and $p =.006$ respectively. Grade level was a positive predictor only at

grade five ($B = 1.093$), $p<.001$. In terms of writing motivation, extrinsic was a positive

predictor ($B = .184$), $p=.006$. As mentioned, no interaction terms were statistically

significant in block 3. Coefficients and statistics for all three models are presented in Table 3, and correlations for students in each language group are displayed in Tables 4, 5, and 6. The statically significant model from block two can be represented by the following equation: ŷ = -.390(male) – 1.098 (emergent bilingual) - .258 (reclassified bilingual) + .1.093 (gr5) + .184 (extrinsic writing motivation) + 4.384.

Discussion

The purpose of this cross-sectional, correlational study was to examine the writing motives and writing performance of emergent and reclassified bilingual students, and native English speaking students. Three research questions were asked in order to determine similarities and differences in the writing motives and performance of the three groups of students, as well as to examine if writing motives predicted writing performance, while at the same time considering the role of language status, gender, and grade. The theoretical basis for the study was the WWC model (Graham, 2018) which contends that students' intrinsic, extrinsic, and self-regulatory motivations for writing influence what, why, and how they write. In this section, the findings are discussed and recommendations for future research are provided.

Language Status and Writing Motivation

Explaining Intrinsic Writing Motivation Outcomes

The average scores of both emergent and reclassified bilingual students for intrinsic motivation indicated agreement that it was sometimes true that curiosity and involvement played a role in why they wrote. For native English speaking students, this was either not true at all or sometimes true. As predicted, emergent and reclassified bilingual students scored significantly higher on intrinsic motivation than native English

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speaking students. This aligned with Chen et al.'s (2013) findings on selecting writing topics of interest to students acquiring English in order to support motivation. This was also consistent with previous research findings with older students (grades six and seven), where emergent and reclassified bilingual students had higher intrinsic writing motivation scores than native English speaking students (Camping et al., 2020). However, as these were the only two previous studies relevant to intrinsic outcomes, it is difficult to offer potential reasons for the group differences. Practical significance is evident based on the medium effect sizes of 0.74 and 0.58 (see Table 2), and raises questions about the frequency in which emergent and reclassified bilingual students engage in writing for inherent enjoyment in comparison to their native English-speaking peers, as well as the extent to which they value writing as a means to learn/explore new ideas.

The generally low scores overall for students in this study may reflect limited opportunities for them to write about topics of interest to them in ELD and mainstream settings, as many teachers utilize writing for short answer tasks or writing about read material rather than offering time for inquiry and research (Gilbert & Graham, 2010). The implied setting for each of the writing intrinsic motivation items on the WMQ may have also impacted students' responses. While school settings were not explicitly mentioned in the WMQ, the fact that students took the assessment at school could have framed their point of reference and removed notions of enjoyable writing activities in which they engage at home or in other non-school settings. Future research should examine whether outcomes differ when a setting is specified (home, school, community organization, other programs), as these different writing communities bring different resources and writing beliefs to bear.

Table 2

Means, standard deviations, and effect sizes on all dependent variables for student groups by language status, grade, and gender.

	Language Status M (SD)	Post-hoc	d	Grade M (SD)	Post-hoc	d	Gender M (SD)	d
District Writing	EB: 3.94 *(1.27)* RB: 4.95 *(1.50)* NE: 5.15 *(1.51)*	NE > RB*,EB***	0.13, 0.88	3: 4.31 *(1.37)* 4: 4.56 *(1.45)* 5: 5.58 *(1.45)*	5 > 4***, 3* 4 >3*	0.70, 0.90 0.18	F: 5.07 *(1.56)*** M: 4.64 *(1.47)*	0.28
		RB > EB***	0.73					
Intrinsic Motivation	EB: 2.07 *(.59)* RB: 1.99 *(.62)* NE: 1.67 *(.48)*	EB, RB > NE***	0.74, 0.58	3: 1.76 *(.54)* 4: 1.90 *(.62)* 5: 1.84 *(.56)*	4 > 3**	0.24	F: 1.81 *(.57)* M: 1.88 *(.59)*	0.12
Extrinsic Motivation	EB: 2.49 *(.68)* RB: 2.69 *(.69)* NE: 2.57 *(.68)*	RB > NE**, EB**	0.18, 0.29	3: 2.31 *(.66)* 4: 2.68 *(.67)* 5: 2.74 *(.66)*	5, 4 >3***	0.65, 0.56	F: 2.67 *(.72)** M: 2.53 *(.64)*	0.21
Self-Regulatory Motivation	EB: 2.48 *(.70)* RB: 2.71 *(.72)* NE: 2.30 *(.65)*	RB > EB***,NE***	0.32, 0.60	3: 2.21 *(.65)* 4: 2.53 *(.67)* 5: 2.59 *(.72)*	5, 4 > 3***	0.55, 0.48	F: 2.44 *(.73)* M: 2.50 *(.67)*	0.09
		EB > NE**	0.27					

Note. EB = emergent bilingual; RB = reclassified bilingual; NE = Native English speaker
*p<.05, ** p<.01, *** p<.001

Table 3

Hierarchical multiple regression results for the statistically significant model which accounted for the most variance in district writing scores.

	B	*SE B*	B	*t*	sr^2	*F*	R^2
Intercept	4.384	.196		22.323		41.554*	.229
Male	-1.098	.082	-.127	-4.757**	.016		
EB	-.258	.119	-.268	-9.255**	.059		
RB	.093	.095	-.079	-2.727*	.005		
Grade 5	1.093	.106	.346	10.348**	.074		
Grade 4	-.390	.107	.029	.874	.001		
Intrinsic	-.116	.080	-.044	-1.443	.001		
Extrinsic	.184	.067	.082	2.757*	.005		
Self-Regulatory	.092	.069	.042	1.338	.001		

Note. Reference group was native English speaking female students in grade three. *$p <.01$, **$p <.001$.
Squared semi-partial correlation (sr^2) indicates the unique amount of variance the predictor brings to the model.

Table 4

Bivariate correlations among independent variables for emergent bilingual students

	1	2	3	4	5
1. Gender	–	-0.02	0.10	-0.01	0.01
2. Grade		–	0.07	0.21**	0.12
3. Intrinsic			–	0.45**	0.50**
4. Extrinsic				–	0.55**
5. Self-regulatory					–

*N = 189, *p<.05, **p<.01*

Table 5

Bivariate correlations among independent variables for reclassified bilingual students

	1	2	3	4	5
1. Gender	–	0.06	0.06	-0.06	0.04
2. Grade		–	-0.05	0.16**	0.16**
3. Intrinsic			–	0.39**	0.49**
4. Extrinsic				–	0.46**
5. Self-regulatory					–

*N = 374, *p<.05, **p<.01*

Table 6

Bivariate correlations among independent variables for native English-speaking students

	1	2	3	4	5
1. Gender	–	0.02	0.09*	0.12**	0.07
2. Grade		–	0.11*	0.25**	0.27**
3. Intrinsic			–	0.12**	0.20**
4. Extrinsic				–	0.23**
5. Self-regulatory					–

*N = 563, *p<.05, **p<.01*

Explaining Extrinsic Writing Motivation Outcomes

For extrinsic motivation, predictions were based on the findings of Neugebauer and Howard (2015). In their study, the authors found that social feedback and observational comparison scores were highest for students in their native language (both Spanish and English). As the WMQ and District Writing Test were delivered in English, the hypothesis was that *native English-speaking students* would evidence *higher scores* than their *emergent bilingual and reclassified bilingual peers*. These predictions were not met in the current study. Reclassified bilingual students scored significantly higher (nearing scores of 3 or Mostly True) than both emergent bilingual students and native English speaking students (who scored between 2 and 3 or Sometimes True and Mostly True). The latter two groups did not differ.

A possible explanation for this outcome is that writing activities likely focused on skill-building in ELD settings. Emergent bilingual students may have had limited opportunities to engage socially with peers in writing, or to gauge their abilities against

others. The fact that reclassified bilinguals were the most motivated extrinsically compared to their peers in either group can also be explained by writing community membership: having recently exited ELD pullout instruction, reclassified bilinguals became new participants in the mainstream writing community, which represented an environmental change away from the isolated ELD setting. They were also experiencing a confluence of changes in writing capability. As noted in the WWC model: "Writing development is simultaneously shaped by participation in writing communities and individual changes in the capabilities of community members, which interact with biological, neurological, physical, and environmental factors" (Graham, 2018, p. 274).

Understanding why reclassified bilingual students also scored higher than native English speaking students on extrinsic writing motivation is more difficult to understand. Previous research (Graham, 2006, Ekholm et al., 2018) has found that writing motivation generally declines over time. Longitudinal research at K-12 would provide further insights as to whether/when native English speaking students begin experiencing this decline.

Explaining Self-regulatory Writing Motivation Outcomes

Predictions for self-regulatory motivation were similarly based on the findings of Neugebauer and Howard (2015) wherein students scored highest on the physiological states subscale of the writing self-perception measure when items referenced their native languages. Again, as the WMQ and District Writing Test were delivered in English, the hypothesis was that *native English-speaking students* would evidence *higher scores* than their *emergent bilingual and reclassified bilingual peers* on self-regulatory motivation. These predictions were not met in the current study, and in fact the opposite outcomes

were found: both emergent and reclassified bilingual students were significantly more motivated to write for self-regulatory reasons than native English speaking students (Camping et al., 2020 found similar results with older students). In addition, reclassified bilingual students were significantly more motivated on this aspect than emergent bilingual students. Of particular interest in terms of the practical significance of these outcomes is the medium effect size (0.60) for reclassified bilingual students' scores over native-English speaking students'.

One possible explanation for the differences in writing for self-regulatory reasons could be that emergent and reclassified bilinguals relied more on self-regulatory writing practices as a means to navigate the challenge of combined language learning and content learning. Writing for self-regulation is not a common practice in U.S. classrooms as compared with writing-to-learn tasks (see Gilbert & Graham, 2010), but it could be that emergent and reclassified bilingual students engaged in these exercises prior to entering and during ELD instruction, or in their home lives to express a variety of emotions. The differences between reclassified and emergent bilingual students need further investigation. Interviews about their self-regulatory writing practices, as well as their interpretation of WMQ scale items would be particularly important to understand.

Gender, Grade, Language Status and Writing Motivation

Gender and Language Status

In the current study, *no predictions* were made about the association of gender, language status, and writing motives. This was because of mixed findings concerning the relationships of similar variables in prior research (Camacho et al., 2020; Ekholm et al., 2018) as well as the linguistic diversity of the groups of students investigated in this

study (prior studies with writing motivation did not separately examine emergent or reclassified bilingual students). In the current investigation, language status did not interact with gender for any of the writing motivation measures. Collective gender outcomes for all students only differed significantly in one instance: girls had higher extrinsic writing motivation scores than boys.

Several related studies involving elementary-age girls and constructs related to writing motivation found similar results, but were not necessarily focused on *extrinsic motivation* (Pajares & Valiante, 1997 - girls were more interested than boys; Ekholm et al., 2018 - girls had more positive attitudes than boys; Graham et al., 2017 – girls were more self-efficacious than boys). Given the mixed findings in the prior literature (e.g., Camacho et al., 2020), and the need to explicitly study extrinsic writing motivation as well as other motives for writing, it is important to replicate the current study and determine if similar outcomes for gender are obtained.

One possible explanation for the gender outcomes in the current study may be that students at these earlier grade levels have not developed "gendered" views of writing. Troia et al. (2012) discussed how writing may be stereotyped as a feminine activity in the minds of students over time, which was also found in Pajares' 2003 review. Perhaps this has not yet taken place for the elementary schoolers in the current study, and thus motivational gaps between girls and boys have not taken root.

Grade and Language Status

Like gender, *no hypotheses* were proffered for the relations between grade, language status, and writing motivation. This decision was based on the same rationale as the one for gender (i.e., mixed findings in prior research and the diversity of the current

sample of students). Again, no statistically significant interactions between grade and language status were found as they concerned students' writing motivations. Fourth and fifth grade students had significantly higher extrinsic and self-regulatory writing motivation scores than third grade students. For intrinsic motivation, only fourth grade students had significantly higher intrinsic scores than third grade students. There were no significant differences in the scores of fourth and fifth grade students on any of the three different types of writing motivation.

The spike from third to fourth grade needs further investigation to determine if it can be replicated, as does the lack of significant difference between fourth and fifth grade. In particular, the medium effect sizes for the extrinsic (0.65 and 0.56) and intrinsic (0.55 and 0.48) scores of students in grades five and four compared to the scores of students in grade three warrant further study.

It would be helpful to understand whether and how writing instruction changes or remains the same across these grade levels, and whether that has a significant association with students' motives for writing. This research also needs to be expanded across a larger range of ages and studied longitudinally.

Language Status, Gender, Grade, and Writing Performance

The writing performance measure used in this study measured three aspects of writing which yielded a single score summed across the three traits measures. It was measured with a district rubric which considered students' essays in terms of purpose (focus and organization), elaboration (evidence and ideation) and conventions (grammar, punctuation, syntax) for a total of 10 possible points.

Performance predictions were based on extant research (e.g. Neugebauer &

Howard, 2015; Kuball & Peck, 1997; Miles, McFadden, & Ehri, 2019, O'Conner, Abedi,

& Tung, 2012) and national achievement data (National Center for Education Statistics,

2011). It was hypothesized that *native English-speakers* would *score higher* than

reclassified bilinguals on the district writing measure, and *reclassified bilinguals* would

subsequently score *higher* than *emergent bilinguals*. It was also hypothesized that *girls*

would *score higher* on the district writing test than *boys* also based on prior literature and

national data, and that writing scores would *increase with each grade level* given an

increase in knowledge over time.

All outcomes met these predictions in the current study. Native English-speaking

students scored significantly higher than both groups of bilingual students, and

reclassified bilingual students scored significantly higher than emergent bilingual

students. As emergent bilingual students were still receiving services for ELD, it is

logical that their scores would be lower than reclassified students who had exited these

programs. Similarly it is logical that native English speaking students would score higher

than the bilingual students in both groups as the performance measure was administered

in their home language. Gender was significantly related to students' writing scores, with

girls scoring higher than boys, although the observed differences in gender did not

interact with student language status. In addition, scores also increased significantly at

each grade level. In general, student knowledge, strategies, and skills tend to improve

over time and with membership in writing communities (Graham, 2018), which translates

to improvements in performance.

Relationship Between Motivation and Performance

It was hypothesized that *writing motivation scores would predict writing performance scores for all students* based on the findings of Neugebauer and Howard (2015) involving linguistically diverse students, and extant research involving native English speaking students (Lepper et al., 2005; Graham, 2006; Troia et al. 2012) supporting this relationship. Language status, gender, and grade level accounted for a statistically significant 22% of the variance in district writing scores. As predicted, the addition of the writing motivation scores resulted in a statistically significant increase in the amount of variance accounted for as well. These motives for writing, however, only accounted for a unique 1% of the variance in students' scores. When all variables were entered into model, only extrinsic writing motivation scores made a unique and statistically significant contribution to predicting students' writing performance. In addition, there were no interactions between language status and motivation scores.

A similar 1% of variance was explained by another motivational belief - attitudes toward writing - in a study by Knudson (1995). If the findings from the current study are replicated, additional research is needed to determine why motives to write were not more predictive of students' writing. It is possible that there is a disconnect between the writing motives of young developing writers and the actions they take as writers. It is also possible that elementary grade students who are in the process of developing metalinguistic awareness (e.g. Bialystok, 1993) may also be developing an awareness of their own motives to write, which could reduce the predictive power of writing motivation scores. Further, elementary school children and the contexts in which they live are highly variable, and there may be many other factors influencing the relationship

between motivation and performance such as culture, SES, and experience writing outside of school.

Limitations and Directions for Future Research

The limitations of this study center on the cross sectional and descriptive nature of the data which prohibits causal claims, as well as the matching procedure. The procedure, although rigorous, did not ensure group equivalence on or account for all possible variables that could influence the outcomes of this experiment (e.g. SES, cultural background, migrant status, heritage language literacy skills). In addition, the WMQ measure did not assess all aspects of student motives for writing. For example, students' self-regulation motives could be for controlling behaviors or monitoring writing processes; their extrinsic motives could be based on tangible rewards rather than social or competitive ones; or their intrinsic motivation could reflect a basic personal desire to improve. Other incentives for writing that were not assessed here could have also been influential to students and need future study, such as genre and audience preferences, goals for writing, background knowledge, and writing in a variety of mediums/settings.

Further, it was not possible to directly confirm the linguistic identities of the students in any language status group. For example, students who were native English speakers may have indeed spoken English as their native language, or perhaps for some their heritage language was Spanish but they were fluent in English, so their parents indicated English as a primary language on the district survey. As another example, bilingual students could have in fact been multilingual in more than just two languages, or they could have been orally proficient in a heritage language besides English, but not proficient writers in their heritage language. Information on these students' native

language was provided by the school district and subject to interpretation and disclosure by parents/guardians (see Lee et al.'s 2015 discussion of parent attitudes toward bilingualism), and there were no additional data on their literacy skills across domains or languages. Thus, future research needs to collect more information on students' native and heritage languages as well as their competence and skill in those languages in terms of speaking, listening, reading, and writing.

Lastly, the study was conducted in a single school system with majority Latina/o students. Emergent bilingual students in different settings and with different demographic characteristics need to be studied, as do the various ways teachers may or may not support students during testing. In addition, more information on the training of scorers and fidelity of test administration by teachers and district staff would be helpful. While this study provides initial findings and a springboard to necessary future research, the findings and implications must be interpreted with these limitations in mind.

That being said, the findings illuminate multiple directions for additional research. In terms of intrinsic motivation, researchers should investigate what types of writing communities elementary emergent and reclassified bilingual students participate in beyond school, and what topics are of greatest interest to them. The oral histories and family traditions of culturally and linguistically diverse students are important to consider in this vein. Within the school context, it would also be important to research what instructional methods/teacher actions/lessons/activities emergent and reclassified bilingual students find most motivating, and why. This could lead to insights into how these things can be more effectively integrated to support motivation as well as writing

growth. More broadly, the low scores for all students on intrinsic motivation generate questions about how it can be fostered and sustained in mainstream settings long term.

The results in this study for extrinsic motivation lead to questions about whether the trajectory continues trending upward over time for emergent and reclassified bilingual students, or whether it levels off or decreases as it does for native English speakers in previous research (Ekholm et al., 2018; Graham, 2006). Future research should also explore whether items about grades as a motive for writing load in a factor or components analysis using data from students in similar and different samples. Relatedly, it is important to look at how motivated emergent and reclassified bilingual students are to write for school-related purposes, such as improving grades, learning new content, and critical thinking. A qualitative line of inquiry should also be undertaken to answer the following questions: How do emergent and reclassified bilingual conceptualize the role of writing in their education? How is this similar to or different than their conceptualizations of, for example, math's role or science's role? Is there a relationship between these conceptualizations and motivation over time? If so, how can writing be shifted to a place of greater value via teacher and school approaches?

Future research on self-regulatory motivation to write would also be valuable. In particular, and as other researchers have previously called for, it is important to learn more about how emergent and reclassified bilingual students utilize writing for self-regulatory purposes outside of school.

Beyond these three incentives for writing, future research should also include aspects of writing communities that influence writers, as described in the WWC model (Graham, 2018). The present study did not look at the role played by political,

institutional, or historical variables in terms of shaping writers' motives. Access to tools that support writing and membership in a community, such as word processors and internet, should also be investigated. In particular, researchers could employ cognitive interviewing to ascertain such insights from participants themselves, and explore students' metalinguistic awareness at different stages of language proficiency. Collectively, this could influence the development of a more comprehensive writing motivation measure, inclusive of the most salient writing motives for culturally and linguistically diverse students.

Concerning writing performance, the findings in the current study lead to questions about why girls tend to perform better than boys on writing assessments, and whether motivation may play a role. How do girls and boys view specific writing activities given their gender? Researchers should also consider the impact of language status at higher grade levels, and whether lower or higher proficiency at these grade levels results in similar outcomes to those seen in elementary schoolers from the same proficiency profiles. Finally, issues of writing assessment of emergent bilingual students need to be considered in future research. Intensity and frequency of standardized testing for proficiency benchmarks can be fatiguing and lead to arbitrary categorization which is highly variable (Garcia & Kleifgen, 2018). The district writing test utilized herein was a standardized measure put in place by the district to mimic the state test as a preparative tool. In this case, the interpretation of performance scores may not have been valid for the emergent and reclassified bilingual students, nor is it able to measure their heritage language literacy skills, which are known to support the acquisition of additional languages (e.g. Genesee et al., 2006).

Summary and Conclusions

In conclusion, a major purpose of this research was to add to an important but limited knowledge base. This purpose was achieved, and the research findings herein indicate many directions for future inquiry. Another major purpose was to understand the writing motivational profiles of linguistically diverse students in more depth so they can be recognized, valued, and supported, with a long-term goal of improving the persisting disparities in writing outcomes. While higher motivation in this study collectively led to higher writing performance, it accounted for a relatively small amount of significant variability, and only extrinsic motivation made a unique statistical impact. Nevertheless, the practical significance of the findings as evidenced by the medium effect sizes warrant follow-up. In order to harness the power of writing motivation, it will be important to study whether it remains stable, increases, or decreases over time, what instructional practices impact that trajectory, and how motivation impacts writing performance long term for linguistically diverse students. Knowing that emergent and reclassified bilingual students possess strong extrinsic motivation, it is possible to begin (re)considering the ways writing is utilized both in ELD and mainstream settings. Further, it is essential to consider how schools can engender more positive views of writing in order to reframe its numerous purposes and saliency in the minds of young student-writers.

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APPENDIX A

WRITING MOTIVATION QUESTIONNAIRE

Student Writing Survey

Name:_____

Grade:_____

Teacher:_____

Class:_____

Why Do I Write

I would like to know why you write. Each sentence on the next pages describes a different reason for writing. These reasons are about writing in school, at home, or both. I want you to tell me how true each sentence is for you.
Is it **Very True**?
Is it **Mostly True**?
Is it **Sometimes True**?
Is it **Not True At All**?

For each sentence, please pick just one of these statements. There is no right or wrong answer. Pick the words that best describe what is true for you.

A. I can jump 1 foot.	Very True	Mostly True	Sometimes True	Not True At All
B. I can jump 12 feet.	Very True	Mostly True	Sometimes True	Not True At All
C. I can jump 2 feet.	Very True	Mostly True	Sometimes True	Not True At All
D. I can jump 4 feet.	Very True	Mostly True	Sometimes True	Not True At All

Please read each sentence. Circle the words that best describes what is true for you.

1. I write because I can learn about things that interest me.	Very True	Mostly True	Sometimes True	Not True At All
2. I write in order to get better grades at school.	Very True	Mostly True	Sometimes True	Not True At All
3. I write because it is important for me to know more than other students.	Very True	Mostly True	Sometimes True	Not True At All
4. I write because it helps me get better in school.	Very True	Mostly True	Sometimes True	Not True At All
5. I write in order to avoid being bored.	Very True	Mostly True	Sometimes True	Not True At All
6. I write because I like to think about particular topics.	Very True	Mostly True	Sometimes True	Not True At All
7. I write because I like to create a character that I can identify with.	Very True	Mostly True	Sometimes True	Not True At All
8. I write because it cheers me up when I am in a bad mood.	Very True	Mostly True	Sometimes True	Not True At All
9. I write because my parents think it is important that I write well.	Very True	Mostly True	Sometimes True	Not True At All
10. I write because it helps me pass the time.	Very True	Mostly True	Sometimes True	Not True At All
11. I write because it allows me to imagine everything so well.	Very True	Mostly True	Sometimes True	Not True At All
12. I write because it helps me perform well in school.	Very True	Mostly True	Sometimes True	Not True At All

13. I write because it helps me calm down.	Very True	Mostly True	Sometimes True	Not True At All
14. I write because I know that my friends write a lot.	Very True	Mostly True	Sometimes True	Not True At All
15. I write in order to have something to do.	Very True	Mostly True	Sometimes True	Not True At All
16. I write because it is important to me to write better than other students.	Very True	Mostly True	Sometimes True	Not True At All
17. I write because it is important to me to be among the best students.	Very True	Mostly True	Sometimes True	Not True At All
18. I write because it makes me feel better.	Very True	Mostly True	Sometimes True	Not True At All
19. I write if there is nothing better to do.	Very True	Mostly True	Sometimes True	Not True At All
20. I write because I can write about topics interesting to me.	Very True	Mostly True	Sometimes True	Not True At All
21. I write because it helps me forget everything around me.	Very True	Mostly True	Sometimes True	Not True At All
22. I write because it helps me perform better in school than my classmates.	Very True	Mostly True	Sometimes True	Not True At All
23. I write because I can write about topics important to me.	Very True	Mostly True	Sometimes True	Not True At All
24. I write because one gets praise for writing well.	Very True	Mostly True	Sometimes True	Not True At All
25. I write because I can create and experience adventures in my mind.	Very True	Mostly True	Sometimes True	Not True At All

26. I write because I like it when other people think I am a good writer.	Very True	Mostly True	Sometimes True	Not True At All
27. I write so that I can think about something that is bothering me.	Very True	Mostly True	Sometimes True	Not True At All
28. I write because it is important to how well I do at school.	Very True	Mostly True	Sometimes True	Not True At All

APPENDIX B

DISSERTATION PROPOSAL

Writing Motivation and Performance of Linguistically Diverse

Elementary School Students:

Examining the Intrinsic, Extrinsic, and Self-Regulatory Writing Motivation of

Emergent Bilingual, Reclassified Bilingual, and Native English-Speaking Students

in Grades 3 to 5

A Dissertation Proposal

by

April B. Camping

ARIZONA STATE UNIVERSITY

Writing is a dynamic, multifaceted skill which develops over time (Bazerman et al., 2017). Young learners begin writing through scribbles and drawings, and progress to writing sentences, paragraphs, and essays for assignments and tests in elementary school. Beyond school tasks, children may explore the utility of writing for social communication on digital platforms, storytelling and imagining in multiple modes, regulating emotions, expressing thoughts and ideas, exploring their identities, addressing social issues, and more (Harris et al., 2019; Harris and Graham, 2017). A child's purposes for writing are thus significantly diverse. These purposes expand as children become adolescents, and as adolescents become adults who use writing for success in college, career, and social life (Light, 2001). Given the saliency of writing for communication at large, and the complexity of writing across time and task, it is important to ensure that all young learners receive quality instruction in this literacy domain early on.

The Connection Between Motivation and Performance

One aspect of such instructional support is fostering motivation to write. In the broad field of motivation research, scholars have sought to understand what motivates individuals to learn and/or carry out tasks. Graham and Weiner defined motivation as "why individuals or organisms behave as they do: What gets their behavior started, and what directs, energizes, sustains, and eventually terminates action," (2012, p. 367). This definition can be applied in the context of writing motivation: influential factors that guide sustained effort throughout the writing process in order to complete a writing task.

Much research in this field has looked at how writing motivation changes or does not change over time (i.e. as students progress through school) and whether differences exist by gender. Interestingly, the findings have been mixed. Camacho et al. (2020)

reviewed recent research on writing motivation for students in grades 1-12 and found that girls generally evidenced higher motivation than boys, while no discernible pattern could be found across grade level. In similar reviews of research, Klassen (2002) also reported mixed findings by grade, but also by gender; Ekholm et al. (2018) reported higher motivation for girls and declining writing attitudes by grade over time.

The findings have not been mixed, however, in terms of the relationship between writing motivation and writing performance. Researchers have shown a positive connection here: motivation predicts achievement, and increased motivation to write is associated with improvements in writing performance (e.g. Pajares & Johnson, 1996; Pajares & Valiante, 1997; Bruning & Horn, 2000; Graham, 2006; Troia et al., 2012). In their article "Developing Motivation to Write", Bruning and Horn (2000) provided four conditions under which writing motivation can be fostered. They focused on writing beliefs, task authenticity, support for student writers, and emotional reinforcement, which speak to the multifaceted nature of writing motivation. Troia et al. (2012) presented existing research and conclusions about writing self-efficacy, goals, attributions, and task interest and value. Their review extended beyond other reviews to include insights about writing motivation for students who face writing challenges, including students with disabilities. Further, and importantly, research has found that writing attitudes are not fixed in young learners, but may be improved with positive instructional approaches (Graham et al., 2007; Zumbrunn & Bruning, 2013).

Writing motivation is clearly a complex construct, one that is associated and often functioning in conjunction with other related constructs such as self-efficacy. Amidst this complexity, researchers have answered important questions about the relationship

between writing motivation and writing performance. However, all of these conclusions pertain only to students writing in their native language – most often, English. The proposed study will add to the knowledge base by including emergent and reclassified bilinguals in this important literature: students who represent nearly 10% of all K-12 public school students (U.S. Department of Education, 2017). Before summarizing the limited research on writing and motivation with emergent bilingual elementary school students and detailing the proposed study, it is important to define the terms used herein to describe student language groups (emergent bilingual, reclassified bilingual, and native English speaker), as well as the term "heritage language".

Definitions for Student Group Terms and Heritage Language

"Heritage language" refers to the language a student speaks at home, and/or the language of a student's culture or family. Broadly, "heritage language" refers to "a language with which individuals have a personal connection," (Valdés, 2001, p. 37). "Emergent bilingual" students are students whose heritage language is a language other than English. In general, governments, policymakers, local education agencies, school districts, and school staff understand the term English Language Learner (ELL) or English Learner (EL) to describe students with a "primary or home language other than English" (U.S. Department of Education, 2017). ELs are classified based on their performance on English proficiency tests which vary by state. Previous terms included limited English proficient (LEP) students, and language minority students. While there are additional names and terms beyond these used in practice and research, the term "emergent bilingual" is preferred here as it "celebrates these students for their bilingual

and multilingual capacities," (García & Kleifgen, 2018, p. 24), and acknowledges "that the path to bilingualism is a dynamic process," (García & Kleifgen, 2018, p. 181).

In the context of the proposed study, emergent bilingual students include students who are actively receiving services for English language development as determined by their scores on a state proficiency assessment. Reclassified bilingual students are students who have exited English language development programs and no longer receive services because they reached proficiency as determined by their scores on the state assessment. The term "reclassified" originated at the state level. Native English-speaking students refers to native English speakers as reported on the school district's home language survey. All parents complete a home language survey when enrolling their child(ren) in a public K-12 school. If the parent indicates that the primary home language is one other than English, the student takes the state proficiency assessment to determine whether they will begin receiving English language development services.

Certainly, none of these terms can comprehensively capture the linguistic and literate diversity of the students for whom they represent. There was no information available on the heritage language literacy abilities of any student in the proposed study. Emergent bilingual students may or may not be proficient in Spanish, for example, and native English-speaking students may in fact be bi-/multilingual themselves. However, the dearth in the literature on writing motivation for elementary-age students whose reported home language is one other than English necessitated these distinct groupings as a first step in seeking to illuminate the unique stimuli of individual students. In the next section, the needs for and purposes of the proposed study are discussed, followed by a

review of the research which informed the proposed study. It should be briefly noted that while the term "emergent bilingual" is utilized throughout this proposal, other terms are utilized when discussing previous research in the literature review in order to accurately represent the original writing of each respective author.

Purpose of the Proposed Study

Most of the extant research in the U.S. on elementary school students and their motivation for writing has been conducted with native English speakers. The limited research that has been conducted with emergent bilinguals (students whose heritage language is one other than English) has looked at motivational aspects such as attitudes and beliefs about writing (McCarthey & Garcia, 2005), and writing self-perceptions and self-concept (Beaudrie, 2018; Neugebauer & Howard, 2015). Outside the U.S., Oga-Baldwin et al. (2017) studied motivation with children learning English as a foreign language. While these studies are important, they are not sufficient for reaching conclusions about or drawing inferences to the writing motivation of emergent bilingual or reclassified bilingual students in urban elementary school settings. A major purpose of this study is to address the dearth in this literature.

Another salient purpose of the proposed study is that it answers the specific calls of previous researchers in terms of directions for future study. In their report for the Institute of Education Sciences on emergent bilinguals' academic success, Hass et al. (2016) suggested that "it could be beneficial to understand how current and former English learner students' needs vary across different content areas and contexts," (p. 14). The proposed study will include these separate student groups ("current" being emergent bilinguals; "former" being reclassified bilinguals) in order to determine how their writing

motivations do or do not vary, rather than assume writing motivation is stagnant for students along the journey to bilingualism. Other researchers including Lee et al. (2009) have added similar calls for research designs with comparison groups of students at different "ESOL" levels, including exited and never ESOL students. As this would strengthen the existing literature by providing insights about similarities and differences across students at varying levels of proficiency, the proposed study is inclusive of both of these student groups.

McCarthey and Garcia (2005) described another direction for future research in their article on the writing practices of emergent bilinguals at home and at school, and students 'respective attitudes toward these practices. Through interviews and observations, the authors concluded that "writing development is more than a sequential attainment of cognitive skills, but rather a social process that involves many emotional components as well," (McCarthey & Garcia, 2005, p. 42). The authors emphasized the need for research which elucidates these components, and the proposed study could shed light on them and other factors via students 'scores on a measure of intrinsic, extrinsic, and self-regulatory motivation to write.

A final recommendation for future research that has appeared in multiple studies concerns the elements and aspects of effective writing instruction for emergent bilingual students in the elementary grades. Mancilla-Martinez (2010), Lee et al. (2009), Prater and Bermudez (1993), Saunders (1999), and Gomez, Parker, Lara-Alecia, and Gomez (1996) explained that emergent bilingual students need to be given writing activities that are meaningful to them in terms of topic and focus. Gomez et al. (1996) elaborated, noting

that "Students with low confidence need more credit for the content of their ideas than for the form," (p. 213). However, without a solid research base on what "meaningful" means to students from different language groups, such writing activities are likely hard to devise. There is no intention in the proposed study to uptake the creation of such writing tasks or instruction, but it may serve as a first step by providing a lens into motivational factors among emergent bilinguals and reclassified bilinguals when they write.

In sum, the purpose of the proposed study is to investigate the writing motivation, writing performance, and the relationships between them in a linguistically diverse sample of young learners from grades 3-5, including emergent bilinguals, reclassified bilinguals, and native English speakers. Another purpose of the proposed study is to determine the impact of gender or grade level on writing motivation, and any significant interactions between language groups and these factors. While there is a dearth in relevant research, the research that *has* been conducted is summarized further next, followed by a discussion of the theoretical framework for writing that informs this study design, the research questions guiding the proposed study in response to gaps in existing literature, and the methods for the proposed study.

Review of Research on Writing and Writing Motivation with Emergent Bilingual Students

This literature review is broken down into the following four-tiers: (1) a summary of five major reviews involving writing with emergent bilinguals; (2) an overview of individual studies on writing with emergent bilinguals; (3) an overview of individual studies on writing motivation with emergent bilinguals; and (4) an overview of research

related to writing motivation with emergent bilinguals (including reading motivation and theoretical insights about learning a new language).

Five major reviews of research have been conducted in attempts to synthesize what is known about the writing of emergent bilingual students, including those in elementary school. In their first review of experimental and quasi experimental literacy research with emergent bilinguals, August and Shanahan (2006) located only six studies that involved writing for students between ages 3-18. They updated this review in 2010, adding just one study with reported writing outcomes for "English language learners". In their conclusions, August and Shanahan noted that there was likely more information unknown than known in terms of effective literacy instruction and literacy outcomes for "ELLs". It should also be noted, though, that major critiques of this review cited the "monolingual English lens" through which the authors summarized existing research (Escamilla, 2009, p. 434). This was problematic in that it led the authors to make assumptions about the literacy development of "language minority students" based on what was known for native English speakers, given the lack of research with "second language learners" (Escamilla, 2009, p. 436). An important takeaway here was the need for researchers to delineate writing development specifically for emergent bilingual and reclassified bilingual students by conducting studies with them, rather than relying on what has been established in research with native English-speaking students. Another important takeaway which has already been made clear was the lack of research on writing for emergent bilingual students in elementary grades.

Fitzgerald (2006) conducted a review of existing literature, but focused specifically on writing research for multilingual students in preschool through twelfth

grade rather than literacy research broadly. She included all studies regardless of design

or methodology that had been conducted between 1988 and 2003, and found a total of

fifty-six. Fitzgerald's analyses of this corpora led her to conclude that "few of the 56

studies demonstrated methodological rigor that might be judged by many to be

'sufficient,'" (2006, p. 338). Furthermore, only two of these studies addressed writing

instruction at the preschool or primary grade level, making it even more challenging to

draw conclusions about what works in elementary classrooms.

An additional review that should be mentioned here is Leki, Cumming, and

Silva's (2008), "interpretive, narrative synthesis" and "analytical discussion" of L2

writing research (p. ix). L2 means a new/non-heritage language. In Chapter 1, the authors

addressed "Young Writers" learning to write in English by reviewing the history of this

literature and highlighting major works. The authors concluded that "more in-depth study

of L2 writing and literacy development, particularly among young writers in elementary

and secondary schools," (p.15) should be undertaken, as it could benefit both the fields of

L2 literacy research and second language acquisition research to a large degree. Finally,

they noted the complex nature of this research in terms of the many factors at work

within and around young emergent bilingual writers.

Lastly, the research of Genesee, Lindholm-Leary, Saunders, and Christian (2006)

should be discussed. In their book – an extensive review of literature – the authors

summarized "scientific research on three fundamental aspects of the education of ELL

students: their oral language development, their literacy development, and their academic

development," (p. x). A major conclusion of this important work was that more research

was needed with emergent bilingual students across grade levels and at different levels of proficiency. This would improve understanding about literacy development, relationships between skills across literacy domains (e.g. oral language skills and writing skills), and the impact of students' language statuses on their motivation and performance. The authors also noted that "Applied research consisting of single studies is not as useful as theory-driven research in identifying the needs of ELLs across the United States," (p. 226).

The second-tier of this literature review for the proposed study highlights some of the research which *has* been done on writing with emergent bilingual students. Details of each study are provided (participant information, design, and outcomes), along with a summary of conclusions as they pertain to this proposal.

An Overview of Writing Research with Emergent Bilingual Students

This section contains an overview of selected studies on the writing of emergent bilingual elementary school students, given their application to the proposed study. Specifically, studies were included if holistic writing quality was assessed as this will be the performance outcome utilized in the proposed study. Several articles were identified through reference checks of the six major literature reviews previously described, as well as in other related reviews and meta-analyses on writing instruction, intervention, and assessment (i.e. Rogers & Graham, 2008; Graham & Sandmel, 2011; Hoogeveen & Gelderen, 2013; Graham et al., 2012; and Graham et al., 2015). A hand search of recent literature was also conducted within leading journals in fields relevant to the topics of emergent bilingual literacy research: *Journal of Second Language Writing, Bilingual*

Research Journal, Journal of Writing Research, Reading and Writing, and *TESOL*

Quarterly.

Out of nine identified studies, a total of four studies were selected for this tier of

the review based on the inclusion criteria (involved elementary-aged emergent and/or

reclassified bilingual students and included holistic quality measures): Prater and

Bermudez (1993); Gomez et al. (1996); Lee et al. (2009); and Babayigit (2015). The

selected studies were published between 1993 and 2015, covering a broad span of time in

this field of research. Writing quality was assessed in every study via holistic rubric

ratings. The criteria of each rubric varied, but raters in all studies considered at least three

of the following aspects: organization, conventions, mechanics, ideation, sentence

construction, elaboration, language, and style.

In the earliest of these, Prater and Bermudez (1993) evaluated a peer-mediated

writing intervention with "limited English proficient" students in grade four. Students in

the treatment condition ($N = 27$) were heterogeneously grouped by English proficiency

with 3-4 of their peers, while students in the control condition ($N = 19$) worked

individually. The authors reported that students in peer groups scored statistically

significantly higher in writing output (length) and number of idea units compared with

students who worked alone. However, they did not differ significantly on writing quality.

The authors surmised that the intervention was too short (one month) for quality gains to

manifest, and that "It may also be necessary for the teacher to provide more direct

instruction in specific aspects of the writing that are assessed by the scoring rubric" (p.

108). Given the findings in this study, it may be interesting to take a fine-grained look at

the amount of time emergent and reclassified bilingual students received English

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language development services, and whether there are differences in writing quality and motivation based on this. It will be important as well to evaluate the validity of score interpretations for the writing quality measure utilized in the proposed study.

Gomez et al. (1996) conducted a similar study in that participants were "limited English proficient" students who were grouped heterogeneously by English proficiency across treatment and control conditions. Specifically, sixth-graders were assigned to a structured writing condition (treatment, $N = 25$) or a free writing condition (control, $N = 23$). Using a stratified process for according to proficiency, students were assigned evenly amongst treatment and control as determined by "cumulative files, standardized achievement from the past year, an individual interview, and informal assessment of their ability to understand and carry out classroom instructions," (p. 214). The authors reported that students in the structured writing condition evidenced large improvements in holistic writing quality, but these were not statistically significantly different from the scores of students in the free writing condition. Just as Prater and Bermudez (1994) had concluded, Gomez et al. attributed this partly to the short duration of instruction (6 weeks).

Lee et al. (2009), on the other hand, were interested in the long term effects of an approach to integrated literacy/science instruction. Participants were similar to the participants in the proposed study in terms of proficiency groups and grade level. The researchers studied the writing of third-grade "ESOL levels 1 to 4" students, "ESOL exited" students, and "never ESOL" students over the course of one year, but for 3 total years with different students as they entered third grade. Total student N for each year was 683, 661, and 676, and demographic characteristics were similar across each different group. ESOL stands for "English for Speakers of Other Languages". While this

study was descriptive rather than experimental, the authors answered important questions about writing score gains and achievement gaps based on proficiency level. Interestingly, the authors reported significant pre- to post-test score gains for all groups, and proportional gains for ESOL levels 1 to 4 students when compared to exited and never ESOL students.

Babayiğit (2015) also conducted a descriptive study on writing performance, but included "English speaking first" (L1) students ($N = 89$) in addition to "second language (L2) learners" ($N = 70$) in first grade. The author found statistically significant differences in vocabulary, quality, fluency, and organization favoring the "English speaking first" students, and in favor of girls over boys on all measures but organization. While an experimental study with a comparison condition would shed more light on these findings, Babayigit did report two interesting findings in terms of differential impacts of variables on quality scores. She stated that "The quality of written vocabulary tended to make the largest impact upon L2 learners' overall writing quality scores. For L1 learners, however, it was the organization" (p. 19).

Overall, it was important to review select previous research with writing performance measures similar to the measure included in the proposed study in order to identify any (in)consistent findings. Bermudez and Prater (1994), Gomez et al. (1999), and Lee et al. (2009) all included students at different classification levels of English proficiency. It was useful to see what these authors found in terms of group similarities and differences on quality outcomes in order to form relevant research questions and informed hypotheses for the proposed study. In addition, the writing performance measure in the proposed study is a composite measure which includes aspects of purpose,

organization, and conventions. The findings reported in these studies highlight the importance of looking not only at the composite writing quality score, but also at purpose, organization, and conventions scores to see if there are differential outcomes according to student language group (emergent bilingual, reclassified bilingual, and native English-speaker), as well as unique impacts of writing motivation on those aspects.

An Overview of Writing Motivation Research with Emergent Bilingual Students

These studies were conducted by researchers focused on writing performance. However, across the six major reviews which involved writing research with emergent bilinguals, the additional related reviews, and the literature searches conducted for this proposal, only eight studies contained measures of writing motivation for elementary-age emergent bilingual students. This paucity of research is known and revealed by researchers in the field (as in the six major reviews), yet, it is still surprising in light of the established positive impact of motivation on writing outcomes for native English speakers. Four of these eight studies are detailed in this tier because of their relevance to the proposed study in terms of participating students and major findings.

Neugebauer and Howard (2015) studied the writing self-perceptions and performance of 409 native Spanish speakers and native English speakers in fourth grade. The authors adapted Bottomley, Henk, and Melnick's (1997) Writer Self-Perception Scale by adding the phrase "in Spanish" or "in English" at the end of each item (e.g. "I think I am a good writer in Spanish" and "I think I am a good writer in English"). The measure was comprised of subscales about one's perceptions of her/his writing abilities and identify as a writer. In doing so, the authors sought to delineate whether native Spanish and English speakers differed in their writing self-perceptions in either language

or both languages. They found that writing self-perceptions predicted writing performance in both respective languages, but that native Spanish-speaking students scored lower than native English-speaking students in terms of writing performance, perceived progress as writers, and perceived writing skills. Native Spanish speakers scored higher than native English speakers on writing for social feedback (e.g. "Other kids think I am good writer.") and writing to improve physiological state (e.g. "I like how writing makes me feel inside.") There are issues in this study in terms of how groups were assembled and how scoring categories were determined, but the findings add important insights to the existing knowledge base that should be further investigated.

In a much earlier study, Ferris and Politzer (1981) investigated writing performance and achievement motivation across two groups of middle school students whose heritage language was Spanish. Group A included students born and schooled in Mexico until 3rd grade receiving instruction in Spanish only, but who moved to the U.S. and received instruction in English only from 4th grade on. Group B included bilinguals born and educated in U.S. from birth who received only English instruction for all their elementary and middle grade schooling. The motivation measure assessed students 'self-reported effort in school ("I try pretty hard to get good grades", or "I try very hard") and the amount of time they spent discussing their progress with teachers ("A little", "Sometimes", or "Often"). The authors did not provide sufficient details for reliability and validity, which was a limitation and probably a reflection of reporting standards at this time. With this in mind, though, the results were intriguing. Of the 30 students in Group A, 26 reported trying very hard, and 24 reported discussing progress sometimes or often

with their teachers. Of the 30 students in Group B, 16 reported trying very hard, and 15 reported discussing progress sometimes or often with their teachers. The authors hypothesized that these differences were the result of either cultural differences in how schools and teachers are valued, or the "congruence between school and home culture" (p. 272) present for the students in Group A.

Chen et al. (2017) conducted a case study with a smaller sample of five "ELLs" between the ages of 9 and 13. Relying on students "Funds of Knowledge" to determine narrative writing topics, the authors provided technological tools for the students to use during composing. Data sources included "home-visits, interviews, questionnaires, pre- and post-essays, informal observations, and field notes" (p. 31). After triangulating the data, the authors reported positive outcomes in motivation to write and interest in writing when students wrote about topics important to them.

Lastly, while it was conducted with students from grades 6 to 8, a similar study by Camping et al. (2020) reported on writing motivational outcomes and writing performance of emergent and reclassified bilinguals ($N = 285$) as well as native-English speakers ($N = 285$) who were matched on gender, grade, and race. The results indicated higher scores for emergent and reclassified bilingual students than native English-speaking students on intrinsic, extrinsic, and self-regulatory measures of writing motivation, excluding items which assessed motivation to write for grades. In addition, scores on a measure of writing quality indicated that native English-speaking students scored highest, and reclassified bilingual students scored higher than emergent bilinguals. Writing motivation scores predicted these quality scores only for the native English-speakers.

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There are two collective insights that are drawn from these studies in order to inform the proposed study. First, writing motivation has an impact on writing performance for emergent bilingual students who are elementary-age. Second, the research on writing motivation for emergent bilinguals in elementary grades is still severely lacking. Replication efforts of existing findings should be undertaken, and rigorous studies should be conducted with large samples of linguistically diverse students. I seek to address the latter need in the proposed study, while also adding to the knowledge about the first insight by elucidating the impact of writing motivation for emergent and reclassified bilingual students.

Related Research on Motivation for Language-Learning, Academic Achievement, **and Reading with Emergent Bilingual Students**

The implications of these studies are important, but the context to which their findings can be applied are still limited and in need of further study before generalizations can be made with confidence. Because of this, it is useful to highlight theory and research which focused on motivation more broadly (e.g. beyond writing, and at all grade levels) with emergent bilingual students at all grade levels. First, the seminal theoretical work of Dornyei in this field is summarized, followed by the theoretical contributions of Ginsburg on motivation for culturally diverse learners. Then, two experimental studies involving reading motivation for emergent bilinguals are reviewed, and the implications of all this work are applied to the proposed study.

In 2005, Dornyei proposed a new theory for second language motivation called The L2 Motivational Self-System. This theory is built on previous empirical research, and advancements in the understanding of four key areas which took place over the

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decades during which that research was conducted: motivation and group dynamics, demotivation, motivational self-regulation, and the neurobiology of motivation.

The resulting L2 Motivational Self-System is multidimensional. The first dimension concerns the "Ideal L2 Self" (p. 105). Dornyei explained the power of envisioning oneself as a proficient speaker of a target language, and the motivational impact of this vision on learning. The second dimension concerns the "Ought-to L2 Self" (p. 105). This dimension represents extrinsic motivation, or wanting to become an L2 speaker because you "ought to" in the eyes of others. The third dimension concerns the "L2 Learning Experience" (p. 106). While the other two dimensions involve future conceptualizations, the learning experience itself is the present reality. If this reality is supportive and positive, it will be highly motivating for the learner, according to Dornyei.

In her 2005 article, Ginsburg theorized ways for teachers to responsively cultivate motivation of students from diverse cultural backgrounds. These actions were based on classroom-specific examples which the author reviewed in-depth. Her framework centered on four constructs: establishing inclusion, developing attitude, enhancing meaning, and engendering competence. The theme of these constructs is purpose. If teachers purposively design lessons, content, assignments, assessments, and student experiences with a meaningful purpose, they can leverage the intrinsic motivation of their students, and create extrinsic motivators via classroom environment.

In a more recent piece, Griffin, Farran, and Mindrila (2020) explored reading motivation for "adolescent Latinx bi/multilingual Els" in high school via their scores on the Adolescent Motivation to Read Profile (developed by Pitcher et al, 2007). All 174

students who participated in the study were currently receiving English language development services. Via structural equation modeling, the authors identified reading self-concept and reading attitude as main factors. Perhaps their most interesting reported finding was that the more time students had spent in the U.S., the lower their reading motivation. Females were also more motivated to read than males.

A final piece to mention here was a mixed methods study conducted by Sturtevant and Kim (2009) with students in grades 6 to 8. The main research question was "What are characteristics of literacy motivation and uses of literacy in and out of school for diverse middle-school students learning English as a new language?" (p. 71). There was a "beginner" group ($N = 16$), an "intermediate" group ($N = 18$), and an "advanced" group ($N = 16$) based on ESOL level (or the level of English support each student was receiving). The authors utilized an adapted version of Pitcher et al.'s (2007) instrument for measuring reading motivation – the same instrument used by Griffin et al. (2020). Sturtevant and Kim also conducted semi-structured interviews. The authors found that students who were in beginner English language development classes exhibited higher scores in the value they placed on reading compared to students in intermediate and advanced classes. Language status (based on proficiency level) was the largest predictor of "valuing reading". Finally, based on interviews, the authors reported that students had "strong interest" in the literacy activities they performed outside of school and with their families.

While none of the research reviewed in this section was focused on writing, each piece provides insights that inform the proposed study. Dornyei's (2005) theory of motivation for acquiring a second language included major constructs which will be

investigated in the proposed study: intrinsic motivation, extrinsic motivation, and self-regulatory motivation. Ginsburg's (2005) concepts and framework shed light on the experiences of "culturally diverse learners", and the unique motivators across intrinsic, extrinsic, and self-regulatory categories to which teachers should appeal.

As emergent bilingual students are focal participants of the proposed study, the conclusions about the multifaceted nature of learning motivation provides a window into the complexity of this construct. The research findings of Griffin et al. (2020) and Sturtevant and Kim (2009) were focused on reading, but the relationship between reading and writing has been established across many studies (e.g. Graham and Hebert, 2011; Graham et al., 2018). Inferences still cannot be directly drawn to the proposed study, but the conclusions of both articles were essentially that less time in U.S. schools was associated with higher reading motivation, and vice versa. This was found as well by Ferris and Politzer (1981) in the context of general academic achievement motivation for eighth-grade Spanish speakers raised in Mexico versus eighth-grade Spanish speakers raised in the U.S. It is clear that a comprehensive theoretical framework is necessary for designing the proposed study. The next section details this framework and the factors for which it accounts.

Theoretical Framework

Theories for understanding writing have developed alongside the empirical research in the field over the past 50 years, stemming from related fields such as psychology and linguistics (Cumming, 2016). In terms of theory, Cumming (2016) focused on how research has illuminated aspects of writing theories which apply in L2 writing contexts, but also noted that the majority of this research had been conducted

with college students. His review outlined research on cognitive, genre, and sociocultural theories. As the proposed study will investigate writing motivation separate from genre, only cognitive and sociocultural constructs are included herein. Cumming summarized the integrative power of these theories together here (pp. 79-80):

> Cognitive models have assisted L2 researchers and teachers to help learners to appreciate and develop ways of thinking strategically and effectively while composing [...] Sociocultural theories have demonstrated how L2 writing develops and can be promoted in situations of tutoring and student peer collaborations.

The theme of Cumming's quote here is integration – the notion that one theory alone cannot explain all facets of writing or of a writer, but rather that the merging of the tenets of various theories is necessary in order to explain the complex experience of writing. As they pertain to the proposed study, these include intrinsic motivators, extrinsic motivators, and self-regulatory motivators.

Theoretical integration is not a new concept. During the 1980s, it was enacted by Harris in the early development of the self-regulated strategy development (SRSD) instructional approach. Today an evidence-based practice for teaching writing, SRSD integrates "affective, behavioral, and cognitive (metacognitive and self-regulation included) theories and research on learning," because "a triangulation across and integration of the evidence from various theories," is essential when making sense of writing complexity (Harris & Graham, 2018, p. 120). To this end, Harris (1982) also addressed the social aspects of learning when conceptualizing SRSD. The importance of

modeling and scaffolding are evident in the approach, as influenced by the work of Vygotsky on the zone of proximal development. The work of Meichenbaum (1977) on behavior modification via self-instruction, self-control, and stress management was also salient to SRSD's integrative framework.

The "social turn" of the mid 1990s led other writing researchers to consider what cognitive theories could not fully explain, placing "greater emphasis on the complicated paths that writing skill development took with individual children and on the way writing skills interacted with identity, positioning, and variations in familial or cultural orientations," (Leki, Cumming, & Silva, 2008, p. 13). Around this time (1996), Hayes remodeled the task environment of his and Flower's original cognitive model to include both a social and physical environment. He stated that there was a clear impact of social and cultural influences on writing, noting that it "is shaped by our social convention and by our history of social interaction," (p. 5).

In sum, a comprehensive theoretical framework is essential to the proposed study, as the unique writing lives of emergent bilinguals and reclassified bilinguals are largely unstudied at the elementary level, and all potential factors of influence should be considered.

Writer(s)-Within-Community Model of Writing

The framework for the proposed study is the Writer(s)-Within-Community (WWC) theory (Graham, 2018). WWC is built upon four tenets that "blend multiple perspectives on writing," (p. 276), including that writing and its development are influenced by the writing community, the capacities of members, the different resources

of members which interact with internal and external factors, and participation in the community. In other words, "writing is simultaneously shaped and constrained by context, the capabilities, and perceptions of writers and collaborators, and the interaction between the two," (Graham, 2018, p. 258).

The interrelationship of writing motivational constructs may be explained for bilingual students in terms of intrinsic, extrinsic, and self-regulatory motivations to write. These incentives are simultaneously at work in/on the writer, thereby merging cognitive theories of writing with sociocultural ones rather than isolating them from one another.

Aspects of Intrinsic Motivation

Intrinsic incentives for writing refer to the internal mechanisms and motivators at work within a writer. In the WWC model, these include the writer's cognitive resources within long-term memory (knowledge and beliefs), and the writer's ideation processes (Graham, 2018). Writing motivational incentives will be assessed using the Writing Motivation Questionnaire. Intrinsic motivation to write will included items about motivation to write for involvement (e.g. to imagine, create, or experience); and motivation to write for curiosity (e.g. to learn new and/or interesting information). The following items assessed each of these aspects of intrinsic writing motivation, respectively:

Curiosity:

"I write because I can learn about things that interest me."

"I write because I like to think about particular topics."

"I write because I can write about topics interesting to me."

"I write because I can write about topics important to me."

Involvement:

"I write because I like to create a character that I can identify with."

"I write because it helps me forget everything around me."

"I write because it allows me to imagine everything so well.

"I write because I can create and experience adventures in my mind."

Aspects of Extrinsic Motivation

While curiosity and involvement in writing represented the internal or intrinsic motivators for writing assessed in this study, factors at work externally or extrinsically to the writer are also of interest in terms of their motivational roles. The sociocultural aspect of the Writer(s)-Within-Community model (Graham, 2018) speak to these incentives, but they are also situated within the long-term memory resources of knowledge and beliefs. To clarify, extrinsic incentives to write stem from one's existing knowledge and beliefs about the writing community (namely peers and teachers). Extrinsic motivation is stimulated when one desires to be recognized by the writing community in some capacity, and writes with relevant knowledge and beliefs about community values in mind. In the context of this study, there are three extrinsic incentives that will be measured: motivation to write for social reasons (e.g. because one's peers often write, because one wants to receive praise for writing, or because one wants to be identified by others as good writer); motivation to write for competitive purposes (e.g. because one wants to possess more writing knowledge and skill than her/his peers, or be regarded as the best writer in the context of the writing community/class); and motivation to write

because of school grades (e.g. to achieve highly, to improve as a writer, or to have external evidence of one's writing skill). On the Writing Motivation Questionnaire, the following items correspond to each extrinsic writing motivator:

Social Recognition

"I write because my parents think it is important that I write a lot."

"I write because I know that my friends write a lot."

"I write because one gets praise for writing well."

"I write because I like it when other people think I am a good writer."

Grades

"I write in order to get better grades at school."

"I write because it helps me get better in school."

"I write because it helps me perform well in school."

"I write because it is important to know how well I do at school."

Competition

"I write because it is important for me to know more than other students."

"I write because it is important to me to write better than other students."

"I write because it is important to me to be among the best students."

"I write because it helps me perform better in school than my classmates."

Aspects of Self-Regulatory Motivation

Lastly, the incentives to write for self-regulatory purposes were considered. As Bandura (1991) explained, "Self-regulatory systems lie at the very heart of causal

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processes" (p. 248). The control mechanisms and modulators from the Writers-Within-Community theory addressed these incentives by outlining their bidirectional interaction with long-term memory resources (intrinsic incentives), and production processes and writing community members (extrinsic incentives). Two specific self-regulatory motivational incentives to write will be assessed using the Writing Motivation Questionnaire: emotional regulation (e.g. to improve mood, or to make sense of feelings); and relief from boredom (e.g. to pass the time). Specific items on the Writing Motivation Questionnaire pertaining to these incentives include:

Emotional Regulation

"I write because it cheers me up when I'm in a bad mood."

"I write because it helps me calm down."

"I write because it makes me feel better."

"I write so that I can think about something that bothers me."

Relief from Boredom

"I write in order to avoid being bored."

"I write because it helps me pass the time."

"I write in order to have something to do."

"I write because there is nothing better to do."

Research Questions

The research summarized in the literature review showcases the need for further experimental investigations of writing motivation and writing performance with emergent bilingual students. In the works that were found for this review, the authors collectively

called for all of the following in future studies: (1) more research on the writing of emergent bilingual students in elementary school; (2) conclusions about bilingual populations in terms of their writing motivations and practices separate from native English speakers; and (3) more research with emergent bilingual students across grade levels and at different levels of proficiency. The proposed study will answer three research questions in response to these calls by comparing scores of emergent bilingual, reclassified bilingual, and native English-speaking students in grades 3, 4, and 5 on measures of writing performance and writing motivation.

RQ 1: Are there statistically significant differences in the intrinsic, extrinsic, and self-regulatory writing motivation scores of students who are identified as emergent bilingual, reclassified bilingual, and native English-speaking; boys and girls; students in grades three four, and five; and the interaction between student type, gender, and grade?

RQ 2: Are there statistically significant differences in scores on the district writing test of students who are identified as emergent bilingual, reclassified bilingual, and native English-speaking; boys and girls; students in grades three four, and five; and the interaction between student type, gender, and grade?

RQ3: After accounting for grade and gender differences, do intrinsic, extrinsic, and self-regulatory writing motivation scores collectively and uniquely account for a statistically significant portion of the variance in district writing test scores for emergent bilinguals, reclassified bilinguals, and native English-speaking students?

Hypotheses

RQ1: According to the conclusions of McCarthey and Garcia (2005) and Neugebauer and Howard (2015) on the role of writing for social and self-regulatory

purposes, the first hypothesis is that emergent bilinguals and reclassified bilinguals will evidence higher scores on writing motivation test items which *are not* exclusive to school writing. While one study is not sufficient for making a hypothesis about students 'scores on items which *are* exclusive to academic settings/situations (such as "I write to perform well in school"), Ferris and Politzer's (1981) findings on achievement motivation for bilingual students runs counter to other studies which emphasize non-academic motivation for bilingual students. Per these mixed conclusions, no hypothesis will be made for any group's scores on items that stipulate academic settings/situations. Also per the mixed findings across major literature syntheses, no hypothesis will be made for writing motivation based on gender or grade in the proposed study.

RQ2: The differences in writing performance between emergent bilinguals and monolinguals reported by Neugebauer and Howard (2015) was consistent with national data (National Center for Education Statistics, 2011) and other individual studies (e.g. Kuball & Peck, 1997; Miles, McFadden, & Ehri, 2019, O'Conner, Abedi, & Tung, 2012). Furthermore, as English proficiency increases, students will likely show subsequent performance gains in English writing (Lanuaze & Snow, 1989). Thus, it is hypothesized that native English-speakers will score higher than reclassified bilinguals on the district writing measure, and reclassified bilinguals will subsequently score higher than emergent bilinguals. It is also hypothesized that girls will score higher on the district writing test than boys based on prior literature and national data, and that writing scores will increase with each grade level increase given an increase in knowledge over time.

RQ3: The hypothesis about the predictive power of writing motivation for writing performance is based on extant literature supporting this positive relationship (see Lepper, Corpus, & Iyengar, 2005; Graham, 2006; Troia et al. 2012). While there is a dearth in the research base on this relationship for emergent bilingual students, it was hypothesized that writing motivation scores would predict writing performance scores for all students, according to the thin findings available and reviewed at the time of this proposal (Neugebauer & Howard, 2015).

The methods to be used in the proposed study are described in the next section. First, detailed descriptions of the research setting and participants are provided. Then, information about the measures, procedures, and proposed data analyses complete this proposal

Method

The data for this study were collected as part of a larger study in the fall of 2016. The larger study took place with students in grades K-8 from a large urban school district in the Southwestern United States. A total of 16 schools participated. The focus of the proposed study is restricted to elementary students in grades three, four, and five. This is purposeful given the evidence for changes in motivation as students progress through primary, elementary, and secondary grades (e.g. Wigfield et al., 1998), and on the need for writing and motivational research at these essential points in the lives of young bilinguals.

Over 11,000 students were enrolled in the district at the time of data collection. The district level demographic data indicated that 51% of students were Latino/a, 21% White, 12% Black, 7% Native American or Alaska Native, 2% Asian, and 1% Pacific

Islander. In terms of socioeconomic status, data on free and reduced lunch revealed that 74% of students in the district were eligible for these programs.

In grades three to five, the core language arts program used at the time by the district was Harcourt Journeys, which "provides an instructional system for reading both literature and informational texts, for acquiring foundational skills, and for developing mastery of speaking, listening, and writing," (Houghton Mifflin Harcourt, 2019). The district also followed the State's College and Career Ready Standards for writing and reading. These standards were highly similar to the Common Core State Standards.

In addition to the district wide curriculum and standards, the state in which the data were collected had in place a mandated model called structured English immersion (SEI) for students with a reported primary home language other than English. The language diversity present in the district was similar to the diversity in the U.S. at a national level: students spoke over 74 different home languages, with Spanish predominating. The stated goal of the SEI program was for students to rapidly acquire English and transition as soon as possible to mainstream instruction. Students enrolled in this model participated in four hours of pull-out English instruction every day across the four main literacy domains: speaking, listening, reading, and writing. Instructors in these settings were required to hold an endorsement in structured English immersion, bilingual education, or second language teaching.

To determine English language proficiency for initial placement in structured English immersion, and to reassess proficiency on a yearly basis, all districts utilized a state-designed measure that evaluates English speaking, listening, writing, and reading skills. The test is offered at five different "stages" based on grade level categories.

Students in the present study would have taken the stage III test which is designed for those in grades three to five. Reliability and validity evidence is provided by the state. The total score across all four domains is compared against grade level criterion cut scores for English proficiency, and students are then categorized as pre-emergent/emergent (PE/E: not able to communicate effectively in English), basic (B: communicates single word requests or responses in English), intermediate (I: uses sentences to communicate and decodes some English words, but is not at grade level for academic English), or proficient (P: discerns spoken English content at grade level in class and uses academic English). Students who score at the pre-emergent/emergent, basic, or intermediate levels receive a parental consent letter for their participation in structured English immersion. Upon annual reassessment, students can exit the program once a "proficient" cut score is attained and they are reclassified.

Participants

A total of 1,126 students from grades 3-5 participated in this larger study and were selected as the focal participants of the proposed study. Table 1 displays the student characteristics for each language group. Excluding those who were absent on the day of testing and those who were currently receiving special education services, nearly all students in grades three to five throughout the district participated in the study. To form the student groups, all bilingual participants were identified (emergent and reclassified) and included in the sample, of whom $N = 563$. A matched group of native English-speakers was then created for each emergent and reclassified bilingual participant according to race, gender, and grade. As there were more than 563 native English-speaking students available for matching, random selection was utilized to create a group

identical to those in the emergent and reclassified bilingual groups on race, gender, and grade. The purpose of this detailed matching procedure was to control for error variance based on demographic differences, and is a unique feature of this study given the impact it has on reducing "noise" in the analyses based on non-equivalent groups.

Emergent Bilingual Students

A total of 189 students were in the emergent bilingual group at the time of data collection. According to the state mandated English language proficiency test, students in the emergent bilingual group scored as follows: 10 pre-emergent/emergent level, 26 basic level, 78 intermediate level, and 75 proficient (proficient students would exit the SEI program to mainstream education upon the next cycle). Data from the schools indicated that 158 were Latino/a, six were Black, four were Native American, four were Asian, eight were Pacific Islander, eight were White, and one was Multiple Races. A total of 76 students were in third grade, 51 were in fourth grade, and 62 were in fifth grade, with 101 females and 88 males participating across all grades.

Reclassified Bilingual Students

Since the reclassified bilingual students had exited the structured English immersion program, they were no longer required to take the state English proficiency exam, so there are no data to report for this group in terms of PE/E, B, I, P breakdowns (i.e. all had achieved the "Proficient" designation). A total of 374 students comprised the group, including 80 in third grade, 143 in fourth, and 151 in fifth. In terms of demographics, 329 were Latino/a, seven were Black, seven were Native American, 18 were Asian, nine were Pacific Islander, and four were White. There were 210 females and 164 males in the reclassified bilingual group across all three grade levels.

Native English-Speaking Students

The third group of students in this study is the native English-speaking group ($N =$ 563). These were students whose primary home language was English, and they were from the same district and at the same grade levels as their bilingual peers. Of the 563 native English-speakers, 487 were Latino/a, 13 were black, 11 were Native American, 22 were Asian, 17 were Pacific Islander, 12 were White, and one was Multiple Races. There were 156 present in third grade, 194 in fourth grade, and 213 in fifth grade. A total of 311 females and 252 males participated in this group across these three grades.

Measures

Writing Motivation Questionnaire

The Writing Motivation Questionnaire (Appendix) was utilized for measuring intrinsic, extrinsic, and self-regulatory motivations to write (Graham et al., 2019). As noted, the WMQ stemmed from Schiefele and Schaffner's (2016) reading motivation questionnaire, which relied on self-determination theory (Ryan & Deci, 2000) to ascertain incentives for engaging in reading. Graham et al. (2019) adapted the reading motivation questionnaire into the Writing Motivation Questionnaire (WMQ), tested and factor analyzed the measure with a large sample of fourth and fifth graders, and concluded with the hypothesized structure for writing motivation. The three factors (incentives) included intrinsic motivation to write (i.e. because of curiosity – to learn more about a topic of interest – and involvement – to become part of the writing experience); extrinsic motivation to write (i.e. for social recognition – to obtain recognition for one's writing, for grades – to improve performance at school, and for competition – to do better academically than other students); or self-regulatory

motivation to write (i.e. for emotional regulation – to cope with negative emotions, and for relief from boredom – to write to overcome tedium).

Students selected the extent to which they agreed with each item statement based on the following options: Very True, Mostly True, Sometimes True, or Not True At All. These will be scored from one to four, and will be reverse coded during analyses so that higher scores equate to higher reported agreement.

Reliability and Validity. The general conception of reliability involves the "consistency of scores across replications of a testing procedure, regardless of how this consistency is estimated," (AERA, APA, NCME, 2014, p.33). If a measure does not produce reliable and precise scores over time, inferences and conclusions about the sample cannot be made. In other words, reliability is required for validity, and reliability is also irrelevant without validity.

Validity is defined in the Standards for Educational and Psychological Testing (AERA, APA, NCME, 2014) as "the degree to which evidence and theory support the interpretations of test scores for proposed uses of tests," (p.11). The evidence portion of this definition includes aspects of alignment and test content, administration of the measure, and issues of construct-irrelevance. Other sources of validity evidence include the actual response processes of participants, evidence based on the internal structure and relationship of test items, evidence based on the relationships between test scores and other variables including both convergent and discriminant evidence, and evidence that considers the consequences of score interpretations appropriately.

Evidence must be considered in the context of what is known and unknown about the construct at hand. Messick described it in this way: "Validity is an integrated

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evaluative judgment of the degree to which empirical evidence and theoretical rationales support the adequacy and appropriateness of inferences and actions based on test scores or other modes of assessment," (1989, p.13). In other words, an evaluation of the validity of score uses from a given measure should include the degree to which theory would or would not have supported the outcomes, and why this is the case in either situation.

To assess the reliability and validity evidence of the Writing Motivation Questionnaire, the following will be evaluated: reliability coefficients for each scale; the degree to which the use of scores is appropriate; relationships of measure scores to scores on other measures (involving convergent and divergent variables); and expert involvement in test construction. As mentioned, Graham et al. (2019) conducted a factor analysis with this measure after adapting it from Schiefele and Schaffner's (2016) reading measure. They concluded the hypothesized factor structure was maintained. A similar study was conducted by Rocha et al. (2019) with the measure, wherein the authors also concluded with the multidimensional nature of writing motivation and validity of score interpretations via the WMQ. Most recently, Limpo, Filipe, et al. (2020) conducted a similar analysis of the measure after adapting it into Portuguese. They investigated validity via factorial structure, reliability, convergent evidence, and predictive ability via student scores on the measure in an experimental study. The authors concluded that their interpretations of these scores were valid, and emphasized the need for such rigorous instrument development in the field of writing motivations. Limpo, Vigário, et al. (2020) applied the measure as well in an experimental study, concluding the validity of score interpretations with Portuguese 3rd graders. Collectively, the findings of these researchers

lend support to the validity argument for the Writing Motivation Questionnaire. This will be further explored after analysis in the proposed study.

District Writing Test

To assess writing performance, data from the district's existing writing test will be used. Students in grades three to five were given an informative/explanatory prompt about the advantages and disadvantages of technology. They were provided three relevant articles and a video on the topic, and were encouraged to draw from the sources to find facts and information to include in their writing. Students were directed to use their time strategically as they reviewed sources, wrote, revised, and edited. They had the full school day to complete their essays. A composite score was derived for each student based on three dimensions: purpose/focus and organization (four points), evidence and elaboration (four points), and conventions (two points). A grade-level proficient writing score was between eight and ten. A partially proficient grade-level writing score was between five and seven. Minimal proficiency at grade level was between zero and four.

Reliability and Validity. Reliability will be calculated for the composite scores and the subscales for purpose, organization, and conventions. Evidence will also be sought from district test coordinators and psychometricians to prove that this test was equivalent across grade levels and that scores can be reasonably compared, and that the prompts and texts were constructed with content and measurement experts.

Procedures

Approval from the Institutional Review Board was received prior to any research activities involving students and their data. Consent and assent were also obtained. All students were first administered the Writing Motivation Questionnaire and then the

district writing measure in fall of the school year by their classroom teachers, according to the regular test administration processes in place across the district. Teachers read aloud the instructions for each test, and also read aloud each item on the Writing Motivation Questionnaire. After testing was completed, the district asked the teachers to utilize the writing motivation data with their students by having them compute mean scores for each incentive, then graph their own scores so they were visually represented. The teachers then led students to identify the importance and application of each motivational incentive, and determine how they could use this knowledge themselves as well as how their teachers could use this knowledge to increase writing motivation. This unique feature of the study allowed not only for the collection of data across a large sample, but also immediate and practical insights for teachers and students.

Analyses

The three research questions which are the focus of the proposed study include:

RQ 1: Are there statistically significant differences in the intrinsic, extrinsic, and self-regulatory writing motivation scores of students who are identified as emergent bilingual, reclassified bilingual, and native English-speaking; boys and girls; students in grades three four, and five; and the interaction between student type, gender, and grade?

RQ 2: Are there statistically significant differences in scores on the district writing test of students who are identified as emergent bilingual, reclassified bilingual, and native English-speaking; boys and girls; students in grades three four, and five; and the interaction between student type, gender, and grade?

RQ3: After accounting for grade and gender differences, do intrinsic, extrinsic, and self-regulatory writing motivation scores collectively and uniquely account for a statistically

significant portion of the variance in district writing test scores for emergent bilinguals, reclassified bilinguals, and native English-speaking students?

The first step in the analyses will be testing assumptions of normality, equal variances between groups, and independence of observations. Then to answer research question 1, three analyses of variance will be conducted – one each with intrinsic, extrinsic, and self-regulatory writing motivations as dependent variables. The results of each 3 (student type) X 3 (grade) X 2 (gender) Analysis of Variance (ANOVA) will be evaluated, and pairwise comparisons utilized for post hoc follow up on significant main effects. Fisher's (1935) least significant difference procedure will be used, as described by Levin, Serlin, and Seaman (1994) for situations where there are three groups ($k = 3$ and DF $= 2$).

For research question 2, a single 3 (student type) X 3 (grade) X 2 (gender) ANOVA will be conducted with district writing score as the dependent variable. Any significant main effects will be followed up by post-hoc analyses in the same manner as for research question 1.

Finally, for research question 3, a hierarchical linear regression will be conducted. Each block will be constructed based on causal priority, such that "no IV entering later should be a presumptive cause of an IV that has been entered earlier," (Cohen, Cohen, West, and Aiken, 2013, p. 158). Accordingly, student language status, gender, and grade will be entered into the first block. These categorical variables will be dummy coded for the analysis so that the reference group is female native English-speaking students in third grade. Then the three motivational incentives will be entered into the second block to determine if they collectively and/or uniquely predict writing scores (the outcome

variable). The last block will include hypothesized interactions with language status and

the motivational incentives.

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APPENDIX C

PROPOSAL POSITIONALITY STATEMENT

The purpose of this positionality statement is to reflect on my background and acknowledge how these experiences manifested in my thinking about the proposed research. Two salient background experiences shaped my interest in and understanding of the major topics in this study: growing up with a step-father of Mexican heritage, and teaching K-8 students with heritage languages other than English (predominantly Spanish).

My stepfather was Spanish/English bilingual, but only spoke English to myself and my siblings. While I am not sure how he felt about Spanish, he did believe that success in English literacy was of primary importance. He was also firm about the importance of education in order to avoid jobs in manual labor. I believe that my interest in Spanish as a language, and Mexican culture, stem from my experiences with him, and my experiences as the oldest child with 3 younger siblings of Mexican heritage. There were many rich moments where my stepfather shared his cultural practices, music, food, worldviews, and there were moments where I regretted his decision not to teach me Spanish. There were also moments where my Mexican-American siblings experienced different treatment than I did as a white person. Accordingly, I have come to feel strongly about the need for heritage languages and cultures to be valued in U.S. K-12 classrooms so that all students are represented and so that language and culture hierarchies can be gradually deconstructed/undermined. It is my view that these changes can take place in schools, where such views are often incipiently shaped.

This view also stems from my experiences teaching kindergarten, seventh, and eighth grades with majority Latinx students. I observed that my Spanish-dominant students were not supported by the educational system – neither toward academic success

or social and emotional success. This felt like a personal failure as much as a systemic failure. I was asking questions such as, "What should I be doing differently to help students learn content?...learn English?...learn strategies for school?...discover their interests?...showcase their knowledge/skills?...feel important in my classroom?" I can recall times where a Spanish dominant student would be working alone on Duolingo lessons while the rest of the class was participating together in discussion or group work. Feelings of overwhelm resulting from gaps in teacher preparation are common amongst general education teachers who are trying to attend to the diverse needs of all students (Lucas et al., 2009; Walker et al., 2004, Rubenstein-Avila and Lee, 2014). These observations motivated me to pursue my doctoral degree with a focus on literacy research. My experiences as a doctoral student (through faculty mentorship and exposure to research/literature) informed me/educated me of evidence-based approaches that would have been useful to my students during my time as a K-8 educator. I am also aware of the gaps that remain in the research base, and hope the proposed study will be a brick in this emerging foundation of important insights.

I am still not fluent in Spanish, and write this as a white English-speaking woman. While a rigorous quantitative research design will be utilized in the proposed study, my identity and positionality inform how I interpret outcomes and directions for future research. Assessments were implemented by participating teachers, and data were collected by the district office. Thus, I was removed from any possible interactions and observations with students and teachers. But I make assumptions about how teachers delivered the assessments, and how students from all groups may have interpreted items on the writing motivational questionnaire. I will mitigate biases by conducting a factor

analysis, and importantly, by also rooting my hypotheses in existing research and clear theoretical framing. While there is limited research with emergent bilingual students on writing motivation, I will draw from related research in reading motivation, and from general research on writing motivation. The Writer(s)-Within-Community model of writing as well qualitative research on writing attitudes for emergent bilingual students will also be important in making sense of and explaining outcomes.

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APPENDIX D

IRB DOCUMENTS

Knowledge Enterprise Development

ARIZONA STATE UNIVERSITY

Instructions and Notes:
- Depending on the nature of what you are doing, some sections may not be applicable to your research. If so, mark as "NA".
- When you write a protocol, keep an electronic copy. You will need a copy if it is necessary to make changes.

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1   Protocol Title

Include the full protocol title: The relationship between writing motivation and writing achievement

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2   Background and Objectives

Provide the scientific or scholarly background for, rationale for, and significance of the research based on the existing literature and how will it add to existing knowledge.
- Describe the purpose of the study.
- Describe any relevant preliminary data or case studies.
- Describe any past studies that are
- in conjunction to this study.

Concerns about students' writing in the United States are longstanding. In 1901, two members of the Department of English at Harvard University indicted that many freshman at their institution could not distinguish a sentence from a phrase or spell correctly even the simplest words (Copeland & Rideout, 1901). Such concerns about the writing of American students were still evident over 70 years later (Meisterheim, 1977), but the conversation about the poor writing of students in the United States had gone public and was focused on school-aged children. In an article published in *Newsweek,* Sheils (1975) asked the American people to consider "Why Johnny Can't Write", setting off a broad debate about the quality of writing instruction in American schools.

A contemporary expression of concerns about students' writing was expressed in 2003 by the National Commission on Writing (NCoW). This organization established by the College Board, representing 4300 schools and colleges, was formed specifically to draw national attention to the need to improve writing instruction for school-aged children. They argued that such improvement was needed if "…students are to succeed in college and life" (p. 7). While results from the National Assessment of Educational Progress (National Center for Education Statistics, 2012) showed that some small progress in improving students' writing had been made over time, a majority of students did not have the needed skills for proficient or grade-level appropriate writing. As a result, the report from NCoW urged that writing and improvements to teach it become a central element in efforts to reform educational practices in the U.S.

So why is the writing of American students not better? One possible culprit involves students' motivation for writing. Theoretically, it is reasonable to postulate that motivational factors play an important role in writing development. For instance, students who develop an "I can do" attitude are more likely to set challenging writing goals, plan a course of action for achieving them, exert needed effort, persevere in the face of difficulty, and believe that they will be successful (Bandura, 1995). There is some limited support for the role of motivation in writing. For examples, several studies have shown that constructing writing instruction to directly facilitate motivation leads to gains in writing performance (Graham, Harris, & Santenagelo, 2015). In addition, research on the relation between writing performance and motivation has found that the former predicts the latter, but it has mostly been limited to attitudes about writing, self-efficacy, interest, writing apprehension, and attributions for writing success (Bruining & Horn, 2000; Hidi & Boscolo, in press; Pajares, 2003). Thus, there is a need to further explore such relationships, considering additional motivational variables such as the role of motivation in curiosity, emotional regulation, boredom, competition, and grades. Such motivational variables have been found to predict students' reading performance (Schiefele & Schaffner, 2016). This study addresses this hole in the literature, by examining an intact and de-identified data set of data generated by the Tempe School.

As part of their typical school practices, Tempe schools administered a writing motivation survey to all students in grades 3 to 8 in the Winter of 2016. This writing motivation survey included 28 items measuring motivational factors including motivation generated by curiosity, grades, competition, boredom, and emotional regulation. At the same time, the School District also administered their annual on-demand writing assessment. Using this existing and de-identified data which includes

students' scores on each item on the motivation measure, on-demand writing scores, grade, race, language status (English language learner or not an English language learner), and special needs status, we will examine the factor structure and reliability of the writing motivation measure at grades 3 to 5 and 6 to 8, and further examine if the resulting writing motivation constructs predict students' writing performance at each of these grade levels. We also examine if writing motivation and writing performance is mediated by gender, grade, race, language status, and special needs status. We anticipate that the writing motivation measure will prove to be reliable and valid and predict students' writing performance at the specified grade levels. We further anticipate that gender, grade, race, language status, and special needs status will be related to students' writing motivation and writing performance scores.

3   Data Use
Describe how the data will be used. Examples include:
- Dissertation, Thesis, Undergraduate honors project
- Publication/journal article, conferences/presentations
- Results released to agency or organization
- Results released to participants/parents
- Results released to employer or school
- Other (describe)

    Publication/journal article, conference presentation
Results released to employer or school

4   Inclusion and Exclusion Criteria
Describe the criteria that define who will be included or excluded in your final study sample. If you are conducting data analysis only describe what is included in the dataset you propose to use.
Indicate specifically whether you will target or exclude each of the following special populations:
- Minors (individuals who are under the age of 18)
- Adults who are unable to consent
- Pregnant women
- Prisoners
- Native Americans
- Undocumented individuals

    This study will involve grade 3 to 8 students in Tempe Schools. In the Winter of 2016, the District administered a writing motivation measure to all grade 3 to 8 students as well as on an on-demand writing assessment. The writing tests were scored by an independent, outside testing company for overall writing quality. This was not done with students in grades 2 and below (the tests were scored by teachers and the reliability of such scoring is unknown and suspect). In addition, students in grades two and below did not complete the writing motivation measure. Thus, we limited this study to third to eighth grade students (N = 5924) who completed both the writing motivation and district writing assessment.

A letter from John Wilson, the Director of Research, Evaluation and Assessment for Tempe Schools is included as an attachment, indicating that they are collaborating with me on this research project, providing me with an existing and de-identified data set with these data, and giving me permission to analyze the data and report it in a published study.

5   Number of Participants
Indicate the total number of participants to be recruited and enrolled: Total number of students who completed both the writing motivation measure and the on-demand writing assessment was 5,924 grade 3 to 8 students.

6	**Recruitment Methods**
	• Describe who will be doing the recruitment of participants.
	• Describe when, where, and how potential participants will be identified and recruited.
	• Describe and attach materials that will be used to recruit participants (attach documents or recruitment script with the application).

The data collected for this study was collected as a normal part of the Tempe School District evaluation procedures. In Winter 2016, the Tempe District administered a writing motivation measure to all grade 3 to 8 students as well as on an on-demand writing assessment. Thus, all data were collected as part of normal operating procedures for the School District, and have been de-identified, and an electronic file with the pertinent information has been created (no student names are included in the file, just numbers for each student that only the district has a match for connecting student, teacher, and collected data). A letter from John Wilson, the Director of Research, Evaluation and Assessment for Tempe Schools is included as an attachment, indicating that they are collaborating with me on this research project, providing me with an existing and de-identified data set with these data, and giving me permission to analyze the data and report it in a published study.

7	**Procedures Involved**
	Describe all research procedures being performed, who will facilitate the procedures, and when they will be performed. Describe procedures including:
	• The duration of time participants will spend in each research activity.
	• The period or span of time for the collection of data, and any long term follow up.
	• Surveys or questionnaires that will be administered (Attach all surveys, interview questions, scripts, data collection forms, and instructions for participants to the online application).
	• Interventions and sessions (Attach supplemental materials to the online application).
	• Lab procedures and tests and related instructions to participants.
	• Video or audio recordings of participants.
	• Previously collected data sets that that will be analyzed and identify the data source (Attach data use agreement(s) to the online application).

As noted earlier, the Tempe School District as part of their typical operating practices administered a writing motivation measure to all grade 3 to 8 students as well as on an on-demand writing assessment during the Winter of 2016 (the writing motivation survey is attached to this application). This writing assessment involves providing students' with a prompt that ask them to write an essay during a 30 minute time frame. For students in grades 3 to 8 (the focus of this study), student compositions are sent to Measurement Incorporated. They score each composition using trained scorers. The compositions are scored on multiple criteria (ideation, organization, voice, word choice, sentence fluency, and conventions), and this analysis is used to create two scores: (1) an overall quality score and (2) proficient/not proficient score).

In discussion with the Tempe School District, they have agreed to share the data for students in grades 3 to 8 with us, so that we can analyze this data to determine the validity and reliability of the writing motivation measures at grades 3 to 5 and grades 6 to 8r, examine if the motivation constructs measured predict students' writing performance on the on-demand writing assessment, and determine if grade, gender, race, language status, and special needs status is related to writing motivation and writing performance. I have attached a letter from John Wilson, the Director of Evaluation in Tempe Schools to that effect. This data set will be provided as an SPSS file, and include students' scores on each item on the motivation survey, writing on-demand scores, grade, gener, race, language status, and special needs status. No student or teacher name or name of school will be attached to this data file. All information will be de-identified.

Upon IRB approval from ASU, John Wilson will make the data available to Steve Graham (primary PI) and data analyses will be conducted. This will include conducting factor analyses to determine the factor structure of the writing motivation survey, and regression analyses to determine if the writing motivation variables predict writing performance and if they are mediated by grade, gender, race, language status, and special needs status. These analyses will be done separately for grades 3 to 5 and 6 to 8. This will be completed by September 1, 2017. One or more papers will then be written for publication, sharing the results of the analyses (completed no later than December 31), and at least one conference submission will be made (no later than September 1, 2018).

---

8 **Compensation or Credit**
- **Describe the amount and timing of any compensation or credit to participants.**
- **Identify the source of the funds to compensate participants**
- **Justify that the amount given to participants is reasonable.**
- **If participants are receiving course credit for participating in research, alternative assignments need to be put in place to avoid coercion.**

Not applicable

---

9 **Risk to Participants**
List the reasonably foreseeable risks, discomforts, or inconveniences related to participation in the research. Consider physical, psychological, social, legal, and economic risks.

There is no risk to participants as the data analyzed in this study was collected as typical practices of the Tempe School District. No names (teachers, students, specific schools) will be attached to data provided to me for this study, so there will be no way to link individuals to the data applied in this study.

---

10 **Potential Benefits to Participants**
Realistically describe the potential benefits that individual participants may experience from taking part in the research. Indicate if there is no direct benefit. Do **not** include benefits to society or others.

The potential benefit of this study is that it provides more information about writing motivation and its link to writing achievement, which may be helpful to schools and policy makers in thinking about how writing is taught in the U.S. This might indirectly benefit the participants as it might lead to better practices in how writing is taught nationwide.

11 Privacy and Confidentiality

Describe the steps that will be taken to protect subjects' privacy interests. "Privacy interest" refers to a person's desire to place limits on with whom they interact or to whom they provide personal information. Click here for additional guidance on ASU Data Storage Guidelines.

Describe the following measures to ensure the confidentiality of data:
- Who will have access to the data?
- Where and how data will be stored (e.g. ASU secure server, ASU cloud storage, filing cabinets, etc.)?
- How long the data will be stored?
- Describe the steps that will be taken to secure the data during storage, use, and transmission. (e.g., training, authorization of access, password protection, encryption, physical controls, certificates of confidentiality, and separation of identifiers and data, etc.).
- If applicable, how will audio or video recordings will be managed and secured. Add the duration of time these recordings will be kept.
- If applicable, how will the consent, assent, and/or parental permission forms be secured. These forms should separate from the rest of the study data. Add the duration of time these forms will be kept.
- If applicable, describe how data will be linked or tracked (e.g. masterlist, contact list, reproducible participant ID, randomized ID, etc.).

If your study has previously collected data sets, describe who will be responsible for data security and monitoring.

Each student will be assigned a unique identification number by Tempe Schools (the link between names and the identification number will not be provided to ASU PI Steve Graham). Only the PI, Steve Graham, will have access to SPSS file created by Tempe Schools. This electronic file will be stored on the Primary PI's (Steve Graham) computer, which will be password protected and encrypted.

12 Consent Process

Describe the process and procedures process you will use to obtain consent. Include a description of:
- Who will be responsible for consenting participants?
- Where will the consent process take place?
- How will consent be obtained?
- If participants who do not speak English will be enrolled, describe the process to ensure that the oral and/or written information provided to those participants will be in that language. Indicate the language that will be used by those obtaining consent. Translated consent forms should be submitted after the English is approved.

The data was collected as part of typical school practices in Tempe Schools. All grade 3 to 8 students were asked to complete the writing motivation survey and on-demand writing assessment as part of typical school practices. Thus, consent procedures are not relevant for this study.

13 Training

Provide the date(s) the members of the research team have completed the CITI training for human participants. This training must be taken within the last 4 years. Additional information can be found at: Training.

Steve Graham – CITI training completed – 12-10-12 (it is good until 2017 in my conversation with Tiffany Dunning)

Instructions and Notes:
- Depending on the nature of what you are doing, some sections may not be applicable to your research. If so, mark as "NA".
- When you write a protocol, keep an electronic copy. You will need a copy if it is necessary to make changes.

14 Protocol Title

Include the full protocol title: The relationship between writing motivation and writing achievement

15 Background and Objectives

Provide the scientific or scholarly background for, rationale for, and significance of the research based on the existing literature and how will it add to existing knowledge.
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students' scores on each item on the motivation measure, on-demand writing scores, grade, race, language status (English language learner or not an English language learner), and special needs status, we will examine the factor structure and reliability of the writing motivation measure at grades 3 to 5 and 6 to 8, and further examine if the resulting writing motivation constructs predict students' writing performance at each of these grade levels. We also examine if writing motivation and writing performance is mediated by gender, grade, race, language status, and special needs status. We anticipate that the writing motivation measure will prove to be reliable and valid and predict students' writing performance at the specified grade levels. We further anticipate that gender, grade, race, language status, and special needs status will be related to students' writing motivation and writing performance scores.

16 Data Use
Describe how the data will be used. Examples include:
- Dissertation, Thesis, Undergraduate honors project
- Publication/journal article, conferences/presentations
- Results released to agency or organization
- Results released to participants/parents
- Results released to employer or school
- Other (describe)

Publication/journal article, conference presentation
Results released to employer or school

17 Inclusion and Exclusion Criteria
Describe the criteria that define who will be included or excluded in your final study sample. If you are conducting data analysis only describe what is included in the dataset you propose to use.
Indicate specifically whether you will target or exclude each of the following special populations:
- Minors (individuals who are under the age of 18)
- Adults who are unable to consent
- Pregnant women
- Prisoners
- Native Americans
- Undocumented individuals

This study will involve grade 3 to 8 students in Tempe Schools. In the Winter of 2016, the District administered a writing motivation measure to all grade 3 to 8 students as well as on an on-demand writing assessment. The writing tests were scored by an independent, outside testing company for overall writing quality. This was not done with students in grades 2 and below (the tests were scored by teachers and the reliability of such scoring is unknown and suspect). In addition, students in grades two and below did not complete the writing motivation measure. Thus, we limited this study to third to eighth grade students (N = 5924) who completed both the writing motivation and district writing assessment.

A letter from John Wilson, the Director of Research, Evaluation and Assessment for Tempe Schools is included as an attachment, indicating that they are collaborating with me on this research project, providing me with an existing and de-identified data set with these data, and giving me permission to analyze the data and report it in a published study.

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19	**Recruitment Methods**
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	• Describe and attach materials that will be used to recruit participants (attach documents or recruitment script with the application).

The data collected for this study was collected as a normal part of the Tempe School District evaluation procedures. In Winter 2016, the Tempe District administered a writing motivation measure to all grade 3 to 8 students as well as on an on-demand writing assessment. Thus, all data were collected as part of normal operating procedures for the School District, and have been de-identified, and an electronic file with the pertinent information has been created (no student names are included in the file, just numbers for each student that only the district has a match for connecting student, teacher, and collected data). A letter from John Wilson, the Director of Research, Evaluation and Assessment for Tempe Schools is included as an attachment, indicating that they are collaborating with me on this research project, providing me with an existing and de-identified data set with these data, and giving me permission to analyze the data and report it in a published study.

20	**Procedures Involved**
	Describe all research procedures being performed, who will facilitate the procedures, and when they will be performed. Describe procedures including:
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	• Surveys or questionnaires that will be administered (Attach all surveys, interview questions, scripts, data collection forms, and instructions for participants to the online application).
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Upon IRB approval from ASU, John Wilson will make the data available to Steve Graham (primary PI) and data analyses will be conducted. This will include conducting factor analyses to determine the factor structure of the writing motivation survey, and regression analyses to determine if the writing motivation variables predict writing performance and if they are mediated by grade, gender, race, language status, and special needs status. These analyses will be done separately for grades 3 to 5 and 6 to 8. This will be completed by September 1, 2017. One or more papers will then be written for publication, sharing the results of the analyses (completed no later than December 31), and at least one conference submission will be made (no later than September 1, 2018).

---

21 **Compensation or Credit**
- **Describe the amount and timing of any compensation or credit to participants.**
- **Identify the source of the funds to compensate participants**
- **Justify that the amount given to participants is reasonable.**
- **If participants are receiving course credit for participating in research, alternative assignments need to be put in place to avoid coercion.**

Not applicable

---

22 **Risk to Participants**
List the reasonably foreseeable risks, discomforts, or inconveniences related to participation in the research. Consider physical, psychological, social, legal, and economic risks.

There is no risk to participants as the data analyzed in this study was collected as typical practices of the Tempe School District. No names (teachers, students, specific schools) will be attached to data provided to me for this study, so there will be no way to link individuals to the data applied in this study.

---

23 **Potential Benefits to Participants**
Realistically describe the potential benefits that individual participants may experience from taking part in the research. Indicate if there is no direct benefit. Do **not** include benefits to society or others.

The potential benefit of this study is that it provides more information about writing motivation and its link to writing achievement, which may be helpful to schools and policy makers in thinking about how writing is taught in the U.S. This might indirectly benefit the participants as it might lead to better practices in how writing is taught nationwide.

24 Privacy and Confidentiality

Describe the steps that will be taken to protect subjects' privacy interests. "Privacy interest" refers to a person's desire to place limits on with whom they interact or to whom they provide personal information. Click here for additional guidance on ASU Data Storage Guidelines.

Describe the following measures to ensure the confidentiality of data:
- Who will have access to the data?
- Where and how data will be stored (e.g. ASU secure server, ASU cloud storage, filing cabinets, etc.)?
- How long the data will be stored?
- Describe the steps that will be taken to secure the data during storage, use, and transmission. (e.g., training, authorization of access, password protection, encryption, physical controls, certificates of confidentiality, and separation of identifiers and data, etc.).
- If applicable, how will audio or video recordings will be managed and secured. Add the duration of time these recordings will be kept.
- If applicable, how will the consent, assent, and/or parental permission forms be secured. These forms should separate from the rest of the study data. Add the duration of time these forms will be kept.
- If applicable, describe how data will be linked or tracked (e.g. masterlist, contact list, reproducible participant ID, randomized ID, etc.).

If your study has previously collected data sets, describe who will be responsible for data security and monitoring.

Each student will be assigned a unique identification number by Tempe Schools (the link between names and the identification number will not be provided to ASU PI Steve Graham). Only the PI, Steve Graham, will have access to SPSS file created by Tempe Schools. This electronic file will be stored on the Primary PI's (Steve Graham) computer, which will be password protected and encrypted.

25 Consent Process

Describe the process and procedures process you will use to obtain consent. Include a description of:
- Who will be responsible for consenting participants?
- Where will the consent process take place?
- How will consent be obtained?
- If participants who do not speak English will be enrolled, describe the process to ensure that the oral and/or written information provided to those participants will be in that language. Indicate the language that will be used by those obtaining consent. Translated consent forms should be submitted after the English is approved.

The data was collected as part of typical school practices in Tempe Schools. All grade 3 to 8 students were asked to complete the writing motivation survey and on-demand writing assessment as part of typical school practices. Thus, consent procedures are not relevant for this study.

26 Training

Provide the date(s) the members of the research team have completed the CITI training for human participants. This training must be taken within the last 4 years. Additional information can be found at: Training.

Steve Graham – CITI training completed – 12-10-12 (it is good until 2017 in my conversation with Tiffany Dunning)

ASU Knowledge Enterprise
Development

Need help?

ise Research
stration System

Date: Friday, September 11, 2020 1:06:45 PM

Print   Close

View: SF: Modification/CR

Modification / Continuing Review / Study Closure

* What is the purpose of this submission?

O Continuing Review

● **Modification / Update**

O Modification and Continuing Review

ⓘ To change the PI, choose 'Other parts of the study/site' scope   **COVID - 19 ?**

Modification scope:

Study team member information

Active Modification For This Study   **Modification Type**

View: SF: Modification Information

Modification Information

1. Study enrollment status:

☐ No subjects have been enrolled to date

☐ Subjects are currently enrolled

☐ Study is permanently closed to enrollment

☐ All subjects have completed all study-related interventions

☐ Collection of private identifiable information is complete

2. Notification of subjects: (check all that apply)

☐ Current subjects will be notified of these changes

☐ Former subjects will be notified ~~of the work~~

> ⓘ Attach files: If notifying subjects, add a description of how they will be notified to the Other attachments section of the Local Site Documents page.

Need help?

3. * Summarize the modifications:

I am adding a new research team member who will have access to the de-identified data. Her name is April Camping. She is a doctoral student at ASU (alonga). Here Citi certifiucation was July 31, 2020 to July 30, 2024 (30727772). She will be involved in conducting data analysis.

Steve Graham, P.I.

View: SF: Redirect to Draft Submission SmartForm

Study Team Members

1. ASU Study Team Members: Identify each additional person involved in the design, conduct, or reporting of the research. Students may need to be added to the database (below) before they can be added as an ASU Study Team Member.

Name	Roles	Financial Interest	Involved in Consent	E-mail	Phone
April Camping	Graduate Student	no	no	April.Camping@asu.edu	-

2. ASU Study Team Members NOT FOUND ABOVE: Any study team member who cannot be added above needs to be added here to be manually added to the database.

User Name	First Name	Last Name	Email	Company
There are no items to display				

3. External Study Team Members: Attach a word document(s) listing external study team members. This list should include affiliation, roles, titles, and whether or not they will be going through their own IRB for training and approval. If they have current CITI training, attach a copy.

Name   Descrip   Need help?

There are no items to display

ASU Knowledge Enterprise
Development

APPROVAL: MODIFICATION

Stephen Graham
Division of Educational Leadership and Innovation - Tempe
480/965-7259
steve.graham@asu.edu

Dear Stephen Graham:

On 9/11/2020 the ASU IRB reviewed the following protocol:

Type of Review:	Modification / Update
Title:	Tempe Writing Motivation and Achievement
Investigator:	Stephen Graham
IRB ID:	STUDY00005718
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	None

The IRB approved the modification.

When consent is appropriate, you must use final, watermarked versions available under the "Documents" tab in ERA-IRB.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc:

Tempe
School District No. 3
www.tempeschools.org

December 23, 2016

To Whom it May Concern:

The Tempe School District #3 is collaborating with Dr. Steve Graham on a research study that examines student motivation in writing and the performance of students on an on-demand writing assessment.

We have given permission to Dr. Graham to analyze the data. We will remove student names, teacher names and school names from the data file provided for analysis. The following information will be included on the file: student grade, race, language status and special needs status and writing scores.

We understand that the data from the study may be used in a published study or a conference address and give our permission for such.

Sincerely,

John Wilson
Director of Research, Evaluation and Assessment
Tempe School District #3