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Teaching Writing in Grades 7-9 in Urban Schools in Chinese Societies in Asia

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ABSTRACT

A random sample of 1,313 grades 7-9 Chinese language arts teachers in Shanghai, Hong Kong, Macao, and Taipei were surveyed about their instructional writing practices. When asked about their college, inservice, and personal preparation, three out of four teachers indicated that they were poorly prepared to teach writing. They were slightly positive about themselves and writing, their students and writing, and their effectiveness as writing teachers. Textbooks, school guidelines, national standards, and high school entrance exams played a prominent role in shaping how they taught writing, but a sizable minority of teachers indicated that they mostly designed their own writing program. Writing classes occurred infrequently, as just one in six teachers held a class more often than once every two weeks. Teachers used evidence-based practices, but such procedures were typically applied only once a month. Students completed a broad range of writing activities during the school year and applied a variety of revising and planning procedures. Consistent with sociocultural theory, teachers from the four locations evidenced differences on almost every variable studied, although the observed differences were mostly a matter of degree (i.e., teachers applied certain practices more or less frequently). Teachers' preparation, beliefs about writing, and frequency of writing classes predicted their instructional practices and how frequently students engaged in specific writing activities.

riting is a versatile tool. People use it to record information, communicate, persuade, socialize, learn, create imaginary worlds, and explore who they are (Graham, 2006). In most countries today, writing is essential to success at school and work (e.g., National Commission on Writing for America's Families, Schools, and Colleges, 2004), and writing is a common means for participating in civil society, as evidenced by the popularity of tweeting, emailing, texting, blogging, and posting.

The Importance of Studying Writing Instruction in Chinese Societies in Asia

Despite its importance, relatively little is known about how writing is acquired (Bazerman et al., 2017). It is generally assumed that schooling plays an important role in this process, and there is a small but growing body of research examining how writing is taught in schools around the globe (see Graham & Rijlaarsdam, 2016). The primary purpose of the current study was to examine grades 7–9



Reading Research Quarterly, 53(4) pp. 473–507 | doi:10.1002/rrq.213 © 2017 International Literacy Association. Chinese language arts writing instruction in urban schools in Asia (Shanghai, Hong Kong, Macao, and Taipei). Such a study is important for three reasons.

Writing Instruction Globally

The specifics of writing instruction remain largely unknown in most countries, including China (Hsiang & Graham, 2016). Chinese societies in Asia are particularly important to understanding how writing is taught worldwide, as this region contains the world's largest educational system, one fifth of the world's population, and the world's second largest economy (OECD, 2016). Although some studies have examined specific aspects of teaching writing to secondary students in this region (e.g., Ding, 2008; Luan & Gu, 2006; Zhang & Yu, 2012), these investigations are not readily accessible to scholars outside of China, involve convenience samples of teachers, and do not chronicle what students write or whether evidence-based practices are used to teach writing. Like other countries (e.g., the Common Core State Standards in the United States; National Governors Association Center for Best Practices & Council of Chief School Officers, 2010), Chinese societies in Asia place considerable emphasis on writing during middle school, requiring students to have strong narrative, informational (called practical writing in China), expository, and persuasive writing skills (Education and Youth Affairs Bureau, 2017; Ministry of Education, 2016; Ministry of Education of the People's Republic of China, 2012). Despite this emphasis, concerns about students' writing are common in this region. Students' writing has been criticized as being poorly organized, lacking originality, containing irrelevant information, and having too many grammatical errors (Ho, 2012; Huang, 2015; Research Center for Psychological and Educational Testing, 2016a, 2016b; L. Zhou, 2003). Many of the same issues are evident in students' writing in other countries (Graham & Rijlaarsdam, 2016). Given these similarities, obtaining a better understanding of how writing is taught in Chinese societies may provide useful insights for other nations trying to improve students' writing.

Cultural Context

To understand writing and writing instruction more broadly, it is critical that we examine how writing is taught in different cultural contexts. The study of classroom writing practices has mostly been dominated by studies conducted in the United States and Europe (see Graham & Rijlaarsdam, 2016). For example, in their extensive study of secondary schools in the United States, Applebee and Langer (2013) established that some teachers created rich and engaging writing programs, where students spend a considerable amount of time writing text to propel their thinking; engaging in planning, drafting, sharing, and evaluating text; discussing process and ideas; and collaborating with peers. Unfortunately, such writing instruction was not found to be common, as students in most participating classes spent little time writing extended text (e.g., 1.2 pages per week in language arts), and most writing tasks involved teachers doing most of the composing, with students supplying missing text or information. Teachers in these classes applied a variety of evidence-based practices to teach writing (as defined by Graham & Perin, 2007), such as teaching writing strategies or encouraging student collaboration when writing, but such procedures were used sparingly because teachers allocated little time to writing instruction.

Graham and colleagues (Graham, Capizzi, Harris, Hebert, & Morphy, 2014; Ray, Graham, Houston, & Harris, 2016) reported similar findings in their surveys of U.S. writing practices. For instance, they reported that middle school students spend little time writing. The most common tasks involve noncomposing activities such as note-taking, short answer responses, and filling in blanks. Consistent with Applebee and Langer's (2013) findings, teachers surveyed used a variety of evidence-based practices but applied them infrequently. This minimalist approach to teaching writing reaches beyond the United States, as surveys conducted in Europe, Africa, and South America yielded similar descriptions (De Smedt, Van Keer, & Merchie, 2016; Dockrell, Marshall, & Wyse, 2016; Michaelowa, 2001; Veiga Simão, Malpique, Frison, & Marques, 2016).

Like the United States and many other countries (Cook, Smith, & Tankersley, 2012; Fidalgo, Harris, & Braaksma, 2018), China has emphasized researchsupported practices as a means for reforming education and improving learning. In the United States, such practices were privileged in reforms such as the No Child Left Behind Act of 2001 and the Reading First federal education program mandated by the act. In China, research-supported teaching techniques, such as active learning, inquiry, collaborative learning, and formative assessment, were promoted through the 2001 New Curriculum Reform (OECD, 2016; J. Zhou, 2014).

This movement from more traditional Chinese instruction, which relies heavily on the transmission of information (e.g., teaching good writing by assigning a topic and telling students what to write), to evidencebased instructional procedures also occurred in the area of writing. For instance, as in the United States (Graham & Sandmel, 2011), research-supported writing practices, such as the process approach to writing, and strategy instruction were introduced in Chinese societies in Asia starting in the 1980s (Chang, 1992; Hsiang, 2006). The process approach involves a number of interwoven activities, including extended opportunities for writing; student choice in writing topics; writing for real audiences; encouraging cycles of planning, drafting, and reviewing; student ownership of writing projects; high levels of student interactions; and personalized assistance (e.g., conferencing) and instruction as needed. Strategy instruction involves explicitly teaching strategies for carrying out writing processes such as planning, drafting, and revising. In the current study, we concentrated our attention on writing practices in urban rather than rural areas, as professional development (PD) opportunities emphasizing new teaching methods are more likely to occur in urban areas in Chinese societies in Asia (Wang, 2007).

The Chinese context provides an intriguing setting for studying teachers' instructional practices in writing, including the use of evidence-based practices, as the teaching of writing is embedded in a different set of social, cultural, and political contexts than in Western countries, such as the United States. This distinction was evident in a qualitative study of teachers by Li (1996), for example, in which a Chinese teacher indicated that writing was for shaping and educating a student's mind, whereas a U.S. counterpart described writing as a means for self-discovery and expression. It is evident in how Chinese students frame a written argument, using a less direct approach than students in the West, by implying versus stating directly the intended message and relying on clichés and set phrases to avoid conflict and foster group values (Cai, 1993). It is evident in how education is viewed in China, where civil service examinations historically provided the sole route for upward mobility, and success on these exams was presumably achieved through effort, resulting in a set of traditional beliefs that hard work pays off, high scores are more important than the relevance of the curriculum, and rote learning is valuable (OECD, 2011). Although engagement, emphasis on success, and rote learning are not foreign concepts to writing instruction in the United States, they play a less prominent role than they do in Chinese societies in Asia. As a result, the use of evidence-based practices, the types of writing tasks teachers assign, and the factors that are associated with both are likely to evidence a different pattern in Chinese societies versus Western ones.

Logographic Writing System

Another reason why it is important to study the teaching of Chinese writing is that students are taught to write in a logographic rather than alphabetic system. Most available research has involved studying writing instruction in alphabetic languages (Graham & Rijlaarsdam, 2016). In contrast to alphabetic languages, Chinese characters are logograms made of radicals, which are constructed through a configuration of strokes. The orthographic-phonological rules for Chinese characters are more complex and less reliable than the rules for alphabetic languages, and it is necessary to learn the character structures, stroke forms, and stroke sequences for each character (Yeung, Ho, Chan, & Chung, 2017). Learning to write in Chinese is further complicated by a large number of homophones (different characters that make the same sound but have different meanings). The complexities of learning to write Chinese requires a considerable amount of effort and time, which may influence writing instruction in later grades differently than it does with alphabetic languages, which are more transparent and less difficult. Middle school teachers of Chinese language arts may devote more time to writing instruction because of the challenges of learning to write in this language. It is also possible that this is not the case, as Chinese middle school teachers may assume that older students have already mastered the intricacies of Chinese characters (it is expected that Chinese students will learn up to 3,400 characters in grades 1–5; Chung & Leung, 2008).

Theoretical Foundations

Theoretically, our study was based on the assumption that writing is a social activity (Schultz & Fecho, 2000), and writing instruction is embedded in larger contexts, which influence how writing is taught (Russell, 1997). More specifically, we draw on a model of writing by Graham (in press) that posits that writing and learning to write are shaped by the community in which they take place and by the decisions and capabilities of those who participate in this community. The writing community members are shaped, in turn, by larger forces involving culture, society, institution, politics, and history (Bazerman et al., 2017).

A writing community in this model involves a group of people who share a basic set of goals and assumptions and use writing to achieve their purpose (Graham, in press). A writing community has specific purposes, identities, goals, values, norms, and audiences. It contains members who assume different roles, responsibilities, identities, and levels of commitment. Members of the community use tools (e.g., tools for writing, resource materials) and typified patterns of action (adopted by the community) to accomplish writing tasks and objectives. This work occurs in specific physical and social environments and is shaped by a collective history that unfolds and becomes codified over time (although typified patterns of practice are open to change). Although accommodation and coordination are necessary if the purposes of a writing community are to be met, considerable variability is likely due to contradictions, conflict, multiple voices, disparate elements, and heterogeneity. In terms of the present study, *writing community* refers to each teacher's classroom (i.e., the teacher and his or her students), and although we assume that middle school Chinese language arts classes (or writing communities) will share many similarities because they have common purposes, no two classes will be exactly alike.

Moreover, according to Graham's (in press) model, what happens in a writing community also depends on the capabilities, beliefs, and intentions of its members. For example, teachers who are more prepared to teach writing, self-efficacious about teaching it, and positive about writing are more likely to teach it than teachers who are less capable and positive. Similarly, how writing is taught likely depends on the capabilities of the students in the classroom.

In turn, how a writing community and its members function is influenced by forces that operate at a broader level (Graham, in press). Cultural, social, institutional, political, and historical forces all determine what happens in a class. We provide five examples to illustrate this principle. Culturally, the prevailing Confucian philosophy in Chinese societies in Asia advocates benevolence, propriety of behavior, and loyalty to social traditions, which are aimed at establishing individual responsibility for social harmony, influencing what is viewed as acceptable writing (Cai, 1993). Socially, motivation to learn in China is often driven more by extrinsic factors such as family and societal expectations than a genuine interest in the subject matter (OECD, 2011). Institutionally, exams play an important role in education in Chinese societies, and teaching and learning in and outside of school, particularly at the secondary level, are shaped by the examination syllabi (OECD, 2016). Politically, students in Hong Kong and Macao learn to write traditional characters because of the "one country, two systems" principle, whereas students in mainland China learn the simplified characters (Education and Youth Affairs Bureau, 2017). Historically, reading is regarded as the most effective means of learning in China, and the emphasis placed on it may result in less emphasis on other language arts such as writing (Feng, 2010).

Graham's (in press) model influenced our study in five ways. First, we compared our findings on writing instruction in middle school language arts classrooms with descriptions reported in the literature of such instruction in the United States and other countries, situating our findings of the study of writing at a broader level. Second, we asked teachers to indicate the degree to which the following institutional factors influenced how they taught writing: school guidelines, textbooks, national curriculum standards, and high school entrance exams. Third, we examined whether individual differences in classroom members' capacity and beliefs were associated with reported use of writing practices.

At the teacher level, this encompassed preparation to teach writing, self-efficacy, and attitudes toward writing. At the student level, it encompassed proportion of students in the class with special needs or who were gifted. Fourth, we examined the amount of variability in the classroom writing practices, preparation, and beliefs of teachers in each urban area studied (Shanghai, Hong Kong, Macao, and Taipei). Fifth, we examined how writing instruction in the four different Chinese cities differed statistically, testing a basic tenet of sociocultural theory (Russell, 1997) and Graham's (in press) model that macrolevel factors involving culture, society, institution, politics, and history shape microlevel actions in the classroom. Multiple differences in macrolevel factors were evident across these locales (see the next section).

Research Questions and Hypotheses

This study addressed eight research questions about Chinese language arts middle school teachers:

- 1. Are teachers prepared to teach writing?
- 2. Are they positive about writing and teaching it?
- 3. How much time do they devote to writing instruction?
- 4. What types of writing do teachers assign?
- 5. What role does evaluation play in teachers' classrooms?
- 6. How do teachers teach writing?
- 7. What factors shape their writing instruction?
- 8. Do teachers' preparation, beliefs, frequency of teaching writing, and class composition predict how they teach writing?

We anticipated that a majority of the grades 7-9 teachers in this study would not view their college preparation to teach writing positively. Although teachers obtain a qualification certificate to teach in Chinese societies in Asia and are instructed for three or four years at a teacher's college or university (Magaziner, 2016; OECD, 2011), courses taken by prospective middle school teachers mostly focus on subject matter, not on how to teach (J. Zhou, 2014). This is similar to reports in other countries, such as the United States, where teachers in middle school and other grades reported taking almost no course work on how to teach writing (e.g., Brindle, Harris, Graham, & Hebert, 2016; Graham et al., 2014). Such findings have led to concerns that many colleges across the globe are not adequately preparing teachers to teach writing (Graham & Rijlaarsdam, 2016).

College preparation is not the only source for learning how to teach writing, so we also asked teachers about their inservice and personal preparation. Teachers in mainland China, Hong Kong, and Macao are required to take an average of 72, 50, and 30 hours of inservice preparation a year, respectively (Education Bureau, 2003; OECD, 2011; System Framework for Private School Teaching Staff of Non-tertiary Education, 2012). Although concerns about the quality of such preparation has been raised, at least in mainland China (J. Zhou, 2014), and it is unclear how much of this preparation is devoted to writing, it is possible that these different sources of preparation may result in a more positive picture of participating teachers' views of their preparation overall. This has been the case in studies conducted in other countries, such as the United States (Graham et al., 2014; Ray et al., 2016).

We further predicted that participating teachers would be positive about writing, their efficacy to teach it, and their students' writing. All of the teachers taught language arts, which implies a general and positive interest in writing and teaching it.

It was anticipated that teachers would devote little time to writing instruction and infrequently employ evidence-based teaching practices (for a review of such practices, see Graham, Harris, & Santangelo, 2015) such as writing strategy instruction, the process writing approach, and teaching writing skills for expressive writing (e.g., vocabulary, imagery, text structure). We based this prediction on reports from other countries, where investigators found that writing instruction received little emphasis in middle school classes (e.g., Applebee & Langer, 2013; Graham et al., 2014; Ray et al., 2016; Veiga Simão et al., 2016).

We expected that Chinese language arts teachers in grades 7–9 would indicate that multiple institutional factors influenced their writing instruction, including textbooks, school guidelines, the national curriculum, and high school entrance exams. In essence, how writing is taught not only depends on the vision and effort of the teacher but is also shaped by institutional and political factors that reside outside the classroom (Graham, in press; Schultz & Fecho, 2000).

We examined whether teacher preparation to teach writing, beliefs about writing, how often teachers held writing class, and the composition of the classroom (number of gifted and special needs students) predicted the instructional writing practices reported by teachers. It was anticipated that overall preparation to teach writing and PD practices for writing at teachers' schools would predict what and how students were assigned to write and how they were taught to write, as better prepared writing teachers would place more emphasis on writing and writing instruction. Because teachers with more positive attitudes about writing and their instructional capabilities should be inclined to place greater emphasis on teaching writing, we also expected that efficacy for teaching writing, teachers' attitudes about writing, and their attitudes about writing and middle school students would predict writing practices. We further assumed that frequency of writing instruction would predict teachers' reported writing practices, as time can afford or constrain teaching opportunities (National Commission on Writing for America's Families, Schools, and Colleges, 2004). Finally, how writing was taught is likely related to the number of students with special needs (gifted students and those with a disability) in teachers' classes, as teachers may increase their instructional efforts to meet these students' needs.

We did not ask a specific question about variability of teacher responses within and across locations, but we examined the first source of variability (each location) across all questions and the second source (between cities) by question. We expected that there would be variability in the preparation, beliefs, and writing practices of teachers at each urban location. As an example, we assumed that classes in each city would serve similar purposes, but how these purposes were achieved would vary somewhat due to situational exigencies in each school and district and differences in personnel and students.

Moreover, we expected that there would be differences in the preparation, beliefs, and writing practices of teachers in the four urban locales. Although the four locations are distinctly Chinese, and teachers in these cities share many cultural similarities (see OECD, 2016), they do not have the same political, institutional, or social histories. For instance, education in Taipei was influenced by Japan during the colonization period and more recently by the United States, Hong Kong's educational system retains vestiges of its British colonial legacy, and private schools are more common in Macao as a result of Portuguese's indifference to Chinese schooling (Chan & Elliott, 2004: OECD, 2011). Each of these cities has their own educational policies and systems (Magaziner, 2016; OECD, 2016), resulting in many differences, ranging from the length of the school year (e.g., up to 38 weeks in Hong Kong, 41 weeks in Shanghai) to the nature of examinations (e.g., different high school entrance exams in Taipei and Shanghai). Although each location has placed considerable emphasis on educational reform, it has taken different paths, such as Shanghai's emphasis on reforming the mode and content of examinations (OECD, 2016) and Hong Kong's emphasis on learning how to learn (OECD, 2011). The language of instruction is also not the same in each of these cities (Mandarin in Shanghai and Taipei and mostly Cantonese in Hong Kong and Macao), although all students learn to write in Mandarin, even

though the character styles may differ (Yeung et al., 2017).

As a result, we anticipated that differences in macrolevel factors such as these would foster differences by city in teachers' preparation, beliefs, and how they teach writing. A previous study by Hsiang and Graham (2016) with fourth- to sixth-grade teachers in Beijing, Macao, and Taipei found such differences but indicated that they were mostly a matter of degree, not a reflection of more general differences in how writing was taught.

Methods

Participants

A random sampling procedure, stratified by region and grade levels, was used to identify 1,724 teachers from a population of 10,523 grades 7–9 Chinese language arts teachers in 1,153 public and private normal schools in Shanghai, Hong Kong, Macao, and Taipei. Not included in this sample was special education and supplementary teachers or teachers in schools where instruction was provided in a language other than Chinese. We purposefully selected 1,724 teachers to survey, as this provided a sampling error of $\pm 4\%$ for the most restrictive items (yes/no), using a 95% confidence level and assuming a return rate of 50% (Dillman, 2000).

Of the 1,724 teachers who received a survey, 1,333 (77%) questionnaires were returned. Twenty surveys were eliminated because the teachers indicated that they did not teach writing or because they did not answer this question. This changed the response rate to 76% and narrowed the sampling error to $\pm 3.3\%$ for yes/ no responses and $\pm 2.3\%$ for items with the most response options (i.e., eight).

Of the remaining 1,313 teachers (see Table 1), 34.5% (n = 453) were from Shanghai, 25.9% (n = 340) from Hong Kong, 24.4% (n = 320) from Taipei, and 15.2% (n = 200) from Macao. More than half of the teachers (54.7%, n = 709) worked in public schools, 22.9% (n = 296) in public schools managed by private organizations (all in Hong Kong), 21.3% (n = 276) in private schools receiving governmental support, and 1.1% (n = 14) in private schools not receiving governmental support (all in Macao). Slightly more than half of the teachers (52.2%) taught just in middle schools that encompassed students in other grades (61.5% of Macao participants taught in such schools).

Teachers were distributed almost equally among the three grades and were mostly female (84%, n = 1,082). More than half of the teachers (59.4%) had completed a bachelor's degree (n = 775), and 30.6% of them had engaged in additional study beyond the bachelor's degree (n = 398). Virtually all teachers (97.6%) held a middle

and high school Chinese language education certification (n = 1,277). As a group, they averaged 12.9 years of teaching experience with grades 7–9 students (standard deviation [SD] = 8.4 years). The average class size was 31.6 (SD = 8.9). Gifted students and students with special needs were not common in these teachers' classes (gifted students: mean [M] = 0.4, SD = 2.1; students with special needs: M = 0.9, SD = 2.0). Mandarin was used in most classes (65.3%), whereas 34.7% of classes used a local dialect (all in Hong Kong and Macao).

To control for Type I errors (incorrect rejection of a null effect), alpha was set at p < .001 when testing for location effects. Statistically, more teachers taught in public schools in Taipei (91.5%) and Shanghai (87.4%), more teachers taught in private schools receiving governmental support in Macao (86.5%), and more teachers taught in public schools managed by private organizations in Hong Kong (89.2%). More teachers were just from middle schools in Shanghai (90.4%), more teachers were from middle/high schools in Hong Kong (92.2%), and more teachers were from middle schools with younger and older students in Macao (71.0%). When associate's and bachelor's degrees were collapsed into one category and education beyond a bachelor's degree through a doctorate into another, advanced degrees were more common in Hong Kong (59.8%) and Taipei (52.7%) than they were in Shanghai (22.2%) and Macao (30.3%). More teachers in Hong Kong held additional subject area certification (20.0%) than teachers in Taipei (6.6%), Macao (6.0%), and Shanghai (2.9%). More teachers in Macao held a primary education certification (8.0%) than teachers in Taipei (2.2%) and Shanghai (0.7%), whereas more teachers in Hong Kong held a primary education certification (5.3%) than teachers in Shanghai (0.7%). Teachers in Macao taught fewer years at grades 7-9 (M = 9.2years, SD = 6.7 years) than did teachers in Shanghai (M = 13.3 years, SD = 8.6 years), Hong Kong (M = 13.4 sc)years, SD = 8.6 years), and Taipei (M = 13.9 years, SD = 8.3 years).

Statistically, more Shanghai (100%) and Taipei teachers (100%) spoke Mandarin in class than Macao teachers (23.2%), who used Mandarin more often than Hong Kong teachers (10.7%). In contrast, Hong Kong teachers (89.3%) spoke the local dialect more often in class than Macao teachers (76.8%), who did so more often than Shanghai (0%) or Taipei (0%) teachers.

Further, classes were statistically larger in Shanghai (M = 36.8, SD = 10.0) than in Hong Kong (M = 27.2, SD = 7.6), Macao (M = 29.6, SD = 7.5), and Taipei (M = 30.1, SD = 5.4); Taipei class sizes were also larger than Hong Kong classes. Finally, gifted children were more common in Shanghai classes (M = 0.7, SD = 3.4) than classes in Hong Kong (M = 0.1, SD = 0.5), and students with special needs were more common in Hong Kong classes

	Shar	nghai	Hong	Kong	Taij	oei	Ma	cao		
Variable	z	%	z	%	z	%	z	%	Significance	Contrasts/post hoc
Grade (<i>N</i> = 1,292)									US	
• 7 ($N = 467$)	184	42.2	118	34.8	103	32.2	62	31.5		
• 8 ($N = 422$)	139	31.9	107	31.6	114	35.6	62	31.5		
• 9 $(N = 403)$	113	25.9	114	33.6	103	32.2	73	37.1		
Gender $(N = 1, 288)$									SU	
• Male (N = 206)	68	15.6	67	19.9	38	11.9	33	16.7		
• Female (<i>N</i> = 1,082)	367	84.4	269	80.1	281	88.1	165	83.3		
Degree $(N = 1, 305)$									$\chi^2 = 292.5, p = .000$	
 Associate's (N = 6) 	4	0.9	2	0.6	0	0.0	0	0.0		
• Associate's plus additional education $(N = 88)$	85	18.9	-	0.3	0	0.0	2	1.0		
• Bachelor's (<i>N</i> = 681)	261	58.0	133	39.3	151	47.3	136	68.7		
• Bachelor's plus additional education ($N = 132$)	28	6.2	33	9.8	55	17.2	16	8.1		
• Master's (N = 373)	71	15.8	160	47.3	100	31.3	42	21.2		
 Master's plus additional education (N = 19) 	-	0.2	7	2.1	10	3.1	-	0.5		
• Doctorate $(N = 6)$	0	0.0	2	0.6	c	0.9	-	0.5		
Teacher certification $(N = 1,308)$										
• None (<i>N</i> = 3)	0	0.0	-	0.3	2	0.6	0	0.0	us	
• Preprimary $(N = 5)$	0	0.0	2	0.6	0	0.0	m	1.5	ns	
• Primary $(N = 44)$	c	0.7	18	5.3	7	2.2	16	8.0	$x^2 = 28.7, p = .000$	M > T; M > S; H > S
• Middle and high school Chinese language ($N = 1, 277$)	436	97.1	327	96.2	318	99.4	196	98.5	SU	
• Middle and high school other subjects (N = 114)	13	2.9	68	20.0	21	6.6	12	6.0	$x^2 = 77.2, p = .000$	H > T; H > M; H > S
School type $(N = 1,295)$									$x^2 = 1,812.3, p = .000$	I
• Public (<i>N</i> = 709)	389	87.4	16	4.8	291	91.5	13	6.5	$x^2 = 887.1, p = .000$	T > M; T > H; S > M; S > H
• Private with governmental support ($N = 276$)	56	12.6	20	6.0	27	8.5	173	86.5	$x^2 = 604.4, p = .000$	M > S; M > T; M > H
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TABLE 1 Demographic Inform

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	Shar	ıghai	Hong	Kong	Taij	oei	Mai	cao		
Variable	z	%	z	%	z	%	z	%	Significance	Contrasts/post hoc
• Private without governmental support ($N = 14$)	0	0.0	0	0.0	0	0.0	14	7.0	$x^2 = 77.5, p = .000$	
• Public managed by a private organization ($N = 296$)	0	0.0	296	89.2	0	0.0	0	0.0	$x^2 = 1,113.0, p = .000$	H > S; H > T; H > M
Grades taught ($N = 1,298$)									$x^2 = 1,476.3, p = .000$	M > H > T > S
• Middle school $(N = 677)$	404	90.4	11	3.3	241	75.8	21	10.5	$x^2 = 790.5, p = .000$	S > T > H; S > T > M
• Middle and high school $(N = 445)$	31	6.9	307	92.2	70	22.0	37	18.5	$x^2 = 687.4, p = .000$	H > T > S; H > M > S
• Primary, middle, and high school (N = 44)	10	2.2	14	4.2	-	0.3	19	9.5	$x^2 = 34.5, p = .000$	M > H; M > S; M > T
• From preprimary to high school ($N = 132$)	2	0.4	-	0.3	9	1.9	123	61.5	$x^2 = 682.5, p = .000$	M > T; M > S; M > H
Writing class meets $(N = 1, 305)$									$x^2 = 349.0, p = .000$	S > H > T; S > H > M
• Every day $(N = 6)$	-	0.2	2	0.6	ŝ	0.9	0	0.0	ns	
• Every other day $(N = 4)$	2	0.4	-	0.3	1	0.3	0	0.0	IIS	
• Once a week (N = 115)	61	13.5	11	3.3	37	11.6	6	3.0	$x^2 = 36.9, p = .000$	S > H; S > M; T > H; T > M
• Once every two weeks $(N = 477)$	273	60.5	115	34.1	54	17.0	35	17.6	$x^2 = 196.1, p = .000$	S > H > M; S > H > T
• Once every three weeks $(N = 325)$	71	15.7	124	36.8	70	22.0	09	30.2	$x^2 = 50.1, p = .000$	H > T; H > S; M > S
• Once a month $(N = 296)$	38	8.4	65	19.3	107	33.6	86	43.2	$x^2 = 124.1, p = .000$	M > H; M > S; T > H; T > S
• Other (<i>N</i> = 82)	2	1.1	19	5.6	46	14.5	12	6.0	$x^2 = 56.9, p = .000$	T > M; T > H; T > S
Medium of instruction $(N = 1, 306)$										
 Mostly Mandarin (N = 853) 	451	100.0	36	10.7	320	100.0	46	23.2	$x^2 = 1,008.2, p = .000$	S > M > H; T > M > H
• Mostly local dialect (N = 453)	0	0.0	301	89.3	0	0.0	152	76.8	$x^2 = 1,008.2, p = .000$	H > M > S; H > M > T
Length of writing class $(N = 1, 267)$									F = 154.4, p = .000	H > S > T; M > S > T
• W •	52.7		78.7		45.6		72.0			
• SD	20.1		27.6		15.1		25.7			
Years spent teaching $(N = 1, 296)$									F = 15.0, p = .000	S > M; H > M; T > M
• W •	13.3		13.4		13.9		9.2			
• SD	8.6		8.6		8.3		6.7			
										(continued

Demographic Information About Participants,	Schools,	and Cl	asses by C	ity (con	tinued)					
	Shang	ghai	Hong K	ong	Taipe	. .	Maca	0		
Variable	z	%	z	%	z	%	z	%	Significance	Contrasts/post hoc
Class size $(N = 1, 308)$									F = 104.1, p = .000	S > H; S > M; S > T;
• w	36.8		27.2		30.1		29.6			н -
• SD	10.0		7.6		5.4		7.5			
Number of gifted children $(N = 1, 309)$									F = 8.4, p = .000	S > H
• w	0.7		0.1		0.4		0.1			
• SD	3.4		0.5		0.8		0.6			
Number of children with mental or physical challenge	es (N = 1,3	(60)							F = 44.0, p = .000	H > S; H > M; H > T
• w	0.4		1.9		6.0		0.4			
• SD	0.8		3.4		1.1		1.0			
<i>Note</i> . H = Hong Kong; M = Macao; ns = not statistically signific degrees together and education beyond a bachelor's degree t	ant; S = Shá through a d	anghai; T octorate	= Taipei City. together.	No cells h	ave expected	d frequenc	ies < 5. For	analyses	by degree, we collapsed ass	ociate's and bachelor's

TABLE

(M = 1.9, SD = 3.4) than in Taipei (M = 0.9, SD = 1.1), Shanghai (M = 0.4, SD = 0.8), and Macao (M = 0.4, SD = 1.0).

Survey Instrumentation

A 218-item survey (see the Appendix, which is available as supporting information for the online version of this article) was administered to all participants. Items were drawn from instruments previously used to survey writing practices and PD in the United States, China, Macao, and Taiwan (e.g., Brindle et al., 2016; Graham, Harris, Fink, & MacArthur, 2001; Hsiang & Graham, 2016; Ray et al., 2016; Wong & C.K. Wong, 2000; Wong & C.S. Wong, 2003), but modified so they were appropriate to teaching middle school writing in a Chinese context. Because of differences in Chinese language in the four cities (e.g., the same word can have a different meaning), different versions of the survey were created. To pilot the survey, six grades 7-9 Chinese language arts teachers from Shanghai, Taiwan, and Macao; one senior principal from Hong Kong; and four Hong Kong, Macao, and Shanghai scholars of writing instruction were paid to provide feedback on the suitability and wording of the introductory letter to the survey and each item and to identify items that should be deleted or topics that should be added to the survey. Their feedback was used to revise the survey and included changes such as asking teachers to answer questions based on their teaching practices in a single classroom, using a double underline to mark keywords in a question, adding a writing activity for taking notes, and deleting an item about the purpose of teaching writing in middle school.

One set of questions (see Table 1) asked teachers about gender, highest educational level, teacher certification, years spent teaching, current grade level, class size, number of children who were gifted or had special needs, school type, grades taught, college teaching preparation, and whether they now taught writing.

Another set of questions focused on preparation to teach writing. Teachers were asked to indicate the adequacy (none, minimal, adequate, or extensive) and types of their preservice, inservice, and personal preparation to teach writing. They also completed a four-item scale (see Table 2) asking them to evaluate their adequacy (unprepared, minimal preparation, adequate preparation, or extensive preparation) to teach informational, narrative, expository, and argumentative writing. A factor analysis using the data from this study confirmed that this was a single-factor scale, producing a single factor with an eigenvalue of 4.10 and accounting for 79% of the variance (all items loaded at 0.85 on this factor; coefficient $\alpha = .91$).

Teachers responded to nine items (see Table 3) about PD using a 6-point Likert-type scale (from 1 = *strongly disagree* to 6 = *strongly agree*; higher scores represented a

TABLE 2	
Preparation to Teach Writing and Factors That Shape Writi	ing Instruction by Location

	Shai	nghai	Hon	g Kong	Ta	ipei	Μ	acao		Contrasts/
Variable	N	%	N	%	Ν	%	N	%	Significance	post hoc
Preparation for teaching writing	g in college	9							$\chi^2 = 56.6$,	H > T; M > T;
• None (<i>N</i> = 167)	42	9.4	49	14.6	59	18.5	17	8.5	μ000	J ~ 1
• Minimal (<i>N</i> = 808)	307	68.5	169	50.3	209	65.5	123	61.8		
• Adequate (<i>N</i> = 279)	82	18.3	105	31.3	42	13.2	50	25.1		
• Extensive (N = 48)	17	3.8	13	3.9	9	2.8	9	4.5		
Preparation received outside of	fcollege								$\chi^2 = 36.6,$	T > S
• None (<i>N</i> = 122)	47	10.4	38	11.3	19	6.0	18	9.0	p = .000	
• Minimal (<i>N</i> = 852)	326	72.3	194	57.9	205	64.5	127	63.5		
• Adequate (<i>N</i> = 293)	69	15.3	96	28.7	78	24.5	50	25.0		
• Extensive (<i>N</i> = 37)	9	2.0	7	2.1	16	5.0	5	2.5		
Preparation on my own									$\chi^2 = 37.4,$	T > H; T > S
• None (<i>N</i> = 94)	35	7.8	36	10.8	11	3.5	12	6.0	<i>p</i> = .000	
• Minimal (<i>N</i> = 877)	322	71.9	212	63.9	209	66.1	134	67.3		
• Adequate (<i>N</i> = 280)	81	18.1	78	23.5	73	23.1	48	24.1		
• Extensive (N = 44)	10	2.2	6	1.8	23	7.3	5	2.5		
Preparation in informational w	riting								$\chi^2 = 147.7,$	_
• Unprepared ($N = 260$)	140	31.0	34	10.2	49	15.5	37	18.5	p = .000	
• Minimal (<i>N</i> = 729)	257	57.0	154	46.4	202	63.7	116	58.0		
• Adequate (<i>N</i> = 282)	46	10.2	138	41.6	57	18.0	41	20.5		
• Extensive (N = 29)	8	1.8	6	1.8	9	2.8	6	3.0		
Preparation in narrative writing	3								ns	_
• Unprepared (N = 92)	31	6.9	24	7.2	20	6.3	17	8.5		
• Minimal (<i>N</i> = 667)	251	55.7	143	43.1	168	53.0	105	52.5		
• Adequate (<i>N</i> = 477)	142	31.5	153	46.1	113	35.6	69	34.5		
• Extensive (N = 64)	27	6.0	12	3.6	16	5.0	9	4.5		
Preparation in expository writin	ng								$\chi^2 = 84.1,$	_
• Unprepared ($N = 230$)	131	29.0	39	11.7	34	10.7	26	13.0	p = .000	
• Minimal (<i>N</i> = 734)	248	55.0	177	53.3	192	60.6	117	58.5		
• Adequate (<i>N</i> = 308)	64	14.2	109	32.8	83	26.2	52	26.0		
• Extensive (N = 28)	8	1.8	7	2.1	8	2.5	5	2.5		
Preparation in argumentative w	/riting								$\chi^2 = 87.7,$	H > S; T > S;
• Unprepared (<i>N</i> = 188)	105	23.3	31	9.3	29	9.1	23	11.5	p = .000	W > 2
• Minimal (<i>N</i> = 730)	265	58.8	159	47.9	187	59.0	119	59.5		
• Adequate (<i>N</i> = 335)	70	15.5	127	38.3	91	28.7	47	23.5		
• Extensive (N = 47)	11	2.4	15	4.5	10	3.2	11	5.5		

(continued)

TABLE 2				
Preparation to Teach Writing and Fac	tors That Shape Writi	ng Instruction b	y Location	(continued)

	Shai	nghai	Hong	g Kong	Ta	ipei	м	асао		Contracts/
Variable	Ν	%	N	%	N	%	N	%	Significance	post hoc
Writing curriculum									$\chi^2 = 146.0,$ p = .000	T > M; T > H
• Mostly follows textbook (N = 189)	93	20.7	32	9.5	38	12.0	26	13.1	$\chi^2 = 22.4,$ p = .000	S > T; S > H
 Mostly follows school guidelines (N = 176) 	27	6.0	81	24.1	38	12.0	30	15.2	$\chi^2 = 55.0,$ p = .000	H > T; H > S; M > S
• Mostly integrates both (N = 486)	139	30.9	157	46.7	92	29.0	98	49.5	$\chi^2 = 42.5,$ p = .000	M > S; M > T; H > S; H > T
• Mostly is designed by the teacher (N = 450)	191	42.4	66	19.6	149	47.0	44	22.2	$\chi^2 = 80.4,$ p = .000	T > H; T > M; S > M
Curricular standards influenced tea	achers'	writing	instructi	ion					$\chi^2 = 34.6$,	S > M
• Yes (<i>N</i> = 653)	260	58.0	158	47.3	168	52.5	67	33.7	p = .000	
• No (<i>N</i> = 648)	188	42.0	176	52.7	152	47.5	132	66.3		
High school entrance examination	influen	ced teac	hers' wi	riting inst	ruction				$\chi^2 = 263.3,$	T > S >
• Yes (N = 836)	331	73.9	152	45.5	291	90.9	62	31.2	p = .000	H > M
• No (<i>N</i> = 465)	117	26.1	182	54.5	29	9.1	137	68.8		
Use writing activities to evaluate										
 Write an essay (e.g., a narrative) on test (N = 1,179) 	411	91.3	319	94.9	288	90.9	161	80.5	$\chi^2 = 31.3,$ p = .000	H > M; S > M; T > M
• Write short answer responses (<i>N</i> = 794)	270	60.0	229	68.2	150	47.3	145	72.5	$\chi^2 = 43.5,$ p = .000	M > T; H > T; S > T
 Write a summary of reading material (N = 767) 	279	62.0	156	46.4	221	69.7	111	55.5	$\chi^2 = 39.6,$ p = .000	T > M; T > H; S > H
 Fill-in-the-blank/matching questions on test (N = 731) 	145	32.2	199	59.2	236	74.7	151	75.5	$\chi^2 = 180.4,$ p = .000	M > H > S; T > H > S
• Write to answer essay questions (N = 487)	240	53.3	140	41.7	14	4.4	93	46.5	$\chi^2 = 205.8,$ p = .000	S > H > T; M > T
• Create portfolio of class work (N = 204)	71	15.8	55	16.4	61	19.2	17	8.5	ns	_
The most common standards used	to evalı	uate								
• My professional judgment (N = 693)	215	47.8	211	62.6	152	47.9	115	57.5	$\chi^2 = 22.3,$ p = .000	H > T; H > S
• Rubrics/holistic scales that I taught (N = 560)	217	48.2	156	46.3	90	28.4	97	48.5	$\chi^2 = 36.6,$ p = .000	M > T; S > T; H > T
• Scales/standards provided by the school (N = 277)	62	13.8	117	34.7	39	12.3	59	29.5	$\chi^2 = 74.9,$ p = .000	H > T; H > S; M > T; M > S
 Government-designed standards (N = 189) 	80	17.8	17	5.0	86	27.1	6	3.0	$\chi^2 = 90.4,$ p = .000	T > S > H; T > S > M

Note. H = Hong Kong; M = Macao; ns = not statistically significant; S = Shanghai; T = Taipei. No cells have expected frequencies < 5.

more positive response). Five items focused on PD collaboration (e.g., "I provide PD to others by demonstrating teaching practices"), and four items addressed PD for teacher needs (e.g., "Teachers determine the focus of PD"). A factor analysis produced a two-factor solution (one item, organize PD for new teachers, loaded on both

TABLE 3 School Professional Development Training Policies by Location

Variable		Shanghai	Hong Kong	Taipei	Macao	Significance	Contrasts/ post hoc
PD and collaboration							
	Ν	452	333	317	200	F = 48.5,	S > T > H;
	M (SD)	4.7 (0.9)	4.0 (0.7)	4.4 (0.6)	4.3 (0.7)	<i>p</i> = .000	2 > M > H
	CI	[4.6, 4.8]	[4.0, 4.1]	[4.3, 4.5]	[4.2, 4.4]		
Invites specialists to	N	452	333	317	200	F = 70.0,	S > T > H;
for all Chinese language	M (SD)	4.5 (1.3)	3.2 (1.4)	4.1 (1.1)	4.2 (1.1)	p = .000	M > H
teachers (N = 1,302)	CI	[4.4, 4.6]	[3.1, 3.4]	[3.9, 4.2]	[4.0, 4.4]		
Works with colleagues to	N	452	333	317	200	F = 18.7,	S > H; S > T;
instruction (N = 1,302)	M (SD)	4.7 (1.0)	4.2 (1.1)	4.3 (1.0)	4.7 (0.9)	p = .000	M > H
	CI	[4.6, 4.8]	[4.1, 4.4]	[4.2, 4.5]	[4.6, 4.8]		
Demonstrates new	N	452	333	317	200	F = 24.8,	S > H; S > T
practices to colleagues	M (SD)	4.8 (2.5)	3.7 (1.1)	4.1 (1.0)	4.3 (0.9)	<i>p</i> = .000	
(N = 1,302)	CI	[4.5, 5.0]	[3.6, 3.9]	[4.0, 4.2]	[4.2, 4.4]		
Requests teachers'	Ν	452	333	317	200	ns	_
activities (N = 1,302)	M (SD)	4.7 (1.1)	4.9 (1.0)	4.8 (0.7)	4.6 (1.0)		
	CI	[4.6, 4.8]	[4.8, 5.0]	[4.8, 4.9]	[4.5, 4.8]		
Encourages teachers to	Ν	452	333	317	200	F = 60.2,	S > M; S > H; T > M: T > H
working hours ($N = 1,302$)	M (SD)	4.8 (0.9)	4.1 (1.1)	4.7 (0.8)	3.9 (1.3)	μ000	1 ~ M, 1 ~ 11
	CI	[4.7, 4.9]	[4.0, 4.2]	[4.6, 4.8]	[3.7, 4.1]		
PD for teacher needs							
	Ν	450	333	317	199	F = 128.4, p = 000	S > T > M; S > T > H
	M (SD)	4.6 (1.2)	3.2 (1.0)	3.9 (0.9)	3.4 (1.2)	μ	571711
	CI	[4.5, 4.8]	[3.1, 3.3]	[3.8, 4.0]	[3.2, 3.6]		
Releases teachers from	Ν	450	333	317	199	F = 97.5,	S > T > H;
during PD (N = 1,299)	M (SD)	4.4 (1.6)	2.7 (1.4)	3.2 (1.4)	3.0 (1.7)	p = .000	2 > M
	CI	[4.3, 4.6]	[2.6, 2.9]	[3.1, 3.4]	[2.8, 3.2]		
Arranges PD activities	Ν	450	333	317	199	F = 88.7,	S > T > M;
(N = 1,299)	M (SD)	4.7 (1.3)	3.3 (1.2)	4.1 (1.1)	3.6 (1.4)	μ000	3 - 1 - 1
	CI	[4.5, 4.8]	[3.2, 3.4]	[4.0, 4.2]	[3.4, 3.7]		
Provides teachers with	Ν	450	333	317	199	<i>F</i> = 102.5,	S > T > M;
the resources they need for putting PD practices in	M (SD)	4.8 (1.1)	3.6 (1.1)	4.3 (0.9)	3.7 (1.2)	p = .000	2 > 1 > H
place (N = 1,299)	CI	[4.7, 4.9]	[3.5, 3.7]	[4.2, 4.4]	[3.5, 3.9]		

Note. Cl = 95% confidence interval; H = Hong Kong; M = Macao; ns = not statistically significant; S = Shanghai; T = Taipei. Scores range from 1 to 6, with higher scores indicating greater agreement.

factors and was dropped). The first factor contained the five items on PD collaboration (eigenvalue = 3.54, accounting for 44% of the variance; all items loaded at 0.51 or above on the pattern matrix; coefficient α = .71), whereas the second factor contained the remaining three items assessing PD for teacher needs (eigenvalue = 1.41, accounting for 18% of the variance, all items loaded at 0.81 or above on the pattern matrix; coefficient α = .84).

A third set of items measured teachers' beliefs about writing. Three items focused on teachers' beliefs about writing and themselves ("I like to write," "I am a good writer," and "I like to teach writing"). The other items assessed teachers' beliefs about writing and middle school students ("Writing is essential for students after middle school," "Middle school students are taught the writing skills needed for high school success," and "My students have the writing skills needed to do the work in my class"). Teachers responded to items using the 6-point Likert-type scale described previously. A factor analysis produced a two-factor solution. One factor, teacher attitude about writing, contained the three items assessing teachers' attitude about writing and themselves (eigenvalue = 2.86, accounting for 48% of the variance; all items loaded at 0.70 or above on the pattern matrix; coefficient $\alpha = .83$). The other factor contained the three items measuring attitude about writing and middle school students (eigenvalue = 1.12, accounting for 19% of the variance; all items loaded at 0.62 or above on the pattern matrix; coefficient $\alpha = .62$).

Teachers were further asked eight questions about self-efficacy for teaching writing using the same 6-point Likert-type scale. Items asked teachers if they had effective ways to teach writing, knew how to increase student retention in writing, could help students with the most difficult writing problems, could adjust a writing assignment to a student's level, knew how to redirect disruptive behavior during writing time, knew the steps for teaching a writing concept so it could be mastered quickly, could exert extra effort to help a student write better, and could accurately assess whether a writing assignment was at the correct level of difficulty. A factor analysis produced a single factor with an eigenvalue of 4.10, accounting for 51% of the variance (all items loaded on this factor at 0.71 or greater; coefficient $\alpha = .86$).

A fourth set of items addressed how writing was taught. Teachers were asked how often writing class met (every day, every other day, once a week, once every two weeks, once every three weeks, once a month, or other) and how much time was spent in a typical writing class. They were asked to identify the writing (47 options; see Table 4), planning (14 options; see Table 5), and revising activities (18 options; see Table 6) that students engaged in during the school year by placing a check mark next to each activity. Teachers also were asked to identify the writing activities used to evaluate students' knowledge (e.g., write short answers on test; for other items, see Table 2) and student's writing (e.g., professional judgment; for other items, see Table 2).

A fifth set of items asked teachers how frequently they engaged in 39 teaching activities (see Table 7). These items reflected evidence-based writing practices (Graham et al., 2015), including items that captured multiple aspects to the process approach to writing (e.g., writing topic choice, conferencing). Teachers responded to each item with an 8-point Likert-type scale: 0 = never, 1 = several times ayear, 2 = monthly, 3 = several times a month, 4 = weekly, 5 = several times a week, 6 = daily, and 7 = several times a day. A factor analysis resulted in a three-factor solution (items on writing to learn or read were not part of this analysis). One factor, process writing, contained 15 items (see Table 7) loading at 0.46 on the pattern matrix, accounting for 46% of the variance (eigenvalue = 11.99; coefficient α = .94). A second factor, teaching writing strategies, contained five items (see Table 7) loading at 0.55 or greater on the pattern matrix, accounting for 8% of the variance (eigenvalue = 2.08; coefficient α = .83). A third factor, teaching writing skills for expressing ideas, contained four items (see Table 7) loading at 0.47 or greater on the pattern matrix, accounting for 5% of the variance (eigenvalue = 1.40; coefficient $\alpha = .86$).

Finally, another set of items asked teachers about factors that shape their writing instruction. This encompassed the role of textbooks, school guidelines, national curriculum, high school entrance exams, and personal determination. Teachers were also asked how many essays their school required students to write in a semester (i.e., essays graded by the teacher).

Procedures

An introductory letter, the survey instrument, and a stamped return envelope were mailed to participating teachers during May or June, except in Shanghai where a project member delivered them to teachers. The introductory letter indicated that we were conducting a survey to gather information about the teaching of Chinese writing in grades 7–9 to learn more about how writing was taught in the four different cities. We asked teachers to answer the questions in the survey honestly and indicated that their names and individual responses to the survey would be anonymous and not shared with others. Teachers in each location were asked to put their completed questionnaire in the envelope provided, seal it, and return it.

Results

Because of the large number of location analyses, alpha was set at p < .001. Before examining the research questions, we analyzed the data in Tables 1–7 to determine

TABLE 4

Students' Engagement in Specific Writing Activities During the Academic Year by Location

	Sha	nghai	Hon	g Kong	Tai	pei	Ma	icao		Contrasts/
Writing activity	Ν	%	N	%	N	%	N	%	χ²	post hoc
Write reflections on a text (75.8%)	334	74.6	250	74.0	237	74.8	167	83.5	ns	_
Describe the theme or main point of a writing (73.4%)	310	69.2	299	88.5	191	60.3	157	78.5	$\chi^2 = 74.1, p = .000$	H > S; H > T; M > T
Summarize a paragraph (72.0%)	304	67.9	308	91.1	191	60.3	135	67.5	$\chi^2 = 88.8, p = .000$	H > S; H > M; H > T
Summarize a complete text (69.7%)	289	64.5	303	89.6	169	53.3	147	73.5	χ ² = 111.0, <i>p</i> = .000	H > M > T; H > S > T
Take notes (65.8%)	215	48.0	257	76.0	217	68.5	169	84.5	χ^2 = 111.0, <i>p</i> = .000	M > T > S; H > S
Write short answer responses (63.1%)	247	55.1	239	70.7	199	62.8	137	68.5	$\chi^2 = 23.1, p = .000$	H > S; M > S
Use rhetorical devices to make sentences (63.0%)	240	53.6	256	75.7	181	57.1	144	72.0	$\chi^2 = 52.3, p = .000$	H > T; H > S; M > T; M > S
Write Chinese characters/words (60.9%)	258	57.6	205	60.7	211	66.6	119	59.5	ns	—
Write descriptive narratives (60.2%)	265	59.2	215	63.6	186	58.7	118	59.0	ns	—
Copy text beautifully (59.0%)	308	68.8	148	43.8	211	66.6	102	51.0	$\chi^2 = 62.7, p = .000$	S > M; S > H; T > M; T > H
Write book reports (56.3%)	163	36.4	291	86.1	153	48.3	127	63.5	$\chi^2 = 206.7, p = .000$	H > M > T > S
Write in the first, second, and third person (53.0%)	237	52.9	235	69.5	100	31.5	118	59.0	χ^2 = 98.5, <i>p</i> = .000	H > S > T; M > T
Write diary/journal entries once a week (50.0%)	308	68.8	116	34.3	123	38.8	105	52.5	χ ² = 112.6, <i>p</i> = .000	S > M > H; S > T
Write responses to material read (48.4%)	139	31.0	196	58.0	181	57.1	115	57.5	$\chi^2 = 82.8, p = .000$	H > S; M > S; T > S
Write definitions for words/idioms (48.0%)	208	46.4	161	47.6	155	48.9	102	51.0	ns	_
Write ancient poems in prose form (46.4%)	246	54.9	156	46.2	94	29.7	108	54.0	$\chi^2 = 53.5, p = .000$	S > T; M > T; H > T
Complete worksheets (42.3%)	94	21.0	157	46.4	208	65.6	92	46.0	$\chi^2 = 157.5, p = .000$	T > M > S; T > H > S
Use words to make a simple sentence (41.7%)	164	36.6	170	50.3	101	31.9	109	54.5	$\chi^2 = 41.1, p = .000$	M > S; M > T; H > S; H > T
Write argumentative essays (41.3%)	50	11.2	241	71.3	123	38.8	124	62.0	$\chi^2 = 329.5, p = .000$	H > T > S; M > T > S
Extend a full or partial paper (40.4%)	222	49.6	118	34.9	111	35.0	75	37.5	$\chi^2 = 24.3, p = .000$	S > T; S > H
Write letters (37.0%)	120	26.8	203	60.1	72	22.7	87	43.5	$\chi^2 = 128.5, p = .000$	H > M > S; H > M > T
Expand sentences (35.8%)	198	44.2	99	29.3	96	30.3	73	36.5	$\chi^2 = 24.2, p = .000$	S > T; S > H
Rewrite essays already corrected by the teacher (34.3%)	126	28.1	189	55.9	35	11.0	97	48.5	χ ² = 171.7, <i>p</i> = .000	H > S > T; M > S > T
Spell out phonetic symbols of Chinese characters (33.0%)	199	44.4	16	4.7	177	55.8	38	19.0	χ ² = 241.1, <i>p</i> = .000	T > S > M > H

(continued)

TABLE 4

Students' Engagement in Specific Writing Activities During the Academic Year by Location (continued)

	Sha	nghai	Hon	g Kong	Tai	ipei	Ma	acao		Contrasts/
Writing activity	N	%	N	%	N	%	Ν	%	χ²	post hoc
Write diary/journal entries every day (32.9%)	181	40.4	42	12.4	183	57.7	23	11.5	χ^2 = 205.5, <i>p</i> = .000	T > S > H; T > S > M
Use words to make collocations and word groups (32.9%)	159	35.5	98	29.0	101	31.9	71	35.5	ns	—
Write expository essays (31.5%)	48	10.7	200	59.2	79	24.9	83	41.5	χ^2 = 225.4, <i>p</i> = .000	H > M > T > S
Use connectives to make complex sentences (29.4%)	106	23.7	120	35.5	56	17.7	101	50.5	χ ² = 77.1, <i>p</i> = .000	M > H > S; M > H > T
Follow given word patterns to form word groups (29.0%)	163	36.4	85	25.1	76	24.0	54	27.0	χ^2 = 18.6, <i>p</i> = .000	S > H; S > T
Write poems (27.9%)	154	34.4	83	24.6	89	28.1	38	19.0	$\chi^2 = 19.1, p = .000$	S > M
Write short stories (26.9%)	107	23.9	126	37.3	50	15.8	68	34.0	$\chi^2 = 45.6, p = .000$	H > S; H > T; M > T
Draw a picture and write something to go with it (26.6%)	80	17.9	86	25.4	117	36.9	63	31.5	$\chi^2 = 37.5, p = .000$	T > H; T > S; M > S
Write a prepared speech (24.0%)	126	28.1	146	43.2	13	4.1	28	14.0	χ ² = 152.1, <i>p</i> = .000	H > S > M; H > S > T
Write for the school newspaper or journal (22.0%)	123	27.5	41	12.1	99	31.2	24	12.0	$\chi^2 = 54.3, p = .000$	T > H; T > M; S > H; S > M
Write PowerPoint presentations (19.4%)	67	15.0	57	16.9	46	14.5	83	41.5	$\chi^2 = 74.3, p = .000$	M > H; M > S; M > T
Write notes (18.1%)	41	9.2	71	21.0	74	23.3	50	25.0	$\chi^2 = 38.4, p = .000$	M > T > S; H > S
Write cards (14.6%)	64	14.3	9	2.7	90	28.4	27	13.5	$\chi^2 = 87.3, p = .000$	T > M > H; T > S > H
Write notifications (14.4%)	28	6.3	125	37.1	7	2.2	28	14.0	$\chi^2 = 202.7, p = .000$	H > M > T; H > S
Write the script of a play (12.9%)	72	16.1	34	10.1	26	8.2	36	18.0	$\chi^2 = 17.3, p = .001$	M > T; S > T
Write step-by-step instructions (11.4%)	40	8.9	50	14.8	32	10.1	27	13.5	ns	—
Write research-based reports of an interview or investigation (11.2%)	34	7.6	65	19.2	15	4.7	32	16.0	$\chi^2 = 45.7, p = .000$	H > S; H > T; M > S; M > T
Write novels (9.9%)	66	14.7	29	8.6	26	8.2	8	4.0	$\chi^2 = 21.2, p = .000$	S > M
Create books/picture books (6.9%)	26	5.8	13	3.8	35	11.0	16	8.0	ns	_
Write emails (6.7%)	35	7.8	14	4.1	21	6.6	17	8.5	ns	_
Write autobiographies (6.0%)	21	4.7	14	4.1	36	11.4	7	3.5	$\chi^2 = 21.8, p = .000$	T > S; T > H; T > M
Write biographies (3.7%)	18	4.0	9	2.7	13	4.1	8	4.0	ns	_
Write lists (3.5%)	21	4.7	15	4.4	6	1.9	4	2.0	ns	_
Other types of writing (12.8%)	48	10.7	59	17.5	39	12.3	21	10.5	ns	_
Total <i>N</i> (<i>N</i> = 1,302)	4	48		337	3	17	2	.00	F = 16.4, p = .000	H > S; S > T; M > S: M > T
M (SD)	15.8	8 (8.8)	19.0) (5.5)	16.0	(7.5)	18.4	(7.1)		m - J, m - 1
95% confidence interval	[15.0	, 16.6]	[18.4	1, 19.6]	[15.1,	, 16.8]	[17.4	, 19.4]		

Note. H = Hong Kong; M = Macao; ns = not statistically significant; S = Shanghai; T = Taipei. No cells have expected frequencies < 5.

TABLE 5				
Students'	Engagement in Specific Planning	Activities During the	Academic Year by I	Location

	Sha	nghai	Hong	g Kong	Ta	ipei	Ma	cao		Contrasts/
Planning activity	N	%	N	%	N	%	N	%	χ²	post hoc
Analyze the meaning and requirements of the topic (71.2%)	337	75.4	222	65.9	222	70.3	144	72.0	ns	_
Decide the theme or main point of a writing (69.4%)	313	70.0	246	73.0	207	65.5	136	68.0	ns	—
Create an outline (59.8%)	272	60.9	257	76.3	136	43.0	113	56.5	$\chi^2 = 76.1, p = .000$	H > S; H > M; H > T; S > T
Discuss ideas with peers (59%)	247	55.4	196	58.2	184	58.2	140	70.0	ns	—
Discuss ideas with the writing teacher (57.5%)	243	54.4	211	62.6	160	50.6	133	66.5	χ ² = 18.1, <i>p</i> = .000	M > T
Decide the style of a writing based on the topic (50.1%)	182	40.7	160	47.5	172	54.4	137	68.5	$\chi^2 = 46.1, p = .000$	M > H; M > S; T > S
The teacher reviews and revises students' outlines before translating (46.8%)	239	53.5	170	50.4	116	36.7	83	41.5	χ ² = 25.0, <i>p</i> = .000	S > T; H > T
Organize ideas on worksheets (e.g., a graphic organizer; 44.7%)	174	38.9	218	64.7	119	37.7	70	35.0	$\chi^2 = 74.5, p = .000$	H > S; H > T; H > M
Brainstorm to produce different ideas (44.1%)	145	32.4	177	52.5	157	49.7	94	47.0	$\chi^2 = 39.0, p = .000$	H > S; T > S; M > S
Organize ideas in mind (42.1%)	177	39.6	150	44.5	126	39.9	94	47.0	ns	—
Set writing goals (41%)	197	44.1	141	41.8	121	38.3	74	37.0	ns	—
Collect data/evidence on the internet (34.1%)	134	30.0	143	42.4	72	22.8	94	47.0	$\chi^2 = 46.6, p = .000$	M > S; M > T; H > S; H > T
Revise their outlines before translating (24.2%)	160	35.8	87	25.8	38	12.0	30	15.0	$\chi^2 = 67.9, p = .000$	S > H > T; S > M
Collect data/evidence in libraries (18.5%)	86	19.2	49	14.5	50	15.8	55	27.5	χ^2 = 15.9, <i>p</i> = .001	M > T; M > H
Total <i>N</i> (<i>N</i> = 1 299)	4	46	3	37	3	16	2	00	F = 12.9, p = .000	H > T; H > S;
M (SD)	6.6	(2.9)	7.3	(2.8)	6.0	(2.5)	7.0	(2.9)		W > 1
95% confidence interval	[6.3	, 6.8]	[7.0	, 7.6]	[5.7	, 6.3]	[6.6,	7.4]		

Note. H = Hong Kong; M = Macao; ns = not statistically significant; S = Shanghai; T = Taipei. No cells have expected frequencies < 5.

whether our prediction of variability at each location in preparation, beliefs, and writing practices was supported. This was evident on Likert-type items, as standard deviations were 1.0 or greater 85% (Macao) to 96% (Shanghai and Taipei) of the time, even though mean scores differed by no more than 2.2 points. Likewise, 60–68% of yes/no questions in each city involved at least a 25/75 split in responses.

Are Teachers Prepared to Teach Writing?

We asked teachers about their college, inservice, and personal preparation to teach writing (see Table 2). Even though most teachers (83%) indicated that they were trained to be a teacher in college, only 4% of them indicated that their college preparation to teach writing was

TABLE 6	
Students'	Engagement in Specific Revising Activities During the Academic Year by Location

	Sha	nghai	Hong	g Kong	Tai	pei	Ma	acao		Contrasts/
Revising activity	N	%	N	%	N	%	N	%	χ²	post hoc
Correct Chinese characters written incorrectly (88.7%)	354	78.8	324	96.7	291	92.1	184	92.0	χ^2 = 70.8, <i>p</i> = .000	H > S; T > S; M > S
Modify sentences to make them more fluent (78.5%)	348	77.5	267	79.7	247	78.2	159	79.5	ns	—
Correct punctuation mistakes (64.3%)	235	52.3	229	68.4	226	71.5	146	73.0	$\chi^2 = 44.2, p = .000$	M > S; T > S; H > S
Correct incorrectly chosen words (62.9%)	242	53.9	228	68.1	214	67.7	134	67.0	$\chi^2 = 24.0, p = .000$	H > S; T > S; M > S
Separate writing into paragraphs logically (61%)	282	62.8	207	61.8	186	58.9	118	59.0	ns	—
Revise to better describe the scenery or feelings (55.4%)	337	75.1	135	40.4	156	49.4	92	46.0	χ ² = 112.4, <i>p</i> = .000	S > T; S > M; S >H
Select more elegant, lively, or vivid words (52.1%)	290	64.6	122	36.4	175	55.4	90	45.0	$\chi^2 = 66.5, p = .000$	S > M; S > H; T > H
Revise each paragraph so it relates to the topic (49.6%)	265	59.0	143	42.7	152	48.1	85	42.5	$\chi^2 = 26.7, p = .000$	S > H; S > M
Revise to make the writing coherent (48.3%)	246	54.8	119	35.5	169	53.5	94	47.0	$\chi^2 = 33.0, p = .000$	S > H; T > M
Revise the ending/conclusion (42.6%)	244	54.3	121	36.1	123	38.9	66	33.0	$\chi^2 = 40.4, p = .000$	S > T; S > H; S > M
Revise the beginning (40.8%)	285	63.5	103	30.7	99	31.3	44	22.0	χ^2 = 150.5, <i>p</i> = .000	S > T; S > H; S > M
Use alternative synonyms to avoid repetition (33.9%)	119	26.5	96	28.7	130	41.1	96	48.0	$\chi^2 = 40.2, p = .000$	M > H; T > H; M > S; T > S
Revise the plot of the story (25.6%)	201	44.8	70	20.9	32	10.1	41	20.5	χ^2 = 129.6, <i>p</i> = .000	S > H > T; S > M
Correct spoken dialectal mistakes (23.9%)	69	15.4	126	37.6	30	9.5	86	43.0	$\chi^2 = 128.7, p = .000$	M > S; M > T; H > S; H > T
Revise the characters' roles in a story (15.2%)	118	26.3	36	10.7	12	3.8	31	15.5	χ^2 = 80.0, <i>p</i> = .000	S > M; S > H; S > T; M > T
Revise the data/evidence or instructions in an expository essay (15.2%)	41	9.1	60	17.9	51	16.1	45	22.5	$\chi^2 = 23.3, p = .000$	M > S; H > S
Revise the claim in an argumentative essay (14.5%)	34	7.6	70	20.9	41	13.0	44	22.0	$\chi^2 = 38.0, p = .000$	M > S; H > S
Revise the justification in an argumentative essay (13.2%)	33	7.3	68	20.3	30	9.5	40	20.0	$\chi^2 = 40.1, p = .000$	H > T; M > T; H > S; M > S
Total <i>N</i> (<i>N</i> = 1,298)	4	49	3	33	31	16	2	200	ns	_
M (SD)	8.4	(3.8)	7.6	(3.6)	7.5	(3.8)	8.0	(3.7)		
95% confidence interval	[8.0	, 8.7]	[7.2	, 8.0]	[7.1,	7.9]	[7.5	i, 8.5]		

Note. H = Hong Kong; M = Macao; ns = not statistically significant; S = Shanghai; T = Taipei. No cells have expected frequencies < 5.

extensive, with just 21% noting that it was adequate. Most teachers (62%) described their college writing preparation as minimal (13% indicated that they received no preparation). This low level of preparation was further reflected in the findings that just 92% of them indicated that writing instruction was not part of their field experience, 80% indicated that they took no writing methods course, and most teachers rated their

How Frequently Teachers Apply Sp	ecific Writ	ing Practi	ces in Ea	ich of th	e Instru	ction Fa	ctors by	Locati	on				
Variable	0	-	2	m	4	ъ	ę	7	¥	SD	95% confidence interval	Significance	Contrasts/ post hoc
Process approach to writing (N = 1,305)													
Collaborate with peers when writing (N = 1,306)	20.1%	33.6%	23.6%	15.1%	6.5%	1.0%	0.1%	0.1%	1.6	1.2	[1.5, 1.6]	F = 60.8, p = .000	S > H; S > M; S > T
 Shanghai (N = 449) 	9.1%	24.5%	25.6%	25.4%	13.4%	2.0%	0.0%	0.0%	2.2	1.2	[2.0, 2.3]		
 Hong Kong (N = 338) 	23.1%	36.1%	23.1%	15.1%	2.4%	0.0%	0.3%	0.0%	1.4	1.1	[1.3, 1.5]		
• Taipei (<i>N</i> = 319)	33.5%	39.2%	16.3%	6.6%	3.1%	0.9%	0.0%	0.3%	1.1	1.1	[1.0, 1.2]		
• Macao (<i>N</i> = 200)	18.5%	40.5%	31.5%	5.5%	3.5%	0.5%	0.0%	0.0%	1.4	1.0	[1.2, 1.5]		
Prewriting activities (N = 1,306)	11.3%	29.9%	25.1%	23.8%	7.2%	2.5%	0.1%	0.2%	1.9	1.3	[1.9, 2.0]	F = 42.4,	S > H; S > M;
• Shanghai (N = 449)	4.5%	22.0%	22.9%	32.3%	13.6%	4.0%	0.2%	0.4%	2.4	1.3	[2.3, 2.6]	000. = q	- ^ 2
 Hong Kong (N = 338) 	9.8%	29.3%	32.0%	24.0%	3.6%	1.5%	0.0%	0.0%	1.9	1.1	[1.8, 2.0]		
• Taipei (<i>N</i> = 319)	21.3%	36.1%	20.7%	14.1%	5.3%	2.2%	0.0%	0.3%	1.5	1.3	[1.4, 1.7]		
• Macao (<i>N</i> = 200)	13.5%	38.0%	25.5%	19.5%	2.0%	1.5%	0.0%	0.0%	1.6	1.1	[1.5, 1.8]		
Use a process approach (N = 1,306)	29.9%	25.9%	19.5%	17.1%	5.8%	1.5%	0.2%	0.1%	1.5	1.3	[1.4, 1.6]	F = 66.4,	S > T; S > M;
 Shanghai (N = 449) 	13.1%	19.5%	24.4%	28.5%	11.6%	2.2%	0.4%	0.0%	2.1	1.3	[2.0, 2.3]	000. = q	E ^
 Hong Kong (N = 338) 	46.2%	24.0%	14.5%	11.8%	3.0%	0.6%	0.0%	0.0%	1.0	1.2	[0.9, 1.2]		
• Taipei (<i>N</i> = 319)	33.9%	31.6%	19.1%	9.4%	3.4%	2.2%	0.0%	0.3%	1.3	1.3	[1.1, 1.4]		
• Macao (<i>N</i> = 200)	33.5%	35.5%	17.0%	12.5%	1.5%	0.0%	0.0%	0.0%	1.1	1.1	[1.0, 1.3]		
Use self-monitoring strategies (e.g., rubrics, checklists; <i>N</i> = 1,306)	39.9%	24.8%	17.5%	11.9%	4.3%	1.2%	0.4%	0.2%	1.2	1.3	[1.1, 1.3]	F = 32.1, p = .000	S > H; S > T; S > M
 Shanghai (N = 449) 	27.2%	21.8%	19.1%	20.9%	8.7%	1.8%	0.2%	0.2%	1.7	1.4	[1.6, 1.8]		
 Hong Kong (N = 338) 	40.2%	24.6%	22.5%	10.1%	1.8%	0.9%	0.0%	%0.0	1.1	1.2	[1.0, 1.2]		
• Taipei (<i>N</i> = 319)	50.5%	30.1%	8.8%	5.3%	2.8%	1.3%	0.9%	0.3%	0.9	1.3	[0.8, 1.0]		
• Macao (<i>N</i> = 200)	51.0%	23.0%	19.0%	5.0%	1.0%	0.5%	0.5%	0.0%	0.9	1.1	[0.7, 1.0]		
													(continued)

TABLE 7 How Frequently Teachers Annly Snacific Writ

How Frequently Teachers Apply Sp	ecific Writ	ing Practi	ces in Ea	ich of th	e Instruc	tion Fac	ctors by	Locati	on (coi	ntinued)			
Variable	0	~	2	m	4	2	ę	7	¥	SD 5)5% confidence interval	Significance	Contrasts/ post hoc
Teacher conferences (N = 1,306)	27.9%	31.1%	14.4%	18.8%	4.7%	2.8%	0.1%	0.2%	1.5	1.4	[1.4, 1.6]	F = 94.4,	S > T > H;
 Shanghai (N = 449) 	10.5%	23.8%	16.2%	33.9%	9.8%	5.3%	0.2%	0.2%	2.3	1.4	[2.1, 2.4]	000. = q	¥ < c
 Hong Kong (N = 338) 	43.8%	34.0%	11.2%	9.2%	1.2%	0.6%	0.0%	%0.0	0.9	1.1	[0.8, 1.0]		
• Taipei (<i>N</i> = 319)	28.2%	35.4%	16.0%	13.8%	3.1%	3.1%	0.0%	0.3%	1.4	1.3	[1.2, 1.5]		
• Macao (<i>N</i> = 200)	40.0%	35.5%	13.0%	9.5%	1.5%	0.5%	0.0%	%0.0	1.0	1.1	[0.8, 1.1]		
Peer conferences $(N = 1, 306)$	14.9%	36.3%	22.7%	18.8%	5.2%	1.8%	0.3%	0.1%	1.7	1.2	[1.6, 1.8]	F = 95.0,	S > T; S > H;
 Shanghai (N = 449) 	3.3%	23.1%	23.6%	34.3%	11.1%	3.8%	0.7%	0.0%	2.4	1.2	[2.3, 2.5]	000. = q	¥ ^ 0
 Hong Kong (N = 338) 	21.0%	44.7%	22.8%	10.4%	0.6%	0.3%	0.3%	0.0%	1.3	1.0	[1.2, 1.4]		
• Taipei (<i>N</i> = 319)	17.9%	41.0%	24.1%	11.3%	3.7%	1.6%	0.0%	0.3%	1.5	1.2	[1.4, 1.6]		
• Macao (<i>N</i> = 200)	25.5%	43.5%	18.0%	10.5%	2.5%	0.0%	0.0%	0.0%	1.2	1.0	[1.1, 1.4]		
Select own writing topics (N = 1, 305)	26.2%	41.1%	14.5%	12.2%	4.6%	1.0%	0.5%	0.1%	1.3	1.2	[1.3, 1.4]	F = 108.6,	S > T; S > M;
 Shanghai (N = 448) 	8.0%	31.2%	21.4%	26.8%	10.5%	1.6%	0.4%	0.0%	2.1	1.2	[2.0, 2.2]	000. = q	
 Hong Kong (N = 338) 	44.1%	41.7%	9.8%	3.6%	0.6%	0.3%	0.0%	0.0%	0.8	0.8	[0.7, 0.8]		
• Taipei (<i>N</i> = 319)	30.4%	50.1%	9.4%	4.7%	2.8%	1.3%	0.9%	0.3%	1.1	1.2	[1.0, 1.2]		
• Macao (<i>N</i> = 200)	30.0%	47.0%	15.0%	6.0%	1.0%	0.5%	0.5%	0.0%	1.0	1.0	[0.9, 1.2]		
Share writing with peers (N = 1,307)	4.1%	36.8%	30.7%	19.4%	6.5%	2.2%	0.3%	0.1%	2.0	1.1	[1.9, 2.0]	F = 98.6,	S > T > H;
 Shanghai (N = 449) 	0.7%	18.9%	28.5%	32.7%	14.5%	4.5%	0.2%	0.0%	2.6	1.1	[2.5, 2.7]	000. = q	× - ~ ~
 Hong Kong (N = 338) 	5.0%	51.5%	33.4%	9.2%	0.9%	0.0%	0.0%	0.0%	1.5	0.8	[1.4, 1.6]		
• Taipei (<i>N</i> = 320)	3.1%	33.4%	34.7%	20.9%	4.7%	2.2%	0.6%	0.3%	2.0	1.1	[1.9, 2.1]		
• Macao (<i>N</i> = 200)	11.5%	57.0%	24.5%	4.5%	1.0%	1.0%	0.5%	0.0%	1.3	0.9	[1.2, 1.4]		
Publish writing $(N = 1, 306)$	27.3%	51.9%	10.2%	7.3%	2.6%	0.5%	0.3%	0.1%	1.1	1.0	[1.0, 1.1]	F = 49.9,	S > T; S > H;
• Shanghai (N = 449)	10.9%	55.0%	14.3%	13.4%	4.7%	1.1%	0.7%	0.0%	1.5	1.1	[1.4, 1.6]	000 d	Ξ× C
 Hong Kong (N = 338) 	36.1%	54.2%	7.7%	1.8%	0.3%	0.0%	0.0%	0.0%	0.8	0.7	[0.7, 0.8]		
• Taipei (N = 319)	32.6%	45.8%	9.7%	8.2%	2.8%	0.6%	0.0%	0.3%	1.1	1.1	[0.9, 1.2]		
• Macao (<i>N</i> = 200)	41.0%	50.0%	6.0%	1.5%	1.0%	0.0%	0.5%	0.0%	0.7	0.8	[0.6, 0.9]		
													(continued)

TABLE 7

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Variable	0	~	2	m	4	2	6	7	¥	SD 9	5% confidence interval	Significance	Contrasts/ post hoc
Stronger writers help struggling writers (N = 1,306)	29.4%	38.1%	14.3%	13.5%	3.7%	0.7%	0.4%	0.2%	1.3	1.2	[1.2, 1.3]	F = 63.1, p = .000	S > H; S > M; S > T
• Shanghai (<i>N</i> = 449)	14.3%	33.2%	17.1%	25.1%	8.0%	1.6%	0.7%	%0.0	1.9	1.3	[1.7, 2.0]		
 Hong Kong (N = 338) 	29.0%	43.8%	15.7%	8.9%	2.4%	0.0%	0.0%	0.3%	1.1	1.1	[1.0, 1.2]		
• Taipei (N = 319)	45.1%	35.7%	10.3%	6.6%	0.9%	0.6%	0.3%	0.3%	0.9	1.1	[0.8, 1.0]		
• Macao (N = 200)	39.0%	42.0%	12.0%	6.0%	0.5%	0.0%	0.5%	%0.0	0.9	1.0	[0.8, 1.0]		
Own pace (N = 1,306)	23.4%	34.4%	20.8%	14.9%	5.2%	0.8%	0.6%	0.1%	1.5	1.2	[1.4, 1.6]	F = 41.5,	S > T; S > H;
• Shanghai (<i>N</i> = 449)	12.9%	26.1%	21.4%	25.8%	11.4%	1.3%	1.1%	0.0%	2.1	1.3	[1.9, 2.2]	000. = q	W < S
• Hong Kong (N = 338)	29.6%	34.6%	24.0%	9.5%	1.8%	0.3%	0.3%	0.0%	1.2	1.1	[1.1, 1.3]		
• Taipei (N = 319)	26.0%	43.3%	16.9%	9.4%	2.5%	0.9%	0.6%	0.3%	1.3	1.2	[1.1, 1.4]		
• Macao (N = 200)	32.5%	38.0%	20.0%	8.5%	1.0%	0.0%	0.0%	0.0%	1.1	1.0	[0.9, 1.2]		
Provide extra time ($N = 1,306$)	7.4%	41.7%	23.8%	19.0%	5.7%	1.9%	0.3%	0.2%	1.8	1.2	[1.8, 1.9]	F = 26.4,	S > M; S > T;
• Shanghai (<i>N</i> = 449)	4.9%	32.7%	20.9%	26.9%	11.6%	2.7%	0.0%	0.2%	2.2	1.2	[2.1, 2.3]	000. = q	- ^ E
• Hong Kong (N = 338)	6.8%	37.9%	30.8%	18.0%	3.8%	2.4%	0.3%	0.0%	1.8	1.1	[1.7, 1.9]		
• Taipei (N = 319)	12.5%	55.5%	16.6%	11.6%	1.9%	0.9%	0.6%	0.3%	1.4	1.1	[1.3, 1.5]		
• Macao (N = 200)	6.0%	46.5%	29.5%	14.5%	2.0%	1.0%	0.5%	0.0%	1.7	1.0	[1.5, 1.8]		
Provide an alternative assignment (N = 1,306)	32.7%	34.3%	14.1%	13.0%	4.5%	1.1%	0.2%	0.2%	1.3	1.3	[1.2, 1.3]	F = 66.6, p = .000	S > T; S > M; S > H
• Shanghai (<i>N</i> = 449)	14.7%	30.7%	19.1%	23.6%	9.1%	2.0%	0.2%	0.4%	1.9	1.3	[1.8, 2.0]		
• Hong Kong (N = 338)	52.4%	24.3%	11.2%	9.5%	2.4%	0.3%	0.0%	0.0%	0.9	1.1	[0.7, 1.0]		
• Taipei (N = 319)	28.5%	51.1%	10.0%	7.2%	1.6%	1.3%	0.0%	0.3%	1.1	1.1	[1.0, 1.2]		
• Macao (N = 200)	46.5%	31.5%	14.0%	4.5%	2.5%	0.5%	0.5%	0.0%	0.9	1.1	[0.7, 1.0]		
Teach students to evaluate (N = 1,306)	14.3%	39.2%	22.3%	16.3%	6.1%	1.6%	0.2%	0.2%	1.7	1.2	[1.6, 1.7]	F = 99.7, p = .000	S > H; S > M; S > T
• Shanghai (<i>N</i> = 449)	1.6%	25.6%	26.5%	28.4%	14.2%	3.1%	0.4%	0.0%	2.4	1.2	[2.3, 2.5]		
 Hong Kong (N = 338) 	18.6%	42.9%	25.1%	10.1%	2.4%	0.9%	0.0%	0.0%	1.4	1.0	[1.3, 1.5]		
• Taipei (N = 319)	24.8%	47.6%	14.1%	10.7%	1.9%	0.6%	0.0%	0.3%	1.2	1.1	[1.1, 1.3]		
• Macao (N = 200)	19.0%	49.5%	21.0%	8.0%	0.5%	1.0%	0.5%	0.5%	1.3	1.1	[1.1, 1.4]		
													(continued)

ruction Factors by Location (continued) utly Teachers Annly Specific Writing Dractices in Each of the lost TABLE 7 How Fred

How Frequently Teachers Apply Sp	ecific Writ	ting Practi	ces in E	ach of th	e Instruc	ction Fac	ctors by	r Locati	on (co	ntinuea	0		
Variable	0	~	2	с	4	ß	Ŷ	7	¥	SD	95% confidence interval	Significance	Contrasts/ post hoc
Peer feedback (N = 1,306)	14.5%	41.4%	21.6%	14.9%	6.2%	1.3%	0.2%	0.2%	1.6	1.2	[1.6, 1.7]	F = 79.7,	S > H; S > T;
 Shanghai (N = 449) 	3.8%	26.5%	26.0%	26.2%	13.8%	3.1%	0.4%	0.0%	2.3	1.2	[2.2, 2.4]	000. = q	W < 0
 Hong Kong (N = 338) 	18.3%	45.3%	23.7%	9.2%	3.6%	0.0%	0.0%	0.0%	1.3	1.0	[1.2, 1.4]		
• Taipei (<i>N</i> = 319)	19.4%	51.7%	16.9%	9.1%	1.9%	0.6%	0.0%	0.3%	1.3	1.0	[1.1, 1.4]		
• Macao (N = 200)	24.0%	51.0%	15.5%	8.0%	0.5%	0.5%	0.0%	0.5%	1.1	1.0	[1.0, 1.3]		
Teach writing strategies for writing pro	cesses (N =	1,304)											
Planning strategies (N = 1,305)	2.7%	22.9%	40.0%	22.5%	9.8%	1.8%	0.2%	0.2%	2.2	1.1	[2.1, 2.3]	F = 27.8,	S > H > M;
 Shanghai (N = 448) 	1.1%	16.7%	34.6%	27.2%	17.4%	2.2%	0.4%	0.2%	2.5	1.1	[2.4, 2.6]	000. = q	- ^ 2
 Hong Kong (N = 337) 	2.1%	17.5%	49.3%	24.3%	5.3%	1.5%	0.0%	0.0%	2.2	0.9	[2.1, 2.3]		
• Taipei (<i>N</i> = 320)	4.4%	30.9%	34.4%	19.4%	7.8%	2.8%	0.0%	0.3%	2.1	1.2	[1.9, 2.2]		
• Macao (N = 200)	4.5%	33.0%	45.5%	13.5%	3.5%	0.0%	0.0%	0.0%	1.8	0.9	[1.7, 1.9]		
Revising strategies $(N = 1, 305)$	2.5%	21.5%	37.2%	27.1%	8.8%	2.8%	0.1%	0.2%	2.3	1.1	[2.2, 2.3]	F = 35.1,	S > T; S > H;
 Shanghai (N = 448) 	0.9%	12.7%	30.1%	35.9%	16.1%	4.0%	0.0%	0.2%	2.7	1.1	[2.6, 2.8]	000. = q	W < 0
 Hong Kong (N = 337) 	3.3%	19.3%	46.6%	24.6%	4.2%	2.1%	0.0%	0.0%	2.1	1.0	[2.0, 2.2]		
• Taipei (<i>N</i> = 320)	2.5%	25.6%	39.1%	21.6%	7.8%	2.8%	0.3%	0.3%	2.2	1.1	[2.1, 2.3]		
• Macao (N = 200)	4.5%	38.0%	34.0%	20.5%	2.0%	1.0%	0.0%	0.0%	1.8	0.9	[1.7, 1.9]		
Editing strategies ($N = 1,304$)	1.8%	17.5%	26.2%	34.3%	10.5%	7.7%	1.5%	%9.0	2.7	1.3	[2.6, 2.7]	F = 12.5,	S > H; S > M
 Shanghai (N = 447) 	1.1%	13.8%	19.0%	38.0%	18.3%	8.3%	0.9%	0.4%	2.9	1.2	[2.8, 3.0]	000. = d	
 Hong Kong (N = 337) 	3.0%	15.7%	34.4%	33.5%	6.5%	5.6%	0.9%	0.3%	2.5	1.2	[2.3, 2.6]		
• Taipei (<i>N</i> = 320)	1.3%	20.0%	24.7%	30.3%	8.4%	10.0%	3.8%	1.6%	2.8	1.5	[2.6, 2.9]		
• Macao (N = 200)	2.0%	24.5%	30.5%	33.5%	3.0%	6.5%	0.0%	0.0%	2.3	1.1	[2.1, 2.5]		
Summarizing strategies (N = 1,305)	3.5%	21.5%	20.0%	29.0%	15.7%	8.7%	1.2%	0.5%	2.7	1.4	[2.6, 2.7]	SU	
													(continued)

TABLE 7

How Frequently Teachers Apply Spe	cific Writ	ing Practi	ces in Ea	Ich of th	e Instruc	tion Fac	:tors by	Locati	on (co	ntinuea	0		
Variable	0	~	2	m	4	2	9	7	¥	SD	95% confidence interval	Significance	Contrasts/ post hoc
Sentence construction skills (<i>N</i> = 1,305)	4.8%	22.8%	22.9%	30.4%	8.6%	8.5%	1.4%	0.8%	2.5	1.4	[2.4, 2.6]	F = 7.4, p = .000	S > H
 Shanghai (N = 448) 	4.5%	18.1%	17.6%	36.1%	12.7%	8.5%	1.3%	1.1%	2.7	1.4	[2.6, 2.8]		
 Hong Kong (N = 337) 	8.0%	23.4%	25.2%	30.3%	4.2%	7.4%	1.5%	%0.0	2.3	1.4	[2.1, 2.4]		
• Taipei (<i>N</i> = 320)	2.5%	25.9%	24.7%	24.7%	8.4%	10.0%	2.2%	1.6%	2.6	1.5	[2.4, 2.7]		
• Macao (N = 200)	3.5%	27.0%	27.5%	26.5%	7.0%	8.0%	0.0%	0.5%	2.3	1.3	[2.1, 2.5]		
Teach writing skills for expressing ideas	(N = 1,304)												
The written genres $(N = 1, 304)$	4.7%	29.8%	23.2%	28.9%	7.8%	5.1%	0.4%	0.4%	2.2	1.3	[2.2, 2.3]	ns	
Vocabulary (N = 1,304)	1.6%	21.3%	24.8%	31.5%	9.2%	8.6%	1.2%	1.7%	2.6	1.4	[2.6, 2.7]	F = 7.9,	
 Shanghai (N = 449) 	1.3%	18.2%	19.8%	35.2%	15.4%	7.8%	0.7%	1.6%	2.8	1.3	[2.7, 2.9]	000. = q	
 Hong Kong (N = 335) 	1.2%	20.0%	32.2%	32.5%	6.6%	6.0%	0.6%	0.9%	2.5	1.2	[2.4, 2.6]		
• Taipei (<i>N</i> = 320)	1.3%	23.1%	21.3%	28.7%	7.8%	12.2%	2.8%	2.8%	2.8	1.6	[2.6, 3.0]		
• Macao (N = 200)	3.5%	27.5%	29.5%	26.0%	2.0%	9.0%	1.0%	1.5%	2.3	1.4	[2.1, 2.5]		
How to be more creative $(N = 1, 304)$	2.6%	27.8%	28.2%	27.8%	7.2%	5.2%	0.6%	0.7%	2.3	1.3	[2.2, 2.4]	F = 10.3,	S > M; S > H
 Shanghai (N = 441) 	2.2%	21.8%	21.8%	35.8%	10.7%	6.5%	0.4%	0.7%	2.6	1.3	[2.4, 2.7]	000. = q	
 Hong Kong (N = 335) 	3.3%	29.6%	36.4%	21.5%	6.3%	3.0%	0.0%	0.0%	2.1	1.1	[2.0, 2.2]		
• Taipei (<i>N</i> = 320)	2.5%	29.4%	27.2%	26.2%	6.3%	5.6%	1.3%	1.6%	2.3	1.4	[2.2, 2.5]		
• Macao (N = 200)	2.5%	35.5%	30.0%	22.5%	2.5%	5.5%	1.0%	0.5%	2.1	1.2	[1.9, 2.3]		
How to form images $(N = 1, 304)$	2.1%	27.5%	28.8%	28.4%	8.9%	3.5%	0.4%	0.5%	2.3	1.2	[2.2, 2.4]	F = 14.5,	S > H; S > M
 Shanghai (N = 449) 	2.4%	20.0%	22.3%	34.7%	15.1%	4.5%	0.4%	0.4%	2.6	1.2	[2.5, 2.7]	100. > q	
 Hong Kong (N = 335) 	0.6%	30.1%	35.8%	26.9%	6.0%	0.6%	0.0%	0.0%	2.1	0.9	[2.0, 2.2]		
• Taipei (<i>N</i> = 320)	3.4%	30.3%	27.2%	25.9%	6.9%	4.7%	0.6%	0.9%	2.2	1.3	[2.1, 2.4]		
• Macao (N = 200)	1.5%	35.5%	34.0%	20.5%	3.0%	4.0%	0.5%	1.0%	2.1	1.2	[1.9, 2.2]		
													(continued)

TABLE 7

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Variable	0	-	2	ŝ	4	2	Q	۲	¥	SD	95% confidence interval	Significance	Contrasts/ post hoc
Other													
Establish specific goals for students (N = 1,294)	10.0%	24.3%	34.2%	22.7%	6.4%	2.0%	0.3%	0.2%	2.0	1.2	[1.9, 2.1]	F = 15.4, p = .000	S > T; S > M
 Shanghai (N = 440) 	10.9%	17.3%	27.7%	28.6%	13.2%	1.8%	0.2%	0.2%	2.2	1.3	[2.1, 2.4]		
 Hong Kong (N = 336) 	5.1%	22.6%	40.8%	25.3%	3.9%	2.1%	0.3%	0.0%	2.1	1.0	[2.0, 2.2]		
• Taipei (<i>N</i> = 318)	13.2%	33.3%	31.4%	16.0%	1.9%	3.1%	0.6%	0.3%	1.7	1.2	[1.6, 1.9]		
• Macao (N = 200)	11.0%	28.0%	41.5%	16.0%	3.0%	0.5%	0.0%	0.0%	1.7	1.0	[1.6, 1.9]		
Students use keyboards when writing (N = 1,292)	44.4%	31.3%	9.8%	9.5%	3.9%	0.9%	0.1%	0.1%	1.0	1.2	[0.9, 1.1]	F = 115.6, p = .000	S > T > H; S > M
 Shanghai (N = 441) 	18.1%	33.6%	16.8%	20.0%	9.5%	2.0%	0.0%	0.0%	1.8	1.3	[1.6, 1.9]		
 Hong Kong (N = 336) 	74.1%	18.8%	2.4%	4.5%	0.3%	0.0%	0.0%	0.0%	0.4	0.8	[0.3, 0.5]		
• Taipei (<i>N</i> = 316)	46.8%	39.9%	6.0%	4.1%	1.9%	0.9%	0.0%	0.3%	0.8	1.0	[0.7, 0.9]		
• Macao (N = 199)	48.7%	33.7%	12.6%	3.5%	1.0%	0.0%	0.5%	0.0%	0.8	1.0	[0.6, 0.9]		
Imitate models of good writing (<i>N</i> = 1,295)	3.6%	30.5%	26.2%	26.0%	8.7%	4.2%	0.5%	0.2%	2.2	1.2	[2.1, 2.3]	F = 31.4, p = .000	S > T > M; S > H
 Shanghai (N = 441) 	1.1%	20.0%	22.0%	37.6%	13.8%	5.0%	0.2%	0.2%	2.6	1.2	[2.5, 2.7]		
• Hong Kong (N = 335)	6.0%	33.7%	31.0%	20.0%	5.1%	3.9%	0.3%	0.0%	2.0	1.2	[1.8, 2.1]		
• Taipei (<i>N</i> = 319)	2.5%	36.7%	22.3%	21.9%	8.8%	6.0%	1.3%	0.6%	2.2	1.4	[2.1, 2.4]		
• Macao (<i>N</i> = 200)	7.0%	38.5%	33.5%	17.0%	3.5%	0.5%	0.0%	0.0%	1.7	1.0	[1.6, 1.9]		
Writing to learn $(N = 1, 291)$	15.6%	36.7%	22.4%	16.6%	6.7%	1.9%	0.1%	0.2%	1.7	1.2	[1.6, 1.8]	F = 18.1,	S > T; S > H;
 Shanghai (N = 442) 	11.3%	27.6%	20.6%	25.1%	12.7%	2.7%	0.0%	0.0%	2.1	1.3	[2.0, 2.2]	000, = q	¥ < 0
• Hong Kong $(N = 335)$	20.6%	34.3%	27.8%	13.4%	2.4%	1.5%	0.0%	0.0%	1.5	1.1	[1.4, 1.6]		
• Taipei (<i>N</i> = 314)	16.2%	44.6%	17.8%	12.4%	6.1%	1.9%	0.3%	0.6%	1.6	1.3	[1.4, 1.7]		
• Macao (<i>N</i> = 200)	15.5%	48.5%	24.5%	9.5%	1.5%	0.5%	0.0%	0.0%	1.3	0.9	[1.2, 1.5]		
													(continued)

TABLE 7 How Frequently Teachers Apply Specific Writing Practices in Each of the Instruction Factors by Location *(continued*)

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Variable	0	-	2	m	4	ß	Q	7	¥	9 SD	5% confidence interval	Significance	Contrasts/ post hoc
Verbal praise and positive reinforcement (N = 1,303)	0.6%	16.2%	22.0%	34.9%	10.3%	11.5%	1.8%	2.6%	2.9	1.4	[2.9, 3.0]	F = 30.8, p = .000	S > H; S > M; T > M
• Shanghai $(N = 447)$	0.7%	8.9%	14.8%	37.1%	15.4%	17.7%	2.0%	3.4%	3.4	1.4	[3.2, 3.5]		
• Hong Kong $(N = 337)$	1.2%	16.9%	26.7%	38.9%	7.7%	5.3%	1.8%	1.5%	2.7	1.3	[2.5, 2.8]		
• Taipei (<i>N</i> = 319)	0.0%	17.2%	22.6%	33.5%	6.9%	13.2%	2.8%	3.8%	3.0	1.5	[2.8, 3.2]		
• Macao (<i>N</i> = 200)	0.5%	29.5%	29.5%	29.5%	8.5%	5.5%	0.0%	1.0%	2.3	1.2	[2.2, 2.5]		
Grammar skills (N = 1,288)	6.3%	23.7%	17.8%	30.4%	9.5%	8.6%	2.1%	1.6%	2.6	1.5	[2.5, 2.6]	F = 5.9,	
• Shanghai ($N = 442$)	6.6%	22.4%	13.1%	33.5%	14.9%	6.3%	1.8%	1.4%	2.6	1.5	[2.5, 2.7]	100. = q	
• Hong Kong $(N = 334)$	8.7%	24.9%	22.2%	30.5%	6.3%	5.4%	1.8%	0.3%	2.3	1.4	[2.1, 2.4]		
• Taipei (N = 314)	6.7%	24.8%	15.0%	26.8%	7.0%	13.1%	3.5%	3.2%	2.7	1.8	[2.5, 2.9]		
• Macao (N = 198)	1.0%	22.7%	25.3%	29.3%	7.1%	12.1%	1.0%	1.5%	2.7	1.4	[2.5, 2.9]		
Ways of organizing text $(N = 1, 298)$	3.5%	29.5%	26.5%	26.4%	8.9%	4.2%	0.6%	0.4%	2.2	1.3	[2.2, 2.3]	F = 13.7,	S > H; S > M
• Shanghai (<i>N</i> = 447)	2.9%	21.7%	22.6%	35.6%	11.6%	4.3%	0.9%	0.4%	2.5	1.2	[2.4, 2.6]	p = .000	
• Hong Kong $(N = 332)$	4.5%	30.4%	33.1%	24.1%	5.7%	2.1%	0.0%	0.0%	2.0	1.1	[1.9, 2.1]		
• Taipei (N = 319)	3.1%	31.0%	24.5%	22.9%	10.3%	6.0%	1.3%	0.9%	2.3	1.4	[2.2, 2.5]		
• Macao (N = 200)	4.0%	43.0%	27.5%	15.5%	5.5%	4.5%	0.0%	0.0%	1.9	1.2	[1.7, 2.1]		
Punctuation skills $(N = 1, 289)$	5.5%	33.2%	19.3%	27.9%	6.4%	6.1%	0.7%	0.9%	2.2	1.4	[2.1, 2.3]	F = 13.8,	T > H; S > H
 Shanghai (N = 453) 	5.7%	29.2%	15.8%	34.2%	9.0%	5.0%	0.7%	0.5%	2.3	1.3	[2.2, 2.4]	<i>p</i> = .000	
• Hong Kong $(N = 334)$	9.9%	37.7%	21.3%	23.1%	3.9%	3.0%	0.6%	0.6%	1.9	1.3	[1.7, 2.0]		
• Taipei (<i>N</i> = 316)	1.9%	31.0%	20.9%	25.6%	7.0%	9.8%	1.3%	2.5%	2.5	1.5	[2.3, 2.7]		
• Macao (N = 197)	3.6%	38.1%	21.3%	25.4%	4.1%	7.6%	0.0%	0.0%	2.1	1.3	[1.9, 2.3]		
Reteach writing skills/strategies (N = 1,294)	4.0%	37.1%	25.8%	22.9%	7.2%	2.6%	0.2%	0.2%	2.0	1.2	[2.0, 2.1]	F = 16.8, p = .000	S > H; S > T; S > M
 Shanghai (N = 445) 	1.6%	29.7%	24.7%	27.6%	12.8%	3.1%	0.4%	0.0%	2.3	1.2	[2.2, 2.4]		
• Hong Kong (N = 331)	4.5%	35.6%	32.6%	22.1%	4.2%	0.9%	0.0%	%0.0	1.9	1.0	[1.8, 2.0]		
• Taipei (N = 318)	5.3%	44.0%	21.4%	18.2%	5.7%	4.1%	0.3%	0.9%	1.9	1.3	[1.8, 2.1]		
• Macao (N = 200)	6.5%	45.0%	24.0%	21.0%	2.0%	1.5%	0.0%	0.0%	1.7	1.0	[1.6, 1.9]		
													(continued)

(continued) 1 ction Ea of the In ctices in Each Annly Snecific Writing Dra 5 H - H TABLE 7 How Fred

How Frequently Teachers Apply Sp	ecific Writ	cing Practi	ices in Ea	ich of th	e Instrue	ction Fa	ctors by	Locat	ion (co	ntinue	(1		
Variable	0	-	2	m	4	D	9	7	¥	SD	95% confidence interval	Significance	Contrasts/ post hoc
Use a graphic organizer (N = 1,299)	15.2%	37.0%	23.0%	17.1%	5.3%	1.8%	0.4%	0.2%	1.7	1.2	[1.6, 1.7]	F = 12.7,	S > T; S > M
• Shanghai (N = 448)	16.1%	27.2%	21.9%	24.3%	8.0%	1.8%	0.7%	0.0%	1.9	1.3	[1.8, 2.0]	<i>p</i> = .000	
• Hong Kong (<i>N</i> = 335)	7.2%	37.3%	32.2%	18.5%	3.9%	0.6%	0.0%	0.3%	1.8	1.0	[1.7, 1.9]		
• Taipei (<i>N</i> = 316)	18.0%	46.5%	16.5%	11.4%	3.5%	3.2%	0.6%	0.3%	1.5	1.3	[1.4, 1.6]		
• Macao (N = 200)	22.5%	43.0%	20.5%	7.5%	4.5%	2.0%	0.0%	0.0%	1.3	1.2	[1.2, 1.5]		
Write about reading material (N = 1,302)	1.6%	32.6%	26.4%	25.8%	7.8%	4.7%	0.8%	0.2%	2.2	1.2	[2.2, 2.3]	F = 16.8, p = .000	S > H; S > M
 Shanghai (N = 449) 	0.7%	24.7%	23.4%	34.1%	10.5%	4.9%	1.6%	0.2%	2.5	1.2	[2.4, 2.6]		
• Hong Kong (<i>N</i> = 334)	2.7%	34.1%	32.6%	22.5%	5.4%	2.4%	0.3%	0.0%	2.0	1.1	[1.9, 2.1]		
• Taipei (<i>N</i> = 319)	1.3%	35.4%	23.5%	21.0%	10.0%	7.5%	0.6%	0.6%	2.3	1.4	[2.2, 2.5]		
• Macao (N = 200)	2.5%	43.0%	27.5%	20.5%	2.5%	3.5%	0.5%	0.0%	1.9	1.1	[1.7, 2.1]		
Teach writing via computer technologies (N = 1,299)	21.3%	33.9%	16.8%	17.3%	4.8%	4.3%	0.8%	0.7%	1.7	1.5	[1.6, 1.8]	F = 10.2, p = .000	S > T; H > T
 Shanghai (N = 447) 	19.7%	27.1%	17.2%	23.5%	8.9%	3.4%	0.2%	0.0%	1.9	1.4	[1.7, 2.0]		
• Hong Kong (<i>N</i> = 334)	18.9%	32.9%	19.8%	17.7%	3.6%	5.1%	0.6%	1.5%	1.8	1.5	[1.6, 2.0]		
• Taipei (<i>N</i> = 318)	27.4%	45.6%	10.7%	9.7%	1.6%	3.5%	0.6%	0.9%	1.3	1.4	[1.2, 1.5]		
• Macao (<i>N</i> = 200)	19.5%	32.5%	20.5%	15.0%	2.5%	6.5%	3.0%	0.5%	1.8	1.6	[1.6, 2.0]		
Writing about content information (N = 1,299)	6.6%	40.7%	25.4%	19.6%	4.8%	2.1%	0.4%	0.3%	1.8	1.2	[1.8, 1.9]	F = 13.8, p = .000	S > H; S > T; S > M
 Shanghai (N = 445) 	4.9%	31.7%	24.7%	26.5%	9.0%	2.7%	0.4%	0.0%	2.1	1.2	[2.0, 2.2]		
• Hong Kong (<i>N</i> = 335)	9.3%	38.8%	31.6%	17.0%	2.4%	0.6%	0.0%	0.3%	1.7	1.0	[1.6, 1.8]		
• Taipei (N = 319)	6.0%	50.5%	19.1%	16.9%	3.8%	2.8%	0.3%	0.6%	1.7	1.2	[1.6, 1.9]		
• Macao (N = 200)	7.0%	48.5%	26.5%	13.0%	1.5%	2.0%	1.0%	0.5%	1.7	1.1	[1.5, 1.8]		
Writing to understand reading material (N = 1,298)	5.9%	35.7%	25.6%	22.3%	6.7%	3.0%	0.5%	0.2%	2.0	1.2	[1.9, 2.1]	F = 22.1, p = .000	S > T; S > H; S > M
 Shanghai (N = 445) 	3.1%	27.2%	22.9%	29.7%	12.6%	4.0%	0.4%	0.0%	2.4	1.2	[2.2, 2.5]		
 Hong Kong (N = 335) 	9.9%	35.8%	31.9%	17.9%	3.3%	0.6%	0.6%	0.0%	1.7	1.1	[1.6, 1.8]		
• Taipei (N = 318)	4.4%	41.8%	23.9%	20.4%	4.4%	3.8%	0.6%	0.6%	2.0	1.3	[1.8, 2.1]		
• Macao (N = 200)	8.0%	45.0%	23.5%	16.5%	3.0%	3.5%	0.5%	0.0%	1.7	1.2	[1.6, 1.9]		
													(continued)

ars Apply Specific Writing Practices in Each of the Instruction Eactors by I TABLE 7 How Frequently Teachs

How Frequently Teachers Apply Sp	ecific Writ	ting Practi	ces in E	ach of th	e Instru	ction Fa	ctors by	/ Locat	ion (co	ntinue	d)		
Variable	0	~	2	e	4	2	9	7	¥	SD	95% confidence interval	Significance	Contrasts/ post hoc
Teacher feedback (N = 1,293)	0.5%	19.3%	32.6%	32.2%	9.4%	4.4%	0.9%	0.6%	2.5	1.2	[2.4, 2.6]	F = 25.1,	S > H; S > M;
 Shanghai (N = 440) 	0.5%	13.6%	20.0%	42.5%	17.3%	5.5%	0.2%	0.5%	2.8	1.1	[2.7, 2.9]	000. = q	٤ -
 Hong Kong (N = 334) 	0.6%	17.4%	43.7%	29.0%	5.1%	3.0%	0.9%	0.3%	2.3	1.0	[2.2, 2.5]		
• Taipei (<i>N</i> = 319)	0.0%	21.6%	33.5%	27.9%	7.8%	6.0%	2.2%	0.9%	2.5	1.3	[2.4, 2.7]		
• Macao (N = 200)	1.0%	31.5%	40.5%	21.5%	2.0%	2.0%	0.5%	1.0%	2.1	1.1	[1.9, 2.2]		
Note. H = Hong Kong; M = Macao; ns = not stat 3 = several times a month, 4 = once a week, 5	istically signif = several tim	icant; S = Sha es a week, 6 :	anghai; T = = <i>daily</i> , anc	Taipei. Tea 7 = <i>severa</i>	chers respo I times a d	onded on a ay. There i	n 8-point s no signif	Likert-typ icant difi	oe scale: erence b	0 = <i>neve</i> l	; 1 = <i>several times a</i> ; lifferent grades.	year, 2 = once a	month,

preparation to teach informational (74%), narrative (62%), expository (77%), or argumentative (70%) writing as minimal or nonexistent. Statistically, Macao (M = 1.3, SD = 0.7), Hong Kong (M = 1.2, SD = 0.4), and Shanghai (M = 1.2, SD = 0.6) teachers received greater college preparation than Taipei teachers (M = 1.0, SD = 0.7).

Participating teachers also received little inservice writing preparation. Only 3% of them indicated that such preparation was extensive, with just 23% describing it as adequate. The majority of teachers (65%) described this preparation as minimal, with 9% indicating that they received no inservice preparation at all. The most common types of inservice preparation were assistance from other teachers (41%) and coaching (18%). The majority of teachers (51%) reported receiving four to eight hours of inservice preparation or less. Statistically, Taipei teachers (M = 1.3, SD = 0.7) received greater inservice preparation than Shanghai teachers (M = 1.1, SD = 0.6).

When asked about PD at school, teachers slightly agreed that it was sensitive to their needs (M = 3.90,SD = 1.24). Statistically, Shanghai teachers indicated more sensitive PD than Taipei teachers, who reported more sensitive PD than Hong Kong and Macao teachers (see Table 3).

Teachers also slightly agreed that PD in their school involved collaboration (M = 4.4, SD = 0.8). Statistically, Shanghai teachers indicated greater collaborative PD than Taipei and Macao teachers, who reported greater collaborative PD than Hong Kong teachers (see Table 3).

Most teachers (68%) reported minimal personal preparation to become better writing teachers (see Table 2), with 7% indicating that they did not do this at all (22% and 3%, respectively, indicated undertaking adequate or extensive personal preparation). The most common forms of personal preparation were reading to obtain information (91%), online assistance (70%), conference sessions (57%), collaboration with a teacher (43%), and doing action research (20%). Statistically, Taipei teachers (M = 1.3, SD = 0.7) undertook more personal effort to improve teaching skills than teachers in Hong Kong (M = 1.2, SD = 0.6) and Shanghai (M = 1.2, SD = 0.6).

When teachers were asked to consider their preparation to teach informational, narrative, expository, and argumentative writing, 76%, 58%, 74%, and 71% of them, respectively, indicated that they were minimally or not prepared (see Table 2). Only 5% of teachers were extensively prepared to teach any type of writing (i.e., narrative). When the scores for these four types of writing were averaged, teachers in Hong Kong (M = 1.4, SD = 0.6, Macao (M = 1.2, SD = 0.6), and Taipei (M = 1.2, SD = 0.7) were statistically better prepared than Shanghai teachers (M = 1.0, SD = 0.6).

TABLE

Are Teachers Positive About Writing and Teaching It?

Teachers were slightly positive about themselves and writing (M = 4.33, SD = 0.77). They slightly agreed (M range = 4.0–4.5) with the three items measuring this construct ("I like to write," "I am a good writer," and "I like to teach writing"). Statistically, Shanghai teachers (M = 4.4, SD = 0.8) were more positive than Taipei teachers (M = 4.2, SD = 0.8).

Teachers were slightly positive about middle school students and writing (M = 4.33, SD = 0.77). More specifically, they slightly agreed that their students had the writing skills needed (M = 3.7) and moderately agreed that middle school students are taught needed writing skills (M = 4.6) and that writing is essential after middle school (M = 5.0). Statistically, Shanghai teachers (M = 4.6, SD = 0.7) were more positive about writing and middle school students than teachers in Taipei (M = 4.4, SD = 0.6), Macao (M = 4.3, SD = 0.6), and Hong Kong (M = 4.2, SD = 0.7).

In addition, teachers were slightly positive about their efficacy to teach writing (M = 4.16, SD = 0.61). They slightly agreed with all eight efficacy statements measuring this construct (M range = 4.0-4.4).

How Much Time Do Teachers Devote to Writing Instruction?

The average length of a writing class was one hour (M = 60.5 minutes, SD = 25.8 minutes), but most teachers taught writing classes infrequently: 1% taught every day or every other day, 9% once a week, 37% once every two weeks, 25% once every three weeks, and 23% once a month. Statistically, teachers in Hong Kong (M = 78.7 minutes, SD = 27.6 minutes) and Macao (M = 72.0 minutes, SD = 25.7 minutes) taught longer classes than Shanghai teachers (M = 52.7 minutes, SD = 20.1 minutes), who taught longer classes than Taipei teachers (M = 45.6 minutes, SD = 15.1 minutes). However, Shanghai and Taipei teachers met more often than Hong Kong and Macao teachers.

What Types of Writing Do Teachers Assign?

Teachers were asked if students engaged in 47 different writing activities during the school year (see Table 4). A majority of teachers reported that students worked on the following activities during the school year: wrote reflections on a text (75.8%); described the theme or main point of a writing (73.4%); summarized a paragraph (72.0%); summarized a complete text (69.7%); took notes (65.8%); wrote short answer responses (63.1%); used rhetorical devices to make sentences (63.0%); wrote Chinese characters/words (60.9%); wrote descriptive narratives

(60.2%); copied text beautifully (59.0%); wrote book reports (56.3%); wrote in the first, second, and third person (53.0%); and wrote diary/journal entries once a week (50.0%). The most often used activity identified by teachers when asked about other types of writing that students completed was writing an essay to an assigned topic. On average, teachers indicated that students engaged in 17.1 (SD = 7.60) different writing activities a year. Statistically, more different activities were completed in Hong Kong and Macao than in Taipei and Shanghai (see Table 4).

As can be seen in Table 4, there was considerable variation by location in teachers' use of the 47 specified writing activities. There was statistical variation by location for 37 (79%) of the writing activities. The only activities that were used relatively frequently that did not differ statistically by location were writing reflections on a text (75.8%), writing Chinese characters/ words (60.9%), writing descriptive narratives (60.2%), writing a response to reading material (48.4%), and using words to make collocations and word groups (32.9%).

How Do Chinese Language Arts Teachers' Students Plan and Revise Their Writing?

We asked teachers how often students engaged in 14 planning and 18 revising activities (see Tables 5 and 6). On average, teachers indicated that students used about seven different planning activities during the year (M = 6.7, SD = 2.8), with a majority of teachers identifying the following: analyze the meaning/requirements of the topic (71.2%), decide the theme/main point of a writing (69.4%), create an outline (59.8%), discuss ideas with peers (59%) and the writing teacher (57.5%), and decide the style of a writing based on the topic (50.1%). Three additional planning activities were identified on an open-ended question: collect related writing materials, listen to peers' writing plans or ideas, and study models of good writing.

Statistically, a greater number of planning activities were used in Hong Kong than in Shanghai and Taipei, whereas more different planning strategies were used in Macao than in Taipei (see Table 5). There was a statistically significant difference by location for nine (64%) planning activities. The only planning activities used relatively frequently that did not differ statistically by location were analyzing the meaning and requirements of the topic (71.2%), deciding the theme or main point of a writing (69.4%), discussing ideas with peers (59.0%), organizing the ideas in mind (42.1%), and setting writing goals (41.0%).

For revising, students used an average of 7.9 (SD = 3.8) activities during a year. In a majority of

classes, students corrected Chinese characters written incorrectly (88.7%); modified sentences to make them more fluent (78.5%); corrected punctuation errors (64.3%) and poorly chosen words (62.9%); separated writing into paragraphs logically (61%); revised text to better describe the scenery or feelings (55.4%); and selected more elegant, lively, or vivid words (52.1%).

Although the average number of revising activities applied by students was not statistically related to location, statistical differences were obtained for 16 (89%) of the revising activities (see Table 6). The only revising activities that did not statistically differ by location were modifying sentences (88.7%) and correcting incorrectly chosen words (62.9%).

What Role Does Evaluation Play in Teachers' Classrooms?

The most common ways that participating teachers used writing to evaluate learning were writing an essay on a test (90.5%), writing short answer responses (60.9%), writing a summary of reading material (58.9%), fill-in-the-blank/matching questions on test (56.1%), writing to answer essay questions on a test (37.4%), and creating a portfolio of writing to demonstrate knowledge (15.7%). Five (83%) of the ways that teachers used writing to evaluate students' learning statistically differed by location (see Table 6; using portfolios for evaluation did not differ statistically).

The most often used procedures that teachers applied for evaluating students' writing was personal judgment (53.1%), rubrics and holistic writing scales taught to students (42.9%), scales/writing standards provided by the school (21.2%), and government-designed standards (14.5%). All four of these evaluation procedures statistically differed by location (see Table 6).

How Do Teachers Teach Writing?

Process Approach to Writing

Teachers implemented the 15 items measuring application of the process approach from writing several times a year to monthly (for all items, M = 1.5, SD = 0.9). Statistically, Shanghai teachers (M = 2.1, SD = 0.9) implemented these procedures more frequently than teachers in Taipei (M = 1.3, SD = 0.8), Hong Kong (M = 1.2, SD = 0.7), and Macao (M = 1.1, SD = 0.7), doing so monthly versus several times a year. When each item was considered separately (see Table 7), Shanghai teachers statistically implemented each specified teaching procedure more frequently than teachers in the other three cities, but no item at any location was implemented frequently. The largest mean for any process writing item at any location was 2.4, which is between monthly (2.0) and several times a month (3.0).

Teaching Writing Strategies

Teachers taught writing strategies (planning, revising, editing, summarizing, and sentence construction) monthly to several times a month (for all items, M = 2.5, SD = 1.0). Statistically, Shanghai teachers (M = 2.7, SD = 1.0) taught writing strategies more frequently than teachers in Hong Kong (M = 2.3, SD = 0.9) and Macao (M = 2.1, SD = 0.8), doing so several times a month versus monthly. With the exception of teaching summarizing, Shanghai teachers were more likely to teach strategies than teachers in one or more of the other cities were (see Table 7), but this did not occur frequently at any location.

Teaching Writing Skills for Expressing Ideas

On average, teachers taught the four writing skills for expressing ideas (genres, vocabulary, creativity, and mental images) monthly (for all items, M = 2.4, SD = 1.1). Statistically, Shanghai teachers (M = 2.5, SD = 1.1) taught writing strategies more frequently than teachers in Hong Kong (M = 2.2, SD = 0.9) and Macao (M = 2.2, SD = 1.1), although these differences were quite small (0.3 point on the 8-point scale). Specifically, Shanghai teachers were more likely to teach creativity and mental imagery than Hong Kong or Macao teachers were (see Table 7). Collectively, none of these skills were taught frequently by teachers at any location, as the largest mean was 2.8 (several times a month).

Other Teaching Practices

None of the other teaching practices in Table 7 occurred frequently. The most commonly applied other practices were giving verbal praise/positive reinforcement (occurring several times a month), teaching grammar, and teacher feedback (both occurring several times a month to monthly). On average, using writing to facilitate reading and learning, reteaching skills and strategies, teaching text organization and punctuation, providing students with good models of writing to emulate, using graphic organizers, and setting goals for writing occurred monthly. The application of computer technology to writing (i.e., teaching writing via computers, writing via keyboard) occurred monthly to several times a year, on average. There were statistical differences by location for 93% of the other items. In almost all instances, these differences involved Shanghai teachers applying a practice more often than teachers in one or more cities, but none of these practices were applied frequently.

What Factors Shape Teachers' Writing Instruction?

We asked teachers about factors that influenced their writing instruction (see Table 2). Slightly more than one third of teachers (37.4%) indicated that the writing curriculum mostly integrated textbook instruction and school guidelines, and 34.6% indicated that the writing program was mostly teacher designed, and 4.5% and 13.5% of teachers indicated that textbooks or school guidelines, respectively, were most important. Statistically, Taipei teachers were more likely to design their writing instruction than Macao and Hong Kong teachers but were less likely than Shanghai teachers to use the textbook, less likely than Hong Kong teachers to follow school guidelines, and less likely than Hong Kong and Macao teachers to use both (as were teachers in Shanghai). Hong Kong and Macao teachers were more likely than Shanghai teachers to follow school guidelines, whereas Shanghai teachers were more likely than Macao teachers to design their own writing curricula and more likely than Hong Kong teachers to use textbooks.

Approximately half of the teachers (50.2%) indicated that national curricular standards influenced their writing instruction (see Table 2). Statistically, Shanghai teachers were more likely than Macao teachers to report being influenced by such standards. When answering an open-ended question about national standards, most respondents indicated that the standards had a positive impact on increasing their understanding of curricular design, teaching objectives, teaching contents, teaching methods, and evaluation procedures in writing, noting that this had a positive impact on their teaching practices. However, teachers also indicated that the standards created a number of challenges, including increased workload, difficulty implementing the standards precisely, and less time to teach writing because of emphasis on other standards such as reading.

Almost two thirds of teachers (64.3%) noted that writing instruction was shaped by high school entrance examinations (see Table 2). Statistically, Taipei teachers were most influenced by these exams, followed by Shanghai, Hong Kong, and Macao teachers, respectively.

On an open-ended question, Macao teachers reported that the exam was less critical for them because their students continued their high school education at the same school. More broadly, teachers indicated that the genre, topic, and evaluation criteria for the high school entrance exam shaped what was taught and how writing was assessed in the classroom. About half of the respondents (52.5%) indicated that the exams had a positive impact because they increased the requirements for student writing, ensured that time was spent on teaching writing, and provided guidance on what and how to teach writing. In contrast, 47.5% of the respondents argued that the exams had a negative impact because they focused instruction on teaching to the test and writing accounts for a small percentage of the total exam mark (reducing students' motivation).

Teachers indicated that school regulations required students to complete 5.9 (SD = 2.7) graded essays each semester. Statistically, more essays were required in Shanghai (M = 7.0, SD = 1.8) than in the other three locations, and Hong Kong students were expected to produce more essays (M = 6.1, SD = 3.6) than students in Taipei (M = 4.9, SD = 2.0) and Macao (M = 4.6, SD = 2.4) were.

Do Teachers' Preparation, Beliefs, Frequency of Teaching Writing, and Class Composition Predict How They Teach Writing?

We hypothesized that teachers' beliefs about writing, preparation to teach writing, how often they taught writing, and class composition would predict their reported writing practices. Teacher beliefs encompassed teachers' attitude about writing and themselves, attitude about writing and middle school students, and self-efficacy for teaching writing. Preparation to teach writing encompassed overall preparation to teach writing, PD collaboration, and PD for teachers' needs. Frequency of teaching writing was based on how often writing was taught. Class composition was the proportion of the class that was made up of students with special needs (gifted and with a disability). Six regression analyses were conducted to determine the amount of variance that these eight predictors, collectively and individually, accounted for in reported application of process writing, teaching writing strategies, and teaching writing skills for expressing ideas, as well as number of student activities involving writing, planning, and revising. All eight predictor variables were entered into the equation as a block in each analysis.

Collectively, the eight predictor variables accounted for a statistically significant amount of variance in how frequently teachers applied the process approach (F = 52.83, df = 8, 1,255; p < .001; adjusted $R^2 = .25$), taught writing strategies (F = 30.84, df = 8, 1,254; p < .001; adjusted $R^2 = .16$), and taught writing skills for expressing ideas (F = 22.59, df = 8, 1,255; p < .001; adjusted $R^2 = .12$), as well as how many different writing activities (F = 9.05, df = 8, 1,251; p < .001; adjusted $R^2 = .05$), planning activities (F = 13.28, df = 8, 1,249; p < .001; adjusted $R^2 = .07$), and revising activities (F = 8.26, df = 8, 1,248; p < .001; adjusted $R^2 = .04$) their students engaged in during the school year. In terms of unique contributions, teacher beliefs were the most robust predictors. Teacher efficacy made a statistically unique contribution to predicting all reported writing practices (all ps < .016) except for number of different writing activities. Teacher attitude about writing and themselves accounted for statistically unique variance in the prediction of writing strategies, planning activities, and revising activities (all ps < .033), whereas teacher attitude about writing and middle school students statistically predicted the teaching of writing process and writing skills beyond the variance accounted for by the other predictors (all ps < .007).

How frequently writing was taught made a statistically unique contribution to predicting how frequently the process approach, writing strategies, and writing skills were taught and how often students engaged in revising activities (all ps < .038). All three preparation predictors statistically accounted for unique variance in reported writing practices: PD collaboration predicted how frequently students applied different writing and revising activities (both ps < .047), PD for teacher needs predicted use of process writing and students' use of planning activities (both ps < .001), and overall preparedness to teach writing predicted how frequently students applied and students' and planning activities (both ps < .001).

Discussion

Preparation to Teach and Beliefs About Writing

Findings from this study provided support for a broad global concern that many colleges and universities worldwide do not adequately prepare teachers to teach writing (Graham & Rijlaarsdam, 2016). Seventy-five percent of middle school Chinese teachers in this study indicated that their college preparation was inadequate. This is consistent with prior studies showing that most teachers in middle school and other grades share this opinion about college preparation (Brindle et al., 2016; Dockrell et al., 2016; Gilbert & Graham, 2010; Graham et al., 2104; Ray et al., 2016), although this is not always the case (Cutler & Graham, 2008; Veiga Simão et al., 2016).

Concerns about preparation to teach writing extended beyond college in this study, as close to 75% of teachers indicated that their inservice and personal preparation were inadequate, too. This finding is less common, at least in comparison with studies done in the United States, where teachers are more positive when multiple forms of preparation to teach writing are considered (e.g., Gilbert & Graham, 2010; Graham et al., 2014; Ray et al., 2016). So, why were middle school teachers in our study so negative about their preparation? This likely reflected the limited emphasis that Chinese colleges and teachers' schools place on such preparation at the middle school level. Despite three to four years of course work, only one in five teachers took one or more writing courses, and just one in 10 teachers taught writing during college field experiences. Although teachers were slightly positive about PD at their school, they received little inservice preparation to teach writing across their middle school teaching career (four to eight hours), which averaged 13 years.

In terms of college preparation, the findings of this study should not be interpreted to imply that Chinese language arts teachers receive inadequate college preparation at all grade levels. A representative sample of grades 4-6 teachers in three urban Chinese locations (Beijing, Macao, and Taipei) in a study by Hsiang and Graham (2016) were more positive about their college preparation. Similar findings have been reported in countries such as the United States (cf. Gilbert & Graham, 2010; Graham et al., 2014). In any event, additional research is needed to replicate the findings from our study and extend such investigations to a broader range of grades and countries. Researchers also need to explore more deeply why teachers view their preparation positively or negatively, as well as personal and institutional factors that influence various forms of preparation. Such research should provide comparative benchmarks by examining whether teachers are more or less prepared to teach writing than reading or other subjects.

It is interesting to note that Chinese teachers' beliefs about writing in this study were more positive than their views on how prepared they were to teach it. Teachers slightly agreed that they were effective writing teachers. They were also slightly positive about themselves and writing (e.g., "I am a good writer") and their students and writing (e.g., "Students are taught and acquire needed writing skills"). These findings add to a small body of international research showing that teachers are generally positive about their writing capabilities and their efficacy to teach writing (Brindle et al., 2016; De Smedt et al., 2016; Graham et al., 2014), despite their concerns about their preparation. Additional research is needed to replicate and extend such research to a broader range of grades and different countries, to determine how teacher efficacy and attitudes can be enhanced, and to examine other writing beliefs (e.g., epistemological).

Teaching Writing

As was the case with college preparation, our findings provide support for a broader global concern that writing instruction in many classrooms worldwide is not adequate (Graham & Rijlaarsdam, 2016). Although it is clear that some teachers provide a rich and engaging writing program (Applebee & Langer, 2013; Cutler & Graham, 2008; Parr & Jesson, 2016; Tse & Hui, 2016), the more common portrait of writing instruction globally is that students in affluent nations (e.g., Brindle et al., 2016; De Smedt et al., 2016; Dockrell et al., 2016; Graham et al., 2014; Ray et al., 2016) and developing nations (e.g., Hsiang & Graham, 2016; Michaelowa, 2001; Veiga Simão et al., 2016) spend little time being taught how to write. Even though this investigation involved different cultural, social, political, institutional, historical, and language contexts than in most prior studies, the broad picture was still the same.

Specifically, the middle school Chinese teachers in this study devoted little time to teaching writing. An average writing class was one hour in duration, but writing classes occurred infrequently. Eighty-five percent of teachers held a writing class once every two weeks or less often. Infrequent writing classes were not due to an abbreviated school year, as Chinese and U.S. students, for instance, spend about the same amount of time and days in school (OECD, 2016).

Although teachers in this study used a variety of evidence-based practices to teach writing, such as strategy instruction or activities to support process writing, such instruction occurred infrequently. On average, these instructional practices occurred about once a month in our study. Similar patterns of instruction have been reported in studies conducted in middle school classes in other countries (e.g., Graham et al., 2014; Ray et al., 2016; Veiga Simão et al., 2016).

On a more positive note, middle school students in Chinese societies in Asia were expected to write six essays each semester. Although we did not specifically examine whether this occurred, teachers reported assigning 17 different writing activities across the school year (this is not dissimilar to reports from other countries; Graham et al., 2014; Ray et al., 2016). The types of writing assigned by the majority of teachers reflected a mix of activities, including ones that involved composing (e.g., writing a reflection on a text, summarizing a complete text or paragraph, writing a descriptive narrative) and those that were more mechanical (e.g., writing Chinese characters or words, note-taking, copying text beautifully). Writing was also used by almost every teacher to evaluate students' learning, with a majority of teachers employing assessments involving essay writing tests, short written responses, and written summaries.

Teachers further reported that students applied a variety of planning and revising activities during the school year. A majority of teachers indicated that students applied six different planning activities, ranging from analyzing the requirements of a writing topic to creating a plan and discussing it with others, as well as seven different revising activities, ranging from correcting errors to revising to create a better mood or setting. Teachers also indicated that they most commonly used their personal judgment to evaluate students' writing.

Additional research is needed to replicate the findings of this study, including asking if and how frequently students engage in specific writing, planning, and revising activities (we did not ask how often this occurred). Further, it is critical to explore the reasons behind the number of writing classes offered in this and other investigations. For example, writing classes may have been offered infrequently in this study because Chinese teachers view reading as more important than writing (OECD, 2011), assume students master writing through reading (Feng, 2010), or both. Researchers also need to extend their focus to examine school, district, cultural, social, and political factors that limit or promote writing instruction in China and worldwide.

Factors Related to Chinese Language Arts Teachers' Writing Instruction

Studies of factors that shape classroom writing instruction have involved, but are not limited to, high-stakes tests (Hillocks, 2002), national curriculum (Tse & Hui, 2016), commercial materials (Gilbert & Graham, 2010), and teacher-designed instruction (Hsiang & Graham, 2016). Each of these factors has been associated with how writing is taught in the United States and other countries. The findings from the present study provide additional support for the importance of these factors, even though our findings differ in some instances.

Slightly more than 50% of the Chinese middle school teachers in this study indicated that school guidelines, textbooks, or both played the largest role in shaping what they did, with one out of three teachers indicating that writing instruction was mostly teacher designed. These findings are generally consistent with those from a study by Hsiang and Graham (2016) involving teachers of younger Chinese students (grades 4–6). When just textbooks were considered, our findings are somewhat similar to those from a U.S. report where 50% of grades 4–6 teachers used commercial materials to teach writing (Gilbert & Graham, 2010) but not those from a middle school survey where only 10% did so, mostly designing their own writing program (Graham et al., 2014).

Teachers in this study further indicated that their writing program was influenced by national curricular standards (50%) and high school entrance exams (64%). Although most teachers reported that national standards and high school entrance exams had positive influences (e.g., increased emphasis on writing), a sizable minority also described negative consequences (e.g., teaching to the test). In Chinese societies in Asia, high school entrance exams are important to student success,

as they are used to determine which high school students attend, which influences college options as well. There is also considerable societal pressure for students to attain high scores on these exams (OECD, 2011). This may explain why Chinese middle school teachers are more positive about these tests than teachers in the United States are (see Graham et al., 2014), as societal support for such tests is not as broad in the United States.

As in previous international studies (e.g., De Smedt et al., 2016; Graham et al., 2014; Hsiang & Graham, 2016; Veiga Simão et al., 2016), this study examined whether teacher and classroom variables predicted reported writing practices. Specifically, we found that the number of different writing activities assigned by teachers was uniquely predicted by their preparation (i.e., overall preparation, beliefs about PD). The number of different revising and planning activities that students applied was uniquely predicted by teachers' efficacy, attitude about writing and themselves, beliefs about PD, and in the case of planning, overall judgment about their preparedness to teach writing. Teachers' use of the process approach to writing was uniquely predicted by frequency of writing classes and teachers' beliefs about PD, writing and middle school students, and their teacher efficacy. Frequency of teaching writing strategies was uniquely predicted by frequency of writing classes, teacher efficacy, and teachers' beliefs about writing and themselves. Finally, how often writing skills for expression were taught was uniquely predicted by teacher efficacy and teachers' beliefs about writing and their students.

Most notably, this and previous studies (e.g., Brindle et al., 2016; De Smedt et al., 2016; Hsiang & Graham, 2016; Veiga Simão et al., 2016) highlight the potential importance of preparation to teach writing, teacher efficacy, and teachers' beliefs about writing, as teachers who indicated that they were better prepared and more positive about writing were more likely to teach it and apply evidence-based practices. Additional research is needed to replicate our findings, extend them to other grades and nations, and explore the predictive value of other teacher variables, such as teachers' knowledge about writing and their beliefs about how writing develops.

Teacher Differences Within and Across Locales

Based on sociocultural theory (Russell, 1997) and more specifically Graham's (in press) writing in community model, we hypothesized that there would be variability in the preparation, beliefs, and writing practices of teachers within each urban location and between them due to institutional, political, historical, societal, and cultural factors, as well as teacher and student differences. This first prediction was supported because teachers in each city evidenced clear variability in their responses to almost all items involving preparation to teach writing, beliefs about writing, and writing instructional practices. Such variability has been common in prior surveys in China (Hsiang & Graham, 2016) and other locations around the world (e.g., De Smedt et al., 2016; Dockrell et al., 2016; Graham et al., 2014; Veiga Simão et al., 2016).

Also as predicted, statistical differences between locations were obtained on almost every variable studied, including language in the classroom, length of writing class, frequency of writing class, teachers' beliefs about writing, teachers' preparation to teach writing, and factors that shape writing instruction, as well as types of writing activities, instructional methods, evaluation procedures, and planning and revising techniques applied. These statistical differences are consistent with Graham's (in press) and others' claim (Russell, 1997; Schultz & Fecho, 2000) that practices at the classroom level are influenced by macrolevel factors, as the four cities studied differed institutionally (e.g., separate educational systems), politically (e.g., forms of government), culturally (e.g., culturally sanctioned forms of behavior), socially (e.g., language spoken in class), and historically (e.g., colonial influences), even though they shared a common Chinese heritage. Similar findings were reported by Hsiang and Graham (2016).

Our conclusion about the influence of macrofactors on classroom practices, however, must be tempered by two relevant points. First, our data were correlational at best, as we did not manipulate any macrolevel factors. Second, the obtained differences between cities were mostly a matter of degree, not a reflection of general differences in how writing was taught. To illustrate, teachers in all four locales applied the same instructional practices to teach or facilitate writing, even though teachers in Shanghai tended to apply many of these procedures more often than teachers in the other three cities did. In addition, observed differences in the application of these practices in the different cities were not large, and it is important to remember that instructional practices were applied infrequently in all locations.

Similarly, teachers in one locale were more likely to assign a specific writing activity for students to complete (e.g., summarizing a paragraph was assigned more often in Hong Kong), but all writing practices listed in the survey were applied by teachers in each locale. Just as important, small differences between the percentages of teachers in each locale who assigned a particular writing activity were much more common than large differences. Similar patterns were evident for students' use of planning and revising activities.

Perhaps the most notable difference across locales was that teachers in Taipei (47%) and Shanghai (42%) were more likely to indicate that their writing curriculum was mostly teacher designed. Even so, differences in how writing was taught in all four locales were a matter of degree not overall approach, as teachers applied similar procedures.

Why were more substantive differences in writing instruction not observed across the four locations? One possible reason for this is instructional globalization. The evidence-based instructional movement (Cook et al., 2012) has resulted in the dissemination of specific instructional practices through books, commercial materials, the internet, PD, and cultural interchanges. Thus, writing practices in different locations may now be more alike than ever. It is also possible that greater differences in how writing was taught did not occur due to the cultural similarities of the teachers participating in this study. For instance, how much emphasis was placed on writing and writing instruction may reflect a general view in Chinese societies in Asia of the importance of writing in relation to other academic subjects.

Additional research is needed to replicate the findings from our study with the same and different grades in China and other countries. It is also important to examine why differences in writing instruction do or do not differ between locales that share common characteristics.

Caveats and Limitations

A basic conclusion that can be drawn from this study is that most middle school teachers in Chinese societies in Asia are not adequately prepared to teach writing, do not devote enough class time to writing, and teach writing infrequently. More positively, middle school students are expected to engage in a variety of different writing assignments over the course of a school year. Nevertheless, this study and other investigations (e.g., Applebee & Langer, 2013; De Smedt et al., 2016; Dockrell et al., 2016; Graham et al., 2014; Michaelowa, 2001; Veiga Simão et al., 2016) raise serious concerns about the quality of writing instruction for many students across the globe.

It is important to note that our findings are based on the assumption that teachers are aware of how they teach and, as a result, can accurately answer questions about writing instruction in their classrooms. This assumption is supported by evidence that teachers can provide an accurate description of their literacy practices (e.g., Bridge & Hiebert, 1985). Even so, the findings from this study need to be replicated and supported by observation as well. Future research should focus on teachers' writing practices not only at specific timepoints but also longitudinally. If we expect to capture teachers' writing instruction more fully, it is particularly important that we observe how this unfolds over time in multiple classrooms. In addition, it is equally important to determine whether and how teachers (and administrators) work together to structure writing instruction in individual schools and within a school system. Finally, observational studies need to be not only designed so the observations capture common instructional practices, but also open ended enough to capture unusual instructional practices.

Another assumption underlying this study is that teachers understood the basic concept underlining each item in our survey. Field testing of the survey and use of previously validated measures for some constructs support this contention. This does not ensure, however, that each item meant exactly the same thing to all teachers or that a practice was applied by all teachers in exactly the same way. For instance, Chinese teachers may not interpret persuasive writing in the same way as U.S. teachers, as the forms and purposes for such writing differ in these cultures (Cai, 1993). Thus, some care must be applied in drawing implications from one culture to another.

Finally, it is important to recognize the limits of a survey such as ours to capture all of the complexities and nuances that occur within and outside a classroom in terms of social and cultural processes. The study undoubtedly captured some but not all of them.

Conclusion

In summary, our study provides support for a basic tenet of sociocultural theory that teaching and learning are embedded in larger contexts that influence how instruction proceeds at the local level (Graham, in press; Russell, 1997). Although the Chinese language arts teachers surveyed in our investigation shared many similarities (culturally, socially, and historically), the four urban contexts in which they taught differed in multiple ways (different educational systems, forms of government, languages, and historical backgrounds). Consistent with sociocultural theory, we found that teachers from the four different locales, as well as teachers within each locale, differed in their preparation to teach writing, their beliefs about writing, and how they taught writing. Consequently, context matters in writing instruction. Even so, this conclusion must be tempered by our findings that differences in how writing was taught in the four locales was mostly a matter of degree, not a reflection of broad general differences. In any event, this study raises questions about the quality of middle school writing instruction in Chinese societies in Asia, as teachers devoted little time to teaching this important skill.

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Supporting Information

Additional supporting information may be found in the online version of this article:

• Appendix: Writing Survey