

# **Metacognition and Creative Writing: Implications for L1 and L2 College Writing Experiences**

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## **Abstract**

This study explored differences in metacognition between poetry writing and short story writing and between first-language (L1) and second-language (L2) writers. One hundred and thirty-two ( $N = 132$ ) US college students composed a poem and a short story ( $L1 = 40$ ,  $L2 = 92$ ). After each writing experience, participants completed 10 creative writing metacognition items. Nonparametric statistical measures of difference indicated that poetry writing elicited greater metacognition than short story writing for L2 writers in the areas of (a) awareness of the emotional demands of the task, (b) attention to word choice, (c) awareness of how successful writing strategies were, and (d) quality of the writing upon finishing it. In addition, L1 and L2 writers differed in some areas, with (a) poetry and short story writing strategy metacognition being greater for L2 writers, (b) poetry and short story planning metacognition being greater for L2 writers, and (c) short story monitoring metacognition being greater for L1 writers. In addition to suggesting that creative writing may foster writing metacognition for L2 writers of English, results reflect previous scholarship on poetry (Hanauer, 2014; Martínez, 2001) and corroborate the positive influence of teaching L2 poetry (Hanauer, 2012, 2014; Iida, 2012) and L2 short story writing (Nicholes, 2015) to foster learners' awareness of their metacognitive processes.

One of the pedagogical approaches to teach writing is adopting meaningful literacy instructions. As Hanauer (2010, 2012) argued for meaningful literacy instructions, research in the creative writing field investigated how promoting learners to write poetry and short stories is associated to self-understanding, identity formation, and For Hanauer (2012), poetry writing helps writers to express their emotions and reflect on their life experiences. For Iida (2012), poetry is a means to develop second-language literacy and to perform identity. Additionally, Nicholes (2015) has pointed to benefits of having second-language (L2) writers analyze and write short stories that were used to guide students through persuasive writing genre in composition classrooms. In a study conducted by Garvin (2013) and used poetry in English Composition classes, L2 writers showed more confident in their writing and developed linguistically. These studies suggest the possible role of metacognition in these types of writing, but as yet, this has not been investigated in L2 creative writers. The present study aims to investigate metacognition in L1 and L2 poetry and short story writing.

### **Understanding Metacognition**

Metacognition can be understood as an individual's ability to reflect on, monitor, and control his/her knowledge and thoughts (Flavell, 1979). Scott and Levy's (2013) quantitative study suggested a two-factor model of metacognition consisting of (a) metacognitive knowledge and (b) metacognitive regulation, with each component consisting of multiple subprocesses. Even though writing scholars have related metacognition to writing development (Negretti, 2012), few studies have framed their findings with specific models of metacognition. One recent attempt to solve this problem comes from Gorzelsky, Driscoll, Paszek, Jones, and Hayes (2016), who identified metacognitive components of writing. These components represented metacognitive moves that students use in college-level writing. Gorzelsky et al.'s (2016) taxonomy, which helped to direct our own measurement of metacognition, includes the following eight subcomponents:

1. Person (Knowledge of Cognition)
2. Task (Knowledge of Cognition)
3. Strategy (Knowledge of Cognition)
4. Planning (Regulation of Cognition)
5. Monitoring (Regulation of Cognition)
6. Regulation/control (Regulation of Cognition)

7. Evaluation (Regulation of Cognition)
8. Constructive metacognition.

In the present measurement of metacognition, the aim was to make meaningful links to metacognition theory and research by designing an instrument after the scholarship noted above.

In addition to measuring metacognition based on available theory and research, this study aimed to look at L2 writing and metacognition. Negretti (2012) examined the correlation between student-writers' meta-monitoring and writing processes. Negretti (2012) suggested that metacognitive awareness seems to be tied to a student's ability to self-regulate her/his learning and to develop a "personal writing approach" (p. 173). In accordance to Gorzelsky et al.'s (2016) study, students' metacognitive processes appear to support writing knowledge transfer and, as a result, to support a student's overall development as a writer. Specifically, their findings suggest that metacognitive capacities may potentially help to promote writing knowledge transfer (pp. 244-245).

Although metacognition has received attention in writing-studies research overall, creative writing scholars have not systematically explored how L1 or L2 English language writers perceive their metacognitive processes while writing poems or short stories. Hanauer (2014) defined L2 poetry writing as a literacy practice "aimed at facilitating an authentic and meaningful writing experience for L2 writers" that can be "a medium for personal exploration and expression" (p. 22). As argued by Hanauer (2014), writing poetry can allow L2 writers to explore and understand both the internal and external worlds of the individual. Accordingly, studies of how poetry relates to metacognition enable an understanding of ways through which L2 writers might connect their internal and external worlds to diminish the boundary between their writing processes and their writing products. Martínez (2001) theorized that poetry could be used in composition classrooms to foster metacognition awareness and to enhance students' writing. Still, this claim remains unsubstantiated and more work is needed to understand mechanisms that link creative writing experiences with a writer's overall development. Accordingly, the present study aimed to contribute to the small pool of work available about creative writing pedagogy by investigating how L1 and L2 students perceive their current creative writing practices.

Using a quantitative research design, the present study examined how metacognition of L1 and L2 writers is related to creative poetry and short story writing. This study furthers an understanding of metacognitive dynamics that occur while writing poems and short stories using English as an L1 or L2. Accordingly, findings of this study connect to current literature, highlight-

ing the importance of L2 poetry writing to foster metacognition awareness (Martínez, 2001) and exploration of writers' internal worlds (Hanauer, 2014) as well as making a new case for L1 and L2 short story writing.

### **Research Questions and Hypotheses**

Two research questions guided the present study:

*Research Question 1:* Are there differences in L1 and L2 writers of English self-reported metacognition when engaging in poetry and short story writing?

*Research Question 2:* Do L2 writers of English report different levels of self-reported metacognition when engaging in poetry and short story writing than L1 writers?

H0: No difference will appear among reported metacognition of L1 poetry and short story writing or metacognition of L2 poetry and short story writing.

H1: Significant difference will appear among reported metacognition of L1 poetry and short story writing and metacognition of L2 poetry and short story writing.

To answer these questions, the present study invited participation from L1 ( $n = 40$ ) and L2 ( $n = 92$ ) participants who were current or former graduate or undergraduate English majors over the age of eighteen. The first language of these L2 writers are distributed as the following: 71 first language speakers of Arabic, 9 first language speakers of Indonesian, Ambon-Malay and Bahasa, 5 first language speakers of Chinese, 2 first language speakers of Urdu, 2 first language speakers of Persian, 1 first language speakers of Bengali, 1 first language speaker of Japanese, 1 first speaker of Kabiye. Regarding gender, 14 male L1 students responded to the survey and 26 female L1 students agreed to take the survey. Additionally, 34 male L2 participants responded to the survey while 58 female L2 participants took the survey. Regarding educational background of L1 participants, 19 reported that they were postgraduates (PhDs, M[F]As, and recent graduates), and 23 that they were undergraduates. Regarding educational background of L2 participants, 40 reported that they were undergraduates, and 52 reported that they were postgraduates (PhDs, M[F]As, and recent graduates).

Participants were writers who (a) had taken creative writing classes in high school, as college undergraduates, as college graduate students, or in another situation involving formal creative-writing courses; (b) were practicing English creative writers; (c) had a history of reading literature; (d) had taken or currently were taking English classes, including first year composition; or, (e) had experienced creative-writing assignments in other courses, including but not only in

English composition. The request to participate in the survey and the Web-based informed consent process were conducted in accordance with Indiana University of Pennsylvania's IRB (log no. 13–185). Research sites were a Midwestern US public university, a Western US private university, relevant listservs, and social-media student groups. After receiving IRB approval, the online survey was distributed through professors and was posted at relevant students' groups in social media networks.

### **Instrument**

The instrument used in this study went through a validity plan to ensure content validity, comprehensibility, and construct validity. The concept of metacognition was operationalized based on Gorzelsky et al.'s (2016) metacognition taxonomy, Schraw and Dennison (1994), and Scott and Levy (2013). The survey had two writing prompts each followed by 10 metacognition items. To ensure content validity in the instrument, the survey items were workshopped with a team of researchers working in the field of composition, applied linguistics, and creative writing studies. Every member of the team assessed the two scales independently and reported back on what the instrument seemed to be measuring. In accordance to the feedback given, the researcher reworded some items for clarity.

The workshopping of these items ensured that the current study's operationalization of metacognition reflects the components and subcomponents described in the writing taxonomy. As researchers have yet to define creative writing metacognition, this survey is exploratory and serves to provide a basic understanding of metacognition as it relates to creative writing. Additional validation occurred while generating the poetry and short story writing prompts. The two writing prompts were created to be clear, concise, and directly related to students' life experiences. To validate the content of these prompts, the writing prompts were workshopped with a team of researchers in the field of composition, applied linguistics, and creative writing studies to discuss how the two prompts could be expected to sustain students' intellectual and emotional processes while writing. The created prompts were intended to involve students' thinking as well as emotional processes. Through piloting of the survey, comprehensibility and construct validity were explored for the instrument. A group of L1 and L2 English writers took the survey and reported back on what they understood the survey to be asking, whether the survey was easy to understand, and how practical the survey seemed. The survey that resulted contained two writing prompts (Table 1). The prompt of the short story engages students in a meaning making activity that assist "to make life experiences meaningful" (Kramp, 2004, p. 107). The prompt was designed in accordance of the

definition provided by Kramp (2004), who argued that “stories preserve our memories, prompt our reflections, connect us to our past and present, and assist us to envision our future” (p. 107).

Table 1  
*Prompts for Poetry and Short Story Writing*

Type of Writing	Writing Prompt
Poetry	Think about a time in your life when you needed help from someone and that person helped you. In 5-8 minutes, visualize the experience, think of why this individual helped you, and how you felt about it. Write a short poem of three to four lines that focuses on images of this experience.
Short Story	Think about a time in your life when you needed help from someone, but that person did not offer any help. In 5-8 minutes, write a short story that describes the event. Explain why you think that person did not offer any help.

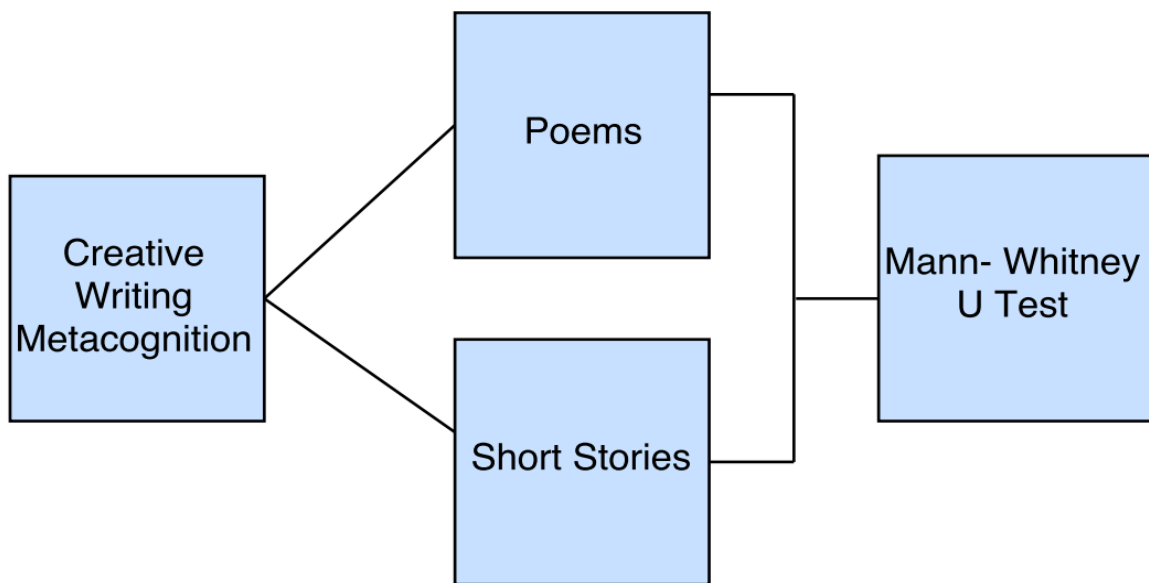
Each writing prompt was followed by 10 metacognition items to be rated on a 5-point Likert scale (5 = strongly agree, 4 = agree, 3 = neither agree nor disagree, 2 = disagree, and 1 = strongly disagree). The 10 items were:

1. I was aware of my strengths as a writer.
2. I was aware of my weaknesses as a writer.
3. I was aware that emotion is an important component of the task.
4. I used multiple writing strategies.
5. I paid attention to the choice of my words.
6. I was aware that my writing strategies are successful.
7. I was thinking about learning new writing strategies to develop my writing.
8. I made sure that I understood what I should do.
9. I made decisions on the most successful writing strategies to use.
10. After writing, I asked myself about the quality of what I had written.

Internal-consistence reliability was measured with a Cronbach’s coefficient alpha statistic for the 10 items for each of the metacognition measurements. Results were as follows:  $\alpha = .815$  (poetry), and  $\alpha = .759$  (short stories). Internal consistency reliability warranted averaging data from survey items into single scores for data analysis.

### Data Analysis

To answer the first research question (*Are there difference in L1 and L2 writers of English self-reported metacognition when engaging in poetry and short story writing?*), data was checked for core assumptions. With the finding of non-normally distributed data, a series of data set-appropriate n-Whitney U tests were run. Figure 1 summarizes the research design used.



*Figure 1.* Research design to compare metacognition of L1 writers while writing poetry and short story and metacognition of L2 writers while writing poetry and short story

To answer the second research question (*Do L2 writers of English report different levels of self-reported metacognition when engaging in poetry and short story writing than L1 writers?*), again data was checked for core assumptions, and a series of Mann-Whitney U tests were run. Figure 2 summarizes the analytical procedure used.

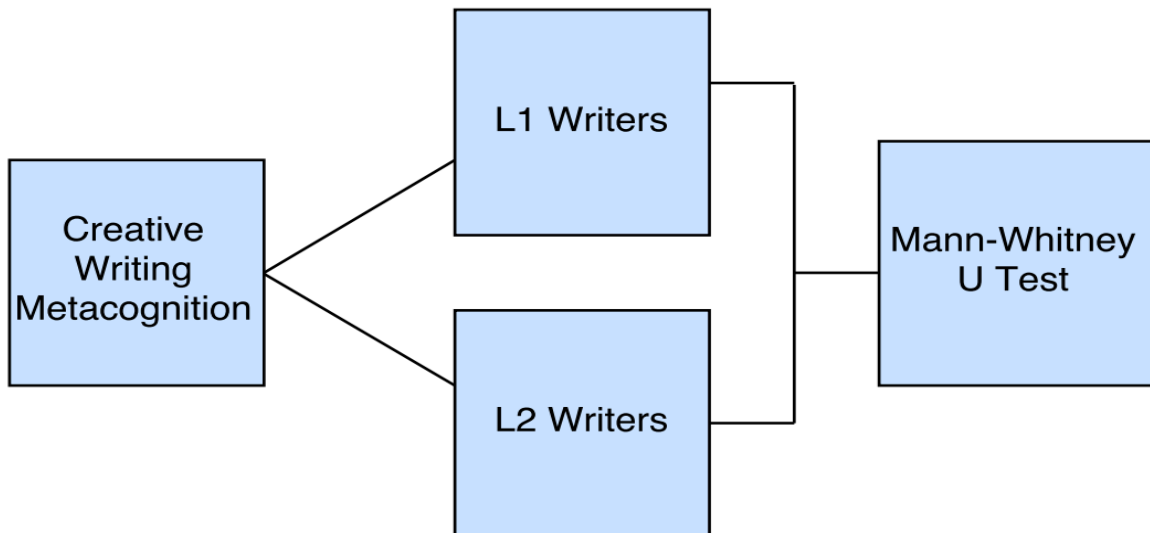


Figure 2. Research design to compare metacognition between the two groups of writers

### Results

Table 2 presents the means, medians, standard deviations, and 95% confidence intervals of likelihood for reported levels of creative writing metacognition between poetry/short story genres and L1/L2 writers.

Table 2  
Descriptive Data for Creative Writing Metacognition

Item		<i>M</i>		<i>Mdn</i>		<i>SD</i>		95% Confidence Interval			
		Poetry	Story	Poetry	Story	Poetry	Story	Lower		Upper	
								Poetry	Story	Poetry	Story
I was aware of my strengths as a writer.	L1	3.80	4.15	4.00	4.00	1.22	.893	3.41	3.86	4.19	4.44
	L2	3.97	4.07	4.00	4.00	1.22	.823	3.41	3.89	4.19	4.24
I was aware of my weaknesses as a writer.	L1	3.90	3.93	4.00	4.00	1.13	.917	3.54	3.63	4.26	4.22
	L2	4.04	3.98	4.00	4.00	.913	.838	3.85	3.80	4.23	4.15
I was aware that emotion is an important component of the task.	L1	4.50	4.30	5.00	4.00	.785	.853	4.25	4.03	4.75	4.57
	L2	4.59	4.04	5.00	4.00	.713	.901	4.44	3.86	4.73	4.23
I used multiple writing strategies.	L1	3.00	3.05	3.00	3.00	.906	1.06	2.71	2.71	3.29	3.39
	L2	3.63	3.43	4.00	3.00	1.00	.941	3.42	3.24	3.84	3.63
I paid attention to the choice of my words.	L1	4.35	4.15	4.50	4.00	.770	.864	4.10	3.87	4.60	4.43
	L2	4.22	3.88	4.00	4.00	.800	.900	4.05	3.69	4.38	4.07



I was aware that my writing strategies are successful.	L1	3.53	3.65	4.00	4.00	.987	1.00	3.21	3.33	3.84	3.97
	L2	3.77	3.42	4.00	3.00	.985	.842	3.57	3.25	3.98	3.60
I was thinking about learning new writing strategies to develop my writing.	L1	2.88	2.88	3.00	3.00	1.22	1.24	2.48	2.48	3.27	3.27
	L2	3.51	3.44	4.00	3.50	1.05	.998	3.30	3.23	3.73	3.64
I made sure I understood what to do.	L1	4.25	4.28	4.00	4.00	.743	.751	4.01	4.04	4.49	4.52
	L2	3.97	3.98	4.00	4.00	.857	.784	3.79	3.82	4.15	4.14
I made decisions on the most successful writing strategies to use.	L1	3.28	3.50	3.00	4.00	1.04	1.01	2.94	3.18	3.61	3.82
	L2	3.57	3.45	4.00	4.00	.929	.918	3.37	3.26	3.76	3.64
After writing, I asked myself about the quality of what I had written.	L1	4.25	4.08	4.00	4.00	.776	.971	4.00	3.76	4.50	4.39
	L2	4.17	3.82	4.00	4.00	.820	.889	4.00	3.63	4.34	4.00

Table 3 presents the mean ranks, sum of ranks,  $U$  values, and  $p$  values of Mann-Whitney  $U$  test comparisons made between poetry and short story metacognition and between L1 and L2 writers' metacognition.

Table 3  
*Mann-Whitney U Test Comparisons Made*

Variables	Grouping	Mean Rank	Sum of Ranks	$U$	$p$
<b>L1 Poetry VS Short Story Metacognition (<math>n = 40</math>)</b>					
Strengths Awareness	Poetry	37.80	1512.00	692.00	.273
	Story	43.20	1728.00		
Weaknesses Awareness	Poetry	41.14	1645.50	774.50	.793
	Story	39.86	1594.50		
Emotion Awareness	Poetry	43.26	1730.50	689.50	.231
	Story	37.74	1509.50		
Writing Strategy Usage	Poetry	40.08	1603.00	783.00	.864
	Story	40.93	1637.00		
Word Choice Selection	Poetry	43.05	1722.00	698.00	.284
	Story	37.95	1518.00		

Awareness of Writing Strategy	Poetry Story	38.83 42.18	1553.00 1687.00	733.00	.495
Planning	Poetry Story	40.65 40.35	1626.00 1614.00	794.00	.953
Monitoring	Poetry Story	40.06 40.94	1602.50 1637.50	782.50	.853
Control	Poetry Story	37.96 43.04	1518.50 1721.50	698.50	.311
Evaluation	Poetry Story	41.98 39.03	1679.00 1561.00	741.00	.538
<b>L2 Poetry VS Short Story Metacognition (n = 92)</b>					
Strengths Awareness	Poetry Story	91.08 93.92	8379.50 8640.50	4101.50	.700
Weaknesses Awareness	Poetry Story	95.08 89.92	8747.00 8273.00	3995.00	.480
Emotion Awareness	Poetry Story	109.46 75.54	10,070.00 6950.00	2672.00	.000*
Writing Strategy Usage	Poetry Story	97.78 87.22	8996.00 8024.00	3746.00	.160
Word Choice Selection	Poetry Story	102.19 82.81	9401.50 7618.50	3340.50	.008*
Awareness of Writing Strategy	Poetry Story	102.45 82.50	9425.50 7594.50	3316.50	.008*
Planning	Poetry Story	95.08 89.92	8747.00 8273.00	3995.00	.493
Monitoring	Poetry Story	92.98 92.02	8554.50 8465.50	4187.50	.892
Control	Poetry Story	95.91 89.09	8824.00 8196.00	3918.00	.358
Evaluation	Poetry Story	102.93 82.07	9470.00 7550.00	3272.00	.004*
<b>L1 (n = 40) VS L2 (n = 92) Poetry Metacognition</b>					
	Grouping	Mean Rank	Sum of Ranks	<i>U</i>	<i>p</i>
Strengths Awareness	L1 L2	64.31 67.45	2572.50 6205.50	1752.50	.649
Weaknesses Awareness	L1 L2	64.55 67.35	2521.40 6196.00	1762.00	.682
Emotion Awareness	L1 L2	63.04 68.01	2521.50 6256.50	1701.50	.410
Writing Strategy Usage	L1 L2	50.40 73.50	2016.00 6762.00	1196.00	.001*
Word Choice Selection	L1 L2	70.90 64.59	2836.00 5842.00	1664.00	.341

Awareness of Writing Strategy	L1 L2	60.20 69.24	2408.00 6370.00	1588.00	.191
Planning	L1 L2	53.04 72.35	2121.50 6656.50	1301.50	.006*
Monitoring	L1 L2	74.61 62.97	2984.50 5793.50	1515.50	.078
Control	L1 L2	58.45 70.00	2338.00 6440.00	1518.00	.095
Evaluation	L1 L2	68.70 65.54	2748.00 6030.00	1752.00	.635
<b>L1 (n = 40) VS L2 (n = 92) Short Story Metacognition</b>					
Strengths Awareness	L1 L2	69.75 65.09	2790.00 5988.00	1710.00	.489
Weaknesses Awareness	L1 L2	65.46 66.95	2618.50 6159.50	1798.50	.822
Emotion Awareness	L1 L2	74.48 63.03	2979.00 5799.00	1521.00	.088
Writing Strategy Usage	L1 L2	56.93 70.66	2277.00 6501.00	1457.00	.048*
Word Choice Selection	L1 L2	74.63 62.97	2985.00 5793.00	1515.00	.083
Awareness of Writing Strategy	L1 L2	74.10 63.20	2964.00 5814.00	1536.00	.110
Planning	L1 L2	53.99 71.94	2159.50 6618.50	1339.50	.010*
Monitoring	L1 L2	76.21 62.28	3048.50 5729.50	1451.50	.035*
Control	L1 L2	67.86 65.90	2714.50 6063.50	1785.50	.777
Evaluation	L1 L2	74.81 62.89	2992.50 5785.50	1507.50	.080

\* = statistically significant difference ( $p \leq .05$ )

### **Are there differences in L1 and L2 writers of English self-reported metacognition when engaging in poetry and short story writing?**

**L1 writers and creative writing.** Results of Mann-Whitney U tests to answer this question revealed that, for L1 writers of English, no statistically significant difference appeared between metacognition while writing poetry versus metacognition while writing short stories.

**L2 writers and creative writing.** However, results of Mann-Whitney U tests for L2 writers of English yielded the following statistically significant differences:

1. A Mann-Whitney U test indicated *task* metacognition specifically related to *emotion* was greater for poetry writing ( $Mdn = 5.00$ ) than for short story writing ( $Mdn = 4.00$ ),  $U = 2,672$ ,  $p < .001$ . (Task metacognition related to emotion was measured with the item, “I was aware that emotion is an important component of the task.”)

2. A Mann-Whitney U test indicated *task* metacognition specifically related to *word choice* was greater for poetry writing ( $Mdn = 4.00$ ) than for short story writing ( $Mdn = 4.00$ ),  $U = 3,340$ ,  $p = .008$ . (Task metacognition specifically related to word choice was measured with, “I paid attention to the choice of my words.”)

3. A Mann-Whitney U test indicated *writing-strategy awareness* metacognition was greater for poetry writing ( $Mdn = 4.00$ ) than for short story writing ( $Mdn = 3.00$ ),  $U = 3,317$ ,  $p = .008$ . (Writing-strategy awareness metacognition was measured with, “I was aware that my writing strategies are successful.”)

4. A Mann-Whitney U test indicated *evaluation* metacognition was greater for poetry writing ( $Mdn = 4.00$ ) than for short story writing ( $Mdn = 4.00$ ),  $U = 3,272$ ,  $p = .004$ . (Evaluation metacognition was measured with, “After writing, I asked myself about the quality of what I had written.”)

### **Do L2 writers of English report different levels of self-reported metacognition when engaging in poetry and short story writing than L1 writers?**

**Poetry metacognition for L2 writers.** Results of Mann-Whitney U tests to answer this question revealed the following statistically significant differences regarding poetry metacognition:

1. A Mann-Whitney U test indicated poetry *writing strategy* metacognition was greater for L2 writers ( $Mdn = 4.00$ ) than for L1 writers ( $Mdn = 3.00$ ),  $U = 1,196$ ,  $p = .001$ . (Writing strategy metacognition was measured with the item, “I used multiple writing strategies.”)

2. A Mann-Whitney U test indicated poetry *planning* metacognition was greater for L2 writers ( $Mdn = 4.00$ ) than for L1 writers ( $Mdn = 3.00$ ),  $U = 1,302$ ,  $p = .006$ . (Planning metacognition was measured with, “I was thinking about learning new writing strategies to develop my writing.”)

**Short story metacognition for L1 and L2 writers.** Results of Mann-Whitney U tests to answer this question revealed the following statistically significant differences regarding short story metacognition:

1. A Mann-Whitney U test indicated short story *writing strategy* metacognition was greater for L2 writers ( $Mdn = 3.00$ ) than for L1 writers ( $Mdn = 3.00$ ),  $U = 1,457$ ,  $p = .048$  (Writing-strategy metacognition was measured with, “I used multiple writing strategies.”)

2. A Mann-Whitney U test indicated short story *planning* metacognition was greater for L2 writers ( $Mdn = 3.50$ ) than for L1 writers ( $Mdn = 3.00$ ),  $U = 1,340$ ,  $p = .010$  (Planning metacognition was measured with, “I was thinking about learning new writing strategies to develop my writing.”)

3. A Mann-Whitney U test indicated short story *monitoring* metacognition was greater for L1 writers ( $Mdn = 4.00$ ) than for L2 writers ( $Mdn = 4.00$ ),  $U = 1,452$ ,  $p = .035$  (Monitoring metacognition was measured with, “I made sure that I understood what I should do.”)

### **Discussion and Conclusion**

Major findings of the study suggest that poetry and short story writing activate different metacognitive abilities in the L2 writers but not in the L1 writers of English who participated in this study. Specifically, poetry writing activated greater metacognition than short story writing for L2 writers in the areas of (a) task metacognition specifically related to emotion, (b) task metacognition related to word choice, (c) writing strategy awareness metacognition, and (d) evaluation metacognition. The issue of L2 poetry writing eliciting or making writers aware of significant emotional aspects of the task reflects earlier work on L2 creative writing (e.g., Chamcharatsri, 2015; Hanauer, 2010). The second finding here, that poetry writing relates to greater metacognition, also builds on earlier research indicating students’ awareness of vocabulary development through L2 poetry (Garvin, 2013). Newer findings that require further investigation are that L2 poetry writing elicited greater writing strategy awareness and greater evaluation metacognition.

Additional major findings here suggest that poetry writing and short story writing may stimulate significantly different metacognitive processes for L1 and L2 writers of English. Specifically, (a) L2 writers reported greater writing strategy metacognition while writing both poetry and short stories, (b) L2 writers reported greater planning metacognition while writing both poetry and short stories, and (c) L1 writers reported greater monitoring metacognition while writing short stories. Related to the first two significant differences between L1 and L2 writers, Gorzelsky et al.’s (2016) taxonomy described strategy metacognition as a kind of knowledge of cognition and planning metacognition as a kind of regulation of metacognition. That being the case, it may be that the experience of writing poetry and short stories supports both knowledge and regulation of cog-

nition most strikingly in writers who are using English as an additional language. Compared to L1 English writers, then, L2 English writers may especially benefit from being exposed to poetry and short story writing when the goal is to support a writer's knowledge and regulation of cognition. Implications for teaching may be that awareness-raising of cognition about and while writing may then be discussed and explored in class when the focus is other kinds of writing. These findings also extend previous research findings (Negretti, 2012) that have provided genre-specific findings that support the importance of teaching L2 poetry. This finding also supports previous research that argues for the importance of teaching L2 poetry (Hanauer, 2010, 2012, 2014) while also making a case for the teaching of, and more research into, L2 short story writing.

Another noteworthy finding is that L1 writers of English reported greater monitoring metacognition while writing short stories, but not while writing poetry, than did L2 writers. Gorzelsky et al.'s (2016) taxonomy described monitoring metacognition as a kind of regulation of metacognition. That being the case, it may be that the experience of writing short stories supports this regulation of cognition most strikingly in writers who are using English as their mother tongue. In our survey, monitoring metacognition was measured by the item, "I made sure that I understood what I should do." More research is needed here to understand if L1 writers may have had greater exposure to writing creatively in earlier educational experiences compared with L2 writers, or if this kind of regulation of metacognition is more possible when writing creatively in a person's mother tongue.

Accordingly, the results pertaining to L1 and L2 writers suggest that poetry and short story writing fosters writing metacognition for each group in different ways but may have especially noteworthy benefits for writers using English as an L2. These findings reflect earlier research that creative writing helps to develop students' writing because it correlates with students' metacognition, which is found to contribute to students' writing development (Negretti, 2012). This finding also connects to Hanauer's (2014) definition of poetry and Iida's (2012) argument that poetry stands as a means to develop L2 literacy.

This study is an earlier attempt to understand the construct of metacognition while reflecting on the writing taxonomy that is based on qualitative data collected by Gorzelsky et al. (2016). On the other hand, qualitative research to accurately conceptualize creative writing metacognition is needed. While this study can be perceived as exploratory, it initiates a call to further investigating creative writing metacognition for its potentially valuable pedagogical implications.

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