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An Analysis of Writer's Block: Causes and Solutions

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ABSTRACT

Previous research findings suggest that multiple factors contribute to writer's block and that blocking may occur at any part of the writing process. The aim of this study was to investigate different causes of blocking and discover the most effective solutions for writers. 146 writers completed an online, mixed-method survey about their experiences with writer's block. Four causes of writer's block were described by the respondents and supported by existing literature: physiological, motivational, cognitive, and behavioral. The most common causes of blocking were physiological and motivational, and interfered with the composition process of writing more often than idea generation. Writers described twelve effective solutions. The four most useful strategies were taking a break from writing, working on a different writing project, forcing themselves to keep writing, and discussing ideas with others. The findings also revealed an association between different causes of blocking and the cognitive processes involved with different parts of the writing process. Professional and semiprofessional writers did not significantly differ in the types of blocks they experienced, solutions they considered effective, and the length of writer's block they experienced. The findings presented may provide readers with helpful strategies for overcoming writer's block.

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Writer's block is a period during which a competent writer cannot produce new material (Boice, 1985; Flaherty, 2004/2015/2015; Nelson, 1993; Rose, 1985). Authors have attributed this halt in production to a temporary but significant decline in the quality and/or quantity of their work and, in some cases, blocked writers have abandoned their writing projects altogether. Blocks may differ in length. Some writers have reported experiencing brief blocks lasting hours or days, while others have experienced longer ones lasting for weeks, months, or over a year. In extreme cases, bouts of writer's block have lasted for decades and have even ended authors' careers (Singer & Barrios, 2009). Writers have also reported blocks at every stage of the writing process (Boice, 1985; Michael, 2016). While some writers have described struggling with developing new ideas despite retaining their ability to construct a paragraph fluidly, others have reported the opposite problem (Rose, 1985; Smeets, 2008). Authors with writer's block can experience diverse struggles with the same aspect of the writing process and combined subtasks necessary to create the final product differently (Singer & Barrios, 2009). Researchers have attributed various causes to writer's block, including perfectionism (Boice, 1985), stress (Flaherty, 2004/2015/2015), fear of criticism, and procrastination (Rasch & Rasch, 2013). Flaherty (2004/2015/2015) proposed that writer's block may develop in response to an accumulation of factors or exposure to a single stressor.

Although a general definition of writer's block is widely agreed upon, some researchers have disagreed about what specific situations should be included under the term. For example, Rose (1984) and Peterson (1987) argued that procrastination should not be considered a form of writer's block because procrastination is intentional, while writer's block, according to their definition, is unintentional. However, others have considered procrastination to be a major cause of blocking, if not the primary cause, in many cases (Boice, 1985; Dearing, 2007; Rasch & Rasch, 2013). Murray (1985) and Smeets (2008) suggested that evaluation anxiety is a common cause of blocking while Boice (1985) and Rose (1980) considered evaluation anxiety as a separate construct more closely related to general performance anxiety or "choking," and did not examine it as a form of writer's block.

Because the purpose of the current study was to provide a broad overview of different causes of writer's block, and because the findings of previous research have suggested that writer's block may be expressed in a variety of ways, we chose to include in our analysis all variables described by writers as potential contributors

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to writer's block (Boice, 1985; Flaherty, 2004/2015/2015; Rose, 1984). We categorized these variables into four types of causes based on the four most common explanations of writer's block identified in the research literature: physiological (Flaherty, 2004/2015/2015), motivational (Murray, 1985), cognitive (Rose, 1985), and behavioral (Rasch & Rasch, 2013).

The writing process

In the current study, we described the steps of the writing process as a combination between the traditional stages described by Seow (2002): planning, drafting, revising, and editing; and Lubart's dual-process theory of writing (Lubart, 2009), which involves a writer's alternation between divergent and convergent thought processes throughout a project. Divergent thinking, the cognitive process most strongly associated with creativity, is a combination of ideational fluency, originality, flexibility, and elaboration (Runco, Turkman, Acar, & Nural, 2017). On divergent thinking measures, ideational fluency is operationally defined as the number of ideas generated by participants in response to a prompt; originality as the number of unique or unusual solutions; flexibility as the number of connections between ideas; and elaboration as the amount of detail within ideas (Runco & Acar, 2012; Runco et al., 2017).

Convergent thinking, on the other hand, is a cognitive process related to critical thinking, decision making, the narrowing down of alternatives, and problem-solving, requiring the use of step-by-step, logic-based analysis (Simonton, 2008). Lubart (2009) argued that a writer must alternate between divergent and convergent thinking to accomplish different tasks that are part of the writing process. For example, a writer brainstorming ideas or planning would be described as thinking divergently, whereas the same writer composing paragraphs or editing work could be described as using convergent thinking.

Affective/physiological causes

We grouped general stress, anxiety, physical illness, and affective intensity as physiological causes of writer's block because these variables are all associated with changes in physical arousal that could interfere with one's ability to write and are not context-specific. Some researchers have suggested that writer's block may be wholly or partly explained as an adverse reaction to overstimulation, as performance on certain cognitive tasks has been found to decrease under high levels of stress (Boice, 1985; Flaherty, 2004/2015/2015).

Although heightened levels of arousal may enhance performance on cognitive tasks by improving memory, information processing, and executive functioning to a certain degree (Byron, Khazanchi, & Nazarian, 2010), once arousal levels reach beyond a certain threshold, the performance of these processes tends to drastically decrease (Byron et al., 2010). Because the writing process requires the writer to use memory and executive functioning to plan and construct paragraphs effectively and to make decisions about which ideas should be pursued, it could be expected that any major increase or decrease in physical arousal could induce an episode of writer's block by pushing a writer over that threshold, leading to overstimulation and a failure to apply an appropriate amount of concentration, or compelling the writer to return below the minimal threshold, resulting in a lack of stimulation and boredom.

Davis (2009) found a curvilinear relationship between affective intensity (exaggerated emotional states like joy or grief) and creative performance. He performed a meta-analysis on the relationship between mood and creativity using 62 experimental and ten nonexperimental studies. Positive affect was found to increase creative performance, supporting previous findings (Estrada, Isen, & Young, 1994; Isen, Daubman, & Nowicki, 1987). This effect was only found for low negative affect when the mood was primarily positive and not ambiguous and positive affect that did not exceed a certain threshold. However, when moods were extreme, creative performance decreased, suggesting that at high levels, the changes in the brain that may enhance creative thinking may start to impair it. The expansive frame of mind that facilitates the discovery of connections between ideas could result in scattered, unfocused thinking when overstimulated (Flaherty, 2004/2015/2015; Lubart, 2009).

Researchers have found that although negative affect tends to have a negative relationship with creativity, it can enhance critical thinking and problem-solving ability in non-creative tasks by making the problem solver more attentive to potential errors (Byron et al., 2010). Like positive affective intensity, negative affective intensity has only been found to be helpful up to a point: once a certain threshold is surpassed, problem-solving accuracy tends to decrease (Byron et al., 2010). Kaufman (2001) observed the relationship between affective intensity and creative performance while studying mood disorders in creative writers and proposed a curvilinear relationship between individual differences in baseline levels of affective arousal and creative output. In creative individuals, he suggested, higher than average baseline emotional states should result in an increase in the quality and quantity of creative output, but extreme

levels of baseline emotional arousal would result in the opposite effect. This association is thought to occur because above-average positive emotional states tend to be stimulating, but exaggerated emotional states, such as hypomania and mania, tend to be overstimulating and interfere with normal cognitive functioning (Andreasen, 1997).

According to Flaherty, 2004/2015/2015, impaired brain structures or neural networks resulting from mood disorders, illness, or even high daily stress levels could result in writer's block. High levels of daily stress or a major life change could cause writer's block by triggering the stress response. Stress stimulates the release of cortisol and adrenaline, which have been found to increase sensory arousal, alertness, and goal-directed behavior at moderate levels (Baer & Oldham, 2006; Yerkes & Dodson, 1908). However, at higher levels, stress can impair the normal functioning of the prefrontal cortex and areas of the hippocampus, structures involved with memory, planning, and executive functioning (Arnstern, 2009; Oei, Everaerd, Elzinga, van Well, & Bermond, 2006); this explains why high levels of stress have been found to decrease performance on complex problem-solving tasks (Bunce & West, 1994; Güss, Tuason, & Orduña, 2015; Rank & Frese, 2008). Therefore, stress may also decrease one's ability to compose sentences and effectively plan and edit one's writing.

We proposed that writers who claimed that physiological factors such as general life stress caused their most recent block would be more likely to report that it occurred during articulation because stress and arousal have been shown to inhibit memory, decision making, and complex problem-solving in other domains (Arnstern, 2009; Baer & Oldham, 2006; Beilock & Carr, 2005). Because these cognitive processes are used during articulation to help retrieve words and compose paragraphs, we expected that stressful and/or highly arousing physiological and motivational factors would be more likely to cause blocks in this area than behavioral or cognitive ones.

Motivational causes

The primary investigators categorized fear of evaluation, writing anxiety, and decreased intrinsic motivation as motivational causes of writer's block because they are context-specific – related directly to writing. Though motivational causes of blocking could be described as anxiety-provoking, and one could therefore argue they cause blocking in a manner very similar to the physiological components mentioned above by increasing arousal levels to the degree that interferes with performance, we categorized motivational components as a separate variable because context-specific forms of stress and anxiety are influenced by additional factors, such as one's perceived self-efficacy in a domain and perceived control.

Evaluation anxiety exhibits a negative relationship pattern with creativity (Byron et al., 2010) and routine problem-solving tasks (Beilock & Carr, 2005). Generalized stress or anxiety, such as life-event or time pressure stress, affects people in generally the same way regardless of perceived self-efficacy (Byron et al., 2010). However, evaluative stress is most detrimental to writing when a writer has low levels of writing efficacy and enhances writing when a writer has high levels of writing efficacy (Byron et al., 2010), likely because someone with high levels of writing efficacy, or competence, would have higher levels of writing confidence (Peterson, 1987) and therefore would interpret the challenge as less threatening. Similar results in the domain of mathematical problem-solving support this finding (Beilock & Carr, 2005). Students with less confidence in math interpreted their task as more threatening and performed worse when they believed they were being recorded and judged in front of a large audience. Their feelings of stress escalated, as evidenced by increased cortisol levels in their saliva. The students who had higher confidence in their mathematical ability perceived the situation as less threatening and regulated their emotions better. Therefore, they did not produce enough stress hormones to impair their working memory (Beilock & Carr, 2005).

Because evaluation anxiety, creativity, and ordinary problem solving are interlinked, blocks with motivational causes would be equally likely to occur during the creative process of idea generation and more technical parts of the writing process, such as drafting and editing. Writers with evaluation anxiety have often reported having trouble coming up with new ideas, expressing their ideas in words, and feeling too afraid of criticism to continue (Murray, 1985; Singer & Barrios, 2009). Hence, it appears that such a block can impair both ordinary problem-solving processes and creative thinking.

Another motivational factor that may contribute to writer's block is the loss of intrinsic motivation. Intrinsic motivation is the drive to complete a task that one deems inherently interesting and enjoyable (Fischer, Malycha, & Schafmann, 2019; Gupta, 2018). Research shows that success in creative writing is associated with high levels of intrinsic motivation, and both aspiring and professional writers have been found to be motivated primarily by intrinsic factors (Harrington & Chin-Newman, 2017; Kaufman, 2002). Amabile (1985) and Lepper, Greene,

and Nisbett (1974) found that low intrinsic motivation decreased both the quality of creative products and time spent engaged in creative pursuits. Amabile (1985) found that introducing rewards for completing enjoyable tasks has been found to make such activities less desirable by changing a person's perception of that activity and making it feel more like a chore than a pleasurable pastime.

Therefore, we expected that writers would be more prone to experiencing writer's block upon receiving a promotion or excessive praise for their work because of decreased intrinsic motivation. Because boredom is described as a lack of arousal, a writer with decreased intrinsic motivation would likely experience difficulties completing tasks requiring both creative thinking and problem solving, which both require some level of stimulation.

Cognitive causes – self-directed thoughts

In the current study, we classified perfectionism and overplanning as cognitive causes of writer's block (see also Boice, 1985). We chose this label because, unlike physiological and motivational blocks associated with general and context-specific stress or behavioral causes that reflect a writer's habits, cognitive causes are related to a writer's thought patterns. This title was not intended to imply that this is the only category that could interfere with cognitive processes involved in writing. For example, we hypothesized that motivational and physiological causes could affect writers' cognitive processing the same way as the stress response affects complex problem solving and executive functioning. Rather, we chose the term "cognitive" to reflect the potential role of a writer's self-directed thoughts in affecting particular parts of the writing process.

Rose (1980) described perfectionism as a tendency for a writer to become fixated on small, grammatical details of composition, often rewriting paragraphs until the writer deems that they are good enough. In the current study, we defined overplanning as settling on a specific result for a creative project prematurely, early in the creative process, which we hypothesized could lead to a failure to consider other options. Both perfectionism and overplanning could result in rigid thinking and hyperfixation on a single outcome, which could interfere with creative thinking processes such as divergent thinking, flexible thinking, ambiguity, and category mix. In the current study, we expected that these cognitive components would block creative parts of the writing process more than general problem-solving capacities. Perfectionism and overplanning could narrow the authors' perspectives such that they could fail to consider novel perspectives or environmental stimuli as relevant input that could be incorporated into a writing process.

We expected that the cognitive causes of blocking could interfere with divergent thinking. Divergent thinking, which Runco et al. (2017) described as a combination of conceptual fluency, flexibility, and elaboration, requires a writer to generate various possible ideas and connect them in unusual, original ways. Gaining exposure to new perspectives can help retrieve and combine ideas and integrate them into a novel concept (Karam, 2020). This could be accomplished by applying knowledge from one domain to another, thinking about a situation from another person's point of view, or making observations in a new environment. However, both perfectionism and overplanning reflect a self-focused orientation and hyperfixation on a limited aspect of a writing project. If a writer is too focused on the mistakes or too determined to force an article or piece of fiction to develop in a particular direction, he or she could fail to consider other perspectives or notice stimuli in the environment that could trigger the retrieval of potentially useful ideas.

Focusing too intently on a single aspect of a writing process could also prevent incubation, which has been described as an important part of the creative process (Wallas, 1926). Wallas (1926) described incubation as a period following a person's attempt to develop new ideas during which the person becomes distracted, and a solution bubbles to the surface in a flash of insight. This insight results from spreading activation, when connections between ideas are made through associative networks without an individual's conscious awareness, usually when he or she is in a relaxed state of mind. According to Smith and Dodds (1999), incubation allows the mind to rest and forget unsuccessful attempts to solve problems, generating more successful ideas. Perfectionism and overplanning could also block creative thinking by increasing latent inhibition or one's ability to filter stimuli (Güss, Ahmed, & Dörner, 2021). Creative people have been found to have lower baseline levels of latent inhibition in general. In creative people, exposure to new perspectives could result in category mixing or flexible thinking. However, a writer who is fixated on a particular task might be engaged in a more linear, sequential form of problem-solving, which could increase one's ability to block out irrelevant stimuli. This could be helpful for composition but not with making new connections.

In summary, constantly thinking about the work in progress could block writers' creative thinking in three ways. First, they could be limiting their exposure to new ideas. Second, they could be failing to notice cues in

their environment that could aid in the retrieval of ideas that might help them make new connections. Finally, they are not distracted or relaxed enough for overinclusive thinking to occur.

While it is possible that cognitive causes of blocking could also impair convergent thinking processes in the writing process indirectly by resulting in motivational or physiological distress (e.g., discouragement or anxiety), limited evidence in the literature suggests that perfectionism and overplanning would account for significant problems in more general writing processes, such as a word retrieval, composition, working memory, and decision making.

Behavioral causes

Certain habits, routines, and actions performed by a writer may also contribute to writer's block (Dearing, 2007; Rasch & Rasch, 2013; Rosenberg & Lah, 1982). We grouped procrastination, inconsistent writing habits, and interruptions of writing routines as behavioral causes of blocking because, in such cases, a writer's actions or response to changes in his or her environment directly contribute to writer's block (e.g., Güss, Tuason, Göltenboth, & Mironova, 2018). Unlike physiological, motivational, or cognitive causes, thought to inhibit writing indirectly by impairing cognitive processes involved in composition, word retrieval, and creative thinking, behavioral causes halt productivity without necessarily obstructing the cognitive processes essential for writing (Dearing, 2007). A writer who has procrastinated on a writing project has chosen to prioritize other tasks. A writer with an erratic schedule may not have finished a draft simply because he or she has not spent enough time working on it.

Findings from previous studies (Boice, 1985; Dearing, 2007) suggested that writers who procrastinated or had inconsistent writing habits did not believe they lacked the ability to develop new ideas or communicate them; rather, they got busy and prioritized other activities. Because writers can choose to stop working on or postpone the commencement of a project at any point during the writing process, we did not expect to find a significant association between behavioral components of blocking and any part of the writing process in the current study.

Solutions to blocking

Previous researchers have attempted to develop interventions based on strategies that writers have described as useful in overcoming writer's block (Dearing, 2007; Goldiamond, 1977; Harris, 1974; Smeets, 2008; Upper, 1974). Most of these solutions have been taken from interviews with successful novelists about their routines and writing habits (Goldiamond, 1977; Rosenberg & Lah, 1982; Upper, 1974; Wallace & Pear, 1977). According to Smeets (2008), understanding the specific cause of a particular block should help a writer determine the most appropriate solution for coping with that block. For example, Smeets (2008) suggested that writers with evaluation anxiety should reframe their perception of writer's block as a challenge rather than a threat. Some other recommended solutions to cope with blocking included training writers to use more efficient writing strategies during the composition process, implement more effective goal-setting strategies, and brainstorm ideas in groups (Dearing, 2007; Smeets, 2008). These interventions can be helpful because they target specific causes of blocking.

In some cases, the interventions address a combination of interrelated causes that cause a block. For the current study, we followed a learning-from-the-experts paradigm (as in the naturalistic decision-making field, e.g., Klein, 2015). Experienced writers listed the solutions they have used to overcome writer's block and evaluated their effectiveness. This paper discusses the most frequently mentioned solutions and reasons for their usefulness.

Justification of the sample

The purpose of the current study was to gather and present information about writer's block. Information was collected on causes of and solutions to blocking, specifying when blocking is likely to occur in the writing process and how long the writer's block usually lasts. Fiction and nonfiction writers with different occupations and levels of experience were recruited from writing organizations to serve as a representative sample of serious writers. Gathering information from such a sample was expected to provide more ecological validity compared to previous research, which has relied on small case studies of professional or semiprofessional writers (1–3) or students working on essay assignments in controlled lab studies. Because semiprofessional and professional writers, unlike college students, have chosen to spend much of their free time writing or have self-selected into writing careers, it was thought that the results of the study would be less affected by confounding variables, such as the lack of experience or interest, and that the findings would therefore be more applicable to the population of aspiring semiprofessional and professional writers who could benefit from this study's findings.

Hypotheses

We tested the following set of hypotheses:

Hypothesis 1: Behavioral factors would be the most commonly reported cause of writer's block.

Hypothesis 2: Regarding the duration of writer's block, writers would report blocks lasting several days or a few weeks.

Hypothesis 3: we expected that most writer's blocks would happen during articulation and expression of specific ideas.

Hypothesis 4: The fourth set of hypotheses specifies the relationship between the cause of block and part of the writing process blocked. Blocks with physiological causes were expected to occur most frequently during the parts of the writing process associated with composing paragraphs and articulating ideas; blocks with motivational causes were hypothesized to impair both idea generation and articulation; blocks with cognitive causes were expected to be associated with difficulty during idea generation; and blocks with behavioral causes were thought to affect all parts of the writing process equally.

Hypothesis 5: The most common solutions reported by writers would be those suggested in the existing literature, namely those that address multiple causes of writer's block at a time. It was also hypothesized that these kinds of solutions would be rated as the most effective.

Additionally, we also compared professional and semiprofessional writers. Extending on Hypothesis 1, we expected professional writers to mention fewer motivational and behavioral causes compared to semiprofessional writers. Expanding Hypothesis 2, we expected professional writers to be less affected by writer's block and have shorter periods of writer's block as they would be expected to have developed successful strategies for coping with writer's block.

Method

Participants

Participants were recruited from regional and national writing organizations and one writing workshop forum. Most were organizations for writers of commercial genre fiction, such as Horror Writers of America, Romance Writers of America, and Mystery Writers of America. Professional groups, such as the Technical Writers Association and Travel Writers of America, were also contacted. Writing groups were selected based on the content on their websites. Because our target sample comprised professional and semiprofessional writers, respondents were recruited from organizations that listed on their websites features that would appeal to serious, experienced writers more than complete novices, such as guidelines for submitting works for publication and forums for online workshops and critiques.

All organizations required an application and review process to gain membership. With permission from the executive directors, links to information about the study and the Qualtrics survey were posted on the organizations' websites and social media platforms. Respondents had the option of being entered into a drawing as an incentive for participation. Six respondents were randomly selected to win a $50 Amazon gift card.

Out of the 146 respondents, 101 completed the entire survey. Complete demographic information was missing for 45 writers. Demographic questions were included at the end of the survey, and these writers did not finish the survey. However, partial data from these 45 respondents were used in the analysis when appropriate. Seventy-seven participants were women, 21 were men, and three did not wish to disclose their gender (N = 101). Ages ranged from 22 to 78 years old (N = 101). Most participants were in their late forties (M = 47.63, SD = 13.47). The mean writing experience was approximately 12 years (N = 95, M = 11.51, SD = 9.77). The least experienced writer had less than a year of experience, and the most experienced writer had been writing for 37 years. Originally, this survey was intended for professional writers, as reflected by the question about experience, "How long have you been writing *professionally*?" Because a mixed group of writers was used rather than simply professionals, their years of experience varied. A few writers worked in a writing field and listed their years of employment. Some mentioned that they did not depend on writing to earn a living and listed years of experience in writing "seriously." However, most writers were unable to answer this question. Therefore, this question was rephrased as, "How long have you been writing *seriously*?" to measure general writing experience rather than a professional writing experience. Based on the 146 participants' writing experience, employment, years of serious writing, writing hours per week, and earning income from writing, we distinguished professional writers (N = 43), semiprofessional writers (N = 76), aspiring writers (N = 7), and writers who did not provide enough information (N = 20).

Of the 146 writers in this sample, 64 wrote fiction, 59 wrote both fiction and nonfiction, and 23 wrote exclusively nonfiction. Fiction writers specialized in several genres, including science-fiction, fantasy, horror, thriller, historical fiction, and romance, with science fiction being the most common. Nonfiction writers wrote in multiple genres, such as autobiography, news, and journalism.

Instrument and procedure

The first author developed the survey to measure variables associated with writer's block based on the existing literature. These included common causes of blocks and writing habits. Writers were also asked to provide three solutions to overcome writer's block and rate each solution's effectiveness. Demographic information included years of writing experience, writing genre, employment status, occupation, age, and gender. The survey included both multiple choice answers and text entry responses. Causes of blocking were categorized based on previous explanations of writer's block described in the literature, such as general stress, fatigue, or mental/physical illness (e.g., Flaherty, 2004/2015/2015; Kaufman, 2001); motivational causes, such as fear of evaluation, writing anxiety, or loss of enjoyment (e.g., Boice, 1985); cognitive causes, such as problems related to the planning and composition process itself rather than the motivations or feelings of the writer (e.g., Rose, 1985); and behavioral causes, such as writing erratically and not keeping a consistent schedule or procrastinating on writing projects (e.g., Dearing, 2007).

Two writers reviewed the first draft of the survey to provide feedback on word choice, length, and suggestions. Three items were added based on their responses. One question asked about employment status. The second question inquired about consuming coffee, chocolate, or other stimulants during the writing process. The third question about writing habits using the terms "planner" and "pantser." These terms refer to writers' orientation to plan their work carefully in advance or let the story develop organically, reflecting a more spontaneous approach.

The survey contained 40 questions, 16 multiple choice questions, 20 open-ended questions, and four mixed multiple-choice answers, and a fill-in question. It took approximately 45 minutes to complete all questions. The order of questions was not randomized, and participants could skip items. Therefore, most items contained some missing data. To account for this, sample sizes are reported separately for each item. Skipping items was allowed because some questions were only relevant for a small number of respondents, such as follow-up questions like, "If you think your last block was caused by multiple factors, which do you think had the biggest impact on your ability to write?" Additionally, because the survey was long and included several questions that required text entry responses, we believed that respondents would be encouraged to answer more questions if they had the option of skipping some of the more time-consuming ones. Simultaneously, the data from the remaining questions could still be used (for details regarding the procedure, see also Ahmed, 2019).

Data analysis

Two independent raters coded answers to open-ended questions. Kappas ranged from acceptable to very good (Viera & Garrett, 2005), i.e., from .77 to .90 (Cause of block = .84, Part of writing process blocked = .77, Writing schedule = .84, Planning method = .90, Solutions to writer's block = .84). Data were only excluded from analysis if the response did not answer the question or if the respondent mistakenly entered an answer in the wrong text box. If a respondent accidently typed an answer into the wrong text box, it was included as an answer to the question it was referring to. If it did not match any question and did not make any sense, it was not coded.

If the answers contained insufficient information for coders to classify it as belonging to a single category, answers to follow-up questions were examined. For example, in reply to the question, "During your last period of writer's block, did any of the following situations apply?" if respondents selected "stressful life event," the follow-up question was examined. Most of the time, writers indicated that the "stressful life event" caused general stress and exhaustion, but in a few cases, writers further elaborated that they became too busy to write because of this event. "Stressful life event" that was "exhausting" or "emotionally distressing" was coded as a physiological cause of blocking, but when the stressful life event was associated with "being too busy to write," it was coded as a behavioral cause. Respondents who indicated that more than one situation contributed to their writer's block were asked to describe which factor they thought affected their ability to write the most. Their answers were then coded into one of the four main variables. A single rater whose assessment was based on the same set of criteria developed by the two raters evaluated the follow-up questions and analyzed the main open-ended questions (those that were not follow-up questions).

For each hypothesis, the results of semiprofessional and professional writers were compared, as the number of 7 aspiring writers was too small to be included in our comparisons. Professional writers included participants who reported holding jobs that require writing, such as journalism or marketing, or working as full-time published authors making most of their income from writing. The participants were also coded as professional writers if they said they were a university-level writing instructor.

Semiprofessional writers included participants who did not depend on their writing as a primary source of income but have published their works as non-university level writing instructors, had ten or more years of serious writing experience, or reported writing full time in their retirement with a schedule similar to normal work hours.

The primary investigators coded unpublished writers with fewer than ten years of writing experience who did not work in a writing field as aspiring writers. This category also included respondents who stated that writing was their hobby, but they had no intention to publicly present their work. Because most respondents in this study had a publication record or experience working in a writing field, very few writers were classified as aspiring writers. Because this group only included 7 respondents, the category aspiring writers was measured but excluded from the analyses.

Chi-square tests and non-parametric Fisher's Exact tests (if several cells had frequencies smaller than 5) were performed to test the hypotheses. Simple descriptive statistics were used to answer more general research questions.

Results

Most common cause of writer's block

Hypothesis 1 stated that behavioral factors would be the most common cause of writer's block (Dearing, 2007; Smeets, 2008). On the survey, writer's block was defined as "a period during which a writer is unable to produce new material," and respondents were asked, "What was the main reason you think you experienced your last period of writer's block?" Answers were coded as physiological, motivational, cognitive, behavioral causes, and a combination of factors. The last category was added when writers indicated that multiple factors influenced their writing equally. The questionnaire included multiple choice answers and the option to write a free response in a text entry box labeled "other." Multiple-choice answers assessed "change in writing routine," "stressful life event," "health-related issue," "being under more pressure than usual to perform well," "change in social network," and "other." The answer "change in social network" was omitted because only 2 participants selected this option. Many writers preferred writing in their answers rather than selecting a default option or elaborating on the multiple-choice answer in more depth in the follow-up question.

Physiological causes contributing to writer's block included stress, anxiety, extreme emotional states such as grief, mental or physical health issues, and exhaustion. Fear of criticism, performance anxiety, and lack of enjoyment were coded as motivational causes. Cognitive causes included perfectionism, problems associated with over-planning or under-planning, and rigid thinking, such as forcing a story to move in a certain direction. Procrastination, interruptions to writing, and being too busy to write were coded as behavioral causes of writer's block. An answer was coded as a combination of factors if the writer thought that a combination of factors caused the block, and no factor was more influential than the others.

Contrary to Hypothesis 1, the most common causes of blocking reported by approximately 42% of writers were physiological, such as life stress, general anxiety, depression, and burnout "(see Table 1). Some examples of answers included "a stressful life event leading to mental and physical exhaustion," "depression," and "I was having health issues." Such answers reflect a general change in physical arousal. Motivational factors, such as evaluation anxiety and decreased intrinsic motivation, were the second most common causes, reported 29% of the time. These factors caused changes in arousal that were primarily context specific. Some writers said they were blocked because of "receiving critical feedback," "having an unnerving experience with a writing group," and "being under pressure to perform well." Thirteen percent of writers thought that cognitive factors occurring during the composition process, such as "perfectionism," "not planning well enough in advance," or "difficulties related to the piece of writing itself," caused writer's block, and only 11% said their block was due to behavioral factors, such as "being too busy," "having other obligations," or "procrastinating." Contrary to Hypothesis 1, the most frequently reported causes of writer's block were physiological factors, not behavioral factors.

Specifying Hypothesis 1, we expected professional writers to mention fewer motivational and behavioral causes compared to semiprofessional writers. The comparison of main causes of writer's block between semiprofessional and professional writers showed no statistical differences in writer's block causes between the two groups of writers, Fisher's Exact Test = 6.98,

Table 1. Cause of writer's block.

Cause of Block	Definition	Coding Examples	Frequency (N = 104)	Semiprofessional Writers (N = 56)	Professional Writers (N = 29)
Physiological	Stress, anxiety, intense emotions, mental or physical illness	"Depression," "I have a harder time writing when there is high stress in my life," "I have health issues," "A stressful life event leads to physical and emotional exhaustion"	44 (42%)	28 (50%)	8 (28%)
Motivational	Fear of criticism or rejection, performance anxiety, or loss of enjoyment	"Pressure to perform well," "Receiving critical feedback," "Stifled by an unnerving experience with a writing group"	30 (29%)	16 (29%)	9 (31%)
Cognitive	Perfectionism, problems due to errors in planning (not planning sufficiently or too fixated on an outcome), rigid thinking	"Perfectionism," "Not having planned well enough in advance," "The block is related to the work itself rather than outside influences"	14 (13%)	5 (7%)	7 (24%)
Behavioral	Procrastination, being too busy to write	"Busy promoting books #1 and #2, no time to write #3, demanding professional work schedule diverting attention from creative work, change in writing routine," "Stressful life event- just being busy and having lots of other obligations build-up"	11 (11%)	5 (7%)	2 (7%)
Combination of factors	More than one factor is causing writer's block and it is impossible to say which factor is the most influential	"All of the above. Any of these can disrupt the process, none more than the other," "All of these," "A combination of factors"	5 (5%)	2 (3%)	3 (10%)

p = .12. Nevertheless, semiprofessional writers reported physiological reasons more often than professional writers (50% versus 28%), and professional writers reported more often cognitive reasons than semiprofessional writers (24% versus 7%). Contrary to our expectations, professional writers did not mention fewer motivational and behavioral causes compared to semiprofessional writers.

Table 2. Length of writer's block.

Length of Block	Frequency overall (N = 139)	Semiprofessional Writers (N = 73)	Professional Writers (N = 40)
I have never had writer's block	20 (14%)	10 (14%)	9 (23%)
A few days or less	37 (27%)	17 (23%)	13 (33%)
Weeks	40 (29%)	21 (29%)	12 (30%)
Months	22 (16%)	14 (19%)	2 (5%)
Over a year	20 (14%)	11 (15%)	4 (10%)

Length of writer's block

Hypothesis 2 stated that regarding the duration of writer's block, most writers would report having blocks lasting several days or a few weeks (Flaherty, 2004/2015/2015; Singer & Barrios, 2009). In response to the question, "How long did your most recent period of writer's block last?" Approximately 27% of the 139 participants responded their block lasted a few days or less, and 29% said it lasted several weeks. Blocks lasting months or over a year were less common, with 16% of the participants experiencing blocks lasting a few months and 14% reporting blocks lasting over a year. Fourteen percent of the respondents said they never experienced writer's block (see Table 2). The results supported Hypothesis 2, showing that most writer's blocks lasted several weeks.

Expanding on Hypothesis 2, we expected professional writers to be less affected by writer's block and have shorter periods of writer's block as they are more likely to have developed successful strategies in coping with writer's block. The comparison analysis showed no significant difference between semiprofessional and professional writers in the length of the last writer's block, Fisher's Exact Test = 6.28, p = .176. Thirty-three percent of the professional writers experienced writer's block for a few days or less, and 23% have never experienced writer's block. However, only 23% of the semiprofessional writers experienced writer's block for a few days or less, and only 14% had never experienced writer's block.

The stage in which writer's block happens

Hypothesis 3 stated that most writer's blocks would happen during articulation and expression of specific ideas stages. Variables representing each part of the writing process were taken from the mixed multiple-choice/open-ended question, "Which of the following best describes the kind of block you experienced?" The response "It was hard coming up with ideas" was coded as occurring during idea generation. "It was easy coming up with new ideas but difficult to find the words to express them" was coded as articulation, the name

Table 3. Part of the writing process that was blocked.

Part of Writing Process	Definition	Coding Examples	Frequency (N = 113)	Semiprofessional Writers (N = 60)	Professional Writers (N = 32)
Idea generation	It was hard coming up with new ideas	"It was hard coming up with new ideas"	17 (15%)	10 (17%)	4 (13%)
Articulation/ Expression	It was easy coming up with new ideas but hard to express them in words	"Ideas are never an issue for me, but figuring out how to express them in words is the most difficult"	41 (36%)	21 (35%)	13 (41%)
Choosing Which Idea to Pursue	It was easy coming up with new ideas but hard to decide which ones to pursue	"With several directions the plot could take to reach the ultimate goal, I get stammied at which path to take"	20 (18%)	9 (15%)	5 (16%)
Idea Generation and Articulation	It was hard coming up with ideas and finding the words to express them	"Coming up with new ideas and expressing them in words"	18 (16%)	10 (17%)	4 (13%)
Getting started/ Transitioning	It was hard to get started or to transition between different parts of the work/ it was hard to complete a work due to freezing up midway for reasons other than lack of ideas or trouble expressing them	"I found it hard to sit down and write as I was coming to the end of the novel and my mind kept telling me I wouldn't be able to live up to the expectation I had created with the rest of the book. So, my mind went blank."	12 (11%)	5 (8%)	6 (19%)
Planning/ Structuring Scenes	It was hard organizing the structure of the work	"I usually experience what people might call writers block when I have failed to plan my stories sufficiently and know where I want to go in a story, but not how to get there."	5 (4%)	5 (8%)	0 (0%)

used in this study to refer to the process of expressing ideas in words. A full list of the parts of the writing process and the frequency of blocks occurring at each stage can be found in Table 3. Most answers to the open-ended questions fit into one of these categories. However, a new category called "planning and structuring scenes" was added based on answers provided by respondents. Examples of coding, including some original answers, can be found in Table 3. The table also shows the frequencies of blocks reported for each stage of the writing process and professional and semiprofessional writers.

Blocks occurred at different points in the writing process, consistent with previous research findings (Boice, 1985; Murray, 1985; Nelson, 1993; Singer & Barrios, 2009). Consistent with Hypothesis 3, 36% of blocks happened during articulation/expression, 18% of the time writers experienced writer's block when deciding what idea to pursue after considering several potential options, 16% of writers said their block occurred during articulation and disclosed they also experienced some trouble generating new ideas, and 15% said that they only had trouble generating ideas but not articulating them. Blocks occurring during transitions between sections or freezing up because of fear of failure were less common, occurring 11% of the time. The least common time for a writer to become blocked was during planning, reported by only 4% of writers.

We compared semiprofessional and professional writers in the part of the writing process that was blocked. The most common writer's block for 41% of professional writers included articulating or expressing during the writing process. Thirty-five percent of semiprofessional writers reported experiencing difficulties while trying to express and articulate their ideas. The difference between the two groups of writers in the stage in which the block happened was non-significant, Fisher's exact test (5, N = 92) = 4.89, p = .44.

Relationships between the causes of writer's block and when the block occurred

Hypothesis 4 predicted that blocks with physiological causes would occur most frequently during articulation (e.g., Arnstern, 2009); blocks with motivational causes would impair both idea generation and articulation (e.g., Murray, 1985); blocks with cognitive causes would happen during idea generation, reflecting rigidity or a fixation on a single idea on the part of the author (Lubart, 2009); and blocks with behavioral causes would affect all parts of the writing process equally because behavioral factors, such as procrastinating or becoming too busy to write, could happen at any stage in the writing process.

A significant marginal relationship was found between the cause of a block and the part of the writing process that became blocked, Fisher's Exact Test (N = 97) = 14.74, p = .060. As predicted, most physiological and motivational blocks occurred during articulation. Sixty-one percent of writers with physiological blocks and 70% of writers with motivational blocks had them during articulation. Fifty-five percent of writers with behavioral blocks reported that these blocks occurred during idea generation (see Figure 1).

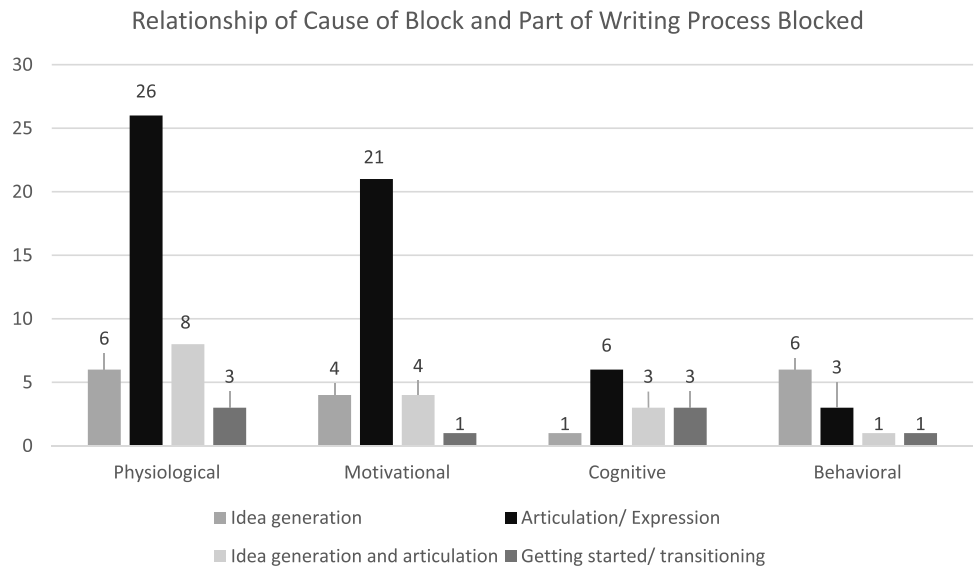

Figure 1. Relationship between cause of block and part of writing process blocked.

Solutions to writer's block

One goal of this survey was to compile a list of strategies that writers use to overcome writer's block and identify the solutions that writers rated as the most effective. Each respondent was instructed to list three things they do when they experience writer's block and rate each solution's effectiveness on a scale of 1 to 5, with 1 being extremely ineffective and 5 being extremely effective. The writers generated 263 solutions. Two coders read these responses independently and came up with 12 common themes. Table 4 lists the twelve themes the raters used and the frequency of each response. It also provides examples of the original answers included in each category and frequencies of solutions that professional and semiprofessional writers listed as the most effective, i.e., those rated 4 or 5.

Effectiveness of solution strategies

We analyzed the most effective solutions, that is, solutions that received effectiveness ratings of 4 or 5. We did not include solutions rated 1, 2, or 3 (extremely ineffective, ineffective, and slightly effective). The most frequently reported effective or extremely effective solution strategies were "Take a break from writing" (26%), "Work on a different writing project" (13%), and "Keep writing" (12%).

Although professional writers (37%) mentioned the solution "Taking a break" more frequently compared to semiprofessional writers (16%) and semiprofessional writers (13%) mentioned the solution "Read a book or watch a movie" more frequently compared to professional writers (2%), a Fisher's exact test comparing all effective solution frequencies showed no significant differences between the two groups, Fisher's exact test (N = 114) = 14.05, p = .195.

Discussion

The goals of this study were to identify which causes of writer's block were the most common among professional and semiprofessional writers, investigate if there were any links between types of causes and specific parts of the writing process, and identify the most effective solutions. Physiological causes were associated with general changes in physical arousal, motivational causes with situation-specific anxiety, cognitive causes with problems during the composition process, and behavioral causes with irregular writing habits or procrastination.

Table 4. Solutions for overcoming writer's block.

Solutions	Coding Examples	Frequency (N = 263)	Total Number of Times Solution was Rated Very Effective/Extremely Effective (N = 131) (includes other professional category)	Total Number of Times Solution was Rated Very Effective/Extremely Effective (N = 71) Semiprofessionals	Total Number of Times Solution was Rated Very Effective/Extremely Effective (N = 43) Professionals
Take a break from writing	"Stop writing, decide tomorrow is another day, and walk away from the computer until the next day."	69 (26%)	35 (25%)	11 (16%)	16 (37%)
Take a walk	"I go for a walk"	16 (6%)	12 (9%)	6 (9%)	4 (10%)
Keep writing	"Force myself to write to a certain page number"	32 (12%)	15 (11%)	6 (9%)	4 (10%)
Meditate/do yoga	"Meditate for five minutes"	3 (1%)	2 (1%)	1 (1%)	1 (2%)
Revise or reread current work or skip ahead to work on a later section	"Reread notes or drafts"	26 (10%)	8 (6%)	3 (4%)	2 (5%)
Read a book or watch a movie	"I read the work of authors I admire to become inspired."	28 (11%)	12 (9%)	9 (13%)	1 (2%)
Discuss ideas with others	"Ask for advice. See what other people think. While you usually won't use what they suggest their ideas can kickstart you brain."	21 (8%)	17 (12%)	9 (13%)	6 (14%)
Eat or drink something	"Drinking coffee or snacking"	5 (2%)	2 (1%)	2 (3%)	0 (%)
Change writing location or writing method	"Switch up locations or methods of writing – write using a pen, a typewriter, etc."	16 (6%)	10 (7%)	7 (10%)	1 (2%)
Work on a different writing project	"Jump from the work on which I'm currently engaged to another."	33 (13%)	14 (10%)	11 (16%)	3 (7%)
Exercise	"Exercise/movement"	7 (3%)	6 (4%)	3 (4%)	3 (7%)
Research	"Researching relevant or related topics"	7 (3%)	5 (4%)	3 (4%)	2 (5%)

We found the most common cause of writer's block, reported by approximately 42% of writers, to be physiological factors, such as life stress, general anxiety, depression, and burnout. Motivational factors, such as evaluation anxiety and decreased intrinsic motivation, were the second most common causes of writer's block, reported 29% of the time. Thirteen percent of writers thought that cognitive factors occurring during the composition process, such as "perfectionism" or "difficulties related to the piece of writing itself," caused blocking. Only 11% said their block was due to behavioral factors, such as "being too busy," "having other obligations," or "procrastinating."

These findings do not support Hypothesis 1, which predicted that behavioral factors would be the most frequent cause of writer's block. One reason for this might be related to sample characteristics. Unlike the samples in previous studies, which comprised mainly students (e.g., Passman, 1976; Rose, 1980; Upper, 1974), the current sample consisted of semiprofessional and professional writers. It is possible that the current sample had a greater interest in writing and more experience than many of the student samples in previous studies. Because semiprofessional and professional writers have chosen to spend much of their time writing or have self-selected into a writing career, they would be more likely to have consistent writing habits and higher levels of self-efficacy compared to students and therefore be less prone to common behavioral and cognitive contributors to blocking, such as procrastination, irregular writing schedules, and perfectionism.

The findings supported Hypothesis 2 that the duration of writer's block would be relatively short in our sample of semiprofessional and professional writers. In most cases, writer's block lasted for a few days or weeks. Interestingly, almost a quarter of professional writers stated they never had writer's block. This finding shows that semiprofessional and professional writers found successful coping strategies and solutions for their writer's block.

Hypothesis 3 stated that most writer's blocks would happen during the articulation stage and expression of specific ideas. Data in the current study showed that blocks occurred at different points in the writing process, consistent with the literature (Boice, 1985; Murray, 1985; Singer & Barrios, 2009). Supporting Hypothesis 3, most blocks (36%) happened during articulation/expression or the stage associated with selecting the correct words to convey an idea and the composition of paragraphs. One writer wrote, "Ideas are never an issue for me but figuring out how to express them in words is difficult." Because the process of word selection and sentence composition is mostly a decision-making process, it could be argued that a block occurring during articulation might indicate temporary impairment of the cognitive processes associated with decision-making rather than creative thinking.

Writer's block also commonly occurred during decision making and did not involve creative thinking. Eighteen percent of the time, writers became blocked when deciding which idea to pursue after coming up with multiple directions in which their work could develop. Sixteen percent of writers said their block occurred during articulation, and they also experienced some trouble generating new ideas, and 15% said that they only had trouble generating ideas and not articulating them. From these findings, it can be concluded that for most of the sample, blocking affected the decision-making process more often than idea generation, with blocks occurring exclusively during idea generation in 15% of the time and blocks impairing some aspect of decision-making in 70% of the time. This suggests that writer's block may impair convergent thinking and problem solving more often than creative thinking (Lubart, 2009; Nelson, 1993). Freezing up before starting a project or transitioning between sections out of fear more than lack of ideas or skill was less common, occurring 11% of the time. One writer wrote, "I found it hard to sit down and write towards the end of a novel for fear of not living up to expectations." The least common time for a writer to become blocked was during the planning stage, reported by only 4% of writers. One participant described this as, "I experience problems when I have failed to plan sufficiently and know where I want to go in a story but not how to get there."

Hypothesis 4 specified the relationship between the four causes of blocks and the specific parts of the writing process blocked. Most of the expectations were confirmed. A marginally significant relationship was found between the cause of writers' last block and the part of the writing process in which writers became blocked. Approximately 60% of all types of blocks happened during articulation. For all causes except for behavioral ones, this was the most common time for blocks to happen. Articulation was impaired for 61% of the writers with physiological blocks, 71% of writers with motivational blocks, 46% of writers with cognitive blocks, and 27% with behavioral blocks. The curvilinear relationship between arousal and problem-solving may explain the relationship between articulation, motivational and physiological causes, and blocking. Although physiological causes refer to general stress, anxiety, and changes in physical arousal and motivational causes refer to more context-specific stress and changes in arousal, ultimately both are thought to cause

blocking by resulting in heightened or dampened levels of stimulation, and such changes have been found to influence problem-solving, critical thinking, and performance in complex tasks (Arnstern, 2009; Beilock & Carr, 2005).

Unexpectedly, most cognitive causes were also related to articulation and not to idea generation. Cognitive causes were related primarily to perfectionism and overplanning. It could be that problems with specific cognitive processes, such as retrieving specific writing-related information and integrating concepts (Karam, 2020), relate to and interfere with the composition and articulation process.

Hypothesis 5 stated that the most commonly mentioned and effective solutions for overcoming writer's block would be those addressing multiple causes, such as discussing ideas in a group or reframing one's perspective about a writing project (Dearing, 2007; Smeets, 2008). The results showed that the most common methods writers used to overcome blocks were taking breaks, working on a different writing project, and forcing themselves to keep writing. In line with Hypothesis 5, the most effective solution overall was discussing ideas with others. Eighty-one percent of the 21 writers who tried this technique found it very or extremely effective for dealing with writer's block. One explanation for this finding is that discussing ideas with others may improve a combination of functions simultaneously, such as improving mood, boosting motivation, and helping a writer consider new perspectives. Other people may have held the participants in this study accountable for their work, thereby helping them meet their goals in a timely fashion. Potentially, this solution could have addressed and resolved all four causes of writer's block discussed in this paper. This effective social solution counters lay beliefs about writers working alone and in solitude.

Working on a different writing project was also very effective for 42% of the 33 writers who used that method. Like discussing ideas with others, working on a different writing project could have helped writers shift their perspectives by helping them see the project from a new angle. Switching topics is a form of distraction and could have also helped writers improve their mood and confidence through progress on another task. The 30% of the 32 writers who forced themselves to keep writing found this very effective, as it forced them to work past normal fluctuations in mood and eventually getting into a flow state.

We also compared semiprofessional and professional writers in writer's block causes, length, and solutions. The two groups did not differ significantly in any of the variables. One methodological reason could be that our sample sizes were too small. Chi-square tests are sensitive to sample size. Another likely reason for nonsignificant differences between semiprofessional and professional writers was that both groups of writers had published already and had more than ten years of experience. This finding might be an encouraging finding for semiprofessional writers.

Because the current study was correlational, it was not possible to determine causality. The findings provide direction for those interested in studying writer's block in a more controlled setting, and it is hoped the list of solutions that has been generated may help people with writer's block come up with ideas to try when they are frustrated and do not know what action to take first. The solutions presented in this paper have been rated as very or extremely effective by writers and generally match the advice offered in manuals and training programs (Dearing, 2007; Nelson, 1993; Wallace & Pear, 1977). It has been suggested that the most effective solution for writer's block is the one that addresses the underlying cause of a case of writer's block directly (Smeets, 2008). Even though our findings have shown that solutions – such as discussing ideas with others – can address several blocks simultaneously, future research could attempt to classify solutions according to the identified causes of writers' block, relating each solution to its cause.

Training programs could incorporate the solutions described by our semiprofessional and professional writers to consciously solve writers' block, for example. Especially for students and novice writers, it can be helpful to know that even experienced writers deal with writer's block and understand the methods they use to deal with it. Taking a break, discussing ideas with others, continuing writing, or exercising (see Lambourne & Tomporoski, 2010 for positive effects of exercising) are some of the solutions our sample rated as efficient. Writers can experiment with solutions to enhance their creative potential, as suggested by other researchers (e.g., Stanton, 2020).

It is also important to note that many solutions do not provide specific information for specific problems related to specific parts of the writing process. Concerning the cognitive processes of retrieval of knowledge and conceptual integration, as discussed by Karam (2020), the solutions identified in the current study do not tell writers how they can retrieve and integrate knowledge related to their work. However, the solutions "conduct research" and "discuss ideas with others" might provide implicit suggestions for retrieving information.

However, one of the advantages of the solutions presented in this paper is that they are different from those previously suggested because they are simple and easy for an individual writer to apply compared with the

more complex intervention strategies developed to treat writer's block in labs, classrooms, or training programs. Besides, many of these solutions address multiple issues associated with writer's block simultaneously.

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We choose to share or make the data underlying the study open. Feel free to contact the authors for a copy of the data spreadsheet.

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