

The Role of Collaborative Chat Invention in First-Year Writing: Re-investigating the Transferability of Preliminary Ideas from Chat to Print

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Introduction

The use of computer-mediated communication (CMC) has unique characteristics that enhance the dynamics of teaching and learning. For one, “it is quick and can provide group interaction without requiring all persons to be in one location in order to meet” (Ellsworth 35). Because of this perception, technology-based composition classrooms now employ content-management course tools, blogs, wikis, and/or other applications that put students in contact with themselves and others beyond the classroom. One of the most common practices of collaborative online interaction when composing texts is to revert to synchronous chat during the process of prewriting or invention.

Similar to the employment of collaborative face-to-face communication, student writers who exchange preliminary ideas online are freed from the grips of seclusion and apathy. But the act of writing down initial thoughts and negotiating meaning online with actual peers opens up advanced possibilities. Approximating face-to-face discussions through chat, for instance, requires more cognitive effort because students need to spell out their thoughts comprehensively without the luxury of verbal cues when speaking/listening. Writing in this manner serves as a powerful tool for learning (e.g., finding connections, making meaning), reflection, and analysis (Tynjala 39). Toby Fulwiler underscores the importance of providing additional classroom opportunities for students to know and understand all subjects through writing, making writing more personal to promote self-awareness within the context of a specific discipline (22). The promise of online communication platforms, of course, meets this need.

Because the impact of CMC to student learning and writing practices is considered remarkable (Blythe 122-25; Eldred and Toner 37; Yancey 108), more studies that address the usage of these online communication tools specifically for invention and the transfer of

preliminary ideas from CMC to student writing are needed. Examining the initial reproduction of ideas in collaborative computer-mediated settings along with teacher-student attitudes and perceptions towards the use of these tools will shed light on how effective they really are in helping college students acquire meaningful ideas for their written texts. Such valuable information will not only help composition teachers assess the best online practice suitable to their own classrooms, but also contribute towards strengthening the pedagogical implications of technology, most especially during invention.

To reach this goal, this study re-examines the effect of synchronous chat as collaborative invention forum on a composition class in an average-sized mid-western state university. One computer-mediated first-year writing class from this university used the chat feature of Blackboard as a tool for prewriting or invention. The transfer of invention ideas to student essays, along with the attitudes and perceptions of the teacher and students toward this online activity, was analyzed and described to strengthen the pedagogical implications of this type of synchronous technology in composition among other CMC platforms. Though short-term investigations on a limited setting such as this may not yield generalizable results, this inquiry can definitely contribute to understanding how technology impacts the writing classroom.

Background

Using computers throughout the writing process has a direct impact on the writer's cognitive processes. Christina Haas maintains that the material tools of writing consistently alter the mental processes of text production (73). By finding out whether word processors do help increase/decrease the length and/or quality of planning the text in a specific writing situation, the role of materiality in writing practices is magnified (Haas 77). With the ubiquity of computers in composition classrooms, pedagogical changes in composing texts now maximize the value of

non-linearity. It is no longer uncommon to see the use of technology to create computer-based environments that enhance the writing process. Web 2.0 applications, such as blogs, wikis, 3-D virtual environments, and other social networking sites that currently dominate our commercial and academic landscapes have also prompted composition teachers to explore their use in various stages of writing.

Thus, how educators view technology's impact on the teaching of writing should perhaps be an immediate priority for reassessment. In retrospect, the presence of technology in composition classrooms has not changed the basic social tenet of the composing process and academic writing as "computers can make writing processes *seem* new by making visible the ways writers and readers have always dealt with the text" (Takayoshi 247). Donna Reiss, Dickie Selfe, and Art Young confirm that newsgroups and chat rooms, for instance, are tools for collaborative conversation and composition, that writing e-mails is a "writing to learn" activity, and so forth (xviii). Furthermore, electronic discussions in the form of listservs, bulletin boards, and chats are patterned after the question-and-answer adaptations of the Socratic dialogue (Eldred and Toner 37). In light of these claims, composition teachers must adapt a more balanced attitude when integrating technology in order to make each activity relevant to the composing process and curricular goals: "Be enthusiastic but skeptical, excited but critical, explore new technologies but safeguard valued pedagogical approaches" (DeVoss and Selfe 435).

Composition teachers often rely on face-to-face communication for collaborative prewriting to exchange preliminary ideas. Others freely use asynchronous communication tools, such as the Discussion Board, for the same purposes. But knowing the advantages of fully embracing CMC at different writing stages (e.g., invention, peer reviews, revision, etc.) would lead to rhetorically-sound choices of online forums that support student learning (cf. Janet Eldred

in 2008; Beth Hewett in 2006; Alice Trupe in 2004; Yi Yuan in 2003). Such advantages are more apparent if teachers are aware of the effects of using different CMC platforms on student writing. With a dearth of descriptive research on the effect of CMC on at least *one* specific writing process, purposeful online activities are often rare. Thus, it is necessary to re-examine if there is indeed a correlation between specific collaborative online invention strategies and the quality of student writing to detect the best tool that fits the needs of the students.

The Study

Because the use of synchronous chat when sharing preliminary ideas has been one of the most common collaborative online invention forums in this mid-western state university, it is necessary to investigate the impact of this synchronous tool to first-year writing based on (1) the transfer of ideas from online to print, and (2) the attitudes and perceptions of the teacher and students toward the process. The term “collaborative online invention” is viewed in this study as a prewriting activity students engage in where they are linked with each other through chat to generate and discuss topic ideas before drafting their essays. The research questions investigated in the spring of 2007 are as follows:

RQ1: How effective is the use of chat in generating ideas for writing academic essays?

RQ1a: How much of what was discussed online was reflected in the essay?

RQ1b: How much of the essay was not part of the online discussion?

RQ1c: In terms of language use, what lexical and/or syntactic similarities or differences were evident in the online forum and the written essay?

RQ2: What attitudes/perceptions do the teacher and students have toward the collaborative online invention process?

RQ2a: (for teacher and students) What did the teacher and students think of the process? Would they prefer using the same invention strategy in future essays? Why or why not?

RQ2b: (for teacher) How did the teacher assess the nature of this strategy in terms of student participation? Did she think the activity triggered fruitful class discussions (or otherwise)? Why or why not?

RQ2c: (for teacher) If the teacher were to modify this collaborative online invention activity, how would she do it? What reasons would she have for her choice of modification?

RQ2d: (for students) How many of the ideas discussed online did students think were tapped into their writing and/or how many of the ideas they have in writing were actually sparked by the online dialogue?

RQ2e: (for students) How did students come up with ideas that were not discussed online?

RQ2f: (for students) Were there any technical terms/words, phrases, or clauses that were picked up online and used in the essay?

Method

This study aims to provide a description of the synchronous mode of invention based on the textual findings of the first research question and teacher-student interviews of the second. The first-year writing class was selected according to scheduling availability, computer lab access, and consent of the course instructor. Students were already exposed to in-class chat activities prior to the investigation, so assigning them to engage in two chat invention sessions before drafting a required research-based essay was not difficult. The data (online transcripts,

rough drafts, and teacher-student interviews) were collected over a five-week period, taking place between the time when students started generating topics online for their research-based essay until the last student-interview was done. Students primarily explored general ideas for their essays (possible essay topics, theses, main points and supporting details, counterarguments, and so on) in four groups with around two to four students per group on the first chat invention session. After a week, they continued discussing their essay plans as well as possible textual support within the same groups on the second session. Figure 1 shows the assigned group task for a typical collaborative online invention session.

Direction: Explore with your peers and provide feedback/suggestions on the following points:

- 1) potential essay topics and thesis statements
- 2) possible main ideas/arguments and supporting details
- 3) possible opposing views and refutations
- 4) possible sources

Figure 1: Assigned group task for a typical collaborative online invention session

In their research-based essay, the students were expected to synthesize multiple sources from an assigned chapter in Laurence Behrens and Leonard Rosen's edited collection, *Writing and Reading Across the Curriculum* (9th ed.). The assignment develops each student's critical and analytical skills in both writing and reading. After each collaborative online invention session, the instructor was interviewed face-to-face for approximately 30 to 45 minutes. Prior experiences with using technology in the writing classroom were asked to establish a sense of context, along with comments and observation about the online activity.

On the due date of the research-based essay rough draft, students who previously signed the consent form were asked to send their rough drafts electronically to the researcher's email account. Electronic copies of the rough drafts were stored and interview appointments were arranged for those who agreed to be interviewed. There was a need to conduct student interviews immediately after the submission of student rough drafts and not prolong them so as to ensure that the collaborative online invention and drafting processes were still fresh in each participant's memory. Students were also asked about their prior experience with technology, along with their comments on the online activity and composing processes.

The instructor who agreed to participate was very comfortable with technology, having infused chat forums in her writing classes for several years before this study began. Without any vested interest in the approach, the possibility of a teacher effect was thus minimized. Twenty-two students from the class were expected, which is the maximum number of students typically enrolled in first-year writing, to agree to participate. After inviting student participants during the researcher's classroom visit at the beginning of the semester, only 10 student online transcripts and research-based essay rough drafts were randomly selected and analyzed; from these subjects, only three were interviewed (see Table 1). The random selection process did not consider the participants' gender, technological experience, or socio-economic status. In compliance with the Human Subjects Review Board regulation, identities of the participants were never revealed. Identification letters for students were used instead in order to eliminate sexual and racial biases. The instructor was referred to simply as "teacher."

Table 1: Participants by group

Group	Participants
1	Students A, B
2	Students C*, D
3	Students E, F
4	Students G*, H, I, J*

* *Students interviewed*

This study followed a descriptive research design to examine the relationship between the collaborative online invention strategy and student academic writing. Unlike experimental studies, no control groups were created and no treatments were given (Lauer and Asher 82). Patterns from online discussion transcripts, student rough drafts, and teacher-student interviews were identified and retained through classification and coding according to the principles of Strauss and Corbin, with a “microanalysis” approach that resemble “very careful, often minute examination and interpretation of data” (58).

To answer the first research question, four essay categories were grouped to trace and quantify the transfer (and non-transfer) of ideas as well as the transformation (and non-transformation) of linguistic structures from online transcripts to student rough drafts (see Table 2):

Table 2: Four essay categories used for textual analysis

Analysis of Online Transcript (Chat)	Analysis of Written Essay (Rough Draft)
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<ul style="list-style-type: none">• Potential essay topic, purpose, and thesis statement	<ul style="list-style-type: none">• Clarity of thesis statement
<ul style="list-style-type: none">• Main ideas and supporting details	<ul style="list-style-type: none">• Formation of logical argument
<ul style="list-style-type: none">• Textual Support	<ul style="list-style-type: none">• Citation and synthesis* of academic sources
<ul style="list-style-type: none">• Opposing views and refutations	<ul style="list-style-type: none">• Integration of counterargument

* *Synthesis – source connections, usually with a verb between sources (e.g., agrees, disagrees, concurs, expounds upon, contradicts)*

To answer the second research question, the teacher and student interview data were subjected to “analytical coding” by Richards, where meanings in context were considered, “creating categories that express new ideas about the data [and] coding to gather and reflect on all the data related to them” (94). Interview data were then compared with the data from online transcripts and rough drafts until a significant pattern emerged.

Finally, the analytical procedure mentioned above was transformed into the following steps to approximate grounded theory method:

- 1) Read and mark the subject-participants’ dialogues found in online transcripts.
- 2) Read and mark the essay parts in their drafts based on four categories – (a) topic, purpose, thesis statement; (b) main ideas and supporting details; (c) source citation and synthesis; (d) counterarguments. Note any rhetorically significant language use as well.
- 3) Reread and analyze online transcripts and mark relevant dialogues pertaining to four essay categories. Also note subject-participants’ contribution to group discussions.
- 4) Code and analyze both texts (online and rough drafts). Reread and immediately repeat coding and/or analysis if a significant pattern emerged.

- 5) Reread essay drafts to note any (or lack of) transfer of four essay categories: What was found in both texts (online and essay drafts) and what was found only in one text? Also, compare both texts to identify rhetorically significant language use.
- 6) Code and analyze teacher and student interviews. Repeat coding and/or analysis if any significant pattern emerged. Finally, compare and contrast both teacher and student interview data.
- 7) Compare and contrast analyses of online transcript and essay draft data with interview data. Use interview data to supplement or enrich textual data.
- 8) Arrange textual data and interview data analyses coherently. Point out significant observations and patterns, including the quantity of transfer of each category and language use as well as supplementary patterns based on the interview.

Findings

Examining the initial reproduction of ideas in the chat room and their transferability to the first written draft (RQ1), as supplemented by teacher-student attitudes and perceptions toward the process (RQ2), helps determine the effectiveness of the invention forum in facilitating the acquisition of meaningful ideas and language proficiency. The findings are presented in order of the research question.

RQ1. How effective is the use of chat in generating ideas for writing academic essays?

The intent of this question was to look at the transfer of invention ideas from the chat room to student rough drafts. To address the question, the following items were examined:

(1) how much of what was discussed online was reflected and/or not reflected in the essay; and

(2) distinct language transformations that were evident in the online forum and the written essay.

These modes of inquiry comprise three research sub-questions which are expressed in three major themes: (1) transference of ideas from online to print; (2) non-transference of ideas from online to print; and (3) (non-) transformation of linguistic structures from online to print. The quality and quantity of the findings are expressed in distinct thematic sections.

Transference of Ideas from Online to Print

The real-time and immediate setting of synchronous chat causes limited dialogues that negatively affect the transfer rate of opposing views and refutations or counterarguments. However, both chat activities certainly allow students to retain ideas at a higher level, reflect on these outside of the chat room, and add more ideas upon drafting (cf. topic, purpose, and thesis statement; main ideas and supporting details; and textual support or source synthesis categories). Table 3 provides a summary of the data patterns regarding the first research sub-question, “How much of what was discussed online was reflected in the essay?” of the first major research question, “How effective is the use of chat in generating ideas for writing academic essays?”

Table 3: Transference of Ideas from Online to Print

Essay Categories	Chat
1) Essay Topic, Purpose, and Thesis Statement <i>(successful transfer)</i>	9 essays with transfer
2) Main Ideas and Supporting	4 essays with complete transfer, 5 essays with

Details <i>(average transfer)</i>	transfer (but more ideas are added to the rough draft)
3) Textual Support or Source Synthesis <i>(minimal transfer)</i>	4 essays with source transfer (but more sources are added to the rough draft)
4) Opposing Views and Refutations or Counterarguments <i>(null transfer)</i>	0 essay with transfer

Indicating *successful* transfer, nine essays with transfer are noted in the first essay category (topic, purpose, and thesis statement). An *average* transfer of the second category (main ideas and supporting details) reflects four essays with complete transfer and five essays with transfer (but more ideas are added to the rough draft). The third category (sources) indicates *minimal* transfer with four essays with transfer (but more sources are added to the rough draft), and the fourth category (counterarguments) shows zero essay with transfer indicating *null* effect.

Non-Transference of Ideas from Online to Print

Based on the invention ideas that did not transfer along with those that did, discussions held in chat rooms seem to have satisfactory results in terms of essay topic, purpose, and thesis statement. The immediacy of a real-time setting seems to have caused students to retain most ideas suggested to them at a crucial time, greatly improving their facility for decision-making. The chat room also has positive effects on discussions about textual support and source

synthesis. Table 4 provides a summary of the data patterns regarding the second research sub-question, “How much of the essay was not part of the online discussion?” of the first major research question, “How effective is the use of chat in generating ideas for writing academic essays?”

Table 4: Non-Transference of Ideas from Online to Print

Essay Categories	Chat
1) Essay Topic, Purpose, and Thesis Statement <i>(successful transfer)</i>	1 essay without transfer
2) Main Ideas and Supporting Details <i>(average transfer)</i>	5 essays with added ideas, 1 essay without transfer
3) Textual Support or Source Synthesis <i>(minimal transfer)</i>	4 essays with added sources, 6 essays without transfer
4) Opposing Views and Refutations or Counterarguments <i>(null transfer)</i>	10 essays without transfer (2 essays have counterarguments but are not transfers)

In terms of essay topic, purpose, and thesis statement category, synchronous chat invention displays one essay without transfer. This pattern, when juxtaposed with chat’s nine essays with transfer, seems to imply that the immediacy of synchronous chat positively affects

the cognitive facilities of students for brainstorming and decision-making. When it comes to main ideas and supporting details category, chat invention produces one essay without transfer and five essays with added ideas. Six essays without transfer and four essays with added sources to the rough draft are identified in the sources category. Finally, students have lesser online activity in the chat room for counterarguments with only three student-participants (none of the dialogues are reflected in their rough drafts); ten essays without transfer clearly signify the null effect of chat for this category.

(Non-) Transformation of Linguistic Structures from Online to Print

The synchronous chat forums apparently lead to increased rates of critical reflection and modification of language patterns in the first two essay categories after the session. Table 5 provides a summary of the data patterns regarding the third research sub-question, “In terms of language use, what lexical and/or syntactic similarities or differences were evident in the online forum and the written essay?” of the first major research question, “How effective is the use of chat in generating ideas for writing academic essays?”

Table 5: (Non-) Transformation of Linguistic Structures from Online to Print

Essay Categories	Chat <i>(positive language transformation on FIRST TWO essay categories only)</i>
1) Essay Topic, Purpose, and Thesis Statement	3 cases of more formal thesis structure and word choice in the rough draft; 2 cases of more specific details found in the rough draft’s thesis statement
2) Main Ideas and Supporting Details	1 case of exact word choice and sequencing of main ideas both online and in print; 4 cases of replaced,

	reworded, or recast main ideas in the essay for specificity or formality; logical reorganization of main ideas and supporting details in 3 rough drafts
3) Textual Support or Source Synthesis	Contrasting results in the use of synthesis verbs indicate minimal effect of source transfer: 4 rough drafts with no source transfer do not have synthesis verbs between sources, but 2 rough drafts with no source transfer do; and 3 rough drafts with source transfer have synthesis verbs, but 1 rough draft with source transfer does not
4) Opposing Views and Refutations or Counterarguments	Irrelevant

After both chat activities, three cases of formal thesis structure and word choice and two cases of detailed thesis statement characterize student rough drafts, implying an increased rate of critical reflection for topic, purpose, and thesis statement outside the chat room. For the category of main ideas and supporting details, the chat activities lead to only one case of exact word choice and main idea sequence both online and in print that suggests meaningful interaction during the session. Most of the linguistic patterns, though, lean more towards critical reflection and modification outside the chat room, with four cases of replaced, reworded, or recast main ideas for specificity or formality and three cases of logical essay reorganization. The third category, source integration, reveals that both chat activities have contrasting results in terms of connecting sources with synthesis verbs. The use of words such as “agrees,” “disagrees,”

“concur,” “expounds upon,” “goes even further,” “contradicts,” and so forth clearly shows the connections or relationships between sources. Specifically, four rough drafts with no source transfer do not have synthesis verbs between sources, but two rough drafts with no source transfer do; on the contrary, three rough drafts with source transfer have synthesis verbs, but one rough draft with source transfer does not. Such contradictions strongly support the minimal effect of both chat activities in this category. Finally, because of the null effect of both chat activities on counterargumentation, the language pattern detected online and in student drafts in this category is likewise irrelevant.

RQ2. What attitudes/perceptions do the teacher and students have toward the collaborative online invention process?

In order to supplement the textual findings of the first principal research question, the intent of the second research question was to find out what the teacher and students think and feel about using the chat forum as collaborative invention platform. To address the question, three research sub-questions expressed in three major themes comprise the teacher interview: (1) general feedback about the process and teacher preference; (2) assessment of the process in terms of student participation; and (3) suggestions for modification. In addition, four thematic patterns comprise the research sub-questions for student interviews: (1) general feedback about the process and student participation; (2) assessment of transfer of ideas from online to essay draft; (3) description of other invention strategies; and (4) other comments on language use. The findings are presented in separate teacher- and student-interview sections.

Teacher Interview

For the teacher, the use of the chat forum positively characterizes the social act of invention

and knowledge construction. However, she believed that the fluid and immediate nature of synchronous chat seems to have negatively affected its ability to realize more meaningful interactions. Table 6 provides a summary of the teacher interview in answer to three research sub-questions (RQ2a-c), respectively: (a) “What did the teacher think of the process? Would she prefer using the same invention strategy in future essays? Why or why not?” (b) “How did the teacher assess the nature of this strategy in terms of student participation? Did she think the activity triggered fruitful class discussions (or otherwise)? Why or why not?” and (c) “If the teacher were to modify this collaborative online invention activity, how would she do it? What reasons would she have for her choice of modification?” These sub-questions partially respond to the second major research question, “What attitudes/perceptions do the teacher and students have toward the collaborative online invention process?”

Table 6: Teacher Interview

Themes	Chat <i>(willing to use Chat as invention strategy though provisions must be followed because of the activity’s negative features)</i>
1) General Feedback about the Process and Teacher Preference	<p><i>Advantages</i></p> <p>Much less chaotic because students were divided into small groups;</p> <p>Very fluid, dynamic, and immediate capable of producing interesting ideas that students can go back to when archived; and</p> <p>Approximates “messiness” of the invention</p>

	<p>process</p> <p><i>Disadvantages</i></p> <p>greater tendency for students to go off on little tangents because of informal environment;</p> <p>More random and less-focused conversation at certain times;</p> <p>Hard to keep track of responses;</p> <p>Hard to control at times, especially with bigger groups; and Absence of visual cues in real-time can cause difficulty</p> <p><i>Preference</i></p> <p>will use Chat as invention in the future provided students have a common set of information to work on</p>
<p>2) Assessment of the Process in terms of Student Participation</p>	<p>Everyone participated, some more than others;</p> <p>Teacher needed to “pull students back” sometimes to keep conversation focused; and</p> <p>Fluid and immediate, students were on a “come and go” mode and said anything online</p>
<p>3) Suggestions for Modification</p>	<p>Teacher suggested that same goals and assignment preparation must be required to students so they</p>

	have a common foundation to discuss; and Teacher must strengthen online presence
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The teacher positively considered the use of synchronous chat an approximation of the “messiness” of invention with its fluid and immediate environment. This feedback highlights the capability of chat for producing “spontaneous ideas” (Hand and Prain 740) as valuable references in essay composition. It seems that real-time conversations associated with chat brings about a heightened sense of socialization that leads to knowledge construction as was the case in this study when students collaborated on possible topics, main ideas, and so on, online. But the teacher admitted that the tendency for random and less-focused conversations, the difficulty to control and keep track of responses, and the absence of visual cues most of the time impede meaningful interaction among participants. Synchronous chat may be successful provided students using it for collaborative invention have a common knowledge base to hold conversations together in small groups and avoid spending too much time educating others about their individual topics. Such provisions will result to more meaningful interactions among student participants.

In terms of student participation, the teacher related that everyone was generally engaged in the chat room – reacting to each other’s ideas, to the teacher’s prompts, etc. – though some contributed less than others due to their motivation/affect/cognition or computing skills. Clearly, constructing knowledge becomes a social act in this case because the individual is no longer solitary (Henri 158). However, the teacher admitted that maintaining the focus of chat dialogues pose numerous challenges because of the platform’s fluidity and immediacy that tend to ignite meaningless interactions; nevertheless, she believed that every student participated in this recent

collaborative invention activity. Some of them might have contributed less than others in the chat room, but they were all generally engaged – reacting to each other’s ideas, to the teacher’s prompts, and so on.

Finally, two modifications suggested by the teacher for using chat hope to sustain more meaningful interactions. First, she said the same reading assignments should be required prior to the activity to keep students consistently engaged throughout the entire dialogue. As well, the teacher should be more involved in guiding online discussions to help maintain focus and avoid off-tangent remarks.

Student Interviews

Majority of those who used chat invention forums shared positive online experiences, although a minority remarkably expressed the same negative comments as the teacher. Additionally, a few contradictions are evident with regard to the preference for group sizes and assessment of source transfer. Nevertheless, these interview data clearly affirm the social capacity of synchronous chat to promote collaboration and knowledge construction (Bonk and King 7). Table 7 provides a summary of student interviews in answer to four research sub-questions (RQ2a, d-f), respectively: (a) “What did students think of the process? Would they prefer using the same invention strategy in future essays? Why or why not?” (d) “How many of the ideas discussed online did students think were tapped into their writing and/or how many of the ideas they have in writing were actually sparked by the online dialogue?” (e) “How did students come up with ideas that were not discussed online?” and (f) “Were there any technical terms/words, phrases, or clauses that were picked up online and used in the essay?” These sub-

questions partially respond to the second major research question, “What attitudes/perceptions do the teacher and students have toward the collaborative online invention process?”

Table 7: Student Interviews

Themes	Chat <i>(majority had positive experience with the activity, while a minority shared the same negative comments as the teacher; evidence of a few contradictions with teacher preference and textual analysis)</i>
1) General Feedback about the Process and Student Preference	<p><i>Advantages</i></p> <p>2 students with positive experience shared that interesting ideas were posted that lead to a more focused thesis statement; and</p> <p>These students also commented that the teacher kept everybody right on track when they ran out of ideas by initiating online conversations through questions and suggestions</p> <p><i>Disadvantages</i></p> <p>1 student with negative experience shared peers go off on tangents, random ideas often prop up, and discussion seems less focused</p>

	<p><i>Preference</i></p> <p>2 students preferred the use of the same invention strategy; and</p> <p>1 student was willing to use Chat invention provided there will be bigger groups to maintain conversation if others “straggle off” <i>[this suggestion contradicts teacher’s positive evaluation of the Chat activity in small groups for ease of control]</i></p>
2) Assessment of Transfer of Ideas from Online to Essay Draft	<p>2 students reported getting source ideas from online Chat <i>[this experience is contrary to the textual analysis on source synthesis having minimal effect]</i>; and</p> <p>1 student did not get much from the activity except that, as another student said, the Chat activity “helped them evaluate their ideas” after posting online or helped them go back and personally restate their thesis, and so on</p>
3) Description of Other Invention Strategies	<p>Other invention strategies –</p> <p>2 students said individual brainstorming; and</p> <p>1 student said collaborative brainstorming (with a tutor)</p>

4) Other Comments on Language Use	Only 2 students adopted some language features expressed online (i.e., thesis structure and a peer-suggested quotation); and 1 student expressed ideas originally
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According to student interviews, synchronous chat is a valuable invention strategy because it allows instant access of different ideas from others for the improvement of individual essay plans. This description highlights its capacity for knowledge construction through collaborative endeavors (Hand and Prain 753). To help characterize the social act of invention, students claimed that the teacher helped initiate online conversations and kept everybody on track. However, one student thought that conversations were not quite focused throughout the dialogue, and because only a few were fully engaged, online collaboration was negatively affected. While most students preferred the social aspect of chat along with its ability for knowledge construction, the same student expressed the need for sustained meaningful interactions within bigger groups (in contrast to the teacher's preference for small groups).

In terms of their assessment on the transfer of ideas, the students thought the online dialogue allowed them to draw possible ideas and, though a contradiction of its minimal transfer rate, possible sources for their essays. In addition, they reported that the chat invention exercise helped them evaluate posted ideas on their own or through peer feedback. Altogether, synchronous chat manifests its potential for collaboration, knowledge construction, and critical reflection.

Admittedly, the students also used other invention strategies aside from collaborative chat – webbing, listing, and reading assigned articles. One student combined both individual and social invention with an outside tutor, while another explained that most ideas came from chat.

Finally, they revealed that a few language features from online were used in their written drafts. Majority related the transfer of thesis statement structures and quotations. At any rate, this transfer directly supports the collaborative potentials of the forum (Light and Littleton 8).

Conclusion

The findings of this descriptive study indicate that the transfer of invention ideas and language patterns from chat to student rough drafts (RQ1) is directly supported by both teacher-student interview patterns (RQ2). Table 8 represents a descriptive summary with (+) and (-) markers referring to the “positive” and “negative” effects of the online tool, respectively.

Table 8: Descriptive Summary

Research Questions	Essay Categories	Chat <i>(Need longer invention sessions for the LAST TWO essay categories; Positive language transformations on FIRST TWO essay categories only)</i>
Research Question 1: How effective is the use of chat in generating ideas for writing academic	#1: Essay Topic, Purpose, and Thesis Statement <i>(successful transfer)</i>	(+) rough drafts indicate higher retention of topic, purpose, and thesis statement with 9 essays with transfer, 1 essay without transfer

essays?	#2: Main Ideas and Supporting Details <i>(average transfer)</i>	(+) 4 essays with complete transfer, 5 essays with added ideas, 1 essay without transfer
	#3: Textual Support or Source Synthesis <i>(minimal transfer)</i>	(-) 4 essays with source transfer but more sources are added, 6 essays without transfer
	#4: Opposing Views and Refutations or Counter-arguments <i>(null transfer)</i>	(-) 0 essay with transfer, 10 essays without transfer (2 essays have counter-arguments but are not transfers) <i>(online transcripts indicate traces of unproductive dialogue on counter-arguments, despite 3 student posts on this category as none of these are reflected in their rough drafts)</i>

<p>Research Question</p> <p>2: What attitudes / perceptions do the teacher and students have toward the collaborative online invention process?</p>		<p>(-) the teacher and students agree that meaningful and reflective interactions in Chat are seemingly deficient due to its fluid and immediate setting</p> <p>(+) the teacher and students agree that interesting ideas are produced in Chat for future reference</p>
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The use of synchronous chat for collaborative invention in this context highlights distinct advantages on specific essay categories. For instance, positive retention of essay topic, purpose, and thesis statement (1st category), and main ideas and supporting details (2nd category) from chat forums to student drafts is evident, proving that immediate/real-time collaboration tends to work better for purposes of decision-making, clarification, and thought development (Henri 149).

In terms of source synthesis (3rd category), the use of chat indicates minimal effect, necessitating prolonged invention sessions or separate class periods for this category to attain productive interactions (Olaniran 58). The same requirement for exclusivity or time-length is applicable to online discussions on counterarguments (4th category) to guarantee the success of the online activity.

Finally, data show positive language transformations in two essay categories – topic, purpose, and thesis statement and main ideas and supporting details. Since students did not have enough time for “online reflection” (Paulus 1323), they seem to have compensated the

development of limited online dialogues through linguistic modifications after class. As previously noted, more should be done to increase the productivity of chat invention with regard to the last two essay categories – source synthesis and counterarguments.

Strongly supporting the textual patterns of online transcripts and rough drafts are teacher-student interviews. According to the teacher and students who used the forum, meaningful and reflective interactions in the chat room were deficient due to its fluid and disorganized conversation (Garcia and Jacobs 362). The attribution of this negative comment is proven by its null effect on counterargumentation along with its minimal effect on source synthesis. However, the use of chat when generating possible essay topics, purpose, and thesis statements demonstrates its capacity for idea retention and immediate clarification. Both the teacher and students agreed that chat forums tend to produce interesting ideas that are necessary for future reference, and the positive retention and transfer rates of essay topic, purpose, and thesis statement ideas are testament to this perception.

In closing, the teacher and students agreed that the use of the chat forum demonstrates the social act of invention and promote collaboration and knowledge construction (Paulus 1339). These perceptions are characterized by the following textual findings – the remarkable retention and transfer rate of invention ideas on essay topic, purpose, and thesis statement; the positive effect of chat on main ideas and supporting details; and the necessity for longer invention sessions to improve its effect on source synthesis and counterarguments.

Suggestions for Computer-Mediated Classroom Applications

Having enumerated the benefits of using collaborative synchronous CMC invention in relation to specific research-based essay components, the following suggestions should also be considered for future applications in the composition classroom. It is important to note that the

context and purpose of each online practice, the comfort level of its users, and the access to technology must all be considered requisite for the success of any collaborative endeavors in cyberspace:

1. Instead of using exclusively one online tool for each writing phase, teachers might want to combine both synchronous and asynchronous CMC forums to overcome the limitations of a single tool (Paulus 1339) and ensure more meaningful virtual communities comparable to their face-to-face counterparts (Blythe 122-25). After all, creating more options for electronic discussion provides more opportunities for each individual to participate without reservations. The promotion of interdependence is a crucial element in an online learning community (Palloff and Pratt, *Building Learning* 126), so everything must be planned and purposefully facilitated for the benefit of student-participants (Palloff and Pratt, *Building Learning* 127).

2. Other open source software or web 2.0 applications may also be explored to supplement the needs not fully met by the online practice used in this study. Some of these tools are blogs, wikis, and podcasts; web conferencing softwares; Facebook, MySpace, and YouTube; and SecondLife that further enhance the act of sharing ideas and knowledge construction (Blair 42). In her article "Course Management Tools and Other 'Gated Communities': Expanding the Potential of Distance Learning Spaces through Multimodal Tools," Kristine Blair argues that relevant questions must be considered when designing principles for online teaching, such as: "How do you present material?," "How do students communicate with one another?," "How do you assess students?," "How do students learn?," "What tools best facilitate students' learning styles?" (49-50). In terms of professional development, several issues must also be raised for planning: "types of tools to be learned and integrated, pedagogical reasons for doing so, assessment of the impact of technology on student success," and so forth (Blair 51). Choosing an

interface that caters to these concerns and one that values freedom, peer review, and knowledge sharing will surely make the learning task central (Cole and Foster 4-5).

3. Teachers can also implement strategies to create a virtual environment where “honesty, responsiveness, relevance, respect, openness, and empowerment” (Palloff and Pratt, *Building Online* 22) thrive so group members can feel safe in expressing themselves and facilitate productive interaction. Setting directives or parameters for the fair use of exchanges or outlining expectations for students to follow (Blythe 127; Yancey 112) are some techniques that can maintain order and sustain healthy conversations apart from the mere presence of the teacher. Hopefully, these will guide online members to achieve virtual utopia and get something out of an enriching experience.

4. More opportunities for student reflection after each online activity may be provided in order to support the learner (Barab and Duffy 32-33; Palloff and Pratt, *Building Learning* 129). “Transformative learning” or learning based on the interpretation of experiences, ideas, and assumptions is a direct result of self-reflection as learners take part in the meaning-making process and re-enact the online classroom (Palloff and Pratt, *Building Learning* 129). One way to facilitate self-reflection is to have the class review archived conversations and develop a summary at the end of each online conference. Another is to engage students in face-to-face dialogues or whole-class discussion after a virtual activity to address comments, questions, or concerns they may have about the exercise.

5. Most of all, teachers might want to combine face-to-face and online activities to accommodate a variety of learning styles (Olaniran 158). Not everyone is comfortable with digital or face-to-face communicative situations, so a combination of both will allow more opportunities for student engagement. Also, exercises designed specifically for natural settings

will arm teachers with alternative options in the event of unforeseen technical glitches and avoid classroom paralysis. The key here is to be sensitive and flexible with the task, student performance, and logistics to ensure productivity and success.

Since these pedagogical implications are derived from a context-based descriptive study, it is necessary to extend these suggestions to practices that teachers know will work best in their own classroom contexts. Nevertheless, these principles primarily require composition teachers to embrace the role of a facilitator in a computer-mediated classroom (Olaniran 157; Palloff and Pratt, *Building Online* 22) and structure challenging conversations among a community of learners (Hiltz; Littleton 255). Teachers should work on becoming partners with students in an online learning community because it is the students themselves “who are experts when it comes to their own learning” (Palloff and Pratt, *Building Online* 23). The moment knowledge is freely constructed by both the teacher and the student/s, the capacity of online practices in the writing classroom is truly maximized.

On the whole, computer technology offers new and unique possibilities for collaboration not available in other contexts and illuminates our human capabilities as collaborative learners (Light and Littleton 8). However, this notion is accompanied with challenges for teaching and learning (Littleton 255), so it is incumbent upon the teachers to make informed decisions (Rickly 41). After all, it is not technologies themselves that create these unique learning environments but how these online tools are implemented (Cooney 285; Simonson 29).

Recommendations for Further Research

In his discussion of research methods in composition, Beach notes the importance for researchers to adopt a self-reflexive mode and question the underlying assumptions guiding the research that easily govern their understanding of writing (239). Because several areas

concerning the powers, skills, conditions, and pedagogies that need attention in composition classrooms have not been met by the present study, more qualitative research such as longitudinal ethnographic or case studies should be explored to attain in-depth understanding of a writing phenomenon. There is also great demand for formal descriptive studies that move observations into coding and quantifying (Lauer and Asher 19) to gain a more holistic view of the various effects of computer-mediated and digital technologies on the writing processes and products of our students. On the other hand, Patricia Rose Webb insists that more studies with mixed-mode approaches, in which quantitative data are used to triangulate qualitative data (471), will open up new areas for research and expand the kinds of answers and results we can achieve (473). This influx of both parametric and non-parametric studies in varying contexts will also attempt to remediate the limited scope of this study and its application towards larger populations for further generalization.

To articulate the possibilities of computer networks in the composition classroom, more investigations on collaborative electronic environments must be considered (Trupe 134). Heide McKee and Danielle Nicole DeVoss argue that the contexts for writing research has evolved with the expansion of digital writing spaces (5), yet “many questions [still need] to be asked about researching in and with digital technologies” (24). It is therefore imperative that our research approaches, methodologies, and ethical understandings should address these changes in communication technologies (McKee and DeVoss 11). In line with this, the following research projects are recommended for further investigation to develop this pilot study to a larger scale:

1. One limitation of this study is the use of Blackboard despite the availability of various Web 2.0 tools and other software applications that are more prevalent in the lives of our students. Exploring the functionality of Web 2.0 tools such as Wikis or other collaborative writing tools

(Paulus 1341) in the composition classroom would provide new perspectives on the way digital technologies have changed the processes, products, and contexts of writing and the teaching of writing. The use of newer electronic technologies in the classroom justifies the need for more research and training in teaching writing with computers.

2. Another possibility is to look closer at what learners actually do when collaborating in CMC environments by examining *only* their interactions in cyberspace. In other words, the focus of such investigation should be on the “how” of composing (the process) than the “what” of composing (the product) (Barritt and Kroll 50-51). This kind of inquiry may adapt the method of discourse or conversation analysis of comment types and/or conflict to determine how students negotiate and make connections among their ideas and those of their peers online. Because these factors were deliberately excluded in the present study, the influence of age, gender, and personality types and/or learning styles with respect to preference for different types of online communication modes – synchronous or asynchronous – may also be considered to enrich the analysis of student communicative practices.

3. On the other hand, the examination of both online dialogic artifacts and written products as evidence of knowledge construction (Paulus 3124) remains valuable in the field of computers and writing, composition studies, and cognitive-developmental psychology. The purpose of the present study is admittedly aligned within the parameters of this inquiry, but a few limitations may have affected its results. Since the student-participants were made aware of the research objectives prior to their online activities, some online posts might have been influenced by this information. Thus, subject recruitment for the next project involving a larger population across semesters should be done preferably *after* the collaborative online activities to control the variables and avoid contamination in the process. As regards methodology, there should be a

more holistic approach towards the detection of ideas from online transcripts to the written product in order to illuminate the phenomenon under study. Hence, an idea traceable online should be attributed to the participant who used it in print regardless of whether it came from the dialogue of the participant him/herself or somebody else.

And finally, the use of computer-mediated tools in the teaching of writing is here to stay, so our research and pedagogy should continue to accommodate these online practices. Some of these tools may have limited capacities in certain contexts that temporarily affect student involvement and cognition, but the rapid advancement of computer technology permits more experimentation in the composition classroom that would suppress these limitations. As we aim to find the best online practice that suits the performance and comfort levels of our students, the traditional sense of maintaining a learner-centered environment through critical and reflective interactions for the creation of new knowledge must still be valued.

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