Collaborative writing in different learning environments: students’ interactions and pedagogical implications

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1. The case for using collaborative writing tasks
2. The impact of technology: comparing collaborative writing face-to-face vs. Google Docs (empirical study).
3. Implications for teaching + examples
What is collaborative writing?

Singular text by multiple authors

(Ede & Lunsford, 1990)

Collaborative writing: A coordinated joint effort throughout the writing process where co-authors have a shared responsibility for the entire text.

Cooperative writing: A negotiated or pre-determined division of labour where co-authors’ responsibility may be limited to a particular section or task.
Why implement collaborative writing?

Theoretical support:

• Composition scholars (e.g. Bruffee, 1993): multiple roles (author, sounding board, reader), exposure to ideas of others.

• Second Language Acquisition/learning theories: cognitive (e.g. Long, 1996) & sociocultural theories (e.g. Lantolf & Thorne, 2006): Interaction key in L2 learning.

Pedagogical reasons:

• Exposure to a range of ideas/expressions

• Negotiations and explanations—crystallize thoughts & deepen understanding

• Motivated peer feedback: joint task
Examples of L2 learners talk during collaborative writing activities (face-to-face)

Both cities have the same trend throughout the year

Yep yep yeah

During the four seasons... during the four seasons can I say that? Seasons... both city have

During the year maybe, yeah?

But I don’t want to repeat throughout the year

Ok... both cities

Both cities you know we should ... we should use past tense always... Logos... had or has?

Had

Had... throughout the year except in winter

(Storch & Wigglesworth, 2007)
Example 2: Corrective feedback, explanation

16 Olivia: Figure 3 shows that there were Vietnamese and Laotian participate

17 Shirley: Participating

18 Olivia: participating

19 Shirley: Is correct? (sounds incredulous)

20 Olivia: (laugh) ... because there were. We are using there were

(Storch 2001/9)
Example 3: Providing word meaning (using L1)

61 Nabeel: Any exercising... exercising...

62 Naif: *Leesh* (what do you mean) exercising?

63 Nabeel: *Tamareen* (exercise)

64 Naif: Exercise *tamareen*?

65 Nabeel: Yeah

(Storch & Aldosari, 2013)
Example 4: Collective scaffolding (pooling ideas)

276 Mat: By forcing the students to revising

277 Emily: Encouraging would be a nicer word

278 Mat: Ha ha ha. In encouraging the students

279 Emily: To take the initiative

280 Mat: Yeah, great

281 Emily: To take initiatives to start revising... to start a revision. Oh no, to start revising, no?

282 Mat: mmm... to start revising

(Wigglesworth & Storch, 2009)
Feedback during collaborative writing

- Positive (reassuring) or corrective
- Provided on all aspects of language: word choice/meaning, grammar, mechanics
- Timely (immediate)
- Available during the entire writing process
- Developmentally appropriate: in response to signaled needs (Brooks & Swain, 2009) & more accessible?
- Collective scaffolding: Pooling of resources (Donato, 1994; Fernandez Dobao, 2012; Storch, 2002)
- Predominantly correct (e.g; Alegría de la Colina, & García Mayo, 2007; Storch & Aldosari, 2013)
Outcomes of collaborative writing

- **Text** produced collaboratively (compared to individually produced texts):
  - more accurate (Fernandez Dobao, 2012; Storch, 2005; Storch & Wigglesworth, 2007; Wigglesworth & Storch, 2009)
  - better quality & organisation (Shehadeh, 2011; Storch, 2005)

- **Language learning gains**: knowledge co-constructed during collaborative writing activity is evident in subsequent language use/tests (e.g. Brooks & Swain, 2009; Kim, 2008; Storch, 2002, 2009; Watanabe & Swain, 2007)
Computer mediated communication (CMC)

• Many claimed benefits for language learning e.g. contributions by shy students, extending writing practice

• Web 2.0: provides new ways of creating and sharing information e.g. facebook, blogs, wikis, Google Docs
Research findings:

- **Contributions to text created**: Reluctance, disjointed, uneven (e.g. Kessler, 2009; Mak & Coniam, 2008) but improves over time (e.g. Kessler & Bikowski, 2010).

- **Peer corrective feedback**: Mixed findings
  Rare & superficial (e.g. Elola & Oskoz, 2010; Kessler, 2009; Kessler, et al., 2012), unwelcome (Lund, 2008) vs. frequent (e.g. Chao & Lo, 2011; Lee, 2010)

**But**

- Mainly wikis (asynchronous)
- Small scale, case studies
- Few comparative studies (face to face vs. CMC)
The study

• Part of a larger study (Rouhshad, 2014)
• **Context:** Language Institute - intensive university preparatory courses
• **Participants** (N=24):
  – intermediate ESL (IELTS 5.5)
  – majority from Asia
  – Familiar with on-line chatting
  – self-selected pairs

• **Task:** short report (prisoner release)

• **Implementation:**
  – 2 similar tasks (counter-balanced design); one face-to-face (audio recorded) the other using Google Docs.
  – Participants explicitly encouraged to provide peer feedback.
Example of a Google Docs page

There are two reasons why Anne should be released earlier than Chris. Firstly, Anne was a doctor but a child was killed by her mistake after 23 exhausting working hours.
Data & analysis

Data:

- transcribed pair talk in face-to-face interactions
- interactions in Google Docs (small & large windows)

Analysis:

- Patterns of interaction (Storch, 2001, 2002, 2009)
- Time on task
Model of dyadic interaction
(Storch, 2002, 2009)

High mutuality

4 Expert/Novice

1 Collaborative

Low equality

3 Dominant/Passive

2 Dominant/Dominant cooperative

High equality

Low Mutuality
Example of a Collaborative pattern  
(Pair 11, FTF)

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 Jan:</td>
<td>hard-working and popular doctor, doctor. And and at that time, at that time, she</td>
<td></td>
</tr>
<tr>
<td>24 Nima:</td>
<td>she she work for twenty three hours</td>
<td></td>
</tr>
<tr>
<td>25 Jan:</td>
<td>she was working</td>
<td></td>
</tr>
<tr>
<td>26 Nima:</td>
<td>she was working</td>
<td></td>
</tr>
<tr>
<td>33 Jan:</td>
<td>maybe hospital can’t allowed her continued work for so so long</td>
<td></td>
</tr>
<tr>
<td>34 Nima:</td>
<td>so , yeah</td>
<td></td>
</tr>
<tr>
<td>35 Jan:</td>
<td>[a long time</td>
<td></td>
</tr>
<tr>
<td>36 Nima:</td>
<td>[too much</td>
<td></td>
</tr>
<tr>
<td>37 Jan:</td>
<td>maybe hospital, “shouldn’t”, right? Shouldn’t</td>
<td></td>
</tr>
<tr>
<td>38 Nima:</td>
<td>maybe XXX should not, yeah.</td>
<td></td>
</tr>
<tr>
<td>39 Jan:</td>
<td>shouldn’t allowed</td>
<td></td>
</tr>
<tr>
<td>40 Nima:</td>
<td>allow</td>
<td></td>
</tr>
</tbody>
</table>
### Example of a cooperative pattern

(Pair 2 Google Docs)

<table>
<thead>
<tr>
<th></th>
<th>Tina:</th>
<th>I think the 3\textsuperscript{rd} sentence is more clearly ok keep going and will continue her job once she is free delete “so she keep up to date”</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Feri:</td>
<td>I start to talk 2\textsuperscript{nd} reason</td>
</tr>
</tbody>
</table>
Example of a dominant/passive pattern
(Pair 4, Google Docs)

<table>
<thead>
<tr>
<th></th>
<th>Jill:</th>
<th>because she protects herself from the crime scene and because she scared and ran out of her apartment but she has reported to the police and returned the crime scene with the police after she hits the thief, she do not knows thief is alive or death. it is because she just hits the thief's head once and do not know will cause the thief to daeth. haha...you can write ur idea also....</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Fiona:</td>
<td>i try .. 55 but i read that u write it better</td>
</tr>
</tbody>
</table>
Analysis for LREs

• Focus (grammar, lexis, mechanics)
• Resolution (correct, incorrect, unresolved)
• Level of engagement (extensive vs. limited)
<table>
<thead>
<tr>
<th></th>
<th>Wick:</th>
<th>whose name is Chris or Prisoner B, Christ, he tried to stop fighting at the bar. For a moment he lost his mind, he hit one of football player in the head. After that the man was died. do u agree?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sue:</td>
<td>lost his my it means he does not intend to do something wrong right?</td>
</tr>
<tr>
<td></td>
<td>Wick:</td>
<td>lost his mind = he cant control himself, coz he was angry he hit some guess. Chris has served 4 years in prison. While he is imprisoning, he feel very upset.</td>
</tr>
</tbody>
</table>
Findings: Patterns of interaction

• **Face-to-face (FTF):**
  – Collaboration: 8 pairs
  – Cooperation: 2 pairs
  – Dominant/passive: 2 pairs

• **Google Docs:**
  – Collaboration: 1 pair (same in both modes)
  – **Cooperation: 7 pairs** (most collaborated in FTF)
  – Dominant/passive: 4 pairs
## Findings: Time & LREs

<table>
<thead>
<tr>
<th>LREs</th>
<th>Focus</th>
<th>Resolution</th>
<th>Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTF</td>
<td>177</td>
<td>Grammar (42%); Lexis (35%); Mechanics (23%)</td>
<td>Correct: 80% Unresolved: 6%</td>
</tr>
<tr>
<td>Av. Time: 11 min</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Google Docs</td>
<td>71</td>
<td>Grammar (48%); Lexis (31%); Mechanics (21%)</td>
<td>Correct: 75% Unresolved: 11%</td>
</tr>
<tr>
<td>Av time: 28 min</td>
<td></td>
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</table>
Summary of findings

Google Docs Vs. face-to-face:

- **Process of text creation**: collaboration is rare in Google Docs. Writers more likely to cooperate.
- **Focus on language**: Infrequent and limited engagement in Google Docs (consistent with studies on Wikis)

**Possible reasons**:

- Logistically more complicated interactions
- Importance of ‘social presence’ (Zhao et al., 2013)
Pedagogical implications:
Implementing collaborative writing tasks
Implementation guidelines

• Prior preparation
• Student choice
• Group size, allocation
• Task
• Context, purpose
• Blended approach: Supplement Google Docs (or wikis) with face-to-face, email, skype

But: Not all writing should be collaborative
Examples

1. Implementing collaborative writing in an ESL class: face-to-face short tasks

2. Implementing collaborative writing in an MA class: Mini research project
ESL class: FTF collaborative writing

- **Context**: ESL class for undergraduate commerce students, 71 students enrolled, taught by 3 instructors
- **Short writing tasks completed during class**: 300 wds approx, each task worth 5%:
  - Task 1 (wk 5): Summary of texts
  - Task 2 (wk 7): Data commentary
- **Implementation**: Choice, pairs self-select, 30 minutes

*What students did (survey & observation):*
- majority (>70%) chose to work in pairs in both sessions
  - Some changes:
    - Partners (32%)
    - Individuals ↔ pairs (approx 10%)
Students engaging in collaborative writing
What the students said (survey)

Why chose pair work:
You can get different ideas from others which we can discuss together

when one is writing, another can point out the mistakes ... can help me
with new vocabulary and check my grammar

I can improve my ability of working together

I can improve my spoken English

Why chose to work individually:
Different people have different opinions. It takes a lot of time to discuss

I can concentrate on my thinking, write in my own language, and get
feedback target on my own work.
L2 writing subject (MA level)

- **Context**: elective subject (MA in Applied Linguistics), native and international students (majority), campus and on-line
- **Assignment**: Mini research project (data collection and analysis, report 3000 words, 60%)
- **Implementation**: Choice, pairs/small groups self-select, 4 weeks

**What students did:**
- majority (17/26 ie 63%) chose to work in pairs (4 pairs) or small groups (3 small groups)
- Pairs/small groups: NSs or mixed L1 NNSs
- Combination of modes, including Google Docs
It was nice to have someone to share my thoughts and discuss those aspects that I wasn’t sure of. It was good because we complemented each other, especially in analysing the texts ... but it was a bit harder because we worked at very different rates (Maria).

It was quite a fun process working with another person to produce a written text...but I felt a bit weird editing CK’s work, but he was happy for me to do so. I asked him to change stuff on my writing that he wanted to change as well. (Andrew)

It forced me to stay on schedule, since I had someone else depending on me. It was more enjoyable and less stressful, since we could laugh and joke while we were working on the text. In working through Google docs, we could see what the other person was writing in real time, and even chat back and forth through our comments on the text (Lucy).
Conclusion

• **Collaborative writing**: opportunities for learning to write + language learning but only if implemented face-to-face on short writing tasks.

• **Cooperative writing**: most likely in larger tasks. Can be facilitated by combination of technologies (e.g. Google Docs + Skype) to provide opportunities for learning to write & team work.

**Future research directions:**

– Longitudinal studies, in different L2 contexts
– Learner interaction on large assignments, mixed L2, CMC + other modes of communication
Save the next date!

Second Language Writing Symposium
co-hosted by New Zealand & Australia
November 2015