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Collaborative Writing in L1 School Contexts: A Scoping Review

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ABSTRACT

This article examines collaborative writing in schools by systematically reviewing peer-reviewed and empirical articles published in English in scientific journals between 1986 and 2020. Drawing on scoping review methodology and using the typology of collaborative writing, 107 studies on collaborative writing in first-language school contexts (primary to upper secondary) were analyzed. The research gaps are related to school contexts and theoretical underpinnings. Most studies are performed with a sociocognitive, sociocultural or constructivistic theoretical foundation. Therefore, we recommend future research to be conducted with more theoretical diversity and in higher school grades (e.g., upper secondary). Further, most studies analyze the drafting process, whereas the brainstorming and outlining activities are underresearched. Technological advances aside, few articles explicitly study collaborative writing related to technology. In addition to these research gaps, we recommend that longitudinal studies be conducted.

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Collaborative writing; cooperative writing; scoping review; writing research; writing strategies

1 Introduction

The importance of digital literacy and collaborative learning in society and education is internationally recognized. Education and schools, being inseparable elements of society, have inevitably followed the digitalization of the twenty-first century, making learning and writing in wiki- and cloud environments in formal education more frequent (Bennett et al., 2012; Hamid et al., 2015). In the OECD Learning Compass for 2030, collaborative learning and co-agency are key competencies (OECD, 2018), thus disclosing the importance of collaborative activities, such as collaborative writing, in society and schools.

Writing, often considered a solitary activity (Storch, 2013, 2019), has experienced significant changes during the past decades. This might be due to the evolution of Web 2.0, the emergence of collaborative writing platforms and thereby increased opportunities for interactivity and cooperativity in the writing process (Alghasab, 2017; Edwards-Groves, 2012; Godwin-Jones, 2003; Kessler et al., 2012; Li, 2018; Talib & Cheung, 2017). Since the research within collaborative writing (henceforth, CW) is steadily increasing, a comprehensive overview of the research field would be helpful for both researchers and practitioners.

The aim of this article is to provide a representative and synthesized overview over the field of CW research in an L1 (primary to upper secondary) educational context. L1 refers to the subject of language arts (e.g., English and literature, Swedish and literature) which is typically a region's

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language of instruction and often the students' first (but not necessarily only) language. To the best of our knowledge, previous literature reviews solely on CW in an L1 context have not been conducted. However, in a synthesis of CW in classroom instruction between the years 2006–2016 in first- and second-language (L2) contexts (Talib & Cheung, 2017), two aspects of relevance for this article emerged. The first is that previous studies have mainly been conducted within higher education. Thus, as researchers within a primary and upper secondary context, we found that the synthesis is insufficient in describing CW in classrooms with younger students. The second aspect is that previous studies in CW, to a great extent, have been conducted within a second-language (L2) context. Thus, an overview of CW in L1 in primary to upper secondary school contexts is still lacking. This article strives to address this research gap.

Empirical studies have analyzed CW related to peer response (Hoogeveen & van Gelderen, 2013; Pham & Usaha, 2016; Woo et al., 2013; Zhu & Mitchell, 2012), group dynamics (Li & Kim, 2016; Nordmark, 2017; Schultz, 1997; Zhang, 2019a, 2019b), academic writing in higher education (Cuevas et al., 2016; Deveci, 2018; Sundgren & Jaldemark, 2020; Zhou et al., 2012), collaborative revision (Lee et al., 2019; Razak & Saeed, 2014; Woo et al., 2013), and educational wiki studies (Alghasab, 2017; Chu et al., 2019; Doult & Walker, 2014; Fu et al, 2013; Li & Kim, 2016; Oskoz & Elola, 2011; Woo et al., 2013). Due to the well proven effect on language learning, CW has often been studied within L2 research (Kessler et al., 2012; Oskoz & Elola, 2011; Razak & Saeed, 2014; Storch 2002, 2005; Zhang, 2019a, 2019b). Since some literature reviews have been conducted within L2 (Storch, 2019; Li, 2018), we focus solely on the L1 context in this study.

Digitalization and collaborative work in educational practices are growing internationally, thus the research in this field is increasing. In 1987, Thomas Hilgers stated that there were "little data on joint authorship in school settings, particularly on children working together on the composition of a single product" (Hilgers, 1987). Today, more than 30 years later, the research on CW in school contexts is quite extensive. Therefore, in this study, we assemble, review, and synthesize 107 peer-reviewed scholarly articles on the topic of CW in primary, secondary, and upper secondary school between 1986 (being the year of the first published, peer-reviewed article within our scope) and 2020. The aim of our review is to provide a representative and synthesized overview of the field of CW research in an L1 primary to upper secondary educational context. We ask the following research questions:

RQ1: What are the key concepts within the current research field of L1 CW?

RQ2: What types of evidence are being used?

RQ3**:** What are the main gaps in research for future deployment?

In this article, we define CW using the definition provided by Lowry et al. (2004): "CW is an iterative and social process that involves a team focused on a common objective that negotiates, coordinates, and communicates during the creation of a common document" (p. 72). Furthermore, CW includes pre- and post-task activities, team formation, and planning and comprises the six different, nonlinear, stages presented in Figure 1.

During CW, contributors may share the workload and responsibility for the common document by utilizing different text production strategies. Sharples (1999) provides three strategy models illustrating how CW can be carried out in different ways (see Figure 2).

Parallel writing means that writers divide the work between them in parallel documents, which later merge into a common document. In *sequential writing*, a single document is passed on from writer to writer. This is a form of asynchronous CW in which changes are made in different stages. In *reciprocal writing*, all writers mutually and synchronously work together on the same document.

These definitions of CW will serve as a reference point for the inclusion of relevant studies in this review, as well as an analytical framework for the results.

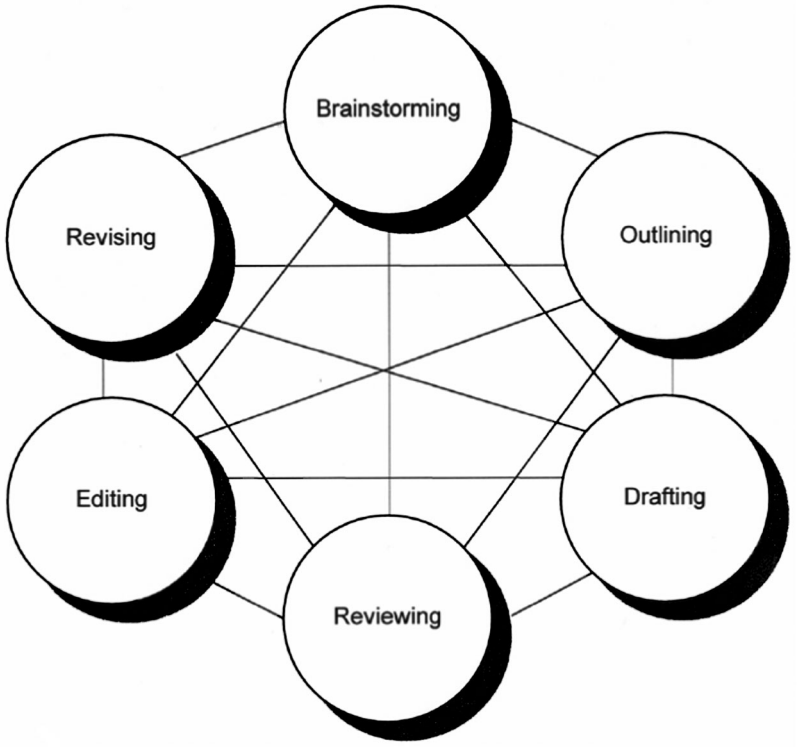

Figure 1. The iterative process of collaborative writing according to Lowry et al. (2004, p. 83). Source: Obtained from Copyright Clearance Center with authors' permission.

2 Materials and methods

2.1 Scoping review methodology

In this study, we have applied a scoping review methodology. We understand a scoping review to be "a form of knowledge synthesis that addresses an exploratory research question aimed at mapping key concepts, types of evidence, and gaps in research related to a defined area or field by systematically searching, selecting, and synthesizing existing knowledge" (Colquohoun et al., 2014, pp. 1292, 1294).

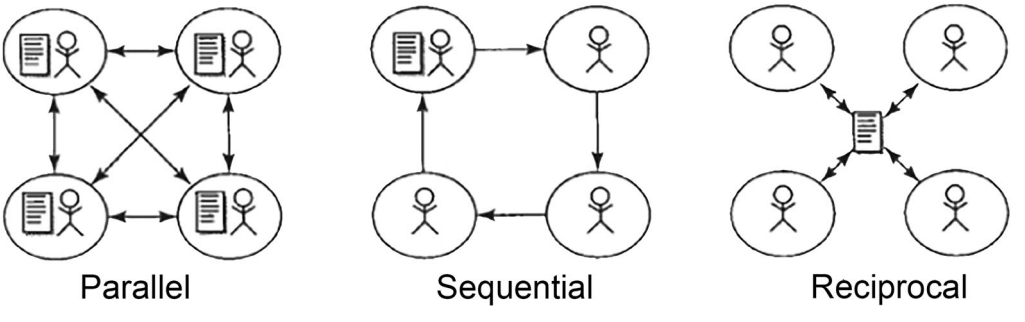

Figure 2. Collaborative writing strategies according to Sharples (1999, p. 171). Source: Obtained from Copyright Clearance Center with authors' permission.

The scoping review is a useful methodology when no previous reviews have been conducted, since it is a way of identifying research gaps, summarizing previous research, and making recommendations for future research (Peters et al., 2015). Although similar to the systematic literature review (Booth et al., 2016; Petticrew & Roberts, 2006), the scoping review adopts a broader scope in order to map existing literature on a topic and gain insight into the breadth of the field (Peters et al., 2015). Scoping reviews tend to be narrated using *charting data* (Ritchie & Spencer, 1994). Charting data includes summarized and visualized quantitative data and aggregated qualitative data from grand data sets to general categories, leaving most of the details from the findings outside of the actual reporting (Arksey & O'Malley, 2005).

Based on Colquohoun et al.'s (2014) definition, the research questions for this study aim to map key concepts, evidence, and gaps in the research field of CW in school contexts. In our review, we understand key concepts as *theoretical underpinnings*, as well as inductively observed *themes* within the studies. The evidence in these studies is provided by the *research methods* and the *data sources* being collected, analyzed, and discussed, as well as being the actual results of the studies. Gaps in the research field may be identified by comparing themes, results, study contributions, and other data from the articles.

In this study, the process of searching, selecting, and synthesizing data was conducted in accordance with the scoping review framework provided by Arksey and O'Malley (2005), as shown in Table 1.

2.2 Identifying relevant studies

A pilot search in the ERIC database was conducted in June 2020. The pilot study indicated that the following four terms were the most relevant: *collaborative writing*, *joint writing*, *co-writing* and *group writing*. These terms formed the basis for the search process, which was concluded in September 2020. We used Boolean phrases with search terms, including school levels (Table 2).

2.3 Study selection

During the study selection process, we removed all duplicates and initially read titles and abstracts. Articles matching the inclusion criteria were included in the final reading list of 120 articles. These articles were then read in full and matched anew against the inclusion/exclusion criteria presented in Table 3. A quotation check was also performed, which added a few more articles. Any articles causing uncertainty about whether they were to be included were read by both researchers as an internal validity check and discussed until agreement was reached. This process left us with a

Table 1. Scoping review framework stages.

Stage	Purpose of a scoping review	Reference in this article
1. Identifying the research question	To guide search activities, narrow the scope and provide direction to the scoping review.	1.1
2. Identifying relevant studies	To provide research evidence for the scoping review through searching for relevant studies in databases, reference lists, etc.	2.2
3. Study selection	To eliminate studies outside of the central research questions and include studies for review by use of inclusion and exclusion criteria.	2.3
4. Charting the data	To register and map data by sifting, charting, and sorting the materials in accordance with key concepts and evidence needed to address the research questions.	2.4–2.5
5. Collating, summarizing, and reporting the results	To present a prioritized and selected overview of the reviewed material, to shed light on the scoping review topic and research questions.	3.1–3.7 4.1–4.3 Timeline in Appendix (see supplementary material)

Table 2. Activities for identifying relevant studies.

Identifying activity		Found records
Database search	ERIC	1.268
	JSTOR	1.514
	EBSCO HOST	647
	Oria	768
	Finna	482
	Scopus	144
Target search in specific journals	*Journal of Adolescent & Adult Literacy*	44
	Journal of Early Childhood Literacy	25
	Learning, Culture and Social Interaction	24
	L1 Educational Studies in Language and Literature	8
	Journal of Writing Research	23
	Computers and Composition	167
	Computer Supported Cooperative Work	59
	International Journal of Computer-Supported Collaborative Learning	51
	Journal of Computer Assisted Learning	44
	Other sources	15
		$N = 5283$

final selection of 107 empirically-based, English peer-reviewed journal articles on CW in L1 school contexts to be included in this review.

2.4 Charting the data

As a result of the study selection process, 107 records were collected in an Excel document. For each record, 14 data fields were filled out. Most fields comprised data extracted from the journal articles. Some fields (e.g., themes, activities, and theoretical underpinning) were interpreted and then divided into categories inductively during the charting process (Table 4).

The charting data generated the figures and other statistical data for Section Three. The complete charting of all 107 studies is accessible in the timeline (Appendix 1, see supplementary material).

2.5 Field content criterion

The charted data was extracted or interpreted from the journal articles. Extracted data means data "pulled out" of the journal articles based on explicit stated content. One could argue that this method

Table 3. Inclusion and exclusion criteria.

Criteria	Included	Excluded
1. Presence of CW	CW activity is in the forefront and a central aspect of the article	CW is merely a peripheral activity in the article
2. Definition of CW	CW activity must fit within Lowry et al.'s (2004) definition of CW. However, this definition must not be used explicitly in the article	CW activity does not fit within Lowry et al.'s (2004) definition
3. Educational level	Preschool (if linked to primary school), primary school, secondary and upper secondary school	Kindergarten, preschool (not linked to primary school), vocational school, higher education
4. Subject	All school subjects within an L1 context. School projects not directly linked to a school subject but within a school context	L2 and/or foreign language-learning subjects
5. Peer-reviewed and published journal article	Published peer-reviewed journal articles	Conference papers, reports, book chapters, dissertations, unpublished and non-peer-reviewed articles
6. Empirical and methodologically transparent articles	Articles including empirical evidence and methodological clarity	Anecdotal or theoretical articles, articles where the methodology is not clearly stated
8. Language	Articles in English	Articles in other languages

Table 4. Charting data in the review.

Field	Contains	Data
General information	Authors, year, title of article, journal, issue, year, pages and DOI reference	Extracted from search database
Location	Country	Extracted from article or interpreted based on authors' country of residence or university affiliation
Educational stage(s)	Primary school (ages 5–11), secondary school (ages 11–16), upper secondary school (ages 16–19) or multiple levels	Extracted from article and adjusted to the levels used in this review
Grade(s)	1–13 or multiple	Extracted from journal article
Subject	L1, literature class, mathematics, media, music, philosophy, science, social studies, multiple or unknown	Extracted from journal article
Research design	Qualitative, quantitative or mixed methods	Extracted from journal article
Data sources	Audio-records, chats, document revisions, field notes, interviews, classroom observations, other documents, screen recordings, student texts, surveys, tests and video observations	Extracted from journal article
Student text assignment	Argumentative text, essay, factional text, fictional text, multimodal creation, test, multiple assignments, wiki-pages, and other	Extracted from journal article
Theoretical underpinning	Cognitive theory, cooperative/collaborative learning theories, cultural-historical activity theory, dialogism, gender theory, intersubjectivity theory, mediated discourse theory, new literacy studies, positional theory, posthumanism, rhythm theory, self-determination theory, self-efficacy theory, social constructivism, social interaction theory, social semiotics, social-contextual gender theory, sociocognitive theory, sociocultural theory, systemic functional linguistics or unknown	For most records, theoretical underpinnings have been extracted from journal articles. For some records, we combined sub-theories with mother theories to simplify and synthetize the results
Themes	CW effectiveness, gender, learning study, LGBTQ, metatalk, student interactions, student conversations, platforms, proposals, teaching methods, technology study and text revision	Interpreted based on focal points of interest within journal article
Influence rate	Low (less than 50 citations), medium (50–100 citations), high (101–199 citations), very high (above 200 citations)	Calculated based on Google Scholar citation data 29 January 2021
CW strategies observed	Parallel writing, sequential writing, or reciprocal writing (Sharples, 1999)	Interpreted based on collaboration as described in journal article
CW activities observed	Brainstorming, outlining, drafting, reviewing, editing, and revision (Lowry et al., 2004)	Interpreted based on activities as described in journal article
Study contribution	Free-text field up to 250 characters	Interpreted based on holistic view of content in journal article

of data "extraction" and fitting of information into predefined categories is in fact an interpretation itself. The notion of *objectively extracted* as opposed to *subjectively interpreted* content within this review should perhaps be understood as a continuum of interpretation in the mapping process. Low levels of interpretation contain information on *authors*, *journals*, *locations*, *school levels and grades*, *student text assignments*, and *research methods*. This information was deducted from the search data and initial reading of the articles. In some cases, *data sources*, *methods*, and *CW activities* were not clearly stated and had to be interpreted. The *theoretical underpinnings* include both "mother theories" such as socioculturalism and "daughter theories" such as dialogism. For most records, we kept the label of the theory explicitly mentioned in the journal article—being a superior or a subordinate theory. In some cases, in a more interpretive manner, we merged similar theories to limit the number of categories for charting purposes. Hence, there is some overlapping within this category.

The categories we used for mapping *themes* were invented inductively while reading, and many of the categorizations were also subject to internal discussion, reformulation, and re-reading of articles prior to settlement. Some of the themes, such as *metatalk* or *platforms*, are easily observed as verbal

themes in the literature, results, and discussion elements of the articles. Other themes, such as *CW effectiveness*, are methodological orientations within the studies that appear to be the main interest of the articles. Some of these categories might slightly overlap as well. *Student interactions* represents a general theme where all forms of interactions between students are observed or discussed, while *student conversations* specifically addresses oral interactions or dialogue in writing.

Note that some of the charted data resulted in one field (e.g., school level, subject), while other aspects in some cases resulted in several fields (e.g., theoretical underpinnings, data sources, themes).

3 Results

3.1 Timeline and locations

The earliest study included in our review is from 1986. Since then, 106 studies on CW in first-language school contexts have been published. The number of studies within the 34-year timeline suggests an average of three studies per year. However, during the first years of the timeline, there was seldom more than one study published per year. Since 2014, the number of studies per year has steadily increased.

As Table 5 and Figure 3 indicate, most studies are conducted in English-speaking countries and Western Europe plus East Asia. Hence, there are three geographical clusters for CW research within our review. Since only English articles are included in the scope, the location results in this review are partially inclined to a geographical selection bias.

3.2 School level and text genres

Most of the studies in our scope were conducted in primary schools (63 percent). Secondary school research represents 23 percent and upper secondary school represents 9 percent of the studies. Only five studies in our selection (5 percent) were based on data from multiple school levels (Figure 4).

Fictional texts were the most observed text genre within the scope. This is a typical text genre for language arts classes, especially within a primary and secondary school context. In higher grades, factional texts were the most common text assignment. In general, there were a high multitude of student text genres observed, including 28 studies where the students wrote unspecified factional texts and more than 20 studies with multiple text genres. Students writing unspecified text genres on wiki platforms were observed in only six of our studies; however, the use of wiki platforms for other text assignments was more common (Figure 5).

3.3 Theoretical underpinnings

Most of the studies within our selection have a "social" take on the theoretical propositions for exploration and analysis. This may be due to the collaborative aspect of the study object under consideration. As stated earlier, in many cases several theoretical underpinnings, data sources, and themes can be found in a single article (Figure 6).

Table 5. Timeline for studies in the review.

Year	Study locations	Sum
–1989	United States (3)	3
1990–1994	England (2), United States (5)	7
1995–1999	England (1), Italy (1), Scotland (1), United States (9)	12
2000–2004	Canada (1), England (1), Scotland (3), United States (8)	13
2005–2009	Australia (1), England (2), Mexico (1), Netherlands (2), Taiwan (1), United States (1)	8
2010–2014	Canada (1), China (2), England (3), Finland (3), Hong Kong (1), Spain (3), Sweden (1), United States (4)	18
2015–2019	Belgium (2), Brazil (1), Canada (2), China (3), England (1), Finland (2), Greece (1), Hong Kong (2), Italy (1), Netherlands (3), Norway (3), Portugal (1), Spain (2), Sweden (2), Switzerland (3), United States (12)	40
2020–	Belgium (1), Brazil (1), Greece (1), Mexico (1), Netherlands (2)	6
		$N = 107$

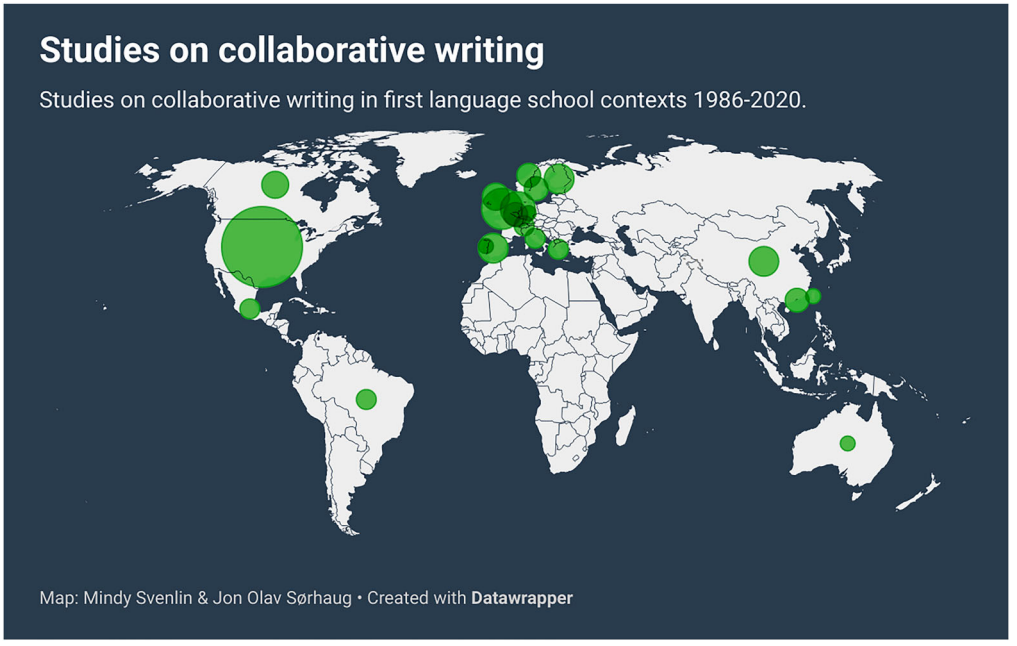

Figure 3. Data visualization of geographical clusters.

Until 2000, almost all studies in our selection were based on a sociocognitive or sociocultural perspective. Between 2000 and 2010, most studies were based on a sociocultural view, but there were also a few studies with a clearly defined cognitive perspective (Hallenbeck, 2002; Hidi, 2002; Humphris, 2010). After 2010, more studies were conducted and therefore there is a higher diversity in theories. Most of the studies with Bakhtin-inspired dialogical perspectives were published after 2015. All eight studies with a new literacy studies (NLS) approach in our selection were published between 2014 and 2019. This indicates a current trend towards these two theoretical underpinnings. To some extent, there seem to be correlations between themes and theories. Most of the studies on student interactions and student conversations follow a sociocultural approach. Almost all of the NLS studies within our review focus on technological- or platform-related topics.

3.4 Themes, topics, and trends

The studies conducted within our selection represent a multitude of themes and topics. However, some themes seem to have a higher representation than others (Figure 7).

Table 6. Most-cited articles.

Author	Title	Year	Citations*
Yarrow, F. & Topping, K. J.	'Collaborative Writing: The Effects of Metacognitive Prompting and Structured Peer Interaction'	2001	338
Daiute, C. & Dalton, B.	'Collaboration between Children Learning to Write: Can Novices Be Masters?'	1993	272
Erkens, G., Jasper, J., Prangsma, M., Kanselaar, G., &	'Coordination Processes in Computer Supported Collaborative Writing'	2005	232
Floriana, A.	'Negotiating what counts: Roles and Relationships, Texts and Contexts, Content and Meaning'	1994	208
Hidi, S., Berndorff, D., & Ainley, M.	'Children's Argument Writing, Interest and Self-Efficacy: An Intervention Study'	2002	202

*According to data on 29 January 2021.

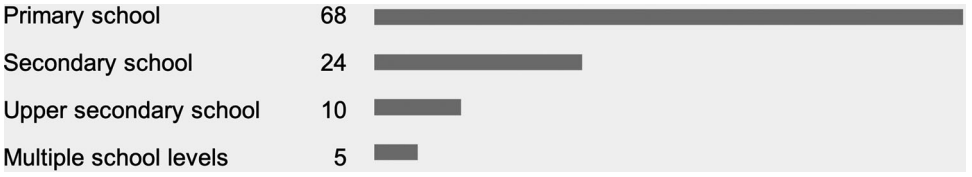

Figure 4. School level.

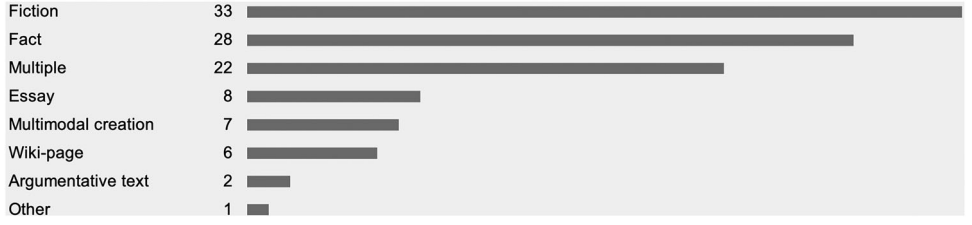

Figure 5. Student text assignment.

Almost half of the studies in our review relate directly to *student interactions*. How student interactions affect writing activities is a focal point for most of the earliest and influential journal articles in our selection (Daiute 1986, 1989, 1990; Daiute & Dalton, 1993; Dale, 1994; Floriana, 1994; Hilgers, 1987). The theoretical lens for these studies is often sociocultural. Studies within this category explore metatalk during writing (Keys, 1996; Keys & Stewart, 1995), negotiations between students (Doult & Walker, 2014; Smagorinsky & O'Donnell-Allen, 1998), group dynamics, friendship, cognitive conflicts (Christianakis, 2010; Dale, 1994; Hilgers, 1987; Thompson & Wittek, 2016; Vass, 2002, 2007), and technology-mediated interactions between students (Engen et al., 2018; Kumplainen et al., 2014; Nicholson et al., 1998; Smith, 2019). These studies are often concerned with student–student interactions, and only a few explore the interactions between students and their teacher.

The second most represented theme is *student conversations*. This theme focuses on oral communication between students. The dialogue during CW is the common object of analysis in these studies. This is often studied from a sociocultural perspective (Jones, 2002; Norenes & Ludvigsen, 2016; Thompson, 2012) or a Bakhtin-inspired dialogical framework (Jaeger, 2019; Pifarré & Li, 2012; Rojas-Drummond et al., 2020). Many early studies on student conversation find difficulties related to communication and suggest that students need to learn discursive and collaborative skills

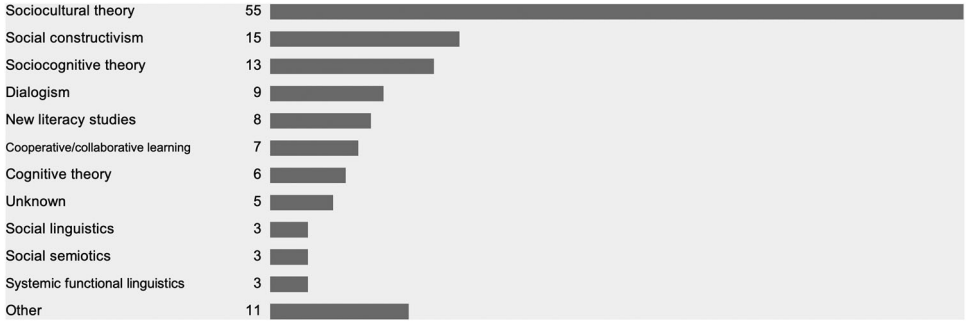

Figure 6. Theoretical underpinnings.

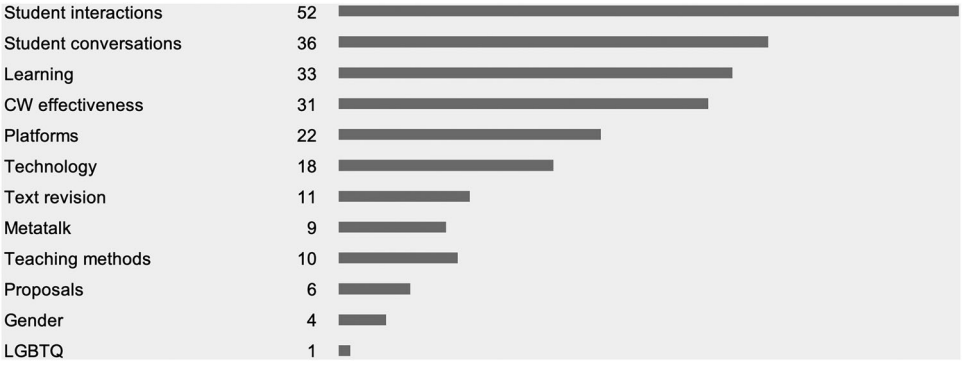

Figure 7. Themes and topics.

first, to take full advantage of the benefits related to CW (Fisher, 1994; Floriana, 1994; Hilgers, 1987; Jones, 2002). Later studies often tend to focus on composition talk (Jaeger 2019; Smith, 2019; Thompson & Wittek, 2016) or the role of technology in student conversations (Norenes & Ludvigsen, 2016; Pifarré & Kleine Starmann, 2016; Pifarré & Li, 2012).

Learning is a focus area for at least 33 of the articles. Many of these studies have a focus on learning through *metatalk* (Lehraus & Marcoux, 2018; Peterson & Portier, 2014) or *metacognitive strategies* (Daiute, 1990; Herder et al., 2018; Humphris, 2010). These focus areas underline the importance of CW dialogue as learning support. Other studies on learning visualize how knowledge is created and displayed through CW activities (Herder et al., 2020a, 2020b) or how CW *platforms* may be utilized for learning purposes (Ahlholm et al., 2017; Li, 2017; Li & Chu, 2018; Rubino et al., 2018; Sormunen et al., 2013; Wiig et al., 2019). The use of platforms such as Wikipedia or Google Docs is often subject to *CW effectiveness* (Krishnan et al., 2019; Li, 2017; Li & Chu, 2018; Woodrick & Fan, 2017; Zheng et al., 2015; Zioga & Bikos, 2020). Other studies measure the effect of instructional *teaching methods* (Bomer & Laman, 2004; Boyle & Charles, 2011; de Smedt & van Keer, 2018; Sutherland & Topping, 1999; Topping et al., 2000). Most studies on CW effectiveness were conducted within the last few years, indicating a trend within the research field. Also, there seems to be a shift towards quantitative methods. Most of these studies are performed using quantitative or mixed methods, often utilizing pre- and post-tests (Hermansson et al., 2019, Li et al., 2014; Nixon & Topping 2001; Roth & Guinee, 2011; Yarrow & Topping, 2001) and surveys (Woodrich & Fan, 2017). In fact, 17 of a total 22 quantitative studies in our selection were on CW effectiveness. These studies also counted for one-third (7 out of 21) of the mixed-method studies in our review.

Technology has also been an integral part of many CW studies. During the 1990s, computers were still a scarcely distributed and unproven resource in most schools for writing purposes, and studies investigated the influence this new technology would have on *gender* differences (Allen & Thompson, 1995; Nicholson et al., 1998), cooperation issues (Conway, 1995), and oral communication (Kumpulainen, 1994, 1996). Since the 2000s, digital communication (Du et al., 2016; Erkens et al., 2005; Nordmark, 2017; Soobin et al., 2014) and Wikipedia-related topics (Fu et al., 2013; Li et al., 2012; Pifarré & Li, 2018) have dominated the technology-oriented studies on CW. In most of these studies, technology is envisioned as an improved tool for student collaboration and interaction. A few studies explore the impact of software (Skantz Åberg et al., 2014), hardware interactions (Engen et al., 2018; Wargo, 2018), or affordances with digital multimodal composition (Doult & Walker 2014; Rojas-Drummond et al., 2008; Smith, 2017, 2019).

Peer-assisted *text revision* is a key concept within CW. Some of the earliest contributions explore the effect of peer support on text revision (Daiute, 1986; Daiute & Dalton, 1993). Other studies compare solitary versus collaborative revision (Montaro & Madeira, 2019; Portier & Peterson, 2016; Zammuner, 1995). Providing user revision logs, Wikipedia text revisions in school contexts have

been a trending area of interest over the last 10 years (Chu et al., 2017; Du et al., 2016; Pifarré & Fisher, 2011).

3.5 Methods and data sources

Most of the CW studies utilize a qualitative research design (59 percent). Quantitative methods and mixed methods account for 21 and 20 percent of the studies in our scope, respectively. Most of the qualitative studies have a sociocultural or sociocognitive theoretical perspective, and often use observation, video, or audio records as data sources for analysis and discussion. This combination of research design, theory foundation, and use of data sources appears to be the typical set-up for a CW study in L1 school contexts. We have observed this set-up in 62 studies. Some of these studies also utilize student texts and document revisions as data sources, but they are always combined with audio-visual data. This pattern suggests that CW research in L1 school contexts has a strong preference for socially-oriented research designs with predominantly observational or audio-visual data; which further indicates that other relevant perspectives may be under-represented in the research area.

Quantitative methods represent an increasing approach to the field of CW research in recent years; 10 of 22 quantitative studies have been performed since 2017. In contrast to the qualitative studies mentioned above, most of these studies use student texts as data sources, typically examining the effect of CW by comparing student texts before and after a collaborative intervention (Hidi et al., 2002; Krishnan, 2018; Strough & Diriwachter, 2000; Zheng et al., 2015) or utilizing pre- and post-tests (Allen & Thompson, 1995; de Smedt & van Keer, 2018; de Smedt et al., 2019).

Most of the mixed-method studies were conducted in recent years. These studies often utilize a combination of quantitative research on student texts and document revision data with qualitative observation (Boyle, 2011; Daiute, 1986; Li et al., 2012, 2014, 2018; Portier & Peterson, 2016). Approximately 50 percent of the mixed-method studies also use surveys for analysis and discussion (Figure 8).

Overall, the CW studies utilize a wide range of data sources. Student texts account for the highest numbers. The high number of observational data sources in the studies is expected in school-oriented research. Video observations are utilized as data sources just as often as the unspecified-category classroom observations. While audio records were most used circa 2000, video observations seem to be a trending data source from 2015. As the total number of data sources indicates, most studies within our selection combine multiple data sources for analysis and discussion. In fact, only 15 studies utilize fewer than two data sources.

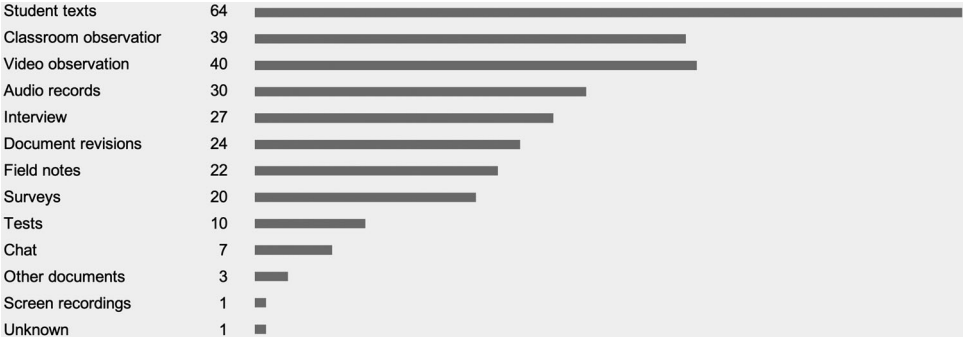

Figure 8. Data sources.

3.6 Activities and strategies for collaborative writing

We mapped the CW strategies that could be extracted from the studies using the typology defined by Sharples (1999) (Figure 9).

In most of the CW studies, the reciprocal writing strategy was observed. A typical CW study observes how students talk in groups and simultaneously write in a common document (Calil & Myhill, 2020; Daiute, 1989; Keys, 1996; Kumpulainen, 1994, 1996; Peterson & Rajendram, 2019). In about 25 percent of the studies, sequential writing strategies were observed. Many of these studies were wiki-related articles written after 2010 (Ahlholm et al., 2017; Du et al., 2016; Pifarré & Li, 2012, 2018). The parallel writing strategy was less commonly observed and found only in six studies, all published after 2011.

We also mapped the collaborative activities observed using categories defined by Lowry et al. (2014). Only explicitly stated data in the articles was registered, making the categorization somewhat challenging. Drafting, being the main process for text production, was observed in most articles. Many articles stated that the students were reviewing and revising texts together. The earliest stages of the CW process (brainstorming and outlining) were less often observed or commented on in the studies (Figure 10).

3.7 Influence rate

Based upon citation data from Google Scholar, we calculated the influence rate of the articles in our review: 71 articles were rated *low*, counting less than 50 citations; 20 articles were rated *medium*, counting between 50 and 100 citations; 12 articles were rated *high*, counting between 101 and 200 citations; and 5 articles were rated *very high*, counting more than 200 citations.

These five articles represent high diversity regarding research design (quantitative, qualitative, and mixed methods are all used), theories (cognitive, sociocultural and linguistics), and themes (the topics range from teaching methods to student conversations/interactions and technology studies). They are all published in the 1990s and early 2000s (a longer timespan always increases the chance of citations). Most of the authors are also highly regarded, with several publications in the research field. Also, these articles are interdisciplinary and may be of interest to researchers within education, psychology, communication, linguistics, computer science, and several other research fields. Further, the topics are general and can be helpful to practitioners and researchers working in educational stages from kindergarten to higher education. Additionally, they provide interesting and well-written perspectives on CW in the school context.

4 Discussion and recommendations

4.1 School contexts

Based on locations and countries of origin, we found the field of CW research to be on the move. During the last 20 years, study locations are gradually moving eastwards, from the US and other English-speaking contexts to diverse locations in Europe and East Asia. Due to the selection criterion, the number of L1 studies conducted without being reported in English academic journals

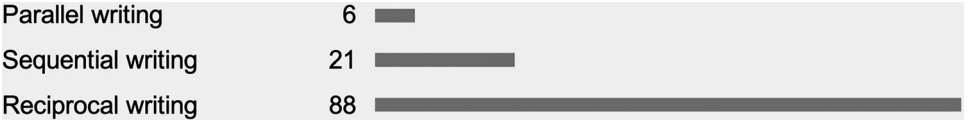

Figure 9. Collaborative strategies observed.

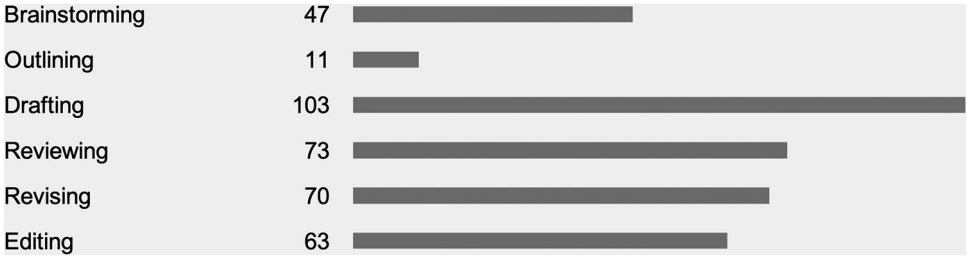

Figure 10. Collaborative activities observed.

is unknown. Reviewing refereed journal articles in other languages is a recommendation for future research.

Regarding the location of students in the school system, there is a clear bias in favor of studies in primary school contexts. Only 10 studies focus on the upper secondary level. This is an interesting under-representation, given that there are many studies on CW in higher education (Talib & Cheung, 2017). Further, the CW of fictional texts in higher grades is under-represented in our review, suggesting the need for more research in this school level in combination with this type of text.

4.2 Gaps in research perspectives

Due to the collaborative and student-oriented aspect of CW, the high degree of "social" theories and perspectives was expected, as well as the clear dominance of qualitative research designs. The charting data support these assumptions; in fact, there was less diversity in research perspectives than we expected. *Grounded theory*, being a highly influential approach within qualitative research, was observed only in three studies (Peterson & Rajendram, 2019; Pifarré & Li, 2018; Smith, 2017). There was only one study with a *sociomaterial* approach in our selection (Wargo, 2018) and in fact no studies utilized theories such as *narrative inquiry*, *phenomenology*, or *actor–network theory*. These findings indicate that greater diversity among theoretical underpinnings would be welcome in future research.

Quantitative and mixed-method studies seem to be increasingly popular approaches to CW studies. This could indicate that new perspectives and paradigmatical takes are being applied to CW studies. While qualitative studies often use observational data, the quantitative and mixed-method studies are more oriented toward student texts for analysis. Nevertheless, the dominating theoretical approaches in both qualitative and quantitative studies are social constructivism or sociocultural theory. This reflects the researchers' areas of interest, and it may also affect the focal object of study regarding the strategies and activities observed.

We have identified that most researchers observe *reciprocal* writing strategies between students in school. *Parallel* writing and *sequential* writing are less often observed, which may indicate potential for future exploration. Sequential writing is the writing strategy used by Wikipedia but is seldom observed and analyzed in the articles. Intervention studies into this kind of collaboration in school contexts would be of high educational value, linking in-school and out-of-school text practices.

Regarding CW *activities*, most studies report and discuss findings related to the drafting and reviewing processes. Less than half of the studies in our review include *brainstorming* activities, and only in 11 studies is *outlining* of student texts part of the observation or analysis. This is a particularly interesting research gap, as team formation, planning, and outlining activities are often emphasized in CW theory: "any optimally performed group task should include pretask activities" (Lowry et al., 2004, p. 72). The use of digital tools and platforms may move the writing processes in

non-linear and synchronous directions, but this is only sensed and not fully explained in the current materials and should be further explored.

4.3 Theme gaps

Student interactions, metatalk, and other "conversational" takes on CW seem to be well explored in the current research field. CW effectiveness is also well documented. This is, however, an area of CW research that is vulnerable to research bias, clearly addressed by Hermansson et al. (2019). Most of these studies conduct pre- and post-evaluations within a short time span. Apart from Vass et al. (2008) and Zheng et al. (2015), no longitudinal studies examine the long-term effects of CW. This is an obvious gap within the research field.

Given the importance of technology in writing and digital CW, one would expect to find more than 11 studies with an explicit focus on technology. This result might contrast with the broad focus on technology-supported CW in the review undertaken by Talib and Cheung (2017). One explanation is that our mapping may have been more "conservative" regarding main themes. Only studies where technology is the *center of attention* have been mapped as technology studies. This omits platform studies and studies where computers are used in general from this category. Technology is the center of attention in only one of the five most-cited articles in the review (Erkens et al., 2005), and only six studies in total explore the CW aspects of digitally-created multimodal texts (Jocius, 2017; Rish, 2015; Rojas-Drummond et al., 2008; Smith, 2017, 2019; Wargo, 2018). Hence, the ways in which technology affects writing strategies and collaboration remains a relatively underresearched topic and should be further investigated.

4.4 Limitations

Some limitations are to be considered regarding this study. Although we systematically and carefully reviewed several databases, we acknowledge that some studies of interest to this review article may have been overlooked. One inclusion criterion in our scope was that CW must be a primary focus of the studies. This means, however, that some studies in which CW is present but not the focal point have been excluded; as a result, there is a risk that some enlightening material has been missed.

We chose to exclude book chapters, conference reports, ongoing research projects, doctoral dissertations, and "gray literature" such as unpublished papers (Booth et al., 2016). Gray literature is often included to broaden scope and reduce publication bias (Rothstein & Hopwell, 2009). With this article being a scoping review, one can argue that it would be motivated to include gray literature. However, we chose to establish distinct boundaries in our search to locate a comprehensive yet manageable number of articles. Therefore, we excluded gray literature. On the one hand, this may be considered a disadvantage because it excludes unpublished and ongoing research in the field. On the other hand, solely including peer-reviewed and published articles guarantees a certain quality, comparability, and standard in the studies included. Any articles creating a sense of uncertainty were read and discussed by both researchers; however, double-screening was not possible, which is a limitation we acknowledge.

Further, the synthesizing methodology of this scoping review may leave some of the contextual richness, diversity, and variation between the studies in the shadows. This is a limitation that may be addressed in future CW L1 reviews with less data and a greater focus on variety.

5 Summary

In this scoping review we isolated and highlighted 107 empirically-based, English peer-reviewed journal articles that we found to be relevant to CW L1 contexts in primary, secondary, and upper secondary schools. Based on the scoping review methodology as defined by Colquohoun

et al. (2014), our research questions led us to search for *key concepts* and *use of evidence* within these studies. To answer these research questions, we charted data on study locations, school levels, student text assignments, theoretical underpinnings, themes, methods, activities, writing strategies, and influence rates. Based on the charting data we discussed some recommendations for future research. Future studies should investigate L1 CW published in languages other than English to expand the notion of geographical cluster. Since most studies are based on a qualitative research design using constructivism or sociocultural theory, we recommend that future studies be oriented to a wider range of methods and theories. Future studies should provide information on the early stages of CW activities, such as group brainstorming and outlining. We also recommend longitudinal studies as well as further research on how digital technology affects CW activities in school contexts.

This review shows that CW is used in classrooms. However, students are often given a CW task without further instruction on how to best complete the collaborative activity. Therefore, we recommend that teachers instruct and discuss meta-aspects of CW with students. These meta-aspects include different stages in the CW process (see Figure 1), different strategies for conducting CW (Figure 2), communication skills, feedback instruction, and collaborative revision. Our review indicates that the initial phases of a CW process are often not observed. Previous research stresses the importance of brainstorming and outlining, and therefore we encourage teachers to not rush through these important steps when giving instructions for a CW task.

In conclusion, this article has synthesized 35 years of research and provided an overview of CW research. Our synthesis shows that the research field is growing, indicating that CW as an activity is increasing in general. This article provides valuable insight into this way of conducting writing and contributes an understanding of the nature of CW, especially that CW can be conducted in a myriad of ways. Our hope is that practitioners and researchers find this article helpful when orientating themselves in this field of research. Yet, with constantly developing technologies and platforms, CW is experiencing rapid change. Therefore, we acknowledge that this review is less a finishing line and more a starting point for new, innovative ways to conduct and research collaborative writing.

Disclosure statement

No potential conflict of interest was reported by the author.

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*For references within this article to studies in the scoping review, see appendix 2 (see supplementary material)

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Appendix 1: Timeline records

<table>
<tr><td colspan="3">Daiute, C. (1986)
Do 1 and 1 make 2? Patterns of Influence by Collaborative Authors
Written Communication, 3(3), 382–408.
DOI: https://doi.org/10.1016/0898-5898(93)90002-R - Influence rate: High</td></tr>
<tr><td>Location: United States</td><td>Educational stage(s): Primary School</td><td>Grade(s): 4</td></tr>
<tr><td>Subject: Unknown</td><td colspan="2">Student text assignment: Fiction</td></tr>
<tr><td colspan="3">Theme(s): Student conversations - Proposals - Text revision</td></tr>
<tr><td colspan="3">Main theoretical underpinning(s): Sociocultural theory - Cognitive theory</td></tr>
<tr><td colspan="3">Research design: Mixed method
Data sources: Student texts - Audio records - Interview</td></tr>
<tr><td>CW strategy:
Reciprocal writing</td><td colspan="2">CW activities observed:
Brainstorming - Drafting - Reviewing - Editing - Revising</td></tr>
<tr><td colspan="3">Study contribution: Collaborative writing dialogues between US elementary 6th graders are subject to critical discourse analysis in this seminal qualitative classroom study. The study reveals how the student's relationships and local social histories shape negotiations and verbal interactions in writing the shared text. The study points to the relevance of the social context for knowledge production in writing.</td></tr>
</table>

<table>
<tr><td colspan="3">Hilgers, T. L. (1987)
Young Writers Facing a New Collaborative Writing Task
Journal of Research in Childhood Education, 2(2), 108–116.
DOI: https://doi.org/10.1080/02568548709594927 - Influence rate: Low</td></tr>
<tr><td>Location: United States</td><td>Educational stage(s): Primary School</td><td>Grade(s): 4-5</td></tr>
<tr><td>Subject: Unknown</td><td colspan="2">Student text assignment: Fiction</td></tr>
<tr><td colspan="3">Theme(s): Student interactions - Student conversations</td></tr>
<tr><td colspan="3">Main theoretical underpinning(s): Sociocognitive theory - Social linguistics</td></tr>
<tr><td colspan="3">Research design: Qualitative Method
Data sources: Classroom observation - Field notes - Student texts</td></tr>
<tr><td>CW strategy:
Reciprocal writing</td><td colspan="2">CW activities observed:
Brainstorming - Drafting</td></tr>
<tr><td colspan="3">Study contribution: In this qualitative study, 4-5 graders in a Hawaiian classroom are observed when writing together in small groups. Issues related to group dynamics, distributed leadership and genre development are discussed. The study indicates that collaborative writing skills are highly related to cooperative groups skills, which has to be taught in school in order to be used as an effective writing approach.</td></tr>
</table>

Daiute, C. (1989)
Play as Thought: Thinking Strategies of Young Writers
Harvard Educational Review, 59, 1–23.
DOI: https://doi.org/10.17763/haer.59.1.t232r3845h4505q5 - Influence rate: **High**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **3-5**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Proposals - Student conversations**		
Main theoretical underpinning(s)**: Sociocognitive theory**		
Research design: **Qualitative Method** Data sources: **Audio records - Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Revising**	

Study contribution: In this study, 3-5-graders' collaborative writing sessions serve as an entry point for exploring children's talk as play. The way children play facilitate for cognitive development, language acquisition and social integration.

Daiute, C. (1990)
The Role of Play in Writing Development
Research in the Teaching of English, 24(1), 4–47.
Influence rate: **Medium**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **Multiple**
Subject: **Multiple**	Student text assignment: **Fiction**	
Theme(s): **Student interactions - Learning**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Quantitative Method** Data sources: **Audio records - Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Editing - Revising**	

Study contribution: This article analyzes 4th and 5th graders collaborative writing sessions in order to study the role of play during composing. The study stresses the importance of play in children's writing development, suggesting that play should be as important as other metacognitive activities. Furthermore, gender differences in preferences for composing strategy should be considered when engaging in collaborative writing activities in the classroom.

Daiute, C. & Dalton, B. (1993)
Collaboration Between Children Learning to Write: Can Novices Be Masters?
Cognition and Instruction, 10(4), 281–333.
DOI: https://doi.org/10.1207/s1532690xci1004_1 - Influence rate: **Very high**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **3**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Student interactions - Proposals - Text revision**		
Main theoretical underpinning(s)**: Sociocultural theory - Systemic functional linguistics**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Student texts - Audio records - Field notes**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: In this qualitative study, collaborative writing in a third-grade classroom forms text development through productive and supportive writing dialogues between the children. The study reveals how writers develop their competency through peer support and processual writing approaches.

Dale, H. (1994)
Collaborative Writing Interactions in One Ninth-Grade Classroom
Journal of Educational Research, 87(6), 334–344.
DOI: https://doi.org/10.1080/00220671.1994.9941264 - Influence rate: **High**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s): **9**
Subject: **L1**	Student text assignment: **Essay**	
Theme(s): **Student interactions - Student conversations - Learning**		
Main theoretical underpinning(s)**: Social constructivism - Dialogism**		
Research design: **Mixed method** Data sources: **Audio records - Survey - Interview - Field notes**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Revising**	

Study contribution: This seminal article aims at developing insight into successful collaborative writing interactions. Analyzing the interactions in three different ninth-grade dyads (model group, typical group, problem group), the results show that the model group differed from the other two groups in three central ways: the amount and kinds of engagement during the writing process, the level of cognitive conflict, and the kinds of social interactions. The article suggests, that dialogic interaction is at the core of successful writing interactions.

Fisher, E. (1994)
Joint Composition at the Computer: Learning to Talk About Writing
Computers and Composition, 11(3), 251–262.
DOI: https://doi.org/10.1016/8755-4615(94)90017-5 - Influence rate: **Low**

Location: **England**	Educational stage(s): **Multiple levels**	Grade(s): **Multiple**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Learning - Student conversations**		
Main theoretical underpinning(s)**: Sociocognitive theory**		
Research design: **Qualitative Method** Data sources: **Video observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Editing**	

Study contribution: This study, situated in the United Kingdom, analyzes the possible benefits of joint composition and its' implications for the teaching of writing. Analyzing video recorded collaborative writing interactions from three different schools and grades, the study shows that for joint composition to be beneficial, the students first need to learn discursive skills. In addition, the researcher suggests that teacher must specify the purpose of the (collaborative) writing task, and create tasks which are meaningful to work on collaboratively.

Floriana, A. (1994)
Negotiating what Counts: Roles and Relationships, Texts and Contexts, Content and Meaning
Linguistics and Education, 5(3), 241–274.
DOI: https://doi.org/10.1016/0898-5898(93)90002-R - Influence rate: **Very high**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **6**
Subject: **Science**	Student text assignment: **Fact**	
Theme(s): **Student conversations - Student interactions**		
Main theoretical underpinning(s)**: Social linguistics - Social constructivism**		
Research design: **Qualitative Method** Data sources: **Video observation - Classroom observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Editing - Revising**	

Study contribution: A pair of first and second-graders are the main subjects in this case study of paired writers talk in a US elementary classroom. The researchers observe and analyze how the children take on different positions, such as competent or thorough writers. The study points to the relevance of small talk and social behavior as important indicators of classroom culture and self-efficacy.

Keys, C. W. (1994)
The Development of Scientific Reasoning Skills in Conjunction with Collaborative Writing Assignments: An Interpretive Study of Six Ninth-Grade Students
Journal of Research in Science Teaching, 31(9), 1003–1022.
DOI: https://doi.org./10.1002/tea.3660310912 - Influence rate: **High**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s): **9**
Subject: **Science**	Student text assignment: **Fact**	
Theme(s): **Learning - CW effectiveness**		
Main theoretical underpinning(s)**: Social constructivism**		
Research design: **Qualitative Method** Data sources: **Student texts - Video observation - Audio records - Field notes**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting**	

Study contribution: In this study, ninth grade students' collaboratively written lab reports are analyzed in search of the use of scientific reasoning skills. In addition, the texts are studied for evidence of qualitative improvement in these reasoning skill use over time. The students collaboratively wrote lab reports every 2 weeks for a period of 4.5 months. Analyses of the produced texts and videotaped writing sessions show, that students used reasoning skills to assess their current models of scientific understanding, make observations, interpret the meaning of results, and generate new models based on their data and relevant information.

Kumpulainen, K. (1994)
Collaborative Writing with Computers and Children's Talk: A Cross-Cultural Study
Computers and Composition, 11(3), 263–273.
DOI: https://doi.org./10.1016/8755-4615(94)90018-3 - Influence rate: **Low**

Location: **England**	Educational stage(s): **Secondary School**	Grade(s): **7**
Subject: **L1**	Student text assignment: **Multiple**	
Theme(s): **Technology - Student conversations**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Audio records - Classroom observation - Interview**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Revising**	

Study contribution: This article discusses the relevance of computers and oral communication in collaborative writing pairs aged 11-12 years, from two different countries (UK and Finland). The study indicates that there are many similarities in the ways children talk about writing during the collaborative writing sessions. The computer environment is seen as an encouraging learning context which facilities dialogues. However, in both classes larger structural changes and arguments/justifications are rarely observed.

Allen, G., & Thompson, A. (1995)
Analysis of the Effect of Networking on Computer-Assisted Collaborative Writing in a Fifth Grade Classroom
Journal of Educational Computing Research, 12(1), 65–75.
DOI: https://doi.org/10.2190/AEC1-5P2B-8JBN-PUEV - Influence rate: **Medium**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **5**
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **Student interactions - Technology - Gender**		
Main theoretical underpinning(s)**: Social constructivism - Sociocultural theory**		
Research design: **Quantitative Method** Data sources: **Survey - Student texts**		
CW strategy: **Sequential writing**	CW activities observed: **Drafting - Reviewing - Revising**	

Study contribution: In this study, fifth grade students in a US midwestern school collaborated in writing with older college students, utilizing the school's computers and e-mail functionality. Pre- and post-test results showed a significant increase in length and quality of texts, compared with a control group. The study suggests that writing for an audience is an important motivational factor. It is also highlighted that the social act of collaborative writing influences the female student to take part of computational activities, which has previously been a male dominated domain.

Conway, G. (1995)
"What are we doing today" High school Basic Writers Collaborating in a Computer Lab
Computers and Composition, 12(1), 79–95.
DOI: https://doi.org/10.1016/8755-4615(95)90024-1 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s): **Multiple**
Subject: **L1**	Student text assignment: **Fiction**	
Theme(s): **Technology - Learning - Student interactions**		
Main theoretical underpinning(s)**: Cooperative/collaborative learning**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Field notes - Audio records - Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Revising**	

Study contribution: In this article, a group of four high school students were studied when collaboratively writing a murder mystery. Using an ethnographic approach, the researcher observed that the students, who were categorized as basic writers, did not automatically engage in meaningful and positive writing interactions just because they wrote on a computer. In addition, the article discusses the role the writing task has, when it comes to student's engagement – if students do not like or understand a task, they resist or refuse it.

Keys, C. W. & Stewart, J. (1995)
An Interpretive Study of Student's Use of Scientific Reasoning During a Collaborative Report
Science Education, 79(4), 415–435.
DOI: https://doi.org/10.1002/sce.3730790405 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s): **9**
Subject: **Science**	Student text assignment: **Fact**	
Theme(s): **Metatalk - Student conversations**		
Main theoretical underpinning(s)**: Sociocultural theory - Cognitive theory**		
Research design: **Qualitative Method** Data sources: **Student texts - Video observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting**	

Study contribution: In this study, collaborative writing is observed as a tool for scientific reasoning and science curriculum skills. The findings indicate that collaborative writing engages the student in metacognitive discussions which link the students own observations with scientific models.

Zammuner, V. L. (1995)
Individual and Cooperative Computer-Writing and Revising: Who Gets the Best Results?
Learning and Instruction, 5(2), 101–124.
DOI: https://doi.org/10.1016/0959-4752(95)00005-N - Influence rate: **Medium**

Location: **Italy**	Educational stage(s): **Primary School**	Grade(s): **4**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **CW effectiveness - Text revision - Learning**		
Main theoretical underpinning(s)**: Sociocognitive theory**		
Research design: **Quantitative Method** Data sources: **Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: This study from a fourth-grade classroom in Italy, examined the effects of individual and cooperative drafting and revising of a text. Data consists of narratives written in different conditions (individually and in dyads). The writing condition that showed the greatest improvement was when drafting was done individually and the revision in dyads.

Keys, C. W. (1996)
Writing Collaborative Laboratory Reports in Ninth Grade Science: Three Case Studies of Social Interactions
School Science and Mathematics, 96(4), 178–186.
DOI: https://doi.org/10.1111/j.1949-8594.1996.tb10222.x - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s): **9**
Subject: **Science**	Student text assignment: **Fact**	
Theme(s): **Student interactions - Metatalk - Student interactions**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Video observation - Audio records - Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing**	

Study contribution: This article is a case study on ninth grade students' collaborative production of laboratory reports. Focusing on student interaction, the findings reveal different types of interaction in students report writing. This in turn, suggests that collaborative writing in the field of science serves many functions: it promotes student discourse about key concepts, it increases opportunities to express scientific concepts in the students' own words, and it encourages students to elaborate on the writing of the report.

Kumpulainen, K. (1996)
The Nature of Peer Interaction in the Social Context Created by the Use of Word Processors
Learning and Instruction, 6(3), 243–261.
DOI: https://doi.org/10.1016/0959-4752(96)00005-9 - Influence rate: **Medium**

Location: **England**	Educational stage(s): **Secondary School**	Grade(s): **7**
Subject: **L1**	Student text assignment: **Multiple**	
Theme(s): **Technology - Student conversations**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Audio records - Classroom observation - Interview**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Revising**	

Study contribution: In this study, primary students writing talk is analyzed with a functional conversation analysis. Informative and compositional functions are observed most frequently. The students are using computers for writing, and the computers seem to "create excellent opportunities for collaborative modes of learning", but do not automatically encourage the student to explain the use of their language and argue for their proposals.

Schultz, K. (1997)
"Do You Want to Be in My Story?": Collaborative Writing in an Urban Elementary Classroom
Journal of literacy research, 29(2), 253–287.
DOI: https://doi.org/10.1080/10862969709547958
- Influence rate: **Medium**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **3-4**
Subject: **L1**	Student text assignment: **Multiple**	
Theme(s): **Student interactions - Student conversations**		
Main theoretical underpinning(s)**: Sociocultural theory - Dialogism**		
Research design: **Qualitative Method** Data sources: **Field notes - Student texts - Interview - Audio records**		
CW strategy: **Sequential writing** **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Revising**	

Study contribution: This article explores multiple modes of collaboration during writing in a US elementary classroom over a whole school year. Through a thick description, the researcher documents the roles students take and the learning opportunities they participate in during oral communication situations, parallel writing, collective brainstorming and co-authorship.

White, M. (1997)
Falling to Pieces: Seventh Grade Novelists as Work
Maryland English Journal, 31(2), 18–28.
Influence rate: **Low**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s): **7**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Student interactions - Learning**		
Main theoretical underpinning(s)**: Unknown**		
Research design: **Qualitative Method** Data sources: **Unknown**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: This qualitative study examines the progress of seventh-graders' production of a novel that was planned, composed and revised collaboratively. The study illustrates how students combine individual and collaborative strategies in the project, and the results show that the project gave the group a sense of identity.

Nicholson, J.; Gelpi, A.; Sulzby, E. & Young, S. (1998)
Influences of Gender and Open-Ended Software on First Graders' Collaborative Composing Activities on Computers
Journal of Computing in Childhood Education, 9(1), 3–42.
Influence rate: **Medium**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **1**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Student interactions - Gender**		
Main theoretical underpinning(s)**: Gender theory**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Field notes - Audio records - Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Editing**	

Study contribution: This qualitative study from the United States analyzes gender differences in collaborative writing. Interaction patterns in first grade students writing dyads, and the role of the software in the interaction is studied. The results show several differences in the interaction in male/female dyads, which might maintain gender inequalities. Especially female students experienced critique, became laughed at or publicly criticized when working in mixed gender dyads in comparison to working alone or in all-female writing groups. The article provides concrete recommendations on how to prevent these gender inequalities when working collaboratively in the classroom.

Smagorinsky, P. & O'Donnell-Allen, C. (1998)
Reading as Mediated and Mediating Action: Composing Meaning for Literature through Multimedia Interpretive Texts
Reading Research Quarterly, 33(2), 198–226.
DOI: https://doi.org/10.1598/RRQ.33.2.3 - Influence rate: **High**

Location: **United States**	Educational stage(s): **Upper Secondary School**	Grade(s): **12**
Subject: **L1**	Student text assignment: **Multimodal creation**	
Theme(s): **Student interactions - Student conversations**		
Main theoretical underpinning(s)**: Cultural-historical activity theory - Social semiotics**		
Research design: **Qualitative Method** Data sources: **Audio records - Student texts - Classroom observation - Field notes**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting**	

Study contribution: In this qualitative study, the researcher observes a group of senior high school students composing a multimodal text (a body biography on 7-feet paper) as a part of a language arts reading and writing project. The study shows how collaborative composing processes enables discussions, interpretations and meaning-making between the students that evolve into new artistic artefacts or products.

Lomangina, A. G.; Nicholson, J. & Sulzby, E. (1999)
The Influence of Power Relations and Goals on Children's Collaborative Interactions While Composing on Computer
Early Childhood Research Quarterly, 14(2), 197–228.
DOI: https://doi.org/10.1016/S0885-2006(99)00005-8 - Influence rate: **Medium**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **1**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Student interactions - Student conversations**		
Main theoretical underpinning(s)**: Sociocognitive theory - Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Field notes - Audio records - Video observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: Conducted in a first-grade classroom, this study investigates how interactive patterns develop in collaborative activity through a micro-level analysis of children working collaboratively while composing on the computer. The findings suggest that even with minimal adult involvement, children exhibit many constructive patterns of interaction while composing collaboratively on computers.

Sutherland, J. A. & Topping, K. J. (1999)
Collaborative Creative Writing in Eight-Year-Olds: Comparing Cross Ability Fixed Role and Same-Ability Reciprocal Role Pairing
Journal of Research in Reading, 22(2), 154–179.
DOI: https://doi.org/10.1111/1467-9817.00080 - Influence rate: **High**

Location: **Scotland**	Educational stage(s): **Primary School**	Grade(s): **3**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **CW effectiveness - Student interactions**		
Main theoretical underpinning(s)**: Sociocognitive theory**		
Research design: **Mixed method** Data sources: **Student texts - Test - Survey**		
CW strategy: **Sequential writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: In this study, the Paired Writing method was utilized for student pairs. The results indicate that especially the less skilled writer in the team gained from the collaborative writing method.

Larson, J.; Maier, M. (2000)
Co-Authoring Classroom Texts: Shifting Participant Roles in Writing Activity
Research in the Teaching of English, 34(4), 468–497.
Influence rate: **Medium**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **1**
Subject: **L1**	Student text assignment: **Multiple**	
Theme(s): **Learning - Student interactions**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Video observation - Field notes**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Editing**	

Study contribution: This article from a first-grade classroom analyzes how authorship processes were modeled by a teacher and taken up by the students through shifts in participation roles. Analyzing ethnographic data, the results show that the students engaged in different roles (teacher, author, coauthor, and overhearer).

Strough, J.; Diriwachter, R. (2000)
Dyad Gender Differences in Preadolescents' Creative Stories
Sex Roles: A Journal of Research, 43, 43–60.
DOI: https://doi.org/10.1023/A:1007087628278 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **6**
Subject: **L1**	Student text assignment: **Fiction**	
Theme(s): **Gender - Student interactions - Student conversations**		
Main theoretical underpinning(s)**: Social-contextual gender theory**		
Research design: **Quantitative Method** Data sources: **Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting**	

Study contribution: Conducted in a primary grade 6 classroom, this article explored how different peer dyads (same- or other-gendered) related to expressing gender-typed ideas in creative, collaborative writing. Analyzing children's creative stories, the results show that boy dyads' stories included a greater proportion of overtly aggressive story ideas and a lesser proportion of prosocial story ideas than the girls' stories. Mixed-gender dyads' stories contained a greater proportion of prosocial ideas than did boy dyads' stories.

Topping, K., J. Nixon, J. Sutherland, and F. Yarrow. (2000)
Paired Writing: A Framework for Effective Collaboration
Reading, 34(2), 79–89.
DOI: https://doi.org/10.1111/1467-9345.00139 - Influence rate: **Medium**

Location: **Scotland**	Educational stage(s): **Primary School**	Grade(s): **Multiple**
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **Teaching methods - CW effectiveness**		
Main theoretical underpinning(s)**: Sociocognitive theory**		
Research design: **Mixed method** Data sources: **Student texts - Test - Survey - Classroom observation**		
CW strategy: **Sequential writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: In this study, three action research projects on primary school student´s collaborative writing are evaluated. All projects utilized the Paired Writing Method, which is a writing method for idea generation, drafting, reading, editing, copying and evaluating with support from a more experienced peer. The results indicate that both the tutor and the tutees gained from this. The model appears to facilitate a structured and scaffolded process approach to writing.

Englert, C. S.; Berry, R. & Dunsmor, K. (2001)
A Case Study of the Apprenticeship Process: Another Perspective on the Apprentice and the Scaffolding Metaphor
Journal of Learning Disabilities, 34(2), 152–171.
DOI: https://doi.org/10.1177/002221940103400205 - Influence rate: **Medium**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **2**
Subject: **Science**	Student text assignment: **Fact**	
Theme(s): **Student interactions - Learning - Student conversations**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Video observation - Student texts - Field notes**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: This case study from the United States, examines the notion of apprenticeship in a second-grade student dyad writing collaboratively. The article studies the written texts and students' interaction, and found that the collaborative activity gave opportunities for the students to mediate and help each other, thus learn things beyond their individual knowledge. The researchers recommend collaborative writing when teaching literacy in the classrooms.

Nixon, J. G. & Topping, K. J. (2001)
Emergent Writing: The Impact of Structured Peer Interaction
Educational Psychology, 21(1), 41–58.
DOI: https://doi.org/10.1080/01443410123268 - Influence rate: **Medium**

Location: **Scotland**	Educational stage(s): **Primary School**	Grade(s): **0, 6**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **CW effectiveness - Teaching methods**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Mixed method** Data sources: **Student texts - Test - Survey - Classroom observation**		
CW strategy: **Sequential writing**	CW activities observed: **Drafting - Reviewing - Editing - Revising**	
Study contribution: Scottish year 0 and year 6 students are paired to write collaboratively with The Paired Writing Method. Pre-and-posttests reveal a significant gain for the paired writers, compared with the control group.		

Yarrow, F. & Topping, K. J. (2001)
Collaborative Writing: The Effects of Metacognitive Prompting and Structured Peer Interaction
British Journal of Educational Psychology, 71(2), 261–222.
DOI: https://doi.org/10.1348/000709901158514 - Influence rate: **Very high**

Location: **Scotland**	Educational stage(s): **Primary School**	Grade(s): **6**
Subject: **Unknown**	Student text assignment: **Essay**	
Theme(s): **Teaching methods - Student interactions**		
Main theoretical underpinning(s)**: Sociocognitive theory**		
Research design: **Mixed method** Data sources: **Test - Survey**		
CW strategy: **Sequential writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	
Study contribution: This study is part of an action research project in a mixed ability class utilizing the Paired Writing System method. The posttest shows a significant improvement in writing due to metacognitive support during peer writing. Collaboration issues are also observed and discussed.		

Hallenbeck, M. J. (2002)
Taking Charge: Adolescent with Learning Disabilities Assume Responsibility for Their Own Writing
Learning Disability Quarterly, 25(4), 227–246.
DOI: https://doi.org/10.2307/1511355 - Influence rate: **Medium**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s): **8**
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **Student interactions - CW effectiveness**		
Main theoretical underpinning(s)**: Sociocultural theory - Cognitive theory**		
Research design: **Qualitative Method** Data sources: **Student texts - Audio records**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Outlining - Drafting - Reviewing - Editing - Revising**	

Study contribution: In this study, four secondary school students with learning disabilities participated in a peer writing project. The results of the study indicate that teacher modelling and scaffolding, together with collaborative peer efforts, provided the students with cognitive tools needed to move beyond «learned helplessness».

Hidi, S.; Berndorff, D. & Ainley, M. (2002)
Children's Argument Writing, Interest and Self-Efficacy: An Intervention Study
Learning & Instruction, 12(4), 429–446.
DOI: https://doi.org/10.1016/S0959-4752(01)00009-3 - Influence rate: **Very high**

Location: **Canada**	Educational stage(s): **Primary School**	Grade(s): **6**
Subject: **Unknown**	Student text assignment: **Argumentative text**	
Theme(s): **CW effectiveness - Gender**		
Main theoretical underpinning(s)**: Cognitive theory**		
Research design: **Quantitative Method** Data sources: **Student texts - Survey**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Revising**	

Study contribution: In this intervention study, 170 Canadian students participated in a quasi-experimental project on argumentative writing with diverse writing activities, including collaborative authoring. The focus points in the study are motivation and self-efficacy. The study indicated gender differences with regard to the effect of collaborative writing: boys showed significant improvement and benefited more than girls from the collaborative activities.

Jones, I. (2002)
Social Relationships, Peer Collaboration and Children's Oral Language
Educational Psychology, 22(1), 63–73.
DOI: https://doi.org/10.1080/01443410120101242a - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **1**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Metatalk - Student conversations**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Quantitative Method** Data sources: **Audio records - Classroom observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting**	

Study contribution: This quantitative study measures the effect of collaborative writing on oral literacy language for first-graders in a US primary school. The study indicates that important literacy-building factors such as negotiations, social regulation and emotional language to a higher extent takes place if peers are friends from before the collaborative task.

Vass, E. (2002)
Friendship and Collaborative Creative Writing In The Primary Classroom
Journal of Computer Assisted Learning, 18(1), 102–110.
DOI: https://doi.org/10.1046/j.0266-4909.2001.00216.x - Influence rate: **Medium**

Location: **England**	Educational stage(s): **Primary School**	Grade(s): **3**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Student interactions**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Video observation - Audio records**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: In this case study, two pairs of joint writers are compared with each other in order to evaluate how friendship affects creative collaborative writing proceses. The study documents how collaborative writing dialogues follow certain patterns which support different phases (content generation and reflection) of the writing process.

Brock, C. H. & Raphael, T. E. (2003)
Guiding Three Middle School Students in Learning Written Academic Discourse
Elementary School Journal, 103(5), 481–502.
DOI: https://doi.org/10.1086/499736 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Multiple levels**	Grade(s): **Multiple**
Subject: **Literature**	Student text assignment: **Fact**	
Theme(s): **Student interactions - Learning - Student conversations**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Field notes - Audio records - Video observation - Interview**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Editing - Revising**	

Study contribution: In this article, the nature of collaborative writing between students and adults, and how this can foster students into an academic discourse is studied. Analyzing a 2-year collaborative project between students and adults, the findings show that adults elicited the students' ideas and guided them rather than telling them what to do. In this way, the adults created a more equal relationship with the students in the writing collaboration.

Ithel, J. (2003)
Collaborative Writing and Children's Use of Literate Language: A Sequential Analysis of Social Interaction
Journal of Early Childhood Literacy, 3(2), 165–178.
DOI: https://doi.org/10.1177/14687984030032003 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **1**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Student conversations - Metatalk**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Audio records**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Editing - Revising**	

Study contribution: This study on first grade students in a US suburban classroom explores verbal behavior when students are writing together. By utilizing sequence analysis, the study indicates that conflict utterances often are followed by agreements and metacognitive language. Also, reading the text out loud were followed by social regulation.

Jones, I. (2003)
Collaborative Writing and Children's Use of Literate Language: A Sequential Analysis of Social Interaction
Journal of Early Childhood Literacy, 3(2), 165–178.
DOI: https://doi.org/10.1177/14687984030032003 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **1**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Student interactions - Metatalk - Student conversations**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Quantitative Method** Data sources: **Audio records - Classroom observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Editing**	

Study contribution: In this socioculturally informed study from a first-grade classroom, the researcher observes student's interaction and literate language, which is students metalinguistic talk. The analyses of the descriptive statistics on children's talk reveal that the students use different forms of literate language, such as offering assistance, checking and guiding each other.

Bomer, R., & Laman, T. (2004)
Positioning in a Primary Writing Workshop: Joint Action in the Discursive Production of Writing Subjects
Research in the Teaching of English, 38(1), 420–466.
Influence rate: **High**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **1-2**
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **CW effectiveness - Teaching methods**		
Main theoretical underpinning(s)**: Sociocultural theory - Positional theory**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Field notes - Video observation - Interview**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Revising**	

Study contribution: This study examines the effect of a specific collaborative writing method in a series of action research studies with primary school students of different ages in Scotland. The results indicate that students develop their skills and feels more confident on writing after participation in paired writing exercises.

Erkens, G.; Jasper, J.; Prangsma, M. & Kanselaar, G. (2005)
Coordination Processes in Computer Supported Collaborative Writing
Computers in Human Behavior, 21(3), 463–486.
DOI: https://doi.org/10.1016/j.chb.2004.10.038 - Influence rate: **Very high**

Location: **Netherlands**	Educational stage(s): **Upper Secondary School**	Grade(s): **12-13**
Subject: **L1**	Student text assignment: **Essay**	
Theme(s): **Technology - Student conversations**		
Main theoretical underpinning(s)**: Sociocognitive theory**		
Research design: **Mixed method** Data sources: **Student texts - Chat**		
CW strategy: **Reciprocal writing**	CW activities observed: **Outlining - Drafting - Reviewing - Editing - Revising**	

Study contribution: This study on Dutch high-school students analyzes the processes of coordination in writing pairs through essays and chats from a groupware software. The researchers found that planning software tools stimulated planning in general, and were especially important towards the end of the writing process. Mutual coordination activities in the dialogue resulted in improved essays.

Yang, J. C.; Ko, H.W. & Chung, I.L. (2005)
Web-based Interactive Writing Environment: Development and Evaluation
Journal of Educational Technology & Society, 8(2), 214–229.
Influence rate: **Low**

Location: **Taiwan**	Educational stage(s): **Primary School**	Grade(s): **1-6**
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **Platforms - CW effectiveness**		
Main theoretical underpinning(s)**: Social constructivism**		
Research design: **Quantitative Method** Data sources: **Student texts**		
CW strategy: **Sequential writing**	CW activities observed: **Drafting - Reviewing - Revising**	

Study contribution: In this Taiwan-based study, 3,695 users, most of them between 4th and 6th grade, use an educational web tool for peer writing and review. Entries from two years was analyses and rated on text quality. The analysis indicates that the students writing clearly benefits from using the platform. There are, however, no significant difference to the quality of texts that was peer assed compared to those that were self-assessed.

Chung,Y-h.; Walsh, D. J. (2006)
Constructing a Joint Story-Writing Space: The Dynamics of Young Children's Collaboration at Computers
Early Education and Development, 17(3), 373–420.
DOI: https://doi.org/10.1207/s15566935eed1703_4 - Influence rate: **Medium**

Location: **United States**	Educational stage(s): **Multiple levels**	Grade(s): **Multiple**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Student interactions - Technology**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Video observation - Student texts - Interview - Survey**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: In this article, children's videotaped use of computers is analyzed in order to examine how joint story-writing process develops over time, and how children use computers to create a space for joint story writing. The study reveals that children's interaction patterns changes toward a more integrative style during their collaboration, that children begin alternating the roles of leader and observer, and that the computer serve as an object of reference for children to sustain their interaction and stay on task.

Ferguson-Patrick, K. (2007)
Writers Develop Skills through Collaboration: An Action Research Approach
Educational Action Research, 15(2), 159–180.
DOI: https://doi.org/10.1080/09650790701314585 - Influence rate: **Low**

Location: **Australia**	Educational stage(s): **Primary School**	Grade(s): **1**
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **Student interactions - Learning - Teaching methods**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Student texts - Field notes**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Editing - Revising**	

Study contribution: This action research-based study analyzes how cooperative learning skills can be implemented in a group of six-year-old students' writing. Incorporating different collaborative writing interventions in the teaching of writing, the teacher/researcher found that peer interactions improve students' text quality and productivity of the writing products. Since the groups' results depended on students individual writing abilities, the researcher suggests that teachers should vary their partnerships when encouraging students to write collaboratively.

van Amelsvoort, M.; Andriessen, J. & Kanselaar, G. (2007)
Representational Tools in Computer-Supported Collaborative Argumentation-Based Learning: How Dyads Work with Constructed and Inspected Argumentative Diagrams
Journal of the Learning Sciences, 16(4), 485–521.
DOI: https://doi.org/10.1080/10508400701524785 - Influence rate: **High**

Location: **Netherlands**	Educational stage(s): **Upper Secondary School**	Grade(s): **Multiple**
Subject: **Unknown**	Student text assignment: **Fact**	
Theme(s): **CW effectiveness - Learning**		
Main theoretical underpinning(s)**: Cooperative/collaborative learning**		
Research design: **Quantitative Method** Data sources: **Document revisions - Chat**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting**	

Study contribution: This article from the Netherlands investigated the conditions under which diagrammatic representations support collaborative argumentation-based learning in a computer environment. Analyzing 30 upper secondary students' texts and diagrams, the results showed that students, who constructed a diagram individually, explored the topic more than students in the other (collaborative) conditions. Differences were found in the use of representation in dyads who engaged in deep discussion versus dyads who engaged in only shallow discussion.

Vass, E. (2007)
Exploring Processes of Collaborative Creativity - The Role of Emotions in Children's Joint Creative Writing
Thinking Skills and Creativity, 2(2), 107–117.
DOI: https://doi.org/10.1016/j.tsc.2007.06.001 - Influence rate: **High**

Location: **England**	Educational stage(s): **Primary School**	Grade(s): **Multiple**
Subject: **L1**	Student text assignment: **Fiction**	
Theme(s): **Student interactions - Student conversations**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Video observation - Audio records**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing**	

Study contribution: The purpose of this study was to describe ways in which peer collaboration can resource, stimulate and enhance classroom-based creative writing. Studying first graders interactions in collaborative writing, the findings suggest that emotion, musing, acting-out, humor, and singing play a central part in students' collaborative creative writing.

Rojas-Drummond, S. M.; Albarran, C. D.; Littleton, K. S. (2008)
Collaboration, Creativity and the Co-Construction of Oral and Written Texts
Thinking Skills and Creativity, 3(3), 177–191.
DOI: https://doi.org/10.1016/j.tsc.2008.09.008 - Influence rate: **High**

Location: **Mexico**	Educational stage(s): **Primary School**	Grade(s): **4**
Subject: **Unknown**	Student text assignment: **Multimodal creation**	
Theme(s): **Student conversations - Student interactions - Learning**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Video observation - Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Editing - Revising**	

Study contribution: This study from Mexico analyzed 56 fourth-graders use of oracy and literacy when producing multimodal literary texts. In the study, students' videotaped interactions from collaborative writing sessions are analyzed using microgenetic analysis and sociocultural concepts. The study discusses students' collaborative writing in light of a sociocultural understanding of learning, and emphasizes learning as a dialogical, collaborative and co-constructed phenomena.

Vass, E.; Littleton, K.; Miell, D. & Jones, A. (2008)
The Discourse of Collaborative Creative Writing: Peer Collaboration as a Context for Mutual Inspiration
Thinking Skills and Creativity, 3(3), 192–202.
DOI: https://doi.org/10.1016/j.tsc.2008.09.001 - Influence rate: **High**

Location: **England**	Educational stage(s): **Primary School**	Grade(s): **Multiple**
Subject: **L1**	Student text assignment: **Fiction**	
Theme(s): **Student interactions - Student conversations - Learning**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Video observation - Audio records**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Editing**	

Study contribution: This longitudinal study conducted in England examines how productive discourse in joint creative writing can be described. With data consisting of students' (age 7–9) writing interaction, the researchers' studies the role of emotion and the building on collaborative floors in their interaction. The study stresses the significance of emotions throughout the shared creative writing episodes, including joint reviewing.

Christianakis, M. (2010)
"I Don't Need Your Help!" Peer Status, Race, and Gender during Peer Writing Interactions
Journal of literacy Research, 42(4), 418–458.
DOI: https://doi.org/10.1080/1086296X.2010.525202 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **5**
Subject: **L1**	Student text assignment: **Multiple**	
Theme(s): **Gender - Student interactions**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Field notes - Audio records - Student texts - Classroom observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: This study analyzes how peer status, gender, and race influenced the stances children take in three different writing pedagogies: peer tutoring, cooperative peer editing, and collaborative writing. Analyzing ethnographic data, the study suggests that the students' social identities and the stances they take during peer writing often result in charged interactions and negotiations that impede the possible benefits of peer writing pedagogies.

Humphris, R. (2010)
Developing Students as Writers through Collaboration
Changing English: Studies in Culture and Education, 17(2), 201–214.
DOI: https://doi.org/10.1080/13586841003787365 - Influence rate: **Low**

Location: **England**	Educational stage(s): **Secondary School**	Grade(s): **Multiple**
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **Student conversations - Learning - Metatalk**		
Main theoretical underpinning(s)**: Cognitive theory**		
Research design: **Qualitative Method** Data sources: **Audio records - Document revisions - Interview**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Revising**	

Study contribution: This study explored the potential of collaborative writing to encourage and facilitate metacognitive talk by implementing a strategy where students are paired with a 'writing buddy'. In the study, think aloud-protocols and interviews are analyzed and reveal that talk is used to externalize thinking in order to develop a metacognitive understanding of the writing process. Thus, writing buddies is a beneficial way to support students writing and higher order thinking.

Boyle, B. & Charles, M. (2011)
The Three Hags and Pocahontas: How Collaboration Develops Early Years Writing Skills
Literacy, 45(1), 10–18.
DOI: https://doi.org/10.1111/j.1741-4369.2011.00576.x - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **1**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Student interactions - CW effectiveness**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Mixed method** Data sources: **Student texts - Classroom observation**		
CW strategy: **Parallel writing**	CW activities observed: **Outlining - Drafting - Reviewing - Revising**	

Study contribution: In this study, a 6-year-old girl is observed while co-composing texts with a peer collaborator following a peer assistance method. The authors of the study found that the student «benefited greatly from her collaborations with her peer».

Pifarre, M. & Fisher, R. (2011)
Breaking up the Writing Process: How Wikis Can Support Understanding the Composition and Revision Strategies of Young Writers
Language and Education, 25(5), 451–466.
DOI: https://doi.org/10.1080/09500782.2011.585240 - Influence rate: **Medium**

Location: **Spain**	Educational stage(s): **Primary School**	Grade(s):
Subject: **Science**	Student text assignment: **Fact**	
Theme(s): **Text revision - Platforms**		
Main theoretical underpinning(s)**: Sociocognitive theory**		
Research design: **Qualitative Method** Data sources: **Student texts - Document revisions**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Outlining - Drafting - Reviewing - Editing - Revising**	

Study contribution: This study examines a classroom-based project using a wiki to examine what it can tell us about pupils' composition strategies. The article proves that wikis can provide a rich environment to support composition and revision for young writers. The findings indicate that even students in primary school have access to the full range of revision processes when an appropriate learning environment is created.

Pifarré, M. & Kleine Staarman, J. (2011)
Wiki-supported Collaborative Learning in Primary Education: How a Dialogic Space is Created for Thinking Together
International Journal of Computer-Supported Collaborative Learning, 6(2), 187–205.
DOI: https://doi.org/10.1007/s11412-011-9116-x - Influence rate: **High**

Location: **Spain**	Educational stage(s): **Primary School**	Grade(s): **6**
Subject: **Science**	Student text assignment: **Fact**	
Theme(s): **Platforms - Student conversations - Technology**		
Main theoretical underpinning(s)**: Sociocultural theory - Intersubjectivity theory**		
Research design: **Mixed method** Data sources: **Document revisions - Student texts**		
CW strategy: **Sequential writing** **Reciprocal writing**	CW activities observed: **Brainstorming - Outlining - Drafting - Reviewing - Revising**	
Study contribution: In this study, Spanish primary students collaborate in creating an informative science text through a process-based approach to writing, including using a collaborative wiki page. The article discusses how the students negotiate through collaborative dialogue and the effects the wiki environment has on the students collaborative learning. According to the authors, the wiki environment is especially suitable for creating a genuinely shared digital artefact and supports diverse co-reflective processes as a mediator for asynchronous collaborative processes.		

Roth, K. & Guinee, K. (2011)
Ten Minutes a Day: The Impact of Interactive Writing Instruction on First Graders' Independent Writing
Journal of Early Childhood Literacy, 11(3), 331–361.
DOI: https://doi.org/10.1177/1468798411409300 - Influence rate: **Medium**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **1**
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **Teaching methods - CW effectiveness**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Quantitative Method** Data sources: **Classroom observation - Chat - Test**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting**	
Study contribution: In this study, the effect of Interactive Writing, a specific collaborative writing instruction method for small children, was measured for first grade students in a US elementary school. The results proved that the students who participated in the collaborative writing method clearly outperformed a control group at the same school, at the end of the year.		

Li, X.; Chu, S. K. W.; Ki, W. W. & Woo, M. (2012)
Using a Wiki-Based Collaborative Process Writing Pedagogy to Facilitate Collaborative Writing among Chinese Primary School Students
Australasian Journal of Educational Technology, 28(1), 159–181.
DOI: https://doi.org/10.14742/ajet.889 - Influence rate: **Medium**

Location: **China**	Educational stage(s): **Primary School**	Grade(s): **4**
Subject: **L1**	Student text assignment: **Wiki-page**	
Theme(s): **Platforms - CW effectiveness**		
Main theoretical underpinning(s)**: Social constructivism**		
Research design: **Mixed method** Data sources: **Survey - Student texts - Interview - Classroom observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Editing - Revising**	

Study contribution: This mixed methods study from China analyzes how wiki-based collaborative process writing pedagogy (WCPWP) can facilitate students writing. Analyzing questionnaires, wiki environments, interviews and observations, the article illustrates students' collaborative writing processes and their products on the wiki. The results show that WCPWP increased the students group interactions, boosted their writing motivation, and extended their writing time and their audience.

Pifarré, M. & Li, L. (2012)
Teaching How to Learn with a Wiki in Primary Education: What Classroom Interaction Can Tell Us
Learning, Culture and Social Interaction, 1(2), 102–113.
DOI: https://doi.org/10.1016/j.lcsi.2012.05.004 - Influence rate: **Low**

Location: **Spain**	Educational stage(s): **Primary School**	Grade(s): **5**
Subject: **Unknown**	Student text assignment: **Fact**	
Theme(s): **Platforms - Student conversations**		
Main theoretical underpinning(s)**: Sociocultural theory - Dialogism**		
Research design: **Qualitative Method** Data sources: **Video observation**		
CW strategy: **Sequential writing** **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Revising**	

Study contribution: In this case study, Spanish students are participating in collaborative wiki writing sessions. The sessions are observed with a specific focus on the dialogical space which occurs in teacher-student interactions during writing. The study finds the teacher to be using a broad repertoire of "supporting-creating learning activities", but also reveals a high amount of traditional dialogical patterns which do not sufficiently utilize the web 2.0 collaborative functionality.

Thompson, I. (2012)
Planes of Communicative Activity in Collaborative Writing
Changing English: Studies in Culture and Education, 19(2), 209–220.
DOI: https://doi.org/10.1080/1358684X.2012.680766 - Influence rate: **Low**

Location: **England**	Educational stage(s): **Secondary School**	Grade(s): **9**
Subject: **L1**	Student text assignment: **Fiction**	
Theme(s): **Learning - Student conversations**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Video observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Editing**	

Study contribution: This article studies two students' collaborative murder mystery writing. The purpose is to analyze students' collaboration within an ZPD-framework and in light of three planes of communicative activity: physical activity, semiotic activity and psychological activity. The results show, that the students completed collaborative tasks by drawing on their semiotic toolkit (consisting of different functional tools and signs) or psychological tools that act as semiotic mediation.

Fu, H.; Chu, S. & Kang, W. (2013)
Affordances and Constraints of a Wiki for Primary-School Students' Group Projects
Educational Technology & Society, 16(4), 85–96.
Influence rate: **Low**

Location: **Hong Kong**	Educational stage(s): **Primary School**	Grade(s): **5**
Subject: **Unknown**	Student text assignment: **Fact**	
Theme(s): **Platforms - Technology**		
Main theoretical underpinning(s)**: Social constructivism**		
Research design: **Mixed method** Data sources: **Interview - Survey - Document revisions**		
CW strategy: **Sequential writing**	CW activities observed: **Drafting - Reviewing**	

Study contribution: This mixed-method study examines the affordances of a wiki tool for educational, technological and social affordances. The results indicate that there are both gains and constraints from using this platform for collaborative writing. Multimedia support, communication functionality and usability are among the gains. Constraints are related to lower familiarity than other word processing systems and internet connection issues.

Sormunen, E.; Tanni, M. & Heinström, J. (2013)
Students' Engagement in Collaborative Knowledge Construction in Group Assignments for Information Literacy
Information Research: An International Electronic Journal, 18(3)
Influence rate: **Low**

Location: **Finland**	Educational stage(s): **Upper Secondary School**	Grade(s): **Multiple**
Subject: **Multiple**	Student text assignment: **Fact**	
Theme(s): **Learning - Platforms**		
Main theoretical underpinning(s)**: Cooperative/collaborative learning**		
Research design: **Qualitative Method** Data sources: **Interview**		
CW strategy: **Parallel writing** **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing**	

Study contribution: This Finnish study from the field of information research analyzed upper secondary students collaboratively writing and working in a Wiki in different subjects. Thematically analyzing interviews with the students during and after the classroom sessions, the researchers found, that only a few student groups collaborated in the search process, assessment of sources and knowledge construction. Thus, the article shows that the concept of collaboration in the school context is not yet well-established—instead individual efforts are joined in a manner that may look like collaboration, but rather is a waste of the potential of the group work.

Doult, W. & Walker, S. A. (2014)
"He's Gone and Wrote over It": The Use of Wikis for Collaborative Report Writing in a Primary School Classroom
Education 3-13, 42(6), 601–620.
DOI: https://doi.org/10.1080/03004279.2012.752022 - Influence rate: **Low**

Location: **England**	Educational stage(s): **Primary School**	Grade(s): **4**
Subject: **Science**	Student text assignment: **Fact**	
Theme(s): **Student interactions - Platforms**		
Main theoretical underpinning(s)**: New literacy studies**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Student texts - Interview**		
CW strategy: **Sequential writing**	CW activities observed: **Brainstorming - Outlining**	

Study contribution: In this article, the researchers explore if wikis allow genuine collaboration in creating multimodal digital text. Analyzing fourth grade students producing a science report on the solar system, the findings show that the students negotiated, jointly produced content and supported each other in the learning of the ICT-tool. The results also show, that collaboratively writing in a wiki motivated the students and made them produce texts of better quality and greater quantity than traditionally written texts.

Kumpulainen, K. & Mikkola, A. (2014)
Boundary Crossing of Discourses in Pupils' Chat Interaction During Computer-Mediated Collaboration
Learning, Culture and Social Interaction, 3(1), 43–53.
DOI: https://doi.org/10.1016/j.lcsi.2013.12.002 - Influence rate: **Low**

Location: **Finland**	Educational stage(s): **Primary School**	Grade(s): **5-6**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Student interactions - Student conversations**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Chat - Document revisions**		
CW strategy: **Sequential writing**	CW activities observed: **Reviewing**	

Study contribution: In this qualitative study, chats between collaborative writers of a musical in a Finnish primary school are examined. The chats are analyzed to investigate how multiple modes of mediated communication and discourses intersects. The study shows how discourses that usually are "silenced" in formal school contexts, are being used for meaning-making entailing both possibilities and constraints for the collaborative writing process.

Kumpulainen, K.; Mikkola, A. & Jaatinen, A-M. (2014)
The Chronotypes of Technology-Mediated Creative Learning Practices in an Elementary School Community
Learning, Media and Technology, 39(1), 53–74.
DOI: https://doi.org/10.1080/17439884.2012.752383 - Influence rate: **Medium**

Location: **Finland**	Educational stage(s): **Primary School**	Grade(s): **Multiple**
Subject: **Music**	Student text assignment: **Fiction**	
Theme(s): **Student interactions - Platforms**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Chat - Survey - Document revisions - Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing**	

Study contribution: In this Finnish study, the researchers examined the chronotypes of elementary school students' technology-mediated creative learning practices in a school musical. Analyzing students chatting in an online document environment, the findings show the emergence of a novel chronotype in which the students engaged in ubiquitous, multimodal, and multidimensional, technology-mediated creative learning practices which differed from traditional school-based practices.

Li, X.; Chu, S. K. W.; Ki, W. W. (2014)
The Effects of a Wiki-Based Collaborative Process Writing Pedagogy on Writing Ability and Attitudes Among Upper Primary School Students in Mainland China
Computers & Education, 77, 151–169.
DOI: https://doi.org/10.1016/j.compedu.2014.04.019 - Influence rate: **Low**

Location: **China**	Educational stage(s): **Primary School**	Grade(s): **6**
Subject: **L1**	Student text assignment: **Wiki-page**	
Theme(s): **CW effectiveness**		
Main theoretical underpinning(s)**: Social constructivism**		
Research design: **Mixed method** Data sources: **Classroom observation - Document revisions - Test**		
CW strategy: **Sequential writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: This study explored the use of a Wikipedia-like writing tool for 52 primary school students in China. The study utilized a quasi-experimental design with pre- and post-test, including a control group of similar size. The results indicated a positive, but not significant effect on writing abilities for the collaborative writing group of students. Another finding was a positive and significant effect on attitudes towards writing for students participating in the collaborative writing experiment.

Peterson, S. S. & Portier, C. (2014)
Grades Five and Six Students' Representation of Meaning in Collaborative Wiki Writing
Reading Horizons, 53(3), 1–24.
Influence rate: **Low**

Location: **Canada**	Educational stage(s): **Primary School**	Grade(s): **Multiple**
Subject: **Social studies**	Student text assignment: **Fact**	
Theme(s): **Learning - Metatalk - Student interactions**		
Main theoretical underpinning(s)**: Sociocognitive theory**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting**	

Study contribution: In this study, fifth and sixth-grade students' participation and representation of meanings in the writing of wikis is analyzed. The purpose is to analyze whether students engage in knowledge-telling or knowledge-transforming while writing together. The researchers observed the students wiki writing sessions, and analyses found that students more often engage in knowledge-telling processes than in knowledge-transforming processes.

Skantz Åberg, E.; Lantz-Andersson, A. & Pramling, N. (2014)
Once Upon a Time There Was a Mouse': Children's Technology-Mediated Storytelling in Preschool Class
Early Child Development and Care, 184(11), 1583–1598.
DOI: https://doi.org/10.1080/03004430.2013.867342 - Influence rate: **Low**

Location: **Sweden**	Educational stage(s): **Primary School**	Grade(s): **1**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Technology**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Video observation - Classroom observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Revising**	

Study contribution: In this study, 6-year-old children are collaboratively writing a story with speech-synthesized feedback computer software. Observations from the study emphasize the important reciprocal relationship between the social setting, technological artefacts and narrative content creation.

Soobin, Y.; Warschauer, M.; Binbin, Z. & Lawrence, J. F. (2014)
Cloud-Based Collaborative Writing and the Common Core Standards
Journal of Adolescent & Adult Literacy, 58(3), 243–254.
DOI: https://doi.org/10.1002/jaal.345 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s): **6-8**
Subject: **L1**	Student text assignment: **Multiple**	
Theme(s): **Technology - Student interactions**		
Main theoretical underpinning(s)**: Sociocultural theory - New literacy studies**		
Research design: **Mixed method** Data sources: **Interview - Survey - Student texts - Classroom observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Editing - Revising**	

Study contribution: This study explores online writing in four US middle schools. The study finds that cloud-based collaboration generally promotes writing skills on language, genre and purpose. The data shows that commenting and reviewing are frequently used strategies. However, most documents are written by single authors, and some students are reluctant to share responsibility for written assignments.

Lehraus, K. (2015)
How To Integrate Cooperative Skills Training into Learning Tasks: An Illustration with Young Pupils' Writing
Education 3-13, 43(1), 55–69.
DOI: https://doi.org/10.1080/03004279.2015.961716 - Influence rate: **Low**

Location: **Switzerland**	Educational stage(s): **Primary School**	Grade(s): **2**
Subject: **Unknown**	Student text assignment: **Fact**	
Theme(s): **CW effectiveness - Student interactions**		
Main theoretical underpinning(s)**: Cooperative/collaborative learning**		
Research design: **Quantitative Method** Data sources: **Video observation - Classroom observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Editing**	

Study contribution: This article explores how cooperative skills training can be integrated into teamwork learning tasks (writing) in an elementary school. The researcher documents peer interactions of young pupils engaged in such learning settings. The findings suggest that students are able to work with collaborative tasks without help from teachers. Furthermore, the study shows that positive social behavior and effective cooperation are highly linked.

Rish, R. M. (2015)
Researching Writing Events: Using Mediated Discourse Analysis to Explore How Students Write Together
Literacy, 49(1), 12–19.
DOI: https://doi.org/10.1111/lit.12052 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s): **Unknown**
Subject: **L1**	Student text assignment: **Multimodal creation**	
Theme(s): **Student interactions - Student conversations - Learning**		
Main theoretical underpinning(s)**: Sociocultural theory - Mediated discourse theory**		
Research design: **Qualitative Method** Data sources: **Field notes - Video observation - Interview - Student texts**		
CW strategy: **Parallel writing**	CW activities observed: **Outlining - Drafting - Reviewing**	

Study contribution: This socioculturally informed empirical and methodological article explores students writing. Using mediated discourse theory (MDT) and related analytical tools, the researcher observes a collaborative writing event between three students writing science fiction. The article discusses the observations in the light of central concepts of MDT, such as site of engagement, habitus, interaction order and discourse in place. The results show, that MDT provides a way to capture the complexity involved when students attempt to write with and for each other.

Seuba, M.C. & Castelló, M. (2015)
Learning Philosophical Thinking through Collaborative Writing in Secondary Education
Journal of Writing Research, 7(1), 157–199.
DOI: https://doi.org/10.17239/jowr-2015.07.01.07 - Influence rate: **Low**

Location: **Spain**	Educational stage(s): **Upper Secondary School**	Grade(s): **11**
Subject: **Philosophy**	Student text assignment: **Argumentative text**	
Theme(s): **CW effectiveness - Student interactions**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Audio records - Video observation - Interview - Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: In a Spanish secondary class, student teams were assigned to write a collaborative text on a philosophical subject. This study analyzes peer interactions, group regulation and dynamics, and the quality of the texts produces in two of the student teams. Results indicate that collaborative writing helped the students to transform abstract philosophical ideas to more concrete concepts. Furthermore, it promoted learning as well as skills for critical thinking.

Zheng, B.; Lawrence, J.; Warschauer, M. & Lin, C-H. (2015)
Middle School Students' Writing and Feedback in a Cloud-Based Classroom Environment
Technology, Knowledge and Learning, 20(2), 201–229.
DOI: https://doi.org/10.1007/s10758-014-9239-z - Influence rate: **Medium**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s): **6**
Subject: **L1**	Student text assignment: **Essay**	
Theme(s): **CW effectiveness - Platforms**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Quantitative Method** Data sources: **Student texts - Survey - Document revisions**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Editing - Revising**	

Study contribution: This quantitative study examines sixth-graders collaborative writing and feedback in a Cloud-based environment. Using a longitudinal growth model in analyzing a large sample of student texts, the findings show that collaborative learning could be helpful for enhancing active participation and active writing. In addition, it can enrich students' learning processes. However, most of the collaboration on Google Docs consisted of students' single writing with feedback from others, rather than other higher levels of collaboration (for example joint writing or parallel writing).

Du, H.; Chu, S. K. W.; Chan, R. R. C. & He, W. (2016)
Collaborative Writing with Wikis: An Empirical Investigation
Online Information Review, 40(3), 380–399.
DOI: https://doi.org./10.1108/OIR-06-2015-0173 - Influence rate: **Low**

Location: **Hong Kong**	Educational stage(s): **Multiple levels**	Grade(s):
Subject: **Multiple**	Student text assignment: **Wiki-page**	
Theme(s): **Text revision - Technology**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Mixed method** Data sources: **Student texts - Document revisions**		
CW strategy: **Sequential writing**	CW activities observed: **Drafting - Editing - Revising**	

Study contribution: This is an in-depth study of how students at different education levels works with editing and commenting on wikis in school and university. The study finds that older and more educated students are more effective collaborative writers than younger students. Primary school students tend to use a "single-author" approach, secondary school students "parallel writing", and university students a mixed mode.

Norenes, S. O. & Ludvigsen, S. (2016)
Language Use and Participation in Discourse in the Mathematics Classroom: When Students Write Together at an Online Website
Learning, Culture and Social Interaction, 11, 66–84.
DOI: https://doi.org/10.1016/j.lcsi.2016.05.003 - Influence rate: **Low**

Location: **Norway**	Educational stage(s): **Upper Secondary School**	Grade(s):
Subject: **Mathematics**	Student text assignment: **Fact**	
Theme(s): **Platforms - Student conversations - Technology**		
Main theoretical underpinning(s)**: Sociocultural theory - Dialogism**		
Research design: **Qualitative Method** Data sources: **Student texts - Document revisions - Video observation - Interview**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting**	

Study contribution: This intervention research project studied mathematical problem solving with a Wiki online tool. The result of the study reveals that several strategies were chosen by the upper secondary student, one of which was a collaborative writing effort. The researchers observed that the students voiced and revised several formulations together as a team effort.

Portier, C. & Peterson, S. S. (2016)
Revision and Participation Patterns in Grades 5 and 6 Wiki Writing
Language & Literacy, 18(1), 110–129.
DOI: https://doi.org/10.1007/s11412-011-9116-x - Influence rate: **Low**

Location: **Canada**	Educational stage(s): **Primary School**	Grade(s): **5-6**
Subject: **Social studies**	Student text assignment: **Essay**	
Theme(s): **Text revision - Student interactions**		
Main theoretical underpinning(s)**: Social constructivism**		
Research design: **Mixed method** Data sources: **Student texts - Document revisions - Audio records**		
CW strategy: **Sequential writing** **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Editing - Revising**	

Study contribution: In this Canadian action research project, 5-6 graders undertook the task of writing collaboratively using in a Wiki page. Based on the revision data of the documents, the researchers were able to examine the frequency and type of revisions made by the students. Word replacement was the most commonly used replacement, and generally revisions on «local level» were more frequently observed than revisions on sentences or document content. During reciprocal collaborative sessions, most students participated. However, when performing sequential writing sessions (at home) the collaborative workload was unevenly distributed among the students.

Thompson, I. & Wittek, A. L. (2016)
Writing As a Mediational Tool for Learning in the Collaborative Composition of Texts
Learning, Culture and Social Interaction, 11, 85–96.
DOI: https://doi.org/10.1016/j.lcsi.2016.05.004 - Influence rate: **Low**

Location: **England**	Educational stage(s): **Secondary School**	Grade(s): **13-14**
Subject: **Unknown**	Student text assignment: **Other**	
Theme(s): **Student conversations - Student interactions**		
Main theoretical underpinning(s)**: Sociocultural theory - Dialogism**		
Research design: **Qualitative Method** Data sources: **Video observation - Interview - Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: This study follows the collaborative writing effort of secondary students in an English school class. The article is an in-depth exploration of the writing dialogues between students who were assigned different roles in the co-operation. The study reveals how editing suggestions are made in pairs and absorbed by the writer, and how dialogical interactions and progress are gained through conflict and confrontation.

Ahlholm, M.; Grünthal, S. & Harjunen, E. (2017)
What Does Wiki Reveal about the Knowledge Processing strategies of School Pupils? Seventh-Graders as Users of Wiki and processors of Knowledge in a Collaborative Writing Project
Scandinavian Journal of Educational Research, 61(4), 448–464.
DOI: https://doi.org/10.1080/00313831.2016.1172495 - Influence rate: **Low**

Location: **Finland**	Educational stage(s): **Multiple levels**	Grade(s): **Multiple**
Subject: **L1**	Student text assignment: **Fact**	
Theme(s): **Learning - Platforms**		
Main theoretical underpinning(s)**: Social constructivism**		
Research design: **Qualitative Method** Data sources: **Student texts - Document revisions**		
CW strategy: **Sequential writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing**	

Study contribution: This study explores seventh graders knowledge processing strategies in a Wiki. Analyzing students' and teachers' activities in the Wiki, the article explores how knowledge construction and collaborative writing skills are displayed. The results show that students do not spend time planning the text. Instead, the students' knowledge processes consist of listening (to the teachers' instructions), reading information about the topic and writing it down. In addition, the study found that students' feedback on each other's texts is mainly positive, which indicates a need for more tuition in the giving of constructive feedback.

Chu, S. K. W.; Capio, C. M., van Aalst, J. C. W. & Cheng, E. W. L. (2017)
Evaluating the Use of a Social Media Tool for Collaborative Group Writing of Secondary School Students in Hong Kong
Computers & Education, 110, 170–180.
DOI: https://doi.org/10.1016/j.compedu.2017.03.006 - Influence rate: **Low**

Location: **Hong Kong**	Educational stage(s): **Secondary School**	Grade(s): **7,9**
Subject: **Social studies**	Student text assignment: **Fact**	
Theme(s): **Platforms - Text revision**		
Main theoretical underpinning(s)**: Cooperative/collaborative learning**		
Research design: **Mixed method** Data sources: **Document revisions - Survey - Interview**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting Revising**	

Study contribution: The participants in this study were secondary school students in Hong Kong, using Pbworks, a Wikipedia tool, for group writing purposes. The study evaluated the amount and types of revisions performed in the written documents and found a positive correlation between collaboration practices (as reciprocal writing strategies opposed to sequential writing strategies) and the quality of group writing.

Jocius, R. (2017)
Becoming Entangled: An Analysis of 5th Grade Students Collaborative Multimodal Composing Practices
Computers and Composition, 47, 14–30.
DOI: https://doi.org/10.1016/j.compcom.2017.12.008 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **5**
Subject: **Unknown**	Student text assignment: **Multimodal creation**	
Theme(s): **Technology - Student interactions**		
Main theoretical underpinning(s)**: Social semiotics - New literacy studies**		
Research design: **Qualitative Method** Data sources: **Video observation - Audio records - Student texts - Interview**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Revising**	

Study contribution: In this qualitative study, the collaborative multimodal poetry composition of two 5th grade students in a Southern State US primary school is explored. Negotiations of the usage of digital tools, as well as other issues on individual work versus collaboration are observed and discussed. Educational support for collaborative classroom practices is proposed.

Kimmerle, J.; Moskaliuk, J.; Brendle, D. & Cress, U. (2017)
All in Good Time: Knowledge Introduction, Restructuring, and Development of Shared Opinions as Different Stages in Collaborative Writing
International Journal of Computer-Supported Collaborative Learning, 12(2), 195–213.
DOI: https://doi.org/DOI:10.1007/s11412-017-9258-6 - Influence rate: **Low**

Location: **Greece**	Educational stage(s): **Upper Secondary School**	Grade(s): **Multiple**
Subject: **Media**	Student text assignment: **Fact**	
Theme(s): **Learning - Student interactions**		
Main theoretical underpinning(s)**: Cooperative/collaborative learning**		
Research design: **Mixed method** Data sources: **Student texts - Document revisions**		
CW strategy: **Parallel writing**	CW activities observed: **Drafting - Reviewing - Editing - Revising**	

Study contribution: The purpose of this study was to examine the different stages of collaboration students, with different opinions on a subject, go through when writing a text together. Analyzing data consisting of asynchronous writing processes by dyads of upper secondary students in an online tool, the results show that students initially engage in introducing new knowledge. In the middle stage, students engage in restructuring. The last phase consists of forming and phrasing.

Kumpulainen, K. & Rajala, A. (2017)
Negotiating time-space Contexts in Students' Technology-Mediated Interaction During a Collaborative Learning Activity
International Journal of Educational Research, 84, 90–99.
DOI: https://doi.org/10.1016/j.ijer.2016.05.002 - Influence rate: **Low**

Location: **Finland**	Educational stage(s): **Primary School**	Grade(s): **Multiple**
Subject:	Student text assignment: **Fiction**	
Theme(s): **Student interactions - Platforms - Text revision**		
Main theoretical underpinning(s)**: Dialogism - Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Chat - Document revisions**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Editing - Revising**	
Study contribution: This study, situated in the context of a school musical project in Finland, analyzes students (grade 5 and 6) chatting in an online space while writing the musical manuscript. The aim is to define, describe and analyze students' technology-mediated learning across time and space in their chatting. The study sheds light on the new chronotypes of learning that co-exist with the more formal, educational chronotypes, which are situated both inside and outside of an institutional sphere.		

Li, X. (2017)
Putting Technological, Pedagogical, and Content Knowledge (TPACK) in Action: An Advanced Wiki-Based Collaborative Process Writing Pedagogy (AWCPWP)
International Journal of Culture and History, 3(4), 243–249.
DOI: https://doi.org/10.18178/ijch.2017.3.4.107 - Influence rate: **Low**

Location: **China**	Educational stage(s): **Primary School**	Grade(s): **4**
Subject: **L1**	Student text assignment: **Wiki-page**	
Theme(s): **CW effectiveness - Platforms - Learning**		
Main theoretical underpinning(s)**: Unknown**		
Research design: **Mixed method** Data sources: **Survey - Interview - Other documents**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Editing - Revising**	
Study contribution: This study discusses a design-based research project in Mainland China, where the researcher implements a Wiki-Based Collaborative Process Writing Pedagogy in order to improve the learning and teaching of Chinese to primary students. The article shows that the teacher and most of the students have a positive attitude towards the wiki-pedagogy which is further developed in the article.		

Nordmark, M. (2017)
Writing Roles: A Model for Understanding Students' Digital Writing and the Positions That They Adopt as Writers
Computers & Composition, 46, 56–71.
DOI: https://doi.org/10.1016/j.compcom.2017.09.003 - Influence rate: **Low**

Location: **Sweden**	Educational stage(s): **Upper Secondary School**	Grade(s): **Unknown**
Subject: **L1**	Student text assignment: **Fact**	
Theme(s): **Technology - Student interactions**		
Main theoretical underpinning(s)**: Sociocultural theory - New literacy studies**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Video observation - Interview - Field notes**		
CW strategy: **Parallel writing**	CW activities observed: **Drafting - Reviewing - Editing - Revising**	

Study contribution: In this study, collaborative writing activities in a Swedish Upper Secondary School are observed and analyzed with attention to writing roles and digital interactions. The study shows how writers «naturally» take on different roles and assist each other depending on their level of expertise.

Smith, B. E. (2017)
Composing Across Modes: A Comparative Analysis of Adolescents' Multimodal Composing Processes
Learning, Media and Technology, 42(3), 259–278.
DOI: https://doi.org/10.1080/17439884.2016.1182924 - Influence rate: **Medium**

Location: **United States**	Educational stage(s): **Upper Secondary School**	Grade(s): **12**
Subject: **L1**	Student text assignment: **Multimodal creation**	
Theme(s): **Student interactions - Technology**		
Main theoretical underpinning(s)**: Sociocultural theory - New literacy studies**		
Research design: **Qualitative Method** Data sources: **Video observation - Student texts - Other documents**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing**	

Study contribution: Three focal students in a US 12th grade language and composition class are the focal point of observation in this study on multimodal collaborative composition practices. Multimodal activities in dyads are analyzed with timescape coding, indicating the time spent on diverse compositional activities. The study casts new light on how students' modal preferences and attentions are structuring elements in collaborative writing.

Woodrich, M. & Fan, Y. (2017)
Google Docs as a Tool for Collaborative Writing in the Middle School Classroom
Journal of Information Technology Education Research, 16, 391–410.
DOI: https://doi.org/10.28945/3870 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s): **8**
Subject: **L1**	Student text assignment: **Fact**	
Theme(s): **CW effectiveness - Platforms**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Quantitative Method** Data sources: **Student texts - Document revisions - Survey**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Editing**	

Study contribution: In this quantitative study, the researchers examine how students writing and participation in a Google Docs while writing can be used to encourage student participation in a linguistically diverse classroom. Analyzing different types of writing (face-to-face, online, and anonymous), a rubric and survey, the study reveals that face-to-face writing is the most effective and that anonymous online writing led to higher levels of participation. The study indicates that the use of online writing tools is beneficial.

Blackburn, M. V. & Schey, R. (2018)
Shared Vulnerability, Collaborative Composition, and the Interrogation and Reification of Oppressive Values in a High School LGBTQ-Themed Literature Course
Journal of Literacy Research, 50(3), 335–358.
DOI: https://doi.org/10.1177/1086296X18784336 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s): **Multiple**
Subject: **Literature**	Student text assignment: **Multiple**	
Theme(s): **Student interactions - Student conversations - LGBTQ**		
Main theoretical underpinning(s)**: Sociocultural theory - New literacy studies**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Field notes - Student texts - Video observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Editing - Revising**	

Study contribution: In this article, vulnerability in the collaborative composition of texts is studied. The researchers take an ethnographic approach in analyzing students and teachers collaborative writing interaction. The findings show, that on the one hand, when vulnerability was shared by the group oppressive values were interrogated. On the other hand, when vulnerability was imposed on only one individual in the group, oppressive values were maintained.

de Smedt, F. & van Keer, H. (2018)
Fostering Writing in Upper Primary Grades: A Study into the Distinct and Combined Impact of Explicit Instruction and Peer Assistance
Reading and Writing, 31(2), 325–354.
DOI: https://doi.org/10.1007/s11145-017-9787-4 - Influence rate: **Low**

Location: **Belgium**	Educational stage(s): **Primary School**	Grade(s): **Multiple**
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **CW effectiveness - Teaching methods - Learning**		
Main theoretical underpinning(s)**: Unknown**		
Research design: **Quantitative Method** Data sources: **Classroom observation - Survey - Student texts - Test**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Editing - Revising**	

Study contribution: This study from Belgium sought to investigate the effect of explicit instruction and peer assistance, both separately and combined, on students' (grade 5 and 6) individually and collaboratively written texts. The findings reveal that explicit instruction and peer assistance positively impacted students writing, thus, implicating that these conditions can foster students' writing performance.

Engen, B. K.; Giæver, T. H. & Mifsud, L. (2018)
It's a Fairy Tale' Using Tablets for Creating Composite Texts
Journal of Interactive Learning Research, 29(3), 301–321.
Influence rate: **Low**

Location: **Norway**	Educational stage(s): **Primary School**	Grade(s): **3**
Subject: **L1**	Student text assignment: **Fiction**	
Theme(s): **Technology - Student interactions**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Classroom observation - Field notes - Interview**		
CW strategy: **Sequential writing** **Reciprocal writing**	CW activities observed: **Outlining - Drafting - Reviewing - Editing - Revising**	

Study contribution: In this Norwegian study, the researchers analyzed third-grade students use of iPads in a classroom when creating fairy tales. Findings show that the writing activity was characterized with high levels of collaboration and engagement when working with an iPad. The students easily moved around with the iPad, thus extending the learning space beyond the classroom. In line with sociocultural perspectives, the iPad was found to function as a mediating tool for the students.

Herder, A.; Berenst, J.; de Glopper, K. & Koole, T. (2018)
Nature and Function of Proposals in Collaborative Writing of Primary School Students
Linguistics and Education, 46, 1–11.
DOI: https://doi.org/10.1016/j.linged.2018.04.005 - Influence rate: **Low**

Location: **Netherlands**	Educational stage(s): **Primary School**	Grade(s): **3-6**
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **Proposals**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Video observation - Audio records**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Editing - Revising**	

Study contribution: This study explores how proposals are made when primary school students write together in small groups. The study identifies five main targets of proposals: content of the text, procedure (task management), translation of generated content, text structure, and layout. Another finding is that proposals are made both verbally (in writing) and non-verbally (as gestures etc.).

Herder, A.; Berenst, J.; de Glopper, K. & Koole, T. (2018)
Reflective Practices in Collaborative Writing of Primary School Students
International Journal of Educational Research, 90, 160–174.
DOI: https://doi.org/10.1016/j.ijer.2018.06.004 - Influence rate: **Low**

Location: **Netherlands**	Educational stage(s): **Primary School**	Grade(s): **2-6**
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **Metatalk - Learning**		
Main theoretical underpinning(s)**: Cognitive theory**		
Research design: **Qualitative Method** Data sources: **Video observation - Audio records**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Editing - Revising**	

Study contribution: This study analyzes reflections between students during and after writing as a collaborative metacognitive learning practice. Among other findings, the study shows that students reflect upon writing norms when negotiating during collaborative writing.

Hoogeveen, M. & van Gelderen, A. (2018)
Writing with Peer Response Using Different Types of Genre Knowledge: Effects on Linguistic Features and Revisions of Sixth-Grade Writers
Journal of Educational Research, 111(1), 66–80.
DOI: https://doi.org/10.1080/00220671.2016.1190913 - Influence rate: **Low**

Location: **Netherlands**	Educational stage(s): **Primary School**	Grade(s): **6**
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **CW effectiveness - Learning**		
Main theoretical underpinning(s)**: Systemic functional linguistics**		
Research design: **Quantitative Method** Data sources: **Classroom observation - Student texts - Field notes**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: This quantitative study from the Netherlands examined how peer response can improve student's genre knowledge in texts. When studying 140 sixth grade students in three different writing settings, the findings show that the use of indicators of time and place was positively related to writing quality and that instruction in specific genre knowledge is a valuable addition when writing with peer response.

Krishnan, J.; Cusimano, A.; Wang, D. & Yim, S. (2018)
Writing Together: Online Synchronous Collaboration in Middle School
Journal of Adolescent & Adult Literacy, 62(2), 163–173.
DOI: https://doi.org/10.1002/jaal.871 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s): **8**
Subject: **L1**	Student text assignment: **Essay**	
Theme(s): **CW effectiveness - Teaching methods**		
Main theoretical underpinning(s)**: New literacy studies**		
Research design: **Quantitative Method** Data sources: **Student texts - Document revisions - Survey**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Outlining - Drafting - Reviewing - Editing - Revising**	

Study contribution: This quantitative study from an eight-grade classroom compares the differences in length and effectiveness in collaboratively and individually written essays. In addition, students' perception of collaborative writing is studies. Using the software DocuViz in analyzing revisions made in a Google Doc, the study suggests that collaborative writing produce stronger and longer texts than individually written texts. In general, students experienced that their essay writing was more effective when working collaboratively. The study suggest that collaborative writing is a valuable method for introducing new genres to students.

Lehraus, K. & Marcoux, G. (2018)
Co-Regulation Processes Within Interactive Dynamics: Insights from Second Graders' Cooperative Writing
Problems of Education in the 21st Century, 76(4), 425–436.
DOI: https://doi.org/10.33225/pec/18.76.425 - Influence rate: **Low**

Location: **Switzerland**	Educational stage(s): **Primary School**	Grade(s): **2**
Subject: **L1**	Student text assignment: **Fact**	
Theme(s): **Learning - Metatalk**		
Main theoretical underpinning(s)**: Social constructivism - Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Video observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Editing - Revising**	

Study contribution: This qualitative study explores how four Swiss second grade pupils collaborate when writing. The results indicate that there are several learning opportunities from collaborative writing, amongst them metalanguaging and social development. The researchers also observed issues related to cooperation difficulties, which point to the importance of communication skills and teamwork as a necessary component for successful cooperative learning.

Li, X. & Chu, S. K. W. (2018)
Using Design-Based Research Methodology to Develop a Pedagogy for Teaching and Learning of Chinese Writing with Wiki among Chinese Upper Primary School Students
Computers & Education, 126, 159–175.
DOI: https://doi.org/10.1016/j.compedu.2018.06.009 - Influence rate: **Low**

Location: **China**	Educational stage(s): **Primary School**	Grade(s): **Multiple**
Subject: **L1**	Student text assignment: **Wiki-page**	
Theme(s): **CW effectiveness - Platforms - Learning**		
Main theoretical underpinning(s)**: Social constructivism**		
Research design: **Mixed method** Data sources: **Interview - Classroom observation - Survey - Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Editing - Revising**	

Study contribution: In this study, the researchers aim at improving the teaching and learning of students' writing by implementing a Wiki-based collaborative process writing pedagogy in a Chinese primary school. Using design based-research, the study presents how the Wiki-tool, which was developed and improved in three research phases, amongst other things helped to improve students writing abilities, collaboration and writing attitudes.

Pifarré, M & Li, L. (2018)
Characterizing and Unpacking Learning to Learn Together Skills in a Wiki Project in Primary Education
Thinking Skills and Creativity, 29, 45–58.
DOI: https://doi.org/10.1016/j.tsc.2018.06.004 - Influence rate: **Low**

Location: **Spain**	Educational stage(s): **Primary School**	Grade(s): **6**
Subject: **Science**	Student text assignment: **Fact**	
Theme(s): **Technology - Student interactions**		
Main theoretical underpinning(s)**: Social constructivism**		
Research design: **Mixed method** Data sources: **Document revisions - Video observation**		
CW strategy: **Sequential writing** **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Revising**	
Study contribution: This study with 6th graders in a Spanish primary school investigates in how learning-to-learn-together (L2L2) skills are supported on face-to-face (reciprocal) collaborative writing and between-pairs (sequential) collaborative writing in a science wiki projects. The results of the study indicate that both forms of collaboration support L2L2 skills and that the wiki affordances combined with face-to-face interaction is a "powerful collaborative learning environment".		

Rubino, I.; Barberis, C. & Malnati, G. (2018)
Exploring the Values of Writing Collaboratively through a Digital Storytelling Platform: A Mixed-Methods Analysis of Users' Participation, Perspectives and Practices
Interactive Learning Environments, 26(7), 882–894.
DOI: https://doi.org/10.1080/10494820.2017.1419499 - Influence rate: **Low**

Location: **Italy**	Educational stage(s): **Secondary School**	Grade(s):
Subject: **L1**	Student text assignment: **Fiction**	
Theme(s): **Platforms - Learning**		
Main theoretical underpinning(s)**: Social constructivism**		
Research design: **Mixed method** Data sources: **Document revisions - Chat**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting**	
Study contribution: This study from Italy analyzes to what extent a Digital Storytelling (DST) platform may enhance students' performance, commitment, creativity and social skills in collaborative writing. Analyzing students' activities in the platform, the results show that the use of a DST tool in the teaching practice can positively affect students' engagement in the writing process.		

Wargo, J. M. (2018)
Writing "with" Wearables? Young Children's Intra-Active Authoring and the Sounds of Emplaced Invention
Journal of Literacy Research, 50(4), 502–523.
DOI: https://doi.org/10.1177/1086296X18802880 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **3-6**
Subject: **Unknown**	Student text assignment: **Multimodal creation**	
Theme(s): **Student interactions - Technology**		
Main theoretical underpinning(s)**: Posthumanism - Rhythm theory**		
Research design: **Qualitative Method** Data sources: **Video observation - Field notes - Student texts - Interview**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Editing**	

Study contribution: This study examines how a multimodal collaborative writing session may be understood as an act of material←→discursive withness. Perspectives from post humanistic theory are utilized to document the relationship of sound, humans and technology in a rather untraditional collaborative writing session, where picture books, GoPro cameras and video editing software engages in a human-materialistic becoming.

Chu, S. K. W.; Wu, J.; Kwan, C. W. S. & Lai, J. H. Y. (2019)
Wiki-based Collaborative Writing: A Comparative Study on First and Second Language Writing among Chinese Secondary Students
Modern Education and Computer Science, 1, 1–10.
DOI: https://doi.org/10.5815/ijmecs.2019.01.01 - Influence rate: **Low**

Location: **China**	Educational stage(s): **Secondary School**	Grade(s):
Subject: **Social studies**	Student text assignment: **Wiki-page**	
Theme(s): **Student interactions - Platforms**		
Main theoretical underpinning(s)**: Unknown**		
Research design: **Qualitative Method** Data sources: **Document revisions - Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: This comparative study analyses wiki-writing in two conditions: in students first language (L1) and in students' second language (L2). The study analyzes the activities, participation levels, interaction patterns and levels of collaboration in students work in a wiki-tool. The results reveal, that students in both L1 and L2 groups avoided editing each other's texts, show low participation and collaboration in the wiki activities. L1 groups' interactions concerned planning, whereas L2 groups' interaction related to seeking input in the group.

de Smedt, F.; Graham, S. & Van Keer, H. (2019)
The Bright and Dark Side of Writing Motivation: Effects of Explicit Instruction and Peer Assistance
Journal of Educational Research, 112(2), 152–167.
DOI: https://doi.org/10.1080/00220671.2018.1461598 - Influence rate: **Low**

Location: **Belgium**	Educational stage(s): **Primary School**	Grade(s): **Multiple**
Subject: **Unknown**	Student text assignment: **Fact**	
Theme(s): **CW effectiveness - Student interactions - Learning**		
Main theoretical underpinning(s)**: Self-determination theory - Self-efficacy theory**		
Research design: **Quantitative Method** Data sources: **Survey - Classroom observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting**	

Study contribution: In this quantitative study from primary classrooms in Belgium, the impact of explicit instruction and peer-assisted writing on students' writing motivation and self-efficacy for writing is explored. The study reveals that peer-assistance is beneficial for students' autonomous writing motivation. Furthermore, the study shows that students writing with peers show higher rates of motivation in the post-test, compared to students' writing individually.

Felipeto, S. C. S. (2019)
Collaborative and Individual Writing in a Classroom: An Analysis of Texts Written by Elementary School Students
Alfa, 63(1), 141–160.
DOI: https://doi.org/10.1590/1981-5794-1904-6 - Influence rate: **Low**

Location: **Brazil**	Educational stage(s): **Primary School**	Grade(s): **2**
Subject: **L1**	Student text assignment: **Fiction**	
Theme(s): **CW effectiveness - Learning - Student interactions**		
Main theoretical underpinning(s)**: Unknown**		
Research design: **Quantitative Method** Data sources: **Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: In this study from a primary class in Brazil, the researcher sought to investigate textual length, frequency of erasures and orthographic errors in texts written by second grade students in individually and collaboratively conditions. The findings show, that the collaboratively written texts are longer, contain more erasures and have slightly more errors than individually written texts.

Hermansson, C.; Jonsson, B.; Levlin, M.; Lindhé, A.; Lundgren, B. & Norlund Shaswar, A. (2019)
The (non)Effect of Joint Construction in a Genre-based Approach to Teaching Writing
The Journal of Educational Research, 112(4), 483–494.
DOI: https://doi.org/10.1080/00220671.2018.1563038 - Influence rate: **Low**

Location: **Sweden**	Educational stage(s): **Primary School**	Grade(s): **4-6**
Subject: **Multiple**	Student text assignment: **Fiction**	
Theme(s): **CW effectiveness**		
Main theoretical underpinning(s)**: Social constructivism - Systemic functional linguistics**		
Research design: **Quantitative Method** Data sources: **Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting**	
Study contribution: In this Swedish quasi-experimental study of a Sydney-school genre-based composition process, a student group utilizing joint construction was compared with a control group not utilizing joint construction. After reviewing post-tests, there was no indication of higher writing skills between the two groups. The results of this study thus questions established claims that "joint construction is the most powerful classroom practice available" and points to the importance of using control groups for future CW effectiveness studies.		

Jaeger, E. (2019)
Friends and Authors: Spontaneous Co-composing in a Writing Workshop
Journal of Early Childhood Literacy, 0*(0)*, 1–39.
DOI: https://doi.org/10.1177/1468798419833096 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Primary School**	Grade(s): **3**
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Student interactions - Student conversations**		
Main theoretical underpinning(s)**: Dialogism**		
Research design: **Qualitative Method** Data sources: **Classroom observation - Audio records - Interview - Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Revising**	
Study contribution: Spontanous collaborative writing in a group of four boys at a US elementary school is observed in this case study. Based on Bakhtins notion of heteroglossia, the students' voices (oral and written) was coded and analysed. The result of the study shows how different vocies such as discussion, shifts, authoring and intertextuality blends in to the emerging writing interactions and the text as end product.		

Krishnan, J.; Yim, S.; Wolters, A. & Cusimano, A. (2019)
Supporting Online Synchronous Collaborative Writing in the Secondary Classroom
Journal of Adolescent & Adult Literacy, 63(2), 135–145.
DOI: https://doi.org./10.1002/jaal.969 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s): **8**
Subject: **L1**	Student text assignment: **Essay**	
Theme(s): **CW effectiveness - Platforms - Teaching methods**		
Main theoretical underpinning(s)**: Sociocultural theory -**		
Research design: **Qualitative Method** Data sources: **Student texts - Document revisions -**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Outlining - Drafting - Reviewing - Editing - Revising**	
Study contribution: The purpose of the article is to visualize the features and possible learning outcomes of synchronous collaborative writing. The teacher's actions as empirical data serves as examples to existing literature review. The results show, that collaborative groups can produce stronger and longer source-based argumentative essays when students draw on their collective strengths during online synchronous writing.		

Magnifico, A.M.; Woddard, R. & McCarthey, S. (2019)
Teachers as Co-Authors of Student Writing: How Teachers' Initiating Texts Influence Response and Revision in an Online Space. *Computers and Composition,* 52, 107–131.
DOI: https://doi.org/10.1016/j.compcom.2019.01.005 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Secondary School**	Grade(s):
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **Proposals - Text revision**		
Main theoretical underpinning(s)**: Dialogism**		
Research design: **Mixed method** Data sources: **Student texts - Document revisions - Other documents**		
CW strategy: **Sequential writing**	CW activities observed: **Drafting - Reviewing - Editing - Revising**	
Study contribution: The aim of this article is to explore the influences of teachers' co-authorship with students in an online web writing and feedback tool. The study suggests that the students' texts to a high degree is structured and aligned in accordance with the teachers' suggestions, and that teachers need to be aware of their powerful influence as co-authors in student texts.		

Montanero, M. & Madeira, M-L. (2019)
Collaborative Chain Writing: Effects on the Narrative Competence of Primary School Students
Infancia y Aprendizaje, 42(4), 915–951.
DOI: https://doi.org/10.1080/02103702.2019.1650464 - Influence rate: **Low**

Location: **Portugal**	Educational stage(s): **Primary School**	Grade(s): **4**
Subject: **L1**	Student text assignment: **Fiction**	
Theme(s): **CW effectiveness - Text revision**		
Main theoretical underpinning(s)**: Sociocognitive theory**		
Research design: **Quantitative Method** Data sources: **Video observation - Test - Student texts**		
CW strategy: **Sequential writing**	CW activities observed: **Brainstorming - Outlining - Drafting - Reviewing - Editing - Revising**	

Study contribution: In this quasi-experimental study, sequential collaborative writing among Portuguese students in primary school was compared with an individual writing control group. The results of the study clearly indicates that collaborative writing proves more effective than individual writing, especially when certain support is in place, such as guidelines for planning and rubrics for revision work.

Peterson, S. S. & Rajendram, S. (2019)
Teacher-child and Peer Talk in Collaborative Writing and Writing-Mediated Play: Primary Classrooms in Northern Canada
Australian Journal of Language & Literacy, 42(1), 28–39.
Influence rate: **Low**

Location: **Canada**	Educational stage(s): **Primary School**	Grade(s): **1**
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **Student conversations - Student interactions**		
Main theoretical underpinning(s)**: Sociocultural theory - Social linguistics**		
Research design: **Qualitative Method** Data sources: **Video observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing**	

Study contribution: In this study, teacher-children interactions are observed under informal writing settings in kindergarten and in primary classrooms in Canada. The study points to the importance of teacher-child collaboration and childrens' explanations on writing as a way of providing writing instruction and feedback.

Smith, B. E. (2019)
Collaborative Multimodal Composing: Tracing the Unique Partnerships of Three Pairs of Adolescents Composing across Three Digital Projects
Literacy, 53(1), 14–21.
DOI: https://doi.org/10.1111/lit.12153 - Influence rate: **Low**

Location: **United States**	Educational stage(s): **Upper Secondary School**	Grade(s): **12**
Subject: **L1**	Student text assignment: **Multimodal creation**	
Theme(s): **Student interactions - Student conversations**		
Main theoretical underpinning(s)**: Sociocultural theory - Social semiotics**		
Research design: **Qualitative Method** Data sources: **Video observation - Interview - Screen recordings**		
CW strategy: **Parallel writing** **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Reviewing - Editing - Revising**	

Study contribution: This study examined how three pairs of culturally and linguistically diverse Grade 12 students collaboratively composed across three multimodal projects. In the study, the researcher analyzed screen captures, video observations, student interviews and written reflections and found, that three different types of collaborative partnerships emerged. These were: (1) designer and assistant collaboration, (2) balanced division collaboration and (3) alternating lead collaboration.

Wiig, C.; Wittek, A. L. & Erstad, O. (2019)
Teachers, Tools and Accountable Practices. Engaging With a Wiki Blog as a Learning Resource
Learning, Culture and Social Interaction, 22.
DOI: https://doi.org/10.1016/j.lcsi.2018.07.001 - Influence rate: **Low**

Location: **Norway**	Educational stage(s): **Secondary School**	Grade(s): **9**
Subject: **Science**	Student text assignment: **Fact**	
Theme(s): **Platforms - Learning**		
Main theoretical underpinning(s)**: Sociocultural theory - New literacy studies**		
Research design: **Qualitative Method** Data sources: **Video observation - Classroom observation - Student texts - Field notes**		
CW strategy: **Sequential writing**	CW activities observed: **Reviewing**	

Study contribution: The aim of this study is to analyze how a teacher and 26 students in a Norwegian secondary science class use a Wiki blog as a learning resource. The study shows how the teacher's framing is important for resolving dilemmas when utilizing wiki tools and mobile phones as unfamiliar informal medial practices in the in the formal school discourse.

Calil, E. & Myhill, D. (2020)
Dialogue, Erasure and Spontaneous Comments During Textual Composition: What Students' Metalinguistic Talk Reveals about Newly-Literate Writers' Understanding of Revision
Linguistics and Education, 60.
DOI: https://doi.org/10.1016/j.linged.2020.100875 - Influence rate: **Low**

Location: **Brazil**	Educational stage(s): **Primary School**	Grade(s):
Subject: **Unknown**	Student text assignment: **Fiction**	
Theme(s): **Text revision - Student interactions - Metatalk**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Audio records - Video observation - Document revisions**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing - Editing - Revising**	

Study contribution: This study analyzed emergent writers (age 6–7) revision of jointly produced texts. The study reveals that the students are engaged in making correcting graphical-spatial erasures in the texts, and spending less time on the joint composition and meaning-making. The study contributes with insight into newly-literate students metatalk and text revisions, and problematizes the notion of" collaboration" among young students–showing that the students worked as author and editor rather than co-authors.

de Smedt, F.; Graham, S. & van Keer, H. (2020)
"It takes two": The Added Value of Structured Peer-Assisted Writing in Explicit Writing Instruction
Contemporary Educational Psychology, 60.
DOI: https://doi.org/10.1016/j.cedpsych.2019.101835 - Influence rate: **Low**

Location: **Belgium**	Educational stage(s): **Primary School**	Grade(s): **Multiple**
Subject: **Unknown**	Student text assignment: **Multiple**	
Theme(s): **CW effectiveness - Teaching methods - Learning**		
Main theoretical underpinning(s)**: Sociocognitive theory**		
Research design: **Quantitative Method** Data sources: **Test - Classroom observation - Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting - Editing - Revising**	

Study contribution: In this quantitative study, different writing conditions (individual or peer assisted writing, explicit instruction or business as usual) were analyzed in order to examine students' writing performance, self-efficacy and motivation. The students who were given explicit instruction and peer assistance outperformed the other writing conditions concerning writing performance and self-efficacy. However, the individual and business as usual-conditions scored higher on writing motivation that in the peer assisted conditions.

Rojas-Drummond, S M..; Barrera Olmedo, M. J.; Hernandéz Cruz, I. & Vélez Espinosa, M. (2020)
Dialogic Interactions, Co-regulation and the Appropriation of Text Composition Abilities in Primary School Children
Learning, Culture and Social Interaction, 24.
DOI: https://doi.org/10.1016/j.lcsi.2019.100354 - Influence rate: **Low**

Location: **Mexico**	Educational stage(s): **Primary School**	Grade(s): **6**
Subject: **Unknown**	Student text assignment: **Fact**	
Theme(s): **Student conversations - CW effectiveness**		
Main theoretical underpinning(s)**: Sociocultural theory - Dialogism**		
Research design: **Qualitative Method** Data sources: **Student texts - Test - Video observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting - Reviewing**	

Study contribution: In this qualitive study, the children´s dialogues when writing together, in four focal triads, is analyzed with a specific educational dialogue tool. The analysis reveals that the group which received extensive training in the collaborative "Learning together" method clearly learned to compose higher quality written articles.

Zioga, C. & Bikos, K. (2020)
Collaborative Writing Using Google Docs in Primary Education: Development of Argumentative Discourse
Turkish Online Journal of Distance Education, 21(1), 133–142.
DOI: https://doi.org/10.17718/tojde.690372 - Influence rate: **Low**

Location: **Greece**	Educational stage(s): **Primary School**	Grade(s): **5**
Subject: **L1**	Student text assignment: **Essay**	
Theme(s): **Platforms - CW effectiveness**		
Main theoretical underpinning(s)**: Cooperative/collaborative learning**		
Research design: **Quantitative Method** Data sources: **Student texts**		
CW strategy: **Reciprocal writing**	CW activities observed: **Brainstorming - Drafting Revising**	

Study contribution: This study, conducted in a Year 5 Greek classroom, aimed at studying the effect of using Google Docs when learning to produce argumentative texts. Analyzing students writing together in groups of 3–4, and using pre- and post-interventions, the results show that the use of a Web platform improved almost every structural element studied in students' texts.

Herder, A.; Berenst, J.; de Glopper, K. & Koole, T. (2020a)
Sharing Knowledge with Peers: Epistemic Displays in Collaborative Writing of Primary School Children
Learning, Culture and Social Interaction, 24.
DOI: https://doi.org/10.1016/j.lcsi.2020.100378 - Influence rate: **Low**

Location: **Netherlands**	Educational stage(s): **Primary School**	Grade(s): **2-6**
Subject: **Unknown**	Student text assignment: **Fact**	
Theme(s): **Student conversations - Learning**		
Main theoretical underpinning(s)**: Sociocultural theory**		
Research design: **Qualitative Method** Data sources: **Video observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Drafting**	
Study contribution: This study on Dutch primary school students observes and analyzes how creation of knowledge is produces as so-called “epistemic displays” during diverse collaborative writing sessions. The study provides new knowledge on how such displays are produced during proposals, responses, corrections, disagreement and expansion of writing events.		

Herder, A.; Kees de Glopper, J. B. & Koole, T. (2020b)
Conversational Functions of 'I know', 'you know' and 'we know' in Collaborative Writing of Primary School Children
Classroom Discourse
DOI: https://doi.org/10.1080/19463014.2020.1814368 - Influence rate: **Low**

Location: **Netherlands**	Educational stage(s): **Primary School**	Grade(s): **2-6**
Subject: **Unknown**	Student text assignment: **Fact**	
Theme(s): **Student conversations - Proposals**		
Main theoretical underpinning(s)**: Social interaction theory**		
Research design: **Qualitative Method** Data sources: **Video observation**		
CW strategy: **Reciprocal writing**	CW activities observed: **Reviewing**	
Study contribution: The aim of this study is to explore how students engage with collaborative writing express knowledge about themselves, about others and about the task they are performing in collaborative writing dialogues. The study observes a number of epistemic displays, including self-positioning of knowledge and access to equal or shared knowledge.		

Appendix 2: References to studies in the scoping review

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