International Journal of Doctoral Studies

An Official Publication of the Informing Science Institute
InformingScience.org

IJDS.org

Volume 14, 2019

DEVELOPING ACADEMIC IDENTITY: A REVIEW OF THE LITERATURE ON DOCTORAL WRITING AND FEEDBACK

Kelsey Inouye* University of Oxford, Oxford, UK kelsey.inouye@education.ox.ac.uk

Lynn McAlpine University of Oxford, Oxford, UK; McGill University, Montreal, Canada lynn.mcalpine@learning.ox.ac.uk

* Corresponding author

ABSTRACT

Aim/Purpose This systematic review synthesizes the literature on doctoral writing and feedback published in peer-reviewed English-language journals between 1997 and 2017 to provide insight into how these topics have been theorized and approached. The goal was to examine how this literature characterizes the development of academic identity in doctoral students to better understand the conceptual relationships underpinning previous studies, and advance work on writing, feedback, and identity to support budding researchers.

Background Research on doctoral writing and identity development has been a focus of research in higher education over the past two decades, as identity development has been recognized as a key outcome of doctoral study; the PhD program is meant to transform students into independent researchers. As a site of identity development, writing—and feedback on writing—are central to doctoral growth.

Methodology The systematic search resulted in 887 citations, of which 579 abstracts were read reducing the number of relevant citations to 95. These 95 full text papers were reviewed, and 37 studies met our inclusion criteria. Frequently cited papers were identified and 3 were added to the final corpus for a total of 40 articles. (Limitations include the constraint to English-language articles and the exclusion of books, book chapters, and conference papers.) All 40 articles were open coded for definitions of academic identity, theoretical frameworks, research context, and key themes.

Contribution This paper contributes a comprehensive analysis of the theoretical perspectives on identity development underlying recent work on doctoral writing and feedback. It demonstrates that this literature takes a largely sociocultural approach to identity: conceived as shaped largely by social structures and interactions. This

Accepting Editor Norma J. Turner | Received: November 1, 2018 | Revised: December 21, 2018 | Accepted: December 28, 2018.

Cite as: Inouye, K., & McAlpine, L. (2019). Developing academic identity: A review of the literature on doctoral writing and feedback. *International Journal of Doctoral Studies, 14,* 1-31. https://doi.org/10.28945/4168

review also confirms a complex relationship between writing, feedback, and identity in which doctoral students draw upon feedback on their writing to learn about what it means to be a researcher in practice, and how to communicate like a researcher in their relevant discourse communities, thereby advancing their research thinking and encouraging critical reflection on writing and research practices.

Findings — The review revealed that the literature draws primarily on sociocultural perspectives, that is, examining writing and feedback through the lens of the practices of the groups in which the individual engages - with academic identity development, though rarely defined, represented as an iterative process of writing and feedback. We noted two gaps resulting from this perspective, which are highlighted by the very few studies taking different perspectives. The first is the lack of attention to individual variation in agency as regards seeking out and using feedback. The second is the potential influence of feedback on critical thinking, which is seen as central to PhD progress.

Future Research — Future research may adopt varying theoretical approaches to identity development to shed light on the role of individual agency in identity construction. Future studies that focus on the process of how students respond to and are influenced (or not) by feedback would be useful in illuminating the connections between feedback, writing, and the development of research thinking—all of which contribute to identity development.

Keywords — academic identity, doctoral writing, feedback, systematic review

INTRODUCTION

Over the past two decades conceptions of scholarly writing have moved from a solely skills-based approach emphasizing acquisition of specific grammatical and linguistic skills (Kamler & Thomson, 2014; Lea & Street, 1998), to a view of scholarly writing as a socially situated practice involving interaction with the texts and people within one's discipline (see e.g., Fairclough, 1992; Ivanic, 1998). Simultaneously, as this shift in thinking about the nature of writing solidified, questions about the relationship between academic identity and scholarly writing have come into focus, spurred by scholars like Kamler and Thomson (2014) who argued that as doctoral students engage in scholarly writing they also forge new identities as researchers and potential academics.

Within this growing body of work on doctoral writing and identity, feedback has emerged as an important topic in facilitating the scholarly development of graduate students (see, e.g., Caffarella & Barnett, 2000), and has been identified as the primary means of learning research writing (Aitchison, et al., 2012). As students receive feedback on everything from scholarly writing conventions, to disciplinary knowledge, and argument construction, they both develop their writing and make decisions about who they want to be as researchers. Through this process, they construct an academic identity that is reflected in the research contribution they wish to make, the people they cite, and the methodologies and theoretical approaches with which they align (Castello, Inesta, & Corcelles, 2013; Filipovic & Jovanic, 2016; Guerin, 2013). In this sense, writing is not just a matter of reproducing knowledge, but rather a means of creating knowledge (see Yore, Florence, Pearson, & Weaver, 2006; Yore, Hand, & Florence, 2004) and expressing a critical position, implying a complex process of meaning-making and identity construction that involves social and cognitive factors (Castello, Inesta, & Corcelles, 2013; Ivanic, 1998).

Though many graduate students begin to learn about scholarly writing at the master's level (Gazza, et al., 2013), in doctoral study the complexity of scholarly writing is compounded by the unique nature

of the doctoral program, which demands that students learn to think in qualitatively different ways in order to undertake a significant and largely independent research project that implicates their future career trajectories (Ballamingie & Johnson, 2011; Billo & Hiemstra, 2013). The Dublin Descriptors, developed as part of the 2005 Qualifications Framework of the European Higher Education Area, describe the expectations of each level of higher education, and highlight a significant gap in competency goals from master's to doctoral work (see Table 1):

Table 1. The Dublin Descriptors (Joint Quality Initiative, 2004)

	Master's	**PhD**
Knowledge and understanding	Provides a basis or opportunity for originality in developing or applying ideas often in a research context	Includes a *systematic understanding of their field of study and mastery of the methods of research* associated with that field
Applying knowledge and understanding	Problem solving abilities applied in new or unfamiliar environments within broader (or multidisciplinary contexts)	Ability to *conceive, design, implement, and adapt a substantial process of research with scholarly integrity*; A contribution that extends the frontier of knowledge by developing a substantial body of work some of which merits national or international refereed publication
Making judgments	Ability to integrate knowledge and handle complexity, and formulate judgments with incomplete data	Capable of *critical analysis and synthesis of new and complex ideas*
Learning focus	Study in a manner that may be largely self-directed or autonomous	Able to promote, within academic and professional contexts, technological, social or cultural advancement
Communication	Their conclusions and the underpinning knowledge and rationale (restricted scope) to specialist and non-specialist audiences (monologue)	With their peers, the larger scholarly community and with society in general (dialogue) about their areas of expertise (broad scope)

Thus, expectations of doctoral students differ from those of master's students in several key ways: comprehensive knowledge of both research methods and the relevant literature; production of a substantial intellectual contribution worthy of international publication; ability to critique and produce knowledge; and the ability to promote research impact and converse with other experts in the field as well as the general public. Master's study represents the beginning of autonomous research and critical analysis, while doctoral study requires entering the academic community as a contributing researcher, a transition that often proves challenging for new PhD students (McPherson, Punch, & Graham, 2018). As the number of PhD students continues to grow worldwide in response to the demand for competent researchers who can contribute to their countries' growing knowledge economies, the need for research on this unique stage of higher education has become necessary, particularly when doctoral completion rates remain low (HEFCE, 2013; Litalien, 2015) and writing the thesis has long been identified as a common barrier to completion (Torrance, Thomas, & Robinson, 1994). The unique challenges presented by the PhD thesis have therefore been the focus of a num-

ber of studies, positioning doctoral writing and identity as worthy areas of inquiry with important practical implications for pedagogy.

However, despite the substantial number of studies focused on aspects of academic identity and doctoral writing, to our knowledge there has been no review that systematically analyzes the existing literature. Because the focus of this review is on academic identity, the PhD has been selected over professional doctorates, which may involve more complex relationships between academic and practitioner identities related to program and student goals. Given the recent interest in research writing as involving identity, and the extensive work highlighting the centrality of feedback in learning writing and shaping identity development (e.g. Aitchison, 2009; Can & Walker, 2011, 2014; Lassig, Dillon, & Diesmann, 2013; Maher, et al., 2008), the purpose of this review was to examine how the literature on feedback on doctoral writing characterizes the construction of academic identity in PhD students. The value of such a synthesis is a better understanding of the conceptual relationships underpinning previous studies and the opportunity to highlight areas for future study. This in turn, enables us, as researchers, to advance work on writing, feedback, and identity to better support emerging researchers. Further, as PhD program enrollment continues to grow (Maslen, 2013), and the doctoral thesis remains a common barrier to timely completion and successful graduation (e.g., Aitchison, Catterall, Ross, & Burgin, 2012; Carter & Kumar, 2017), understanding how doctoral students develop as researchers within the context of scholarly writing is a relevant and important topic.

Thus, the research question and sub-questions guiding this review are:

1. How does the literature characterize the development of academic identity in relation to feedback on research writing in doctoral students?
    a. How does the literature conceptualize and define identity in doctoral students?
    b. What are the key themes in relation to identity development that emerge in the findings of the literature?
    c. What do these key themes say about the relationship between academic identity development and feedback on research writing?

These questions, meant to shed light on the nature of the literature and the espoused relationship between feedback on writing and academic identity, will contribute to our understanding of how writing, identity, and feedback have been theorized and approached over the past two decades, highlighting both the benefits of existing studies and what aspects of the field have been overlooked. Finally, given that social views of writing are prevalent in education and social science departments, we approached the review understanding the literature might take a largely sociocultural perspective on doctoral identity, one located within a particular discipline and discourse community that involves interaction with feedback and texts. We did not specify a particular perspective within this stance. Rather, we wished to a) verify this assumption, b) document the different perspectives taken within this broad stance, and c) seek evidence of alternate stances.[1]

Defining the Scope of this Review

A systematic review (Kennedy, 2007) delineates specific literature searching procedures, and thus detailed inclusion and exclusion criteria were applied to identify a body of literature on doctoral writing, feedback, and the development of academic identity. But first, as an initial step in considering a central topic of this review—identity—a key question was the scope of the exploration of identity, what

[1] We have been working together for four years exploring writing, feedback and identity development in early career researchers. We came to realize that we lacked a way to situate our own work within the literature. In other words, the field lacked a careful analysis of the conceptual stances used in relation to identity development. This encouraged us to undertake this review. We hope others find it as useful as it has been for us.

aspects of, or terms used to refer to academic identity are relevant. While the term "academic identity" seems to appear most commonly in the literature as referring to research work and positioning (see, e.g. Aitchison, et al., 2012; Guerin, 2013), other phrases including "scholarly identity," "researcher identity," and "disciplinary identity" also appear in similar contexts to refer to how researchers position themselves within their particular fields and exhibit the skills and thinking that are typically attributed to independent researchers and established academics (see, e.g., Aitchison, et al., 2012; Wegener, Meier, & Ingerslev, 2016).

Although some scholars in higher education distinguish between what makes a scholar, researcher, and academic, using such terminology in specific contexts (Boote & Beile, 2005; Hart, 1999; Henkel, 2004, 2005), these distinctions are often not explicit. Thus, in defining the initial search terms for this study, we treat the possible distinctions between academic, scholarly, and academic identity as insignificant, as all three meanings may hold relevance for researcher development and are often used interchangeably. We therefore included all terms in our initial appraisal of the literature. Preliminary searches of the literature also suggested that a significant body of work existed that articulated issues of academic identity without actually using the term "identity", instead focusing on concepts like academic enculturation, which speak to how people become researchers by becoming part of the academic communities or acquiring research skills. Thus, we also included terms related to academic enculturation in our initial literature search in order to capture a larger sample of papers. However, though we cast a wide net, we are ultimately concerned with how students become researchers, not the additional roles involving teaching, administration, etc. that may contribute to the overall identity of a working academic. This focus is further reflected in the inclusion/exclusion criteria applied after the initial literature searches.

Because this review focuses specifically on identity as interacting with scholarly writing and feedback, another aspect of academic identity also needed to be considered. Authorial identity, also known as writer identity, refers specifically to the identity the writer forges within the text by taking positions within the literature, drawing upon and interacting with other texts, and making language choices—all of which is conveyed through voice, the personal stamp or imprint one brings to the text (Barnett & di Napoli, 2007; Castello, Inesta, & Monereo, 2009). In other words, voice may be understood as *how* authorial identity is communicated, while authorial identity is the textual reflection of academic identity. As much research work is communicated through writing, developing an effective authorial identity within one's discipline is important for new scholars to be recognized within their fields, and demonstrates how the researcher positions him/herself within the discipline: "the text is an extension of the scholar" (Kamler & Thomson, 2006, p. 15). Because authorial identity is a facet or reflection of academic identity, and is central to scholarly writing, the literature focused upon in this review involves both general conceptions of academic identity and the specific authorial identity conveyed in texts through voice, which is created through the textual choices made by the author. Thus, this review is concerned with the ways in which the literature on feedback on scholarly writing conceives of development of academic identity in doctoral students, as manifested in changes in authorial identity, voice, and the extent to which students view themselves as researchers.

METHOD

LITERATURE SEARCH & SELECTION

The literature search was conducted via the Scopus, World of Science, ERIC, and British Education Index databases using a combination of the following keywords: identit*, academic sociali?ation, academic enculturation, academic discourse, doctoral, doctorate, phd, writing, write, feedback. The search was limited to journal articles published between 1997 and 2017 in English, and resulted in 887 unduplicated titles.

The 887 citations and abstracts were imported into the Mendeley citation manager, and initially appraisal by scanning the titles and eliminating entries that were clearly irrelevant to the topic, such as

literary and historical analyses, political pieces, accounting and business studies, scientific and medical articles. This resulted in 579 remaining articles. The abstracts of those 579 articles were then read using the following set of inclusion and exclusion criteria, which were discussed and revised by both authors based on sample abstracts and the research questions. Because few abstracts discussed identity explicitly, articles that mentioned socialization into academic or discourse communities, or development of authorial identity, stance, or voice, were also included in order to capture a spectrum of articles on writing and feedback that shed light on scholarly development. The criteria (Table 2) were generated after an initial read-through of the abstracts and were verified by colleagues with expertise in doctoral writing and identity. After identifying these criteria, the 579 abstracts were re-read applying the criteria, which resulted in 95 remaining articles.

Table 2. Inclusion & Exclusion Criteria

Criteria	Definition
Inclusion	
Focus on doctoral students	In order to be included, the study must examine doctoral students, as doctoral development is the focus of this review. Studies on master's students, post-docs, and lecturers were excluded.
Focus on researcher identity, writing, and feedback	In order to be included, the study must either (a) be related to research writing and the development of scholarly/research/academic identity, meaning the abstract must refer to either scholarly/academic/research identity, authorial identity, disciplinary identity, writer identity, academic socialization, authorial voice, or contain other language about becoming a scholar/academic/researcher or entering the academic community, or (b) focus on feedback in relation to research writing.
Exclusion	
Professional identities	Studies examining professional identities—teacher identities, nursing identities, etc.—were excluded, as this review targets research identity. Studies that focused on practice-based doctorates were included if they addressed research development and identity in addition to or instead of professional practice identities.
Personal, cultural, and ethnic identities	Although personal, cultural, and ethnic experiences are important in any type of identity development, studies focusing solely on these aspects of identity were excluded.
Identities in creative disciplines	Several studies examined the intersection between creative practice-based disciplines and research. Such studies were excluded if their focus was on reconciliation of creative and research identity rather than on the development of research identity itself.

Criteria	Definition
Supervision	Studies focusing solely on supervisory relationships were excluded if they contained no discussion of research writing and researcher identity development in doctoral students.
Writing courses	Studies of writing course outcomes were excluded if they did not include a discussion of how the writing affected researcher identity development.
Language studies	Studies on language use were excluded if focused solely on describing features of doctoral writing corpora or did not refer to academic or authorial identity, as were studies that focused on learning to do research writing in English that did not show a relationship to identity development.
Non-research writing	Studies focused on non-research doctoral writing—dissertation acknowledgements, personal statements, etc.—were excluded.
Creative methods	Studies using creative methods—creative writing, literature, visual exercises, etc.—to explore academic identity were excluded, as the focus of this review is on the relationship between research writing and research identity.

For the second phase of article filtering the first author read through the texts of the remaining 95 articles, paying special attention to the research questions and results sections, which produced a count of 37 articles. The purpose of this second round of filtering was to ensure the relevance of the papers; an initial read-through of selected articles revealed that a while a number of articles referred to identity in their abstracts, identity did not appear in any meaningful discussion of the results. In other words, the focus in this round of analysis required that the results or discussion section of a paper contain at least one paragraph on identity, voice, or becoming part of a discourse/disciplinary community in order to be included. Any articles that were excluded at this stage were documented in an Excel sheet with notes explaining reasons for exclusion. See Table 3 for details regarding inclusion/exclusion criteria.

Table 3. Inclusion & Exclusion Criteria: Round Two

Criteria	Definition
Inclusion	
Researcher identity & feedback	Included articles must have findings with implications for researcher identity development, as demonstrated in the results or discussion sections of the article by references to identity, authorial voice, or academic enculturation. Second, the article must address scholarly writing or feedback on scholarly writing as having some role in advancing at least one of the following: researcher identity, scholarly thinking/research goals, or presentation of research self through authorial voice.

Criteria	Definition
Exclusion	
Authorial voice in language studies	As there were a number of linguistic studies included by the abstract filtering, for this round, articles that did not address development of language use but rather report what common structures exist, or the differences in structure use in groups of writers (e.g. L1 vs. L2 students, students vs. professors), were excluded. In order for a linguistic study to be included, it must discuss the development of language use in research writing as related to construction of authorial voice or identity.

As the final step in the literature search, the first author compiled the reference lists of all 37 articles in an Excel sheet and identified the citations that appeared in more than one article in order to determine whether there were any influential papers that did not appear in the search. Of the roughly 200 sources that were cited more than once, 16 were cited five or more times. An evaluation of these 16 most common citations revealed that three articles were already included, and seven citations were books, which were outside the scope of this research article-based review. Of the remaining six journal articles, three either did not discuss academic identity, or were not focused on doctoral writing or feedback. Thus, the three remaining relevant articles were added to the corpus of literature, bringing the final number of articles to 40. Figure 1 outlines the literature identification process.

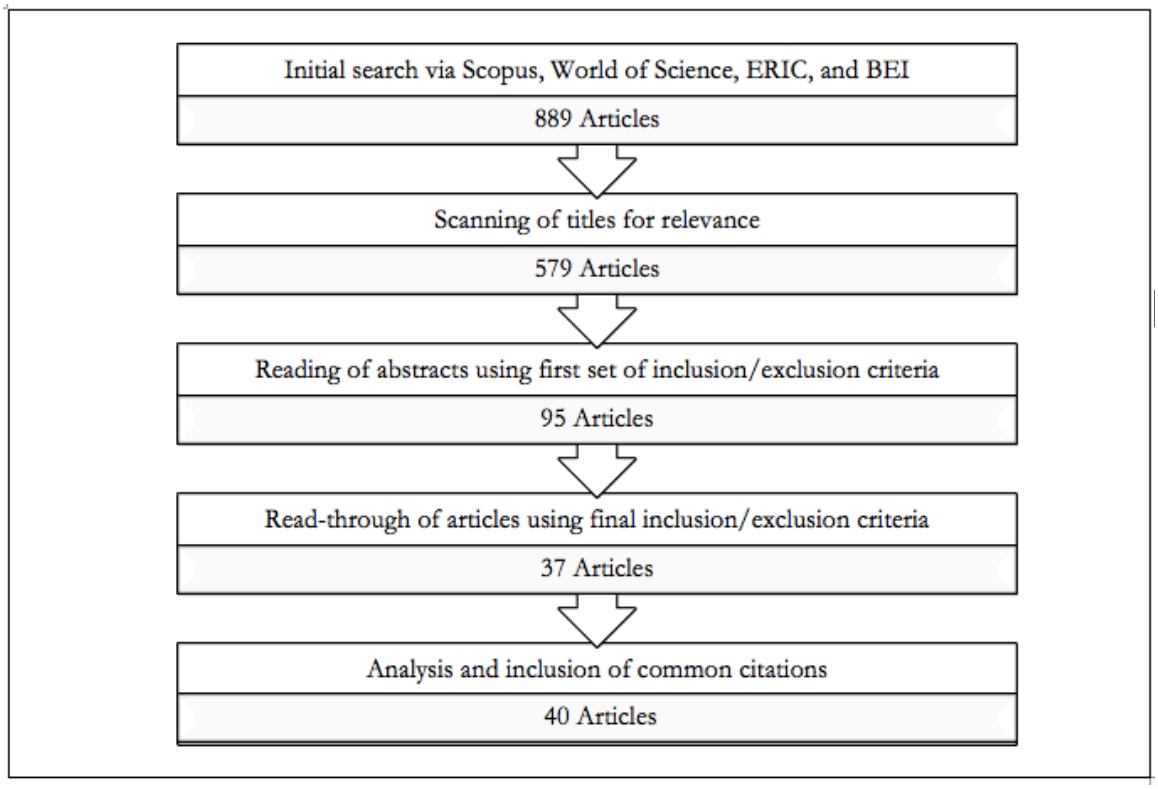


Figure 1. Defining the Literature

Analysis & Synthesis of the Papers

The 40 articles, which included at least a minimal discussion of identity development, were analyzed using an open coding method used to classify information and draw out themes from the data (Creswell, 2013). The theoretical identity perspectives underpinning the article, the contexts of each study, and common themes in relation to the three research sub-questions were identified, and entered into an Excel sheet over several iterations of article readings.

Table 4. Codes

	Identity Definition:	**Theoretical Perspective:**	**Context:**	**Identity Development:**
	Is an explicit definition of identity provided?	The theoretical perspective of identity utilized	Context of the study	Aspects of/factors contributing to identity development
Sub-codes	Yes	Sociocultural	Peer writing groups	Autonomy
	No	Socio-cognitive	Writing courses/workshops	Awareness of Voice
		Linguistic	Supervision/ supervisory feedback	Confidence
		Other	Language: Focus on linguistic aspects/ construction of scholarly writing	Knowledge Acquisition
		Unidentified theoretical perspective	L2 students: Non-native English speakers	Learning through Critique
				Positioning
				Reflection and Assessment

Conceptual codes were based on the notion that underlying epistemologies will influence the ways in which phenomena are researched (see Creswell, 2013). Drawing on Mackenzie & Knipe (2006), we sought evidence initially of various conceptual frameworks within the interpretivist-constructionist paradigm, thinking to broaden out to others, e.g., post-positivists, as necessary. Within the interpretivist-constructivist paradigm, we conceived three stances: socio-cultural (viewing identity as constructed primarily through social interaction/social contexts), linguistic (identity as represented and constructed in the text, focusing on voice or stance), and socio-cognitive (identity as implicated in knowledge construction, which occurs in part through cognitive activities like metacognition and self-regulation, and through social practices). In practice, we developed these stances by reading through the theoretical/conceptual sections of each article, seeking words, phrases and citations that appeared to indicate the key theories and people drawn upon to explain or characterize identity development. This process allowed us to then identify key words and phrases for each stance. These were used in a) examining the texts of each article and b) grouping the articles in relation to these categories. That is, each article was re-read in full and coded for a) sociocultural, based on keywords such as enculturation, communities of practice, etc.; b) linguistic (keywords included corpus analysis, systemic functional linguistics, etc.); c) socio-cognitive (keywords included meta-cognition, self-

regulation, etc.); and d) other. See Table 4 for an overview of codes. Once this level of analysis was completed, the contexts and methods were coded. Contexts included a) peer writing groups; b) writing courses/workshops; c) supervision/supervisor feedback; d) language; e) L2 students (non-native English speakers). Methods included quantitative, qualitative, or mixed methods. Finally, themes related to the research questions (see Saldana, 2009) were coded. Both authors discussed and verified the definitions of each code. Please see the Appendix for a complete list of included papers and coding.

Limitations

An obvious limitation of this review is the restriction to English-language articles, as there is a body of relevant literature published in other languages that this paper did not include. Likewise, because books, book chapters, and conference papers were excluded, this review is limited to the literature of peer-reviewed journals and it is probable that other useful research on academic identity and writing was not incorporated. It is also possible that there are additional English-language articles that were not captured by the keyword searches used in this study. Because the search focused on titles and abstracts, there may be relevant publications that did not mention identity, voice, or socialization in their abstracts, but discussed these topics in the results and/or conclusions sections.

RESULTS

While the initial literature search suggested there are a large number of studies related to writing, identity, and feedback, only 40 included a direct discussion of identity development, authorial voice, or academic enculturation as part of the results or discussion sections. Further, only five included explicit definitions of identity, suggesting that while a great deal of literature has explored issues of writing, feedback, and academic identity in doctoral students, relatively few studies have directly addressed the connection between these three concepts in their findings, leaving many of the connections between identity and feedback to be implied by readers.

CONCEPTUAL PERSPECTIVES AND DEFINITIONS OF IDENTITY

The results confirmed our assumption that research on doctoral writing, identity, and feedback consists primarily of qualitative studies based in sociocultural approaches to identity development (24 of 40). These studies viewed identity as constructed through social interaction and based in the particular social groups one belongs to (e.g. Tajfel & Turner, 1986). Lave and Wenger's peripheral participation and communities of practice was a particularly prevalent conceptual framework, and their works were two of the most cited sources: Lave and Wenger (1991), *Situated Learning: Legitimate Peripheral Participation* and Wenger (1998), *Communities of Practice: Learning, Meaning and Identity*.

The remaining papers were distributed across a range of stances, each with including no more than five studies. Three studies drew upon socio-cognitive and five on applied linguistics frameworks. Socio-cognitive frameworks tended to focus on concepts of self-regulation, cognition and metacognition to examine how the writing task is represented and processed utilizing existing knowledge, while assuming that writing is a social activity (i.e. assuming a reader), influenced by the particular disciplinary and cultural contexts in which one is embedded. In contrast, applied linguistics frameworks focused on voice and authorial identity, analyzing texts written by students and experts with the goal of learning how students may reach expert level (Russell & Cortes, 2012), again incorporating a view of writing as socially-negotiated.

Two papers used an alternative framework for conceptualizing identity: 1) identity-trajectory, which views identity from a critical realist perspective (1 paper) and emphasizes individual agency and the influence of time, and 2) threshold crossings, which identifies critical events and barriers students encounter and overcome as they progress in their academic work and develop academic identity (1

paper). Finally, 11 studies were classified as "undetermined theoretical perspective," meaning they did not specify a particular theoretical approach to identity, relying instead on literature related to writing and feedback.

These theoretical approaches were also apparent in the research contexts of each study. For instance, supervisory relationships, peer writing groups, writing courses and workshops (26 papers) were the most common research contexts and emphasized the social nature of writing and identity and the importance of the feedback, while also demonstrating an interest in developing institutionally structured ways of promoting writing skills in doctoral students. Studies on English-as-a-second-language students (L2) composed a second group (9 papers), encompassing the papers taking a linguistics-based approach to studying identity, and indicating an interest in the tools and strategies non-native English speakers learn to use disciplinary language to communicate effectively and establish authorial voice in scholarly writing.

Theoretical approaches were also reflected in the few explicit definitions of academic identity provided in the literature. Of the 40 articles, only five included clear definitions or characterizations of academic or authorial identity in their introductions, which were used as starting points for contextualizing the studies, and represented sociocultural (Aitchison, et al., 2012; Guerin, 2013), socio-cognitive (Castello, Inesta, & Corcelles, 2013; Filipovic & Jovanic, 2016) and critical realist (Inouye & McAlpine, 2017) perspectives. Four of these articles defined academic identity, while one addressed both academic and authorial identity. See Table 5 for definitions.

These five papers cited multiple authors and drew upon various theories of identity development, namely: (a) sociocultural and social constructionist approaches (Delanty, 2007; Guerin, 2013) that view identity as "formed and performed socially, not simply something existing 'inside' the individual" (Guerin, 2013, 140); (b) as socially situated but also cognitively constructed through critical thinking and metacognition, "enable[ing] the learner to become autonomous and responsible participant in social practices [as] learners create their identity in relation to communities" (Filipovic & Jovanic, 2016, 1443); and (c) as based in internal motivations and regulated through internal conversations based on social roles (Archer, 2000). Identities were also viewed as multiple (Delanty, 2007) and constantly evolving (Castello, Inesta, & Corcelles, 2013; Delanty, 2007; Inouye & McAlpine, 2017) with the individual's agency playing an important role (Inouye & McAlpine, 2017). Thus, while sociocultural perspectives focus on identity as largely the product of enculturation into social groups, and socio-cognitive perspectives examine how cognitive processes are connected to learning and subsequent changes in identity within communities, critical realist views are concerned with individual agency as people negotiate their internal motivations with the social roles they inhabit. However, despite varying theoretical approaches to identity, the authors appear to agree that academic identities are enacted through common behaviors that evidence what it means to be an researcher: being independent and autonomous, achieving confidence and positionality in the field, and having the ability to "think, act, and develop their own research voice" (Castello, Inesta, & Corcelles, 2013, p. 445) as reflected in how one "speaks, reads, writes, behaves" (Guerin, 2013, p. 140, citing Brew, Boud, & Namgung, 2011; Petersen, 2007).

The remaining 35 articles without explicit definitions discussed academic and authorial identity in tangential ways, as socialization into disciplinary or academic communities through feedback or writing instruction, development of authorial voice, or acquiring confidence in writing or research ability. Thus, despite the general dearth of definitions and the variation in definitions that *were* provided, the literature appears to converge on the behaviors that reflect academic identity in doctoral students, which also reinforces the intimate relationship between overall academic identity and authorial identity as writing represents a significant part of an researcher's work (see Casanave & Vandrick, 2003).

Table 5. Definitions of Academic & Authorial Identity

	Definition(s)	Type of Identity
Aitchison, Catterall, Ross, & Burgin (2012)	"Particularly useful was Gerard Delanty's (2008) discussion of academic identity as a situated, evolving project involving: (1) positionality–social actors position themselves in relation to others making distinctions between themselves and others, (2) performativity–social actors perform their identities in different ways, which can be viewed as sets of practices, (3) discursive construction–using narrative and other modes of communication" (p. 436).	Academic Identity
	"Ivanic (1998) sees such struggles as involving three aspects of 'writerly' identity: (1) the autobiographical self – where writing is influenced by aspects of one's life history, ideas and beliefs, for example, the issues a writer chooses to write about, (2) the discoursal self – the sense of the author that is conveyed in their writing, for example, when a writer explicitly takes on the practices of the community she is writing for, such as by adopting the style, genre and citation conventions of a discipline, (3) the authorial self – the degree of authoritativeness present in the writing, for example, when a writer makes strong claims calling on appropriate evidence to position themselves as an expert and credible knower" (p. 437).	Authorial Identity
Castello, Inesta, & Corcelles (2013)	"In the case of doctoral students, the construction of an academic identity has to do with being able to think, act and develop their own research voice even if they are still considered as students both by the institution and by themselves...Research has shown that the construction of such a research voice is one for the most complex challenges for doctoral students...because it is related to construction of a social identity as academic authors and researchers...which takes place through the dialogue that writers establish with the different actors involved in the more or less explicit co-authorship process of their texts..." (p. 445).	Academic Identity
Filipovic & Jovanic, (2016)	"In other words, if a researcher is to be autonomous, she or he has to think critically, make relevant intertextual connections and think non-dogmatically: i.e., construct grounded theories, look for interconnections, as well as circular, retroactive and non-linear causality, through meaningful and emotional interactions" (p. 1445).	Academic Identity
Guerin (2013)	"Academic and researcher identities, then, are demonstrated in how one speaks, reads, writes, behaves, and thinks about research, teaching, and administration (Brew, Boud, & Namgung, 2011; Petersen, 2007)" (p. 140).	Academic Identity
Inouye & McAlpine (2017)	"…the development of scholarly identity as a process of becoming located within a discipline and institution based on one's research contribution; this encompasses the activities associated with being a teacher, researcher, writer, administrator, etc. (Clarke, Hyde, & Drennan, 2013; Lieff, et al,. 2012; Murakami-Ramalho, Militello, & Piert, 2013). Evidence of scholarly growth includes greater confidence in one's work and a greater critical perspective (Murakami-Ramalho, et al., 2011), the development of one's technical vocabulary and interaction with networks within the chosen field to achieve a sense of belonging (Lieff, et al., 2012) and position oneself in relation to others, thus adding to the larger conversation through one's research (Cameron, Nairn, & Higgins, 2009; Pare, 2011)" (p. 3)	Academic Identity

What is notable is the role played by 'identity formation' across the papers. Most studies used identity formation as a mechanism for underlying theories of learning that conceive of learning as involving changes in identity. This implies that in the context of doctoral writing, identity development is viewed primarily as a function of learning how to communicate within the discipline and position one's work within the larger field, therefore implicit in acquiring both the skills and language required to become—and identify as—a researcher.

Themes Linking Identity Development and Feedback

The centrality of feedback on writing to learning and identity development in doctoral students was evident in most papers in some form, whether supervisor, peer, or reviewer, and was linked to seven key themes outlined below, with "awareness of voice" and "reflection and assessment" the most frequent themes. Themes were grouped into two clusters: Writing/Feedback Specific and Global. See Table 6 for codes.

Table 6: Key Themes

Code	Definition	Occurrences
Writing/Feedback Specific		
Awareness of Voice	Evidence of developing authorial identity in texts; or awareness of need to develop particular voice/authorial identity through discursive choices, use of citations, or display of knowledge	16
Knowledge Acquisition	Evidence of acquiring disciplinary knowledge/scholarly writing knowledge/ knowledge of academia expectations	14
Learning through Critique	Learning by providing feedback to others	4
Reflection and Assessment	Reflective thinking that may involve problem solving and self-assessment of writing & feedback	16
Global		
Autonomy	Evidence or awareness of need to contribute to the field and become independent researcher; can include questioning feedback	14
Confidence	Acquiring confidence in one's writing or sense of self as researcher	9
Positioning	Evidence of feedback positioning students as either experts or novices	3

Writing/Feedback Specific Cluster

Codes that were part of the Writing/Feedback Specific cluster identified themes in the literature that were related to developing identity specifically within the context of the text (i.e. authorial identity), as in creating an authorial voice, acquiring knowledge of disciplinary writing expectations and responding to and evaluating writing feedback:

Awareness of Voice. "Awareness of voice" was connected to instances where students displayed evidence of constructing an authorial voice through discursive choices, or a growing awareness of the need to become part of their relevant discourse communities through writing. "Awareness of voice" emerged in studies examining peer writing groups, as giving and receiving feedback resulted in a greater awareness of how students communicated in their writing, and peer writing groups presented a safe space for experimenting with authorial voices (Aitchison & Lee, 2006; Cuthbert, Spark, & Burke, 2009; Ferguson, 2009; Maher, et al., 2008). "Awareness of voice" was also prevalent in studies based in applied linguistics that focused on how second-language speakers negotiated the English publication process (Li, 2006a; Li, 2006b; Simpson, 2013) or learned to improve their research writing by examining corpora of journal articles or engaging with reviewer feedback to make sense of disciplinary conventions (Chang, 2012; Chang & Schleppegrell, 2016). Various forms of feedback thus contributed to awareness of voice by bringing to attention the nuances of disciplinary language and the importance of shaping a voice consistent with the relevant discourse community.

Knowledge Acquisition. "Knowledge acquisition" referred to students' learning about their disciplines or research writing conventions. "Knowledge acquisition" was linked to a variety of feedback sources, including supervisory, peer, and reviewer. "Knowledge acquisition" was often double-coded with "reflection and assessment" (Aitchison, 2009; Cuthbert & Spark, 2008), "confidence" (Kamler, 2008), "autonomy" (Odena & Burgess, 2017), and "learning through critique" (Crossouard, 2008; Guerin, 2013), suggesting that learning occurs through reflection and is linked to a greater sense of confidence and recognition of the need for research independence.

Learning through Critique. "Learning through critique" marked instances where students found the process of giving feedback just as helpful as receiving feedback, recognizing a relationship between their ability to analyze and critique another's text and improved self-assessment of their own writing. "Learning through critique" thus appeared in studies involving peer feedback, particularly through writing groups, and was often double-coded with "reflection and assessment," which was a major outcome of both giving and receiving feedback (Friedrich-Nel & MacKinnon, 2015; Gazza, Shellenbarger, & Hunker, 2012; Larcombe, McCosker, & O'Loughlin, 2007).

Reflection and Assessment. "Reflection and assessment" referred to instances where students critically evaluated their work or engaged in problem solving. "Reflection and assessment" was common across all articles, and appeared often in studies involving peer and supervisor feedback, as feedback encouraged critical thinking about one's writing, thereby suggesting an important connection between feedback, thinking, writing, and identity.

Global Cluster

The Global cluster of codes represented themes in the literature that highlighted academic identity development on a broader level than the text, speaking to how feedback on research writing can encourage doctoral students to think about themselves as researchers as a whole, tying their identities not only to writing but to their larger selves as doctoral students and emerging researchers. In other words, themes focusing on academic identity rather than the more text-specific authorial identity.

Autonomy. "Autonomy" referred to students' awareness of the need to become independent researchers and contribute to the field. Evidence included questioning or critically evaluating feedback from supervisors, as students wanted to make their own ideas and research goals apparent. "Autonomy" thus emerged as a common theme in studies focused on supervisor or tutor feedback, or in studies on writing for publication. "Autonomy" emerged over time as students became more com-

fortable with feedback and scholarly writing (Inouye & McAlpine, 2017; Lassig, Dillon, & Diessman, 2013), and was in some instances facilitated by supervisor feedback that required students to critically reflect on their research (Can & Walker, 2011; Odena & Burgess, 2017).

Confidence. "Confidence" referred to evidence of acquiring confidence in oneself as a writer or researcher. "Confidence" was a common outcome in studies on peer writing groups, and was facilitated by the experience of both giving and receiving feedback, as students became accustomed to the writing process and their ability to provide feedback and evaluate their own writing (Crème & McKenna, 2010; Maher, et al., 2008).

Positioning. "Positioning" referred to evidence of students' being positioned by feedback as either emerging experts or novice students, which in turn had implications for how they viewed themselves as researchers. "Positioning" appeared most often in studies involving supervisor feedback, emphasizing the influence supervisors have in students' opportunities for development in terms of how they frame comments and the way they approach supervision (Aitchison, et al., 2012; Anderson, 2017).

Summary: The Relationship Between Identity and Feedback on Research Writing

The themes identified in the literature suggest that the development of academic identity involves a dynamic relationship between feedback and writing through which feedback encourages critical thinking about research, disciplinary knowledge and writing expectations, and how the author represents him/herself in the text. This in turn may influence changes in doctoral students' overall sense of themselves as researchers and research writers, by raising awareness of the need to be autonomous in their work, building confidence, and beginning to be positioned as experts (or not) by other researchers.

Discussion

This systematic review set out to analyze, critique, and gain new insight into the existing literature viewing writing as a socially situated practice. Such a view assumes the influence of feedback and other texts on the writer, but our aim was to discern how the social nature of writing was conceived to contribute to identity development in doctoral students by exploring the relationships between doctoral writing, feedback, and academic identity. This section thus draws on the results of the analysis to present a discussion of the overarching research question: *How does the literature characterize the development of academic identity in relation to feedback on research writing in doctoral students?* Our interest was to understand the ways in which research writing and feedback were conceived, how feedback and writing influence academic identity development in doctoral students, and how future studies could further illuminate this process. Thus, it contributes to our understanding of how writing, identity, and feedback have been understood, theorized, and approached over the past two decades. We highlight the findings by differentiating both the benefits of existing studies and what aspects of the field have been overlooked. We finish with suggestions for future research.

What the Literature Said

Academic identity often appears in literature on PhD students as a key outcome of graduate education. Yet, this review suggests that there are few explicit definitions and several often interchangeable terms that preclude a more consistent sense of what academic identity entails. Despite this amorphous understanding of academic identity, we suggest the term is important because it broadly captures a key concern of doctoral education: how researchers situate themselves and contribute to their disciplinary field, identifying and being identified as members of the academic community. In other words, this review has focused specifically on doctoral students, and thus on the research competence aspect of academic identity that is central to graduate education. For PhD students, academic identity

entails both skill and independence, demonstrated through how one reads, writes, speaks, and acts (Castello, Inesta and Corcelles 2013; Filipovic and Jovanic 2016; Guerin 2013). As argued previously, authorial identity and its mechanism of communication, voice, are reflections of academic identity (Barnett & di Napoli, 2007), since much academic work is reflected in writing; researchers draw upon the writings—in other words, the thinking—of one another to build knowledge within a particular discipline (Bakhtin, 1986; Ivanic, 1998; Prior, 2011).

The results confirm that much of the literature on doctoral writing and feedback approaches academic identity from a sociocultural perspective, drawing on learning theories that position learning as precipitating changes in identity through socialization, and examining supervisory and institution-led courses and writing groups as contexts for writing and academic identity development. In turn, the identity theories underlying conceptions of academic identity tend to view identity from a sociocultural perspective where identity and individual action are largely related to the particular groups in which one claims membership (see, e.g., Lave & Wenger, 1991; Tajfel & Turner, 1986; Wenger, 1998). This indicates that academic identity development in the context of writing is most commonly understood as becoming part of the academic community by learning the conventions and practices that define scholarly writing in the discipline. Studies interested in L2 students and linguistic constructions of authorial voice also allude to the social nature of writing and identity, as they rely on providing non-native English speakers with the tools to identify the writing styles that allow them to be accepted as a legitimate part of the disciplinary writing community (e.g., Chang, 2012; Chang, & Schleppegrell, 2016; Kumar & Stracke, 2007).

Analysis of the findings in the literature confirm that feedback is an important factor in doctoral students' construction of academic identity, influencing identity development by encouraging autonomy, awareness of voice, confidence, knowledge acquisition, learning through critique, positioning, and reflection and assessment, indicating that complex relationships exist between each of these elements. Connecting these themes also confirms a relationship between feedback, thinking, writing, and identity, namely that giving and receiving feedback are viewed as connected with critical thinking and reflection on one's writing, which in turn inspires academic identity development as demonstrated through increased confidence, growing knowledge about the field and disciplinary writing requirements on how to position oneself in writing through authorial voice, and learning to view oneself as part of the disciplinary conversation.

What was Rarely Said

While giving and receiving feedback are viewed as connected with critical thinking and reflection on one's writing, many studies failed to highlight these relationships themselves. They thus contributed little explicit analysis devoted to (a) how changes in research thinking relate to changes in writing and (b) how this influences identity development beyond a general discussion. This empirical underexamination of the link between writing and thinking–and identity development—is notable, given that much of this research assumes that writing is a reflection of thinking and central to the research process; critical thinking, and self-assessment or self-regulation are often discussed as important outcomes of feedback and revision, but it is not yet fully understood how students engage with feedback to develop these critical thinking skills. In other words, though many studies suggested that critical thinking is a key step toward how doctoral students re-conceptualize their writing and themselves as researchers (Anderson, 2017; Inouye & McAlpine 2017; Maher, et al., 2008), and is often linked to feedback (Can & Walker, 2011; Odena & Burgess, 2017; Friedrich-Nel & MacKinnon, 2015; Gazza, Shellenbarger, & Hunker, 2012; Larcombe, McCosker, & O'Loughlin, 2007), few studies investigated in detail *how* students use and think about feedback in order to advance their understandings of writing and research, and the role individual context plays in experiences of writing, feedback, and identity. This seems to us a key gap since, as reflected in the Dublin Descriptors, there is a significant qualitative difference in the level of thinking expected at the doctoral versus master's levels. Doctoral students are required to not only become experts in their fields, but critically assess and synthesize "new

and complex ideas" in making "a contribution that extends the frontier of knowledge" (Joint Quality Initiative, 2004). It is this contribution that is the focus of the doctoral thesis and the research proposal, and its conception and execution is the result of many complex processes that include reading, writing, feedback, revision, and a constant refining of research thinking. These processes reflect changes in academic identity and involve the interaction between individual goals and experiences and the student's increasing knowledge of scholarly writing, the literature, and research methodology.

Two studies included in this review that relied on socio-cognitive approaches to scholarly writing and identity have attempted to bridge this gap, highlighting the particular conflicts doctoral students encounter while writing and how texts are revised over several iterations as they try to address these conflicts (see, e.g. Castello, Inesta, & Corcelles, 2013; Castello, Inesta, & Monereo, 2009). However, what remains missing is a detailed examination of how feedback is perceived and used, triggering changing conceptions of writing, research, and identity. Such work could provide insight into how feedback is assessed and applied in texts.

Also absent from the literature is work exploring the variation in individual experience of writing, feedback, and academic identity based on their prior significant experiences. Writing has been recognized as a cumulative activity, influenced by individuals' writing histories and intertwined with personal and professional experience (Bazerman & Graham, 2017). For instance, examining how students use various sources of feedback in revising their writing, or how they perceive supervisory comments in light of their prior histories and academic goals would illuminate how students respond to and draw upon feedback to further their thinking about their research, writing, and evolving sense of self as an researcher.

In conclusion, we suggest that the prevalence of studies based on sociocultural approaches to identity development leads to an incomplete representation of the relationship between writing, feedback, and identity. This approach portrays identity as the result of enculturation and apprenticeship-style learning, neither taking into account the micro-level processes students engage in as they write and assess and draw upon feedback, nor the ways in which prior experience, personal contexts, and individual goals affect how doctoral students may construct their own academic identities in relationship to feedback and iterative cycles of writing.

Future Research

Longitudinal and case studies may be useful to trace patterns in writing and academic identity development over time, revealing how thinking evolves during various stages of the doctoral program in response to various thesis milestones, different types of feedback, and growing knowledge and confidence over an extended period of time.

Studies utilizing alternate approaches to the sociocultural conception of identity development could offer alternative ways of thinking about feedback, writing, and identity. As noted above, sociocultural perspectives tend to understand identity and learning as dependent or intertwined with social communities. They do not emphasize the individual differences and perspectives of students that underpin the changes in behaviors and conceptions of identity as researchers. Thus, future work may benefit from drawing upon theories that take into account the role of individual agency, motivation, and experience in order to examine the distinct characteristics of each student's writing and academics identity development, allowing for additional insight into variations in developmental trajectories while highlighting the ways in which students decide how to participate within their disciplines.

Conclusion

This systematic review examined the literature on doctoral writing, feedback, and development of academic identity, drawing upon 40 peer-reviewed journal articles that were systematically selected and published between 1997 and 2017. These results suggest a reliance on sociocultural theorizations of identity underpinning existing research, those perspectives that view identity as shaped primarily

by social structures rather than individual agency. The results also confirm a complex relationship between feedback, critical thinking, writing, and identity, in which academic identity development in the context of writing is a process involving multiple iterative cycles. However, what remains missing is a detailed examination of how doctoral students' thinking evolves in relationship to the writing-feedback process, contributing to their developing academic identities, and work. Given the importance of doctoral education in today's research-driven society, such work could contribute to better understandings of how to best support doctoral students in their research and writing journeys.

REFERENCES

Aitchison, C. (2009). Writing groups for doctoral education. *Studies in Higher Education*, *34*(8), 905–916, doi: 10.1080/03075070902785580

Aitchison, C., Catterall, J., Ross, P., & Burgin, S. (2012). "Tough love and tears": learning doctoral writing in the sciences. *Higher Education Research and Development*, *31*(4), 435–447, doi: 10.1080/07294360.2011.559195

Aitchison, C., Catterall, J., Ross, P., & Burgin, S. (2012). "Tough love and tears": learning doctoral writing in the sciences. *Higher Education Research and Development*, *31*(4), 435–447, doi: 10.1080/07294360.2011.559195

Aitchison, C. & Lee, A. (2006). Research writing: Problems and pedagogies. *Teaching in Higher Education, 11*(3), 265-278, doi: 10.1080/13562510600680574

Anderson, T. (2017). The doctoral gaze: foreign PhD students' internal and external academic discourse socialization. *Linguistics and Education*, *37*, 1–10, doi: 10.1016/j.linged.2016.12.001

Archer, M. (2000). *Being Human: The Problem of Agency*. Cambridge, UK: Cambridge University Press, doi: 10.1017/CBO9780511488733

Bakhtin, M.M. (1986). *Speech Genres and Other Late Essays*. Caryl Emerson and Michael Holquist (eds.). Austin: University of Texas Press.

Ballamingie, P. & Johnson, C. (2011). The vulnerable researcher: Some unanticipated challenges of doctoral fieldwork. *The Qualitative Report, 16*(3), 711-729. Retrieved from http://nsuworks.nova.edu/tqr/vol16/iss3/5

Barnett, R. & Di Napoli, R. (2007). *Changing Identities in Higher Education: Voicing Perspectives*. Taylor & Francis.

Bazerman, C. & Graham, S. (2017). Taking the long view on writing. *Research in the Teaching of English,* 51(3), 351-360. Retrieved from https://www.researchgate.net/profile/Charles_Bazerman/publication/317204430_Taking_the_long_view_on_writing_development/links/59f164fe458515bfd07fbee0/Taking-the-long-view-on-writing-development.pdf

Billo, E. & Hiemstra, N. (2013). Mediating messiness: expanding ideas of flexibility, reflexivity, and embodiment in fieldwork. *Gender, Place and Culture, 20*(3), 313-328, doi: 10.1080/0966369X.2012.674929

Boote, D. & Beile, P. (2005). Scholars before researchers: on the centrality of the dissertation literature review in research preparation. *Educational Researcher, 34*(6), 3-15, doi: 10.3102/0013189X034006003

Brew, A., Boud, D. & Namgung, S. (2011). Influences on the formation of academics: the role of the doctorate and structured development opportunities. S*tudies in Continuing Education 33*(1), 51–66, doi: 10.1080/0158037X.2010.515575

Burgoine, T., Hopkins, P., Rech, M. F., & Zapata, G. P. (2011). "These kids can't write abstracts": reflections on a postgraduate writing and publishing workshop. *Area*, *43*(4), 463–469, doi: 10.1111/j.1475-4762.2011.01030.x

Caffarella, R. S., & Barnett, B. G. (2000). Teaching doctoral students to become scholarly writers: The importance of giving and receiving critiques. *Studies in Higher Education*, *25*(1), 38–51, doi: 10.1080/030750700116000

Can, G. & Walker, A. (2011). A model for doctoral students' perceptions and attitudes toward written feedback for academic writing. *Research in Higher Education*, 52(5), 508-536, doi: 10.1007/s11162-010-9204-1

Can, G., & Walker, A. (2014). Social science doctoral students' needs and preferences for written feedback. *Higher Education*, *68*(2), 303–318, doi: 10.1007/s10734-014-9713-5

Carter, S., & Kumar, V. (2017). Ignoring me is part of learning': Supervisory feedback on doctoral writing. *Innovations in Education and Teaching International, 54*(1), 68-75.

Casanave, C. & Vandrick, S. (2003). *Writing for Scholarly Publication: Behind the Scences in Language Education*. Mahwah, New Jersey: L. Erlbaum Associates.

Castello, M., Inesta, A., Corcelles, M. (2013). Learning to write a research article: Ph.D. students' transitions toward disciplinary writing regulation. *Research in the Teaching of English*, *47*(4), 442–477. Retrieved from http://www.scopus.com/inward/record.url?eid=2-s2.0-84878287585&partnerID=tZOtx3y1

Castello, M., Inesta, A., & Monereo, C. (2009). Towards self-regulated academic writing: an exploratory study with graduate students in a situated learning environment. *Electronic Journal of Research in Educational Psychology*, *7*(3), 1107–1130. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ869206&site=ehost-live

Chang, P. (2012). Using a stance corpus to learn about effective authorial stance-taking: a textlinguistic approach. *ReCALL*, *24*(2), 209–236, doi: 10.1017/S0958344012000079

Chang, P. & Schleppegrell, M. (2016). Explicit learning of authorial stance-taking by L2 doctoral students. *Journal of Writing Research, 8*(1), 49-79, doi: 10.17239/jowr-2016.08.01.02

Cotterall, S. (2011). Doctoral students writing: Where's the pedagogy? *Teaching in Higher Education*, *16*(4), 413–425, doi: 10.1080/13562517.2011.560381

Creme, P., & McKenna, C. (2010). Developing writer identity through a multidisciplinary programme. *Arts and Humanities in Higher Education*, *9*(2), 149–167, doi: 10.1177/1474022210361456

Creswell, J. W. (2013). *Qualitative Inquiry & Research Design: Choosing Among Five Approaches* (3rd ed.). London, UK: SAGE.

Crossouard, B. (2008). Developing alternative models of doctoral supervision with online formative assessment. *Studies in Continuing Education*, *30*(1), 51–67, doi: 10.1080/01580370701841549

Crossouard, B., & Pryor, J. (2008). Becoming researchers: A sociocultural perspective on assessment, learning and the construction of identity in a professional doctorate. *Pedagogy, Culture and Society*, *16*(3), 221–237, doi: 10.1080/14681360802346614

Cuthbert & Spark (2008). Getting a GRiP: Examining the outcomes of a pilot program to support graduate research students in writing for publication. *Studies in Higher Education, 33*(1), 77-88, doi: 10.1080/03075070701794841

Cuthbert, D., Spark, C., & Burke, E. (2009). Disciplining writing: the case for multi-disciplinary writing groups to support writing for publication by higher degree by research candidates in the humanities, arts and social sciences. *Higher Education Research and Development*, *28*(2), 137–149, doi: 10.1080/07294360902725025

Delanty, G. (2007). Academic identities and institutional change. In Barnett, R. & Di Napoli (Eds.), *Changing Identities in Higher Education: Voicing Perspectives* (pp. 124-133). London, UK: Routledge.

Eyres, S., Hatch, D., Turner, S., & West, M. (2001). Doctoral students' responses to writing critique: messages for teachers. *Journal of Nursing Education, 40*(4), 149-155, doi: 10.3928/0148-4834-20010401-04

Fairclough, N. (1992). Intertextuality in critical discourse analysis. *Linguistics and Education*, *4*(3–4), 269–293, doi: 10.1016/0898-5898(92)90004-G

Ferguson, T. (2009). The "write" skills and more: a thesis writing group for doctoral students. *Journal of Geography in Higher Education*, *33*(2), 285–297, doi: 10.1080/03098260902734968

Filipovic, J., & Jovanovic, A. (2016). Academic maturation and metacognitive strategies in academic research and production. *Universal Journal of Educational Research*, *4*(6), 1442–1451, doi: 10.13189/ujer.2016.040623

Friedrich-Nel, H. S., & Mac Kinnon, J. L. (2015). Formative assessment in doctoral education. *Journal for New Generation Sciences*, *13*(2), 1–14.

Gazza, E., Shellenbarger, T., & Hunker, D. (2013). Developing as a scholarly writer: the experience of students enrolled in a PhD in nursing program in the United States. *Nurse Education Today, 33*(3), 268-274, doi: 10.1016/j.nedt.2012.04.019

Guerin, C. (2013). Rhizomatic research cultures, writing groups and academic researcher identities. *International Journal of Doctoral Studies*, *8*, 137–150, doi: 10.28945/1897

Guerin, C., Xafis, V., Doda, D. V., Gillam, M. H., Larg, A. J., Luckner, H., Jahan, N., Widayati, A., & Xu, C. (2013). Diversity in collaborative research communities: a multicultural, multidisciplinary thesis writing group in public health. *Studies in Continuing Education*, *35*(1), 65–81, doi: 10.1080/0158037X.2012.684375

Hart, C. (1999). *Doing A Literature Review: Releasing The Social Science Research Imagination.* London, UK: SAGE.

HEFCE (2013). Rates of qualification from postgraduate research degrees: projected study outcomes of full-time students starting postgraduate research degrees in 2010-11. Retrieved from http://www.hefce.ac.uk/pubs/year/2013/201317/

Henkel, M. (2004). Current science policies and their implications for the formation and maintenance of academic identity. *Higher Education Policy, 17*, 167-182, doi: 10.1057/palgrave.hep.8300049

Henkel, M. (2005). Academic identity and autonomy in a changing policy environment. *Higher Education,* 49(1–2), 155–176, doi: 10.1007/s10734-004-2919-1

Inouye, K. S., & McAlpine, L. (2017). Developing scholarly identity: variation in agentive responses to supervisor feedback. *Journal of University Teaching and Learning Practice*, *14*(2). Retrieved from http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1741&context=jutlp

Ivanic, R. (1998). *Writing and Identity: The Discoursal Construction of Identity in Academic Writing.* Amsterdam, Netherlands: Benjamins.

Joint Quality Initiative (2004). Shared 'Dublin' descriptors from the Bachelor's Master's and Doctoral awards. Retrieved from http://www.lasalus.org.ar/uploads/5/2/Dublins%20descriptors.pdf

Kamler, B. (2008). Rethinking doctoral publication practices: writing from and beyond the thesis. *Studies in Higher Education, 33*(3), 283-294, doi: 10.1080/03075070802049236

Kamler, B. & Thomson, P. (2006). *Helping Doctoral Students Write: Pedagogies for Supervision,* (1st Ed.). New York, NY: Taylor and Francis.

Kamler, B. & Thomson, P. (2014). *Helping doctoral students write: Pedagogies for supervision,* (2nd Ed.). New York, NY: Taylor and Francis, doi: 10.4324/9781315813639

Kennedy, M. (2007). Defining a literature. *Educational Researcher, 36*(3), 139-147, doi: 10.3102/0013189X07299197

Kiguwa, P. & Langa, M. (2009). The doctoral thesis and supervision: the student perspective. *Perspectives in Education, 27*(1), 50-57. Retrieved from: https://www.academia.edu/9738672/The_doctoral_thesis_and_supervision_the_student_perspective

Kumar, V., & Stracke, E. (2007). An Analysis of written feedback on a PhD thesis. *Teaching in Higher Education*, *12*(4), 461–470, doi: 10.1080/13562510701415433

Larcombe, W., McCosker, A., & O'Loughlin, K. (2007). Supporting education PhD and DEd students to become confident academic writers: an evaluation of thesis writers' circles. *Journal of University Teaching and Learning Practice*, *4*(1), 54–63. Retrieved from http://ro.uow.edu.au/jutlp/vol4/iss1/6

Lassig, C, Dilon, L., & Diezmann, C. (2013). Student or scholar? Transforming identities through a research writing group. *Studies in Continuing Education, 35*(3), 299-314, doi: 10.1080/0158037X.2012.746226

Lave, J. & Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation.* Cambridge, UK: Cambridge University Press.

Lea, M., & Street, B. V. (1998). Student writing in higher education: an academic literacies approach. *Studies in Higher Education*, *23*(2), 157-172, doi: 10.1080/03075079812331380364

Li, Y. (2006a). A doctoral student of physics writing for publication: a sociopolitically-oriented case study. *English for Specific Purposes*, *25*(4), 456–478, doi: 10.1016/j.esp.2005.12.002

Li, Y. (2006b). Negotiating knowledge contribution to multiple discourse communities: a doctoral student of computer science writing for publication. *Journal of Second Language Writing*, *15*(3), 159–178, doi: 10.1016/j.jslw.2006.07.001

Litalien, D. (2015). Dropout intentions in PhD studies: a comprehensive model based on interpersonal relationships and motivational resources. *Contemporary Educational Psychology, 41*, 218-231, doi: 10.1016/j.cedpsych.2015.03.004

Mackenzie, N. & Knipe, S. (2006). Research dilemmas: paradigms, methods and methodology. *Issues In Educational Research, 16* (2), 193-205. Retrieved from http://www.iier.org.au/iier16/mackenzie.html

Maher, D., Seaton, L., McMullen, C., Fitzgerald, T., Otsuji, E., & Lee, A. (2008). "Becoming and being writers": the experiences of doctoral students in writing groups. *Studies in Continuing Education*, *30*(3), 263–275, doi: 10.1080/01580370802439870

Maslen, G. (2013). More countries are asking whether they produce too many PhD's, says new report. *The Chronicle of Higher Education*. Retrieved from https://www.chronicle.com/article/Report-Examines-the-Global/138439

McPherson, C., Punch, S., & Graham, S. (2018). Postgraduate Transitions from Masters to Doctoral Study: managing Independence, Emotion and Support. *Stirling International Journal of Postgraduate Research SPARK* 4: 1-24. Retrieved from https://spark.wordpress.stir.ac.uk/files/2018/05/Spark-04-02.pdf

Mizzi, R. (2014). Writing realities: an exploration of drawbacks and benefits of publishing while enrolled in a doctoral program. *New Horizons in Adult Education & Human Resource Development, 26*(2), 54-59, doi: 10.1002/nha3.20063

Odena, O. & Burgess, H. (2017). How doctoral students and graduates describe facilitating experiences and strategies for their thesis writing learning process: a qualitative approach. *Studies in Higher Education, 42*(3), 572-590, doi: 10.1080/03075079.2015.1063598

Odo , D. & Yi, Y. (2014). Engaging in computer-mediated feedback in academic writing: voices from L2 doctoral students in TESOL. *English Teaching 69*(3), 129-150. Retrieved from http://www.dbpia.co.kr/Journal/ArticleDetail/NODE07097040

Petersen, E. B. (2007). Negotiating academicity: postgraduate research supervision as category boundary work. *Studies in Higher Education*, 32(4), 475–487, doi: 10.1080/03075070701476167

Prior, P. (2001). Voices in text, mind, and society: sociohistoric accounts of discourse acquisition and use. *Journal of Second Language Writing, 10*, 55-81, doi: 10.1016/S1060-3743(00)00037-0

Riazi, A. (1997). Acquiring disciplinary literacy: a social-cognitive analysis of text production and learning among Iranian graduate students of education. *Journal of Second Language Writing*, *6*(2), 105–137, doi: 10.1016/S1060-3743(97)90030-8

Russell, D. & Cortes, V. (2012). Academic and scientific texts: the same or different communities? In Castello, M., Donahue, C., & Rijlaarsdam, G. Eds., *University Writing: Selves and Texts in Academic Societies* (pp. 3-17). Bingley, UK: Emerald Group.

Saldana, J. (2009). *The Coding Manual for Qualitative Researchers*. Thousand Oaks, CA, USA: SAGE Publications.

Simpson, S. (2013). Systems of writing response: a Brazilian student's experiences writing for publication in an environmental sciences doctoral program. *Research in the Teaching of English*, *48*(2), 228–249. Retrieved from http://www.jstor.org/stable/24398656

Tajfel, H. and Turner, J.C. (1986) The Social Identity Theory of Intergroup Behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (2nd ed., pp. 7-24). Chicago, IL: Nelson-Hall.

Torrance, M., Thomas, G. V., & Robinson, E. J. (1994). The writing strategies of graduate research students in the social sciences. *Higher Education*, *27*(3), 379–392, doi: 10.1007/BF03179901

Wegener, C., Meier, N., & Ingerslev, K. (2016). Borrowing brainpower – sharing insecurities. Lessons learned from a doctoral peer writing group. *Studies in Higher Education*, *41*(6), 1092–1105, doi: 10.1080/03075079.2014.966671

Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity*. Cambridge, UK: Cambridge University Press.

Wisker, G. (2015). Developing doctoral authors: engaging with theoretical perspectives through the literature review. *Innovations in Education and Teaching International, 52*(1), 64-74, doi: 10.1080/14703297.2014.981841

Yore, D., Florence, M., Pearson, T., & Weaver, A. (2006). Written discourse in scientific communities: a conversation with two scientists about their views of science, use of language, role of writing in doing science, and compatibility between their epistemic views and language. *International Journal of Science Education, 28*(2-3), 109-141, doi: 10.1080/09500690500336601

Yore, D., Hand, B., & Florence, M. (2004). Scientists' views of science, models of writing, and science writing practices. *Journal of Research in Science Teaching, 41*(4), 338-369, doi: 10.1002/tea.20008

APPENDIX

Table 7. The Literature

Authors	Year	Title	ID Definition	Theoretical Perspective	Methods	Focus	ID Development
Aitchison	2009	Writing groups for doctoral education	No	Sociocultural	Qualitative	Writing groups	Knowledge acquisition; learning through critique; reflection and assessment
Aitchison, Catterall, Ross & Burgin	2012	'Tough love and tears': Learning doctoral writing in the sciences	Yes	Sociocultural	Qualitative	Supervision	Positioning; awareness of voice
Aitchison & Lee	2006	Research writing: Problems and pedagogies	No	Sociocultural	Qualitative	Writing groups	Awareness of voice
Anderson	2017	The doctoral gaze: Foreign PhD students' internal and external academic discourse socialization	No	Sociocultural; linguistic	Qualitative	Other	Positioning
Burgoine, Hopkins, Rech, & Zapata	2011	'These kids can't write abstracts': Reflections on a postgraduate writing and publishing workshop	No	Undetermined theoretical perspective	Qualitative	Writing course	Reflection and assessment

Can & Walker	2011	A model for doctoral students' perceptions and attitudes toward written feedback for academic writing	No	Undetermined theoretical perspective	Mixed methods	Supervision/ supervisory feedback	Autonomy
Can & Walker	2014	Social science doctoral students' needs and preferences for written feedback	No	Sociocultural	Mixed methods	Supervision/ supervisory feedback	Autonomy
Castello, Inesta, & Monereo	2009	Towards self-regulated academic writing: An exploratory study with graduate students in a situated learning environment	No	Sociocognitive; linguistic	Qualitative	Writing course	Awareness of voice; reflection and assessment
Castello, Inesta, & Corcelles	2013	Learning to write a research article: PhD students' transitions toward disciplinary writing regulation	Yes	Sociocultural	Qualitative	Writing course	Autonomy; awareness of voice
Chang	2012	Using a stance corpus to learn about effective authorial stance-taking: A textlinguistic approach	Yes	Linguistic; sociocultural	Qualitative	Language; L2	Awareness of voice; knowledge acquisition
Chang & Schleppegrell	2016	Explicit learning of authorial stance taking by L2 doctoral students	Yes	Linguistic	Qualitative	Language; L2	Awareness of voice; knowledge acquisition

Cotterall	2011	Doctoral students writing: Where's the pedagogy?	No	Sociocultural	Qualitative	L2; supervision	Autonomy; positioning
Crème & McKenna	2010	Developing writer identity through a multidisciplinary programme	No	Sociocultural	Qualitative	Writing course	Awareness of voice; confidence; positioning; autonomy
Crossouard	2008	Developing alternative models of doctoral supervision with online formative assessment	No	Sociocultural	Qualitative	Writing course	Knowledge acquisition
Crossouard & Pryor	2008	Becoming researchers: A sociocultural perspective on assessment, learning and the construction of identity in a professional doctorate	No	Sociocultural	Qualitative	Writing course	Autonomy
Cuthbert & Spark	2008	Getting a GRiP: Examining the outcomes of a pilot program to support graduate research students in writing for publication	No	Undetermined theoretical perspective	Qualitative	Writing groups	Knowledge acquisition; reflection and assessment

Cuthbert, Spark & Burke	2009	Disciplining writing: the case for multi-disciplinary writing groups to support writing for publication by higher degree by research candidates in the humanities, arts and social sciences	No	Undetermined theoretical perspective	Qualitative	Writing groups	Awareness of voice; confidence
Eyres, Hatch, Turner, & West	2001	Doctoral students' responses to writing critique: Messages for teachers	No	Undetermined theoretical perspective	Qualitative	Other	Awareness of voice; autonomy; positioning
Ferguson	2009	The write skills and more: A thesis writing group for doctoral students	No	Undetermined theoretical perspective	Qualitative	Writing group	Learning through critique; awareness of voice
Filipovic & Jovanovic	2016	Academic maturation and metacognitive strategies in academic research and production	No	Sociocognitive; sociocultural	Qualitative	Other	Reflection and assessment
Friedrich-Nel & MacKinnon	2015	Formative assessment in doctoral education	No	Undetermined theoretical perspective	Qualitative	Supervision/supervisory feedback	Reflection and assessment

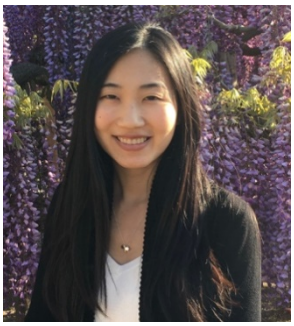
Gazza, Shellenbarger & Hunker	2013	Developing as a scholarly writer: The experience of students enrolled in a PhD in nursing program in the United States	No	Undetermined theoretical perspective	Qualitative	Other	Reflection and assessment
Guerin	2013	Rhizomatic research cultures, writing groups and academic researcher identities	Yes	Sociocultural	Qualitative	Writing group	Learning from critique; knowledge acquisition
Guerin et al.	2013	Diversity in collaborative research communities: a multicultural, multidisciplinary thesis writing group in public health	No	Undetermined theoretical perspective	Qualitative	Writing group	Knowledge acquisition; reflection and assessment; confidence
Inouye & McAlpine	2017	Developing scholarly identity: variation in agentive responses to supervisor feedback	Yes	Other	Qualitative	Supervision/ supervisory feedback	Confidence; autonomy; reflection and assessment
Kamler	2008	Rethinking doctoral publication practices: writing from and beyond the thesis	No	Sociocultural	Qualitative	Other	Autonomy; knowledge acquisition
Kiguwa & Langa	2009	The doctoral thesis and supervision : the student perspective	No	Sociocultural	Qualitative	Supervision/ supervisory feedback	Autonomy

Kumar & Stracke	2007	An analysis of written feedback on a PhD thesis	No	Linguistic	Qualitative	Supervision/ supervisory feedback	Reflection and assessment
Larcombe, McCosker, O'Loughlin	2007	Supporting education PhD and DEd students to become confident academic writers : An evaluation of thesis writers ' circles	No	Undetermined theoretical perspective	Qualitative	Writing group	Knowledge acquisition; reflection and assessment; learning through crituque; awareness of voice; confidence
Lassig, Dilon & Diezmann	2013	Student or scholar? Transforming identities through a research writing group	No	Sociocultural	Qualitative	Writing group	Confidence; autonomy; reflection and assessment
Li	2006	Negotiating knowledge contribution to multiple discourse communities: a doctoral student of computer science writing for publication	No	Sociocultural	Qualitative	L2; language	Autonomy, awareness of voice
Li	2006	A doctoral student of physics writing for publication: a sociopolitically-oriented case	No	Sociocultural	Qualitative	L2; language	Awareness of voice; knowledge acquisition

Maher et al	2008	Becoming and being writers': the experiences of doctoral students in writing groups	No	Sociocultural	Qualitative	Writing groups	Confidence; reflection and assessment; awarenss of voice; knowledge acquisition
Mizzi	2014	Writer's forum--writing realities: an exploration of drawbacks and benefits of publishing while enrolled in a doctoral program	No	Undetermined theoretical perspective	Qualitative	Other	Confidence; knowledge acquisition
Odena & Burgess	2017	How doctoral students and graduates describe facilitating experiences and strategies for the thesis writing learning process: a qualitative approach	No	Sociocultural	Qualitative	Supervision/ supervisory feedback	Autonomy, awareness of voice; knowledge acquisition
Odo & Yi	2014	Engaging in computer-mediated feedback in academic writing: Voices from L2 doctoral students in TESOL	No	Sociocultural	Qualitative	Other	Awareness of voice; autonomy

Riazi	1997	Acquiring disciplinary literacy: A social-cognitive analysis of text production and learning among Iranian graduate students of education	No	Sociocultural, sociocognitive	Qualitative	Other	Reflection and assessment; knowledge acquisition
Simpson	2013	Systems of writing response: a Brazilian student's experiences writing for publication in an environmental sciences doctoral program	No	Sociocultural	Qualitative	L2; other	Autonomy
Wegener, Meier & Ingerslev	2014	Borrowing brainpower--sharing insecurities. Lessons learned from a doctoral peer writing group	No	Sociocultural	Qualitative	Writing groups	Awareness of voice; reflection and assessment; knowledge acquisition
Wisker	2015	Developing doctoral authors: Engaging with theoretical perspectives through the literature review	No	Other	Qualitative	Other	Confidence; reflection and assessment; awareness of voice

BIOGRAPHIES



Kelsey Inouye is a doctoral student at the University of Oxford, Department of Education. Her research focuses on the relationships between the scholarly writing process and identity development in doctoral students.

Dr. Lynn McAlpine is Professor Emerita at both the University of Oxford and McGill University. Her research explores the experiences of doctoral students and PhD graduates: in particular, how they prepare for and then navigate their career trajectories both in and outside the academy.