Postgraduate students' beliefs about and confidence for academic writing in the field of applied linguistics

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Highlights

- L2 students reported lower confidence and MA grades than L1 students
- L2 students reported less positive beliefs about effort/ability concerning writing
- L2 students reported higher beliefs that writing involved transmission
- Beliefs about effort/ability positively correlated with reported MA grades
- Beliefs about transmission negatively correlated with reported MA grades

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Abstract

Motivational theories highlight the importance of students' confidence, where lower confidence can be limiting, and also students' beliefs about academic writing, which may reflect goals as well as practices to achieve them. Nevertheless, relatively few studies have considered these areas across students with English as a first language (L1 students) and students with first languages other than English (L2 students). In order to gain new insights, 122 students of applied linguistics were surveyed. L1 and L2 students reported similar BA grades, but L2 students reported lower average MA grades, lower confidence for their MA studies in general, lower confidence for academic writing in English, less positive beliefs about effort/ability concerning writing (lower agreement with statements such as 'If I put in enough effort I can produce good academic writing'), and higher beliefs that writing involved transmission (higher agreement with statements such as 'The key to successful writing is accurately reporting what authorities think'). Across all students, reported MA grades and confidence for academic writing in English positively correlated with beliefs about effort/ability in writing but negatively correlated with beliefs that writing involved transmission. These findings suggest areas for attention to help ensure that all students can maximise their potential.

1. Introduction

Within higher education, it is important to support all students so that they can maximise their potential and achieve satisfactory outcomes, such as grades on assessments that involve academic writing, especially when these can contribute to the overall classification of their degree course. Students, however, differ in many respects, including their background knowledge and their expectations and approaches towards studying and learning. Specifically, students can have varying beliefs about what academic writing for assessment could or should entail (Sanders-Reio, Alexander, Reio, & Newman, 2014; White & Bruning, 2005). Some beliefs about academic writing have associated with students' confidence in their academic writing abilities and also with their writing performance (Prat-Sala & Redford, 2012; Sanders-

Reio, Alexander, Reio, & Newman, 2014; Zimmerman & Bandura, 1994). Contemporary theories of learning and motivation highlight the importance of students' confidence within their studies: higher confidence may facilitate people to apply even more effort, to set challenging goals, and to surpass their normal performance (Bandura, 1997). Conversely, lower levels of confidence, and/or particular beliefs about academic writing, might be limiting or less helpful within higher education. Clarifying the implications of different beliefs could help guidance and support for students to be provided or focused.

Some students may face additional challenges within higher education, especially when covering new material in a particular language of instruction. English is the main language of instruction in the United Kingdom, which may be the students' first language (L1) or may be the students' second or other language (L2). L2 students within higher education have often expressed that they have encountered various challenges, such as feeling that they had lower academic writing abilities and fluency in English (Sheridan, 2011), and feeling that their prior experiences in examination practices in their home country had not necessarily prepared them for the variety of assessment genres that they encountered in the United Kingdom (Morton, Storch, & Thompson, 2015; see also: Tian & Low, 2012; Kormos, 2012). Nevertheless, the assumption that L2 speakers of English generally encounter greater challenges in writing academically in English than L1 speakers is highly contested; for example, concepts such as the 'native speaker' or the 'international student' are socially constructed and essentializing. Jenkins (2011) and Turner (2010) argue, in contrast, that multilingual speakers might outperform monolinguals because they can draw on more semiotic resources (see also: Canagarajah & Gao, 2019). Ultimately, considering whether or not students face challenges is not an abstracted conceptual question, and insights can be gained through research. However, much research into students' beliefs about academic writing has not encompassed their L1/L2 status (Baaijen, Galbraith, & de Glopper, 2014; Sanders-Reio, Alexander, Reio, & Newman, 2014; White & Bruning, 2005). It remains unclear whether L1 and L2 students express similar or different beliefs about academic writing and their studies, and how these different beliefs might associate with their confidence for their studies and, more specifically, their confidence for their academic writing in English.

Given this context, this study aimed to gain new insights into whether L1 and L2 students report different beliefs about academic writing and other aspects of studying, and how these associated with their reports of their confidence and grades. Ultimately, we wanted to explore whether and/or where students might benefit from support, encouragement, and/or other guidance about academic writing. Given that academic writing and assessment genres

differ widely across academic areas, the research focused on one discipline in the social sciences/humanities: applied linguistics courses at Master's (MA) level, which includes courses undertaken in combination with associated subjects such as language teaching. Overall, 122 students participated from across 17 universities.

1.1. Academic writing

Academic writing has been conceptualized as a product, as a process, from a genre perspective, or as a combination of these. Considering writing as a product has focused on the end-result of writing, often through the characteristics that the outcome or product should have, such as covering particular content areas in sufficient depth, being well-structured or using a specific register and technical vocabulary. Considering writing as a process has emphasized the complex cyclical processes of planning, composing, editing, evaluating, and revising, which can depend on someone's familiarity with or confidence in their ability to engage in these activities (Hayes, 2012; Zimmerman & Risemberg, 1997). Considering writing through the perspective of genre has highlighted the conventionalized forms of language use and interaction associated with and used by particular institutions and communities of practice (Bathia, 2004; Swales, 1990). The most important aspect of genres is that they are recognizable by members of a speech or discourse community and sufficiently standardized. Genres generally affect what students write, how they articulate their ideas, and how they position themselves as producers of texts and knowledge. This is particularly important when it comes to assessment, as assessment genres may vary greatly across different education systems, disciplines, and institutions. Students have broadly benefited from having writing aims that align with genre and contextual standards and expectations (Negretti, 2017). If students are uncertain regarding assessment requirements, terminology, and conventions in academic writing (Lillis & Turner, 2001), then they are likely to be less successful in their writing, their confidence might decrease and, as a consequence, their performance might suffer. Concurrently, lecturers' and students' expectations and/or perceptions about academic writing can differ (Itua, Coffey, Merryweather, Norton, & Foxcroft, 2014; Sheridan, 2011). Increasing students' knowledge of expectations and conventions, enhancing their skills to meet those standards and fostering their ability to self-evaluate their progress are hence essential. Various studies have found that interventions along these lines were beneficial and helped students to calibrate their expectations with what is expected of them within specific assessment genres (Cho, Cho, & Hacker, 2010; De Silva, 2015; Van de Poel & Gasiorek, 2012; Busse, 2013;

Ekholm, Zumbrunn, & Conklin, 2015; Harks, Rakoczy, Hattie, Besser, & Klieme, 2014). Although we acknowledge that genre pedagogy and genre awareness are crucial in the teaching-learning process, not all lecturers make expectations explicit and not all students are aware in what way assessment genres differ and how they are expected to write in order to achieve higher grades.

Students have often recognised and conveyed concern for multiple aspects of writing, including features of the final product, the iterative process of writing, and aspects of genre such as an awareness of and communication to specific audiences (Devine, Railey, & Boshoff, 1993; Manchón & Roca de Larios, 2011; Nicolás-Conesa, Roca de Larios, & Coyle, 2014). More successful students in the social sciences have tended to understand that writing is a self-regulated process inherently involving re-writing, constant decision-making, and self-evaluation (Negretti, 2012) and have considered the process of writing to be inseparable from the product of their writing (Lavelle & Zuercher, 2001). University students who described writing as a process (involving various iterative stages of development) performed better than students who described writing as a product; the students who described writing as inherently involving a process also reported more dynamic self-evaluation of their writing, reflecting that they were more motivated to continue to improve their writing by setting new goals (Nicolás-Conesa, Roca de Larios, & Coyle, 2014). Students have generally developed writing skills and more sophisticated views about writing over the course of their studies (Nicolás-Conesa, Roca de Larios, & Coyle, 2014), which has included L2 students further developing their writing processes and knowledge of standards within academic writing (De Silva, 2015; Van de Poel & Gasiorek, 2012). Detailed case studies of individual L2 students have shown, for example, changes from initial beliefs in fixed writing conventions towards an awareness of complexity and flexibility, a recognition that academic language use is informed by disciplinary and local conventions, and that language choices are linked with aspirations of being specific kinds of writers and professionals (Kaufhold, 2015; Morton, Storch, & Thompson, 2015). Nevertheless, such changes may also occur for L1 students, and less research has involved comparisons across L1 and L2 students. In general, it remains less clear whether L1 and L2 students tend to apply different writing processes and/or hold different views about the products of their writing and/or aspects of genres.

1.2. Beliefs about academic writing

The product, process, and genre conceptualisations of academic writing have helped provide a basis for more detailed research into students' beliefs about what academic writing could or should entail. Research has often focused on students' beliefs orientated around writing processes, such as whether writing inherently involves a process of refining ideas (Lavelle, 1993; White & Bruning, 2005), but has increasingly considered other beliefs (Sanders-Reio, Alexander, Reio, & Newman, 2014). Recent research has focused on the following beliefs (Sanders-Reio, Alexander, Reio, & Newman, 2014):

- Writing as the *transmission* of knowledge, for instance, the use of quotes, accurate reporting and conveying information;
- Writing as *transaction,* involving an emotional process and/or using the process of writing itself to help refine ideas;
- Writing involving *recursion,* inherently requiring or involving an iterative development process;
- Writing that is *orientated* to specific *audiences.*

The *transmission* perspective is essentially a product view, both the *transaction* and the *recursion* perspectives overlap with the process view, and the *orientation* to specific *audiences* tends towards the genre approach. These particular beliefs about academic writing, such as writing involving *transmission* and/or *transaction*, are not necessarily mutually exclusive. For example, someone may believe that writing involves the *transmission* of knowledge (agreeing that 'The key to successful writing is accurately reporting what authorities think') and also that writing involves a *transactional* emotional process (agreeing that 'Writing is a process involving a lot of emotion'). Such beliefs can be attuned to students' expectations in specific disciplines, institutions, and educational contexts. Students who transition between different levels of education, disciplines, or even countries, may need to adapt their beliefs and practices.

It therefore remains less clear whether any of these beliefs are necessarily beneficial or detrimental, and studies into the area have produced somewhat variable results. White and Bruning (2005), for example, found that both low *transaction* beliefs and also high *transaction* beliefs associated with higher writing quality for university students on educational psychology courses in the United States of America; the students' L1/L2 status was unknown, however. In a study of L1 university students within a faculty of arts (encompassing culture, history, languages, linguistics, and other courses) in the Netherlands, *transmission* beliefs predicted lower writing quality while *transaction* beliefs were not predictive (Baaijen, Galbraith, & de Glopper, 2014). In another study of university students on an educational psychology course

in the United States of America, writing grades positively correlated with *recursion* beliefs and *audience orientation* beliefs, and negatively with *transmission* beliefs, while no significant correlation was found concerning *transaction* (Sanders-Reio, Alexander, Reio, & Newman, 2014). Similarly, students' confidence in their academic writing abilities positively correlated with *recursion* beliefs, *audience orientation* beliefs, and *transaction* beliefs, and negatively correlated with *transmission* beliefs (Sanders-Reio, Alexander, Reio, & Newman, 2014). When considered concurrently within predictive modelling, *audience orientation* beliefs and (to a lesser extent) *recursion* beliefs positively predicted writing grades, while *transmission* and *transaction* beliefs negatively predicted grades; also within predictive modelling, *audience orientation* beliefs and *transaction* beliefs positively predicted confidence in academic writing abilities, *transmission* beliefs were negatively predictive, and *recursion* beliefs were not predictive (Sanders-Reio, Alexander, Reio, & Newman, 2014). Slightly under a third of the students were L1 speakers of English, slightly over a third were L2 speakers of English, and slightly under a third were bilingual (Sanders-Reio, Alexander, Reio, & Newman, 2014); nevertheless, any potential differences across L1/L2/bilingual status were not explored. This broadly suggests, together with the varying findings across studies, the benefit of further research into the area.

1.3. Theoretical perspectives

Contemporary theories and models of learning and motivation such as social-cognitive theory propose reciprocal interactions between people's beliefs, behaviours, and social environments, and especially highlight the importance of beliefs such as confidence (Bandura, 1977, 1989, 1997; Schunk, 2014). Higher confidence may facilitate people to apply even more effort, to set challenging goals, and to surpass their normal performance; in contrast, lower confidence can have a limiting effect in the sense that some actions may not be attempted even though they might be achievable (Bandura, 1997). Students' confidence for academic writing has indeed positively correlated with academic writing performance and grades (Prat-Sala & Redford, 2012; Sanders-Reio, Alexander, Reio, & Newman, 2014). Confidence for undertaking course work in general and setting higher personal grade goals for course work have also both positively correlated with overall course performance and grades (Credé & Phillips, 2011; Richardson, Abraham, & Bond, 2012). Higher confidence has associated with various motivational approaches that might help explain any benefits to performance, including orientations towards maximising learning and mastering academic work (Jiang, Song, Lee, &

Bong, 2014; Phillips & Gully, 1997), persistence (Multon, Brown, & Lent, 1991; Skaalvik, Federici, & Klassen, 2015), and students regulating their own learning (Usher & Pajares, 2008; Zimmerman & Schunk, 2011). Believing that personal abilities and/or performance can change and develop rather than being fixed or limited has also positively associated with motivational approaches such as orientations towards maximising learning and mastering academic work, and to some extent with performance (Costa & Faria, 2018; Burnette, O'Boyle, VanEpps, Pollack, & Finkel, 2013).

Social-cognitive theory has been extended into self-regulatory frameworks where actions are planned and cyclically adapted in order to achieve personal goals, which can operate in specific or generalised ways across different aspects of life (Bandura, 1989; Zimmerman, 2000). Specifically, self-regulated learning is conceptualised as involving the cyclical use of reflection, planning, implementing, and evaluating various actions and strategies in order to accomplish goals in particular contexts (Bandura, 1986; Zimmerman, 2000; Zimmerman & Moylan, 2009). Nevertheless, applying different actions and strategies may still depend on someone's confidence and other expectations. Greater application of self-regulation has been found to correlate with writing performance (Ardasheva, Wang, Adesope, & Valentine, 2017; Teng & Zhang, 2017; Zimmerman & Bandura, 1994) and with overall academic performance (Credé & Phillips, 2011; Richardson, Abraham, & Bond, 2012).

From the perspective of motivation/learning theories, beliefs about academic writing may reflect goals as well as the practices that might lead to achieving them. For example, *transmission* beliefs such as 'Good writers include a lot of quotes from authorities in their writing' and *audience orientation* beliefs such as 'Good writers adapt their message to their readers' implicitly reflect goals or standards concerning the characteristics of good writing, as well as practices that might lead to achieving them. Such beliefs may be specific to particular genres, which can broadly determine what features of writing are valued, included within assessment criteria, or otherwise considered to reflect higher performance. *Transaction* beliefs reflect writing as a process that can help clarify someone's ideas; beliefs about writing as *recursion* reflect a self-regulatory cycle, where writing is iteratively developed and refined in order to achieve a particular standard or goal. Applying some practices, such as editing, reviewing, revising, rethinking, and clarifying ideas, may help refine someone's writing, which may entail an improved outcome, which may then also foster or affirm someone's confidence in their writing. Conversely, lower confidence may limit the application of particular practices.

These theoretical perspectives provide frameworks to help understand links between students' beliefs about academic writing, confidence, and grades. These perspectives also

recognise the relevance of people's personal characteristics and backgrounds (Bandura, 1977, 1989, 1997; Kormos, 2012; Schunk, 2014). Students' prior and current experiences may intersect with other aspects of their lives to facilitate or limit their application of particular writing practices and/or holding particular beliefs about what good writing could or should be. As before, considering students' L1/L2 status may help reveal new insights into these areas.

1.4. Research aims

Overall, students' confidence in their academic writing and their confidence in their general abilities to undertake their course have both linked with their performance (Credé & Phillips, 2011; Prat-Sala & Redford, 2012; Richardson, Abraham, & Bond, 2012; Sanders-Reio, Alexander, Reio, & Newman, 2014). Particular beliefs about academic writing (which may reflect standards or goals, and/or the practices that might be applied to achieve them) have also linked with students' confidence and performance (Sanders-Reio, Alexander, Reio, & Newman, 2014; White & Bruning, 2005). While studies have suggested that L2 students might require further support for academic writing in English (Morton, Storch, & Thompson, 2015; Tian & Low, 2012), it remains unclear whether L1 and L2 students express different levels of confidence and/or different beliefs about what academic writing could or should entail. Accordingly, this study aimed to gain new insights through considering students' views about academic writing and their studies.

The research questions were as follows.

- Do L1 and L2 students express similar or different beliefs about academic writing and their studies?
- Which beliefs about academic writing associate with students' confidence in academic writing in English and students' overall performance on their course?

Inferring from prior research findings, it was hypothesised that: L2 students would express lower confidence in academic writing in English than L1 students (Sheridan, 2011; Morton, Storch, & Thompson, 2015; Tian & Low, 2012; Kormos, 2012); *transmission* beliefs about writing would negatively associate with confidence in academic writing in English and with performance (Baaijen, Galbraith, & de Glopper, 2014; Sanders-Reio, Alexander, Reio, & Newman, 2014).

2. Methods

2.1. Participants

The study focused on the field of applied linguistics in order to gain insights that might inform local and also general understanding. Additionally, insights might be more clearly apparent or easily revealed through focusing on one field, given that writing and assessment genres can vary across academic areas. This focus also aimed to simplify recruitment and engagement with the study.

Applied linguistics courses at Master's (MA) level (including courses undertaken in combination with associated subjects, such as English language teaching) were identified via UKPASS/UCAS, which reflected the contemporary provision of courses across England, Wales, Scotland, Ireland, and Northern Ireland, although no courses were identified in Northern Ireland. The relevant course leaders or other tutors were approached and, when they were willing and able to assist, their students were invited to complete an anonymous online questionnaire. Voluntary informed consent from the students was facilitated via an information sheet, which explained for example that there was no obligation to participate and that participating (or not participating) would have no impact on their studies.

Overall, 122 students participated from across at least 17 universities (not every student specified their university) across England, Wales, Scotland, and Ireland. There were 27 students who reported/identified as men (22.9% of those who answered the question) and 91 as women (77.1%). There were 54 students who reported that English was their first language (L1 students; 44.6% of those who answered the question) and 67 who reported other languages (L2 students; 55.4%). Students on MA courses are typically graduates over the age of 21; the average age of the sample was 31 years old.

Preliminary analysis considering cross-tabulations of student numbers revealed that L2 students were more likely to be women (where 86.4% of L2 students identified as women compared to 64.7% of L1 students; Cramer's $V = .255$, $p = .006$). Considering averages, L2 students were also more likely to be younger (with an average age of 28 years for L2 students compared to 35 years for L1 students; Cohen's $D = .769$, $p < .001$). Nevertheless, further preliminary analysis (not detailed or tabulated for brevity) revealed that, on average, there were no differences across men and women for their reported grades, confidence, and beliefs concerning academic writing. Numbers of men and women have often been imbalanced in other studies (e.g. Baaijen, Galbraith, & de Glopper, 2014), and may unavoidably reflect the profile of students on particular courses. Further research with more extensive numbers of

students would be necessary in order to explore any intersectionality between L1/L2 status, gender, age and/or other characteristics in more detail, given that MA students may be more diverse, such as in relation to age, than BA students.

2.2. Questionnaire items/factors

Students completed the anonymous online questionnaire around two-thirds of the way through their MA course when they had already gained experiences in their programme and formed beliefs concerning academic writing and their course.

Many questionnaire areas were informed by or directly applied existing questionnaire items in order to maximise comparability with prior research (e.g. Sanders-Reio, Alexander, Reio, & Newman, 2014; White & Bruning, 2005). It was not possible to pilot the questionnaire, given that there was only one opportunity to survey students, so the use of existing and already validated questionnaire items helped to ensure measurement validity and reliability.

Most of the questionnaire areas were measured through agreement/disagreement with various statements on a scale with: (1) 'Strongly disagree'; (2) 'Disagree'; (3) 'Neutral'; (4) 'Agree'; and (5) 'Strongly agree'. The students' responses to some questionnaire items were aggregated together into 'factors' (which can also be referred to as 'constructs', 'indexes', or 'scales'). This process was verified through factor analysis affirming that the relevant items indeed associated together and contributed to a wider underlying factor, and through the factors showing acceptable indicators of reliability (internal consistency) measured via Cronbach's α (alpha) coefficients. The factors were then calculated as the average of the relevant individual items (where the response categories for any negatively-phrased items were first reversed to ensure consistency).

In some cases, factors could be divided into different dimensions. For example, the students' responses to the items measuring writing as *transaction* could be formed into a single factor with acceptable reliability (7 items, $\alpha = .719$), or could be separated into one dimension covering *writing as an emotional process* (e.g. 'Writing is a process involving a lot of emotion', 'Writing is often an emotional experience'; 3 items, $\alpha = .719$) and another dimension covering *writing as a process of clarifying ideas* (e.g. 'Writing helps me understand better what I'm thinking about', 'Writing helps me to see the complexity of ideas'; 4 items, $\alpha = .818$). Further details of the factor analysis are provided within the Supplementary Material.

The questionnaire areas are summarised the following sections (with **Table 1** providing a list of factors and example items), with further detail provided within the Supplementary Material.

2.2.1. Course grades

Students reported their overall grade from their under-graduate (Bachelor's or BA) degree and their current MA grade(s) from across the first and second semesters (measured as (1) '50% - 59% (pass)', (2) '60% - 69% (merit)', and (3) 'above 70% (distinction)').

2.2.2. Course confidence

Students also conveyed their current confidence in their performance on their MA course (e.g. 'I usually do well in my MA course', 'I learn material quickly on my course'; 3 items, α = .756), via established questionnaire items (Bong & Skaalvik, 2003).

2.2.3. Confidence for academic writing

Students conveyed their current *confidence for academic writing* when writing in English (focusing on common aspects inherent to assessment within an MA context e.g. 'Summarise and synthetize information from academic publications', 'Connect your own ideas to existing literature', 'Take the reader perspective into account', 'Structure and organize your text clearly'; 10 items; α = .942) on a scale of (1) 'Not confident at all, (2) 'Somewhat confident', (3) 'Confident', and (4) 'Very confident'. Additionally, L2 students were also asked about their confidence when writing in their first language (i.e. when writing in languages other than English).

2.2.4. Familiarity and ease with assessment genres

Students also reported their initial *familiarity with assessment genres* recalled from before starting their MA course (10 items; α = .875) and their currently perceived *ease with assessment genres* (10 items, α = .838). These both covered the same assessment genres/tasks involving academic writing (e.g. 'Writing an extended essay (more than 1200 words) on a given topic or task', 'Writing an extended essay (more than 1200 words) on a topic of your choice', 'Writing

a critical review of an article', 'Writing a book review'). For each assessment genre/task, students reported their familiarity on a scale of (1) 'Unfamiliar', (2) 'Slightly familiar', (3) 'Familiar', and (4) 'Very familiar', and their perceived ease on a scale of (1) 'Very difficult', (2) 'Slightly difficult', (3) 'Neutral', (4) 'Fairy easy', and (5) 'Easy'.

2.2.5. Beliefs about academic writing

Students also conveyed their current beliefs around academic writing on their MA course, specifically considering their beliefs about what academic writing could or should entail, via established questionnaire items (Sanders-Reio, Alexander, Reio, & Newman, 2014; White & Bruning, 2005). Specifically, the questionnaire covered beliefs that academic writing in the context of the students' MA programme involved:

- *Transmission* (e.g. agreement with 'The key to successful writing is accurately reporting what authorities think', 'Good writers include a lot of quotes from authorities in their writing'; 5 items, $\alpha = .739$);
- *Transaction* (e.g. 'Writing is a process involving a lot of emotion', 'Writing helps me understand better what I'm thinking about'; 7 items, $\alpha = .719$); alternately, these transaction beliefs can be separated into writing as an *emotional process* (e.g. 'Writing is a process involving a lot of emotion', 'Writing is often an emotional experience'; 3 items, $\alpha = .719$) and writing as a *process of clarifying ideas* (e.g. 'Writing helps me understand better what I'm thinking about', 'Writing helps me to see the complexity of ideas'; 4 items, $\alpha = .818$);
- *Recursion* (e.g. 'Writing is a process of reviewing, revising, and rethinking', 'Good writing involves editing many times'; 5 items, $\alpha = .862$);
- Recognising an *audience orientation* (e.g. 'Good writers make complicated information clear', 'Good writers keep their audience in mind'; 14 items, $\alpha = .904$); alternately, these audience orientations can be separated into writing that *conveys information to an audience* (e.g. 'Good writers make complicated information clear', 'The key to good writing is conveying information clearly'; 6 items, $\alpha = .781$) and writing that is generally *adapted to an audience* (e.g. 'Good writers keep their audience in mind', 'Good writers adapt their message to their readers'; 8 items, $\alpha = .851$);

- And writing as involving *elaboration* (e.g. 'Good academic writing involves combining and connecting information from different sources', 'Good academic writing involves extending ideas from existing literature'; 3 items, α = .877).

These measures of *transmission*, *transaction*, *recursion*, and *audience orientation* are directly comparable with those used in prior research (Sanders-Reio, Alexander, Reio, & Newman, 2014; White & Bruning, 2005). The measure of *elaboration* was developed to supplement these, and was informed by contextualising and adapting prior items designed to measure aspects of elaboration within studying and learning in general (Pintrich, Smith, Garcia, & Wilbert, 1991).

2.2.6. Beliefs around academic writing and effort/ability

Students also reported their approaches and beliefs around *academic writing and effort/ability* (e.g. 'If I put in enough effort I can produce good academic writing', 'Whether or not I do well in academic writing tasks is completely up to me'; 7 items, α = .500); these questionnaire items were formed through contextualising and adapting prior items designed to measure aspects of effort/ability when studying in general (Dweck, 2000; Pintrich, Smith, Garcia, & Wilbert, 1991). For additional potential insight, a separate dimension was also formed to focus only on *academic writing and effort* (5 items, α = .634); however, the two items covering non-fixed ability (disagreement with 'You have a certain ability to write well in academic work, and you really can't do much to change it' and agreement with 'Whether or not I do well in academic writing tasks is completely up to me') were insufficient to form another dimension in themselves. The lower reliability for the *academic writing and effort/ability* factor highlights the benefit of further reflection and development into measuring these areas. Reassuringly, as the results highlight, the same findings were seen for the 7-item *academic writing and effort/ability* factor and for the shorter 5-item *academic writing and effort* dimension, suggesting that findings were not dependant on and/or impacted by measurement/reliability for this sample.

2.3. Analytical approaches

Similarities and/or differences in average responses across L1 and L2 students were considered through independent samples tests (t-tests), which did not assume equal variances for the two groups. Magnitudes of difference were considered through Cohen's D values, which are

commonly interpreted with values above 0.20 reflecting a small difference, above 0.50 reflecting a moderate/medium difference, and above 0.80 reflecting a large difference (Cohen, 1988). The associations between students' responses were considered through Pearson product-moment correlation coefficients (R values). Correlations below 0.10 are commonly interpreted as reflecting minimal associations, from 0.10 to 0.30 as reflecting small associations, from 0.30 to 0.50 as reflecting medium/moderate associations, and above 0.50 as reflecting large/strong associations (Cohen, 1988). A further exploration into which views independently associated with the students' confidence and performance (while accounting for other predictors within predictive modelling) is also provided within the Supplementary Material.

3. Results

The following sections: initially provide an overview of the average views across this sample of MA students on applied linguistic courses; then consider whether L1 and L2 students expressed similar or different views about academic writing and their studies; and then explore what the implications of different views might be, with a focus on determining which views about academic writing correlated with the students' confidence in academic writing and reported grades.

3.1. Students' views

Across the sample, considering L1 and L2 students together (**Table 2**), students on average agreed that good writing involved *elaboration*, clearly *conveying information to an audience*, *recursion*, *adaptation to audiences*, and that writing involved a *transactional process to clarify ideas*. The students also expressed positive beliefs about effort/ability concerning writing, essentially that writing ability was not fixed and applying effort could achieve good writing. The students were more ambivalent, but still slightly above the neutral mid-point of the response scale, about writing being a *transactional process involving emotions*. The students expressed between ambivalence and slight disagreement that writing involved a process of *transmission* (involving accurate reporting, quotation, and use of templates).

3.2. Do L1 and L2 students express similar or different beliefs about academic writing and their studies?

On average (**Table 2**), L1 and L2 students reported similar BA grades. However, L2 students conveyed lower initial familiarity with assessment genres across assignments including writing an extended essay, writing a book review, analysing a classroom or conversation transcript, and evaluating a curriculum, a syllabus or a textbook, recalled from before starting their MA course. While both L1 and L2 students expressed similar ease with these assessment genres half way through their MA, L2 students reported lower average MA grades, lower confidence in their abilities on their course, and lower confidence in their academic writing in English. This broadly affirms that L2 students may face further and/or different challenges to L1 students.

Considering the students' confidence in their academic writing in English in more detail (**Table 3**) revealed that L1 and L2 students expressed similar confidence when writing in English to: summarise and synthetize information from academic publications; express their ideas clearly; connect their own ideas to existing literature; take the reader perspective into account; and structure and organize their text clearly. However, L2 students were less confident when writing in English (**Table 3**) to: use a wide variety of sentence structures; review and revise/improve text; build up a logical and coherent argument; write persuasively; and write critically. Essentially, only some aspects of academic writing in English were considered to be more challenging by L2 students, and L2 students expressed higher confidence for these areas when writing in their first language (**Table 4**). From another perspective (**Table 5**), L1 students writing in their first language of English and L2 students writing in their other first languages expressed similar confidence for all of the considered aspects of academic writing. Overall, L2 students were less confident than L1 students to undertake some (but not all) aspects of academic writing in English, which appeared to follow from writing in English (rather than following from the area of academic writing in itself).

Considering the students' beliefs about academic writing (**Table 2**), compared to L1 students: L2 students expressed lower (but still somewhat positive) beliefs about effort/ability for writing (with an especially large magnitude of difference between L1 and L2 students); L2 students expressed higher (but still somewhat ambivalent/neutral) beliefs that writing involved *transmission*; and L2 students expressed lower (but still positive) beliefs that good writing involved *recursion*. This might follow from greater emphasis on transmission within the educational contexts and levels that L2 students may have experienced. L1 and L2 students gave similar views, on average, about *transaction*, *audience orientations*, and *elaboration* in writing.

3.3. Which beliefs about academic writing associate with students' confidence in academic writing and students' overall performance on their course?

Across the sample (considering L1 and L2 students together), many associations were revealed between students' views. **Table 6** summarises the correlations between students' beliefs about academic writing and their reported average MA grades, confidence in their overall abilities on their MA course, and confidence for academic writing in English. **Table 7** conveys all of the available correlations.

The students' reported average MA grades positively correlated with their confidence for academic writing in English ($R = .451$, $p < .001$), positive beliefs about effort/ability concerning writing ($R = .437$, $p < .001$), reported BA grades ($R = .428$, $p < .001$), confidence in their abilities on their course ($R = .385$, $p < .001$), and familiarity with assessment genres/tasks before undertaking their course ($R = .312$, $p = .005$). The students' reported average MA grades negatively correlated with beliefs about writing as involving *transmission* ($R = -.480$, $p < .001$).

The students' confidence for academic writing in English positively correlated with their confidence in their overall abilities on their MA course ($R = .598$, $p < .001$), average MA grades ($R = .451$, $p < .001$), positive beliefs about effort/ability concerning writing ($R = .451$, $p < .001$), beliefs about writing as *transaction to clarify ideas* ($R = .417$, $p < .001$), ease with assessment genres/tasks ($R = .416$, $p < .001$), familiarity with assessment genres/tasks before undertaking their course ($R = .358$, $p < .001$), and beliefs about writing as an *audience orientation focused on adapting information* ($R = .214$, $p = .048$). The students' confidence for academic writing in English negatively correlated with beliefs about writing as involving *transmission* ($R = -.228$, $p = .036$).

In addition to these main findings, the full array of correlations (**Table 7**) provides insights through revealing positive correlations, negative correlations, and also absences of correlations. For example, students' beliefs that writing involved *transmission* negatively correlated with grades, confidence for academic writing, and beliefs about ability/effort related to academic writing, but positively correlated with writing involving *transaction* as an *emotional process*. Writing involving *transaction* as an *emotional process* did not correlate with any other views, other than positively correlating with writing as *transmission*. The results additionally showed that students' beliefs about effort/ability concerning academic writing positively correlated with their beliefs that writing involved *transaction* specifically focused

on a *process of clarifying ideas*, but had no associations with their other beliefs about academic writing (writing involving *transmission*, *recursion*, and an *audience orientation*).

Overall, beliefs about effort/ability concerning writing and writing as a *transactional process to clarify ideas* could be inferred to be potentially beneficial, while beliefs about writing as *transmission* could be inferred to be potentially less beneficial. Nevertheless, it remains difficult to conclude that other beliefs about academic writing are less relevant: even if they might not directly associate with students' confidence or grades, they might link with other aspects of studying.

4. Discussion

The presented results provide insights into the implications of students' beliefs about academic writing within the wider context of ensuring that all students within higher education can maximise their potential.

For this sample of MA students on applied linguistics courses, students with English as their first language (L1 students) and students with first languages other than English (L2 students) reported similar BA grades. However, L2 students conveyed less prior familiarity with various assessment tasks/genres, lower confidence for academic writing in English, lower confidence in their overall abilities on their MA course, and lower average MA grades. These results suggest that not all students are able to maximise their potential, and broadly highlight the benefit of further support. Compared to L1 students, L2 students also reported less positive beliefs about effort/ability concerning writing (lower agreement with statements such as 'If I put in enough effort I can produce good academic writing'), lower beliefs that good writing involved *recursion* (lower agreement with statements such as 'Good writing involves editing many times' and 'Writing is a process of reviewing, revising, and rethinking'), and higher beliefs that writing involved *transmission* (higher agreement with statements such as 'The key to successful writing is accurately reporting what authorities think' and 'Good writers include a lot of quotes from authorities in their writing'). Across the sample (considering L1 and L2 students together), the students' confidence for academic writing in English and their reported MA grades positively correlated with beliefs about effort/ability but negatively correlated with beliefs that writing involved *transmission.*

Many of these results help affirm and also extend insight gained from earlier studies. Specifically, the results showed that higher beliefs that writing involved *transmission* correlated with students reporting lower MA grades, which has also been observed in prior

studies (Baaijen, Galbraith, & de Glopper, 2014; Sanders-Reio, Alexander, Reio, & Newman, 2014). The results also showed that beliefs that writing involved *transaction* (whether considered overall or separated into an *emotional process* and a *process of clarifying ideas*) had no clear correlation with grades, which again mirrors findings from prior studies (Sanders-Reio, Alexander, Reio, & Newman, 2014). Additionally, the results highlighted the new insight that *transaction* beliefs focused around the *process of clarifying ideas* (higher agreement with statements such as 'Writing helps me understand better what I'm thinking about' and 'Writing helps me to see the complexity of ideas') positively correlated with students' confidence for academic writing in English and confidence in their overall abilities on their MA course, while *transaction* beliefs focused around writing being an *emotional process* (higher agreement with statements such as 'Writing is a process involving a lot of emotion' and 'Writing is often an emotional experience') had no associations with these indicators of confidence. However, the presented results indicated that beliefs that good writing involved *recursion* did not correlate with students' grades or confidence, which contrasts with findings from prior studies (Sanders-Reio, Alexander, Reio, & Newman, 2014). Prior research has highlighted benefits linked with recursion and re-writing (Negretti, 2012; Nicolás-Conesa, Roca de Larios, & Coyle, 2014), and wider theory asserts that benefits follow from recursion via self-regulation (Bandura, 1989; Zimmerman, 2000). Given these similarities and differences in findings, it may be beneficial for future research to continue to consider students across many courses or fields (including linguistics, psychology, and other areas) in order to explore whether some findings might be specific to particular samples or contexts while others might be more generalisable.

From a wider perspective, prior studies have linked students' confidence for academic writing with their academic writing performance and grades (Prat-Sala & Redford, 2012; Sanders-Reio, Alexander, Reio, & Newman, 2014), and have shown the wider importance of students' confidence when studying and learning (Credé & Phillips, 2011; Richardson, Abraham, & Bond, 2012). For example, students' confidence has linked with their persistence (Multon, Brown, & Lent, 1991; Skaalvik, Federici, & Klassen, 2015) and with students' regulating their own learning (Usher & Pajares, 2008; Zimmerman & Schunk, 2011). The presented results offered additional insight by also highlighting the importance of positive beliefs about effort/ability concerning academic writing (essentially believing that writing ability is not fixed and applying effort can achieve good writing), which positively correlated with the students' reported current MA grades, confidence in their abilities on their course, and confidence for academic writing in English. Prior studies of university students have suggested potential benefits linked with positive beliefs about effort/ability. For example, believing that

writing abilities can be developed or changed (and are not fixed) has positively associated with: students' reported enjoyment of writing and their self-confidence across various writing activities/approaches and genres (Palmquist & Young, 1992); students' meta-cognitive knowledge regarding effective strategies in writing (Karlen & Compagnoni, 2017); and students' beliefs about writing involving transforming knowledge (including beliefs about writing as involving creativity, re-writing, and being a way to develop ideas and thinking) (Lonka, et al., 2014). More generally (considered across various studies of different subjects/domains and aspects of education), positive associations have been observed between students believing that their personal abilities are changeable and their various motivational beliefs and strategies such as aiming to learn and master academic work (Burnette, O'Boyle, VanEpps, Pollack, & Finkel, 2013).

4.1. Implications for supporting students

The various findings suggest areas where all students, and L2 students in particular, might require more support to help avoid any potential impacts on their studies. Otherwise, lower confidence may be limiting if some writing or studying approaches are not attempted even though they might be achievable (Bandura, 1997), which may be exacerbated by believing that effort does not link with outcomes and feeling that attempts to further develop writing would be futile.

4.1.1. Academic writing

Support could be focused towards particular aspects of academic writing, to help ensure that students have skills and also confidence in applying them. Concurrently, it may also be beneficial to foster positive motivational orientations around academic writing, including the idea that applying effort can indeed achieve good writing. Essentially, and as recognised within previous programmes of support, students can benefit from knowledge of standards within academic writing, skills to meet those standards, and confidence in applying those skills within their assessment genres (Cho, Cho, & Hacker, 2010; De Silva, 2015; Van de Poel & Gasiorek, 2012; Busse, 2013; Ekholm, Zumbrunn, & Conklin, 2015; Harks, Rakoczy, Hattie, Besser, & Klieme, 2014).

The presented results highlight where specific support could be focused: L2 students conveyed lower confidence when writing in English, compared to when writing in their first

languages, for using a wide variety of sentence structures, reviewing and revising/improving their text, building up a logical and coherent argument, writing persuasively, and writing critically. L2 students may benefit from wider support and practice in applying their existing knowledge and/or writing approaches across languages, and with reflection and/or support to gain awareness into contextual and/or genre standards (Kobayashi & Rinnert, 2012). Additionally, from across the different aspects of academic writing, L2 students and also L1 students tended to convey less confidence for writing persuasively and writing critically, which suggests the benefit of further guidance and support for all students for these two areas. All students may face challenges in applying and/or adapting their existing skills and experiences to new fields and/or genres of writing such as those encountered in a Masters course, and this may (in some cases and/or contexts) intersect with L1/L2 status to present further challenges (Tardy, 2006; in addition to the genre perspective, see also wider discussions of transfer/adaption such as: DePalma & Ringer, 2011; Larsen-Freeman, 2013).

4.1.2. Beliefs about good academic writing

Beliefs about academic writing can reflect goals and also practices to achieve them, essentially reflecting ideas about what 'good academic writing' could or should involve. Compared to L1 students, L2 students reported lower beliefs that good writing involved *recursion*, and higher beliefs that writing involved *transmission* (encompassing the ideas that good writing focuses on the accurate reporting and quotation from authorities and via the use of formats and templates). Nevertheless, L1 and L2 students expressed similar beliefs that writing involved *transaction* (whether considered overall or separated into writing as an *emotional process* and a *process of clarifying ideas*) and *audience orientations* (whether considered overall or separated into *writing that clearly conveys information to an audience* and *writing that is adapted to an audience.* The overall findings suggest that beliefs about writing as *transmission* could be less beneficial within applied linguistics, and hence highlight where attention and support could be focused; however, this does not mean that teaching and learning should not continue to highlight the importance of an audience awareness and other aspects of writing.

Students may benefit from further support and clarification regarding what academic writing is expected to involve: within the context of higher education, some beliefs about writing may be more or less relevant or perhaps even more beneficial or detrimental than others, which may depend on whether these beliefs cohere with assessment requirements and/or lecturers' expectations (Itua, Coffey, Merryweather, Norton, & Foxcroft, 2014; Sheridan,

2011). For example, writing as *transmission* (accurately reporting and quoting others) may be one aspect of contemporary academic writing that is assumed or reflected within assessment; however, it may be problematic if someone believes that academic writing should mainly (or should only) focus on *transmission*, given that assessment criteria may expect students to also critically consider what they report, to make further links across material, and to offer new or personal insights. Reassuringly, prior research has shown that L1 and L2 students have conveyed concern for multiple aspects or dimensions of writing including applying correct grammar, an awareness of and communication to an audience, and applying a personal voice, rather than focusing on one single dimension (Devine, Railey, & Boshoff, 1993; Manchón & Roca de Larios, 2011; Nicolás-Conesa, Roca de Larios, & Coyle, 2014). However, more L2 students than L1 students have highlighted the potential tensions and challenges in addressing multiple dimensions through their writing (Devine, Railey, & Boshoff, 1993). Further research into students' processes of writing has also highlighted the importance of their understanding of assessment terms or criteria such as 'synthesis' and 'critical evaluation' within the context of writing assignments, and the importance of students' processes of structuring and revising their writing, and writing to form arguments and relate information rather than focusing on conveying or transmitting information (Campbell, Smith, & Brooker, 1998).

Overall, it remains important for researchers and lecturers to reflect on what aspects of writing are promoted and/or required within their fields or their assessment tasks, and to clearly convey these requirements to their students; this could then help ensure that students' aims for their writing align with assessment requirement and genre standards (Negretti, 2017). It also means that lecturers need to investigate what kind of beliefs their students hold when they start their courses, as these may be based on their previous educational experiences involving different standards and expectations.

4.2. Implications for future research

The importance of students' confidence, motivational orientations, and beliefs about academic writing highlights the benefit of further research to understand how and why different students express different views. For example, research could explore influences onto students' beliefs, including whether different students consider or value different sources of information such as published academic writing in their field, the formal assessment frameworks for their course, and formal and/or informal information and feedback from their lecturers.

It may also be beneficial to consider which beliefs about academic writing may be relevant in different contexts. For example, the presented results highlight the insight gained from separating *transactional beliefs* into *writing as an emotional process* (which did not correlate with students' confidence for academic writing in English) and *writing as a process of clarifying ideas* (which did positively correlate with students' confidence for academic writing in English). It is possible that writing as a *transactional* process involving emotions may not necessarily be recognised or emphasised (or may even be discouraged) within academic assessment and/or within some genres of academic writing. Academic writing within many genres/fields has often been orientated around clarity, conciseness, objectivity, impartially and other ideals, even though academic writing is often applied through relatively complex and elaborate approaches, which broadly suggests the persistent and pervasive dominance of an (inherently unemotional) empirical and scientifical model (Bennet, 2009; Biber & Bethany, 2010). Challenging such dominance, and transforming genres in general, may be difficult (Bennet, 2009; Hyland, 2003; Tardy, 2006). Pragmatically, research may need to consider which particular emotions or affective reactions might be relevant, such as whether the process of academic writing is experienced as enjoyable or stressful.

Students' goals, confidence, performance, and other beliefs may link in complex and/or potentially reciprocal ways, and future research could continue to reveal correlations between these various factors. From another perspective, the 'development' of writing skills has been proposed to increasingly involve integrations and interactions between planning, conveying/translating ideas, and reviewing/revising, and within an awareness of readers (Kellogg, 2008). Within such a structure, *transmission* beliefs may link with the first stage of development ('knowledge telling'; focusing on conveying the writers' ideas); *transaction* beliefs and writing as *recursion* may link with the second stage ('knowledge transforming'; with more attention to the process of writing, within goals/plans and with more use of revising and editing); and an *audience orientation* may link with the third stage ('knowledge crafting'; as before but now with an awareness of adaptations for audiences) (as highlighted by Sanders-Reio, Alexander, Reio, & Newman, 2014). This would suggest that writers with varying experience may have different patterns or profiles of beliefs, for example where writers with less experience might endorse *transaction* beliefs but might not endorse writing as *recursion* and/or an *audience orientation*. This may also suggest that more experienced writers focus on more aspects or 'dimensions' of writing such as audience orientations (Devine, Railey, & Boshoff, 1993). Future research could essentially explore whether different students hold different patterns of beliefs, where the pattern might be more important than any particular

belief in isolation. This could be approached through continuing to consider whether students are aware of and/or focus on single or multiple dimensions of writing (Devine, Railey, & Boshoff, 1993; Manchón & Roca de Larios, 2011; Nicolás-Conesa, Roca de Larios, & Coyle, 2014), with continuing development and/or reflection on which aspects of writing (and/or beliefs, attitudes, and/or other orientations) could or should be considered.

4.3. Limitations

The analysis considered students' self-reported grades and beliefs, expressed at one point in time, so that any patterns of cause and effect unavoidably remain inconclusive. Essentially, it remains unclear whether any particular beliefs or factors are definitively antecedents of (and/or otherwise help foster) specific outcomes such as reported grades. Students were also asked to convert their earlier grades into the English system, but some grades may not necessarily be easily converted and/or educational systems or qualifications may not necessarily be equivalent. The analysis also considered differences across L1/L2 status rather than considering differences in more detail, such as also considering countries of origin. Additionally, L2 students may not necessarily be international students, and some or all of their prior studies may (or may not) have been delivered in English. These present areas to also consider within future research. Additionally, the questionnaire could only consider a relatively limited number of areas within a reasonable length, and could not consider students' detailed experiences. Students' confidence for their studies, and/or for specific areas of academic writing in English, may link with many aspects of education and life, including prior and current attainment, praise and encouragement, and comparisons against peers (Bong & Skaalvik, 2003).

Correlations and other statistics are abstracted generalisations, and interviews, case studies, and other qualitative research approaches are necessary in order to gain a detailed and comprehensive understanding of students' subjective experiences including their beliefs about academic writing, how these beliefs might arise or be influenced, and the implications of these various beliefs within higher education. Writing and learning are complex processes that may involve self-regulation, social-regulation, and other forms of regulation, with influences from peers and lecturers within social and other contexts (including academic fields and their particular genres of writing); these may require many different research techniques and approaches, including interviews (with students and lecturers), 'thinking-aloud' narratives

while writing, and discourse/textual analysis (of students' texts and lecturers' materials), in order to gain comprehensive insights (Hadwin & Oshige, 2011).

4.4. Final thoughts

Ultimately, individual students may require different extents and/or types of support and guidance, and it remains difficult to generalise across groups of students and problematic to assume that some students might inherently hold less beneficial views. There is virtually no dissent on the challenges that students potentially face when they transition from one educational level to another in the same country. A fierce debate however has ensued whether it is appropriate to homogenize 'international students' and single them out as facing challenges or even as being 'problematic' and potentially 'deficient' when in fact they are often multilingual and highly competent speakers of English as a lingua franca (Jenkins, Cogo, & Dewey, 2011). We fully concur with this criticism but would nevertheless argue that the transition between different educational levels and the transition between different educational systems are both potentially challenging because the expectations, practices, and assessment genres are likely to differ. In the case of international students who pursue a postgraduate degree both conditions might actually apply: they commonly hold an undergraduate degree and have not attended a postgraduate programme, neither in their home nor in another country (although some have done so), and they transition between educational systems. In addition to this, they have to acquire new competencies in academic writing, even though they might otherwise be competent speakers of the language that their postgraduate course is taught in. Further research, involving students' own accounts and narratives, remains beneficial in order to gain greater understanding.

5. References

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Table 1: Summary of factors and example items

Factor	Example items	Items	Reliability
Familiarity with assessment genres	'Writing an extended essay', 'Writing a book review'	10	.875
Ease with assessment genres	'Writing an extended essay', 'Writing a book review'	10	.838
Confidence for academic writing in English	'Summarise and synthetize information from academic publications', 'Connect your own ideas to existing literature'	10	.942
Course confidence	'I usually do well in my MA course', 'I learn material quickly on my course'	3	.756
Writing: effort/ability	'You have a certain ability to write well in academic work, and you really can't do much to change it' [reversed], 'If I put in enough effort I can produce good academic writing'	7	.500
Writing: effort (only)	'If I put in enough effort I can produce good academic writing', 'When academic writing is difficult, I either give up or only write something easy' [reversed]	5	.634
Writing: transmission	'The key to successful writing is accurately reporting what authorities think', 'Good writers include a lot of quotes from authorities in their writing'	5	.739
Writing: transaction (all)	'Writing is a process involving a lot of emotion', 'Writing helps me understand better what I'm thinking about'	7	.719
Writing: transaction (emotion)	'Writing is a process involving a lot of emotion', 'Writing is often an emotional experience'	3	.719
Writing: transaction (ideas)	'Writing helps me understand better what I'm thinking about', 'Writing helps me to see the complexity of ideas'	4	.818
Writing: recursion	'Writing is a process of reviewing, revising, and rethinking', 'Good writing involves editing many times'	5	.862
Writing: audience orientation (all)	'Good writers make complicated information clear', 'Good writers keep their audience in mind'	14	.904
Writing: audience orientation (conveying)	'Good writers make complicated information clear', 'The key to good writing is conveying information clearly'	6	.781
Writing: audience orientation (adapting)	'Good writers keep their audience in mind', 'Good writers adapt their message to their readers'	8	.851
Writing: elaboration	'Good academic writing involves combining and connecting information from different sources', 'Good academic writing involves extending ideas from existing literature'	3	.877

Notes: response categories were reversed for any negatively-phrased items so that higher factor scores consistently reflected positive beliefs or ideas. Cronbach's alpha coefficients are reported as reliability indicators.

Table 2: Students' average responses

	All students		L2 students (first language = not English)		L1 students (first language = English)		Difference across L1 and L2 students	
Item/factor [scale units]	**M**	**SD**	**M**	**SD**	**M**	**SD**	**Cohen's D**	**Sig. (p)**
Age [years]	30.91	9.49	27.83	6.81	34.67	10.91	**.769**	**<.001**
BA grade [1-3]	2.32	.67	2.35	.70	2.27	.63	.121	.585
MA current grade average [1-3]	2.27	.61	2.11	.62	2.52	.50	**.698**	**.002**
Familiarity with assessment genres [1-4]	2.38	.74	2.25	.70	2.58	.74	**.466**	**.024**
Ease with assessment genres [1-5]	3.00	.81	2.95	.76	3.08	.89	.169	.426
Confidence for academic writing in English [1-4]	2.59	.72	2.41	.69	2.82	.67	**.608**	**.004**
Course confidence [1-5]	3.56	.72	3.41	.73	3.73	.65	**.458**	**.043**
Writing: effort/ability (all) [1-5]	3.82	.48	3.65	.42	4.08	.43	**1.016**	**<.001**
Writing: effort (only) [1-5]	3.97	.60	3.80	.54	4.26	.54	**.836**	**<.001**
Writing: transmission [1-5]	2.72	.68	2.81	.64	2.53	.60	**.436**	**.047**
Writing: transaction (all) [1-5]	3.77	.59	3.75	.53	3.76	.64	.021	.928
Writing: transaction (emotion) [1-5]	3.29	.85	3.33	.74	3.18	.96	.183	.431
Writing: transaction (ideas) [1-5]	4.13	.70	4.06	.74	4.20	.64	.208	.334
Writing: recursion [1-5]	4.24	.60	4.12	.62	4.39	.54	**.457**	**.036**
Writing: audience orientation (all) [1-5]	4.30	.45	4.30	.45	4.29	.46	.021	.923
Writing: audience orientation (conveying) [1-5]	4.39	.45	4.40	.46	4.37	.45	.056	.799
Writing: audience orientation (adapting) [1-5]	4.24	.49	4.23	.48	4.23	.50	.007	.973
Writing: elaboration [1-5]	4.45	.58	4.39	.60	4.53	.56	.254	.244

Notes: The table shows means ('M'; the average) and standard deviations ('SD'; the extent of dispersion around the mean), and the magnitude ('D'; Cohen's D) and significance ('Sig. (p)'; p-values) of the difference in responses across L1 and L2 students. Significant differences (with p-values < .05) are highlighted in bold.

Table 3: Students' confidence for academic writing in English (item-level detail)

	L2 students writing in English		L1 students writing in English		Difference across L1 and L2 students	
Item [1-4 scale]	**M**	**SD**	**M**	**SD**	**Cohen's D**	**Sig. (p)**
Summarise and synthetize information from academic publications	2.71	.89	2.79	.83	.093	.653
Express your ideas clearly	2.61	.77	2.92	.74	.407	.052
Connect your own ideas to existing literature	2.60	.96	2.87	.86	.298	.147
Take the reader perspective into account	2.34	.88	2.68	.85	.387	.069
Structure and organize your text clearly	2.60	.82	2.84	.82	.299	.158
Use a wide variety of sentence structures	2.27	.84	2.97	1.03	**.767**	**.001**
Review and revise/improve your text	2.45	.89	2.95	.83	**.580**	**.006**
Build up a logical and coherent argument	2.23	.87	2.79	.77	**.685**	**.001**
Write persuasively	2.14	.88	2.69	.77	**.663**	**.002**
Write critically	2.19	.95	2.69	.89	**.537**	**.010**

Notes: The table shows means ('M'; the average) and standard deviations ('SD'; the extent of dispersion around the mean), and the magnitude ('D'; Cohen's D) and significance ('Sig. (p)'; p-values) of the difference in responses across L1 and L2 students. Significant differences (with p-values < .05) are highlighted in bold.

Table 4: L2 students' confidence for academic writing when writing in their first language and when writing in English (item-level detail)

	L2 students writing in their first language (not English)		**L2 students writing in English**		**Difference across responses**	
Items [1-4 scale]	**M**	**SD**	**M**	**SD**	**Cohen's D**	**Sig. (p)**
Summarise and synthetize information from academic publications	2.84	.89	2.71	.89	.141	.312
Express your ideas clearly	2.86	.90	2.61	.77	**.294**	**.038**
Connect your own ideas to existing literature	2.74	.92	2.60	.96	.149	.314
Take the reader perspective into account	2.57	.91	2.34	.88	**.259**	**.027**
Structure and organize your text clearly	2.84	.89	2.61	.82	.271	.091
Use a wide variety of sentence structures	2.84	.91	2.27	.84	**.652**	**.001**
Review and revise/improve your text	2.89	.87	2.45	.89	**.507**	**.004**
Build up a logical and coherent argument	2.68	.91	2.23	.87	**.514**	**.001**
Write persuasively	2.51	.97	2.14	.88	**.400**	**.006**
Write critically	2.46	.91	2.19	.95	**.283**	**.038**

Notes: The table shows means ('M'; the average) and standard deviations ('SD'; the extent of dispersion around the mean), and the magnitude ('D'; Cohen's D) and significance ('Sig. (p)'; p-values) of the difference across responses. Significant differences (with p-values < .05) are highlighted in bold.

Table 5: Students' confidence for academic writing in their first language (item-level detail)

	L2 students writing in their first language (not English)		L1 students writing in their first language (English)		Difference across L1 and L2 students	
Items [1-4 scale]	**M**	**SD**	**M**	**SD**	**Cohen's D**	**Sig. (p)**
Summarise and synthetize information from academic publications	2.84	.89	2.79	.83	.038	.853
Express your ideas clearly	2.86	.90	2.92	.74	.073	.714
Connect your own ideas to existing literature	2.74	.92	2.87	.86	.146	.477
Take the reader perspective into account	2.57	.91	2.68	.85	.140	.501
Structure and organize your text clearly	2.84	.89	2.84	.82	.000	1.000
Use a wide variety of sentence structures	2.84	.91	2.97	1.03	.134	.532
Review and revise/improve your text	2.89	.87	2.95	.83	.082	.691
Build up a logical and coherent argument	2.68	.91	2.79	.77	.124	.539
Write persuasively	2.51	.97	2.69	.77	.197	.322
Write critically	2.46	.91	2.69	.89	.262	.210

Notes: The table shows means ('M'; the average) and standard deviations ('SD'; the extent of dispersion around the mean), and the magnitude ('D'; Cohen's D) and significance ('Sig. (p)'; p-values) of the difference in responses across L1 and L2 students. Significant differences (with p-values < .05) are highlighted in bold.

Table 6: Correlations between students' responses (summary)

	Correlation with MA current grade average		Correlation with confidence for academic writing in English		Correlation with MA course confidence	
Item/factor	**R**	**Sig. (p)**	**R**	**Sig. (p)**	**R**	**Sig. (p)**
Writing: effort/ability (all)	**.437**	**<.001**	**.451**	**<.001**	**.307**	**.006**
Writing: effort (only)	**.494**	**<.001**	**.502**	**<.001**	**.391**	**<.001**
Writing: transmission	**-.480**	**<.001**	**-.228**	**.036**	-.164	.145
Writing: transaction (all)	.050	.663	**.281**	**.009**	.214	.056
Writing: transaction (emotion)	-.016	.888	-.004	.975	.018	.875
Writing: transaction (ideas)	.078	.497	**.417**	**<.001**	**.308**	**.005**
Writing: recursion	.112	.329	.104	.344	-.008	.947
Writing: audience orientation (all)	.155	.174	.187	.087	.118	.297
Writing: audience orientation (conveying)	.102	.373	.124	.259	.143	.207
Writing: audience orientation (adapting)	.176	.122	**.215**	**.048**	.099	.385
Writing: elaboration	.184	.106	.181	.097	.183	.104

Notes: The table shows Pearson correlations coefficients (R) and their significance ('Sig. (p)'; p-values). Significant coefficients (with p-values < .05) are highlighted in bold.

Table 7: Correlations between students' responses (details)

Item/factor	1	2	3	4	5	6	7	8	8a	9	10	10a	10b	11	12	12a	12b
1. Age	1																
2. BA grade	**-.343**	1															
3. MA current grades	.124	**.428**	1														
4. Familiarity with assessment genres	-.059	.205	**.312**	1													
5. Ease with assessment genres	-.157	.064	.152	**.313**	1												
6. Confidence for academic writing	.145	.107	**.451**	**.358**	**.416**	1											
7. Course confidence	.090	**.226**	**.385**	.096	**.371**	**.598**	1										
8. Writing: effort/ability (all)	**.419**	-.061	**.437**	**.235**	.130	**.451**	**.307**	1									
8a. Writing: effort (only)	**.381**	.043	**.494**	.175	.102	**.502**	**.391**	**.934**	1								
9. Writing: transmission	**-.257**	**-.271**	**-.480**	-.076	-.004	**-.228**	-.164	**-.406**	**-.422**	1							
10. Writing: transaction (all)	.159	-.072	.050	-.021	.084	**.281**	.214	.181	.173	.140	1						
10a. Writing: transaction (emotion)	.144	-.088	-.016	-.026	-.006	-.004	.018	-.101	-.112	**.300**	**.745**	1					
10b. Writing: transaction (ideas)	.097	-.039	.078	-.011	.138	**.417**	**.308**	**.348**	**.342**	-.047	**.784**	.174	1				
11. Writing: recursion	**.314**	-.075	.112	.063	-.039	.104	-.008	.209	.132	-.056	**.300**	**.237**	**.214**	1			
12. Writing: audience orientation (all)	.183	.086	.155	.013	.041	.187	.118	.064	.070	-.023	**.367**	**.214**	**.346**	**.434**	1		
12a. Writing: audience (conveying)	.099	.067	.102	-.021	.008	.124	.143	.043	.063	.022	**.376**	.194	**.374**	**.430**	**.919**	1	
12b. Writing: audience (adapting)	**.221**	.090	.176	.034	.060	**.215**	.099	.070	.064	-.050	**.319**	.197	**.294**	**.389**	**.963**	**.779**	1
13. Writing: elaboration	.164	-.033	.184	.096	**.293**	.181	.183	.182	.144	.103	**.497**	**.405**	**.364**	**.323**	**.530**	**.523**	**.481**

Notes: The table shows Pearson correlations coefficients (R values) Significant coefficients (with p-values < .05) are highlighted in bold (within shaded cells for enhanced visibility).

Supplementary Material

5.1. Questionnaire areas in detail

Familiarity with assessment genres
['How familiar were you with these particular assignments before starting your MA course?'; response categories: (1) 'Unfamiliar', (2) 'Slightly familiar', (3) 'Familiar', and (4) 'Very familiar']

- Answering multiple-choice and true / false questions.
- Writing an extended essay (more than 1200 words) on a given topic or task.
- Writing an extended essay (more than 1200 words) on a topic of your choice.
- Writing a critical review of an article.
- Writing a book review.
- Analysing a classroom or conversation transcript.
- Evaluating a curriculum, a syllabus or a textbook.
- Writing an annotated bibliography.
- Writing a journal, a diary, or a learning log.
- Report on an experiment, a case study or any other kind of empirical research that you conducted yourself.

Ease with assessment genres
['Which of these types of assignments have you found challenging?'; response categories: (1) 'Very difficult', (2) 'Slightly difficult', (3) 'Neutral', (4) 'Fairy easy', and (5) 'Easy']

- Answering multiple-choice and true / false questions.
- Writing an extended essay (more than 1200 words) on a given topic or task.
- Writing an extended essay (more than 1200 words) on a topic of your choice.
- Writing a critical review of an article.
- Writing a book review.
- Analysing a classroom or conversation transcript.
- Evaluating a curriculum, a syllabus or a textbook.
- Writing an annotated bibliography.
- Writing a journal, a diary, or a learning log.
- Report on an experiment, a case study or any other kind of empirical research that you conducted yourself.

Confidence for academic writing
['How confident do you feel about being able to do the following when writing academically in English?'; response categories: (1) 'Not confident at all, (2) 'Somewhat confident', (3) 'Confident', and (4) 'Very confident']

- Summarise and synthetize information from academic publications
- Express your ideas clearly
- Connect your own ideas to existing literature
- Take the reader perspective into account
- Structure and organize your text clearly
- Use a wide variety of sentence structures
- Review and revise/improve your text
- Build up a logical and coherent argument
- Write persuasively
- Write critically

Course confidence
['To what extent do you agree or disagree with these statements?'; response categories: (1) 'Strongly disagree'; (2) 'Disagree'; (3) 'Neutral'; (4) 'Agree'; and (5) 'Strongly agree'.]

- I usually do well in my MA course.
- In my course modules, I understand even the most difficult topics.
- I learn material quickly on my course.

Writing: effort/ability
['Thinking about your academic writing, to what extent do you agree or disagree with these statements?'; response categories: (1) 'Strongly disagree'; (2) 'Disagree'; (3) 'Neutral'; (4) 'Agree'; and (5) 'Strongly agree'.]

- You have a certain ability to write well in academic work, and you really can't do much to change it. [reversed category coding]
- If I put in enough effort I can produce good academic writing.
- Whether or not I do well in academic writing tasks is completely up to me.
- I do badly in academic writing tasks whether I try hard or not. [reversed category coding]
- I often feel so lazy or bored when working on academic writing that I quit before I finish what I planned to do. [reversed category coding]
- I work hard to produce good academic writing even if I don't like the topic or assignment.
- When academic writing is difficult, I either give up or only write something easy. [reversed category coding]

Writing: transmission
['Thinking about academic writing in your MA programme, to what extent do you agree or disagree with these statements?'; response categories: (1) 'Strongly disagree'; (2) 'Disagree'; (3) 'Neutral'; (4) 'Agree'; and (5) 'Strongly agree'.]

- Good writers include a lot of quotes from authorities in their writing.
- Writing should focus on the information in books and articles.
- The key to successful writing is accurately reporting what authorities think.
- The most important reason to write is to report what authorities think about a subject.
- When writing, it's best to use proven formats and templates, and then fill in the important information.

Writing: transaction (all)
['Thinking about academic writing in your MA programme, to what extent do you agree or disagree with these statements?'; response categories: (1) 'Strongly disagree'; (2) 'Disagree'; (3) 'Neutral'; (4) 'Agree'; and (5) 'Strongly agree'.]

- Writing is a process involving a lot of emotion.
- Writing helps me understand better what I'm thinking about.
- Writing helps me to see the complexity of ideas.
- My thoughts and ideas become clearer to me as I write and rewrite.
- Writing is often an emotional experience.
- Writers need to immerse themselves in their writing.
- Writing helps new ideas emerge.

Writing: transaction (emotion)
['Thinking about academic writing in your MA programme, to what extent do you agree or disagree with these statements?'; response categories: (1) 'Strongly disagree'; (2) 'Disagree'; (3) 'Neutral'; (4) 'Agree'; and (5) 'Strongly agree'.]

- Writing is a process involving a lot of emotion.
- Writing is often an emotional experience.
- Writers need to immerse themselves in their writing.

Writing: transaction (ideas)
['Thinking about academic writing in your MA programme, to what extent do you agree or disagree with these statements?'; response categories: (1) 'Strongly disagree'; (2) 'Disagree'; (3) 'Neutral'; (4) 'Agree'; and (5) 'Strongly agree'.]

- Writing helps me understand better what I'm thinking about.
- Writing helps me to see the complexity of ideas.
- My thoughts and ideas become clearer to me as I write and rewrite.
- Writing helps new ideas emerge.

Writing: recursion
['Thinking about academic writing in your MA programme, to what extent do you agree or disagree with these statements?'; response categories: (1) 'Strongly disagree'; (2) 'Disagree'; (3) 'Neutral'; (4) 'Agree'; and (5) 'Strongly agree'.]

- Writing requires going back over it to improve what has been written.
- Good writing involves editing many times.
- Writing is a process of reviewing, revising, and rethinking.
- Revision is a multi-stage process.

- The key to good writing is revising.

Writing: audience orientation (all)
['Thinking about academic writing in your MA programme, to what extent do you agree or disagree with these statements?'; response categories: (1) 'Strongly disagree'; (2) 'Disagree'; (3) 'Neutral'; (4) 'Agree'; and (5) 'Strongly agree'.]

- Good writers make complicated information clear.
- Good writers are sensitive to their readers.
- Good writers support their points effectively.
- Good writers adapt their message to their readers.
- The key to good writing is conveying information clearly.
- Good writers keep their audience in mind.
- Good writers thoroughly explain their opinions and findings.
- Good writers are oriented toward their readers.
- Good writers are logical and convincing.
- Good writers are reader-friendly.
- Good writing sounds natural, not stiff.
- Good writers don't let their choice of words overshadow their message.
- It's important to select the words that suit your purpose, audience, and occasion.
- Good writers anticipate and answer their audience's questions.

Writing: audience (conveying)
['Thinking about academic writing in your MA programme, to what extent do you agree or disagree with these statements?'; response categories: (1) 'Strongly disagree'; (2) 'Disagree'; (3) 'Neutral'; (4) 'Agree'; and (5) 'Strongly agree'.]

- Good writers make complicated information clear.
- Good writers support their points effectively.
- The key to good writing is conveying information clearly.
- Good writers thoroughly explain their opinions and findings.
- Good writers are logical and convincing.
- Good writers don't let their choice of words overshadow their message.

Writing: audience (adapting)
['Thinking about academic writing in your MA programme, to what extent do you agree or disagree with these statements?'; response categories: (1) 'Strongly disagree'; (2) 'Disagree'; (3) 'Neutral'; (4) 'Agree'; and (5) 'Strongly agree'.]

- Good writers are sensitive to their readers.
- Good writers adapt their message to their readers.
- Good writers keep their audience in mind.
- Good writers are oriented toward their readers.
- Good writing sounds natural, not stiff.
- Good writers are reader-friendly.
- It's important to select the words that suit your purpose, audience, and occasion.
- Good writers anticipate and answer their audience's questions.

Writing: elaboration
['Thinking about academic writing in your MA programme, to what extent do you agree or disagree with these statements?'; response categories: (1) 'Strongly disagree'; (2) 'Disagree'; (3) 'Neutral'; (4) 'Agree'; and (5) 'Strongly agree'.]

- Good academic writing involves combining and connecting information from different sources.
- Good academic writing involves connecting my ideas to existing literature.
- Good academic writing involves extending ideas from existing literature.

5.2. Measuring students' beliefs about academic writing

Factor analysis broadly affirmed that the students' responses to the various individual questionnaire items could be validly aggregated together into the theorised 'factors' that represented underlying ideas or aspects of students'

experiences and views, which also showed acceptable indicators of reliability. Some new insights were also revealed where the theorised factors separated into multiple dimensions.

Specifically, factor analysis revealed that the items measuring writing as *transaction* could be separated into two dimensions: one covering writing as an *emotional process* (e.g. 'Writing is a process involving a lot of emotion', 'Writing is often an emotional experience'; 3 items, α = .719), and the other covering writing as a process of *clarifying ideas* (e.g. 'Writing helps me understand better what I'm thinking about', 'Writing helps me to see the complexity of ideas'; 4 items, α = .818). Nevertheless, acceptable reliability was also observed across all of the *transaction* items (7 items; α = .719).

Factor analysis revealed that the students' responses to the items measuring *audience orientations* in writing appeared to separate into multiple dimensions, but without clear and consistent underlying ideas or themes per dimension; for example, the items 'Good writers are sensitive to their readers' and 'Good writers are reader-friendly' appeared to link with different dimensions, despite (intuitively) both items measuring a similar underlying idea related to being mindful of readers when writing. After considering the individual items (the face validity / intuitive meaning of what the item was asking about), two separate dimensions were formed, which considered writing that helps *convey information to an audience* (e.g. 'Good writers make complicated information clear', 'The key to good writing is conveying information clearly'; 6 items, α = .781) and writing that is generally *adapted to an audience* (e.g. 'Good writers keep their audience in mind', 'Good writers adapt their message to their readers'; 8 items, α = .851). While these two aspects themselves showed single-factor structures and acceptable indicators of reliability, it may be beneficial to undertake more research that considers and refines the measurement of *audience orientations* in more detail. Nevertheless, acceptable reliability was also observed across all of the *audience orientation* items aggregated together into a single factor (14 items; α = .904).

Additionally, for the students' beliefs about effort and ability related to academic writing (e.g. 'If I put in enough effort I can produce good academic writing'; 7 items, α = .500), factor analysis highlighted that the two items considering non-fixed ability (disagreement with 'You have a certain ability to write well in academic work, and you really can't do much to change it' and agreement with 'Whether or not I do well in academic writing tasks is completely up to me') could be separated from the other items that focused on effort. The items focused only on effort showed improved reliability (5 items, α = .634), but the two items covering ability were insufficient to form a factor in themselves. It may be broadly beneficial to undertake more research that considers and refines the measurement of these various areas.

5.2.1. Writing: transmission

Writing: transmission

Item	Factor 1 loading
Good writers include a lot of quotes from authorities in their writing.	**.573**
Writing should focus on the information in books and articles.	**.724**
The key to successful writing is accurately reporting what authorities think.	**.820**
The most important reason to write is to report what authorities think about a subject.	**.811**
When writing, it's best to use proven formats and templates, and then fill in the important information.	**.573**
Extraction sums of squared loadings (Eigenvalues)	2.512
Extraction sums of squared loadings (percentage of variance)	50.232

5.2.2. Writing: transaction

Writing: transaction (all)

Item	Factor 1 loading	Factor 2 loading
Writing is a process involving a lot of emotion	-.194	**.844**
Writing helps me understand better what I'm thinking about	**.780**	.178
Writing helps me to see the complexity of ideas	**.891**	-.024
My thoughts and ideas become clearer to me as I write and rewrite	**.822**	-.053
Writing is often an emotional experience	.139	**.868**
Writers need to immerse themselves in their writing	.342	**.620**
Writing helps new ideas emerge	**.694**	.188
Extraction sums of squared loadings (Eigenvalues)	2.878	1.775
Extraction sums of squared loadings (percentage of variance)	41.118	25.362
Rotation sums of squared loadings (Eigenvalues)	2.733	1.920

Item	Factor 1 loading	Factor 2 loading
Rotation sums of squared loadings (percentage of variance)	39.044	27.436

Writing: transaction (emotion)

Item	Factor 1 loading
Writing is a process involving a lot of emotion	**.806**
Writing is often an emotional experience	**.889**
Writers need to immerse themselves in their writing	**.696**
Extraction sums of squared loadings (Eigenvalues)	1.924
Extraction sums of squared loadings (percentage of variance)	64.123

Writing: transaction (ideas)

Item	Factor 1 loading
Writing helps me understand better what I'm thinking about	**.804**
Writing helps me to see the complexity of ideas	**.893**
My thoughts and ideas become clearer to me as I write and rewrite	**.817**
Writing helps new ideas emerge	**.706**
Extraction sums of squared loadings (Eigenvalues)	2.611
Extraction sums of squared loadings (percentage of variance)	65.263

5.2.3. Writing: recursion

Writing: recursion

Item	Factor 1 loading
Writing requires going back over it to improve what has been written.	**.789**
Good writing involves editing many times.	**.919**
Writing is a process of reviewing, revising, and rethinking.	**.843**
Revision is a multi-stage process.	**.785**
The key to good writing is revising.	**.696**
Extraction sums of squared loadings (Eigenvalues)	3.280
Extraction sums of squared loadings (percentage of variance)	65.597

5.2.4. Writing: audience orientation

Writing: audience orientation (all)

Item	Factor 1 loading	Factor 2 loading	Factor 3 loading
Good writers make complicated information clear.	.278	**.742**	.073
Good writers are sensitive to their readers.	.177	**.853**	.109
Good writers support their points effectively.	.222	**.829**	.159
Good writers adapt their message to their readers.	.587	**.409**	.212
The key to good writing is conveying information clearly.	**.509**	.347	.264
Good writers keep their audience in mind.	**.522**	**.677**	.161
Good writers thoroughly explain their opinions and findings.	**.639**	.302	-.008
Good writers are oriented toward their readers.	**.641**	**.424**	.088
Good writers are logical and convincing.	**.797**	.245	.136
Good writers are reader-friendly.	**.744**	.273	.103
Good writing sounds natural, not stiff.	**.734**	-.086	.354
Good writers don't let their choice of words overshadow their message.	.173	.080	**.872**
It's important to select the words that suit your purpose, audience, and occasion.	.180	.366	**.717**
Good writers anticipate and answer their audience's questions.	.196	**.593**	.177
Extraction sums of squared loadings (Eigenvalues)	6.502	1.376	1.072
Extraction sums of squared loadings (percentage of variance)	46.442	9.828	7.659
Rotation sums of squared loadings (Eigenvalues)	3.680	3.618	1.652
Rotation sums of squared loadings (percentage of variance)	26.288	25.843	11.798

Writing: audience orientation (conveying)

Item	Factor 1 loading
Good writers make complicated information clear.	**.774**
Good writers support their points effectively.	**.741**
The key to good writing is conveying information clearly.	**.755**
Good writers thoroughly explain their opinions and findings.	**.730**
Good writers are logical and convincing.	**.761**
Good writers don't let their choice of words overshadow their message.	**.441**
Extraction sums of squared loadings (Eigenvalues)	3.026
Extraction sums of squared loadings (percentage of variance)	50.425

Writing: audience orientation (adapting)

Item	Factor 1 loading
Good writers are sensitive to their readers.	**.741**
Good writers adapt their message to their readers.	**.769**
Good writers keep their audience in mind.	**.804**
Good writers are oriented toward their readers.	**.755**
Good writing sounds natural, not stiff.	**.574**
Good writers are reader-friendly.	**.762**
It's important to select the words that suit your purpose, audience, and occasion.	**.590**
Good writers anticipate and answer their audience's questions.	**.628**
Extraction sums of squared loadings (Eigenvalues)	4.011
Extraction sums of squared loadings (percentage of variance)	50.134

5.2.5. Writing: elaboration

Writing: elaboration

Item	Factor 1 loading
Good academic writing involves combining and connecting information from different sources.	**.882**
Good academic writing involves connecting my ideas to existing literature.	**.884**
Good academic writing involves extending ideas from existing literature.	**.925**
Extraction sums of squared loadings (Eigenvalues)	2.413
Extraction sums of squared loadings (percentage of variance)	80.436

5.2.6. Writing: effort/ability

Writing: effort/ability (all)

Item	Factor 1 loading	Factor 2 loading
You have a certain ability to write well in academic work, and you really can't do much to change it.	.105	**.720**
If I put in enough effort I can produce good academic writing.	**-.480**	.252
Whether or not I do well in academic writing tasks is completely up to me.	-.130	**.860**
I do badly in academic writing tasks whether I try hard or not.	**.682**	-.165
I often feel so lazy or bored when working on academic writing that I quit before I finish what I planned to do.	**.696**	.169
I work hard to produce good academic writing even if I don't like the topic or assignment.	**-.554**	-.006
When academic writing is difficult, I either give up or only write something easy.	**.725**	**.403**
Extraction sums of squared loadings (Eigenvalues)	2.079	1.502
Extraction sums of squared loadings (percentage of variance)	29.698	21.454
Rotation sums of squared loadings (Eigenvalues)	2.041	1.540
Rotation sums of squared loadings (percentage of variance)	29.151	22.000

Writing: effort (only)

Item	Factor 1 loading
If I put in enough effort I can produce good academic writing.	**-.437**
I do badly in academic writing tasks whether I try hard or not.	**.653**
I often feel so lazy or bored when working on academic writing that I quit before I finish what I planned to do.	**.719**
I work hard to produce good academic writing even if I don't like the topic or assignment.	**-.558**
When academic writing is difficult, I either give up or only write something easy.	**.778**
If I put in enough effort I can produce good academic writing.	**-.437**
I do badly in academic writing tasks whether I try hard or not.	**.653**
Extraction sums of squared loadings (Eigenvalues)	2.050
Extraction sums of squared loadings (percentage of variance)	41.010

5.3. Associations between students' views (predictive modelling)

The associations between students' responses were explored further through linear ordinary least-squares (OLS) regression, which reveals the independent association between each predictor and an outcome (accounting for the other predictors). Standardised predictive coefficients (β values) reflect the number of standard deviations of increase/decrease in the outcome, given one standard deviation increase in the predictor. There are no established standards for interpreting magnitudes of standardised predictive coefficients.

The linear regression models predicted the students' confidence in academic writing in English and their reported average MA grades. Due to the modest sample size (122 students), linear regression could only encompass around five or six predictors before increasing the risk of being under-powered to estimate any predictive coefficients and determine their significance (Ho, 2006), and hence could not feasibly concurrently consider all of the measured items/factors as predictors. Accordingly, a stepwise process was applied to iteratively enter/remove different predictors while evaluating their significance and contribution to the overall predictive model, which revealed smaller sets of significant and relevant predictors from the wider set of available factors from the questionnaire.

5.3.1. Predictive models

Due the modest sample size and for brevity, predictive modelling was undertaken for students' confidence for academic writing in English and for their reported average MA grades. In the context of their studies, students' confidence for academic writing may be motivational or potentially limiting, and their reported MA grades may reflect (to some extent) their future performance across their course. A stepwise process was applied to iteratively enter/remove the various predictors.

Confidence in their academic writing in English

The students' reported confidence in their academic writing in English was positively predicted by beliefs about effort/ability concerning writing (essentially that writing ability was not fixed and applying effort could achieve good writing; $\beta = .364$, $p < .001$), confidence in their overall abilities on their MA course ($\beta = .326$, $p = .001$), ease of undertaking assessment tasks/genres ($\beta = .217$, $p = .013$), familiarity with assessment tasks/genres ($\beta = .188$, $p = .025$), and beliefs about writing as an *audience orientation focused on adapting information* ($\beta = .164$, $p = .038$). The predictive model showed acceptable fit to the data ($F (5, 65) = 21.387$, $p < .001$; adjusted $R^2 = .593$), and the residual histograms and plots highlighted that the underlying assumptions of linear regression were met (such as normally-distributed residual errors); additionally, the various tolerance statistics for the predictors were all above .10, highlighting that multi-collinearity was not observed (essentially highlighting that the predictors were not at risk of being redundant or overlapping due to being correlated).

Predicting students' confidence for academic writing in English using key predictors identified via stepwise modelling

Predictor	**b**	**β**	**Sig. (p)**
Constant/intercept	-2.649	-	**<.001**
Writing: effort/ability (all)	.534	.364	**<.001**
Ease with assessment genres	.201	.217	**.013**
Course confidence	.324	.326	**.001**
Familiarity with assessment genres	.180	.188	**.025**

Writing: audience orientation (adapting)	.244	.164	**.038**
Model information/fit	F (5, 65) = 21.387, p < .001		
Model information/fit (adjusted R^2)	.593		

Notes: Unstandardized predictive coefficients ('b'), standardised predictive coefficients ('β'), and significance ('Sig. (p)'; p-values) are reported. Significant p-values (p < .05) are highlighted in bold.

Current MA grades

The students' reported average MA grades were positively predicted by higher reported BA grades (standardised predictive coefficient β = .400, p < .001), confidence in their academic writing in English (β = .323, p < .001), having English as L1 (compared to L2; β = .213, p = .018), but were negatively predicted by higher beliefs that writing involved *transmission* (β = -.288, p = .002). The predictive model showed acceptable fit to the data (F (4, 66) = 20.357, p < .001; adjusted R^2 = .525), and with indications that the underlying assumptions of linear regression were met.

Predicting students' reported current MA grades using key predictors identified via stepwise modelling

Predictor	**b**	**β**	**Sig. (p)**
Constant/intercept	1.235	-	**.004**
Writing: transmission	-.291	-.288	**.002**
BA grade	.396	.400	**<.001**
Confidence for academic writing in English	.285	.323	**<.001**
First language (0=other, 1=English)	.271	.213	**.018**
Model information/fit	F (4, 66) = 20.357, p < .001		
Model information/fit (adjusted R^2)	.525		

Notes: Unstandardized predictive coefficients ('b'), standardised predictive coefficients ('β'), and significance ('Sig. (p)'; p-values) are reported. Significant p-values (p < .05) are highlighted in bold.

Overview

Overall, these models suggest that beliefs about effort/ability concerning writing may reflect a motivational orientation that may facilitate or limit students' confidence in their academic writing in English (together with other influences), which may then in turn facilitate or limit their performance. Beliefs that writing involves *transmission* (higher agreement with statements such as 'The key to successful writing is accurately reporting what authorities think' and 'Good writers include a lot of quotes from authorities in their writing') may reflect goals as well as the practices that might be applied to achieve them within writing. However, these goals and/or practices appeared to link with lower performance; assessment standards at MA may involve more than accurately reporting and using quotes. Additionally, L1 students were still predicted to report higher grades than L2 students, which conveys that other aspects of studying and/or students' circumstances may be relevant, in addition to beliefs about academic writing.

While the number of sampled students was similar to those considered within prior studies into academic writing (Baaijen, Galbraith, & de Glopper, 2014; Zimmerman & Bandura, 1994), surveying more students would enable more extensive and complex predictive models to be undertaken (Sanders-Reio, Alexander, Reio, & Newman, 2014). Essentially, the current sample only had sufficient statistical power through predictive modelling to reveal the most relevant five or six predictors (and the stepwise predictive models were indeed practically only able to reveal four or five significant predictors per outcome). More extensive samples would have greater power to reveal more extensive numbers of relevant predictors within stepwise predictive modelling. More extensive samples could also avoid the need for stepwise predictive modelling, and allow every factor to be concurrently considered as a predictor (so that any irrelevant predictors would then be shown to be non-significant); considering around 20 predictors would likely require an especially large sample for robust and reliable estimation, likely around 400 or more students (Ho, 2006). Nevertheless, these results offer informative starting points for future, more detailed and extensive, explorations.