

Assessing the Writing Efficacy of Undergraduate Students at a South African University of Technology

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ABSTRACT This study sought to assess the writing efficacy beliefs of first-year education students at a South African University of Technology. Data were collected from 44 students (13 male, 31 females; aged 18 to 22 years). Participation in this study was voluntary. A 15-item Writing Scale Inventory was used to measure the writing efficacy beliefs of the students enrolled for the Bachelor of Education (Further Education and Training) specialisation: Languages programme. Quantitative data were analysed using descriptive statistics: frequencies, means and standard deviations while themes and categories were developed from qualitative data. The study found that the overall mean of the writing efficacy of the participants was 1.6 which showed an inclination towards low writing self-efficacy. There was no statistically significant difference between the writing efficacy of male and female students. Qualitative data supplemented the quantitative data.

INTRODUCTION

Research shows that the concerns about first year students are varied and widespread (Brussow 2007; Haggis 2006; James et al. 2009; Eiselen and Geyser 2003). In their study, James et al. (2009) report that two-thirds of first year Australian students did not believe that their school experience had adequately prepared them for university. Similarly, Haggis (2006) contends that the level and prior learning experience of incoming student can no longer be assumed: "Beginning students, at all levels, no longer necessarily 'know what to do' in response to conventional assessment tasks..." (p. 1). One has to ask whether it is realistic to expect schools to prepare students for higher education in the ways we value in higher education – have they ever really prepared students for this, or has it recently become an impossible task in the light of mass higher education? In support of this line of thinking, McCabe (2000) noted that a gap does exist between the academic competence required for high school graduation and the competence required at the college level.

South Africa is no different from the other parts of the world in this regard. In South Africa, the problems experienced by first-year students are varied. The critical problem currently is the "under-prepared student". Research has pointed to the problem of the underprepared student in South African universities (Brussow 2007; Miller et al. 1998; Eiselen and Geyser 2003). Miller et al. (1998) describe underpreparedness as the after-effects of a problematic educational past which is characterised by learning environments that inadequately prepared students to deal with the demands of higher education. Underpreparedness becomes evident in the students' ability to read, write, take notes and take examinations (Alliance for Excellent Education 2006). Brussow (2007) looks at factors that contribute to academic failure and a lack of reading and writing skills topped her list. Other factors identified are language barriers, lack of effective study skills, inability to understand complex material, academic workload; different learning styles that are not adapted and lack of self-efficacy (Brussow 2007).

The causes of the underprepared student are diverse and include the following: lowering of academic standards of student teaching at school level, and students entering college are familiar with only the teaching and learning strategies to which they were exposed in high school (Pajares and Valiante 2002). Hence, Pajares and Valiante's (2002) contention that they need to prepare and/or adapt quickly to the teaching and learning strategies they will encounter in college.

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Concern about the quality of students' writing performance in Higher Education Institutions generally, and at the Central University of Technology, Free State, in particular prompted the researchers to undertake this investigation. The poor academic results of first-time entering students in Literacy and Numeracy tests at the School of Teacher Education of the institution attest to this concern. Many situational variables have been cited for the poor performance of students in these tests including a lack of preparation at lower levels of the schooling system. These concerns have necessitated many instructional interventions aimed at improving writing (Langer 2001). Other instructional recommendations include developing students' motivation to write (Bruning and Horn 2000). The transition of students from high school to tertiary has been marred by many problems, including the ability to write logically and coherently. Moreover, writing in the higher education context involves the use of the specific academic language (Cabral 2008). Depending on the tasks at hand, the students are, among others, expected to analyse, interpret and evaluate knowledge and be able to develop an argument. They are also expected to be critical, to process information, to use the correct terminology, to follow a logical order, and to make references (Hartley 2002). In most cases, these skills are lacking. Studies have shown that higher education students have serious problems in approaching reading, cannot read properly and have difficulties when performing a critical evaluation of their reading content and then when writing (Barker 2000; Wong 2000). Writing problems that have been identified include grammar, spelling, punctuation, expression and the ability to explain, structure and interpret facts (Hartley 1998).

Student teachers have their share of writing problems (Hamman 2005). Herrington (1985) noted that the transition between functioning as student writers and future writers in a discipline can be an awkward one. Students may be unsure about the shift from "being receivers of teaching knowledge to being constructors of such knowledge" (Meyer et al. 2000:18). This shift has been found to be more problematic when the students involved are pre-service teachers. This is so because these student teachers are the future teachers who will be responsible for writing instruction in their classrooms, as well as constructing and integrating writing activities in a variety of subjects to support their students' learning (Bruning and Horn 2000; Johannessen 2001). Sitko (1998:12) noted that "writ-

ing is a complex activity. Learning how to write is even more complex." This implies that writing efficacy of students cannot be taken for granted in schools and institutions of higher learning. Students need to be fully skilled in their writing efficacy in order for them to be able to express themselves well in their essays.

Self-efficacy

Derived from Bandura's (1986) social cognitive theory, self-efficacy is defined as humans' beliefs about their capabilities, and such beliefs play a crucial role in motivating human behaviors. According to Bandura (1997), one's self-efficacy has a greater predicting power over the way they behave than their actual capabilities. In other words, self-efficacy exerts its influence in ways that determine how individuals would make use of their knowledge and skills, eventually affecting the degree of their engagement in the completion of certain tasks. Self-efficacy belief is different from related constructs such as self-concept and competence belief, as self-efficacy belief is more task-specific (Zimmerman 1995), and is formed through individuals' interpretation of four sources: mastery experience, vicarious experience, verbal and social persuasions, physiological and affective state. The four sources contribute to the construction and development of one's self-efficacy. The first, and the most influential, source is mastery experience, or one's experiences of performing similar tasks in the past. Mastery experience that yields successful outcomes enhances one's personal efficacy, while experience that results in failure diminishes one's self-efficacy belief. The second source, vicarious experience, serves as another factor that attributes to one's sense of personal efficacy. People gain vicarious experience as they observe others performing tasks and compare others' performance against theirs. Their self-efficacy increases when they evaluate their performance as better than those of others. The third source is the verbal messages and social persuasions individuals receive from others. Persuasions conveying positive attitudes may encourage and strengthen self-efficacy, whereas those sending negative information may defeat and weaken self-beliefs. Physiological and affective state serves as the fourth source, which means when individuals feel less anxious or tense, they are more likely to anticipate and foresee success for their tasks (Bandura 1997).

The concept of self-efficacy has drawn attention from researchers of various fields. Past studies have investigated the relationship between self-efficacy and other motivational constructs, including self-concept, self-esteem, self-regulation, task goal, task value, and anxiety (García and de Caso 2006; Lane et al. 2004; Lo and Hyland 2007; Pajares and Cheong 2003). The results of these studies suggest a strong influence of self-efficacy on other constructs.

Writing Self-efficacy

As self-efficacy bears the attribute of task-specificity, different types of self-efficacy can be demonstrated for diverse tasks. Writing self-efficacy translates into a strong sense of confidence for the task of writing. Having sufficient self-belief in their writing ability, individuals may have greater interest in writing, make more constant efforts, and show greater perseverance and resilience in the face of difficulty when they are conducting a writing task. Although writing self-efficacy does not directly increase individual's writing competence, it helps individuals generate greater attention and more efforts for writing (Pajares and Valiante 1997).

Academic writing is an area where students' beliefs have a particularly strong influence (Young et al. 2001). Students' writing beliefs have been reported across various content areas (Pajares et al. 2000). Researchers in both fields of composition and self-efficacy have shown tremendous interest in writing self-efficacy, and they have examined the relationship between writing self-belief and writing outcomes in academic settings; their studies found a strong relationship between them (Bruning and Horn 2000; Pajares 2003; Pajares and Johnson 1996; Pajares and Valiante 1999; Rankin et al. 1994; Shell et al. 1995).

Writing self-efficacy has also been found to be associated with other motivational variables including writing self-concept, writing anxiety, perceived value of writing, self-regulation as well as expected outcomes (Andrade et al. 2009; Dewaele et al. 2008; García and de Caso 2006; Zimmerman and Bandura 1994). Previously, perceived self-efficacy research was usually found to have the strongest predicting power, among all the motivational constructs, over individuals' writing performance; such findings support the claim made by Bandura (1986) based on social cognitive theory that self-efficacy plays a primary role in predicting writing performance (Klassen 2003).

Knowledge of Writing and Composing Process

McCutchen (2000) suggests that writing proficiency is developed through fluent language generation processes as well as extensive knowledge that are relevant to writing, such as topic knowledge and genre knowledge. Theory-based evidence supported the fact that knowledge plays a central role in major models of writing developed in the past decades, such as those proposed by Bereiter and Scardamalia (1987) as well as Kellogg (1996). Thus, it is fairly reasonable to consider knowledge as an important element in the development of individual writing, as individual writers have access to different kinds of knowledge (for example, knowledge about the writing topic, intended audience, genre, task, and linguistic elements) during their composing process (Saddler and Graham 2007).

Moreover, it is important to understand the development of writing knowledge, as a strong relationship was proved to exist between writing process knowledge and writing performance (Saddler and Graham 2007; Lin et al. 2007). Many of the past studies support this argument. Schoonen and de Glopper (1996), for instance, investigated the writing knowledge and performance of students of different proficiency levels, and indicated that writers of higher proficiency level tended to pay attention to global aspects of writing such as the overall organisation and structure, while writers of lower proficiency level focused on superficial aspects such as spelling, punctuation, and grammar. Graham (2006) proposed that skilled writers have more knowledge about the composing process than their less skilled counterparts. Writers with better ability, compared to poor writers, possess more advanced and concrete conceptualisation about writing, showing greater knowledge about genres, and demonstrating more strategies when conducting the process of writing (Englert et al. 1988; Graham et al. 1993).

Writing is an essential component of thinking and learning in school contexts, and writing tasks are a "critical tool for intellectual and social development" (Bruning and Horn 2000:30). Academic writing may be assigned for a variety of educational goals including: assessing knowledge, promoting critical thinking, stimulating creativity, encouraging discourse as part of a professional community, and supporting cognition (Johannessen 2001; Langer 2001).

Instructional Strategies, Self-efficacy and Perceived Self-efficacy

Instructional strategies intended at knowing and understanding one's students have come to the fore. Such knowledge includes students' beliefs and behaviours such as their perceived self-efficacy for writing and self-regulation, as well as awareness of their learning beliefs and behaviours (Hammann 2005). In his study, Hammann (2005) argues that how pre-service teachers feel about their writing ability could be transferred to future generations of students. It is therefore, important for lecturers of pre-service teachers to know what their students believe about writing and the writing tasks they are expected to master and ultimately teach. Lecturers of preservice students should therefore elicit information about the students' writing experiences, learning behaviours and beliefs before teaching these students. Writing tasks that are prescribed should be within the students' capabilities (Johannessen 2001; Langer 2001).

The *classroom context* plays a prominent role in writing by students. The role of the teacher is therefore very important because the teachers are responsible for classroom learning activities, including writing tasks such as tests, exams, reports and journals. Classroom contexts can influence students' beliefs about writing both positively and negatively. *Teachers' practices* can encourage or discourage students' self-regulated behaviours in writing, including sustained effort and mastery orientation. Although personal epistemological theories are seen as precursors to various outcomes (Pintrich 2002), students' beliefs in the nature of learning may also differ across different content areas (Hofer 2000).

Goal of the Study: This study sought to assess the writing efficacy beliefs of first-year education students at a South African University of Technology.

METHOD

Research Design

The study has used a survey which is partly descriptive and explanatory. This was followed up by an open question that requires respondents to explain their writing problems. The writing efficacy beliefs of students at the School of Teacher Education were measured using the writing Scale Inventory.

Population and Sample

The target population for the study were all first-year pre-service teachers enrolled for the undergraduate four-year Bachelor of Education (B.Ed) degree in the School of Teacher Education. For purposes of this study, only students registered for the Bachelor of Education for the Further Education and Training phase (B.Ed:FET) specialising in Languages were used. A sample of 44 students (13 male, 31 female; age range: 18–22 years) completed the study questionnaire.

Instrument

The *Writing Scale Inventory* for undergraduates together was administered to the sample by the researchers and collected immediately after completion. The Writing Scale Inventory is a Likert-type instrument which is made up of 15 items to which the students have to respond (Lavelle 2006). This scale had been tested for reliability and its internal consistency was found to be 0.63. This scale was adopted for use in this study. For the purposes of this study, the response options were agree fully (1), agree to some extent (2) and disagree (3).

Data Analysis

Both quantitative and qualitative data analyses strategies were used. Descriptive statistics in the form of frequencies, means and standard deviations was used.

Ethical Issues

Informed consent of the participants was sought from the School and the benefits of the results of the study were discussed with the participants. Participation in this study was voluntary. All participants agreed to complete the *Writing Scale Inventory* for undergraduates. All participants were assured that data collected will be kept confidential and used for purposes of this study only.

RESULTS

Biographical Data

Of the 44 participants in the study, 31(70.5 %) were females while 13(29.5 %) were males.

Self-efficacy Beliefs of Students in Writing

Table 1 shows the writing self-efficacy beliefs of the participants. An overall mean of 1.6 for the 15 statements making up the scale was achieved, showing an inclination towards a low writing self-efficacy.

A further analysis of the mean responses of each participant to the 15 statements was done. Figure 1 shows the means of each student's responses to the questions on the writing efficacy scale.

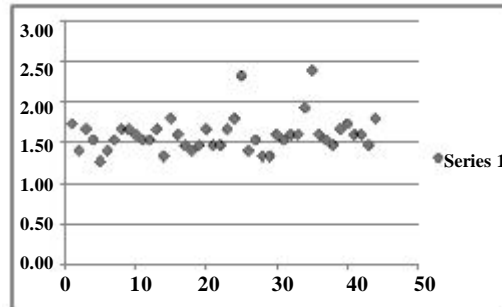


Fig. 1. Means of students' responses to the 15 questions

Table 1: Writing efficacy of respondents for the 15 statements (N=44)

Statement	Mean	S.D.
1 I can write a term paper (examination).	1.23	0.57
2 Writing an essay is always a slow process.	1.68	0.71
3 Studying grammar and punctuation would greatly improve my writing.	1.09	0.42
4 Having my writing evaluated scares me	2.05	0.71
5 I expect good grades on essays or tests.	1.23	0.57
6 I need special encouragement to do my best writing.	1.66	0.78
7 I do well on essay tests.	1.93	0.50
8 I can write simple sentences.	1.16	0.43
9 I can write compound and complex sentences.	1.70	0.59
10 My writing rarely expresses what I think.	1.70	0.79
11 I like to work in small groups to do revision in writing.	1.68	0.80
12 I often do writing assignments at the last minute and still get a good grade.	2.25	0.84
13 The most important thing in writing is observing the rules of punctuation and grammar.	1.09	0.42
14 I cannot revise my own writing (written work) because I cannot see my mistakes.	2.07	0.82
15 If the assignment calls for (1000) words, I try to write just about that many.	1.48	0.76
Mean Average	1.6	

S.D.: Standard Deviation

The mean responses showed a minimum value of 1.27 and a maximum value of 2.40. Table 2 and 3 show the writing efficacy beliefs of female and male students, respectively. A comparison of the writing efficacy beliefs of female and male students is shown in Table 4.

Table 2: Writing efficacy of female respondents (N=31)

Statement	Mean	S.D.
1 I can write a term paper (examination).	1.29	0.64
2 Writing an essay is always a slow process.	1.71	0.74
3 Studying grammar and punctuation would greatly improve my writing.	1.13	0.50
4 Having my writing evaluated scares me.	2.06	0.73
5 I expect good grades on essays or tests.	1.26	0.58
6 I need special encouragement to do my best writing.	1.65	0.75
7 I do well on essay tests.	1.94	0.44
8 I can write simple sentences.	1.06	0.36
9 I can write compound and complex sentences.	1.74	0.51
10 My writing rarely expresses what I think.	1.84	0.86
11 I like to work in small groups to do revision in writing.	1.68	0.83
12 I often do writing assignments at the last minute and still get a good grade.	2.19	0.83
13 The most important thing in writing is observing the rules of punctuation and grammar.	1.13	0.50
14 I cannot revise my own writing (written work) because I cannot see my mistakes.	2.10	0.79
15 If the assignment calls for (1000) words, I try to write just about that many.	1.42	0.76
Mean Average	1.61	0.25

S.D.: Standard Deviation

The researchers needed to find out if there was a difference in the writing efficacy beliefs of male and female students.

The t-test revealed that the difference between the writing efficacy of male and female students was not statistically significant at (95 % confidence interval, $p=0.6465$; $t=0.4620$; $df=42$).

Table 3: Writing efficacy of male respondents (n=13)

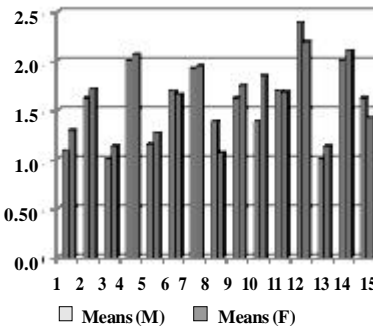
Statement	Mean	S.D.
1. I can write a term paper (examination).	1.08	0.28
2. Writing an essay is always a slow process.	1.62	0.65
3. Studying grammar and punctuation would greatly improve my writing.	1.00	0.00
4. Having my writing evaluated scares me.	2.00	0.71
5. I expect good grades on essays or tests.	1.15	0.55
6. I need special encouragement to do my best writing.	1.69	0.85
7. I do well on essay tests.	1.92	0.64
8. I can write simple sentences.	1.38	0.51
9. I can write compound and complex sentences.	1.62	0.77
10. My writing rarely expresses what I think.	1.38	0.51
11. I like to work in small groups to do revision in writing.	1.69	0.75
12. I often do writing assignments at the last minute and still get a good grade.	2.38	0.87
13. The most important thing in writing is observing the rules of punctuation and grammar.	1.00	0.00
14. I cannot revise my own writing (written work) because I cannot see my mistakes.	2.00	0.91
15. If the assignment calls for (1000) words, I try to write just about that many.	1.62	0.77
Mean Average	1.57	0.29

S.D.: Standard Deviation

Table 4: Comparison of female and male students (N=44)

Gender	Mean	SD	Min	Max	Range
Male (n=13)	1.57	0.29	1	2.38	1.38
Female (n=31)	1.61	0.25	1.06	2.19	1.13

Figure 2 shows the comparison of the writing efficacy of the male and female students. The comparison was necessary in order to show the differences in their writing efficacy by gender. In addition to the closed questions, there were also open ended questions where students were requested to state their problems in writing. The next section looks into the results of open ended questions.

**Fig. 2. Male and female students' writing efficacy**

Open-ended Questions

Problems Associated with Self-efficacy Beliefs in Writing

The majority of students in this study have identified spelling, grammar and punctuation as their major problems in writing. Other problems included difficulties in writing essays, time management skills, misunderstanding of what is actually needed in an essay or assignment as these excerpts reveal.

I cannot write long sentences.

I am very slow in writing and cannot complete tasks on time.

I sometimes do not understand what is needed from me when answering questions during examinations.

I use a lot of time thinking rather than writing and I think that time management is the only help that I need.

Rules of punctuation and sentence construction especially in English. I feel like some of the things we learn are new to me. Maybe the school I attended did not do a good job, but I am learning and doing my bit to improve the language.

I sometimes put my facts incoherently.

The above findings clearly show that the participants face various problems in writing. These problems need serious attention as they will eventually affect the overall performance of these students in their studies.

DISCUSSION

First-year university students at this institution of higher learning were not confident in their writing

ability. The major contributing factor is English which is used as the medium of instruction. This is so, because English is either a second or third language for the majority of these students since they are mainly black South Africans. The second contributing factor is the level of preparation of these students in writing essays at high school level. In another study (Matoti and Shumba, in press) it was found that teachers have low self-efficacy in writing skills. This then could spill over to the learners who are taught by these teachers. This view concurs with that of Hammann (2005) who argues that how pre-service teachers feel about their writing ability could be transferred to future generations of students. This then strengthens the argument that lecturers of preservice students should elicit information about the students' writing experiences, learning behaviours and beliefs before teaching these students and the fact that prescribed writing tasks should be within the students' capabilities (Johannessen 2001; Langer 2001).

Bruning and Horn (2000: 30) argue that writing is an essential component of thinking and learning in school contexts, and writing tasks are a "critical tool for intellectual and social development". In this study the participants' self-efficacy in writing is low and this means that the writing tasks to which they are exposed will be affected negatively.

Researchers in both first and foreign language contexts have provided a variety of suggestions for the enhancement of writing self-beliefs. These suggestions include creating authentic writing contexts and tasks that interest and "hook" students (Bruning and Horn 2000; Walker 2003), encouraging peers to read each other's writing (Pajares 2003), giving learners choice and ownership opportunities (Walker 2003), encouraging collaborative writing and discussions (Walker 2003), providing opportunities for students to write consistently in a variety of forms (McConochie 2000); and allowing students to observe and reflect upon their improvement (Collins and Bissell 2002).

The fact that the students in the study agree that for them writing an essay is always a slow process, they need special encouragement in order to produce their best writing tasks and their writing rarely express what they think, is an indication that they need encouragement in writing as Walker (2003) suggests. The large difference that is observed in the means for writing simple sentences (1.16) and writing compound and complex sentences (1.70) also indicates that they have problems in writing. At

tertiary level students are expected to be able to write compound and complex sentences.

The study also found that the majority of students had spelling, grammar and punctuation as their major problems in writing. Other problems included difficulties in writing essays, time management skills, misunderstanding of what is actually needed in an essay or assignment as these excerpts reveal. These findings are consistent with those of other studies (Hartley 1998; Lea and Street 1998). As Bruning and Horn (2000) have observed, writing is a critical component of thinking and learning, and if these students are not helped, their thinking and learning skills will be affected negatively.

CONCLUSION

The results of the low-self-efficacy scale in writing that was used has shown that the students enrolled for the Bachelor of Education degree at this institution of higher learning have low self-efficacy in writing. The writing self-efficacy of both male and female students is similarly low. The open-ended question also showed that the students had problems with sentence construction, applying the rules of grammar and punctuation, have problems writing compound and complex sentences and cannot manage time when writing essay examinations. They, therefore, need more academic support to help them develop a higher self-efficacy in writing.

RECOMMENDATIONS

The students in this study agree that writing for them is a slow process, studying grammar and punctuation would greatly improve their writing calls for tasks that will engage the students and support them in making their own meaning of course concepts. Considering that these students are future teachers, they should also be provided with the opportunity to think like future teachers. As Walker (2003) has observed, collaborative writing and discussions should be encouraged among students. This supports the fact that in this study the students agreed that they would like to work in small groups to do revision in writing and the fact that they cannot revise their own writing as they cannot see their own mistakes.

Consistent writing tasks in a variety of forms as was observed by McConochie, (2000) are also

suggested in this particular study so that students cannot only write simple sentences, but proceed to writing compound and complex sentences as well. This can also help them to correct their own mistakes. If students can correct their own mistakes then that would lead to improvement in their writing ability.

Since there was no statistically significant difference between the writing efficacy of male and female students the recommendations apply to all students. Pajares and Valiante (2002) also did not find any gender differences in writing efficacy in their study.

To conclude, lecturers themselves must have a clear understanding of their own and their students' beliefs about writing as this has the potential to produce new teachers with strong writing and communication skills.

Since classroom contexts and instructional strategies have been found to affect self-efficacy, it is important for university lecturers to assess the writing self-efficacy of the students and develop their writing ability gradually.

REFERENCES

- Alliance for Excellent Education 2006. Paying Double: Inadequate High Schools and Community College Remediation. From <<http://www.all4ed.org/publications/remediation.pdf>> (Retrieved on 2 January 2007).
- Andrade HL, Wang X, Du Y, Robin LA 2009. Rubric-referenced self-assessment and self-efficacy for writing. *The Journal of Educational Research*, 102(4): 207-301.
- Bandura A 1986. *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura A 1997. *Self-efficacy: The Exercise of Control*. New York: Freeman
- Barker G 2000. First-year Students' Perceptions of Writing Difficulties in Science. *Proceedings of the 1st year in Higher Education Conference*, 5 – 7 July 2000. Queensland University of Technology, Brisbane, Australia.
- Bereiter C, Scardamalia M 1987. *The Psychology of Written Composition*. Hillsdale, NJ: Erlbaum.
- Bruning R, Horn C 2000. Developing motivation to write. *Educational Psychologist*, 35: 25-37.
- Brüssow S 2007. *A Learning Facilitation Framework to Enhance Academic Skills Development Among Underprepared Learners in South African Higher Education*. PhD Thesis, Unpublished. University of the Free State, South Africa.
- Cabral AP 2008. Reading and writing in higher education: A Portuguese case study. *The Reading Matrix*, 8(1): 64-77.
- Dewaele J, Petrides KV, Furnham A 2008. Effects of trait emotional intelligence and socio-biographical variables on communicative anxiety and foreign language anxiety among adult multilinguals: A review and empirical investigation. *Language Learning*, 58(4): 911-960.
- Draper MC, Barksdale-Ladd MA, Radencich MC 2000. Reading and writing habits of pre-service teachers. *Reading Horizons*, 40: 185-203.
- Eiselen R, Geysers H 2003. Factors distinguishing between achievers and at risk students: A qualitative and quantitative synthesis. *South African Journal of Higher Education*, 17(2): 118-130.
- Englert C, Raphael T, Fear K, Anderson L 1988. Students' metacognitive knowledge about how to write informational texts. *Learning Disability Quarterly*, 11: 18-46.
- García JN, de Caso AM 2006. Changes in writing self-efficacy and writing products and processes through specific training in the self-efficacy beliefs of students with learning disabilities. *Learning Disabilities: A Contemporary Journal*, 4(2): 1-27.
- Graham S 2006. Writing. In: P Alexander, P Winne (Eds.): *Handbook of Educational Psychology*. Mahwah, NJ: Erlbaum.
- Haggis T 2006. Pedagogies for diversity: Retaining critical challenge amidst fears of 'dumbing down'. *Studies in Higher Education*, 31(5): 521-535.
- Hammann L 2005. Self-regulation in academic writing tasks. *International Journal of Teaching and Learning in Higher Education*, 17(1): 15-26.
- Hartley J 1998. What Difficulties do First-Year University Students Find in Essay Writing? Some Results from a Questionnaire Study. *Proceedings of the 5th Annual Writing Development in Higher Education Conference*, 1 – 2 April 1998. Reading Centre for Applied Language Studies: University of Reading.
- Hartley JH 2002. Studying for the future. *Journal of Further and Higher Education*, 6(3): 207-227.
- Herrington AJ 1985. Writing in academic settings: A study of the contexts for writing in two college chemical engineering courses. *Research in the Teaching of English*, 19: 331-361.
- Hofer BK 2000. Dimensionality and disciplinary differences in personal epistemology. *Contemporary Educational Psychology*, 25: 378-405.
- James R, Krause K, Jennings C 2009. The First Year Experience in Australian Universities: Findings from 1994 to 2009. Centre for the Study of Higher Education, The University of Melbourne and Griffith Institute for Higher Education, Griffith University. From <http://www.cshe.unimelb.edu.au/research/FYE_Report_1994_to_2009.pdf> (Retrieved on 10 September, 2010).
- Johannessen LR 2001. Teaching thinking and writing for a new century. *English Journal*, 90: 38-46.
- Kellogg RT 1996. A model of working memory in writing. In: C M Levy, S Ransdell (Eds.): *The Science of Writing*. Mahwah (NJ): Erlbaum, pp. 57-72.
- Klassen R 2003. Writing in early adolescence: A review of the role of self-efficacy beliefs. *Educational Psychology Review*, 14(2): 173-203.
- Langer JA 2001. Beating the odds: Teaching middle and high school students to read and write well. *American Educational Research Journal*, 38: 837-880.
- Lane J, Lane AM, Kyprianou A 2004. Self-efficacy, self-esteem and their impact on academic performance. *Social Behaviour and Personality*, 32(3): 247-253.

- Lea M, Street B 1998. Student writing in higher education: An academic literacies approach. *Studies in Higher Education*, 23(2): 157-172.
- Lin S, Monroe B, Troia G 2007. Development of writing knowledge in grades 2-8: A comparison of typically developing writers and their struggling peers. *Reading and Writing Quarterly*, 23(3): 207-230.
- Lo J, Hyland F 2007. Enhancing students' engagement and motivation in writing: The case of primary students in Hong Kong. *Journal of Second Language Writing*, 16: 219-237.
- Matoti SN, Shumba A 2011 (In Press). Assessing the writing efficacy of post-graduate students at a University of Technology in South Africa. *Journal of Social Sciences*.
- McCabe R 2000. Measuring Up 2000: The State-by-State R Card for Higher Education. From < <http://measuringup.highereducation.org/2000/articles/UnderpreparedStudents.cfm>> (Retrieved on 5 March, 2011).
- McCutchen D 2000. Knowledge, processing, and working memory: Implications for a theory of writing. *Educational Psychologist*, 35(1): 13-23.
- Meyer RJ, Flores-Duenas L, Rossi P 2000. Methods Courses, So What? Preliminary Findings of a Longitudinal Study. *Paper presented at the Annual Meeting of the National Reading Conference*, 8 – 12 December 2000. Phoenix, AZ.
- Miller R, Bradbury J, Pedley K 1998. Academic performance of first and second language students: Disadvantage and underpreparedness. *South African Journal of Science*, 94(3): 103-107.
- Pajares F 2003. Self-efficacy beliefs, motivation, and achievement in writing: A review of the literature. *Reading and Writing Quarterly*, 19(2): 139-158.
- Pajares F, Cheong YF 2003. Achievement goal orientations in writing: A developmental perspective. *International Journal of Educational Research*, 39: 437-455.
- Pajares F, Johnson MJ 1994. Confidence and competence in writing: The role of writing self-efficacy, outcome expectancy, and apprehension. *Research in the Teaching of English*, 28: 313-331.
- Pajares F, Britner SL, Valiante G 2000. Relation between achievement goals and self-beliefs of middle school students in writing and science. *Contemporary Educational Psychology*, 25: 406-422.
- Pajares F, Valiante G 1999. Grade level and gender differences in the writing self-beliefs of middle school students. *Contemporary Educational Psychology*, 24: 390-405.
- Pajares F, Valiante G 2002. Students' self-efficacy in their self-regulated learning stages: A developmental perspective. *Psychologia*, 45: 211-221.
- Pintrich PR 2002. Future challenges and directions for theory and research on personal epistemology. In: B K Hofer, P R Pintrich (Eds.): *Personal Epistemology: The Psychology of Beliefs About Knowledge and Knowing*. New Jersey: Lawrence Erlbaum, pp. 389-414.
- Saddler B, Graham S 2007. The relationship between writing knowledge and writing performance among more and less skilled writers. *Reading and Writing Quarterly*, 23(3): 231-247.
- Schoonen R, de Glopper K 1996. Writing performance and knowledge about writing. In: G Rijlaarsdam, H van den Bergh, M Couzijn (Eds.): *Theories, Models, and Methodology in Writing Research*. Amsterdam: Amsterdam University Press, pp. 87-106.
- Shell D F, Colvin C, Bruning R H 1995. Self-efficacy, attributions, and outcome expectancy mechanisms in reading and writing achievement: Grade-level and achievement level differences. *Journal of Educational Psychology*, 87: 386-398.
- Sitko B M 1998. Knowing how to write: Metacognition and writing instruction. In: D J Hacker, J Dunslosky, A C Graesser (Eds.): *Metacognition in Educational Theory and Practice*. Hillsdale, NJ: Erlbaum, pp. 93-116.
- Young EE, Grant PA, Montbriand C, Therriault DJ 2001. *Educating Pre-service Teachers: The State of Affairs*. Naperville, IL: North Central Regional Educational Laboratory.
- Wong BYL 2000. Writing strategies instruction for expository essays for adolescents with and without learning disabilities. *Topics in Language Disorders*, 20(4): 29-44.
- Zimmerman BJ 1995. Self-efficacy and educational development. In: A Bandura (Ed.): *Self-efficacy in Changing Societies*. Cambridge, U.K Cambridge: University Press, pp. 87-106.