Using “just in time” online feedback to improve first year undergraduate nursing students’ essay writing performance

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Keywords
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Abstract
Undergraduate nursing students often find essay writing challenging, and feel underprepared, yet the impact of using online feedback to support essay writing has been underexplored. First-year nursing students from a regional university were involved in a project that encouraged them to access an online tutoring service, as part of their development of an essay task. Significant differences were found in students’ final essay marks for those who accessed the online writing support. Students who accessed online writing support were also more likely to be deep, rather than surface learners. The findings indicate that the provision of prompt or ‘just in time’ feedback, using an online feedback mechanism, can greatly enhance students’ essay writing performance.

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Introduction

The importance of being able to articulate one’s thoughts logically, clearly and succinctly in written form cannot be underestimated within the health disciplines. Academic writing is considered important in developing the critical analysis skills that are deemed necessary for clinical practice (Duffy, Hastie, McCallum, Ness & Price 2009; Ferris, 2014; Troxler, Vann, & Oermann 2011). Despite various forms of writing genres that students might be exposed to in their undergraduate programmes, essay writing continues to be a standard task within many university programmes (Gimenez 2008).

Essay writing itself requires students to critically read material, examine ideas in-depth and engage in the academic discourse within their own disciplinary field (McCune 2004). Within a higher education context, these written skills may be demonstrated in a variety of different writing genres, some more complex than others, and quite often first-year nursing students feel underprepared and lack confidence in this respect (Palmer, Levett-Jones & Smith 2018). For many students, writing an essay is considered a challenging task, nowhere more so than within the first year of their programme (Hamilton 2016; Krause 2001; McCune 2004).

The widening participation agenda in many countries, including Australia (Bradley, Noonan, Nugent & Scales 2008), has provided increased access to higher education. However, it has also, in effect, created an acculturation barrier to students who are not accustomed to, or are far removed from, academic endeavours or who lack the self-confidence to navigate the learning environment on their own. This can be identified in the growing diversity of students entering nursing programmes, including first-in-family and mature-aged students, and students from non-English speaking backgrounds, who come with varying skills, knowledge and abilities, as well as different levels of confidence in their writing abilities (Beckman & Rayner 2011; Cumming, Lai & Cho 2016; Lai & Hong 2015; Salamonson, Koch, Weaver, Everett & Jackson 2009; Weaver & Jackson 2011).

Essay writing as assessment

Commencing students are often in the early stages of developing their skills in information literacy (Nayda & Rankin 2008), critical thinking, problem solving, analysing and synthesising of the literature (Gimenez 2008), as well as developing coherent arguments (Wingate 2012). Essay writing, often seen as one of the most challenging tasks for students (Krause 2001; Martinez, Kock & Cass 2011; Schmeck 2013), requires the application of knowledge about the function, purpose and structure of an essay, as well as the mechanics and style of writing, and the formation of argumentation (Cumming et al. 2016; Martinez et al. 2011). The process of putting pen to paper requires the knowledge and skills in being able to decode an essay topic, brainstorm and generate ideas, collect and organise information, plan out the writing into a logical sequence of ideas, draft, revise and review, edit and proofread (Gimenez 2008; Giridharan 2012).

Student approaches to learning and writing tasks

Individual students’ approaches to writing may be underpinned by their own beliefs about writing, which in turn has an influence on what strategies they use, which can then impact on writing performance. In one study, Lavelle, Ball and Maliszewski (2013) used a previously validated tool with nursing students, the Inventory of Processes in College Composition Survey (Lavelle 1993). This survey is based on a five-factor structure which includes approaches to writing such as spontaneous-impulsive, elaborative, reflective, procedural, and low self-efficacy. For example, in
a procedural approach to writing tasks, students will hold a belief of needing to please the teacher, and therefore their strategy will be to observe rules, and organise and manage their writing accordingly. Alternatively, if a student believes that they “just need to get the assignment done”, then their strategy may be to only submit draft work, or to leave their work to the last minute. The original structure of the survey has previously been confirmed using confirmatory factor analysis and is well-linked with deep and surface approaches to learning. For example, approaches such as spontaneous-impulsive and low-self efficacy were related more to superficial and surface approaches to learning (Lavelle & Guarino 2003). The Lavelle, Ball and Maliszewski (2013) study with nursing students indicated that 37% of the variance was based on a four-factor structure, excluding the original low self-efficacy approach. Students’ beliefs about writing, as opposed to writing self-efficacy, can influence their engagement with the writing task, the quality of the text written, and the extent of planning, as well as their understanding of the content that is being written (Baaijen, Galbraith & de Glopper 2014; Pajares 2013).

These findings align to some extent with deep or surface learning approaches to learning that students may use. A surface approach may utilise strategies that are geared towards minimal effort and time to meet requirements. The preferable learning approach, by contrast, is a deep approach to learning, whereby the student takes the time to comprehend and maximise conceptual understandings (Asikainen & Gijbels 2017; Biggs, Kember & Leung 2001). Students’ deep learning approaches have been consistently found to positively influence academic performance (Salamonson et al. 2013; Snellgrove 2004; Varunki, Katajavuori, & Postareff 2017). In contrast, students who assign little value to their writing in relation to the professional skills required as a nurse, may not put the required effort into the writing task (Gimenez 2008). Nursing educators themselves may also feel a tension in supporting the development of students’ mechanics of writing, balanced with their ability to write ideas that reflect the content of the discipline (Borglin 2012; Gimenez 2008). Some may themselves be underprepared in teaching aspects such as how to create an argument (Wingate 2012).

Role of self-efficacy in essay writing

Self-efficacy is a psychological construct that can be applied to any situation, and it relates to one’s confidence in the ability to undertake the task. The importance of self-confidence and writing competence cannot be underestimated, even if causal links have been questioned (Talsma, Schüz, Schwarzer & Norris 2018). Still, those students who are less anxious about their writing have been found to have higher writing self-efficacy (Martinez et al. 2011; Sanders-Reio, Alexander, Reio & Newman 2014), while higher writing and reading self-efficacy can lead to improvements in writing performance (Prat-Sala & Redford 2012). This self-efficacy may also increase the likelihood of students engaging in academic support mechanisms at university (Hoyne & McNaught 2013). The consciousness that may be raised by students who submit draft work and receive helpful feedback to improve their work can contribute to this sense of self-efficacy (Cavaleri & Dianati 2016).

Confidence in using technology

Services that support the development of students’ writing skills are often provided online and ‘just in time’. Online writing tutorials may help to improve syntax and organisation of thoughts (Roberts 2009), online grammar checking services can give quick and comprehensive feedback of written work (Cavaleri & Dianati 2016), and online writing resources via dedicated university learning support units, and peer support can all be useful (Gopee & Deane 2013; King & Boyatt 2015; Reis & Huijser 2016).
The challenge for nursing students is that up to 50% of nursing students do not feel confident in using technology, which is a significant barrier in seeking and navigating information in a timely manner (Levett-Jones et al. 2009). Having support systems that help students to build confidence, increase skills and knowledge, and develop reflective writing skills is therefore an important development in their learning. Furthermore, the ability for students to self-regulate their learning by assessing their own work is considered important for active and proactive learning (Mega, Ronconi & De Beni 2014; Nicol & Macfarlane-Dick 2006).

The study

A sequential mixed method study (Cresswell, Clark, Gutman & Hanson 2003) was designed to examine the effects of students utilising an online tutoring service called Smarthinking™ on their academic success, as measured by their essay marks, and to explore the differences in self-efficacy, approaches to learning, and anxiety about technology between those who accessed it and those who did not. In this paper, the quantitative part of the study is reported on. The qualitative phase, which comprised a content analysis of students’ writing and online tutors’ feedback, is in progress and will be published separately.

All the online tutors hold either a Masters and/or Doctoral qualification, and are required to undergo tutor training before they are accepted as online tutors with Smarthinking™. Online tutoring services such as Smarthinking™ provide synchronous and asynchronous tutoring 24 hours a day, seven days a week. One of the positive features of this service is the ability for students to submit draft written work and to receive prompt feedback. The use of Smarthinking™ has been found to be a contributing factor in increasing students’ grades and confidence in academic writing, which in turn has had a positive effect on course retention (De Fazio & Crock 2008). It has been used in various Australian universities, with success reported at Open Universities Australia (Stone, Hewit & Morelli 2013).

In the current study, the research questions were as follows:

1. Is there a difference in deep approaches to learning between those who used Smarthinking™ and those who did not?
2. Is there a difference in essay writing self-efficacy between those who used Smarthinking™ and those who did not?
3. Is there a difference in computer anxiety between those who used Smarthinking™ and those who did not?
4. Does the use of Smarthinking™ have an effect on students’ writing performance as evidenced by their essay writing mark?

Conceptual framework

The study was guided by Kek and Huijser’s (2017) multi-level learning ecology for learning, which has been designed to examine the various educational ecological systems and their influences on student learning and outcomes in higher education. The learning ecology was underpinned by Bronfenbrenner’s (1979, 2006) bio-ecological model of human development to highlight individual student development.
The conceptual framework for analysis in Figure 1 shows the manifold relationships between the students’ individual characteristics, distal and proximal environments on the one hand, and subsequent effects on outcomes on the other hand. For this study, only the students’ ecology is examined. At this ecological level, Biggs’ 3-Ps model (2003) was integrated to posit that there are direct and mediated relationships between the students’ individual characteristics (presage), learning, teaching and support (process), and student outcomes, which are the result of the learning, teaching and support process (product). With respect to this study, presage factors relate to approaches to learning, essay self-efficacy and computer anxiety, process relates to the online writing support, and product relates to essay performance.

Method

Design
This quantitative study, approved by the University’s Human Research Ethics Committee, is part of a larger sequential mixed method research project designed to explore the impacts of technology-enhanced writing support on students’ learning outcomes. In this study, the technological platform examined was Smarthinking™. In this paper, only the quantitative findings to the four research questions are reported. The quantitative data were collected at the beginning and end of the course as an initial pre-test/post-test design.

However only at the end of the course were students asked whether they had accessed Smarthinking™, resulting in a predominantly post-test design. For those who had accessed Smarthinking™, case data was matched with student numbers at the beginning and end of the course, enabling further analysis of differences.

Setting
A convenience sample consisted of first-year undergraduate nursing students enrolled in a three-year Bachelor of Nursing programme at a regional university in Australia. The students in this study were enrolled in a Semester 1 course in 2013 during their first year of study.

Teaching intervention
For this study, the use of the online tutoring system Smarthinking™, which is used for outsourcing academic support, was embedded into the students’ major writing task: an essay. A targeted
A teaching intervention was developed to help students learn how to write through the provision of prompt and constructive feedback. Smarthinking™, a 24/7 access and easy to use online writing support system, enabled by trained online tutors, was deployed to mediate between the provision of prompt feedback and students learning how to write. The online tutors provide detailed feedback or feedforward on the essays that students uploaded for review. This included choosing better evidence, composing stronger arguments that flow logically, properly analysing, organising and citing research, and getting the grammar right. In this sense, it is similar feedback that academic learning and language advisors, tutors or practitioners in Australian Universities would provide in a face-to-face or one-on-one learning consultation. An example of the feedforward by an online tutor of Smarthinking™ is provided in Appendix A.

The intervention included setting clearly defined due dates for draft work in the course study schedule, and encouraging students to submit drafts in the first place, either in the form of a paragraph or in the form of full drafts of their written work. The Smarthinking™ system was demonstrated during on-campus tutorials, and via Blackboard Collaborate (online classroom) sessions for those studying externally.

**Data collection**
A survey was used to collect data on student demographics, approaches to learning, confidence in using computers and belief in writing essays. Completion of the surveys was voluntary, and no course credit was awarded for participation.

Students’ approaches to learning were measured using a revised two-factor Study Process Questionnaire (R-SPQ-2F), which is a 20-item instrument on a 5-point Likert scale, which includes deep and surface approach scales (Biggs et al. 2001). The values ranged from 1 (‘rarely or never true for me’) to 5 (‘almost and almost always true to me’). An example item for the surface scale is “my aim is to pass the course while doing as little work as possible”, as opposed to a deep learning approach item as “I test myself on important topics until I understand them completely”. In the original scale, Cronbach’s alphas were reported as 0.64 for the surface approach sub-scale, and 0.73 for the deep approach to learning sub-scale (Biggs et al. 2001). The internal reliabilities were replicated in another study with first year nursing students at the same university (Martyn, Terwijn, Kek & Huijser 2014). Although data was collected from both sub-scales, this study focused on the differences in deep learning between groups of students, as educators may have more ability and opportunity to influence this.

The Computer Anxiety Scale (Cohen & Waugh 1989) is a 16-item instrument using a 5-point Likert scale, which measures responses from 1 (‘strongly disagree’) to 5 (‘strongly agree’). The instrument includes both positively and negatively worded items such as “I feel anxious whenever I am using computers” to “I feel relaxed when working on the computer”. The original scale reported a Cronbach’s alpha of 0.95.

Essay writing self-efficacy was measured using the 12-item Self-Efficacy in Writing (SEW) scale (Prat-Sala & Redford 2010). Students’ self-efficacy with writing has been found to be significantly correlated with academic writing performance (Prat-Sala & Redford 2010). This instrument is measured from responses from 1 (‘not very well at all’) to 7 (‘very well’), with all items positively worded. An example of an item is “how well can you write an effective introduction which informs the reader of your intentions for the essay”. Previous Cronbach’s have been reported for this
instrument between 0.89 and 0.92 (Prat-Sala & Redford 2012). A total score is obtained by calculating the mean from all 12 items.

Essay performance was based on the students’ essay mark, which was worth 40% of their total grades in the course, and is represented with each student receiving a mark out of 100. The essay itself was the second piece of assessment in the course, following on from an online quiz, which was delivered to students in Week 5 of the course. The essay was due in Week 12 of a 15-week semester.

Data analysis
For the quantitative analyses, descriptive and inferential statistics were used to describe the sample and to examine differences between those students who had, or had not, used Smartthinking™. Data were analysed using the IBM SPSS Statistics Package Version 23. Preliminary analyses were conducted to ensure there was no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity.

All scales had good to excellent levels of internal consistency (Deep Approach to Learning α = .86, Surface Approach to Learning α = .77, Computer Anxiety α = .95, and Essay Writing Self-Efficacy α = .95). Statistical significance was set at .05 for the overall scales. Independent samples t-tests were used to examine differences between those students who had or had not accessed Smartthinking™. A paired samples t-test was performed to compare deep thinking scores for those who had accessed Smartthinking™ at the beginning (time 1) and end (time 2) of the course.

Findings
Sample description
Of the 289 students enrolled in the course, 69 completed the survey at the end of the semester (a response rate of 23.87%). Of the 69 participants, 45 indicated that they had accessed Smartthinking™. Table 1 shows that both samples were predominantly female, and that the Smartthinking™ group was older, with 71.1% of students being between 18 to 35 years. The average essay mark for the Smartthinking™ group was (M = 72.91), and for the non-Smartthinking™ group it was (M = 60.62).

Table 1. Demographic characteristics of Smartthinking™ samples

| Age (years) | Smartthinking™ | Non-Smartthinking™ Group |
|-------------|----------------|--------------------------|
| Male        | 4 (8.9%)       | 4 (16.7%)                |
| Female      | 41 (91.1%)     | 20 (83.3%)               |
| <18         | 5 (11.1%)      | 1 (4.2%)                 |
| 18 to 25    | 13 (28.9%)     | 11 (45.8%)               |
| 26 to 30    | 5 (11.1%)      | 1 (4.2%)                 |
| 31 to 35    | 9 (20.0%)      | 3 (12.5%)                |
| 36 to 40    | 5 (11.1%)      | 6 (25.0%)                |
| 41 to 45    | 4 (8.9%)       | 0 (0.0%)                 |
| 46 to 50    | 1 (2.2%)       | 0 (0.0%)                 |
| 50+         | 3 (6.7%)       | 2 (8.3%)                 |

N.B. Smartthinking™ (n = 45), Non-Smartthinking™ (n = 24)
**Differences between groups**

In order to assess equivalence between the two groups, the grades from the first assessment (an online quiz mark out of 40) was compared between the Smarthinking™ and non-Smarchinking™ groups. An independent samples t-test was conducted to compare both groups. However, there was no significant difference in the results for the Smarthinking™ group ($M = 37.73, SD = 3.42$), compared with the non-Smarthinking™ group ($M = 35.54, SD = 5.74$); $t(67) = 1.98, p > .05$. This result led to some support for the suggestion that there was no difference in academic ability between the two groups prior to the essay task as a baseline measure.

Next, a further four independent t-tests were conducted to test differences in approach to learning (deep), computer anxiety, essay self-efficacy, and essay performance (Table 2). In order to correct for family-wise error, a Bonferoni correction was used and set at 0.01 (i.e., the correction for 5 t-tests in all).

**Table 2.** Sample descriptives and results of independent-samples t-tests

|                     | Smarthinking™ | Non-Smarthinking™ | $t$  | $df$ | $p$  | $d$  |
|---------------------|---------------|-------------------|------|------|------|------|
| Deep approach to learning | 34.73          | 29.69             | 3.019| 67   | 0.004*| 0.738 |
| Computer anxiety     | 29.09          | 31.27             | -0.724| 67  | 0.472 |
| Essay self-efficacy  | 58.71          | 56.79             | 0.707 | 67  | 0.482 |
| Essay performance    | 72.91          | 60.62             | 2.889| 67   | 0.005*| 0.706 |

N.B. Smarthinking™ ($n = 45$), Non-Smarthinking™ ($n = 24$). * $p < .01$. Effect sizes: Small effects = 0.02 to less than 0.15, Medium effects = to less than 0.35, and Large effects = above 0.35 (Cohen 1992, p. 157)

The results in Table 2 show that those who accessed Smarthinking™ had a significantly deeper approach to learning ($M = 34.73, SD = 6.08$) than those who did not access the service ($M = 29.69, SD = 7.51$); $t(67) = 3.019, p = 0.004$, with a large effect size of 0.738. A further analysis of the Smarthinking™ group, using a paired samples t-test of the time 1 and time 2 deep thinking scores, was conducted, which was non-significant.

Additionally, the results showed that those who accessed Smarthinking™ had significantly higher essay marks ($M = 72.91, SD = 14.95$), compared to the non-Smarthinking™ group ($M = 60.62, SD = 19.93$); $t(67) = 2.889, p = 0.005$, with a large effect size of 0.706. No significant differences were found between the groups in terms of essay-writing self-efficacy, or computer anxiety. The results indicate that having a deep approach to learning greatly increases the likelihood of reaching out to “just in time” assistance such as Smarthinking™ and in turn greatly impacts on essay performance. Thus, the results suggest that presage factors (i.e. approaches to learning, essay self-efficacy and computer anxiety) have an impact on process (i.e. seeking online writing support), which in turn has an impact on the product (essay performance).
Discussion

Nursing educators who are involved in first-year higher education are well placed to embed learning and teaching interventions that can support student-focused academic literacies. As outlined, students often find academic writing genres, such as essay writing, difficult, and as such, having ‘just in time’ support that is accessible, user-friendly, constructive and developmental in nature is critical in developing the right skills and knowledge to be able to articulate written thoughts in a cohesive manner. Given the increasing access to technology-supported learning (Henderson & Phillips 2014), and the limitations on nursing educators to provide timely and personalised feedback on formative work (Agius & Wilkinson 2014; Koh 2008), services that can support students at times that are most convenient to them and provide a quick turnaround of feedback is advantageous (Reis & Huijser 2016).

This study adds support to the notion that using services to enhance academic writing can greatly improve academic performance. The findings in this study support Kek and Huijser’s (2011) study that those who are deeper learners are more likely to access such resources, in contrast to those considered to be surface learners. Whether this also means that higher achieving students are necessarily deeper learners, or whether some of them are higher achieving merely because they access support, is a separate question that is beyond the scope of this particular study.

Interestingly, as students in their first year are often considered to be ‘assessment driven’, we might have expected to see this service being accessed more by ‘surface learners’ (Donnison & Penn-Edwards 2012). Thus, as nursing educators, and given the potential benefits, encouraging those with a more surface approach to learning to access these types of supports seems critical. Communicating the benefits of doing so as part of assessment results in a more explicit manner, for example by explaining the presage-process-product link in a student-friendly manner, could be part of the strategy to foster change, as it would potentially attract the attention of ‘strategic’, assessment-focused surface learners (Ito 2014).

Regardless of how confident a student is in their ability to write an essay or use a computer, the use of Smarthinking™ was found to ‘supercharge’ the academic performance of those who accessed it, as can be inferred from the large effect sizes in the results. The second phase of this larger study will investigate and determine why this might be the case for those who were already deep thinkers. The qualitative study, not reported on here, will focus on the feedback provided and students’ perspective on how they utilised the feedback.

It might be that the feedback provided by the online tutors encouraged students to take an active and deep approach to their writing, and that it encouraged them to revise and seek additional information to support their writing, using a feedforward approach (Cathcart, Greer & Neale 2014). Such an approach not only takes the current writing style into account, but also provides an educative approach to future learning (Parbooteach & Anwar 2009), in which assessment is reframed from assessment of learning to assessment for learning (Boud & Falchikov 2006, Boud & Soler 2015; Crisp 2012). As another view of our results, it may be that those that accessed the online tutoring have characteristics that are consistent with higher-performing students who happen to demonstrate deeper approaches to learning, for it has been recognised in the literature that those who may need the most academic help and support are reluctant to access it (Dashwood & Son 2017; Potter & Parkinson 2010).
Implications

In the context of widening participation agendas, combined with ever tighter public funding streams in today’s higher education sector, providing quality learning support has proven to be challenging. This applies to both increased calls for improved quality teaching, and to leveraging technologies to facilitate improved learning and outcomes for teachers, students and organisations, all in the name of increasing student success and by extension retention. This is where third party online learning service providers, leveraging available technologies, are now commonly found to supplement higher education organisations’ lean resourced internal learning support. This paper has reported on the impact of a first year nursing course using a technology-enhanced writing tool to support students’ essay writing in order to add to an understanding of the extent of this impact on student success, which is currently limited.

The findings have a number of implications for practice and policy. The immediate feedback and feedforward provided just-in-time learning support for students in learning and understanding ‘what’ specifically they need to improve. In practice, when an academic integrates the online writing feedback into the assessment eco-system of the course, a future learning affordance is effectively embedded in the student’s learning process. This learning assistance strategy has provided progressive scaffolds for students and afforded the facilitation and development of effective habits in writing. In terms of a higher educational purpose, integrating online writing feedback into the curriculum educates students about academic integrity in a developmental manner in contrast to deficit or punitive approaches. Students are thus provided with an opportunity to learn effective habits in paraphrasing and referencing, which in turn has the potential to contribute to the elimination of accidental plagiarism.

Limitations and future research

This study involved a regional university and one that preferences online learning. Around 75% of the student cohort study in an external mode without ever physically being on campus. A majority of the students are mature aged and have high life-loads such as working full time and have a family life with children. Future studies could be carried out in a variety of different university contexts and in more varied learning environments such as on-campus and blended learning environments.

This paper has only reported on the quantitative phase of the study, which is an inherent limitation. The qualitative phase, which comprised a content analysis of students’ writing and online tutors’ feedback, is in progress. The findings will only become richer (Cohen, Manion & Morrison 2000), and provide a more balanced account of the interactions (Altrichter, Posch & Somekh 2005), once the quantitative and qualitative data are triangulated.

Furthermore, future research may be also able to better track students between different points in time, as well as longitudinally throughout their programme, to determine whether they continue to utilise the service and what effect this might have on their overall learning outcomes and confidence in their writing abilities. Moreover, in terms of types of feedback, a larger data set may result in a more detailed examination of the demographic characteristics of those who access the service. This might be particularly relevant for students for whom English is not their first language.
Conclusion

This paper has focused on the effect of using online tutoring support on first-year nursing students’ essay writing performance. Differences between those who had accessed Smarthinking™, and those who had not, were analysed in terms of essay writing self-efficacy, computer anxiety and approaches to learning. The findings revealed that despite students’ confidence in their writing and in using computers, those who had a deeper approach to learning were more likely to access, and benefit from, the writing support in their overall essay performance marks. This lends support to the pedagogical importance of providing prompt or ‘just in time’ feedback to students for future learning as well as development of academic skills, information literacy and academic integrity.

References

Agius, N & Wilkinson, A 2014, ‘Students’ and teachers’ views of written feedback at undergraduate level: a literature review’, Nurse Education Today, vol. 34, no. 4 pp. 552-559.

Altrichter, H, Posch, P & Somekh, B 2005, Teachers investigate their work: An introduction to the methods of action research (5th ed.), Routledge, Oxford.

Asikainen, H & Gijbels, D 2017, ‘Do students develop towards more deep approaches to learning during studies? A systematic review on the development of students’ deep and surface approaches to learning in higher education’, Educational Psychology Review, vol. 29, no. 2. pp. 209-234.

Baaijen, V, Galbraith, D & de Glopper, K 2014, ‘Effects of writing beliefs and planning on writing performance’, Learning & Instruction, vol 33, pp. 81-91.

Beckman, J & Rayner, G 2011, ‘Embedding academic-professional collaborations that build student confidence for essay writing: student perceptions and quality outcomes: A practice report’, The International Journal of the First Year in Higher Education, vol. 2, no. 2. pp. 83-90.

Biggs, J, Kember, D & Leung, D 2001, ‘The revised two-factor Study Process Questionnaire: R-SPQ-2F’, British Journal of Educational Psychology, vol. 71, no. 1. pp. 133-149.

Borglin, G 2012, ‘Promoting critical thinking and academic writing skills in nurse education’, Nurse Education Today, vol. 32, no. 5, pp. 611-613.

Boud, D & Falchikov, N 2006, ‘Aligning assessment with long-term learning’, Assessment and Evaluation in Higher Education, vol. 31, no. 4, pp. 399-41.

Boud, D & Soler, R 2015, ‘Sustainable assessment revisited’, Assessment and Evaluation in Higher Education, vol. 41, no. 3, pp. 400-413.

Bradley, D, Noonan, P, Nugent, H & Scales, B 2008, Review of Australian higher education, Canberra, Australia: Department of Education, Employment and Workplace Relations.

Bronfenbrenner, U 1979, The ecology of human development, Harvard University Press, Cambridge, MA.
Bronfenbrenner, U & Morris, P 2006, ‘The bioecological model of human development’, In W Damon & RM Lerner (Eds), Handbook of child psychology (6th ed.), pp. 793-828, Wiley, Hoboken, NJ.

Cathcart, A, Greer, D & Neale, L 2014, ‘Learner-focused evaluation cycles: Facilitating learning using feedforward, concurrent and feedback evaluation’, Assessment & Evaluation in Higher Education, vol. 39, no. 7, pp. 790-802.

Cavaleri, M & Dianati, S 2016, ‘You want me to check your grammar again? The usefulness of an online grammar checker as perceived by students’, Journal of Academic Language and Learning, vol. 10, no. 1, pp. 226-233.

Cohen, B & Waugh, G 1989, ‘Assessing computer anxiety’, Psychological Reports, vol. 65, 735-738.

Cohen, L, Manion, L & Morrison, K 2000, Research methods in education (5th ed.), Taylor and Francis Group, London.

Court, K & Johnson, H 2016, ‘Whose job is it? Exploring subject tutor roles in addressing students' academic writing via essay feedback’, International Journal of Teaching and Learning in Higher Education, vol. 28, no. 1, pp. 18-29.

Creswell, JW, Plano Clark, VL, Gutmann, ML & Hanson, WE 2003, ‘Advanced mixed methods research designs’, In A Tashakkori & C Teddie (Eds.), Handbook of mixed methods in social and behavioral research pp. 209-241, Sage Publications, Inc, Thousand Oaks, CA.

Crisp, T 2012, ‘Integrative assessment: Reframing assessment practice for current and future learning’, Assessment and Evaluation in Higher Education, vol. 37, no. 1, pp. 33-43.

Cumming, A, Lai, C & Cho, H 2016, ‘Students' writing from sources for academic purposes: a synthesis of recent research’, Journal of English for Academic Purposes, vol. 23, 47-58.

Dashwood, A & Son, JB 2017, ‘Academic language support for at-risk students: REACHing further’, Journal of Academic Language and Learning, vol. 11, no. 1, pp. A58-A70.

De Fazio, T & Crock, M 2008, ‘Enabling learning, addressing retention: Supporting students via online tutorials with Smarthinking’, Ascilite, Melbourne, AU, 30 November – 4 December.

Donnison, S, Penn-Edwards, S 2012, ‘Focusing on first year assessment: Surface or deep approaches to learning?’, The International Journal of the First Year in Higher Education, vol. 3, no. 2, pp. 9-20.

Duffy, K, Hastie, E, McCallum, J, Ness, V & Price, L 2009, ‘Academic writing: Using literature to demonstrate critical analysis’, Nursing Standard, vol. 23, no. 47, pp. 35-40.

Evans, C 2013, ‘Making sense of effective feedback in higher education’, Review of Educational Research, vol. 83, no. 1, pp. 70-120.

Ferris, D 2014, ‘Responding to student writing: Teachers' philosophies and practice’, Assessing Writing, vol. 19, pp. 6-23.
Gimenez, J 2008, ‘Beyond the academic essay: Discipline-specific writing in nursing and midwifery’, *Journal of English for Academic Purposes*, vol. 7, no. 3, pp. 151-164.

Giridharan, B 2012, ‘Identifying gaps in academic writing of ESL students’, *US-China Education Review*, vol. 6, pp. 578-587.

Gopee, N & Deane, M 2013, ‘Strategies for successful academic writing — Institutional and non-institutional support for student’, *Nurse Education Today*, vol. 33, no. 12, pp. 1624-1631.

Hamilton, J 2016, ‘The ‘training wheels’ of academic essay writing: Considered, coordinated and collaborative use of writing models for commencing HE students’, *Journal of Academic Learning and Teaching*, vol. 10, no. 1, pp. A48-56.

Henderson, M & Phillips, M 2014, ‘Technology enhanced feedback on assessment’, *Australian Computer in Education Conference*, Adelaide, South Australia, 2-5 October.

Hoyne, G & McNaught, K 2013, ‘Understanding the psychology of seeking support to increase health science student engagement in academic support services: A practice report’, *The International Journal of the First Year in Higher Education*, vol. 4, no. 1, pp. 109-116.

Ito, H 2014, ‘What's wrong with learning for the exam? An assessment-based approach for student engagement. *Journal of Education and Learning*, vol. 3, no. 2, pp. 145-152.

Kek, MY & Huijser, H 2011, ‘Exploring the combined relationships of student and teacher factors on learning approaches and self-directed learning readiness at a Malaysian university’, *Studies in Higher Education*, vol. 36, no. 2, pp. 185-208.

Kek, MY & Huijser, H 2017, *Problem-based learning into the future: Imagining an agile PBL ecology for learning*. Springer, Singapore.

King, E & Boyatt, R 2015, ‘Exploring factors that influence adoption of e-learning within higher education’, *British Journal of Educational Technology*, vol. 46, no. 6, pp. 1272-1280.

Koh, L 2008, ‘Refocusing formative feedback to enhance learning in pre-registration nurse education’, *Nurse Education in Practice*, vol. 8, no. 4, pp. 223-230.

Krause, K 2001, ‘The university essay writing experience: A pathway for academic integration during transition’, *Higher Education Research & Development*, vol. 20, no. 2, pp. 147-168.

Lai, K-W & Hong, K-S 2015, ‘Technology use and learning characteristics of students in higher education: Do generational differences exist?’, *British Journal of Educational Technology*, vol. 46, no. 4, pp. 725-738.

Lavelle, E, Ball, S & Maliszewski, G 2013, ‘Writing approaches of nursing students’, *Nurse Education Today*, vol. 33, pp. 60-63.

Lavelle, E & Guarino, A 2003, ‘A multidimensional approach to understanding college writing processes’, *Educational Psychology*, vol. 23, pp. 295-305
Levett-Jones, T, Kenny, R, Van der Riet, P, Hazelton, M, Kable, A, Bourgeois, S & Luxford, Y 2009, ‘Exploring the information and communication technology competence and confidence of nursing students and their perception of its relevance to clinical practice’, Nurse Education Today, vol. 29, pp. 612-616.

Martinez, C, Kock, N & Cass, J 2011, ‘Pain and pleasure in short essay writing: Factors predicting university students' writing anxiety and writing self- efficacy’, Journal of Adolescent & Adult Literacy, vol. 54, no. 5, pp. 351-360.

Martyn, J, Terwijn, R, Kek, MY & Huijser, H 2014, ‘Exploring the relationships between teaching, approaches to learning and critical thinking in a problem-based learning foundation nursing course’, Nurse Education Today, vol. 34, no. 5, pp. 829-835.

McCune, V 2004, ‘Development of first-year students' conceptions of essay writing’, Higher Education, vol. 47, pp. 257-282.

Mega, C, Ronconi, L & De Beni, R 2014, ‘What makes a good student? How emotions, self-regulated learning, and motivation contribute to academic achievement’, Journal of Educational Psychology, vol. 106, no. 1, pp. 121-131.

Nayda, R & Rankin, E 2008, Information literacy skills development and lifelong learning: exploring nursing students' and academics' understandings. Australian Journal of Advanced Nursing, vol. 26, no. 2, pp. 27-33.

Naylor, R, Baik, C, Asmar, C & Watty, K 2014, ‘Good feedback practices: Prompts and guidelines for reviewing and enhancing feedback for students,’ retrieved from http://melbourne-cshe.unimelb.edu.au/data/assets/pdf_file/0008/1761164/Good_Feedback_Pr actices_2014.pdf

Nicol, D & Macfarlane-Dick, D 2006, ‘Formative assessment and self-regulated learning: A model and seven principles of good feedback practice’, Studies in Higher Education, vol. 31, no. 2, pp. 199-218.

Parboteeah, S & Anwar, M 2009, ‘Thematic analysis of written assessment feedback: Implications for nurse education’, Nurse Education Today, vol. 29, no. 7, pp. 753-757.

Palmer, L, Levett-Jones, T & Smith, R 2018, ‘First year students’ perceptions of academic literacies, preparedness and embedded diagnostic assessment’, Student Success, vol. 9, no. 2, pp. 49-61.

Pajares, F 2013, ‘Self-efficacy beliefs, motivation, and achievement in writing: A review of the literature’, Reading and Writing Quarterly, vol. 19, no. 2, pp. 39-158.

Potter, A & Parkinson, A 2010, ‘First year at risk intervention pilot project: An intervention to support first year students experiencing early assessment failure’, 13th Pacific Rim First Year in Higher Education FYHE) Conference: Aspiration – Access – Achievement, Adelaide, AU, 27-30 June 2010.
Prat-Sala, M & Redford, P 2010, ‘The interplay between motivation, self-efficacy, and approaches to studying. British Journal of Educational Psychology’, vol. 80, pp. 282-305.

Prat-Sala, M & Redford, P 2012, ‘Writing essays: Does self-efficacy matter? The relationship between self-efficacy in reading and writing and undergraduate students' performance in essay writing’, Educational Psychology: An International Journal of Experimental Educational Psychology, vol. 32, no. 1, pp. 9-20.

Price, M, Handley, K, Millar, J & O'Donovan, B 2010, ‘Feedback: All that effort, but what is the effect?’, Assessment and Evaluation in Higher Education, vol. 35, no. 3, pp. 277-289.

Reading, J 2016, ‘Providing enhanced information skills support to students from disadvantaged backgrounds: Western Sydney university library outreach programme’, The Journal of Academic Librarianship, vol. 42, no. 6, pp. 694-704.

Reis, C & Huijser, H 2016, ‘Correcting tool or learning tool? Student perceptions of an online essay writing support tool at Xi’an Jiaotong-Liverpool University’, In S. Barker, S. Dawson, A. Pardo & C. Colvin (Eds.), Show me the learning: Proceedings ASCILITE 2016, pp. 529-533, Adelaide, 28-30 November.

Roberts, S 2009, ‘Use of an online writing tutorial to improve writing skills in nursing courses’, Nurse Educator, vol. 34, no. 6, pp. 262-265.

Salamonson, Y, Koch, J, Weaver, R, Everett, B & Jackson, D 2009, ‘Embedded academic writing support for nursing students with English as a second language’, Journal of Advanced Nursing, vol. 66, no. 2, pp. 413-421.

Salamonson, Y, Weaver, R, Chang, S, Koch, J, Bhathal, R, Khoo, C & Wilson, I 2013, ‘Learning approaches as predictors of academic performance in first year health and science students’, Nurse Education Today, vol. 33, pp. 729-733.

Sanders-Reio, J, Alexander, P, Reio, T & Newman, I 2014, ‘Do students' beliefs about writing relate to their writing self-efficacy, apprehension, and performance?’, Learning and Instruction, vol. 33, pp. 1-11.

Schmeck, R (ed.) 2013, Learning strategies and learning styles. Springer, Berlin.

Snelgrove, S 2004, ‘Approaches to learning by student nurses’, Nurse Education Today, vol. 24, pp. 605-614.

Stone, C, Hewit, C & Morelli, E 2013, ‘Enhancing academic achievement in online open education’, THETA Conference: The Higher Education Technology Agenda, Hobart, AU, 7-10 April.

Talsma, K, Schüz, B, Schwarzer, R. & Norris, K 2018, ‘I believe, therefore I achieve and vice versa): A meta-analytic cross-lagged panel analysis of self-efficacy and academic performance’, Learning and Individual Differences, vol. 61, pp. 136-150

Troxler, H, Vann, J & Oermann, M 2011, ‘How baccalaureate nursing programmes teach writing’, Nursing Forum, vol. 46, no. 4, pp. 280-288.
Varunki, M, Katajavuori, N & Postareff, L 2017, ‘First-year students’ approaches to learning, and factors related to change or stability in their deep approach during a pharmacy course’, *Studies in Higher Education*, vol. 42, no. 2, pp. 331-353.

Weaver, R & Jackson, D 2011, ‘Evaluating an academic writing programme for nursing students who have English as a second language’, *Contemporary Nurse*, vol. 38, no. 1-2, pp. 130-138.

Wingate, U 2012, ‘‘Argument!’ helping students understand what essay writing is about’, *Journal of English for Academic Purposes*, vol. 11, no. 2, pp. 145-154.
Appendix A: Sample feedforward

Smarthinking's E-structor Response Form

(Your marked-up essay is below this form.)

HOW THIS WORKS: Your e-structor has written overview comments about your essay in the form below. Your e-structor has also embedded comments [in bold and in brackets] throughout your essay. Thank you for choosing Smarthinking’s; best wishes with revising your paper!

*Strengths of the essay:
Hello, XXX. My name is XXX., and I’ll be helping you today with your essay. But before we start our tutorial, let’s look at a notable strength of your paper. You did great in your use of an apostrophe + s here: “The ability to understand, assess and make informed decisions concerning a person’s health are the building blocks to a long healthy life.” Adding an apostrophe + s after “person” will make it clear that “health” belongs to the person. Well done! :) Now, if you’re ready, let’s start our tutorial! :)

Main Idea/Thesis:
First, XXX, please develop a clear thesis statement, so you can effectively give a preview of your discussion. A thesis statement is a sentence that is usually found at the end of the introduction. It states the main idea of the paper and its discussion points. For example:

Facebook [topic] is beneficial to people’s relationships [main idea] because it provides them a way to find long lost friends, it gives them an inexpensive way to communicate wherever they are, and it keeps them updated on each other’s lives [discussion points].

Now, in your introduction, you presented the following:

• Health and wellbeing is the mixture of many influences that a person encounters during a lifetime.

• Your gender also defines your health and wellbeing, in this essay the differences between Men’s and Women’s health will be discussed.

Which of these is the focus of your paper? Remember that your assignment prompt is “1500 word essay on health and wellbeing is shaped through interactions in the environments of peoples lives.” So which between the two statements above will best encapsulate the focus of your discussion in relation to your assignment prompt? Once you have established that, the next step is to supply your discussion points. How are you going to support your main idea? How will you show that “Health and wellbeing is the mixture of many influences that a person encounters during a lifetime”? Or in what ways are men and women's health different? Beth, to strengthen your draft, please create a sentence that states your main idea and discussion points, and place this in your introduction, ideally at the end. With this, you can give your readers a clear idea on what to expect from your paper. If you need further assistance on writing your thesis, you can refer to this: Thesis Development.
*XXX has requested that you respond to the Organization:

This is supposed to be a 1500 essay, but right now, it looks like you only submitted your introduction. To have a guide in developing and organizing your essay, I advise that you create an outline based on your thesis statement. The thesis statement is a map of your discussion, so the content of your essay should reflect this map. To show you how your outline can look like, let me give an example based on my sample thesis statement:

I. Introduction (background + thesis statement)

II. Facebook is beneficial to people’s relationships because it provides them a way to find long lost friends.

III. Facebook is beneficial to people’s relationships because it gives them an inexpensive way to communicate wherever they are.

IV. Facebook is beneficial to people’s relationships because it keeps them updated on each other’s lives.

V. Conclusion (summary)

In this outline, each entry represents a paragraph in the essay. There are three discussion points, so a paragraph will be dedicated for each of them. These points will also be discussed in the order they appeared in the thesis statement. Following an outline will help you come up with an organized and cohesive discussion that focuses on your discussion on how health and wellbeing is shaped through interactions in the environments of peoples lives, so how might you create the outline of your essay? How can you develop and organize your essay based on this outline?

*XXX has requested that you respond to the Introduction/Conclusion:

Finally, XXX, please define wellbeing in your introduction to ensure that your readers clearly understand this concept. You are able to give background on what health is: “Being absent from disease or illness can be defined as being healthy, it is not only these factors that contribute to a person’s health and wellbeing.” But what exactly is wellbeing? How is this different from health? Please clarify the meaning of this concept in your introduction, so you can effectively prepare your readers for your discussion about health and wellbeing. For more help on your introduction, you can refer to this: Writing Introductions and Conclusions.

Summary of Next Steps:

You did great in using an apostrophe + s to show possession, but your paper can be stronger if you will

1. develop a clear thesis statement,
2. create an outline based on your thesis statement,
3. develop and organize your essay based on this outline,
4. and define wellbeing in your introduction.

XXX, I enjoyed reviewing your paper on health and wellbeing, and I hope you will find my comments useful. Good luck in your revision! XXX.
Find additional resources in Smarthinking’s online library:

You can find more information about writing, grammar, and usage in Smarthinking’s student handbooks. You can visit the Smarthinking Writer’s Handbook or the Smarthinking ESOL (English for speakers of other languages) Writer’s Handbook.

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Please look for more comments in your essay below. Thank you for visiting Smarthinking. We encourage you to submit future essays.

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The Social Patterning Of Health, Illness And Chronic Conditions

Health and wellbeing is the mixture of many influences that a person encounters during a lifetime. These influences include gender, biological or genetic characteristics, culture, upbringing, social status and everything in between. Good health and wellbeing combined together form a balanced person. Being absent from disease or illness can be defined as being healthy, it is not only these factors that contribute to a person’s health and wellbeing. [XXX, the comma between “healthy” and “it” makes this a comma splice. This occurs when two sentences are joined using a comma, which is not enough to set their ideas apart. How can you replace the comma with a period or a semicolon to fix this?] The ability to understand, assess and make informed decisions concerning a person’s health are the building blocks to a long healthy life. These decisions are made daily in the choices we make for eating nutritious food, exercising and lifestyle choices including alcohol consumption and tobacco smoking. Your gender also defines your health and wellbeing, in this essay the differences between Men’s and Women’s health will be discussed. The health and wellbeing for Australian’s is many contributing factors linked together to form a holistic approach to care. [← XXX, it is ideal to place the thesis at the end of the introduction to allow readers to see background about the topic first and to create a smooth transition to the body of the essay. With this, how can you place your thesis about health and wellbeing here?]