

***Male preservice teachers, gender and performance in an online teacher education subject***

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**Abstract**

The paper informs teacher educators concerned with the development of more sustainable futures for men in education.

There is widespread concern about the high attrition and poor performance of males when compared with females in teacher education programs (Drudy et al. 2005; Skelton 2009; Thornton and Bricheno 2006). To date research attention has mostly been upon male students' overall performance in a teacher education program. This research both confirms and extends research knowledge by examining the finer detail of gender, learning and performance at the level of an individual subject within a program. While, to an extent, the analysis of men's performance is compared with women's, importantly, the paper also draws out the range of difference between men. In doing so it emphasises the social constructedness of gender and highlights the imperative to not employ pedagogies that are underpinned by essentialist understandings of gender. Such understandings tend to be socially oppressive by the way they can homogenise groups and segregate human qualities into two falsely distinct gender categories (Connell, 2002).

Data are drawn from student submissions for online assessment tasks and two surveys. One hundred and thirty-five second year preservice teachers (100 female, 35 male) were enrolled in the subject. The subject aimed to develop students' praxis, which in this context, is the connecting of educational theory and the practice of teaching. The subject was an innovative trial, where much of the student/student and student/lecturer interaction was conducted in an online learning space that consisted of lecture notes, blogs and journals.

The paper concludes that better understandings of gendered patterns of learning can assist teacher educators to improve learning experiences for all students. This will hopefully lessen the attrition of males from teacher education, thus contributing to more sustainable futures.

*Key words:* gender, teacher education, online delivery.

**1. Introduction**

There is widespread concern about the high attrition and poor performance of males when compared with females in teacher education programs (Drudy, Martin, Woods and Flynn 2005; Francis and Skelton 2005; Skelton 2009; Thornton and Bricheno 2006). To date, research attention has mostly been upon male students' overall performance in teacher training programs. While limited by its short space to substantially explore the topic, it does contribute to the research field by providing some finer detail of gender, learning and performance at the level of an individual

subject, specifically within an online environment. While online learning is a fast growing mode of program delivery for higher education, the body of research about gender is limited in web based learning as well as for teacher education more broadly (Garland and Martin 2005; Skelton 2007). Thus, the information offered in this paper is a useful contribution.

While the focus of this paper is on men's performance in comparison with women's, importantly, the paper also illustrates the range of difference among men (Murphy and Elwood 1998). In doing so, it supports the notion that gender is socially constructed and highlights the importance of not employing pedagogies that are informed by essentialist understandings of gender. Such understandings tend to be socially oppressive in the way they can homogenise groups and segregate human qualities into falsely distinct gender categories (Connell, 2002). The paper supports a view that better understandings of gendered patterns of learning can assist teacher educators to improve learning experiences for all students.

The paper is developed by providing a literature review on a social constructionist perspective of gender and considers the ways gender can influence web based learning. Then a brief description of the subject and its intended outcomes is provided. From this the research method is discussed and finally the paper moves to discussion and its conclusions. It is important to note it is beyond the intent of the paper to analyse individual constructions of gender and how these may have contributed the results in student performance. More, the purpose is to provide data about the performance of a particular student cohort using a gender lens. Further, it is also recognised that apart from gender there will be multiple influences at play, some of which are likely to include ethnicity, social class, location, the pedagogies used by staff and background of students enrolled.

## **2. Literature review**

### **2.1 A social constructionist perspective of gender**

A benefit of a social constructionist perspective of gender is that it can circumvent the dangers of essentialising males and females as possessing distinct and different characteristics. Such ways of categorising gender often lead to gender hierarchies and injustices for whole groups as well as individuals (Connell, 2002). As David Jackson (1998, p. 83) notes with regard to masculinity: 'The problem of gender absolutism is that it promotes a simplistic monolithic stereotyping of boys' and men's lives.' Important to this paper and as will be evidenced, while there are broad gender trends, these are trends only. If they were turned to rules and applied to this research there would be so many exceptions the data would prove unfathomable in terms of understanding gender. In further tempering any position that might overly categorise gender types, Murphy and Elwood (1998, p. 162) note the 'similarities between male and female performance far outweigh the differences'. Thus considering gender as a social construction is a way to work with both the trends as well as acknowledging the uniqueness of individuals.

In elaborating on the social construction of gender, Ivinson and Murphy (2007, p. 7) state that 'human understanding of the world develops through a process of association between objects, people and experience'. Further, they understand that it

is through common experiences that people develop the ‘shared symbolic networks that circulate as ideas that become manifest through social conventions and social practices’ (p. 7). These social conventions and practices can categorise people into hierarchal and gendered positions. In this way people, because of their shared social experiences, might often perform according to socially constructed gender characteristics (see Butler 1993 for discussion of gender as performance). However, as no two people experience the social world in the same way, their ‘process (es) of association’ will not be the same as others and no two people will perform gender in the same way. The paper works with this understanding.

In applying this social construction of gender position to teacher education it is possible to better understand why men, generally, do more poorly than women. This outcome is a continuation of the trend throughout the education system from preparatory school to university (Murphy and Elwood, 1998). Male preservice teachers, because of their overall gender socialisation as males, are likely to have some commonalities in the way they engage with a teacher education program. Following this social constructionist logic it could be considered that the reason men do less well than women is related to the way that many westernized societies currently delineate gender by categorising many human qualities as either male or female. While not subscribing to the following categorization of gender Francis and Skelton (2005) provide a guide for the following analysis as to how these qualities in western societies are currently split.

*Table 1 – Human qualities categorised as male and female*

<b>Male</b>	<b>Female</b>
rationality	emotion
objectivity	subjectivity
Science	nature
‘hard’	‘soft’
‘the sciences’	‘the arts’
Male logic and focus	Indecision and lack of focus
Self-confidence	Self-doubt
Content	Communication, presentation

Source: Francis and Skelton, 2005

If the above is a fair representation of how gender is broadly categorised, then it can provide insight into why so many male students struggled with this particular online subject. A review of the subject’s tasks using the above table indicates that many of the activities expected students to draw on more qualities from the feminine side than from the masculine. For example, students were expected to collaborate with peers and critique each others’ work, to reflect upon themselves as teachers, identify personal stressors related to their teaching and comment on how they managed them, consider the morals of teaching and construct sociograms. These broad social patterns are observable in the performance of this student cohort, and as will be evidenced, when the range of performances from within the genders is considered the danger of relying upon gender essentialisms becomes apparent.

## **2.2 Gender and web based learning**

Research suggests there is little difference in learning outcomes for male and females in web based learning (Astleitner and Steinbury, 2005). However, Astleitner and Steinbury note, in alignment with gender research by Francis and Skelton (2005) and Ivinson and Murphy (2007), that there is a bias that favours males in mathematics and females in language related subjects. While these differences exist, Astleitner and Steinbury consider they are not great and web based learning does not favour a particular gender or learning style. They draw the conclusion that web based learning design should plan to meet the needs of individuals by including a full range of learning styles.

Garland and Martin (2005, p. 76) agree with Astleitner and Steinbury (2005) that subject designers should cater for a range of learning styles in their research of differences in learning styles between face to face and online learning. They comment that through online learning it is possible to meet a wide range of learning styles. They observed a significant statistical relationship that indicated male students who favoured abstract conceptualisation were more likely to have more online communications. Further, they noted that males would engage more actively if the online activity was related to concrete experience. Strong negative correlations were also observed when tasks required an element of reflective activity. Given such evidence, it could be expected that some males in the current research might be less able or willing than their female peers to meet the expectations of this subject. As will be later elaborated upon, the subject required a significant degree of reflection, interaction and discussion.

## **3. Description of subject, the participants and research purpose**

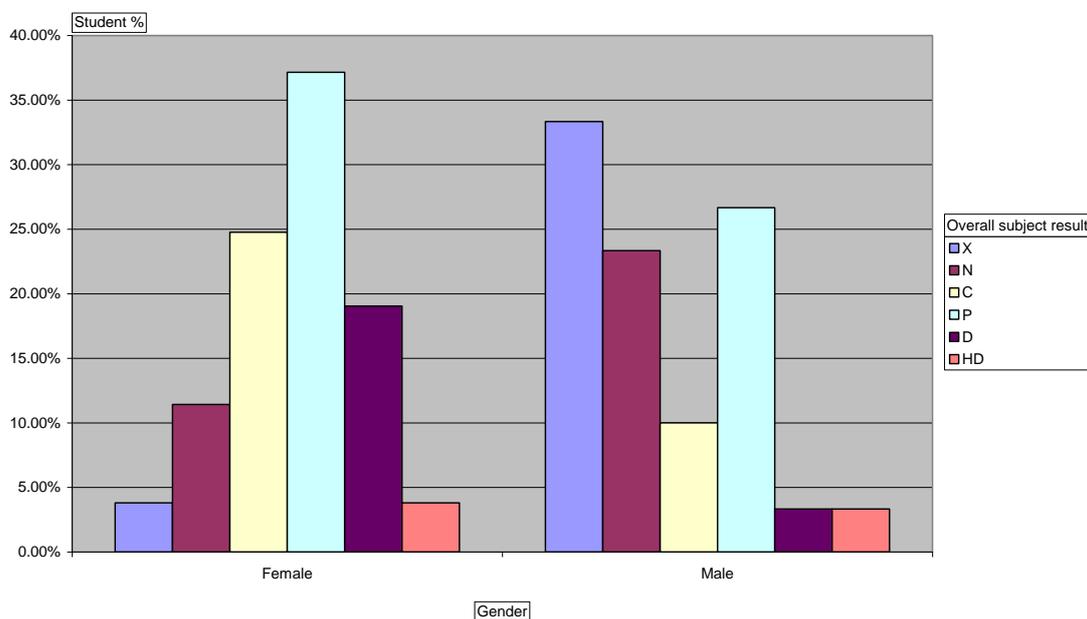
One hundred and thirty-five second year preservice teachers (105 female, 30 male) were enrolled in the semester long subject. The subject aimed to develop students' praxis, which in this context, is the connecting of educational theory and the practice of teaching. Students undertook half a day's professional experience each week for ten weeks as part of the subject. The subject was an innovative trial, where much of the student/student and student/lecturer interaction was conducted in an online learning space that consisted of lecture notes, blogs and reflective journals. Students were expected to contribute weekly to a series of topics that required them to interact with professional reading, practicum experiences and the views of fellow students. They were also expected to attend weekly tutorials. Prior to the beginning of the semester, students' agreement to participate in the research project and permission for their written responses to be used were sought.

The initial purpose of the research was threefold. It was to investigate student responses to the online delivery; look for any evidence of teacher identity development (Goodson & Cole, 1994) and explore preservice teacher resilience (Skovolt, 2001; Howard & Johnson, 2004). As well as online contributions, students completed two in-class surveys, one at the midsemester point and one at the end of semester. The survey was also emailed to students who had not attended class. When the startling statistic emerged that 56 percent of the 30 males failed the subject in comparison to 15 percent of the 105 females it was decided that further investigation was warranted (see *Figure 1*). While a higher failure rate of men when compared to

women in teacher education is common (Thornton & Bricheno, 2006) and that overall, women graduate with higher honours than men (Drudy et al, 2005), the statistics for this subject are particularly pronounced.

Drudy et al (2005) also note that females enter teacher education programs with higher entry scores than males. This cohort of students matched the general trend as the males entered the program with a slightly lower score. In this part of Australia most students are awarded an Overall Performance (OP) rating, which is a score from one to 25, one being the highest. The mean entry score for males was 10.3, whereas for females it was 9.7. This small difference in the scores does not match the large difference in performance between men and women in this subject.

Figure 1 – Overall result



Notes: 1. X and N = failing mark, P = Pass, C = Credit, D = Distinction, HD = High Distinction.  
 2. Females = *n.* 105. Males = *n.* 30  
 3. Student % represented as percentage of gender population to provide comparison between genders.

#### 4. Research method and description of analysis

The following data allow for the consideration of possible insights into why the males did not achieve as well as the females in this subject. First of all, a brief description of how the data were selected and analysed is provided.

The material employed here is a small selection of the large amount of data entered into the Nvivo data organiser software which had already been organised for the wider research project. While data about gender was collected, it was not a main focus of the research. The graphs were generated using pivot tables from the Microsoft Excel spreadsheet program. They were selected to illustrate the overall gender trend and as noted, not to highlight or explain individual subjectivities which is a task beyond the scope of this discussion.

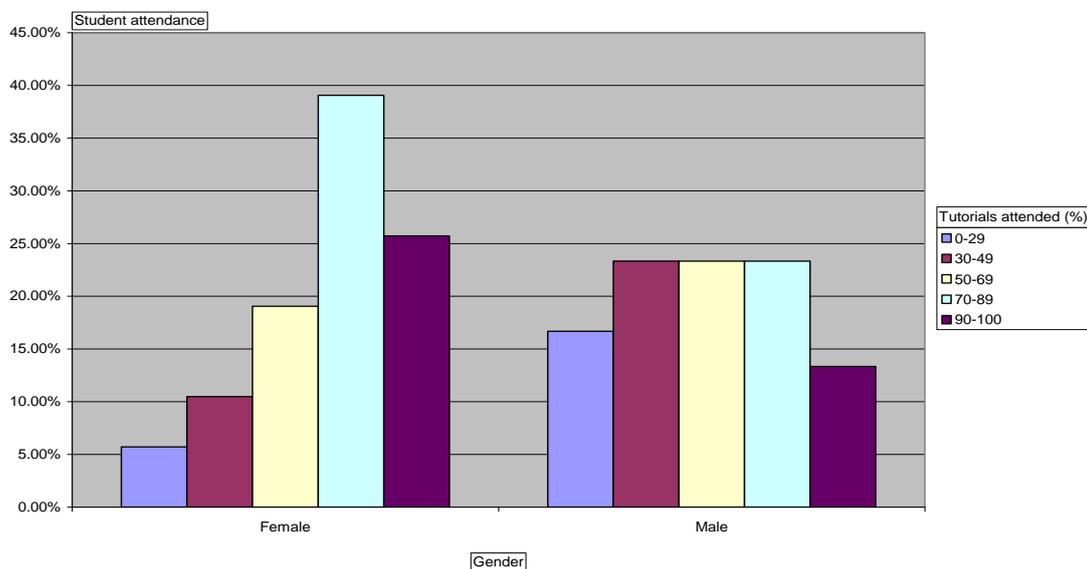
To assess and appreciate the differences between male and female performances, percentages have been used for males and females rather than a direct numerical value, as it provides a more useful mode of comparison. The reader is reminded that there were 105 females and 30 males. It is recognised that there will be a wider range of results for females because of their greater numbers.

## 5. Data analysis

### 5.1 Tutorial attendance

While much of the subject required students to interact online, they were also expected to physically attend one hour weekly tutorials. The tutorials were intended to provide students with some face to face contact and give opportunity to review the weekly learning material. The inclusion of *Figure 2*, which shows that fewer men than women regularly attended the tutorials, is an indication of the overall poorer performance of males and not necessarily specific to the online mode. As an indication of the difference and when aggregating some of the attendance groups in the graph the following is ascertained; 70% of females attended 69% of the tutorials or more whereas 51% of males attended 69% of the tutorials. More males were located in the lower attendance range than females. In line with the overall argument being presented, while the males had a considerably lower attendance rate than the females, both males and females are found across the full range and some females attended less than the worst attending males and some males attended well.

*Figure 2 – Tutorial attendance*



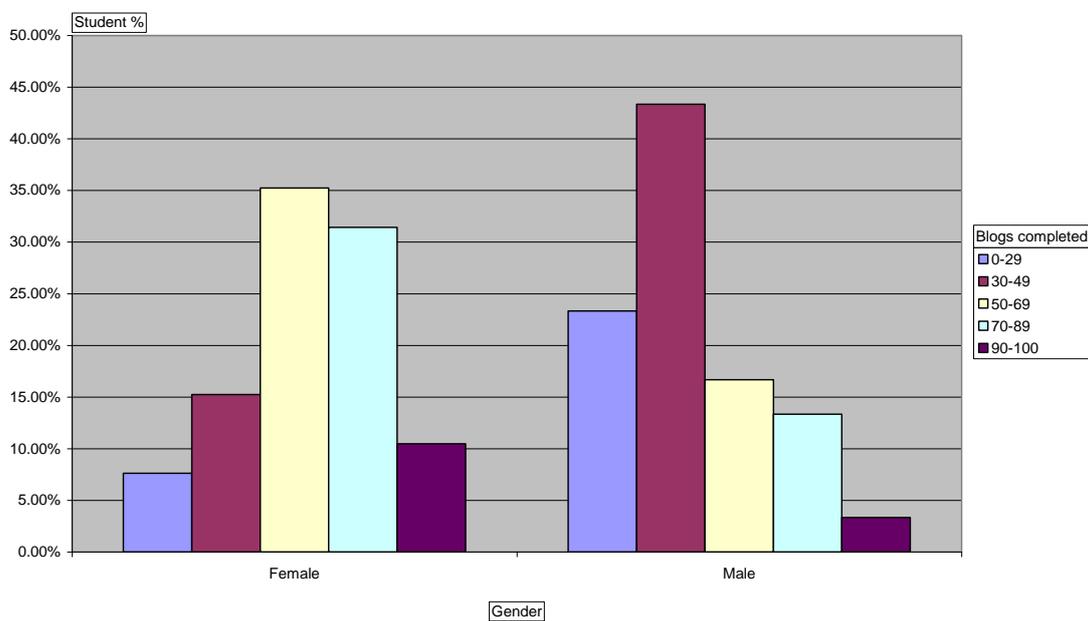
Note: Student (%) represented as percentage of gender population to provide comparison between genders

### 5.2 Contribution to blogs and word length of survey answers

Students were expected to make regular entries to blogs according to the weekly topics. They were not assessable. *Figure 3* shows that 23% of males and 7% of females contributed less than 29 % of the required blogs. In comparison, at the other

end of the scale, only 3% of males (one person) and 10% of females (10 people) completed 90% of the required blogs. To confirm the general reluctance of the males to participate in written tasks a count was made of the word length of responses to a question in the survey. The question was, ‘What, if anything, did you find stressful in your learning journey in this subject?’ The average number of words for the males was eight, whereas for the females it was 18. The shortest for males was three words and the longest for males 15. The shortest response for females was one and the longest of the females’ responses was 44 words. When considering this in the context of the preceding literature review, it affirms that males are more reluctant to write and the question which related to emotions may have also contributed.

Figure 3 – Completion of blogs

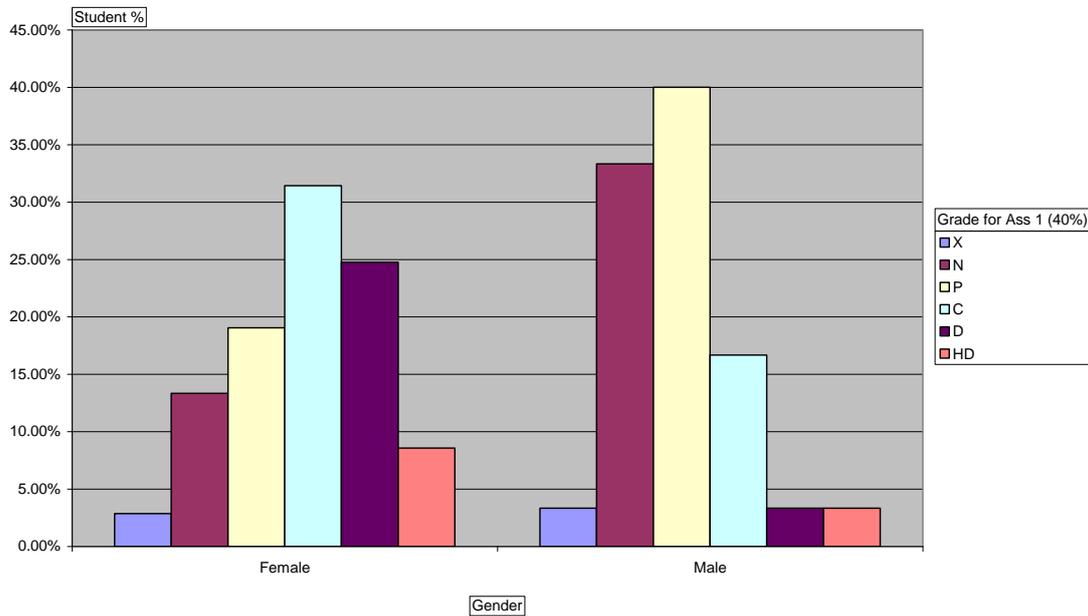


Note: Student (%) represented as percentage of gender population to provide comparison between genders.

### 5.3 Mid semester assignment

The mid semester assignment required students to design a lesson plan and write a thousand word assignment that referred to their professional reading, work in the subject to date and they were also expected to refer to blog contributions of fellow students. The most awarded grade for the females was a Credit. Thirty two percent of females and 17% of males achieved a credit. The most awarded grade for the males was a Pass. Forty percent of males and 19% of females received a Pass. Overall, the women achieved significantly better than the men but there is also a spread across the spectrum for both males and females. When comparing *Figure 4* to *Figure 1* it indicates that while the females were performing better than the males at the mid point of the semester, the males’ performance fell dramatically in the latter part of the semester. This observation affirms current gender literature that suggests that many females are better at persisting with tasks that require regular weekly contributions than many males, and that males are likely to perform best in short, more clearly defined tasks (Skelton 2007).

Figure 4 – Mid semester assignment



Note: 1. X and N = failing mark, P = Pass, C = Credit, D = Distinction, HD = High Distinction.  
 2. Student (%) represented as percentage of gender population to provide gender comparison

#### 5.4 Coping with subject demands

Figure 5 represents the responses to the midsemester question, ‘Now that you are in week seven, how would you rate the way you are coping with the demands of the subject (including professional experience) on a scale of one to 10 (1 – very poor 0 and 10 – excellent). The average for the males was 5.8 and the females, 7. When reviewing the written responses to the question which asked, ‘What, if anything, are you finding stressful in your learning journey in this subject?’ the men’s answers included:

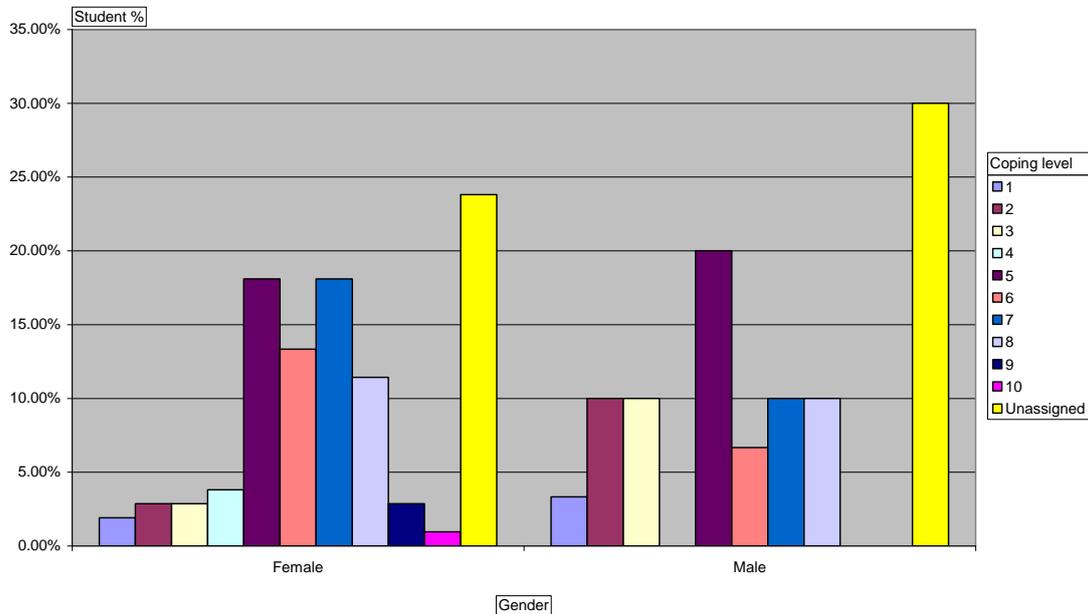
- ‘Reflections – I don’t like them but they are valuable for learning’
- ‘Lack of motivation to do the work myself’
- ‘The prac – the lessons – No lecture to give the lecturer’s own views on the topics’
- ‘Doing the blogs’

Two of the women’s answers included:

- ‘Reading!’
- ‘I felt as though there was an incredible amount of work that we were required to do. The online lecture notes, along with all the readings etc. were quite overwhelming and, at time, I found it hard to concentrate on what I was actually doing’.

It seems from an examination of the written responses that the men and women experienced similar kinds of stresses which included time pressures, high workload and not being sure of expectations.

Figure 5 – Coping with demands



Note: The survey was conducted during a tutorial, so the unassigned bars of the graph are students who did not attend the tutorial.

## 6. Conclusion – What to do with gender and higher education?

The above analysis provides evidence of the differences in performance that can occur between gender groups and within same gender groups in an on line teacher education subject. The evidence raises questions about how to better meet the learning needs of males and female learners in teacher education. One conundrum is that while many males might do less well with written and reflective tasks that require regular weekly on line contributions, they are important learning strategies. Few would argue these are not important skills that all teachers should develop.

Thus, it may not be in the best interests of teacher trainees to modify or omit certain tasks because they might be a disadvantage to a particular gender. Such adaptations would pay into the socially constructed essentialising discourses that contributed to the differentials in the first place. It may be fairer and achieve better outcomes if teacher educators were to become more pedagogically aware of gender and its possible effects and to actively teach the social constructedness of gender to their students. In doing so, male teacher trainees will have more knowledge and skills with which to assess their own gendered learning and would be better able to recognise their attitudes and some of the reasons for their personal preferences, and their strengths and weaknesses regarding their learning. As Cushman (2010 p. 8) argues, society and educational stakeholders should ‘openly seek to identify and debate the influences that contribute to a gendered education system’ (see also: Haase, 2008 and Jackson, C., 2010 for the educational consequences of a lack of gender awareness).

Doing this can build greater resilience in teachers which would then, hopefully, create more sustainable futures for men in education.

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