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**Response to reviewers**

Reviewer 1

*The policy implications that arise from the findings that personality of the student is a significant variable in the success of a placement.*

The finding that the personality (of the student and to a lesser extent teacher) appears to be the primary determinate of the success of the placement indicates:

a) the importance of giving information (about both the student and supervisor in the workplace and the factors which promote placement success) to those responsible for student placements both within the university and the workplace so that where they have flexibility they can place students with the most appropriate supervisor; and

b) the importance of training in both personal and professional behaviours of students and supervisors.

Reviewer 2

*Aims of this presentation more clearly*

The introduction of a new course and different models of professional experience gave us the opportunity to undertake this case study of the factors which affect student learning during their professional experience. This study compared different models of professional experience (block and continuous placements); the value of forming partnerships between universities and schools; and the importance of students’ pedagogical and content knowledge.

*How will this study be of interest to delegates from other disciplines and how will delegates participate in the session?*

This session will give an opportunity for delegates from the wide range of disciplines, where professional experience is an important part of their courses, to engage in an analysis of the factors that influence student learning using, as a basis, in depth research on a the experience of a diverse group of students in science education.

**Abstract**

Student learning during professional experience is a significant component in an increasing proportion of higher education courses. The introduction of a new course and professional experience gave us the opportunity to undertake this case study of the factors which affect student learning during their professional experience. This study compared different models of professional experience (block and continuous placements); the value of forming partnerships between universities and schools; and the importance of students’ pedagogical and content knowledge. The results showed preferred model of the professional experience was block, particularly by supervisors. The main concern of students was the impact of their university work which distracted from their ability to immerse themselves in the workplace. Significant issues were identified by supervisors with students’ content however the students were not aware of these issues. Students’ previous experience in conditions similar to the workplace (for
pre-service teachers experience involving responsibility for groups of children such as after-school programs and sports coaching) appears to be a strong indicator of success in their professional experience placements. The personality of student (and supervisor) appears to be a primary determinate of the success of the placement which highlights the importance of giving information (about student and supervisor and the factors which promote placement success) to those responsible for student placements both within the university and the workplace so that, where they have flexibility, they can place students with the most appropriate supervisor; and of preparation in both personal and professional behaviours of students and supervisors.

HERDSA 2010 International Conference: Showcase of excellent leadership, practice and/or policy

Title

Partnerships with schools to provide rich professional learning experiences for pre-service science teachers

Authors

Gail Chittleborough, Peter Hubber, Russell Tytler & John Cripps Clark

Conference sub-themes addressed

This paper reports on research on an innovative partnership between Deakin University and schools that is designed to better support pre-service science teachers during their professional experience. The research explored different models of professional experience to inform the policy of the university professional experience program. The research study investigated factors that impacted on the pre-service teachers professional experience and identified influences including academic practice and leadership in the professional experience program that impacted on the relationships among supervising teachers, schools, university academics, university professional experience staff and the pre-service teachers. This session will give an opportunity for delegates from the wide range of disciplines, where professional experience is an important part of their courses, to engage in an analysis of the factors that influence student learning using, as a basis, in depth research on the experience of a diverse group of students in science education.

Background literature
Professional experience (practicum) forms a crucial part of the professional development of pre-service teachers and weaknesses of the practicum have been identified in a number of reports (Lawrance & Palmer, 2003; Smith et al., 2009; Ure, 2009). Christine Ure (2009, p. 6) recommended: “A program of change is needed to address the professional learning needs of preservice teachers in the practicum component of teacher education programs”. The role of universities, schools, academics and supervising teachers in the training of pre-service teachers is changing as partnerships and links between various institutions are forged (Goodrum, 2008). The aim of the research is to identify components of the practicum that provide rich and rewarding experiences for the pre-service science teachers (Loucks-Horsley, Hewson, Love, & Stiles, 1998).

The initiative/practice

This research study examined alternative arrangements for practicum experiences among students undertaking the four year Bachelor of Science / Bachelor of Teaching course which began at Deakin in 2007. Students began the compulsory professional experience components in the third year of the course in 2009.

The research study collected evidence to inform the arrangements for future practicum for pre-service science teachers, with regard to:

- the scheduling of the practicum;
- the value of forming partnerships between universities and schools;
- the teaching of science, in particular scientific pedagogical content knowledge; and
- the areas of strengths and weaknesses with regards to the seven principles of highly effective professional learning.

Methods of evaluative data collection and analysis

The research study monitored the pre-service teachers’ progress throughout 2009. The data sources included interviews with all stakeholders: pre-service teachers, supervising teachers, and university staff. All data has been transcribed, de-identified and coded. The qualitative analysis identified major themes arising from the research questions and arising spontaneously during interviews and compared these across the data from the different stakeholders.

Evidence of effectiveness
The study highlighted the issues that then formed the foundation for changes to administrative structures, university teaching and communication between stakeholders. The research gave greater insight into the preferred model of the practicum and emerging issues such as students’ content knowledge and pedagogical content knowledge.

**Discussion**

The preferred model of the practicum amongst teachers was a three week block. The preference of students was less definitive but valued immersion in schools. The main concern of students was the impact of university assignments. Significant issues were identified with pre-service science teachers’ content and pedagogical content knowledge by supervising teachers but pre-service science teachers were not aware of these issues. Students were seen as ill-prepared for their first practicum and had difficulty sustaining observations. Personality (of the student and to a lesser extent teacher) appears to be the primary determinate of the success of the practicum. Students previous experience with groups of children (after-school programs, sporting coaching) appears to be a strong indicator of success. Consideration needs to given to matching/giving students the experience of working with technologically literate teachers as a number of students gained greatly from this type of experience.

**Reference list**


Partnerships with schools to provide rich professional learning experiences for pre-service science teachers

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Student learning during professional experience is a significant component in an increasing proportion of higher education courses. The introduction of a new course gave us the opportunity to undertake this case study of the factors that affect student learning during their professional experience. This study compared different models of professional experience (block and continuous placements); the value of forming partnerships between universities and schools; and the importance of students’ pedagogical and content knowledge. The results showed the preferred model of the professional experience, particularly by supervisors, was in block format. The main concern of students was the impact of their university study requirements, which distracted from their ability to immerse themselves in the workplace. Supervisors identified significant issues with students’ content knowledge, however, the students were not aware of these issues. Students’ previous experience in conditions similar to the workplace (for pre-service teachers, experience involving responsibility for groups of children such as after-school programs and sports coaching) appears to be a strong indicator of success in their professional experience placements. The personality of student (and supervisor) appears to be a primary determine of the success of the placement, which highlights the importance of giving information about student and supervisor and the factors that promote placement success to those responsible for student placements both within the university and the workplace. This ensures that, where there is flexibility, students can be placed with the most appropriate supervisor; and that there is preparation in terms of both personal and professional behaviours of the students and supervisors.