
DEVELOPING A SENSE OF BELONGING

SUPPORTING TRANSITION FROM FIRST YEAR TO THE PROFESSIONAL EDUCATION BIOLOGY PROGRAM

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Abstract

Students at The University of Stirling who take a concurrent degree that includes completing a Professional Education qualification, do not begin the professional aspect of their program until the second year; their first year program being focussed on a broader view of Education.

Previous students having made the transition from first into second year identified several common issues. These include: anxiety about and isolation from the Professional Education program, not knowing other Professional Education students, concern about progression pathways, school placements and doubt about their chosen career path.

This poster presentation explores the different opportunities developed by the Biology ITE program to address these concerns.

These innovative approaches are varied:

- Increased formal contact with the Biology Teacher Fellow from two to four seminars per academic year.
- Moving seminar from general seminar room to Biology lab for delivery of focussed seminars.
- Providing opportunities for first year Biology Education students to get to know each other, as well as the second, third and fourth year Biology Education students.
- Practical and pedagogical skill development, through providing opportunities for designing and taking part in practical work in the Biology lab. This also supports preparation for microteaching.
- Biology students already active within the Professional program providing peer support in the subject seminars, including during practical activities, discussion of course structure and progression, sharing placement experience and providing essay support workshops.
- Ongoing less formal support is available through social networking media, set up and run by and for students.

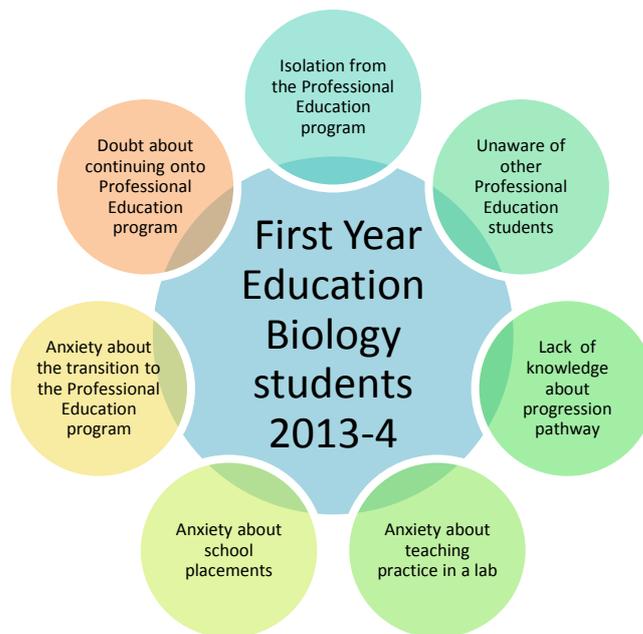
Key words

Transition, sense of belonging, preparation for science teaching, peer support, first year, Education

IDENTIFYING THE NEED TO SUPPORT TRANSITION ONTO THE PROFESSIONAL EDUCATION PROGRAM

Immediately after transitioning into Second year, Biology Initial Teacher Education students highlighted the importance of feeling part of the Professional Education program from the start of First year. That if this *sense of belonging* (Goodenow, 1993) had been apparent in First year, the transition would have been less stressful.

They provided the following reflections.



L McKay 2016

The importance of a sense of belonging

Many educational researchers agree that the need for belonging is one of the most important needs of all students to function well in all types of learning environments (Connell & Wellborn, 1991; Deci & Ryan, 1991; Finn, 1989; Osterman, 2000).

Baumeister and Leary (1995), suggested that the need to belong is characterised by a need for regular contact and the perception that the interpersonal relationship has stability, affective concern, and is ongoing.

The feeling of belonging may have a direct and powerful influence on students' motivation, (Goodenow,1993)

'it is within the first year curriculum that students must be inspired, supported, and realise their sense of belonging; not only for early engagement and retention, but also as foundational for later year learning success and a lifetime of professional practice', (Kift,2009).

DEVELOPING A SENSE OF BELONGING FOR FIRST YEAR EDUCATION STUDENTS

The feeling of belonging may have a direct and powerful influence on students' motivation (Goodenow, 1993b). For example, perceived support and the sense of belonging are expected to increase students' beliefs in their success and accordingly to increase their academic motivation. Hurtado and Carter, 1997, argued for sense of belonging as a measure empirically distinct from integration.

Similarly, Kember and Leung, 2004, used a measure of sense of belonging that encompasses attachments to the broader university, department, teaching staff, and peers.

Sense of belonging is a psychological factor focusing on students' subjective feelings of connectedness or cohesion to the institution. (Hoffman, Richmond, Morrow, & Salomone, 2002), examined the main conceptual dimensions of a sense of belonging instrument that considered student-to-peer and student-to-faculty psychological connections.

They found five factors related to sense of belonging:

- (1) empathetic faculty understanding,
- (2) perceived peer support,
- (3) perceived isolation,
- (4) perceived faculty support and comfort,
- (5) perceived classroom comfort.

DEVELOPING FIRST YEAR ORIENTATION SEMINARS

2013-4 BIOLOGY FIRST YEAR ORIENTATION SEMINARS

2 seminars per academic year; each 2 hours long

Met with Biology Teacher Fellow only

Seminars held in general seminar room

The focus of these seminars three, years ago, was to provide general information regarding the Professional Education Program.

Goodenow (Goodenow, 1993 p.25), described a sense of belonging in educational environments as the following: Students' sense of being accepted, valued, included, and encouraged by others (teacher and peers) in the academic classroom setting and of feeling oneself to be an important part of the life and activity of the class. More than simple perceived liking or warmth, it also involves support and respect for personal autonomy and for the student as an individual.

The reviewed structure of the First year orientation seminars sought to address the anxiety expressed by First year students and to develop a sense of belonging within the Professional Education Biology Program. This would support the transition from the General Education program in first year to the second year Professional Education program.

One of the key changes is peer learning, through the involvement of Professional Education Biology students. This has evolved into both peer learning and peer support.

Kift's (2009) report, *Articulating a transition pedagogy to scaffold and to enhance the first year student learning experience*, outlines the Broad Organising Principles for the First Year Curriculum Learning, 'communities should be promoted through the embedding in first year curriculum of active and interactive learning opportunities and other opportunities for peer-to-peer collaboration and teacher-student interaction.

2014-5

2 seminars per academic year; each 2 hours long

Met with Biology Teacher Fellow and some second year Professional Education students

Seminars held in general seminar room:

Focus of seminars was to allow second year Biology Professional Education students share their experience on the Professional Education Program and deliver peer led science focussed activities outside the seminar room

2015-6

4 seminars per academic year; each 2 hours long.

Meet with Biology Teacher Fellow and second to fourth year Biology Education students.

Seminars held in Biology lab.

- Seminars are now peer led by second to fourth year Biology Education students.
- Essay support provided by Teacher Fellow and Biology Education students.
- First year students have more opportunities to get to know each other and are encouraged to keep in contact in the physical and virtual world.

SEMINAR ACTIVITIES

Holding the seminars within the teaching lab allows the students to become familiar with the layout and the equipment they will be using during teaching practice.

It allows them to identify and feel a sense of belonging with the space

Seminar activities link pedagogy to teaching practice and develop practical teaching skills.

Relationships are developed through pair and group work. This has changed how students identify themselves within first year.

Peer Learning and Mentoring

Professional Education Biology students share *their* knowledge about progression within Professional Education.

They work with First year to develop lessons, generate practical activities and link pedagogy to practice. This is important in terms of being successful during microteaching which takes place within a few weeks of starting second year.

Provide essay support.

Develop supportive relationships.



Wind Turbine Challenge

Inquiry Based Learning

Teams comprised of First year and Biology ITE students.

Develops pedagogy and relationships

Summary

Isolation from the Professional Education program

- Developed *sense of belonging* through seminars and contact with Professional Education students
- Increased seminars from 2 to 4 each academic year
- Students currently on Professional Program support seminars
- Scientific challenges where they have to design or solve scientific problems with students from Professional Education program

Anxiety about teaching practice

- Peer led seminars focus on developing practical skills for Science teaching
- Seminars take place in the Biology lab
- Seminars link Pedagogy to Teaching Practice
- Professional Education students share their experience of microteaching and teaching placements

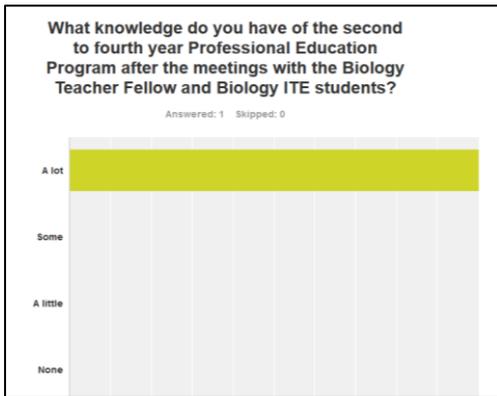
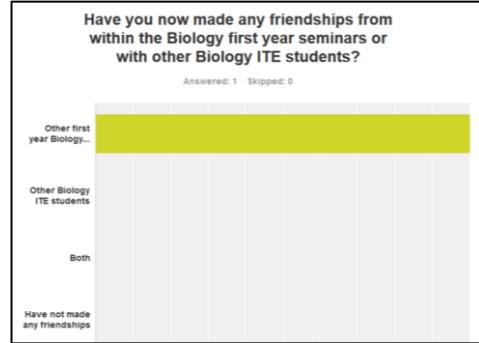
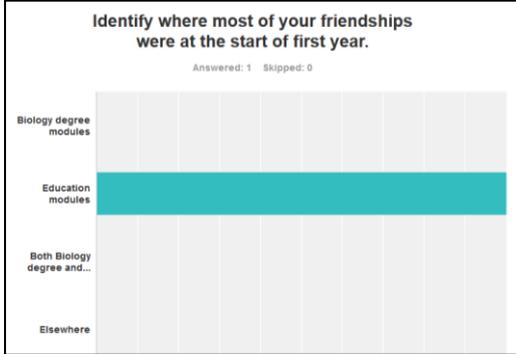
Lack of knowledge about progression pathway

- Professional Education students from all years share their experience of how the First Year Education Program fits with the Second year Professional Program and beyond
- Currently generating a Biology Transition Handbook

Developing links with other Biology Education students

- Increasing the number of seminars, has allowed the development of an awareness of other Biology Education students in the first year
- Students deliver group presentations and take part in group experimental work
- Students are encouraged to meet in the physical and virtual world (setting up a Facebook page)
- Students have developed support links for essay writing

RECENT INFORMAL SURVEY
PRESENT FIRST YEAR 2015-6



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