

# A Transition Strategy for Ensuring Student Success in First Year Physics

Maria B., Parappilly, Jamie S., Quinton, Gunther G., Andersson  
School of Chemical and Physical Sciences, Flinders University, Australia

## Abstract

*Starting university can be quite an emotional time in a student's life. It is a new adventure, and is usually accompanied by mixed feelings of excitement, expectation and much apprehension. In this paper we report on an activity day to support 1<sup>st</sup> year physics student transition at Flinders University. Essentially, the key focus is to maximise each students' initial engagement with 1<sup>st</sup> year Physics by creating an environment for them to enjoy thinking about Physics in a positive, supportive, social setting, and thus significantly reduce any anxiety during their first week of 1<sup>st</sup> year university. In this paper we present our approach to this challenge and the measurable outcomes we have achieved so far. For the academic year 2011, we have conducted a survey on the transition day and week 4 of the first semester to measure the influence of such an event upon student confidence.*

## Summary

**Background/context:** We have noticed over several years that irrespective of their background, some students noticeably struggle in their first year because they isolate themselves from the student cohort and have a distinct lack of social interaction. Published literature emphasises that students will be more successful, if they feel that they are part of their discipline. The key findings of the (Krause, Hartley, James, & McInnis) study (2005)<sup>1</sup> on the Australian higher education system supports this. *Method/Outcomes:* A transition day was also included in to the schedule the Faculty ran earlier in the University's Orientation Week. This day, aimed at introducing Physics1 students to each other and the academic staff they will encounter during semester. It is conducted through three group based activities involving competitions-building bridges and gliders from balsa, and a Physics (trivia) General Knowledge Quiz. The day affords an opportunity for all to network, socialise and share learning experiences. A key outcome is that the extent of student engagement and formation of study groups has substantially increased in comparison with prior years. The transition day activity boosts the overall student experience and is reflected in the end of semester grade distribution which demonstrates an improvement in student performance. Additionally, in 2011 we have administered surveys to gauge both student experiences and confidence in achieving a successful completion of Physics 1A and any dependence against attendance at the Transition Day activity elucidated. Our data indicate that participation in the transition day activity results in students who are more confident with approaching teaching staff, and in particular their peers, if they have perceived need for assistance. In addition, their own perception of how well they are coping is enhanced.

---

<sup>1</sup> Krause, K., Hartley, R., James, R., & McInnis, C. (2005). *The First Year Experience in Australian Universities: Findings from a Decade of National Studies*: Canberra: Australian Department of Education, Science and Training (pp. 31-48).