Evaluation of a pre-university program for senior secondary students making career choices: Implications for program design and university promotional activities

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Abstract

This research evaluated an innovative pre-university program designed to assist senior secondary students interested in early childhood decide on their career choices. Pre- and post-surveys completed by the 19 participants determined first the content and experiences to be included in the program and then the extent to which the program met participants' needs and expectations. On campus lectures for 1 hour per week over 5 weeks were complemented by 2 practical sessions at relevant educational sites in weeks 2 and 4. The findings have implications for the design of these types of programs and for promotional activities of universities servicing rural and regional Australia.

Context

In the present political climate in Australia of economic rationalism, privatisation and deregulation, it has become increasingly important for universities to attract as many students as possible. This imperative directly aligns with the amount of funding that universities receive from the Australian government and the students themselves. With university funding dependent on students choosing tertiary education, and then completing their programs, it would seem important that prospective students have adequate information on which to base their life choices. Drop out rates are high in many institutions and this is a large expense to all concerned.

As James (2001) pointed out, the need for students to be adequately informed about relevant programs and how these programs prepare candidates for future career paths, is vitally important for both prospective students and universities. Well-informed students are more likely to apply themselves to their chosen programs and progress to their professions or post-graduate studies. Consequently, the universities are more likely to maintain their funding and cap high attrition rates.

While traditional methods of information dissemination have their place, pamphlets, university career days, and information evenings do not seem to be particularly relevant for students from rural and regional areas, where those students may be the first in their family to contemplate university (Rhoden & Feldtmann, 2002). It seems then that it may be time that universities re-think the way that they promote themselves and become more client centered in their approach to the dissemination of information.

The purpose of this study was to evaluate an innovative pre-university program designed to assist senior secondary students interested in early childhood to decide on their career choices. The design allowed for students to have direct impact on the content and structure of the program and also to make further suggestions for the design and implementation of future programs.

The desired outcome was for students to feel more confident in making informed decisions about whether this path was the one they wanted to pursue and one in which they felt capable of finding success and job satisfaction. There would also be additional benefits for universities. Potentially, more students would be drawn to attending university, with the hope that they support their local campus and, in addition, would be successful in their chosen university programs. This would also have positive impacts on attrition rates and nationally the cost benefits could be substantial.

A secondary consideration of becoming involved in developing a pre-university program was to showcase what was available at a small regional campus. This pre-university program could, in fact, amount to a good marketing tool for the University. It is becoming increasingly evident in many professions that once students move from regional areas to metropolitan universities, they are unlikely to return, thus leaving regional centres barren of many professional services (Cooper & Hatton, 2003).

Highlighting the faculties and facilities available should only enhance the reputation and standing of the university in a regional/rural centre where the local community is relatively naïve to the advances of universities within these centres. Conversely, by providing the appropriate standard of program in a supportive setting at a regional university one could anticipate stemming the drain of professionals away from regional/rural areas if these types of programs were successful and became more wide- spread.

The evaluation of the pre-university program focused on the extent to which participants perceived that the program met their needs and expectations and ways in which the program could be improved. The evaluation, therefore, had three main research questions:

1. In what ways and to what extent did participants in the program perceive that they became more informed about issues around early childhood and early childhood studies at university?
2. To what extent did the pre-university program help students identify personal/professional characteristics required of early childhood professionals in the field?
3. What suggestions did participants have for improving the program?

What the research says
One of the most seminal papers relating to the decision-making processes that prospective university students employ in making choices about future studies is a report reviewing and synthesising research undertaken in New Zealand and elsewhere. The review was commissioned by the New Zealand Ministry of Education in 2004, and completed by Linda Leach and Nick Zepke from the Massey University College of Education in 2005. The authors outlined their approach and claimed that their review was systematic. The processes and the limitations of the work are transparent.

While this in not the place to debate the efficacy of the processes used to select the 57 out of 90 identified studies for in depth analysis, several points are worth making before proceeding.

Summaries of each of the papers included in the review were provided in the report, enabling readers to make their own decisions regarding the findings as they were drawn from the literature. Selection was made on the basis that studies had a focus on student decision-making and were either empirical studies or reviews of literature featuring the four themes: decisions (as a process), factors influencing decisions, information available to prospective students and diversity of students making decisions. It is possible that future researchers will take exception to the criteria used to select or exclude studies and a debate may develop around the methodology as opposed to the substantive conclusions. In defence of the methodology and choice of studies, it is noted that Leach and Zepke included in their report a very useful matrix listing studies conducted in the USA, UK, Australia, New Zealand and other countries (Japan and Canada) relevant to each theme. Readers with some knowledge around the area may note the inclusion of key authors in the field. Australia, for example, includes Brennan and Marriott; James, Baldwin and McInnis; and Whiteley and Neil among others. An initial scan, therefore, suggests confidence that the authors have cited the work of leading researchers in the field.

Given the recency of this review and factors that provide some confidence in its execution, as well as the focus of the study reported in this paper, the remaining theoretical discussion will focus on relevant aspects of three themes identified by and followed through by Leach and Zepke (2005). The themes for the purposes of this paper are decision-making, factors influencing decision-making and information available to prospective students.

Decision-making
Three findings emerged in relation to decision-making from the Leach and Zepke (2005) review. These findings point to the complexity of decision-making, the existence of models of decision-making and the fact that students begin making their decisions about higher education studies well before they reach Year 11.

One of the points made in the review that supports the conclusion that decision-making is such a complex process, is the unexpected disparity in results among studies that might otherwise expect to deliver similar findings. The reviewers note, however, that the differences in the findings are accompanied by disparity in areas such as data-gathering instruments (notably not so much the techniques) and analysis. Even so, if the findings had been more complementary, despite the differences in methods, the complexity of the decision-making process may not have been as well appreciated.

Leach and Zepke's review of the literature supports the proposition that the decision-making process can be represented in models whose logic can be sustained. In particular, a three-stage model for decision-making was identified through examination of the literature. Leach and Zepke tested the three stages against the four themes that they presented earlier in the report. They identified the three stages of decision-making as predisposition, search and choice. The elements of the second theme are factors that relate to decision-making, and include predisposition factors,

search factors and choice factors. The third theme, information, identifies information around predisposition, search and choice that inform decisions, while the fourth theme, diversity, looks at how variables related to diversity impact on predisposition, search and choice. The logic and relevance of this model to the analysis of the ways that senior secondary students make study and career choices is clear. For the purposes of this research, however, the main emphasis is on information and the ways that students gain information about further study and careers, particularly in relation to how universities communicate that information to prospective students.

Several points of interest emerged from the Leach and Zepke (2005) review in relation to the finding that the decision-making process starts very early. While the results of individual studies vary slightly in different contexts, Australian studies report that students begin to make choices about future career and subject interests at least as early as year 7. The review also notes that early decisions can sometimes be unstable. Given that the students in the present study were in year 11 and 12, those who had already made the decision to pursue a career in early childhood education were more likely to be interested in finding out more about their career choices and study options. For students whose choice of an early childhood career may not be the best one for them a pre-university program such as the present one may be helpful in addressing misconceptions that could have lead them into a career to which they were not suited.

Another major review, published just 2 years before the Leach and Zepke report, came out of the UK and was produced by Payne (2003) for the Department of Skills. Payne cited a dearth of longitudinal studies in the area as being the reason why conclusive evidence around decision-making processes used by 16 year olds was not available. Payne's implications for research section of her report points to several reasons why this argument could be contested. For example, the argument that the findings from several large-scale cross-sectional studies are limited in value because they use self-completion surveys administered to whole classes of students is debatable. It could be argued in broad terms that large-scale cross-sectional studies can be just as informative as longitudinal research, subject to robustness of design, because they have the capability to identify patterns in the results that can be investigated further. Payne also pointed out that there have been many small-scale, qualitative studies in the area but maintained that their usefulness was also limited because they needed to be tested for generality. This argument is almost self-contradictory because the number of these studies makes their individual results, when combined, more substantial. The Leach and Zepke (2005) report for reasons explained earlier, could be considered more definitive.

Factors influencing decision-making
Leach and Zepke (2005), in their report of empirical studies and reviews of literature identified a number of factors influencing decision-making by prospective tertiary students. These were socio-economic status (SES), parents, academic performance, subject area interest, cost and financial support and schools. On balance, SES emerged the most influential. James (1999) pointed to the importance of making disadvantaged students aware of how relevant and beneficial higher education could be to their futures. James suggested a range of approaches be used to address the lower participation rates of rural and isolated students in higher education in Australia, noting that previous strategies had not been successful in redressing the imbalance.

His point that "the present gaps cannot be narrowed without a thorough reconceptualisation of the problem, renewed commitment, and fresh strategies" (p. 6) was taken into consideration in planning the pre-university program that is the subject of the present study.

Information available to prospective students

Family experiences of tertiary education were identified in the Leach and Zepke (2005) report as informing student decisions around career and study choices, as was information sharing between students, families, schools and tertiary institutions. The most effective information, however, is interpersonal, while large-scale campaigns across the media and internet have less influence on student decision-making. The importance of having reliable and relevant information on which to base career and study choices was highlighted by the conclusion that getting the choice wrong was a major contributing factor in non-completions for 974 UK students (Yorke, 2000).

Drawing on the findings and implications of Yorke's study, the pre-university program evaluated in this paper aimed to help students clarify whether their choice of career in early childhood education was the right one for them and help students find out about the university program that would lead them to that career. The pre-university program, however, went further than Yorke suggested. Instead of just visiting the campus or finding out details from someone who had experienced the program, students who participated in the pre-university program had first-hand experience in on-campus classes designed especially for them, and combined this with planned visits to early childhood settings where they could interact with teachers on the job.

The next section of this paper provides an overview of the lectures and visits to early childhood sites that comprised the program. More detail about the first and final lectures is given in the methods section because it was during those sessions that the pre- and post-surveys were conducted.

Overview of the pre-university program

The program consisted of 5 x 1 hour lectures that were designed with the support of information gained from the pre-program survey completed by the participants at the first lecture. The students also visited 2 state pre-school centres where it was intended that they would gain valuable information from practitioners working in the field.

Lecture 1

The first lecture introduced the students to the lecturer and to each other and provided information about the faculty and the campus as part of the university. The students were taken on a tour of the campus. Information was also given about the teaching degree and career opportunities associated with the degree. Activities that enabled the students to connect their own experiences of learning with the content of the course were conducted. The students were introduced to the topic of what makes a good teacher, directed to readings that could be accessed during the week and given details about optional portfolio assessment. Handouts included the pre-survey form, description of the optional assessment item, instructions for activities and a reflection sheet that guided the last part of the discussions.

The students were organised into groups of 4 or 5 and were assigned a pre-school setting to visit and engage with the teachers and children. They were given some focus questions to help them in their observations. The lecturer prepared students by discussing with them the aims of the visits and the overall program offered at each site.

Site visit 1

During the pre-school visits, students were asked to go into a new educational setting and establish relationships with early childhood teachers. The teachers at the sites were very willing to share their skills and knowledge and allowed the students to make observations and participate.

Lecture 2

The second lecture followed on from the visits later in the same week. Group discussions focused on the observations and experiences associated with the visits to the early childhood settings. Students were encouraged to ask questions arising from the visits and the lecturer also addressed issues that came from responses to the pre-program survey.

Other parts of the second lecture looked at the role of the early childhood professional and the 5 key components of the early childhood curriculum. The early childhood educator's role and the place of play in the curriculum were emphasised, partly through the use of a video on play.

Lecture 3

The 5 key components of the early childhood curriculum were explored further by identifying the components in a video relating to cheche and kindergartens. Students considered the concept of flexible learning environments and then the types of learning environments that worked for them, prior to looking at the importance of the learning environment for young children. The students were prepared for their second site visit.

Site visit 2

The students went to an early childhood centre for this visit. They were again encouraged to make observations and participate in the activities that were occurring at the time.

Lecture 4

The students reflected in groups on their visit to the early childhood centre and raised questions and issues that were then discussed with the whole group. The purpose of the lecture was to increase students' understanding of early childhood education and studies in early childhood at the university and to dispel some misconceptions in students' understanding. Video footage of teachers talking with parents was used to

emphasise the importance of partnerships and the role of communication, feedback, respect, relationships and leadership in partnerships. The message that early childhood teaching requires more than just a love of children was given and the role of parents, carers, school administrative staff and the wider community was discussed.

Lecture 5

The purpose of the final lecture was to recall and review the learning experiences covered during the previous lectures and site visits. The students were guided to complete activities that reconstructed what they had done over the previous weeks and this formed the basis for their responses to the post-program survey.

Methods
Nineteen year 11 and 12 students enrolled at three local high schools were invited to participate in the pre-university program because of their interest in early childhood studies. At the first of the 5, one-hour weekly lectures, the participants, who were all female, completed a survey intended to determine the content and experiences to be included in the 4 lectures and two visits to early childhood settings that constituted the remainder of the program. The aims of the survey were first to ascertain participants' prior knowledge around early childhood and early childhood settings, second to identify the reasons why participants were interested in an early childhood career and third, to determine participants' expectations of the program. The expectations related particularly to whether participants wanted to find out about early childhood as a study option and career choice or whether they wanted to find out about university study more generally.

The post-program survey was completed by students in the final lecture and integrated into the activities undertaken at that session. Data from this survey was the source of information for answering the research questions.

Pre-program survey
Individually written responses to 5 open-ended questions provided the data for the pre-program survey. Students were asked what they knew about early childhood education, what educational settings were regarded as early childhood, why they chose to participate in the pre-university program, why they wanted to be early childhood educators, why they thought that they would be good at the job and what they wanted to learn from the program. The responses were collated and the information used to inform the content of the remainder of the lectures.

The responses to the first part of the pre-program survey indicated that misconceptions around early childhood and early childhood settings were common and that there was a need to clarify some basic issues. Only 10 respondents knew, for example, that early childhood teaching involved children from 0 to 8 years and none was able to state correctly the full range of settings considered to be early childhood.

Seventeen respondents cited liking or loving young children as a reason for being interested in an early childhood career or for thinking that they would make a good teacher, while 5 indicated that their prior experiences would dispose them to doing the job well. Only 6 respondents cited other personal qualities in their responses. There

was a clear need for students to have a better understanding of the qualities required for early childhood educators.

Most respondents wanted to find out about early childhood studies or about both early childhood studies and university study more generally. Just one respondent was interested only in finding out about university overall. This is not surprising, given that the students were invited to participate in the program because they had expressed an interest in studying early childhood at university. While the program needed to address issues around early childhood studies and university study more generally, the main emphasis for such a short program needed to be in the early childhood area.

Post-program survey
The first purpose of the post-program survey was to determine the ways and extent to which participants perceived that they became more informed about issues around early childhood and early childhood studies at university. The second purpose of the post-program survey was to determine the extent to which the pre-university program helped participants to identify personal/professional characteristics required of early childhood professionals in the field. The third purpose of the survey was to find out from participants how they thought that the program could be improved.

In order for participants to be able to indicate what they had learned and to what extent they had become more informed through their participation in the pre-university program, they needed to be able to recall their experiences in the lectures and site visits. The students, working in randomised groups, collectively recalled and recorded their experiences and the concepts that they had explored in the lectures, site visits and optional portfolio assessment. In this way, the researcher collecting the data was able to be one step removed from the process, as it was important for the students to be presenting their own perceptions.

The second part of the data collection in the final lecture involved the participants individually ranking the lecture, site and assessment activities on a 3-point scale (very beneficial, beneficial or least beneficial) in terms of helping them gain knowledge around early childhood education issues and early childhood as a career option. The participants then provided individually written responses to the evaluation items.

Results
The first two research questions related to the effectiveness of the pre-university program as perceived by the participants, particularly in relation to the ways in which and the extent to which the program made them more informed about issues around early childhood and early childhood studies at the university. The third research question focused on ways in which the participants thought that the program could be improved.

The results were analysed according to the different parts of the pre-university program, as a combined total analysis could obscure any variation regarding effectiveness. Some of the students who participated in the first four lectures and the two site visits were unable to attend the final lecture because of other school-related commitments. The 12 participants who attended the final lecture took part in the evaluation.

The responses to the question asking participants about the extent to which the program answered their questions about early childhood and the role of the early childhood educator, clearly indicate that the program was successful in that regard, although the lectures and site visits were far more effective than the optional portfolio assessment. Nine of the 12 participants who responded to the survey rated the lectures as very beneficial and 2 respondents rated the lectures as beneficial. All respondents rated the site visits as being very beneficial for clarifying their knowledge. Only 3 rated the optional portfolio assessment as very beneficial, 6 rated it as beneficial, 2 as least beneficial and 1 respondent to the survey recorded a nil response for the portfolio work.

The respondents felt that they would have benefited by spending more time pursuing their early childhood interest and finding out more information about the university, its programs and life at university. Time constraints meant that discussion around these points was limited in the program. Conversely, the site visits were considered to have been very informative with regard to career choices and, in particular, gave them a better understanding of young children. While the program could have been more informative about the details of university study it was, however, very beneficial in helping the students to clarify and their career goals, with future study options tied to those goals.

The suggestions for improving the program came as a logical extension to the responses of the earlier questions. The timing of the program in the academic year was mentioned as a constraint. As students were so busy with other assessments at school, only a minority found the time to complete the optional portfolio assessment, even though most recognised the value of that type of assessment. There was general agreement that the program would be better placed earlier in the year and the suggestion was made that the portfolio work would then have been more manageable. Students would have liked the portfolio work to count towards assessment at school, as they had seen this occur in pre-university courses in other discipline areas. One student even commented that she found the portfolio work more interesting than the assessment for other subjects at school.

Overall, it was clear that, while the students were able to suggest improvements for the pre-university program, the program was very worthwhile in terms of clarifying their understanding about issues surrounding early childhood and even attending to some misconceptions or narrow appreciation of the field. Previously, students had focused on the role of the early childhood educator in dealing with young children when, in fact, this is only part of the work of a person working in the field. Observations of teachers at work and follow up discussion and reflection at the lectures highlighted the importance of multiple partnerships in the education of young children.

Conclusion and implications
The findings of this study indicate that pre-university programs such as the one that was the subject of this study have the potential to be of considerable benefit to participants in terms of clarifying their career goals and future study aspirations. Australian universities, particularly those in regional centres, might benefit by approaching recruitment and retention of students proactively and supporting this type of program delivery both financially and in kind. As Yorke (2000) noted,

inappropriate program choice accounts for a large proportion of degree non-completions. This pre-university program provided an opportunity to promote university studies in early childhood education and the campus, while also highlighting the commitment required of potential students. As a result of their participation in the program, students were able to make decisions that were more likely to lead to longstanding and rewarding involvement with the university and their potential careers.

It is also known that regional students who accept places in universities in capital cities are likely not to return to contribute professionally to the region from which they came. Completion rates and retention could possibly also be improved if all faculties ran pre-university programs that are innovative and responsive to the needs of students who require clarification about their career and study options. James' (2001) identification of elements that benefit the promotion of university programs included a strong educative component and an authentic representation of the roles and responsibilities of all stakeholders. These components are evident in this particular pre-university program. Clearly, then, the findings of studies such as this one have implications for prospective students as well as for the sustainability of regional Australia and the universities in those regions.

According to James (2000), the physical appearance of the campus buildings and grounds are also important to many university applicants, as it is perhaps the one impression that they gain by visits to campus. One of the benefits of delivering the pre-university program that was the subject of this study, was that participants were able to appreciate first-hand the value of a well-equipped local campus. The positive impact on the economy of the regional city, the sustainability of a small regional campus and the quality of life for a student able to study and work while staying at home should not be underestimated but is dependent on potential students knowing what is available locally.

Since the completion of this study it has recently been found that, of the 19 participants in the program, 9 went on to enroll at the local campus. It is pleasing to note that 4 of these students completed a Bachelor of Learning Management (Early Childhood) and 4 completed a Bachelor of Learning Management (Primary). All 8 have been employed subsequently in their chosen field. These figures not only indicate that the program was of benefit to these students but to the local regional campus and the local community where, it is hoped, these former students will continue to make a professional contribution.

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