

Explore your future: A career exploration and mentoring program for primary-school students

A case study of best-practice career development learning for students from low socioeconomic status backgrounds

Australian Catholic University: Nicola Cull Ryan Collins



Research Grant Project Team: Kylie Austin, Sarah O'Shea, Olivia Groves, Jodi Lamanna

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This document has been written by the core project team led by Kylie Austin and including Sarah O'Shea, Olivia Groves and Jodi Lamanna.

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A case study of best practice CDL for students from low SES backgrounds

Introduction

The "Explore your future" pilot program was created according to Best-Practice Principles for career development learning (CDL) for students from low SES backgrounds, with the aim of addressing issues in career education provision identified in the project Higher-education career advice for students from low SES backgrounds. Specifically, the program sought to address the need for collaborative, multi-stakeholder partnerships between universities, schools and other career-related stakeholder groups to increase access to CDL and value all career pathways and fields of study. To this end, Australian Catholic University (ACU) in partnership with teachers from local schools, designed, implemented and evaluated a primary-school career education program titled Explore Your Future. In this program ACU partnered with a primary school in a low SES area to present CDL that was tailored to the needs of the students in years 5 and 6. As part of the program, students travelled to an ACU campus to partake in activities which were supported by ACU student ambassadors.

Background

Context

ACU is led by its mission and values. Within the Catholic intellectual tradition and acting in Truth and Love, ACU is committed to the pursuit of knowledge, the dignity of the human person and the common good. ACU's core values are Truth, Academic Excellence and Service. Beyond these core values, other important values including equity and diversity

allow ACU to take its mission further and represent who we are as a community. Equity, which is borne out of ACU's mission as a Catholic university is critical to how ACU lives out its mission and so is foundational in planning across all the University. ACU works closely with communities to improve access, participation and attainment rates of people from underrepresented backgrounds in higher education. These groups include students from low socio-economic backgrounds, students living in regional and remote areas, and Aboriginal and Torres Strait Islander students.

Each year, the Equity Pathways Unit at ACU partners with primary schools in low SES communities to facilitate and evaluate ACU's widening participation "Explore Your Future" Program. In 2021, the equity pathways team, in collaboration with a partner primary school, drew on best practice principles for CDL for students from low SES backgrounds to design, implement and evaluate an "Explore Your Future (EYF)" program for year six students.

Program aims

A teacher from the participating primary school, the Equity Pathways team and university students co-designed and implemented a program with the aim of expanding the responsibility and practice of CDL beyond that of the year teacher and the school. The EYF program drew on best practice principles (BPP) for early commencement of career development in students' educational life. The program was designed to suit the school community context and students' year level (year six). The program aimed to embed career exploration in the school through a university student mentoring (peer-to-peer) approach. The EYF intervention aimed to:

- enable career exploration to commence early in the educational lifecycle and to become embedded in the school culture;
- position higher education institutions as having a role in providing career development learning; and
- train university students as mentors to support them in developing career exploration
 activities thereby further developing competencies such as collaboration, critical
 thinking and creativity whilst engaging with local communities.

Program delivery

The EYF day took place on an ACU campus with 24 year-six primary school students, one teacher, two teacher assistants and six university students as mentors. The primary school students experienced university through interactive and hands-on faculty based CDL activities while engaging with ACU staff and university student mentors in a variety of higher-education settings, including a teaching nursing simulation classroom. Throughout the day, the primary school students undertook five hands-on "future thinking" activities exploring careers and higher education (see Table 1). The university student mentors facilitated the activities and acted as mentors and guides to the primary school students throughout the day.

The aims of the EYF program were:

- elicitation of thought and discussion with peers and student mentors about selfperception, abilities and interests.
- exploration of occupations and careers through hands-on activities.
- development of clarity and congruence between self-perception and occupationally relevant skills, capabilities, and interests.

Table 1: EYF program of activities

Program	
Welcome, Introductions and Campus Tour	Student participants explored the nursing simulation suite with guided small group workshops led by a lab technician. Student participants got up close to see the lab equipment in action while discussing unique learning spaces and university study with a current nursing university student.
"All About Me"	Students reflected on their interests, personality, and character traits. Students worked alongside university student mentors to identify personality traits (at this moment in time). Student participants and mentors then worked together to build links between interests and careers of the future.
Careers exploration and future thinking activities: Five small group rotations with University Student Mentors	Nursing: Glitterbug powder – germs in action activity University student mentors facilitated discussion about career exploration and their chosen area of study
	2. Exercise Science: Grip strength activity University student mentors facilitated discussion about career exploration and their chosen area of study
	3. Commerce: "What does my country need?" Needs vs Wants activity University student mentors facilitated discussion about career exploration and their chosen area of study
	4. Paramedicine: CPR and bandaging/splints activity University student mentors facilitated discussion about career exploration and their chosen area of study

	5. Careers Bullseye: Exploration of the Careers Bullseye displays. Students link "all about me activity" to careers they can see on display. Which careers have they never heard of? Which are they interested in? Which require a university degree? University student mentors facilitated discussion about career exploration
Reflection and	
Evaluation	

The program was implemented in May 2021, with COVID-19 safety measures in place, including sign in and out to each space on the campus visited, strong hygiene practices and appropriate physical distancing measures.

Research methods

Evaluation of the EYF program took place to gain understandings about its potential as an effective activity for the provision of CDL to primary-school students. A qualitative approach was chosen to allow the collection of rich data from the participants. Qualitative data collection included:

- group interviews (n=2) with primary school student participants (n=11);
- group interview (n = 1) with university student mentor participants (n=4); and
- a semi-structured interview with the teacher participant; and
- a semi-structured interview with the teacher responsible for the co-design of the program

The university student mentor and participating teacher interviews sought to elicit participants' views on the effect EYF had on primary-school students' thinking and decision-making processes with respect to careers.

The group interviews with the participating primary-school students sought to elicit the extent of their engagement in the activity, their growth in understanding of careers and higher education, and any changes in their educational goals/intentions as a result. The group interviews had no more than six participants in each group, as research suggests that this is optimum when interviewing children (Kutrovátz, 2017; Lewis, 1992). Group interviews assist in diluting the power dynamics inherent in adult child interactions (Kutrovátz, 2017; Lewis, 1992). Participants were asked a series of open-ended questions and power relations were also manipulated by allowing the child participants to respond via drawing, writing, or speaking into an audio recorder. By allowing the child to have primary interaction with a piece of paper or an inanimate object, the adult/child power dynamic is tempered (Feinstein

& O'Kane, 2008; Gallagher, 2012). The group interviews were recorded and transcribed, and drawings and writings were collected.

The following table (2) details the participants in each stage of data collection.

Table 2: Participants engaged in data collection

	Semi Structured Interview	Focus Group
Teacher participants	1	
Design and program staff	1	
Year 6 Primary School Student Participants		5+6=11
University Student Mentors		4

Findings

The evaluation of this CDL intervention is presented in three sections:

- Program outcomes and impact.
- Assessment of program delivery.
- Opportunities and implications.

Program outcomes and impact

Two key impacts in the EYF program were: students' increased engagement and interest in higher education, and the addressing of gender stereotypes.

Engagement

Firstly, evidence of engaged students who were interested in higher education was found in comments from ambassadors, students and teacher. One student ambassador said:

I like the group activities where I asked them at the end what did you learn and they were like oh, we learned this and this, so that was useful, ... and they were like yeah we learned something new (P4, student ambassador).

Another student ambassador from the EYF program commented:

even to just have that thought in their mind at a young age, ... I don't know if it was something they had considered before, but probably not and so the thought is like in the back of their mind (P2, student ambassador).

Similarly, a primary school student said, "I liked the nurse visit" (P3, primary school group 2 interview), and the teacher Michael said, "I think it will have a profound effect on each of the students" (Michael, teacher). The combined evidence from student ambassadors, students and teacher showed that the program was successful because it engaged students in thinking about and experiencing higher education and careers.

Challenging stereotypes

The second impact of the program was its success in addressing and challenging of gender stereotypes. Michael (teacher), from the urban low SES school, identified that the students needed role models to help them envision possibilities for their future careers beyond what they saw in their local community. After her planning work with the school, Serena (university outreach practitioner) observed that the school and the contact teacher there, Michael, had:

a real awareness around gender equity...[Michael] said at his school there's many mums who stay at home, so he was particularly conscious that he wanted the girls in the class to understand that they have many options and you know, expose them to a range of careers (Serena, university outreach practitioner).

As a result, the program was designed with elements which would challenge career stereotypes and gender disparity. One student ambassador acknowledged this by saying:

Activities like these will open their minds and then they can think of maybe I like this subject, they discover they like this subject so maybe I need to work harder towards that area (P4, student ambassador).

One method of addressing stereotypes and gender disparity was through the selection of the university student ambassadors:

There was a need to have an even gender spread amongst the ambassadors who worked with the students, just to show them, for example, breaking down stereotypes like, you know, nursing is only for women, so we wanted to break down those stereotypes for our students (Michael, teacher).

In addition, students were exposed to a range of careers that broadened their knowledge and understandings from what was known in the home and community. Serena (university outreach practitioner) observed that primary-school aged children can "put themselves in a box" regarding their future career choices based on the careers they have been exposed to,

and what they think they can and cannot do. Michael (teacher) had seen the need within the school for students to be exposed to a wider range of educational and career choices than the students' parents had access to, thus ensuring new aspirations and future career trajectories.

Assessment of program delivery

The program delivery was assessed through multiple sources, including the partnership team of ACU and the school, school students, ACU student ambassadors, and the core research team for the *HE careers advice for students from low SES backgrounds* project. The assessment focused on the success of the partnership, hands-on activities, and the role of student ambassadors.

Partnerships

The partnership between ACU and the school was based on collaboration and mutual respect regarding each other's areas of expertise. For example, Serena explained that:

Michael was telling us about what he'd also like to bring into this program in future (Serena, ACU)

ACU acknowledged that Michael was the expert regarding the school students and the school community and as such had contextualised knowledge of what the needs of the students were.

Best practice principle 10 – clearly defined partnership practices – was evident throughout the program. Michael (teacher) said that "we've had a relationship with ACU for the past six years now" in various programs, and during that time a positive partnership had developed. For the EYF program at the school, Michael, (teacher) described how the partnership worked:

[the ACU team] came with a broad outline of how they thought the day could operate ... From that, we discussed how suitable that would be for the students at [LOW SES school]. (Michael, teacher)

The partnership was based on the needs of the students, not the agenda of the partners.

Hands-on activities

Michael (teacher) acknowledged that the hands-on method of learning was suitable to the students at his school:

I think it's a brilliant way to have students physically going to the space and seeing what it looks like when they are engaging in higher education ... I think that was a brilliant, brilliant opportunity for our kids (Michael, teacher).

The enthusiasm for the student learning outcomes was evident in Michael's comments, with repetition on the word "brilliant" to describe the opportunities for learning and career engagement for the students involved.

Michael (teacher) had noted that many of the students were "kinaesthetic learners...they like to feel" and a primary school student – part of the EYF program – confirmed that the hands-on component was important to them: "I liked getting involved and not just listening" (P5, primary group 1 interview).

Students suggested that they would also like to explore "more about the university" (P3, primary group 1 interview), and have "more time to do like all the activities" (P1, primary group 1 interview). The interviewer acknowledged that "we are putting a lot in a short time" (Interviewer, primary group 1 interview). Due to the limits of the time within the day on campus, students were exposed to a high number of activities, rather than go in-depth on a small number. Some of the activities included nursing where students were able to do the "CPR activity with the dummy" (P4, primary group 2 interview) and exercise science where "you could work on a bicycle and power a tv and a light bulb" (P3, primary group 2 interview). One student said, "we looked at the nursing which was pretty cool and, a lot like we also had these activities too which was great…and the germ pot which was cool" (P1, primary group 2 interview). Another student enjoyed the practical element and was able to articulate the procedure used in the nursing station and its application to real-life and science:

Student (P4): We got to press on its chest to help it breathe and um we used a splint, we got to pump it and it went hard like cement, and we also learned to always wash your hands.

Interviewer: Why was that?

Student (P4): There are all these germs and if you touch someone else you get to pass on germs and be sick (P4, primary group 2 interview).

By having hands-on activities, students were able to translate learning into real-life situations and link them to careers.

Ambassadors

The role of student ambassadors was important for the success of the EYF program as student ambassadors were role models and mentors to the primary school children. The student ambassadors were current students at ACU and supported the EYF program. Lived experience of higher education was important to the success of the program as student ambassadors were able to translate their experience to the primary school students. A student ambassador spoke about their role and said:

We tell them this is how we came and these are our degrees, we are all very different people but we have all come to this place to study, so like it makes them think that they can do this as well (P2, student ambassador).

Another student ambassador illustrated how important it was to have a diverse range of student ambassadors to show that anyone can go to university:

I was explaining, you don't have to be smart to go to uni, you just have to be like working towards what you want to do (P1, student ambassador).

By having a diverse range of student ambassadors, primary school students can see the possibilities for themselves in regard to careers and education.

Opportunities and implications

Given the effectiveness of the EYF program, there are some key points that students and stakeholders have suggested that could further develop the program. These include more embedding CDL into the curriculum in the early years; promoting self-awareness in students; further aligning the program with the culture of the students and find ways to involve families.

An opportunity for the EYF program is to embed the program earlier in the school curriculum. Michael (teacher) recognised that starting the CDL program earlier would be beneficial for students:

we had some discussions around kindergarten going and I think this idea of you know what kind of trajectory you want for your life has to really begin at a young age, perhaps even prior to school.

Starting CDL from the beginning of school – or earlier – creates opportunities for appropriately-designed activities to engage students in their learning and to see how it aligns with future careers. In a similar way, student ambassadors from the EYF program saw the need for the program to start at a younger age "so they start thinking about it in like year 3 and 4 Kindy ... and slowly puts the idea in their head" (P1, student ambassador). Another ambassador elaborated on this by saying:

Yeah and maybe more than just nurse, doctor, firefighter you know those ones like paramedicine, exercise science, accounting (P3, student ambassador).

The idea of gradual learning about careers allows the CDL curriculum to grow alongside student learning and development in an age-appropriate manner. By starting early, and having a consistent, long-term approach, students have the best opportunity to explore careers in a way that is contextualised and age appropriate.

In addition to embedding CDL into the curriculum at an early age, a second opportunity for the EYF program is to help students develop self-awareness as part of the long-term approach to CDL. This was already evident in the EYF program where students were guided in an activity that helped them to discover their personality types. A student ambassador said:

I would definitely include the personality activity, maybe increase one more activity that is related to that area ... because the adjectives we had don't put the light on it until you said it and then once you connect them all together and then they think oh this is my personality and yeah I like nursing – so a student I had her personality was nursing so she was like yeah I like nursing and she was so excited she got the paper and was like can I take this... (P4, student ambassador)

The excitement of the student on discovering their personality type was palpable, and the intrinsic link to career was invaluable to the student. By developing this activity further, more students may come to see the practical application to careers through a growing self-awareness.

A third opportunity for the EYF program is to explicitly link CDL to the culture of the students who attend the program. This corresponds with the idea of contextualising CDL and the benefits are that it makes it more accessible and applicable to the students. Within the primary school focus groups, culture was an important facet of their lives and they

appreciated it when it was part of the school curriculum. For example, three students (P1, P3, P4, primary group 2 interview) spoke with enthusiasm about NAIDOC Day at their school and included drawings that facilitated conversation with the interviewer. Similarly, involving familiar people in the curriculum and CDL brought a sense of connection and validity for the students. One student spoke about learning about culture with her friend's Auntie:

she was telling me that no matter where you are you still get to learn your culture and are still connected (P3, primary group 1 interview).

The idea of connectedness and culture was important for this student, "no matter where you are". By embedding culture into CDL programs, students gain a holistic view of themselves which aligns with the definition of CDL in which the career/life balance is key (McMahon, Patton & Tatham, 2003).

Michael (teacher) also recognised the importance of embedding culture into CDL. He said:

We've got things like Unite day at school (whole school program after holidays), we've got NAIDOC day and any way we can somehow embed in those particular days, like if they've got some particular cultural knowledge relevant to NAIDOC day and they're showing a passion for I think that would be a good way of suggesting, "oh there's a career here that could match with what we're noticing your talents and your interests are." And I think it's something that you know needs to be ongoing and embedded into our practice.

Although the school had a clear vision for aligning culture with CDL, this is an area that can be utilised in other schools who may wish to adopt the program.

Lastly, the EYF program has the opportunity to work closely with the families of the students. This aligns with best practice principle 5 – parents and supporters as partners in the provision of CDL – where the partnership with parents and supporters allows for a richer experience that has a flow-on effect for the family of the student and the wider community. A student ambassador noted that if students had a tangible object from the EYF program, it could remind them of the program:

Something that if they took it home, the parents could reinforce, like "remember when you went to that uni day you really liked listening to the student who did

exercise science" and then they could keep reinforcing that (P3, student ambassador).

The EYF program, whilst having been proven effective through the various assessment modes, has further opportunities to develop the program. Each of the suggestions from students, student ambassadors and teaching staff align with best practice principles (Austin et al., 2021) and are worthy of further development and implementation. The implications of the program show that it already aligns with best practice and would be suitable for use in other schools where it could be contextualised for the student cohort.

Recommendations for practice

The following are recommendations for practice relate specifically to this pilot program. The full suite of recommendations and Best Practice Principles for schools, school leaders, career advisers, students, teachers, and government departments of education can be found <u>here</u>.

Within the EYF program, the following best practice principles for students from low SES backgrounds would look like:

- BPP 1: a consistent, long-term, life-cycle approach to CDL
- BPP 4: school-wide approaches to CDL
- BPP 5: parents and supporters as partners in the provision of CDL
- BPP 6: students as partners engaged in the provision of CDL
- BPP 8: programs are evaluative and demonstrative of impact on students' post-school learning outcomes
- BPP 9: impartially led partnerships that value all career pathways and fields of study
- BPP 10: clearly defined partnership practices that engage all stakeholders in the provision of CDL
- BPP 11: student-centred approaches to CDL

Of these best practice principles, it is important to note that the best practice principles used are appropriate and contextualised to the EYF program. If implemented in another context, for example, in a low SES school in another region, it would be important to determine which principles fit the context – which aligns with BPP 12 – a place-based approach to CDL.

Resources

Resources which might support the implementation of the above best practices have been made available online:

- Best practice principles
- Guide to partnerships
- Literature review
- Final report

Conclusion

To conclude, the EYF program at school aimed to:

- enable career exploration to commence early in the educational lifecycle and to become embedded in the school culture;
- position higher education institutions as having a role in providing career development learning; and
- train university students as mentors to support them in developing career exploration
 activities thereby further developing competencies such as collaboration, critical
 thinking and creativity whilst engaging with local communities.

Each of these aims were substantiated in the program through an impartially led partnership between ACU and the school. The EYF program was assessed for its effectiveness through feedback from the partnership team, students, student ambassadors. The program had been underpinned by best practice principles and further suggestions had been made by students, student ambassadors and teaching staff on how to further develop the program. These suggestions aligned with best practice principles and as such provide further impetus for the project. The EYF program had been contextualised to the student cohort to meet the needs of the school community, and this approach is recommended for future iterations of the program.

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