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Career development and personal functioning differences
between work-bound and non-work bound students

Authors: Peter A. Creed¹, Wendy Patton², Michelle Hood¹

¹ School of Psychology, Griffith University

² Centre for Learning Innovation, Queensland University of Technology

Contact: Professor Peter Creed
School of Psychology
Griffith University
Gold Coast Australia
Email: p.creed@griffith.edu.au

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Abstract

We surveyed 506 Australian high school students on career development (exploration, planning, job-knowledge, decision-making, indecision), personal functioning (well-being, self-esteem, life satisfaction, school satisfaction) and control variables (parents' education, school achievement), and tested differences among work-bound, college-bound and university-bound students. The work-bound students had the poorest career development and personal functioning, the university-bound students the highest, with the college-bound students falling in-between the other two groups. Work-bound students did poorest, even after controlling for parental education and school achievement. The results suggest a relationship between career development and personal functioning in high school students.

Keywords: work-bound, college-bound, university-bound, career development, well-being, self-esteem, satisfaction

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Economic changes, especially the effects of economic globalisation and the growth of new technologies, have increased the need for young people to acquire skills prior to entering the workforce (Murnane & Levy, 1993). About 40% of Australian school-leavers attend a university to acquire these skills, and about 16% attain them by attending a college after completing high school (Lamb & McKenzie, 2001). Australian universities offer degree and post-graduate degree qualifications, whereas Australian colleges and institutes of technical education offer employment-focused, post-secondary educational experiences that lead to certificate and diploma qualifications. College certificates and diplomas can also meet entry requirements to a university and in some cases are recognized as prior learning and with additional study can count towards the awarding of a university degree.

Work-bound youth

A large proportion of school-leavers, about 44%, however, do not seek to build upon, or are unable to build upon, their high school learning prior to entering the work-force (Lamb & McKenzie, 2001). These students leave school prior to completing their high school education, or when they have completed high school, and attempt to move directly into the work-force. Many of these school-leavers make a smooth transition to employment (about 55%) by rapidly finding employment, or by finding employment after only brief periods of joblessness. The remaining students experience difficulties making the transition to work, and often spend many years unemployed, in part-time or casual work, or in activities outside of the labour force (e.g., government sponsored brief training programs such as job-search training), and

some school-leavers never enter the work-force (e.g., because of child-rearing, disability or caring responsibilities; Lamb & McKenzie). These so-called work-bound students (Juntunen & Wettersten, 2005; Rojewski, 1999) have reduced employment opportunities when they first attempt to enter the work-force due to their lack of occupational skills, and can experience long-term economic and social disadvantage and hardship by working in the low-skilled and low-paid segments of the labour market.

Work-bound youth are a diverse group (Herr, 1999). However, apart from having fewer work skills (Olson, 1997), they differ from university-bound and college-bound students in a number of ways. They differ educationally, being more likely to be low school achievers, have specific deficits in literacy and numeracy, and to be enrolled in non-academic educational streams or to take non-academic courses (Lamb & McKenzie, 2001; Rojewski, 1999, Rojewski & Kim, 2003). They differ in background, being more likely to come from lower socio-economic families, to have fewer financial resources themselves and less financial support from their families, and to have fewer higher education and training role models (Herr, 1999; Lamb & McKenzie, 2001; Rojewski, 1999). They also differ in terms of their life goals and aspirations (Herr, 1999), have lower self-esteem (Rojewski, 1999, Rojewski & Kim, 2003), and have higher rates of disability (Lamb & McKenzie, 2001). When asked the reasons why they prefer to enter the labour force rather than continue with their education, they indicate a desire to earn money, a dislike of school, and being unsuccessful at school work (Australian Bureau of Statistics, 2003).

Career development

Despite these insights, very little is known about the career development experiences and needs of work-bound students, with these areas greatly neglected

from both the counselling and career guidance perspectives (Blustein, Phillips, Jobin-Davis, Finkelberg, & Roarke, 1997; Rojewski, 1999; Rojewski & Kim, 2003; Walsh & Galassi, 2002). When studies have been conducted to examine career development differences between work-bound and other students, work-bound students have typically been shown to fare more poorly. In a retrospective interview study with 26 work-bound young adults, Waidtlow (2003) found a lack of vocational goals, little communication around vocational issues, and possible delays in forming a vocational identity. Betz and Wolfe (2005) compared groups of work-bound and college-bound students and identified differences in levels of self-efficacy for a range of occupational interest areas, such as sales, management and office services, with the work-bound students reporting less efficacy. Finally, Ferry (2006), using focus group methodology with rural youth, found work-bound students to have different expectations of occupational paths, career opportunities, and occupational timeframes, compared to college-bound youth. For work-bound youth, getting employment was the primary focus, which "...quickly shifted their roles from adolescent to adult, binding them to adult career expectations" (p. 1).

As well as there being little empirical data on work-bound youth, there is also considerable debate in the career literature as to whether existing career theories are even appropriate to apply to this population (Blustein et al. 1997; Hansen, 1999; Herr, 1999). Herr (1999), for example, argued that the traditional notion of a career, which implies choice, may not apply to these young people as they often have very restricted job opportunities and little support when making the transition from school-to-work. However, a number of theorists have argued the case for existing career development theories, including the value of person-environment fit approaches (Swanson & Fouad, 1999), developmental models (Savickas, 1999), and social-cognitive models

(Lent, Hackett, & Brown, 1999). Savickas (1999), for example, argued that it was important for work-bound youth to develop an orientation to the future and to focus on the tasks that needed to be accomplished. He stressed the importance of career planning and career exploration: “Youth cope better with the STW [school-to-work transition] if as high school students they have developed *awareness of the choices to be made and the information and planning that bear on these choices*” (original italicising; pp. 326-7). Information and planning enhance self-knowledge, job-knowledge, decision-making and problem-solving, all critical to the school-to-work transition.

With this in mind, the current study compared the differences between work-bound and university- and college-bound students on these important career development constructs. Specifically, the study tested for differences between three groups of students (work-bound, college-bound, university-bound) on measures of career exploration, career planning, job-knowledge, decision-making understanding, and career decidedness. Given previous research (cf. Betz & Wolfe, 2005; Ferry, 2006; Waidtlow, 2003), we expected (Hypothesis 1) that the work-bound youth would have lower levels of exploration, planning and decision-making understanding, poorer job-knowledge, and more indecision. We found no studies that tested differences between college-bound and university-bound students. Thus, the hypothesis about differences between these two groups was somewhat exploratory. However, given that university-bound youth are likely to have more of a future focus than college-bound students, implying, for example, increased levels of exploration and planning (cf. Savickas, 1999), we expected (Hypothesis 2) that the college-bound youth would have lower levels of career development, as measured by the study variables, than the university-bound youth. Given that age, gender, parents’ education levels and ability levels are

likely to confound these relationships (Herr, 1999; Lamb & McKenzie, 2001; Rojewski, 1999, Rojewski & Kim, 2003) we also measured and examined these effects.

Personal functioning

Developmentally appropriate progress towards a career and employment has long been seen to be associated with improved personal functioning and well-being (Skorikov, 2006). The mechanisms for this are related to successfully managing or completing the career development tasks of the different phases of career development, such as self- and career-exploration and developing occupational goals (Herr, 1989). The relationship most often tested in the literature has been between well-being and career indecision, with previous studies indicating significant, positive relationships between indecision and depression, poorer self-esteem and lower life satisfaction (Creed, Prideaux, & Patton, 2005; Germeijs & De Boeck, 2003; Saunders, Peterson, Sampson, & Reardon, 2000). The relationship between other career variables, such as planning and exploration, and well-being, has been tested more infrequently and the results have been less consistent (Skorikov, 2006). Individual studies have found relationships between poorer well-being and lower career expectations (Hellenga, Aber, & Rhodes, 2002) and less career maturity (Patton, Bartrum, & Creed), although such associations have not always been found (Shek, Lam, Lam, & Tang, 2004; for review see Skorikov, 2006). The majority of these studies have used cross-sectional methodology, although two studies (Creed et al., 2005; Skorikov, 2007) showed persistent adjustment deficits over time for young people with poor career development progress.

The current study was able to contribute to the understanding of the relationship between career development and well-being by testing for differences among work-

bound, college-bound and university-bound students. Consistent with our arguments that work-bound students would report lower levels of career development, reflecting failure or delay in managing career development tasks, than college-bound students, who, in turn, would have lower levels of career development than university-bound students, we hypothesised (Hypothesis 3) that work-bound students would report poorer well-being than college- and university-bound students, and that (Hypothesis 4) college-bound students would have poorer well-being than those university-bound. We were able to examine the effects of age, gender, parents' education and ability in these analyses as well.

Method

Participants

We surveyed 692 students attending one Australian high school. The school was middle-level socioeconomic, suburban, and located in a medium sized city in southeastern Queensland. There were no significant ethnic groupings, which reflect the broad cultural nature of the Australian population. Participants were all students in the grades who were present on the day the survey was administered. We had complete data for 506 students (73%) for the career development variables, and complete data on 448 students (65%) for the personal functioning variables. Of the first group of 506 students, 340 (67%) were Middle school students (Grades 8, 9 and 10; 54% male; Mean age = 13.9 years, $SD = 0.9$), and 166 (33%) were Senior School students (Grades 11 and 12; 52% male, Mean age = 16.6 years, $SD = 0.6$). Of the second group of 448 students, 300 (67%) were Middle school students (52% male; Mean age = 14.0 years, $SD = 1.0$), and 148 (33%) were Senior School students (53% male, Mean age = 16.6 years, $SD = 0.6$).

Measures

The survey contained two career development scales (Career Development Inventory – Australia, Career Decision Scale), four personal functioning measures (Rosenberg Self-esteem Scale, General Health Questionnaire, life satisfaction, school satisfaction), and background measures (educational intentions, self-reported achievement, parental education, age, gender).

Career Development Scales

The *Career Development Inventory – Australia* (Lokan, 1984) has four subscales tapping career planning (20 items), career exploration (16 items), knowledge of the world of work (24 items), and knowledge and use of decision-making principles (12 items). Sample items include, “How much *time* and *thought* have you given to choosing a regular adult occupation? [options range from *I give less time and thought to this than most of my classmates* to *I give more time and thought to this than most of my classmates*]” (career planning), “To which of the following sources *would you go to* for information or help in making your plans for work or further education [followed by a list of career assistant resources?” (career exploration), “Being happy in a job is mostly a matter of: *being well paid/ knowing what you want from a job and getting it/ having interesting things to do when the day’s work is done/ receiving promotions and pay increases*” (knowledge of world of work), and “Robin’s interest in and skill at helping others has become the most important part of Robin’s self-picture. Which occupation should Robin probably *not* be considering: *nurse’s aide/ recreation worker/ caretaker/ teacher’s aide*?” (knowledge of decision-making principles). Higher scores indicate higher levels of the construct on all subscales. Satisfactory reliability and validity data are reported in the manual (Lokan). The respective internal reliability coefficients for this sample were .91, .77, .84 and .74

The *Career Decision Scale* (Osipow, Carney, Winer, Yanico, & Koschier, 1976) consists of two subscales tapping career indecision (16 items) and career certainty about having made a decision (2 items). Only the career indecision subscale is reported here. A sample item is: “Several careers have equal appeal to me. I’m having a difficult time deciding among them [options range from *exactly like me* to *not at all like me*]”. Higher scores indicate less indecision. Internal reliability coefficients are consistently reported in the .80 range (Hartman, Fuqua & Hartman, 1983). The internal reliability for this sample was .91.

Personal Functioning Measures

The 10-item *Rosenberg Self-esteem Scale* (Rosenberg, 1965) is the most widely used instrument for the measurement of global self worth (Blascovich & Tomaka, 1991). Participants respond by rating how strongly they agree with each statement on a 4-point scale, using endpoints of *strongly agree* and *strongly disagree*. A sample item is, “On the whole, I am satisfied with myself”. Higher scores indicate higher self-esteem. The internal reliability coefficient for this sample was .84.

The 12-item version of the *General Health Questionnaire* (Goldberg, 1972) was used to measure student well-being. Students were asked to report on how they felt recently on a range of variables, including cognitive processing, anxiety and depression. A sample item is, “Have you recently been able to concentrate on whatever you’re doing?”. Responses were reported on a four-point scale (0-3) that used anchors such as *better than usual/ same as usual/ less than usual/ much less than usual*. Scores were reversed so that higher scores indicated better well-being. Goldberg and Williams (1988) reported sound psychometric properties for the GHQ. Internal reliability for the present study was .87.

A single item was used to measure *School Satisfaction* (“When you look at your school life, are you: 4-point scale of *very satisfied* to *not satisfied*?”); and a single item was used to measure *Life Satisfaction* (“When you look at your life, are you: 4-point scale of *very satisfied* to *not satisfied*?”). Both items were reversed so that higher scores indicated more satisfaction.

Educational Intentions

The students’ *educational intentions* were determined by having them respond to a single item asking, “What is the highest level of education you expect to complete?”. We coded responses on three levels, of university, college and high school. In Australia, obtaining a college education refers largely to obtaining trade or industry skills at State or private run technical colleges.

Background Variables

Students were asked to indicate their age, gender, their parents’ education levels, and their own typical school achievement level.

Procedure

The study was cross-sectional and survey-based. Class teachers administered the surveys in class time. The study was conducted under the auspices of the authors’ human ethics committee.

Results

Attrition Analysis

We tested for differences between those students with complete data and those with incomplete data. The 506 students with complete data on the career development variables (career planning, career exploration, knowledge of world of work, knowledge of decision-making principles, career indecision) did not differ from those with incomplete data on age, gender, parental education, school achievement or

educational intentions. We also found no differences on these same variables for the 408 students with complete data on the personal functioning measures (self-esteem, well-being, life satisfaction, school satisfaction) compared with those with incomplete data. From these results, we concluded that there was little evidence for attrition bias.

Effects of Parent's Education and School Achievement on Educational Intentions

First, we tested whether students with different educational intentions (work-bound, college-bound, university-bound) differed on gender or school (Middle vs. Senior), or reported different parental education or school achievement. We found no gender, $\chi^2(2) = .97, p = .61$, or school effects, $\chi^2(2) = 3.13, p = .21$. University-bound students reported higher school achievement levels ($M = 2.81$) than either college-bound ($M = 2.30; p < .001$) or work-bound ($M = 2.36; p < .001$) students, $F(2, 503) = 19.46, p < .001$, partial $\eta^2 = .07$. University-bound students also reported higher parental education levels ($M = 2.48$) than either college-bound ($M = 2.15; p < .001$) or work-bound ($M = 2.05; p < .001$) students, $F(2, 503) = 16.32, p < .001$, partial $\eta^2 = .06$. Thus, we controlled for school achievement and parental education effects in future analyses.

Effects of Educational Intention, School and Gender on Career Development

Second, we tested whether students with different educational intentions (work-bound, college-bound, university-bound) differed on the career development variables of career planning, career exploration, knowledge of world of work, knowledge and use of decision-making principles, and career indecision. In this analysis, we also tested for effects of school (middle-school, senior-school) and gender, and controlled for the effects of parental education and school achievement levels. Significant multivariate results were obtained for the main effects of education intentions, $F(10, 978) = 5.37, p < .001$, partial $\eta^2 = .05$, gender, $F(5, 488) = 7.13, p < .001$, partial $\eta^2 =$

.07, and school, $F(5, 488) = 6.00, p < .001$, partial $\eta^2 = .06$. None of the interaction effects was significant. There was a significant effect for the achievement level covariate, $F(5, 488) = 3.33, p = .006$, partial $\eta^2 = .03$, but not for the parental education covariate.

For educational intentions, there were significant individual effects for career exploration ($p = .002$), knowledge of world of work ($p < .001$), knowledge and use of decision-making principles ($p < .001$), and career indecision ($p = .005$). University-bound students were significantly higher than work-bound students on career exploration ($p = .001$), knowledge of the world of work ($p < .001$), knowledge and use of decision-making principles ($p < .001$), and had significantly less career indecision ($p = .003$). University-bound students were also significantly higher than college-bound students on knowledge and use of decision-making principles ($p < .001$). College-bound students were significantly higher than work-bound students on knowledge of the world of work ($p = .04$). See Table 1 for summary data.

Insert Table 1 about here

For gender, girls reported significantly higher levels of career exploration ($p = .04$; $M = 36.88$ for girls and 35.54 for boys), knowledge of world of work ($p < .001$; $M = 16.79$ and 14.04), knowledge and use of decision-making principles ($p < .001$; $M = 6.96$ and 5.39), and career indecision ($p = .02$; $M = 47.95$ and 44.65) than boys. There were no differences between boys and girls on career planning. For Middle school compared with Senior school, Middle school students reported lower levels of career planning ($p = .006$; $M = 60.07$ for Middle school and 62.84 for Senior school), career exploration ($p < .001$; $M = 35.02$ and 38.79), knowledge of world of work ($p < .001$; $M = 14.72$ and 17.14), knowledge and use of decision-making principles ($p < .001$; $M = 5.75$ and 7.23). There were no differences between schools on career indecision.

Effects of Educational Intention, School and Gender on Personal Functioning

Third, we tested whether students with different educational intentions differed on the personal functioning variables of self-esteem, well-being, life satisfaction and school satisfaction. We also tested for the effects of school and gender, and controlled for parental education and school achievement levels. Significant multivariate results were obtained for the main effects of education intentions, $F(8, 864) = 5.53, p < .001$, partial $\eta^2 = .05$. Gender and school were not significant, and none of the interaction effects was significant. There was a significant effect for the achievement level covariate, $F(4, 431) = 7.60, p < .001$, partial $\eta^2 = .07$, but not for the parental education covariate.

For educational intentions, there were significant individual effects for self-esteem ($p < .001$) and school satisfaction ($p < .001$). University-bound students were significantly higher than work-bound students on self-esteem ($p < .001$) and school satisfaction ($p < .001$), but did not differ on from college-bound students on these two variables. College-bound students were also significantly higher than work-bound students on self-esteem ($p = .006$) and school satisfaction ($p = .046$). See Table 1 for summary data.

Discussion

The findings from the current study extend our understanding of the career development and needs of work-bound and college-bound students, relative to university-bound students. First, we found no gender or school-level effects for the different career paths indicated by the students. Students were closing off tertiary education as early as 13-14 years of age (Grade 8) in the same proportions as older students, with girls just as likely to indicate a particular path as boys. Previous studies have indicated that work-bound students are more likely to be boys (Rojewski, 1999),

although it is likely that societal changes emphasising equality of treatment for girls and young women have contributed to these findings. When policy makers and educationalists are considering interventions to encourage continuation of education they need to target girls as well as boys, and they need to focus their interventions early.

Second, the university-bound students differed from the work-bound and college-bound students in background variables in ways similar to that reported in prior research. University-bound students reported higher school achievement levels and higher parent education levels than both work-bound and college-bound students. Both Australian and international studies have demonstrated that university students typically have higher school achievement levels and come from higher socio-economic backgrounds than their non-university-bound peers (Lamb & McKenzie, 2001; Rojewski, 1999, Rojewski & Kim, 2003). The work-bound students did not differ from the college-bound students on reported school attainment, nor did they differ on parent education levels. This suggests overlap between these two groups, with the common factor being that they are not university-bound. Work-bound students are aiming to directly enter the workforce with minimal post-secondary formal education or training; college-bound students are aiming to enter the workforce following short-term formal education or training, typically with substantial work-experience components.

Third, and partly consistent with our expectations, work-bound students had the lowest mean levels on all of the career development variables, with the university-bound students having the highest, and the college-bound students falling in-between (see Figure 1). There were significant differences in the expected directions between the work-bound and university-bound students on career exploration, knowledge of

the world of work, knowledge and use of decision-making principles, and career indecision; significant differences between work-bound and college-bound students on knowledge of the world of work; and significant differences between college-bound and university-bound students on knowledge and use of decision-making principles. There were no significant differences on career planning. Importantly, these effects were present after statistically controlling for parent education and school achievement level.

Thus, work-bound students, whose plans were to enter the workforce directly after, or even before completing, high school, were the poorest prepared, and may, for example, be making occupational decisions based on insufficient career information, a poor understanding of how labour markets operate, and with poor decision-making skills. Career interventions and career information have been criticised previously for their focus on tertiary-bound students at the expense of those who are work- and college-bound (Herr & Niles, 1997; Rojewski, 1999; Rojewski & Kim, 2003). The results from the current study suggest a strong need to make relevant career information and training available to those students contemplating an early end to their education so they can become better informed and more skilled in planning their occupational futures. While there were no significant interaction effects for gender, girls showed higher levels of career development than boys, and thus, such interventions and materials need to be particularly accessible to early-leaving boys.

Fourth, and again partly supporting expectations, work-bound students had the lowest mean levels on the personal functioning variables of well-being, self-esteem, life satisfaction, and school satisfaction. The university-bound students had the highest mean levels on all variables, with the college-bound students falling in-between (see Figure 1). There were significant differences for two variables: self-

esteem and school satisfaction, with work-bound students having significantly lower self-esteem, and reporting significantly lower school satisfaction, than university-bound and college-bound students. These effects remained evident after controlling for parent education and school achievement. The results for self-esteem are consistent with evidence from the USA, where work-bound students reported poorer self-esteem than college-bound peers (Rojewski, 1999; Rojewski & Kim, 2003). The results for school satisfaction are consistent with self-reports from work-bound students themselves, who give a dislike of school as one reason for wanting to leave education early (Australian Bureau of Statistics, 2003).

Not only did the work-bound students have the lowest levels of personal functioning, they also reported the lowest levels of career development. Many career development theories suggest that the causal direction is from poor career development to poor personal functioning; that is, unhelpful or limited life and career experiences and an inability to manage the developmentally appropriate tasks of a particular phase leads to a deterioration in well-being. This relationship has been demonstrated for other career-related variables, such as career indecision (cf. Skorikov, 2006), and has now been shown for a much wider basket of career variables. However, the causal directions of these relationships remain to be tested: do students with poor well-being not engage with their career future (i.e., a “drift” hypothesis where individuals with pre-existing well-being problems fall behind in other domains), or do students who fail to engage with their career future deteriorate in well-being (i.e., a “social causation” hypothesis where not engaging causes poor well-being)? While both hypotheses are plausible, and bi-directional influences are possible, longitudinal studies are required to determine which effect is most influential. Clearly, however, policy makers and educationalists need to consider the

relationship between well-being and career progress and incorporate appropriate strategies when devising career-focused interventions for work-bound students.

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Table 1

Summary data for Career Development and Personal Functioning Variables

Variables	University-bound			College-bound			Work-bound		
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>
Career Development									
Career planning	330	62.39	12.66	89	59.57	14.19	87	57.08	12.76
Career exploration	330	37.37	8.31	89	35.45	7.96	87	32.89	9.27
World of work knowledge	330	16.45	4.62	89	14.73	4.98	87	12.78	5.12
Decision-making knowledge	330	6.88	2.88	89	5.25	2.75	87	4.78	2.59
Career indecision	330	47.56	9.92	89	45.71	10.92	87	42.82	9.90
Personal Functioning									
Self-esteem	288	31.31	5.70	80	29.24	5.50	80	27.05	5.16
Well-being	288	25.29	6.18	80	24.14	6.35	80	23.06	6.84
Life satisfaction	288	3.07	0.86	80	2.88	0.96	80	2.80	0.83
School satisfaction	288	3.03	0.79	80	2.66	0.86	80	2.35	0.83