# Student Transitions to Postsecondary Life: An Exploration of an Academic Dual Credit Experience in Alberta

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**Abstract**

Transition for secondary to postsecondary life can be challenging. Sociohistorical shifts have increased the intensity of those challenges. Research into easing this transition has focussed upon matters of readiness and preparedness using those terms interchangeably. Instead, viewing preparedness from a credentialling perspective and readiness from a developmental perspective involving the development of higher order thinking skills and strategies and applying them to aspects of transition planning may help to more effectively assist secondary students to be both ready and prepared for transitions to their postsecondary lives. To address matters of readiness, a dual credit university course entitled Psychology for Everyday Life was developed focussing upon engaging aspects of psychological theory and including developmentally focussed assignments and taught to classes of grade 11 and 12 students. For this study, students who had taken the course and graduated were contacted and asked to complete a number of measures looking at readiness for their transitions to their postsecondary lives in areas such as identity style, coping strategies, general adaptation and their perceptions of their transition readiness. Data from 49 graduated dual credit students was compared to that collected from them and other dual credit students when taking the Psychology for Everyday life course (n = 187) and to data from 1633 introductory psychology students who participated in a larger study. Results indicated that engagement in the dual credit course enhanced students' transition readiness as evidenced by their greater use of informational identity strategies, use of adaptive coping strategies and their experiencing fewer adaptive challenges as well positively enhancing confidence in their readiness for postsecondary experiences. Implications of these findings for scaffolding the development of secondary student readiness for imminent transitions to post secondary life are discussed.

The transition from high school to postsecondary life (be that college, university, trade school, working or taking a gap year) ranges from smooth to stressful to anxiety ridden with a lot in between. College and University instructors, administrators and employers wonder about (bemoan) the preparation level of incoming first year students while high school teachers and administrators are routinely casting about for the sort of preparation strategies necessary to ensure that students will, upon graduation, be appropriately prepared to soar across the postsecondary transition gap and effectively and successfully adapt to and engage in the learning, working and living environments they enter. In moments of candor, many of those educating, training, employing or simply watching young people enter the stage of emerging adulthood express some surprise at the apparent size of the transitional gap many high school graduates are navigating. We wonder why those of us on either side of the gap have not spent more time *together* discussing how we might better prepare, launch, welcome, advise, support, mentor, and teach these ongoing waves of emerging adults navigating transitions to their postsecondary lives.

In addition, there are indications that some recent sociohistorical shifts have come together in ways that have made the transition to postsecondary life more difficult with increases in rates of anxiety and depression and self-harm, levels of suicidal ideation and in the suicide rates among adolescents and emerging adults (Haight, 2024; Twenge, 2017; Luckianoff & Haidt, 2018; Levinson-King, 2017; Skinner & McFaull, 2012). Factors speculated as driving these increases include the exponential rise in teen smartphone ownership and social media use (Haight, 2024), as well as the rapid rate of socioeconomic change impacting career/job paths and complicating life planning and goal setting (Ranta, Punamäki, Chow, & Salmela, 2020). The challenges facing educators, counsellors, advisors *and students* on both sides of this transitional divide are broad and complex and will not be summarized here (see Boyes, 2024 for a big picture overview).

Research looking into the nature of transition issues has variously suggested they are linked to gaps in *readiness* or *preparedness* on the part of transitioning students (Conley, 2010, 2013). These two terms have largely been used interchangeably though doing so obscures potentially important aspects of planning and support for postsecondary transitions. For example, the National Center for Public Policy and Higher Education (Shulock & Callan, 2010) defines a "Readiness Gap" that affects a small percentage of students attending highly competitive postsecondary schools, a higher percentage of students attending less selective schools and as many as 60% of admitted students at non-selective two-year schools (colleges). Several institutional- and state- (and some provincial-) level initiatives have been undertaken to try and address this gap and their design and results are instructive. In many American postsecondary institutions, incoming students are assessed for "readiness for work" levels in postsecondary courses (Shulock & Callan, 2010; much as most Canadian universities assess for English language competency). Students not meeting criteria are provided access to remedial courses intended to bring them up to a level where they can enroll in postsecondary courses in core subjects such as Math or English. This approach is grounded on a definition of readiness that is better captured by the term *preparedness* given its focus on whether students have acquired certain academic (course) experiences. The concept of readiness is better defined on developmental terms.

In examining issues in postsecondary transitions, the American National Assessment of Educational Process (2008) describes *readiness* as "a holistic, dispositional condition" and *preparedness* as "a concrete aggregate of [typically academic] skills." Replacing "dispositional" with "developmentally linked" so that *readiness* is defined as a holistic developmentally linked condition consisting of a variety of noncognitive factors including positive self-concept, realistic

self-appraisal, preference for long-term goals, support-seeking, leadership experience, community involvement, and knowledge acquired in a field (Sedlacek, 2004) helps make the distinction between readiness and preparedness clearer. So, is there a package of developmental changes that open up a new world of developmental possibilities as students prepare to leave high school and begin the transition into and through emerging adulthood?

The simple answer is yes, but, of course, these are complex and multidimensional. Throughout adolescence and into emerging adulthood, metacognitive or higher order thinking abilities emerge and expand (Kuhn, 2000). These include the ability to think in terms of possibilities, or to think hypothetically or critically, which has formal applications for scientific reasoning across many academic disciplines but also has broader applications in the areas of self-reflection, social competence, planning, and identity development. Higher order thinking also has implications for how adolescents and emerging adults think about facts, assumptions, and the nature of knowledge, which opens opportunities to consider that the search for knowledge and ultimately for meaning in many areas may be less factual and more relativistic (to experience, culture, or other perspectives) than previously realized (Boyes & Chandler, 1991). While these sorts of realizations can shake one's foundations and, as such, be a bit unsettling, they can also open up vistas for creativity, envisioning investigative possibilities and entrepreneurial opportunities, challenging the status quo, and, most importantly, developing a sense of personal identity that can be used as a compass for navigating this new world of developmental opportunity (e.g., by making career choices, committing to principles and beliefs, and developing a sense of meaning and direction). The ability to engage in higher order thinking is a necessary but not sufficient component of what is required for positive navigation through emerging adulthood and into full

fledged adult status. It is this insufficiency that accounts for a large proportion of the "Readiness Gap" discussed above.

So, while most students develop the capacity for higher order thinking at some point in high school there is a degree of variability in how well they master this developmental tool set and in how consistently and broadly they apply it within their studies and in their life more generally. It is analogous to the fact that while a large proportion of young adults have or obtain driver licenses there is a rather large range in how competently, or safely, they, and adults in general, drive. The degree of variability in the application of higher order thinking is expanded further by the fact that while there has been a strong and growing interest among high school teachers and researchers in building curriculum and teaching strategies supportive of higher order thinking within academic disciplines there is little or no systematic guidance in how to apply those same developmental advances to social reasoning or to the life reflection, planning and design that give rise to a strong sense of personal identity and personal meaning and purpose. Finally, we add to this the fact that the gap between secondary and postsecondary education systems has historically been primarily defined by merit-based selectivity (i.e., grades) where only those who can demonstrate they have sufficiently mastered the application of higher order thinking skills *in their academic subjects* are admitted to colleges and universities. We can become equipped to better understand more of what contributes to student success or challenge with postsecondary transitions by sorting out developmental/readiness issues and academic/preparedness issues. One opportunity to affect these developmental (or readiness) features is afforded by academic dual credit (or dual enrolment) course experiences.

**Research on Postsecondary Transitions Following a Dual Credit Course Experience**

Dual Credit courses have been in place for many years in trade related areas where they make it possible for students to have completed as much as a year of apprenticeship programming when they graduate high school (Drover-Davidson, Betts, Bennett, & Hodgson, 2017; FitzGibbon, 2015). Dual Credit courses involve collaboration between high schools and technical schools, colleges or universities whereby the students involved take actual versions of the postsecondary courses and receive both high school and postsecondary credit for doing so (thus the Dual Credit designation). This means that participating students are not just exposed to the level of course content they will encounter in their postsecondary educational settings but are given an opportunity to actively participate in one of those postsecondary educational settings while they take their Dual Credit courses. Such experiences are tied to several academic/preparedness benefits (An & Taylor 2019; Schaller, Routon, Partridge, & Berry, 2023). Students with dual credit experiences:

- are more likely to attend a postsecondary education/training institution
- do so more quickly than students without a dual credit experience
- graduate/complete their postsecondary studies more quickly
- are less likely to enroll in postsecondary remedial courses/programs
- show greater persistence in their postsecondary studies (Year 1 to Year 2 progression)
- show higher postsecondary grade point averages (GPA)
- show improvement in their high school grades during and following their involvement in a dual credit experience
- experience greater impacts if they are low income and minority students

But what of developmental/readiness benefits? Having a postsecondary experience can provide high school students with a *scaffolded* opportunity to experience, understand, and prepare for the many contrasts between the demands, expectations, and opportunities of high school and postsecondary life. In addition to a head start on postsecondary academic credits, this postsecondary experience could provide opportunities for students to begin to incorporate some of the noncognitive developmental factors from the readiness side of the readiness/preparedness duality that add to the cognitive factors associated with preparedness. The purpose of is the current study was to examine the developmental/readiness impact of participation in several sections of a dual credit Psychology course (PSYC 203: Psychology for Everyday Life) on a sample of high school students' transitions to their postsecondary developmental pathways.

Academic (as opposed to trade focused) dual credit courses are relatively new in Canada, having first been offered in Ontario and only more recently, over the past 10 years and until recently mainly of a pilot basis, in Alberta (Watt-Malcolm, 2011; Boyes, 2024). There has been some high-quality, large-scale research done examining the American dual credit experience. An and Taylor (2015, 2019) used several American national datasets (the Wabash National Study of Liberal Arts Education and the National Survey of Student Engagement) to examine the postsecondary transition experiences of students who had taken one or more dual credit courses while in high school. The researchers differentiated among three types of dual credit experiences:

1. **Singleton Experience**: Students took a single dual credit course as part of their senior years in high school.
2. **Comprehensive Experience**: Students took two or more dual credit courses while in high school.

3. **Enhanced Experience**: Students took one or more dual credit course in high school but, in addition, received an additional range of support services integrated with the dual credit experience.

The researchers noted, as was discussed earlier in this paper, that successful postsecondary transitions involve both cognitive (academic/preparedness) and noncognitive (developmental/readiness) factors. While the contributions of cognitive/academic factors to this success are clear the role of the noncognitive factors is less obvious.

An and Taylor (2015, 2019) suggested that an enhanced dual credit course experience can help participants understand what it means to be a college or university student and provide some insights into how to navigate the postsecondary educational landscapes they may soon encounter. More specifically, Karp (2012) suggested that dual credit course experiences help students better understand the postsecondary educational system, as well as to learn the normative rules and behaviours expected in those settings. Beyond study skills (which dual credit course experiences can also provide), dual credit participants have been shown to work harder in dual credit courses than in their other high school courses (Medvide & Blustein, 2010) and to be less likely to take remedial courses at their first postsecondary educational setting (An & Taylor, 2015). Overall, the results of An and Taylor's (2015) study supported previous findings suggesting that dual credit enrollees were more likely to be "college ready" along three of the four categories assessed (see An & Taylor [2015] for a full list of the survey items, which are based on Conley's [2012] four-factor model of College Readiness):

1. **Key Cognitive Strategies**, which included items such as time spent applying theories or concepts to practical problems or in new situations and time spent synthesizing and

organizing ideas, information, or experiences into new, more complex interpretations and relationships;

2. **Key Content Knowledge**, which included items such as frequency of working harder than students thought they could to meet an instructor's standards or expectations and participation in activities that helped students explore career options during this academic year;
3. **Key Learning Skills and Techniques**, which included items such as participation in one or more study groups outside of class and enjoying the challenge of learning complicated new material.

Dual course enrollees, however, were not more likely to demonstrate **Key Transition Knowledge and Skills**, which included having serious discussions with people whose ideas and values are different from their own and having serious conversations with students of a different race or ethnicity than their own. The researchers postulated that this may have been due to the type and frequency of singleton courses that students experienced, in which these types of learning experiences were not built into the dual credit course.

In addition, An and Taylor (2015, p. 18) added that "…most state dual enrollment policies do not require support services and structures that might improve students' key transition knowledge and skills (Borden et al., 2013, as cited in An & Taylor, 2015). Therefore, policy makers and educators should consider designing dual enrollment programs that integrate topics related to transition knowledge and skills."

Research that is available about Canadian dual credit courses reflects the same sorts of things shown in the American system. King et al. (2009) conducted a large scale analysis in Ontario of which students go on to postsecondary educational settings and found that participation in a Dual

Credit course increased the likelihood that students would undertake postsecondary study and that this was true for BOTH high and middle achieving students leading the researchers to argue that dual credit courses should be made available to wider range of students and not just to academic high flyers (who are perhaps better served by AP or Baccalaureate programs). This was supported by research in a dissertation by Whitaker (2011), which showed that dual credit participants often did better in their dual credit courses than they did in their other high school courses and better in their dual credit courses than did their then college/university peers. In terms of success after their transitions to postsecondary education settings, it was found that middle achievers benefitted most from their participation in dual credit. Another dissertation research project (Philpott-Skilton, 2013) found that dual credit course participants who were designated as "at-risk" for postsecondary educational difficulties performed successfully at just below the level of the average first year student population despite their at-risk designation.

Acknowledging An and Taylor's research (2015, 2019) as a notable exception, research examining the effects of participation in dual credit courses typically focuses on postsecondary academic performance and retention (Witkowsky & Clayton, 2020). While this information is certainly useful and supports dual credit courses as positive options for postsecondary transition planning, these studies do not provide insight into the specific noncognitive factors that promote and support successful adaptation to postsecondary life (i.e., readiness) that participation in a dual credit course can provide to students. The current study is a first step toward addressing this shortfall in our understanding of students' postsecondary transition processes and experiences by drawing upon data and measures utilized in an ongoing study of students' adaptation/adjustment to a university education environment.

## Method

### Participants

As part of a larger study of student postsecondary transition gap adaptation, nearly 3,000 University of Calgary students in first year psychology courses were asked to complete a survey with questions regarding their identity styles, coping strategies, adjustment in a number of areas and awareness of and utilization of the broad array of support services and support options available to university students. A total of 1633 students responded to the survey. Between 15 to 20% of respondents were psychology majors. The rest were a reasonably representative sample of students from many of the other major programs on campus. 1060 respondents identified as female, 572 identified as male and one identified as non-binary.

As a first step towards developing a more detailed understanding of the developmental readiness and preparedness aspects of a dual credit course experience, students who completed a dual credit section of Psychology for Everyday Life at the University of Calgary were asked to complete the same measures as the first-year postsecondary students above at two timepoints: (1) during their completion of Psychology of Everyday Life; and (2) in Fall 2020 after graduation from high school. By comparing the response profiles of dual credit course participants across the two time points with those of first year university students, we aimed to provide some insights into the ways in which an enhanced dual credit course experience might ease postsecondary transitions.

A history of the development and running of the dual credit version of the Psychology for Everyday Life (Psyc 203) course at the university of Calgary is available elsewhere (Boyes, 2024). Of the 187 students across five sections of the dual credit course, 134 had graduated high

school by June 2020, and 104 had used email addresses as part of their application for enrollment in the dual credit course that were not high school addresses. Those 104 students were sent an email asking them to consider providing some follow up data on their postsecondary transition experiences and were provided a link to an online survey approved by the University of Calgary Research Ethics Board. Parental permission was not required as the students were all 18 years of age or older. Of the 104 former dual credit students who were sent invitations to participate in the follow-up survey, 49 (47%) responded and completed the survey and two indicated they were interested but were too busy to participate. Of the 49 respondents, 47 were attending either college or university, one was working, and one was taking a gap year. 41 respondents were female, 7 were male and one identified as non-binary.

**Measures**

The questions and measures included in the follow-up survey included:

**Demographics**: Respondents were not asked to provide any identifying information. They were asked to provide their age, their gender, and some information about their current activities (e.g., attending postsecondary, taking a gap year, working, etc.).

Respondents were asked to complete versions of the same measures that were used to create the undergraduate student identity and adjustment data set described earlier including:

**Berzonsky's Identity Style Questionnaire** (Berzonsky, 1989, 1993; Berzonsky & Kuk, 2000, 2022) is derived from Erikson's Identity status model (Erikson, 1963, 1968; Marcia, 1993), but is focused more on enduring identity styles than on developmental steps in the identity formation process. The scale categorizes respondents into one of three identity orientations:

**(1)** An Information identity style reflects the achievement of the developmental asset of higher order thinking and as well as the application of that thinking to educational, career, and life planning and management decision processes (i.e., holders of this style are both ready and prepared).

**(2)** A Normative identity style is indeterminate on the developmental matter of higher order thinking but certainly reflects the lack of application of such abilities to educational, career, and life planning and management decision processes. It also involves the selection of postsecondary trajectories or pathways that are either promoted by others or seen to be clearly charted by institutions or social structures (i.e., holders of this style are possibly ready and somewhat prepared).

**(3)** A Diffused identity style reflects uncertainty about one's educational, career, and life planning and management decision goals and a lack of any clear sense of how to get started on figuring them out (i.e., holders of this style are neither ready nor prepared).

Scores were generated for the Diffused, Normative, and Information styles and, in line with typical practice (Berzonsky & Sullivan, 1992), the scores were converted to *z*-scores based on the means generated for the first-year students assessed early in the Fall term of their first year and the style with the highest *z* score was assigned as the Identity Style of each respondent.

**The College Adjustment Scales** (CAS; Pinkney, 1992) look at adjustment in nine areas (Anxiety, Depression, Suicidal Ideation, Substance Abuse, Self-Esteem Problems, Interpersonal Problems, Family Problems, Academic Problems, and Career Problems). The CAS includes norms for North American undergraduate students, which make it possible to consider student responses in relation to at-risk cut-off scores or percentile rankings. For both samples, items comprising the Suicidal Ideation and Substance Abuse scales were omitted from the survey

package as we would be unable to follow-up if responses indicated high levels of risk in these areas.

**The Coping Style Inventory** used was an adapted version of The Coping Styles Scale (Carver, Scheier & Weintraub, 1989) is based on Roth and Cohen's (1986) distinction between an approach orientation (i.e., face the stressor) and an avoidance orientation (i.e., avoid the stressor) when coping with stress. Approach Coping is more reflective of the purposeful and meaning-focused approaches associated with aspects of developmental/readiness reflected by the use of Informational identify styles and associated with more positive adaptations following transitions and lower level of anxiety and depressive symptoms (Grant et al., 2013). Avoidance Coping, by contrast, as its name suggests, involves an array of strategies aimed at helping one to avoid focusing on, and thus dealing with, the challenges and stresses one faces. The CAS produces sub-scale scores related to the Approach Coping (Logical Analysis, Positive Reappraisal, Seeking Guidance and Support, and Problem Solving) and Avoidant Coping (Cognitive Avoidance, Acceptance or Resignation, Seeking Alternative Rewards, and Emotional Discharge) orientations.

**The Adapted Postsecondary Readiness Scale** was drawn from the College Readiness Scale developed by An and Taylor (2015, 2019) by isolating 16 items from three of their four subscales that were specifically related to readiness rather than preparedness as follows; Key Cognitive Strategies (8 items), Content Knowledge (6 items), Transition Knowledge and Skills (2 items) and no items for their Learning Skills and Techniques scale. One of the potential benefits of Psychology of Everyday Life as a dual credit course is that it may be uniquely positioned to build readiness (i.e., developmental) skills in students given that the entire course focuses on personal and social development and adjustment, including coping and resilience,

identity development, interpersonal relationships, and mental health. Respondents were asked to consider each statement and then rate the extent to which they thought that their time and experience in the Psychology for Everyday Life Dual Credit course provided them with the transition related knowledge or skill the item described. In addition, respondents were asked a number of open-ended questions about their experience in the dual credit course and about their current and future educational plans.

**Results/Discussion**

Details of the large Introductory Psychology course student dataset are available elsewhere (Boyes, 2024), but a few key findings are worth describing here. First, about 45% of the first-year students were using a Diffused identity style and the rest were about equally divided between the Normative and the Informational styles. In terms of their coping styles, Diffused individuals are more likely than those using the other two styles to use avoidant coping strategies such as ignoring problems or using distraction strategies like video gaming.

The adjustment inventory used, the College Adjustment Scale, (Pinkney, 1992) to assess functioning along nine dimensions including Stress, Academic Problems, Anxiety/Depression, and Substance Use to name a few. Individuals scoring over the 85$^{th}$ percentile on a scale according to the general postsecondary student norms for the measure are categorized as potentially in need of assistance in that area perhaps through a referral to the campus counseling or student success centers. The results in relation to this measure were very clear: 65% of the Normative and Informational Styled students were over the 85$^{th}$ percentile on either 0 or 1 subscale. In sharp contrast, 65% of the Diffused students were over the 85$^{th}$ percentile of 2 or more of the scales and the distribution of numbers of problematic scale scores was spread from

two right up to 9 meaning they were not all just sitting with two areas of concern. When asked if they were aware of the array of potentially supporting resources available to them all respondents regardless of identity style stated that they were aware of the existence of most of the resources that were listed. However, when asked how many of those resources they had accessed the Informational styled students had accessed the most followed by the Normative styled students and then by the Diffused styled students. As well, the Diffused styles students were more likely to have included in the "accessed" list resources that were characterized as "self-help" such as talking to friends or looking for options or suggestions online rather than accessing services specifically tailored to their adjustment problems.

**Identity Styles**. As discussed in detail elsewhere (Boyes, 2024), much of what is seen to be involved in (developmental) readiness and (academic) preparedness for successful transition to postsecondary educational settings and other postsecondary endeavours is reflected in the conceptual richness of the Identity style construct. Table 1 shows the identity style proportions of first year introductory psychology students, all dual credit students at Time 1 and those dual credit students who had graduated from high school at the time of data completion (Time 2).

| | | First Year Students | | All Dual Credit Psychology Students at Time 1 | | Dual Credit Follow-up Students at Time 2 | |
|---|---|---|---|---|---|---|---|
| | | N=1633 | | N=187 | | N=49 | |
| | | # | % | # | % | # | % |
| Identity Styles | Informational | 542 | 33.2 | 93 | 49.7 | 32 | 65.3 |
| | Normative | 464 | 28.4 | 51 | 27.3 | 8 | 16.3 |
| | Diffused | 627 | 38.4 | 43 | 23 | 9 | 18.3 |

**Table 1**

Identity Style Proportions for All First Year Students, All Dual Credit Psychology Students and Follow-up Survey Respondents

The proportions shown in table above relating to first year students (N=1633) and all dual credit participants (N = 187) suggest that high school students who decided to enroll in a dual credit psychology course were more likely to have an Information Identity Style and all that reflects in terms of their readiness and preparedness for their transitions to postsecondary experiences than the first-year postsecondary students ($\chi^2$ (2) = 24.44, $p < .001$). Dual credit enrollees were also less likely to hold a Diffused Identity Style than first year postsecondary students.

Most interesting, though, is that the proportion of time 2 dual credit follow-up participants with an Informational style is markedly higher when they were in the dual credit class (time 1) ($\chi^2(2) = 6.96$, $p< .05$). These findings suggest that beyond Information Identity Style factors possibly influencing students' initial decisions to enroll in the dual credit Psychology for Everyday Life course, their participation in the course may be linked to an additive developmental impact resulting in a higher proportion of these students having an Information Identity Style after completing the course and graduating from high school.

Another interesting result is that the larger proportion of Information style respondents in the Time 2 data appear to have come largely from dual credit participants who identified with a Normative style at Time 1. This suggests that the experiences provided within Psychology for Everyday Life may have nudged students with a Normative Identity Style to and Informational orientation. Although the reduction is small, the lower proportion of students with a Diffused Identity Style at Time 2 compared to Time 1 is tentatively encouraging as it suggests the possibility that participation in Psychology for Everyday Life may have had a positive developmental impact on these students. So, while Psychology for Everyday Life participants seem to enter the course with higher levels of postsecondary transition (developmental) readiness

than are observed among first year university students generally, it is possible that there is a significant incremental benefit to their course participation in terms of their (developmental) readiness for their postsecondary transitions.

**College Adjustment Scale Results**. The scores of the dual credit survey participants on the College Adjustment Scales at Time 2 were compared to those of 1633 first year university students for whom complete CAS scale profiles were available. As well, the proportion of each sample whose scale scores were over the 85th percentile (which is defined as the challenging or potentially problematic range according to the scale norms) were also compared for these two samples. These results are shown in Table 2 below.

| | First Term First Year Students N=530 | | Dual Credit Follow-up Participants N=49 | |
|---|---|---|---|---|
| **College Adjustment Scale Subscales*** | **Average Scores** | **% over 85th%'ile** | **Average Scores** | **% over 85th%'ile** |
| **Anxiety** | **72** | **49** | **64** | **31** |
| **Interpersonal Problems** | **56ǂ** | **24** | **49ǂ** | **17** |
| **Depression** | **68** | **38** | **72** | **33** |
| **Career Problems** | **58ǂ** | **23** | **52ǂ** | **11** |
| **Self-Esteem Problems** | **88** | **68** | **89** | **61** |
| **Family Problems** | **50** | **14** | **50** | **14** |
| **Academic Problems** | **58** | **12** | **53** | **5** |

* Higher scores reflect greater levels of challenge

ǂ Indicates a significant difference $p < .05$

**Table 2**

College Adjustment Scale Scores and 85th Percentile Proportions for First Year and Dual Credit Follow-up Students

As can be seen in Table 2, statistical analyses (t-tests) indicated that the dual credit respondents at Time 2 had significantly ($p<.01$) lower scores than the first-year university students on the

Interpersonal Problems and Career Problems subscales. In addition, it is quite encouraging to note that on six of the seven CAS subscales (other than Family Problems), smaller proportions of Dual Credit students scored above the 85$^{th}$ percentile "clinical" cut-offs compared to the large sample of first year students. It is possible that this pattern reflects general advanced readiness or a (developmental) readiness bump attributable to participation in Psychology for Everyday Life. Hopefully further data collection will clarify this further.

**Coping Scale Results**. Table 3 below compares the coping strategy profiles of the first-year university students with that of the Dual Credit survey respondents at Time 2.

| | | First Year Students N=1633 | Dual Credit Follow-up Students at Time 2 N=49 | Significance |
|---|---|---|---|---|
| Approach Coping | Logical Analysis | 16.2 | 18.1 | p<0.0001 |
| | Positive Reappraisal | 15.1 | 16.9 | p<0.05 |
| | Seeking Guidance and Support | 13.8 | 15.3 | p<0.001 |
| | Problem Solving | 15.8 | 16.3 | NS |
| Avoidance Coping | Cognitive Avoidance | 13.6 | 12.9 | NS |
| | Acceptance or Resignation | 12.5 | 12.9 | NS |
| | Seeking Alternative Rewards | 13.3 | 13.7 | NS |
| | Emotional Discharge | 11.6 | 11.7 | NS |
| | Approach Coping Total | 61.3 | 66.1 | p<0.01 |
| | Avoidance Coping Total | 51 | 51.2 | NS |

**Table 3**

Coping Strategy Profiles for First Year Student in comparison to Dual Credit Students at Time 2

Statistical analysis (t-tests) showed that the Dual Credit students at Time 2 used more Approach Coping strategies than was typical of first year university students with significantly higher scores on three of the four Approach Coping strategies. There were no differences in the

utilization of Avoidance Coping strategies between these two groups. It should be noted that while Approach Coping strategies are a necessary part of moving oneself forward in development and life adjustment, Avoidance Coping strategies are primarily a concern if they are the only strategies one is utilizing. When balanced by Approach Coping strategies, Avoidance Coping strategies could simply reflect relaxation/recreational experiences. These results suggest that the Psychology for Everyday Life Dual Credit experience may contribute to the development and mastery of the perspectives and practices necessary to facilitate the emergence of a higher level of adaptive Approach Coping strategies.

**Adapted Postsecondary Readiness Scale Results**. Table 4 shows the distribution of ratings provided for each of the 16 statements in the Adapted Postsecondary Readiness Scale. As can be seen in Table 4, with the exception of the first item regarding engagement in activities that helped explore career options, which is not a focal part of Psychology for Everyday life course content, all of the statements were endorsed at the agree or strongly agree level by an average of over 83% of respondents. This is most encouraging given that these statements reflect some of core principles that guided the adaptation of Psychology for Everyday Life course for dual credit students. One goal as part of ongoing curricular redesign of this course is to see if we can better link course components to these developmental/readiness postsecondary knowledge and skills.

| **Adapted Postsecondary Readiness Scale** | Percentages (N=49) | | | | | |
|---|---|---|---|---|---|---|
| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | All Agrees |
| I participated in activities that helped me explore career options. | 2.8 | 22.2 | 22.2 | 38.9 | 13.9 | 52.8 |
| Helped me to see how to analyze the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components. | 2.8 | 2.8 | 5.6 | 66.7 | 22.2 | 88.9 |
| Showed my how to apply theories or concepts to practical problems or in new situations. | 0 | 2.8 | 13.9 | 55.6 | 27.8 | 83.4 |
| I learned some things that changed the way I understand an issue or concept. | 0 | 2.8 | 5.6 | 61.1 | 30.6 | 91.7 |
| I got to see how to (and to practice how to) make judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions. | 0 | 5.6 | 5.6 | 66.7 | 22.2 | 88.9 |
| I got to work on a paper or project or participate in discussions that required integrating ideas or information from various sources. | 2.8 | 2.8 | 2.8 | 47.2 | 44.4 | 91.6 |
| I got to try to better understand someone else's views by imagining how issue looks from his/her perspective. | 0 | 2.8 | 11.1 | 50 | 36.1 | 86.1 |
| I got to examine the strengths and weaknesses of own views on a topic or issue. | 0 | 5.6 | 2.8 | 66.7 | 25 | 91.7 |
| I got to spend time synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships. | 0 | 2.8 | 22.2 | 61.1 | 13.9 | 75 |
| I learned that when I do well on a test, it is usually because I am well-prepared, not because the test is easy. | 0 | 5.6 | 8.3 | 55.6 | 30.6 | 86.2 |
| I learned that it is good to be willing to work hard in a course to learn the material even if it won't lead to a higher grade. | 2.8 | 11.1 | 11.1 | 36.1 | 38.9 | 75 |
| I learned that I enjoy taking courses that challenge my beliefs and values. | 0 | 5.6 | 16.7 | 44.4 | 33.3 | 77.7 |
| I learned that the courses I enjoy most are those that make me think about things from a different perspective. | 0 | 11.1 | 8.3 | 41.7 | 38.9 | 80.6 |
| I found I was able to work harder than I thought I could to meet an instructor's standards or expectations. | 8.3 | 2.8 | 16.7 | 44.4 | 27.8 | 72.2 |
| I have had serious discussions with other students about different lifestyles and customs. | 0 | 16.7 | 5.6 | 55.6 | 22.2 | 77.8 |
| I have found I enjoy talking with people who have values different from mine because it helps me better understand myself and my values. | 0 | 5.6 | 13.9 | 55.6 | 22.2 | 77.8 |

**Table 4**

Ratings of the Extent to Which Dual Credit Students at Time 2 endorsed Experiences tied to Postsecondary Readiness

## Conclusions

The results of the dual credit student Time 2 survey presented above suggest, as was the hope in the design and offering of the Psychology for Everyday Life course, that engagement in the course is tied to an increase in the likelihood that participants will experience a more positive transition to their postsecondary pathways than do students who do not have experiences comparable to engagement in this type of dual credit course experience. The observation that students who elect to participate in a dual credit course experience are more likely to be (developmentally) ready for their transitions to postsecondary educational environments is a sharp contrast from the observation that first year university students with a Diffused Identity orientation, despite their significantly higher levels of uncertainty, and need, are less likely to seek assistance in adapting to their postsecondary environments than their counterparts with an Information Identity orientation. It seems that students who have a sense of what they need gravitate towards it. Beyond this, however, the Psychology for Everyday life course may be providing an additional or incremental readiness boost. This suggests that aspects of dual credit courses like Psychology for Every Life provide developmental nudges, which may facilitate easier postsecondary transitions for students. The next task is to discern which aspects of the course are most helpful. This will provide directions for course revisions to highlight or expand these components in future offering of the course as well as in other dual credit courses to reach a much broader range of students as part of their high school preparations for the important transition they will make, one way or another, to their postsecondary life pathways.

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