

Exploring hope, self-efficacy, procrastination, and study skills between cooperative and non-cooperative education students

MAUREEN T. B. DRYSDALE¹

St. Jerome's University/University of Waterloo, Waterloo, Canada

MARGARET MCBEATH

University of Waterloo, Waterloo, Canada

The aim of this study was to examine the relationship between participation in cooperative education, and several psychological constructs believed to be related to success in both academic and professional settings. Participants, undergraduate cooperative (n = 1224) and non-cooperative education (n = 746) students in all years of study and from several academic faculties, completed a survey measuring the psychological constructs of hope, self-efficacy, procrastination, and study-skills. Results indicated significant differences in several study skill characteristics as a function of co-op, gender, and faculty. No significant differences emerged between co-op and non-co-op students on the hope, self-efficacy, or procrastination scales. Implications and recommendations for future research are discussed. (*Asia-Pacific Journal of Cooperative Education*, 2014, 15(1),69-79)

Keywords: Cooperative education, hope, procrastination, self-efficacy, study skills, anxiety, attitude, school to work transition

INTRODUCTION AND LITERATURE REVIEW

Many university students experience difficulty during the transition from post-secondary education to their first meaningful full-time job. In today's competitive labor market, the typical entry-level job for new university graduates is vanishing, replaced by starting positions that require competencies that until recently were more associated with young professionals with seven to ten years of experience in the workplace (Hanneman & Gardner, 2010; Gardner, 2011). This shift is largely driven by employers who are struggling to fill a growing skills gap caused by an aging, and retiring, workforce (Hanneman & Gardner, 2010; Gardner, 2011). This struggle is compounded by the ever growing number of young people pursuing a post-secondary education, and thus increasing competition for new graduate positions (Darch, 1995). To adapt to these changing demands, research suggests that more students are enrolling in cooperative education programs as a way of easing the transition and gaining relevant employment experience that will help them to find a relevant and well-paid position upon graduation (Gardner, 2011). Clearly, the work experience that students gain while in university is of crucial importance to their employment opportunities upon graduation.

Cooperative education is a work-integrated learning model that incorporates skill acquisition in the workforce with academic studies (Stern, Finkelstein, Urquioa, & Cagampang, 1997). An increasing number of post-secondary/tertiary institutions offer cooperative education programs, allowing students from all academic disciplines the opportunity to alternate between four-month periods of university study and work placement terms (Drysdale, Goyder, Nosko, Easton, Frank, & Rowe, 2007; Gardner & Choi, 2007). The cooperative education model also functions as an important recruitment method for employers who

¹ Corresponding author: Maureen Drysdale, mdrysdal@uwaterloo.ca

provide co-op students with work experiences that will ideally help to bridge the gap from university to work within their organizations (Gardner, 2011).

Much of the current research into the effects of participation in co-op has shown that co-op students have higher rates of employment, and are viewed by employers as more desirable and competent candidates than their non-coop peers (Gardner & Choi, 2007; Hanneman & Gardner, 2010; Stern et al., 1997). Other research has shown that participation in cooperative education is related to better academic achievement as students who study in a work integrated environment may be more aware of the connection between academic learning and workplace success and thus more motivated to perform well (Drysdale et al., 2007; Stern & Briggs, 2001; Walters & Zarifa, 2008). However, limited research has explored how participation in cooperative education programs is related to psychological attributes and behaviors in university students. A previous study by Drysdale and McBeath (2012) revealed that while university co-op students demonstrated higher levels of math and academic self-concept, they did not differ in their perceived tacit knowledge. This study builds on the previous study by examining the relationship between cooperative education and several other key attributes believed to play a role in both successful university study and work performance. More specifically, we designed a large study examining hope, procrastination, self-efficacy, and several study skills such as motivation, time management, information processing, attitude, and anxiety.

Hope

Hope has been defined by Snyder (2002) as a cognitive-motivational construct involving two relatively distinct ways of thinking about a goal. Agency thinking involves thinking related to one's level of confidence about reaching goals, for example, "I meet the goals that I set for myself"; whereas pathways thinking involves thinking about one's useful abilities to pursue different strategies for obtaining goals, for example, "I can think of many ways to get what I want". Hope also refers to one's belief in the ability to pursue goals (Snyder, 2002). Individuals with high levels of hope establish more goals, develop many effective pathways for reaching desired goals, and are more confident that their chosen pathways will lead them to achieve their goals. Several recent studies have shown an association between hope and a variety of psychological outcomes, including better academic achievement, higher likelihood of graduating from university, and aspects of job performance (Day, Hanson, Maltby, Proctor, & Wood, 2010; Ciarrochi, Heaven, & Davies, 2007; Feldman, Rand, & Kalhe-Wrobelski, 2009; Gilman, Dooley, & Florell, 2006; Luthans, Avolio, Walumbwa, & Li, 2005; Zysberg, 2012). Researchers have also identified hope as a coping strategy associated with resilience, less tendency to procrastinate, and higher chances of achieving favorable outcomes in competitive or stressful situations (Alexander & Onwuegbuzie, 2007; Snyder, 2002).

Little is known about hope in the context of cooperative education. However, given the link between hope and other forms of achievement it is pertinent to investigate it in relation to experiences in a co-op program. It is predicted that participation in co-op will be associated with higher levels of hope and enhanced hopeful thinking compared to other types of work (summer or part-time job) as co-op jobs are more often directly related to one's field of study.

Procrastination

Procrastination or the postponement of tasks to the point where optimal performance becomes unlikely is extremely prevalent. Research indicates that 80–95% of tertiary students engage in procrastination, and that almost 50% of students procrastinate consistently and

problematically (Day, Mensink, & O'Sullivan, 2000; Steel, 2007). Procrastination is not only problematic during the tertiary years, but it is also prevalent in the general population, affecting some 15–20% of adults (Harriott & Ferrari, 1996).

Numerous research studies have shown that procrastination results in emotional discomfort; increased academic anxiety, decreased hopeful thinking, and diminished performance in both work and school (Alexander & Onwuegbuzie, 2007; Jackson, Weiss, Lundquist, & Hooper, 2003; Onwuegbuzie, 2000; Solomon & Rothblum, 1984). Low self-efficacy and low self-esteem are also associated with procrastination (Steel, 2007; Wilson & Nguyen, 2012).

Self-Efficacy

Self-efficacy refers to an individual's general perceived level of competence that affects motivation and learning, particularly in education and work domains (Gore, 2006). The construct of self-efficacy emerged as a crucial component of Bandura's (1989) social cognitive theory. Self-efficacy is described as a motivational factor that may promote or discourage action based on an individual's perception of their ability to exercise control over life events (Bandura, 1989). Individuals who are doubtful about their capabilities are easily discouraged by struggles and failure, whereas individuals with more confidence in their abilities persist despite these obstacles until they achieve success. In this way, the personal factor of self-efficacy influences behavior by way of action, effort, and persistence.

Academic self-efficacy can be defined as an individual's confidence in their ability to successfully perform academic tasks at an appropriate level (Schunk, 1991). There is a growing body of research that suggest that academic self-efficacy beliefs can be used to predict university students' academic performance and persistence, and also their range of perceived career options (Camgoz, Tektas, & Metin, 2008; Gore, 2006; Zajacova, Lynch, & Espenshade, 2005). Other research points to a relationship between academic self-efficacy and goal orientation, an important component of both hope and lower levels of procrastination (Hsieh, Sullivan, & Guerra, 2007; Steel, 2007).

Study-Skills

Study-skills is a broad term that refers to a student's knowledge of effective study strategies and methods, their ability to manage time, and use resources to meet the demands of the academic tasks (Crede & Kuncel, 2008). Researchers have identified ten specific dimensions of study skills which can be grouped into two specific categories; study habits and study attitudes. Study habits are the degree to which the student engages in regular acts of studying and effective studying routines (e.g., reviews of material, study aid, test strategies), while study attitudes refer to a student's positive attitude toward the specific act of studying and the student's acceptance and approval of the broader goals of a university education (Crede & Kuncel, 2008). Both study habits and attitudes have been shown to be related to higher grade point average and overall academic success (Robbins, Lauver, Le, Davis, Langley & Carlstrom, 2004). As participation in co-op has also been shown to be related to academic performance, it is possible that co-op students employ more effective study skills and more positive attitudes towards studying and academic achievement.

The primary goal of this study was to explore the differences in hope, self-efficacy, procrastination, and study skills between co-op and non-co-op students. Demographic variables – age, gender, year of study, academic discipline, and grade point average - were also examined in relation to participation in co-op and these measures. It was predicted that

participation in cooperative education would be positively related to these variables, which could facilitate the skills, competencies, attitudes, and behaviors that foster success in both school and workplace settings.

METHOD

Participants and Procedure

The data for this study was extracted from a larger cross-sectional and longitudinal project (led by Drysdale) examining the psychological differences between students enrolled in cooperative education and students enrolled in a traditional program lacking a co-op component. Undergraduate cooperative and non-cooperative education students at a large research intensive Canadian university were recruited to participate by completing a survey. Students enrolled in cooperative education alternated academic and work terms over a five-year period. Students enrolled in a traditional program did not receive co-op work terms during their program. Data collection occurred during the first month of classes in a new academic year. A total of 1970 students completed the entire survey. Validation items (i.e., truthfulness items) were randomly inserted into the survey to ensure compliance. Participants who 'failed' a validation item were eliminated from the final data sets. Of the valid cases, the data set is comprised of responses from 1224 co-op students (55.2% female; 44.8% male) and 746 non-co-op students (71.1% female; 28.9% male). Participants (ages 17 – 36, mean age 20.5) ranged from 1st to 4th year of study, and from all university faculties (e.g., Engineering, Math, Science, Arts).

Measures

Five measures were used in the survey: a demographic questionnaire, a hope scale, a procrastination scale, a self-efficacy scale, and a study-skills scale.

a. Demographic Questionnaire: Participants completed a short demographics questionnaire designed to collect data on their program (co-op vs. non-co-op), faculty (Applied Health Studies, Arts, Engineering, Environmental Studies, Math, & Science), year of study (first to fourth), number of co-op work terms (from one to five), gender, age, and current GPA.

b. Hope: Hope was measured with the *Trait Hope Scale* (THS; Snyder, 2002). The scale is based upon Snyder's cognitive model of hope which defines hope as "a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy), and (b) pathways (planning to meet goals)" (Snyder, et al., 1991, p. 287). The THS contains 12 items. Four items measure pathways thinking, four items measure agency thinking, and four items are fillers. Participants respond to each item using an 8-point scale ranging from definitely false to definitely true. An example item is "I energetically pursue my goals". Higher scores indicate higher levels of dispositional hope. *Cronbach Alpha* reliability scores of the total scale range from .74 to .84.

c. Procrastination: Procrastination was measured with the *Procrastination Assessment Scale – Students* (PASS; Solomon & Rothblum, 1984). The scale asks students to rate themselves on six academic related tasks - each with two items: one measures the degree to which a student procrastinates on the tasks and the second measures the degree to which the procrastination is a problem for them. An example is "to what degree do you procrastinate when writing a term paper" and "to what degree is the procrastination on this task a problem for you". Scores on the two 5-point Likert-type items are summed for each academic task (summed scores range from 2 to 10). A total procrastination score can be

obtained by summing all subscale scores (total scores ranging from 12 to 60). Higher scores indicate more procrastination and more problems as a result of the procrastination. For the total score, the test-retest reliability was .80

d. Self-Efficacy. Self-Efficacy was measured with the *College Academic Self-Efficacy Scale* (CASES; Owen & Froman, 1988). The CASES is a 33-item self-report tool designed to measure academic self-efficacy by asking students to rate how confident they feel regarding their abilities to perform common academic-related behaviors in college (Owen & Froman, 1988). The measure uses a 5-point Likert scale that ranges from "Lots" (choice 'A') to "Little" (choice 'B'). An example item is: "understanding most ideas presented in class." Higher scores indicate greater self-perceived academic competence. Owen and Froman reported the test-retest reliability of the CASES as .85.

e Study-Skills. Study skills were measured with the *Learning and Study Strategies Inventory* (LASSI; Weinstein, Schulte, & Palmer, 2002). The LASSI is a 10-scale, 80-item assessment of students' awareness about and use of learning and study strategies related to skill, will, and self-regulation components of strategic learning. Each of the 10 scales contain 8 items scored on a 5-point Likert scale. The focus is on both covert and overt thoughts, behaviors, attitudes, and beliefs that relate to successful learning and that can be altered through educational interventions. The three *skill strategies* with brief descriptions and reliability coefficients are: information processing (creating verbal elaborations and organizational schemes, $\alpha = .83$), selecting main ideas (identifying important information for learning, $\alpha = .74$), and test strategies (using test-taking and test preparation strategies, $\alpha = .83$). The three *will strategies* with brief descriptions and reliability coefficients are: attitude (general attitude towards succeeding in school, $\alpha = .72$), motivation (accepting responsibility for performing the tasks necessary for success, $\alpha = .81$), and anxiety (tension when doing academic tasks, $\alpha = .81$). Finally, the four *self-regulation strategies* with brief descriptions and reliability coefficients are: time management (creating and using schedules, $\alpha = .86$), concentration (ability to concentrate and direct attention, $\alpha = .84$), study aids (ability to create and use study aids effectively, $\alpha = .68$), and self-testing (reviewing and testing for one's understanding, $\alpha = .75$). An example of an item measuring motivation is "even when I don't like a course, I work hard to get a good grade". Because the LASSI is a diagnostic tool, no total score is calculated. Instead, each scale score is compared to a national norm score or a percentile cut-off score – the most common being the 75th (i.e., where no weakness or problem is identified). Students scoring below the 50th percentile are strongly advised to improve the skill in order to maximize performance and academic success.

RESULTS

To examine the relationship between the demographic variables, co-op participation, hope, self-efficacy, procrastination, and the different study strategy variables of the LASSI, ANOVAs (analysis of variance) and MANOVAs (multivariate analysis of variance) were performed. Each of the variables from the demographic questionnaire - including co-op participation - was entered into the analyses as independent variables (IV) and each of the psychological measures as the dependent variables (DV).

The results revealed significant main effects for participation in co-op ($F_{(1, 1966)} = 10.976$, $p < .0005$, Wilk's $\Lambda = .903$, $\eta^2 = .097$), gender ($F_{(1, 1966)} = 23.456$, $p < .0005$, Wilk's $\Lambda = .814$, $\eta^2 = .186$), and faculty ($F_{(5, 1957)} = 7.183$, $p < .0005$, Wilk's $\Lambda = .665$, $\eta^2 = .066$), as well as an interaction effect of co-op \times gender ($F_{(1, 1966)} = 2.434$, $p < .001$, Wilk's $\Lambda = .977$, $\eta^2 = .023$).

For participation in co-op, significant main effects were found for anxiety ($F_{(1, 1966)} = 6.733$, $p < .01$, $\eta^2 = .003$), attitude ($F_{(1, 1966)} = 6.963$, $p < .01$, $\eta^2 = .004$), study aids ($F_{(1, 1966)} = 7.641$, $p < .01$, $\eta^2 = .004$), and time management ($F_{(1, 1966)} = 4.345$, $p < .05$, $\eta^2 = .002$). In addition, a significant co-op x gender interaction effect was found for motivation ($F_{(1, 1966)} = 4.209$, $p < .05$, $\eta^2 = .002$). Descriptive statistics including norm group means and percentiles for these five significant study strategies can be found in Table 1.

TABLE 1. Descriptive and norm group statistics for anxiety, attitude, study aids, time management and motivation for co-op and non-co-op students

Study Strategy	Co-op mean (std deviation)	Non-Co-op mean (std deviation)	Norm mean (std deviation)	50 th percentile cut-off score	75 th percentile cut-off score
Anxiety	27.02 (6.84)	25.92 (7.14)	25.52 (6.95)	26.0	31.0
Attitude	29.05 (3.99)	29.95 (4.07)	33.41 (4.29)	34.0	36.5
Study Aids	22.97 (4.98)	22.06 (5.10)	25.25 (5.56)	25.5	29.0
Time Management	24.50 (6.01)	24.01 (6.03)	26.08 (6.30)	26.5	31.0
Motivation:					
Males	28.90 (5.19)	29.16 (5.10)	31.19 (5.32)	32.0	35.5
Females	30.88 (5.04)	29.84 (5.27)			

Non-co-op students were more anxious yet had a slightly better attitude than their co-op peers. Co-op students on the other hand made better use of study aids and had better time management. It should be noted that the anxiety experienced by the non-co-op students was at the 50th percentile and therefore not considered problematic. On the other hand, the attitude scores of both co-op and non-co-op students fell at the 15th percentile – well below the 50th percentile – a possible hindrance for achieving academic success. Furthermore, although co-op students made better use of study aids than non-co-op students, both groups again fell below the 50th percentile (30th and 25th respectively), indicating neither was using study aids effectively as measured by the LASSI. Finally, time management for both co-op and non-co-op groups also fell below the 50th percentile (40th and 35th respectively).

With respect to motivation, the significant interaction effect indicated that female co-op students were the most motivated compared to their male co-op and both male and female non-co-op peers. On the other hand, male co-op students were the least motivated. Of interest, is that while female students approached the norm mean and the 50th percentile cut-off score, the other three groups scored at the 30th percentile.

The analyses did not reveal any significant main effect of co-op for hope, self-efficacy, procrastination, information processing, selecting main ideas, test strategies, motivation, concentration, or self-testing. Overall, students in both cooperative education and traditional non-co-op programs scored similarly on these measures.

Although not the immediate focus of this study (i.e., demographic variables were included to examine interaction effects between co-op and the DVs), there were significant main effects

of gender and of faculty that warrant reporting. For gender, females scored higher on the hope agency scale ($F_{(1, 1966)} = 10.560, p < .001$) – indicating more confidence in reaching goals – whereas males scored higher on the hope pathways scale ($F_{(1, 1966)} = 12.340, p < .001$) – indicating more confidence in using strategies to achieve goals. Males also had significantly higher academic self-efficacy ($F_{(1, 1966)} = 22.824, p < .001$), yet results also indicated that males procrastinated significantly more than females did ($F_{(1, 1966)} = 8.231, p < .01$). With respect to study skills, females compared to males, had stronger attitudes, ($F_{(1, 1966)} = 22.774, p < .001$), information processing skills ($F_{(1, 1966)} = 4.852, p < .05$), motivation ($F_{(1, 1966)} = 22.357, p < .001$), self-testing skills ($F_{(1, 1966)} = 8.141, p < .05$), use of study aids ($F_{(1, 1966)} = 68.053, p < .001$), and time management skills ($F_{(1, 1966)} = 38.468, p < .001$) – however they also had significantly higher anxiety ($F_{(1, 1966)} = 30.524, p < .001$). With these significant differences, gender in relation to these behaviors, attitudes, and skills should be examined in more detail as a function of other forms of work-integrated learning.

For faculty, significant differences were found in attitude ($F_{(5, 1957)} = 2.628, p < .05$), and with self-testing ($F_{(5, 1957)} = 4.485, p < .001$) – however as with gender, these differences were not a function of participation in cooperative education. In both cases, engineering students scored significantly lower than students in other faculties – hence exhibiting a poorer attitude and weaker self-testing strategies.

There were no significant main effects found for age, year of study, number of co-op terms, satisfaction with co-op terms, or grade point average. Finally, aside from gender, there were no significant interaction effects found between co-op and the other demographic variables.

DISCUSSION

This study examined the relationship between participation in cooperative education and several attitudes, behaviors, and skills believed to be relevant to success in post-secondary education and the subsequent transition to the labor market. Of the 14 variables studied, four were found to be significantly related to participation in co-op: anxiety, attitude, use of study aids, and time management. Goal setting behaviors, procrastination, academic self-efficacy, as well as some learning and study strategies such as information processing, concentration, and self-testing were not significantly related to co-op.

Findings revealed that non-co-op students (and females in particular) felt more anxious compared to their co-op peers. Anxiety in this study referred to how much students worried about their studies and whether or not the worry interfered with the ability to concentrate and do well. This cognitive worry about performing well diverts attention away from academic tasks inward to self-criticism and irrational thoughts (Weinstein, Schulte, & Palmer, 2002). Over time, it can have a negative impact on success. Although the non-co-op students experienced more of this type of worry, it is worth noting that, as a group, they were not in any danger (i.e., scores were $\geq 50^{\text{th}}$ percentile). The finding that co-op students worried less indicates that co-op either attracts less anxious students in the first place or the experience gained from being in the program lessens worry about overall performance and success. It is not to say they did not worry, (i.e., scores were between the 55^{th} and 60^{th} percentile), but it does indicate they worried less than those in traditional programs. Nonetheless, it is recommended that anxiety be examined in more detail to ensure new cohorts of non-co-op female students are not worrying excessively about academics and work. Finding experiential learning opportunities for them could perhaps alleviate some of the stress regarding success. It would also be interesting to know how the current economy (both locally and globally) affects worry about performance and the subsequent transition to

the labor market. Researchers could expand the anxiety scale of the LASSI or an equivalent measure and ask questions directly related to the causes of the worry to see if they are related to future job prospects.

Cooperative education students scored better than non-co-op students on use of study-aids and time-management - although scores for both groups were low compared to a normal population of college and university students answering the same questions (Weinstein, Palmer & Schulte, 2002). More specifically, scores for using study aids fell at the 30th percentile for co-op students and the 25th percentile for non-co-op students. For time management, scores fell at the 40th and 35th percentiles respectively. Any score below the 50th percentile indicates weakness that is likely to negatively impact success in university. Weinstein, Palmer, and Schulte argue that low scores on the study aids scale indicate students are not using or creating study aids that support effective and meaningful learning. For time management, low scores indicate poor scheduling coupled with distractibility. It could be argued that being in a co-op program requires students to make better use of study aids and be more time managed, especially given the demands placed on them in regards to juggling a full time course load while applying, interviewing, and securing a work placement for a subsequent term. Given the demands and workload, one might expect use of study aids and time management to have been much stronger for this group than what was found in this study. However, it could be that students begin university with very poor time management and poor use of study skills and that it is the co-op program that actually enhances both - hence the higher scores compared to non-co-op peers. It is recommended that these skills (study aids and time management) be examined in more detail via a longitudinal study to see if there is an effect of co-op over time.

Non-co-op students scored slightly better on attitude, although the surprising finding here was that not only did co-op students have a poorer attitude, but that both groups scored extremely low on the scale (10th and 15th percentiles respectively). Weinstein, Palmer & Schulte (2002) argue that students with low attitude scores - such as those found in this study - need to reassess how a university education fits into their future. If the learning or program is not seen as relevant to the student's life goals (academic, personal, social, and work-related) then it will be difficult, if not impossible, to generate the level of motivation needed to establish a strong work ethic and take responsibility for one's own learning. The finding here is nothing less than alarming and one has to question the locus for this poor attitude. Could it be that today's students attend university simply to 'get the degree' without having any idea what they will do after graduation? Do they feel lost and bewildered because of the recent downturn in the economy and the impact it has had on the labor market? Perhaps it is possible that this trend has emerged because students are aware that on-the-job skill acquisition coupled with networking is what gives them the edge after graduation and not the theoretical knowledge acquisition gained from classroom learning. The lower scores on attitude for co-op students could possibly be explained by this experience in, and possible preference for, work experience. They may perceive classroom learning as not having a real benefit to employability. This may be reinforced by recent articles in the media claiming there is a crisis on campus because of a mismatch between what students are learning and what the economy needs (Coates & Morrison, 2012). Non-co-op students on the other hand, may exhibit a slightly more positive academic attitude because they have not been exposed to the same practical skill acquisition. However, the fact that non-co-op scores are also very low and it could be that they are aware (from conversations with co-op students) that jobs are scarce and the degree alone is not the relevant piece for career success. The poor attitude of both groups may also explain the weakness found with respect to use of study aids and time management. Attitude towards one's education is clearly an area that warrants further

investigation especially as it pertains to all forms of work-integrated education, academic success, and the transition to the labor market.

Finally, female co-op students scored significantly higher on motivation than their male co-op students. A possible relationship to this motivation is the finding that females also reported better information processing, use of study aids, self-testing, and time management, as well as lower self-efficacy coupled with feeling significantly more anxious regarding grades and success than their male counterparts. It could be argued that female students feel more pressure to succeed in a highly competitive labor market and hence are more motivated to do well, making better use of the strategies and skills that they have.

In summary, the findings reported here indicate that co-op students fair better in some areas than students in a traditional non-co-op program, reinforcing the need for work-integrated education for all students. For many of the variables examined such as hope, self-efficacy, procrastination, information processing, selecting main ideas, test strategies, motivation, concentration, and self-testing, students in both cooperative education and traditional non-co-op programs appeared to be similar. It is recommended that future longitudinal research expand on these findings by incorporating other forms of work-integrated education as well as examining the correlations between different attitudes and behaviors to determine if a specific profile of student emerges - a profile that points to more specific outcomes of work-integrated education.

ACKNOWLEDGMENT

This study was supported by the Waterloo Centre for the Advancement of Cooperative Education (WatCACE) at the University of Waterloo. We thank Caitlin Chiupka and Hayden Tay for their work on the project.

REFERENCES

- Alexander, E. S., & Onwuegbuzie, A. J. (2007). Academic procrastination and the role of hope as a coping strategy. *Personality and Individual Differences*, 42, 1301-1310.
- Bandura, A. (1989). Perceived self-efficacy in the exercise of personal agency. *The Psychologist: Bulletin of the British Psychological Society*, 2, 411-424.
- Camgoz, S., Tektas, O., & Metin, I. (2008). Academic attributional style, self-efficacy and gender: A cross-cultural comparison. *Social Behavior and Personality*, 36(1), 97-114.
- Ciarrochi, J., Heaven, P. C. L., & Davies, F. (2007). The impact of hope, self-esteem, and attributional style on adolescents' school grades and emotional well-being: A longitudinal study. *Journal of Research in Personality*, 41, 1161-1178.
- Coates, K., & Morrison, W. (2012). The uses and abuses of university: Canada's post-secondary education system is failing our students, and our economy. *The Walrus*. 9(8), 34-39.
- Crede, M., & Kuncel, N. (2008). Study habits, skills, and attitudes: The third pillar supporting collegiate academic performance. *Perspectives on Psychological Science*, 3(6), 425-453.
- Darch, J. (1995). Labour market outcomes for university graduates. *Perspectives*, 20-24.
- Day, L., Hanson, K., Maltby, J., Proctor, C., & Wood, A. (2010). Hope uniquely predicts objective academic achievement above intelligence, personality, and previous academic achievement. *Journal of Research in Personality*, 44(4), 550-553.
- Day, V., Mensink, D., & O'Sullivan, M. (2000). Patterns of academic procrastination. *Journal of College Reading and Learning*, 30, 120-134.
- Drysdale, M., Goyder, J., Nosko, A., Easton, M., Frank, K., & Rowe P. (2007). The role of co-op in the transition from high school to post-secondary education. *Journal of Cooperative Education*. 41(1), 48-55.

- Drysdale, M., & McBeath, M. (2012). Self-concept and tacit knowledge: Differences between cooperative and non-cooperative education students. *Asia-Pacific Journal of Cooperative Education*, 13(3), 169-180.
- Feldman, D., Rand, K., & Kalhe-Wrobelski, K. (2009). Hope and goal attainment: Testing a basic prediction of hope theory. *Journal of Social and Clinical Psychology*, 28(4), 479-499.
- Gardner, P. (2011). *High stakes internships* (White Paper). East Lansing: Collegiate Employment Research Institute(CERI). Retrieved from <http://www.ceri.msu.edu/wp-content/uploads/2010/01/High-Stakes-Internships.pdf>.
- Gardner, P., & Choi, G. (2007). *How central is work to young adults?* (White Paper). Collegiate Employment Research Institute(CERI). Retrieved from http://ceri.msu.edu/publications/pdf/work_young_adults.pdf
- Gilman, R., Dooley, J., & Florell, D. (2006). Relative levels of hope and their relationship with academic and psychological indicators among adolescents. *Journal of Social and Clinical Psychology*, 25, 166-178.
- Gore, P. (2006). Academic self-efficacy as a predictor of college outcomes: Two incremental validity studies. *Journal of Career Assessment*. 14(1), 92-115
- Hanneman, L., & Gardner, P. (2010). *Under the economic turmoil a skills gap simmers*. (CERI research brief 1-2010). Collegiate Employment Research Institute. Retrieved from <http://www.ceri.msu.edu/wp-content/uploads/2010/01/skillsabrief1-2010.pdf>
- Harriott, J., & Ferrari, J. R. (1996). Prevalence of procrastination among samples of adults. *Psychological Reports*, 78(2), 611-616.
- Hsieh, P., Sullivan, J., & Guerra, N. (2007). A closer look at college students: Self-efficacy and goal orientation. *Journal of Advanced Academics*, 18(3), 454-476.
- Jackson, T., Weiss, K. E., Lundquist, J. J., & Hooper, D. (2003). The impact of hope, procrastination, and social activity on academic performance of midwestern college student. *Education*, 124(2), 310-320.
- Luthans, F., Avolio, B. L., Walumbwa, F. O., & Li, W. (2005). The psychological capital of Chinese workers: Exploring the relationship with performance. *Management and Organization Review*, 1, 249-271.
- Onwuegbuzie, A. J. (April, 2000). *I'll bring my statistics assignment tomorrow: The relationship between statistics anxiety and academic procrastination*. Paper presented at the Annual Conference of the American Educational Research Association, New Orleans.
- Owen, S. V., & Froman, R. D. (April, 1988). *Development of a college self-efficacy scale*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New Orleans.
- Robbins, S.B., Lauver, K., Le, H., Davis, D., Langley, R., & Carlstrom, A. (2004). Do psychosocial and study skill factors predict college outcomes? A meta-analysis. *Psychological Bulletin*, 130, 261-288.
- Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist*, 26, 207-231.
- Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry*, 13(4), 249-275.
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., et al. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, 60(4), 570-585.
- Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. *Journal of Counseling Psychology*, 31(4), 503-509.
- Steel, P. (2007). The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychological Bulletin* 133(1), 65-94.
- Stern, D., & Briggs, D. (2001). Does paid employment help or hinder performance in secondary school? Insights from US high school students. *Journal of Education and Work*, 14(3), 354-372.
- Stern, D., Finkelstein, N., Urquioa, M., Cagampang, H., (1997). What difference does it make if school and work are connected? Evidence on cooperative education in the United States. *Economics of Education Review*. 16(3), 213-29.
- Walters, D., & Zarifa, D. (2008). Earnings and employment outcomes for male and female postsecondary graduates of co-op and non-co-op programmes. *Journal of Vocational Education and Training*, 60(4), 377-399.

- Weinstein, C.E., Schulte, A., & Palmer, D.R. (2002). *The learning and study strategies inventory* (2nd ed.). Clearwater, FL: H & H Publishing.
- Wilson, B., Nguyen, T. (2012). *Belonging to tomorrow: An overview of procrastination*. *International Journal of Psychological Studies*, 4(1), 211-217.
- Zajacova, A., Lynch, S., Espenshade, T. (2005). Self-efficacy, stress, and academic success in college. *Research in Higher Education*, 46(6), 679-806.
- Zysberg, L. (2012). Hope in personnel selection. *International Journal of Selection and Assessment*, 20(1) 98-104.



About the Journal

The Asia-Pacific Journal of Cooperative Education publishes peer-reviewed original research, topical issues, and best practice articles from throughout the world dealing with Cooperative Education (Co-op) and Work Integrated Learning/Education (WIL).

In this Journal, Co-op/WIL is defined as an educational approach that uses relevant work-based projects that form an integrated and assessed part of an academic program of study (e.g., work placements, internships, practicum). These programs should have clear linkages with, or add to, the knowledge and skill base of the academic program. These programs can be described by a variety of names, such as work-based learning, workplace learning, professional training, industry-based learning, engaged industry learning, career and technical education, internships, experiential education, experiential learning, vocational education and training, fieldwork education, and service learning.

The Journal's main aim is to allow specialists working in these areas to disseminate their findings and share their knowledge for the benefit of institutions, co-op/WIL practitioners, and researchers. The Journal desires to encourage quality research and explorative critical discussion that will lead to the advancement of effective practices, development of further understanding of co-op/WIL, and promote further research.

Submitting Manuscripts

Before submitting a manuscript, please ensure that the 'instructions for authors' has been followed (www.apjce.org/instructions-for-authors). All manuscripts are to be submitted for blind review directly to the Editor-in-Chief (editor@apjce.org) by way of email attachment. All submissions of manuscripts must be in MS Word format, with manuscript word counts between 3,000 and 5,000 words (excluding references).

All manuscripts, if deemed relevant to the Journal's audience, will be double blind reviewed by two reviewers or more. Manuscripts submitted to the Journal with authors names included will have the authors' names removed by the Editor-in-Chief before being reviewed to ensure anonymity.

Typically, authors receive the reviewers' comments about a month after the submission of the manuscript. The Journal uses a constructive process for review and preparation of the manuscript, and encourages its reviewers to give supportive and extensive feedback on the requirements for improving the manuscript as well as guidance on how to make the amendments.

If the manuscript is deemed acceptable for publication, and reviewers' comments have been satisfactorily addressed, the manuscript is prepared for publication by the Copy Editor. The Copy Editor may correspond with the authors to check details, if required. Final publication is by discretion of the Editor-in-Chief. Final published form of the manuscript is via the Journal website (www.apjce.org), authors will be notified and sent a PDF copy of the final manuscript. There is no charge for publishing in APJCE and the Journal allows free open access for its readers.

Types of Manuscripts Sought by the Journal

Types of manuscripts the Journal accepts are primarily of two forms; *research reports* describing research into aspects of Cooperative Education and Work Integrated Learning/Education, and *topical discussion* articles that review relevant literature and give critical explorative discussion around a topical issue.

The Journal does also accept *best practice* papers but only if it present a unique or innovative practice of a Co-op/WIL program that is likely to be of interest to the broader Co-op/WIL community. The Journal also accepts a limited number of *Book Reviews* of relevant and recently published books.

Research reports should contain; an introduction that describes relevant literature and sets the context of the inquiry, a description and justification for the methodology employed, a description of the research findings-tabulated as appropriate, a discussion of the importance of the findings including their significance for practitioners, and a conclusion preferably incorporating suggestions for further research.

Topical discussion articles should contain a clear statement of the topic or issue under discussion, reference to relevant literature, critical discussion of the importance of the issues, and implications for other researchers and practitioners.



EDITORIAL BOARD

Editor-in-Chief

Dr. Karsten Zegwaard

University of Waikato, New Zealand

Copy Editor

Yvonne Milbank

Asia-Pacific Journal of Cooperative Education

Editorial Board Members

Ms. Diana Ayling

Unitec, New Zealand

Mr. Matthew Campbell

Queensland Institute of Business and Technology, Australia

Dr. Sarojni Choy

Griffith University, Australia

Prof. Richard K. Coll

University of Waikato, New Zealand

Prof. Rick Cummings

Murdoch University, Australia

Prof. Leigh Deves

Charles Darwin University, Australia

Dr. Maureen Drysdale

University of Waterloo, Canada

Dr. Chris Eames

University of Waikato, New Zealand

Mrs. Sonia Ferns

Curtin University, Australia

Ms. Jenny Fleming

Auckland University of Technology, New Zealand

Dr. Phil Gardner

Michigan State University

Dr. Thomas Groenewald

University of South Africa, South Africa

Dr. Kathryn Hays

Massey University, New Zealand

Prof. Joy Higgs

Charles Sturt University, Australia

Ms. Katharine Hoskyn

Auckland University of Technology, New Zealand

Dr. Sharleen Howison

Otago Polytechnic, New Zealand

Dr. Denise Jackson

Edith Cowan University, Australia

Dr. Nancy Johnston

Simon Fraser University, Canada

Dr. Leif Karlsson

Kristianstad University, Sweden

Dr. Mark Lay

University of Waikato, New Zealand

Assoc. Prof. Andy Martin

Massey University, New Zealand

Ms. Susan McCurdy

University of Waikato, New Zealand

Ms. Norah McRae

University of Victoria, Canada

Prof. Beverly Oliver

Deakin University, Australia

Assoc. Prof. Janice Orrell

Flinders University, Australia

Dr. Deborah Peach

Queensland University of Technology, Australia

Dr. David Skelton

Eastern Institute of Technology, New Zealand

Prof. Heather Smigiel

Flinders University, Australia

Dr. Calvin Smith

Griffith University, Australia

Assoc. Prof. Neil Taylor

University of New England, Australia

Ms. Susanne Taylor

University of Johannesburg, South Africa

Assoc. Prof. Franziska Trede

Charles Sturt University, Australia

Ms. Genevieve Watson

University of Western Sydney, Australia

Prof. Neil I. Ward

University of Surrey, United Kingdom

Dr. Nick Wempe

Whitireia Community Polytechnic, New Zealand

Dr. Marius L. Wessels

Tshwane University of Technology, South Africa