

CREATING A LIFELONG CAREER DEVELOPMENT MODEL

Kathryn Levine

Associate Professor

Faculty of Social Work, University of Manitoba

http://umanitoba.ca/social_work/



Dawn Sutherland

Professor

Faculty of Education, University of Winnipeg

<http://education.uwinnipeg.ca/>



Darrell Cole

Executive Director Career Trek Inc.

191 Lombard, Winnipeg, Manitoba. Canada, R3B 0X1

www.careertrek.ca



Creating a Lifelong Career Development Model

Project Summary

Although childhood career development research has been identified as a need (Porfeli, Hartung, & Vondracek, 2008), there does not appear to have been a corresponding focus on children in career research. This report summarizes the findings of a joint project of a university-based research team and Career Trek Inc, in collaboration with four K-12 school divisions in Manitoba. This project occurred over a two year period. Data collection took place during the secondary school academic year from September, 2011- June, 2012 and data analysis was completed in September, 2012- January, 2014.

Career Trek is an early intervention initiative developed to expose students, beginning in grades 5 and 6, to a variety of career possibilities accessible via post-secondary education. The intent of this project was to address a perceived theory- practice gap in children and adolescents' career exploration. This consisted of the acquisition of baseline information including descriptive grade-specific data on children's career self-efficacy, interests, and outcome expectancies, and the environmental influences of family, friends, and school from a large sample population spanning grades 3-12. A limitation of current theoretical knowledge in youth's career exploration needs is the partial research regarding how career exploration needs change within a developmental context and how environmental responses need to adapt to the different developmental needs. Research on youth's career exploration has focused on career-related indicators within specific grades and/or the outcomes of a particular intervention. There has been less attention paid to the theoretical basis of the intervention, the nature of the intervention itself, the relationship between the intervention and environmental influences, and the linkages between theoretical constructs, differences in developmental stages, and how these may impact the intervention.

A second critique of career intervention models is that they are generally predicated upon static indicators that reflect historical factors and do not necessarily adapt to the changing needs over time. Children's career development needs occur in a developmental and contextual model that extends throughout several life stages, and therefore any theory needs to include an assessment of dynamic factors that can be modified via interventions to produce change. Therefore, this project focused on identifying the career exploration needs of children and adolescents and how career exploration interventions can meet this needs in a developmentally appropriate and responsive manner.

The findings from this project are relevant to service providers in the school systems who are tasked with the responsibility of facilitating children's career development. There is also some relevance to those involved in curriculum development as findings indicate that students in Grades 5-6 demonstrated significantly greater capacity to engage in career exploration and knowledge of career interests, compared to senior year students. Programmers for informal career development programs would also be interested in the findings of this research because the results support the idea that career exploration outside of the school setting can be an effective means of developing career interests in youth.

Overview

The purpose of this project was to create a theoretical process model that represents the developmental trajectories of children's career interests. In this study we were able to examine children's career interest as process that explored the changing relationships between children and adolescents and the environment, within a developmental context. The established objectives did not change but later expanded to include predictors of career development awareness and career awareness outcomes in two groups: students who attended Career Trek, and a control group of students who had not participated in any career awareness program. The rationale behind this study was to investigate whether early intervention career awareness results in any differences between the intervention and the control groups. Our conceptual framework was drawn from the Developmental Career Assessment and Counselling model (Super, Osborne, Walsh, Brown, & Niles, 1992) and Social Cognitive Career Theory (Lent, Brown, & Hackett, 1994). Super's (1978) original 4 dimension model of career development was later expanded to include the dimensions of curiosity, exploration, information, key figures, interests, locus of control, time perspective, self-concept, and planfulness. Understanding career exploration as a developmental process that is characterized by ongoing change and adaptation has significant implications for how career exploration programs may be implemented. It is particularly relevant for children and adolescents as it is grounded within the "how" of career exploration. SCCT highlights the importance of four variables: self-efficacy, outcome expectations, interests, and goals. In addition, the research explored the environmental factors, specifically the influence of family, peers, and school setting, which influence children's career exploration.

Research questions addressed:

- What social and environmental factors facilitate the development of children's career interests?
- How does children's career interest change at different points throughout their childhood/adolescence?
- How or through what mechanisms has change occurred?

Methodology

We wanted to obtain largest sample size possible for this study so access to students from grades 3-12 through the school system represented the most optimal participant group. The researchers contacted four school divisions in Manitoba: Louis Riel, Seven Oaks, Pembina Trails and Seine River (rural). These particular school divisions had long established partnerships with Career Trek so were receptive to participation in this project. Additionally, because of the divisions' established commitment to career development in these age groups, the commitment to the Career Trek program, and desire to use the results of the project as a means of improving the existing curriculum, the divisions worked with the research team to have access to students within their schools. Given the objectives of this project, the primary data collection method was quantitative. The team used four measures to assess the career development knowledge of students.

- The Career Outcome Expectancy Scale - Outcome expectations were assessed by 10 item scale that assessed positive career exploration behaviours. In addition to self-efficacy, outcome expectations are a significant factor in children's career exploration. Outcome expectations are defined as the expected effects of a behaviour or action. They may describe anticipated results in the context of one's current situation (If I do well in school, I can go to university or college). Alternatively, they may be specific to future career choice and expression of career choice. Career goals are expressed by intentions to "become" the identity of a particular occupation. Outcome expectancies and goals were assessed by a 10 item Outcome Expectancy/Intentions and Goals measure adapted from Betz and Voyten (1997). Items were scored on a five point scale from Strongly Agree to Strongly Disagree.
- Childhood Career Development Scale (Schultheiss & Stead, 1994). The Childhood Career Development Scale (CCDS) (Schultheiss & Stead, 2005) was designed to assess children's career development across the nine proposed dimensions of Super's (1990) developmental theory. The scale contains nine subscales (a) curiosity (i.e., a need leading to inquisitive behavior); (b) exploration (i.e., activities such as searching or examining that elicit information about oneself or one's environment in an attempt to meet curiosity needs); (c) information (i.e., an awareness of the importance or use of occupational information and how one acquires this information); (d) key figures (i.e., role models or interesting or helpful people who have played a meaningful role in individuals' lives); (e) interests (i.e., an awareness of one's likes and dislikes); (f) locus of control (i.e., the degree to which one feels an internal sense of control over one's present and future); (g) time perspective (i.e., an awareness of how the past, present, and future can be employed to plan future events); (h) self-concept (i.e., an awareness of dimensions of the self in some role, situation, or position; performing some set of functions; or in some web of relationships); and (i) planfulness (i.e., an awareness of the importance of planning). The 52 items are rated on a Likert-type scale ranging from Strongly Agree to Strongly Disagree.
- Parental Involvement Checklist (Keller & Whiston, 2008). Parental involvement was assessed by a 53 item composite measure adapted from the Career Behavior Checklist (Keller & Whiston, 2008) that assessed parental behaviours that are predictive of children's career decision making self efficacy and career maturity. The first subscale, Career Support, includes 13 items that target parental social and emotional support (e.g., being available to them, interested about their lives, concerned about their everyday activities) related to career exploration. It includes statements such as "my parent encourages me to choose whatever career I want" and "my parent has supported me when I have told him or her that I am interested in a specific career". The second subscale, Career Action, consists of 39 items that assess specific, career oriented actions and behaviours undertaken by parents/caregivers in relation to their child's career exploration. This subscale includes statements such as "my parent has talked to me about the steps involved in making difficult decisions", "my family expects me to contribute financially to my career education and training" and "my family discussed career issues with me at an early age". Participants respond to each item using a 5-point Likert-type scale (1 = Never, 5 = Very Often) that describes their perceptions of the extent to which their parent/caregiver engages in these activities.

- Family, Friends, and School Climate (TCU/PMES, 1998) Used to assess psychosocial functioning of children within domains of family, peers, and school setting. It includes four subscales on friends (peer activity, trouble, familiarity with parents, and conventional involvement), and three scales on self (self-esteem, environment, and school satisfaction). The FFS is comprised of a Family Relation subscale (22 items) that assesses the factors of Warmth, Control, and Conflict; the Peer Activity Scale (23 items), that assesses the dimensions of Peer activity level, Peers in trouble; Peers' familiarity with parents; and Peers' conventional involvement, and a Self Scale (15 items) that measures three dimensions of Self-esteem, Environment, and School satisfaction.

Ethical approval for this project was obtained from both the University of Winnipeg and the University of Manitoba as well as from each of the participating school divisions. There are a number of challenges encountered when conducting research with school systems. First, it can be difficult to negotiate entry into K-12 school systems as they review numerous research requests each year and are justifiably attentive to consideration of the perceived costs and benefits to their staff and students. As well, given that we wanted to strive for the least amount of interference possible in the school day, we arranged for research assistants to attend only during the lunch hour, necessitating at times multiple data collection times. Although school divisions provided consent, parental consent was also required in order for student participants to complete the research measures. This too presented a challenge as students were asked to take the consent forms home for parental signature and then return them to their classroom teacher. The four superintendents of the school divisions facilitated access to each school by contacting the administrators to advise that the Research Assistants would be in contact to arrange times to attend at the schools to provide information. Approximately 30 undergraduate research assistants were hired for this project. They contacted the administration and arranged times to meet with the students. Working in pairs, they attended at each school twice. The first day was to share information about the study and distribute parental consent forms. Students were asked to return the forms the next day. The RAs returned to the school approximately two – three days later to administer the measures. All students with signed consent forms participated. RAs tried to schedule the data collection over the lunch hour so as to minimize the disruption to the school staff. The total number of participants for the study was 1493. Data was entered into SPSS 20 by an undergraduate Research Assistant. The data is stored on an external hard drive that is password protected and only the members of the research team have access. No identifying information was obtained from the participants.

GRADE	<i>Total N=1493</i>
3-6	6
5-6	854
7-8	422
9-12	217

Data Analysis

The research team ran a number of analyses. The first set of analyses was intended to assess differences based on grade. Results for grade were based on the entire sample. Individuals from grades 3 and 4 (6 individuals) and individuals where grade was missing (42 individuals) were taken out of the analysis.

An ANOVA was done to test for grade differences on the Career Decision Making Scale (scores on this scale were averaged. There were 10 items and students responded to them on the following scale: 1=Strongly agree; 2=agree; 3=uncertain; 4=disagree; 5=strongly disagree. Thus, higher scores indicated greater disagreement with the statements.

- There were no significant differences between the grade groups on Career Decision Making.

ANOVAs were done to test for grade differences on the subscales of the Childhood Career Development Scale. For this scale 1= strongly agree; 2= agree; 3 = uncertain; 4 = disagree; and 5= strongly disagree. Thus, the higher the score the less they agreed with the statements. Post Hoc Bonferroni tests were conducted to determine the significance of the groups differences.

- Information subscale was significantly different for different grade groups $F(2, 1468) = 5.44, p < .004$
 - High school students (mean = 4.06) wanted less career information than either the grades 5-6 (mean = 3.86) or the grades 7-8 (mean = 3.85).
 - Mean differences between grades 9-12 and 5-6 ($p < .005$) and 9-12 and 7-8 ($p < .008$) were significant using Bonferroni post hoc tests.
- Locus of control subscale was significantly different for different grade groups $F(2, 1466) = 5.84, p < .003$
 - High school students (mean = 4.37) feel they have less personal control over how well they do and their relationships than do grades 5-6 (mean = 4.12) and 7-8 (mean = 4.12).
 - Mean differences between grades 9-12 and 5-6 ($p < .002$) and 7-8 ($p < .013$) were significant using Bonferroni post hoc tests.
- Time perspective subscale was significantly different for different grade groups $F(2, 1461) = 3.39, p < .03$
 - High school students (mean 4.18) think less about their future than grades 5-6 (mean = 3.99).
 - Mean differences between grades 9-12 and 5-6 ($p < .040$) were significant using Bonferroni post hoc tests.
- No differences were found for the curiosity/exploration, interests, key figures, planning, and self concept subscales.

ANOVAs were done to test for grade differences on the subscales of the TCU/PMES Scales on Family, Friends and Self. For the family section of this measure students responded to items on the following scale: 0=never; 1=rarely; 2=sometimes; 3=often; 4=almost always. Therefore higher scores indicated more of the reported behaviour or events.

- The parental warmth subscale was significantly different for different grade groups $F(2, 1451) = 48.75, p < .000$
 - High school students reported less parental warmth (mean = 2.68) than either the elementary (mean = 3.21) or the middle school (mean = 3.14) students
 - Mean differences between grades 9-12 and 5-6 ($p < .000$) and grades 9-12 and 7-8 ($p < .000$) were significant using the Bonferroni post hoc test.
- The conflict subscale was significantly different for different grade groups $F(2, 1441) = 7.32, p < .05$
 - High school students reported more conflict within their family (mean = 1.51) than did either the elementary (mean = 1.30) or middle school students (mean = 1.24).
 - Mean differences between grades 9-12 and 5-6 ($p < .003$) and grades 9-12 and 7-8 ($p < .001$) were significant using the Bonferroni post hoc test.
- The parental control subscale was not significantly different for the different grade groups.

For the friends section of this measure students responded to items on the following scale: 0=none; 1=a few; 2=some; 3=most; 4=all. Therefore higher responses indicated more of the reported behaviour or events.

- The subscale on the number of friends getting into trouble was significantly different for different grade groups $F(2, 1428) = 15.74, p < .000$
 - High schools students reported more of their friends getting into trouble (mean = .55) than either the elementary school students (mean = .33) nor the middle school students (mean = .34). As is evident, with most students of all grades few of their friends were reported as getting into trouble.
 - Mean differences between grades 9-12 and 5-6 ($p < .000$) and grades 9-12 and 7-8 ($p < .000$) were significant using the Bonferroni post hoc test.
- The subscale on friends familiarity with parents was significantly different for different grade groups $F(2, 1432) = 12.49, p < .000$
 - Both middle school (mean = 2.96) and high school (mean = 2.82) students reported that their friends were less familiar with their parents than did elementary school students (mean = 3.11).
 - Mean differences between grades 5-6 and 7-8 ($p < .006$) and grades 5-6 and 9-12 ($p < .000$) were significant using the Bonferroni post hoc test.
- The conventional involvement subscale was significantly different for different grade groups $F(2, 1431) = 27.77, p < .000$
 - High school students (mean = 2.15) reported that their friends had less conventional activity involvement than did elementary (mean = 2.50) or middle school students (mean = 2.48).

- Mean differences between grades 9-12 and 5-6 ($p < .000$) and grades 9-12 and 7-8 ($p < .000$) were significant using the Bonferroni post hoc test.
- There were no differences on the peer activity level subscale.

For the “Self” section of this measure students responded to items on the following scale: 0=very unhappy; 1=mostly unhappy; 2=neither happy nor unhappy; 3=mostly happy; 4=very happy. Therefore higher scores indicated greater happiness with aspects of the students life.

- The self-esteem subscale was significantly different for the different grade groups $F(2, 1444) = 12.53, p < .000$
 - High school students had the lowest self-esteem scores (mean = 2.81) and this was lower than either the elementary school students self-esteem (mean = 3.09) and the middle school students’ self-esteem (mean = 3.02).
 - Bonferroni post hoc tests showed that the mean difference between the grade 9-12 grade group and the 5-6 grade group was significant ($p < .000$) and the 9-12 grade group and the 7-8 grade group up was significant ($p < .001$).
- The family environment subscale was significantly different for the different grade groups $F(2, 1428) = 58.16, p < .000$.
 - High school students were the least happy with their family environment (mean = 3.12), followed by middle school students (mean = 3.50) and elementary school students (mean = 3.60).
 - Bonferroni post hoc tests showed that the mean differences between the 5-6 grade group and the 7-8 grade group was significant ($p < .01$); the difference between the 5-6 grade group and the 9-12 grade group was significant ($p < .000$); and the difference between the 7-8 grade group and the 9-12 grade group was significant ($p < .000$).
- The school satisfaction subscale was significantly different for the different grade groups $F(2, 1428) = 60.82, p < .000$.
 - High school students had the least amount of school satisfaction (mean = 2.78) followed by middle school students (mean = 3.17) and elementary school students (mean = 3.35).
 - Bonferroni post hoc tests showed that the mean differences between the 5-6 grade group and the 7-8 grade group was significant ($p < .000$); the mean difference between the 5-6 and the 9-12 grade groups was significant ($p < .000$); and the mean difference between grade group 7-8 was significantly different than the 9-12 grade group ($p < .000$).

Results for Participation in a Career Development Program

A second set of analyses was run to compare students who participated in Career Development programming and those who did not. The results for career development program participation were based on a sample of students composed of all the students who participated in the Career Trek program ($N=94$), all the students who participated in other career development programs ($N=76$), and a randomly selected sample of 97 of the 1,361 students who did not participate in any career development program. This was done in an effort to make cell sizes more comparable.

An ANOVA was done to test for differences between the career development groups on the Career Decision Making Scale (scores on this scale were averaged. There were 10 items and students responded to them on the following scale: 1=Strongly agree; 2=agree; 3=uncertain; 4=disagree; 5=strongly disagree. Thus, higher scores indicated greater disagreement with the statements.

- There was a significant difference between career development groups on Career Decision Making $F(2, 263) = 6.70, p < .001$.
 - o The no program group had less career decision making behaviours (mean = 2.15) than either the Career Trek (mean = 1.90) or the other career development program groups (mean = 2.06).
 - o Bonferroni post hoc tests found that the mean difference between the career trek and the no program groups were significantly different ($p < .001$).

Career Trek Program and No Program in Grades 7&8 Only

Childhood Career Development Scale

ANOVA results indicated that there were program group differences on the following subscales of the Childhood Career Development Scale:

Curiosity $F(1,76) = 5.06, p < .03$

The Career Trek Program (mean = 3.38) students were more curious about things they learned in school than the No Program Group (mean = 3.75).

Interests $F(1, 76) = 7.12, p < .009$

The Career Trek Program (mean = 4.06) students were more aware of their interests in school than the No Program Group (mean = 4.63).

Locus of Control $F(1, 76) = 4.56, p < .036$

The Career Trek Program (mean = 3.90) students felt they had more control over their activities and school related behaviours than did the No Program Group (mean = 4.39).

Planning $F(1, 76) = 5.30, p < .02$

The Career Trek Program (mean = 3.87) students felt that planning for the future was more important than did the No Program Group (mean = 4.38).

Self Concept $F(1, 76) = 7.29, p < .009$

The Career Trek Program (mean = 3.84) students had a clearer self-concept than did the No Program Group (mean = 4.39).

TCU/PMES Scales on Family, Friends and Self

ANOVA results indicated that there were program group differences on the following subscales of the TCU/PMES:

Conflict $F(1, 76) = 5.32, p < .02$

The No Program Group (mean = 1.11) had less conflict in their family than the Career Trek Group (mean = 1.58).

Trouble $F(1, 76) = 7.78, p < .007$

The Career Trek Group (mean = .62) had friends who were more often in trouble than did the No Program Group (mean = .25).

Conventional Involvement $F(1, 76) = 4.66, p < .03$

The Career Trek Group (mean = 2.32) had friends who engaged in less conventional activities than did the No Program Group (mean = 2.60).

School Satisfaction $F(1, 76) = 4.17, p < .05$

The Career Trek Group (mean = 2.99) reported less school satisfaction than did the No Program Group (mean = 3.32).

Outcomes/Key Findings

The key finding is that grade was significant for career exploration. Grade 5/6 students scored significantly higher on career planning, interests, locus of control, self-concept, and curiosity. Career Trek participants scored higher on measures of curiosity, interest, planning, and self-concept compared to the non-program group. Career Trek students also reported less school satisfaction.

The results of this project suggest that Grades 7-8 students experience a number of benefits through participation in a career exploration program. Given that students participate in the core program of Career Trek in Grades 5-6, the results suggest that the benefit of participation emerges in Grades 7-8. Career Trek students reported more curiosity in school, greater awareness of their academic interests, felt that they had greater control over their school-related activities and behaviours, increased importance to future planning, and clearer self-concepts than the non-Career Trek group. Given that there is a significant body of research that suggests that the transition to middle school is a period in which there is a negative shift in adolescents' academic, social, and emotional self-concepts (Duchesne, Ratelle, & Roy, 2009; Forrest et al., 2013), the finding that participants in career exploration reported better outcomes suggests that this type of programming can mediate the negative impact of transition to middle school. This supports previous work by the research team that has suggested that Career Trek provides an academic retention effect when students undertake the transition from elementary school to middle school. Career Trek students also report less school satisfaction – this may be due to their perspective that their educational needs and interests are not always being met in the context of their educational programs. This also may reflect that the schools are selecting the appropriate students for the Career Trek program, as they may begin with less school satisfaction.

Interest: People typically choose careers that they associate with their interests (Eccles, 2005). In this study, students in lower grades demonstrated greater interest in career exploration compared to higher grade peers. These results suggest the importance of promoting family, school and community-based practices that encourage and more importantly, *maintain* students' interests in career exploration by filtering ideas through the lens of "likes and dislikes". Although Internet-based programs can provide extraordinary amounts of information, this may not be the ideal career exploration format for youth in Grades 7 or higher. "Doing" is generally rated as holding

greater relevance and meaning for students compared to solely listening (Reynolds & Capterton, 2011). Children's interest is generally encouraged by experiential learning activities that may develop their understanding of particular careers. It is diametrically different to read about the work that a community developer does in an online environment and to hear a description of the work of a community developer, when compared to being asked as a "community developer" to interview people regarding their perspectives of community needs. Engaging in experiential learning opportunities that link to career exploration appears to be an important factor in facilitating and maintaining student engagement (and potentially success) in career exploration.

Planning: Compared to students in higher grades, Grade 5/6 students demonstrated greater awareness of the importance of planning when considering future careers. Planning is a critical skill in career exploration. Students who have some degree of awareness of the need to approach career exploration in an organized manner either by having a clearly-defined goal that they can describe a strategy for attaining, or who have an awareness of multiple career options along with some kind of plan to work toward these, will be more effective in their career decision-making.

Curiosity: Super identified that curiosity is a basic need for children "exploring possible selves and future scenarios" (p. 47). Children and adolescents manifest curiosity through exploration, experimentation, risk taking, and inquiring (Savickas, 2005a), and findings suggest that the earlier the grade, the greater the career-related curiosity. The "drop off" between grade 6 and middle school years may limit exploration and prompts unrealism and unrealistic aspirations and expectations about the future (Hartung, Porfeli, & Vondracek, 2005.). The implication is that interventions need to re-ignite curiosity at the latent stage of development – we think it is important to shift the understanding of a decrease or perceived absence of career-related curiosity in children and adolescents as developmentally typical to the position that this may be maintained and/or ignited by environmental interventions that spark curiosity.

Parental Involvement: Grade was the significant effect for parental involvement as parents engage in greater career support and action with their children in Grades 5/6 than higher grades. This is congruent with other research that suggests that parental school involvement during middle school generally decreases when compared to elementary levels (Hill & Tyson, 2009).

There are a number of other important findings. Career Trek is a program that is designed for students who have the ability to undertake post-secondary education, but who require additional supports in order to be successful. This may be due to single parent status, parents who have not graduated or attended post-secondary education, socio-economic status, emotional and behavioural issues, or other factors. Participants are selected by the individual school administrators, and the program does not require that the specific risk factors for each student are articulated. The finding that Career Trek participants report higher levels of friends who were more often in trouble, who engaged in less conventional activities, and whose parents had higher levels of conflict suggests that schools are in fact targeting the appropriate students for the program.

Marketing / Dissemination

The intent of this project was to bridge a perceived theory-practice gap and therefore, assist service providers including educational administrators, teachers, school counselors, community based youth workers and parents to use the findings in their work/interactions with children and adolescents.

The results of this project will be disseminated as follows:

1. The preparation of an article for submission to The Canadian Journal of Career Development. (Target date: Fall, 2015)
2. Summary of project on Career Trek Inc. and CANNEXUS websites. (Target date: June, 2015)
3. Information session for Career Trek staff. (Target date: June, 2015)
4. Presentations to schools, school divisions, the Manitoba Association of School Counsellors, and the Manitoba Association of School Trustees. (Target date: October, 2015)
5. Information sessions/workshops for professionals (Manitoba Association of Career Development) with the view to sharing project findings, exposing new ideas and strategies for increasing children and adolescents' career exploration. (Target date: November, 2015)
6. Dissemination will also include the provision of a career exploration workshop for the Winnipeg Boys and Girls Club, as part of their programming, and for other interested youth-serving agencies. (Target date, Fall, 2015)
7. Parent information seminars.
8. Preparation and distribution of one page information summary for interested agencies/school divisions – partner agencies.
9. Poster session (tentative submission to AERA, 2016).
10. Abstract submission to CANNEXUS 2016 – deadline, June, 2015.

Implications for Interventions:

The diminishing career interest and exploration behaviours, as suggested by the decrease in interest, curiosity, planning and control scores between elementary and Grade 7/8 and higher grade students suggest a need for more direct intervention during this period. This finding suggests that one possible response may be to provide information to parents about the impact of their involvement on the career exploration behaviours of adolescents. In collaboration with community-based organizations that are targeted toward positive youth development, a series of school-based educational sessions could be developed that highlight the personal, social, and academic benefits for students that occur as a result of parent-initiated conversations and activities in regard to career exploration. Some parents may simply need to be educated about how their awareness of their adolescents' career exploration interests and activities can impact

adolescents' sense of psychological well-being, especially in the areas of self-efficacy and self-concept. Others may find it helpful to reflect upon their personal educational and career histories with a view toward providing a different experience for their children. Previous research by this team has found that although parents state that they personally would have found greater parental guidance helpful, they are unsure as to how to provide this type of support to their children (Levine & Sutherland, 2013). Content should include information that emphasizes the importance of engaging in career-exploratory conversations with children – particularly in the middle school years (7-8). As well, the finding that high school students undergo a decrease in career planning interest suggests that the current process of “back-ending” career development (i.e. beginning career exploration curriculum at the senior years) is not meeting the needs of high school students. From a developmental perspective, this is a stage in which adolescents are struggling with a number of physiological changes and psychological demands in terms of brain development, identity, peer relationships, and academic issues. The addition of yet another challenge with respect to consideration of potential careers at this time appears to be less effective. This is not to say that schools should not focus on career development in the senior years, but again, it reinforces the for “planting seeds” at any earlier age and implementing different interventions that are actually effective for senior year students, that contextualize career issues within the social, developmental, and psychological changes experiences by students during this stage.

Timelines

This project did not adhere to the scheduled timelines. This was partially due to the time required to obtain Research Ethics Board approval from both universities in addition to the ethics approval from each participating school division. Notwithstanding the approval issues, the PI significantly under-estimated the time required to collect, analyze, and conceptualize the data.

Next Steps

1. Findings from this project suggest that the appropriate next steps may be the development and implementation of a structured parent education/information program. In collaboration with school divisions, school staff (administrators, educators and school social workers), and the applicable Parent Councils/Advisory groups, the team will develop a pilot parent career information/education program designed to enhance parental involvement. The Superintendents of the participating school divisions have been extremely receptive to this plan – team is currently planning the workshop for delivery in Fall, 2014.
2. Findings also suggest the need to develop an experiential career exploration model specifically for adolescents in Grades 7 and 8 with a focus on maintaining and enhancing the factors of curiosity, planning, self- concept, and locus of control issues.
3. Case study research. The findings that highlight the developmental changes in children and adolescents and their subsequent career exploration needs point to the need for further exploration. Given this, the team is developing a plan to conduct case study research (with each of the grade groups) to further explore how programming needs to adapt, based on developmental needs. The team is currently conducting case study research on educational outcomes of children in care (within the context of career exploration) and will be broadening

this study to include children who are not in care of child welfare agencies as a comparative study.

Financial Reporting

The financial report (hard copy) from Career Trek will be forwarded separately along with the (hard copy) statement of financial contributions from the University of Winnipeg. The contribution from the University of Winnipeg was **24,513.57** plus 15% benefits. This funding was used to hire undergraduate research assistants to administer the measures.