Development of a theoretically derived school career program: An Australian endeavour.

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Abstract

Theoretically derived career education programs are not well documented in the career development literature. This remains so, despite growing recognition of the negative effects of a schism between theory and practice. This article begins with a description of this state of affairs and argues for the amelioration of this dichotomy. A program that was designed with the aim of amalgamating theory and practice is then described.

The Theory/Practice Dichotomy

Career development researchers and career practitioners can become caught up with the many complex demands of their respective endeavours. Researchers actively follow lines of investigation, theorizing, testing and re-testing in the quest for a better understanding of the process of career development. Consequently, many valuable models, constructs and assessment tools have been devised. It should be noted, however, that the majority of samples used have not been drawn from the 'real world' but rather from narrow populations such as first year university students. In contrast, those in the vanguard of career education, career counselling, and curriculum policy development press on with the aim of assisting people in a variety of circumstances with a range of concerns across diverse career paths. These professionals have extensive hands-on knowledge but tend to overlook theoretical findings that could bring elucidation, coherence and organisation to their work. Indeed, in a discussion of the "schism" between theory and practice, Savickas (1995) cited research to support "the belief that theory is little used by practitioners" (p. 2).

In today's rapidly changing world of work (e.g., Irving & Raja, 1998; Savickas, 1996), there has been an upsurge in demands for high-quality career development services (Irving & Raja, 1998; Simons, Goddard, & Patton, 2000). In spite of this however, moves to do research in the field to enhance practice, and vice versa, have only just begun. The authors of the present paper contend that, if researchers were to forge closer links between theory and practice, they would be better placed to "keep up" with the malleable nature of careers in the current context. Theory must offer insight into clients' situations (Collin, 1996). Theorists may also have to "draw a different map" (Krumboltz, 1994, p. 16) because "the terrain is changing, and the old maps are no longer appropriate to guide practitioners through it" (Collin, p. 76). Researchers need to immerse their work in the field to examine context specific processes, and the skills required to navigate them, so that career development theorizing can better assist people to accustom themselves to shifts in their own career-related experiences.

Many authors have presented strong arguments for the amendment of this theory/practice dichotomy (e.g., Collin, 1996; McDaniels & Gysbers, 1992; Savickas & Walsh, 1996). Indeed, one author endorsed "giving psychology away" to make "the insights and tools of vocational psychology directly available to clients for their active use" (Borgen, 1991, p. 279). Another criticized the career development literature for

its over concern with "the objective rather than the subjective career" (Collin & Young, 1986, p. 841). Savickas (1995) emphasized the need for more "research that rigorously contextualizes vocational behavior" (p. 28). Statements about the potential for practice to inform theory are also common. For instance, "situated activity, particularly the practice of career intervention, constructs the true meaning of career theories" (Collin, p. 74).

It is germane to put theory into practice and thereby discover ways in which practice can inform theory. Career education in Australia is in urgent need of this. Unfortunately, career programs in this country have largely been characterised by a "band aid" approach (Prideaux, Creed, Muller & Patton, 2000). Often formulated to address immediate needs, they are hastily put together, unsystematic (McMahon, 1997) and generally atheoretical (Hansen, 1999). This type of career education programming tends to bring disorder to the field. In addition, career education in Australia is "peripheral to, rather than an integral part of, the school curriculum" (McMahon, p. 137) and thus, is not given the attention that it deserves. Undoubtedly, careful planning of career education using robust theoretical insights to guide the whole process of career development is necessary. Moreover, the delivery of such programs should be carried out systematically across the curriculum.

Although these arguments are compelling, it is easier said than done. Schools are very busy places and teachers are striving to cope with an ever increasing number of roles and duties. The curriculum is crowded and students are responding in a variety of challenging ways to the "emergent realities of the new careers era" (Carpenter & Inkson, 1999, p. 29). Researchers, on the other hand, are constrained by the requisites of sound methodology. In order to apply and test theory properly, experimental conditions, or as close as possible, need to be adhered to. It is an extremely onerous task to fit a sound research design into an actual school setting. There are many practical limitations including time tabling restrictions, unexpected events (e.g., excursions), and difficulties related to the acquisition of parental consent. In addition, students' career counselling needs are constantly changing and some students lack interest in career-related endeavours because they seem too distant to be of personal consequence.

The Career Choice Cycle Course: Background

The program described in this paper is an example of one response to incorporate career theory directly into a career education program. The overall project

design also incorporated an integrated research component. The design, implementation and evaluation of the career education program, the Career Choice Cycle Course (CCCC), took place within a school in which all stakeholders, including the principal, parents, and staff were committed to a collaborative approach to its implementation. The project was a collaborative venture between an Australian State high school and its university partner. It was jointly conceived and funded by these two institutions. The school was committed to developing strong links with university researchers to provide empirical support for its curriculum development. It was located in a community where, in the main, families come from lower socio-economic groupings and students have not historically made smooth transitions from school to work.

A selection of staff, parents and students were interviewed to determine their perceptions of the career education needs of students. Participants were asked about what they thought were the barriers to making sound career decisions for these students. In addition, interviewees were asked to speculate about students' confidence levels when approaching career-related decisions and the aspirations that young people at the school generally aimed for. All members of the school community including teachers, administrators, counsellors, parents and students were invited to provide input that they thought would be important in regard to the development of the course. This information was gathered and grouped into recurrent themes each representing the foremost career education needs of students. These were used to guide program development. For example, 40% of participants believed that students needed to build self confidence and self knowledge to discover their personal interests, abilities, and talents. Half of the interviewees also specified that personal skills including persistence, resilience to set backs, social skills, work ethic, and responsibility were lacking in these students. These recurring opinions were taken into careful consideration during the selection of a suitable theoretical basis for the intervention. Therefore, a sound theoretical framework was sought in order to incorporate this valuable context specific information into a well organised and effective format.

In addition to these interviews, pre-program surveys were conducted with the Year 10 students to determine baseline responses on a range of career related variables. Examination of these surveys, in conjunction with the contextual information gained from interviews with staff, parents and students informed the

design of the course. Later, a series of post-tests were administered to evaluate immediate and time lag effects using these same variables. The constructs measured prior to and following course implementation were: career decision-making self-efficacy (Career Decision-Making Self-Efficacy scale; Taylor & Betz, 1983), career maturity (Career Maturity Inventory-Revised; Crites & Savickas, 1995), career indecision (Career Decision Scale; Osipow, Carney, Winer, Yanico, & Koschier, 1976) and decision coping patterns (Flinders Adolescent Decision Making Questionnaire; Mann, Harmoni, & Power, 1988). The relevant instruments were chosen because of their well established psychometric properties and sound theoretical underpinnings. A full discussion on the program evaluation is beyond the scope of this paper and thus specific details of statistical methodology and findings will be presented in a subsequent paper.

The Career Choice Cycle Course – Selection and Justification of Theoretical Base

Several requisites of the theoretical base for the CCCC predetermined its selection (Prideaux et al., 2000). The program developers wanted to utilise a contemporary theory endorsed by sound research support, which viewed career development as an ongoing, cyclic process. It was required to have a constructivist foundation with cognition as a key variable. The theory was also required to take into account the unique context of individuals and accommodate for the current and prospective pressures that adolescents may be confronted with. Furthermore, the researchers were keen to employ a theoretical foundation that would incorporate the importance of dealing with students' confidence levels in addition to their acquisition of knowledge and skills.

Social Cognitive Career Theory (SCCT) was subsequently chosen as the theoretical foundation for the career education course. It was deemed the most appropriate theory from amongst those scrutinized in the literature because it possessed the desired characteristics listed above. In addition, SCCT corresponded with the qualitative findings as it encompassed elements that matched many of the issues raised. For example, participants often spoke of a need to build students' self confidence and/or self esteem with regard to career decision-making. This was deemed to equate to a need to build career decision-making self-efficacy.

SCCT theory was based on Social Cognitive Theory (Bandura, 1986), which is concerned with the interplay between “self-referent thought and social processes in guiding human behavior” (Lent, Brown, & Hackett, 1996, p. 376). Lent and Hackett

(1994) have referred to SCCT as their “career-specific elaboration of Bandura’s theory” (p. 83). Well-defined constructs, such as career self-efficacy, interests and goals, have been submitted to rigorous consolidation through a prolonged history of research and testing. Contextual variables were also considered integral to SCCT. Lent et al. (1994, 1996, 1999) contended that contextual factors ranging from financial, educational, and physical characteristics to political and social conditions “(a) help shape the learning experiences that fuel personal interests and choices, and (b) comprise the real and perceived opportunity structure within which career plans are devised and implemented” (Lent, Brown & Hackett, 1994, p. 107). SCCT has also embraced the “cognitive revolution” (Borgen, 1991, p. 279) with its inclusion of internal cognitive factors as influential components in the lives of people who actively shape their world.

The career choice model (see Figure 1) within the SCCT framework was employed to illustrate the various components of the career education program. Thus, the theory was translated into lay terms and was used as a guiding structure for the CCCC. The information gleaned from the meetings and interviews with members of the school community was also taken into account so that contextual information about the nature of the particular cohort of students for whom the course was designed could be carefully incorporated into that framework. Thus, the program was devised within a dual perspective. Practitioners, parents, teachers and indeed, the students themselves, were involved in fleshing out the theoretical model for the course to ensure it was tailored synchronously to the needs of those it was designed to serve.

The Career Choice Cycle Course was designed for year 10 students (age 15) and runs for six weeks taking up one 70minute lesson per week. This year level was chosen as it is the time for crucial academic choices within the school system in Australia. Figure 2 shows the titles of the six lessons, which signify the basic components of the course.

Figure 1. Person, contextual, and experiential factors affecting career-related choice behaviour (from Lent, Brown, & Hackett, 1994).

The Career Choice Cycle Course: Content

The first lesson, *What Influences Your Career Development?*, corresponds with the "Person Inputs" and "Contextual Affordances" part of the SCCT choice model (Figure 1). Hence, in accordance with Lent et al. (1996), students are guided toward an understanding of careers as not developing in a vacuum. They are made aware of the many "important person and contextual variables - such as gender, race/ethnicity, physical health/disability, genetic endowment, and socioeconomic status" (p. 386) that influence their interests and subsequent vocational outcomes. Initially, the CCCC model (Figure 2) is used to orient participants to course content, student booklets are distributed, and groups are formulated. The lesson aims to bring career aspirations to students' awareness and develop their understanding of the context in which career development takes place. Specifically, students are guided through activities to identify "things I am good at/not so good at" and the careers they are currently considering. Following this, they are encouraged to explore aspects of themselves, as well as their social and environmental setting to discover what has shaped their talents, interests and aspirations. The various levels of influence upon

their career development are illustrated via the use of a Systems Theory Framework model developed by Patton and McMahon (1999).

Figure 2. Lesson framework for the Career Choice Cycle Course

Lesson two, *What Have You Learned?*, is aligned with the "Learning Experiences", "Self-Efficacy" and "Outcomes Expectancies" part of the SCCT model (Figure 1). It aims to explain in simple terms the ways in which past experiences can affect future behaviour. Students are shown how certain experiences can lead to the formulation of either positive or negative beliefs about one's capability to do particular things and how our beliefs about the consequences of performing these

specific behaviours may also be contingent upon these experiences. Essentially, this lesson deals with how learning experiences, confidence levels and outcome expectancies affect students' approach to, and success in, a variety of career-related endeavours. Through guided activity and cognitive restructuring, students discover how task specific confidence (self-efficacy) affects the *goals* people set; how much *effort* they expend; how long they *persist*; how they *respond* to setbacks; and how they *cope* with failure. Particular emphasis is placed upon students' ability to identify negative versus positive self-statements. Strategies by which confidence levels for particular tasks can be strengthened are also explored. Specifically, students learn to appreciate the benefits of expecting a positive outcome, adopting personal responsibility for performance, putting in the effort to achieve success and modelling others who perform competently. One activity, for example, involves viewing a video of a past student who talks about the highs and lows of his career development and the perseverance he needed to have in the quest for the career that he currently enjoys.

Personal interests provide the focus of the third lesson, *Who You Are?* Students learn about how their interests, abilities and talents develop. The link between what they're interested in, or believe they're good at, and how this affects career-related decisions, is highlighted. They are also introduced to the concept of foreclosed interests and encouraged to expand the career options that they are considering since they could have ruled out some occupations too early. This notion emanates from Brown and Lent's (1996) contention that "some persons may prematurely eliminate potentially rewarding occupational pursuits because of inaccurate self-efficacy, outcome expectancies, or both" (p. 355). During the lesson a brief interest inventory is administered to the whole class and students are then guided through a career exploration exercise based on the interest profile they attained. For homework, students are required to investigate one occupation in detail. It must correspond with their interests and level of educational aspiration and they are encouraged to choose something that they hadn't previously considered and provide a report on it to their group the following week.

The fourth lesson aims to help students recognise the need for control over their own destiny and emphasizes that one's individual approach to career search/choice activity determines outcome. Labelled *What Do You Want To Do?*, and in association with the "Choice Goals" and Choice Actions" part of the model (Figure 1), the activities in this lesson call attention to the characteristics of effective goal

setting. For example, two scenarios are provided that illustrate both efficient and inefficient goal setting behaviours. The students are required to read them and discuss the productive and unproductive qualities of each and identify helpful strategies to use when goal setting. Additionally, students discover the advantages of having multiple pathways to their ultimate career goals. Here again, examples are provided to bring the concept to light. Each group is given the name of a person who has not been able to land their 'dream job' (e.g., Tom who wants to be a pilot but has discovered he is colour blind or Sue who wants to be a vet but hasn't achieved the marks needed for university entrance at this stage). It is the group's task to make suggestions for alternate careers or pathways for these people to pursue that provide them with opportunities to remain in the same or a related field.

Having learnt about what influences career development, how confidence levels affect career-related behaviour, how interests develop, and how to set realistic and achievable goals, this next lesson is about how to make a career-related decision and act upon it. Called *How Do You Decide and Go For It?*, it represents the "Performance domains and attainments" part of the SCCT model (Figure 1). As such, students are provided with a decision-making tool to promote the development of clear intentions that are more likely to be translated into sound "choice entry behaviors" (Lent et al, 1994, p. 95). Mann, Harmoni and Power's (1988) GOFER is introduced to provide a five step plan for sound decision-making: "**G**oals clarification, **O**ptions generation, **F**act-finding, consideration of **E**ffects, **R**evue and implementation" (Mann, Harmoni, Power, Beswick & Ormond, 1988, p. 161). Students gain an awareness of different decision-making styles, discuss decision-making strategies and observe these applied to simple decision-making tasks. This lesson culminates in a guided activity that requires students to lay down the steps they need to take in order to make informed decisions for the following year. For instance, those who want to remain at school need to decide about the subjects they will take for the next two years. Others need to make decisions concerning their course of action when they leave school at the end of year 10. The theory behind this exercise is that participants are expected to have more positive performance experiences when actions are well planned via their undertaking careful decision-making procedures. In turn, it is expected that positive performance experiences will lead to enhanced self-efficacy and outcome expectancies and so on.

Finally, students are made aware of the cyclic nature of career development. This lesson aims to prepare students for the possibility of barriers and setbacks during their careers. It stresses the skills they have learnt and how these will help them to keep cycling through career development processes in the future. It is entitled *How Do You Grow, Review and Recycle?* and is theoretically related to SCCT's concept of reciprocal determinism (Bandura, 1986), which is depicted in the career choice model (see arrows in Figures 1 & 2) as a "feedback loop [whereby] the expression of a primary choice goal actions designed to implement the choice [and] subsequent performance attainments" affect each other bi-directionally to shape future career behaviour (Lent et al., 1994, p. 94). The model of recursiveness depicted by the Systems Theory Framework (Patton & McMahon, 1999), due to its correspondence with this cyclic view of career development, was employed as an explanatory tool to emphasize the ways in which individual, societal and environmental elements contribute to career choice behaviour throughout the life span. Students revisit the factors influencing their career development discovered during the first lesson and think about how these may change over time. The careers of some adults they know are discussed to explore the cyclic nature of career development. For instance, the librarian at the particular school where this initial presentation of the course took place started her career as a police woman, then became a mother and prime carer of three children before becoming a teacher and later a librarian. The students enjoyed following her story and learning about the changing contexts of her career development.

Reflections on Program Development

Each of the lesson plans, as well as the accompanying Teachers' Guide and student activity booklets, took form with relative ease since the strong theoretical basis provided by SCCT's choice model afforded clear direction for its composition. The accrued evidence of this theoretical foundation also guided program development in an applied sense. For example, Luzzo, Funk, and Strang's (1996) use of an attributional retraining video to modify career decision making self-efficacy prompted us to incorporate this into our course design. In addition, Brown and Lent's (1996) work on foreclosed occupational paths provided further inspiration. We drew upon their suggestions for counselling clients to overcome choice barriers via exposure to new experiences and a reexamination of past experiences to help nullify faulty efficacy and outcome percepts.

Consequently, due to the considerable body of established research literature in support of SCCT's models and tenets, the selection of course content was a relatively straightforward task. The only difficulty associated with designing the course around this theoretical framework was that there were considerably more ideas generated by our scrutiny of the literature than available time in which to conduct the course. Indeed, given the breadth and depth of this theoretical foundation, we could conceivably have produced a career education program for an entire school year.

A strong commitment to theory based program development has been born out by this exercise for us. It was our aim to carefully identify the context specific needs of the recipients of the intervention and then to find the most appropriate theoretical acumen to ensure a coherent and well structured approach to the situation. It was not to be a "patch up" or "band aid" exercise. It was our intention to "walk the talk". That is, we set out to put theory to the test in the real sense, to see if all the conjecture could really benefit those for whom science is ultimately geared to serve. It was our bid to move toward breaking the theory/practice dichotomy. We believe theory can chart career development behaviour and in turn, people can inform theory through their direct contact with theoretically derived programs.

Reflections on Evaluation

Just as important as designing career education programs that encompass contextual data and sound theoretical underpinnings, is the systematic and meaningful evaluation of them. Without effective monitoring processes, the implementation of programs may be futile. Sound evaluative methodology is vital so that control over alternative explanations is maintained and inferences about the outcomes of the program may be confidently drawn (Prideaux et al., 2000). In this way, theory can be extended in an efficient and productive manner. Furthermore, if the measurement instruments utilised are reliable and fortified by strong psychometric support, replication studies may be carried out and provide further opportunities for theory to be extended and validated. Yet another advantage pertains to financial support for such endeavours. If robust techniques are in place to accurately assess the worth of career education initiatives, demonstrated benefits are more likely to be ratified by those in control of government funding (McMahon, 1997). Nevertheless, it is important not to lose sight of the fact that it is the students for whom career education programming is designed who should ultimately benefit.

Innovative and more effective ways of assessing how well students fare as a result of career education need to be developed. The establishment of dependent variables that more closely reflect the goals of career education interventions may be warranted. Teachers know that for evaluation to be of use, it must be closely tied to the aims of each lesson as well as the objectives of the entire program. Career programming should be no different, and as such, clear aims must be set prior to the laying down of suitable evaluative strategies. Strategies need to incorporate well validated survey instruments, measuring relevant variables, such as career decision-making self-efficacy, career maturity and career indecision, in addition to more qualitative measures such as reflexive journals and interviews.

The desired outcomes for young people embarking in today's world of fluctuating career patterns are diverse and very different from the outcomes measured previously. When careers were more predictable, career guidance programs aimed to achieve results that were less complex. We need now to invent a range of new methods to measure skill acquisition as well as improve traditional paradigms so that we can ensure career education successfully achieves its contemporary goals. Hence, there is room for much improvement in current assessment techniques. Inventiveness is required to conceive novel ways of measuring how proficiently programs equip students with "new attitudes and skills to embrace the twenty-first century" (Mitchell, Levin & Krumboltz, 1999, p. 119).

Conclusion

The theory and practice of career development are ripe for amalgamation. There have been warnings about the problems that ensue when "counselors do not publicly describe their practices and scientists write but rarely counsel" (Spokane, 1991, p. 4). In addition, according to Collin (1996), practitioners continue to apply outdated theories that "have become taken for granted and embedded in the syllabus" (p. 75). Research building has clearly reached a stage where more consistent collaboration with practitioners would complement and enhance its progress. It is recommended that those at the "coalface", in conjunction with career development theorists and researchers, adopt a more organised and better informed approach to the creation, testing and continual redevelopment of career education that exhibits worthwhile outcomes for today's youth (Hansen, 1999).

The schism between theory and practice in the field of career development seems to have persisted despite salient arguments supporting its breakdown. There are

probably a great many viable reasons why this is the case. From our perspective, having just completed the task of designing and implementing a theoretically based career education intervention, we can offer some suggestions. It is important to note at this juncture, however, that the attainment of a sound theoretical framework and its translation into a series of lessons was relatively straightforward. In the main, the problems we encountered were of a more practical nature.

First and foremost, research in the 'real world' that attempts to abide by the confines of sound methodology is, at the very least difficult, and sometimes impossible. A field setting populated by wholly willing and committed participants is uncommon. If one is retained, a series of other nuances with regard to the difficulties of situated research may arise. For instance, it is not usually feasible to obtain written consent from every parent of every child in the year level of interest within the school. Consequently, there will be some and possibly many students who will need to be supervised while their classmates do the course. This is perhaps one argument for the incorporation of research into the normal process of a schools' curriculum development.

Research in schools is also subject to many problems endemic to the nature of this busy setting in itself. Those who have the responsibility to time-table lessons, staff, students, rooms and special events in an atmosphere of diverse curricula and close community involvement know that it is an extremely unruly chore. In this context, a research project is yet another string to the bow but can also be seen as yet another task on an ever growing list of extra expectations that can be overlooked. Unfortunately, even after all the time tables are successfully manipulated and the relevant staff members are successfully recruited, unforeseen events may still crop up to add to the difficulties associated with research in the field. For example, an excursion away from the school may take place without prior notice or an unexpected event may occur that pulls students out of class without warning.

We have presented but a few of the practical problems encountered during the project. Clearly, schools are difficult environments in which to conduct research and the control of confounding variables can be an ever present challenge despite meticulous design and planning. For example, a significant unforeseen dilemma that we were faced with concerned the promotion of the principal who was ostensibly the "gatekeeper" for the project. Hence, half way through the project we had to gain

backing from a new principal with a different perspective on career programs and research in schools.

Many valuable lessons were learned from this attempt at career development research conducted in a school setting. The methodology employed was deemed as tight as possible given the restrictions placed upon us. However, we acknowledge that certain aspects could be improved in future attempts. Consultation with staff was one issue raised retrospectively. The level of collaboration between researcher and practitioners, in this case teachers, may have been too one sided. Although very busy with their regular duties, the teachers voiced a desire to have more input into the earlier planning stages of the project. They stressed, for example, an aversion to one of the instruments in the survey since it involved a lot of reading on the part of respondents who generally had lower than average literacy skills. Had the teachers been involved in the choice of outcome measures, we believe more appropriate instruments would have been employed. Indeed, given their extensive experience with program planning and evaluation, earlier consultation with teachers may have afforded the provision novel and more practical assessment strategies. Also in relation to outcome measures, a more sophisticated mode of manipulation check should have been adopted. Perhaps the collection of anecdotal data pertaining to career choice behaviour (e.g., subject selection) would have provided triangulation for the survey data.

Despite these and other limitations to situated research, it is our recommendation that in future, this type of collaborative endeavour be adopted as much as possible by those involved in career development research and practice. In terms of career education specifically, the main suggestion we would propose is that a "big picture" approach to research and curriculum development needs to be embraced, particularly in Australia. This we consider an important adjustment to the way in which career education curriculum development proceeds in order to steer away from the typically reactive nature of past programming efforts.

This article has described one attempt to develop a theoretically derived, research driven career education course. The central focus has been an appeal to incorporate theory into practice in order to activate the complementary process of practice informing theoretical advancement. Whilst arguing for this merger of theory and practice, we have also acknowledged some of the methodological difficulties we faced during our research project. We trust that others who attempt situated research

in the future may learn from the pitfalls we encountered. It is also our hope that the range of qualitative, cross-sectional and longitudinal data gathered for the design and evaluation of the course described herein, which will be the subject of further papers, will serve to inform future research projects of this nature.

In conclusion, we concede that it is probably easier to test theory using convenience samples and perhaps it is a more attractive proposition for career practitioners to continue to do what they are familiar with. Ultimately though, it is the compelling context of career diversity that we believe will increasingly necessitate the breakdown of the theory/practice dichotomy. Students need well founded, incremental assistance to equip them with the confidence and skills necessary to create a fulfilling lifestyle within a constantly changing work environment. Programs derived from sound theory and contextually derived information, conducted and evaluated in real world settings, hold promise for supporting students and advancing the field of career development.

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