



# **Career Planning & Adult Development** **JOURNAL**

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Debra S. Osborn, Guest Editor

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**Cognitive Information Processing Theory: International Applications**

### **Chapter 2.**

**Applying CIP Theory to Canada's Lighthouse Labs Bootcamp**

### **Chapter 3.**

**"On Career Path" Group Counselling as a Booster for Career Planning and  
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## Chapter 1

# Cognitive Information Processing Theory: International Applications

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### Introduction

Cognitive information processing theory (CIP; Sampson et al., 2004) originated in 1971 at Florida State University as researchers in career development who were strongly engaged in the delivery of career services integrated years of practice and research to create CIP theory. Since that time, hundreds of scholarly works in the form of conceptual and empirical articles, book chapters, and so forth, have been written on the key elements of CIP theory. In fact, Brown (2015) stated that “probably the most widely studied career interventions have been those developed” from CIP theory (p. 62). CIP has been well-cited since its development, with 188 peer-reviewed articles and 350-plus total scholarly works (Sampson, Reardon, Peterson, & Lenz, 2019). The majority of these scholarly works are from the United States; however, several are from international contributors. In addition, the Center for the Study of Technology in Counseling and Development (<https://career.fsu.edu/tech-center/about-us>), which focuses on exploring and building upon CIP theory and practice, has hosted 47 international visitors with interest in research and application of CIP theory. These contacts have shared via scholarly work as well as anecdotally about the impact of applying CIP in their settings.

Given the awareness that CIP theory is being used internationally, and in an attempt to understand the commonalities and uniqueness of how each setting uses and flexes with their integration and application of CIP, the rationale for this special issue in the *Career Planning and Adult Development Journal* was to create a space where this collective knowledge and experience could be disseminated. In this special issue, nine international countries are represented, including: Australia, Brazil, Canada, Finland, Iceland, Philippines, Singapore, South Korea, and Uganda. In addition to providing a background about their specific site, the authors of the articles in this special issue were asked to consider the following questions as they wrote about CIP in their setting:

- ☐ What was the impetus/decision making process for choosing CIP?
- ☐ How was CIP implemented?

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- What challenges were experienced during implementation?
  - How was the “CIP experience” evaluated? What worked well? What needed adjustment?
  - What recommendations might be made based on the experience?

As a general introduction to this special issue, this article will begin with exploring global career development and career counseling, and ethical considerations of applying western theories to other countries. In addition, we provide a brief review of CIP components and expound upon the spirit of CIP theory. We conclude with general observations of how CIP was applied in these various international settings and recommendations moving forward.

### **Global career development and career counseling**

Attention to aspects of career development on a global scale has been continually increasing over time. Though an understanding of work and its importance is not new, the development of sophisticated mechanisms of career support has been steadily emerging within the global context. Evidence of this is found in the emergence of career development professional associations across the globe such as the Japan Career Development Association, The Career Development Association of Australia, and the Asia Pacific Career Development Association. An international symposium held in 2019 on career development facilitated by the International Centre for Career Development and Public Policy in Norway was attended by representatives from 33 countries. The International Association for Educational and Vocational Guidance has a long history of connecting career development professionals and researchers from across the globe to disseminate information on career development interventions and research.

A byproduct of this enhanced attention within various countries is an interest in career theory and associated interventions. A recent edition of the International Journal for Educational and Vocational Guidance contained two articles focused on career theory; one on validating the use of Holland with a Slovak sample (Martončík, Kačmárová, Hruščová, Magáčová Žilková, & Kravcová, 2019) and another on the application of Social Cognitive Career Theory in Croatia related to careers in sustainability (Međugorac, Šverko, & Babarović, 2019). Life Design Theory (Savickas, 2012) has also been examined within an international context such as a career group in Italy (DiFabio & Maree, 2012) and a career group with adolescents in Portugal (Cardoso, Janeiro, & Duarte, 2018).

Cognitive Information Processing (Sampson, Peterson, Reardon, & Lenz, 2004) has a documented history of existing both in practice and research in the global context. An examination of the CIP bibliography (Sampson, Peterson, Reardon, & Lenz, 2019) found at least 21 articles that are internationally-oriented. Examples of the reach of CIP include using the Career Thoughts Inventory (CTI: Sampson, Peterson, Lenz, Reardon & Saunders, 1996) to examine the degree of dysfunctional career thoughts in career counseling in Iceland (Björnsdóttir, Einarsdóttir, & Kárdal, 2008), exploring dysfunctional career thoughts in breast cancer survivors from the Bahamas (Dames et al., 2019), and examining the impact of a CIP-oriented intervention focused on career thoughts for college students on a pacific island (Thrift, Ulloa-Heath, Reardon, & Peterson, 2012). These examples illustrate the expansive influence of CIP in the global marketplace of career services.

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## **Ethical Considerations for Applying CIP Transnationally**

Ethical principles set a precedence for behavior in many different fields but are especially important within the human service field. When applying any approach to help a client, practitioners should be cognizant of ethical factors that could impact the efficacy of the approach. There are a number of ethical standards within NCDA's guidelines (2015) and the NCDA Competencies for Multicultural Career Counseling and Development (NCDA MCCD; NCDA, 2009) that are particularly important when it comes to the application of utilizing CIP internationally. These are quoted directly throughout this section. In reviewing these sources, three main areas of particular application to the topic of transnational application of theory emerged, including: cultural considerations for communication; career development theory; and legal/ethical issues.

### **Cultural Considerations in Communication**

Career practitioners should demonstrate cultural sensitivity in their communication style, content, and medium with individuals, as demonstrated by these standards and guidelines: NCDA (2015)

- ❑ Developmental and Cultural Sensitivity. "Career professionals communicate information in ways that are both developmentally and culturally appropriate." (A.2.c. P. 4) NCDA MCCD (2009)
- ❑ "Regularly evaluates the information, resources, and use of technology to determine that these tools are sensitive to the needs of diverse populations amending and/or individualizing for each client as required; provides resources in multiple formats to ensure that clients/students are able to benefit from needed information; provides targeted and sensitive support for clients/students in using the information, resources, and technology." (Information, Resources, & Technology, p.2)

Working through career concerns can be achieved at a variety of different educational levels. In order for career concerns to be effectively addressed, information must be discussed, explored, and evaluated at a level that is equivalent to the client's abilities. Culturally appropriate communication as applied to transnational adaptation of career theory does not require a new set of treatments in order to be effective, but more so requires practitioners to be sensitive and flexible in how they go about the implementation of interventions and treatment within a global context (Weir, 2020). CIP's model for career decision making, career readiness and the differentiated model of career service delivery is broad and flexible enough within its categories and steps for easy adaption and implementation across different demographics and cultures. Regular evaluation of how well transnational adaptation of a career theory is occurring will increase the likelihood of honest communication that is sensitive to the cultural setting and values in which it is being implemented.

### **Cultural Considerations for Career Development Theory**

When developing, implementing or researching any career development theory or intervention, cultural considerations within practice and conceptualization is paramount for effective implementation and is guided by the following standards:

NCDA (2015)

- "Career professionals actively attempt to understand the diverse cultural backgrounds of the individuals they serve. Career professionals also explore their own cultural identities

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and how these affect their values and beliefs of the working relationship.” (Introduction – A, p. 3).

NCDA MCCD (2009)

- Understands the strengths and limitations of career theory and utilizes theories that are appropriate for the population being served (Career Development Theory, p.1)
- Is aware of his/her own cultural beliefs and assumptions and incorporates that awareness into his/her decision-making about interactions with clients/students and other career professionals (Individual and Group Counseling Skills, p.1)
- Continues to develop his/her individual and group counseling skills in order to enhance his/her ability to respond appropriately to individuals from diverse populations (Individual and Group Counseling Skills, p.2)

CIP theory encourages practitioners to examine and consider the diverse backgrounds of each individual experiencing career concerns. A key element of CIP is the exploration and evaluation of an individual’s beliefs and values, whether it is culturally or personally, throughout each of the information processing domains (i.e., self-knowledge, options knowledge, decision-making, executive processing), and contributes to client readiness. This drive to first understand certainly applies to transnational application of career theory, in that a recommendation of adoption of a particular career theory or career service delivery model requires a thorough understanding of the cultural context of that setting in determining the appropriateness of that theory for the individuals being served.

While understanding and evaluating an individual’s values and beliefs are important within the process of CIP, a practitioner’s own values and beliefs are equally as important and involve self-exploration of practitioner’s own attitudes (Leung, 2003). Leung (2003) suggested that confrontation of “cultural encapsulation” requires us to examine our own attitudes to break out of the tendency to isolate and believe that what the practitioner already knows is enough. Collaboration across cultures via research or other professional communications can help practitioner’s exploration and expansion of their beliefs and understandings of different cultures and applications of services (Leung, 2003). Savickas (2007) identified the need for Division 16 of the American Psychological Association (APA) to “formulate and implement strategies that facilitate development of indigenous psychological theory and research that are grounded in the specific cultural context where they are practiced” (p.186). This initiative is similar to the movement of implementation of CIP internationally, and most practitioners utilizing CIP are very cognizant of the cultural implications within practice. Cultural humility and awareness are paramount in being an effective career service provider, and certainly in the transnational application of career theory and intervention.

### **Cultural Considerations in Assessment**

Appropriate assessment and evaluation are valid, reliable, and effective when cultural context is considered when administering or interpreting assessment results. The cultural context and factors that need to be considered for practitioners implementing CIP internationally are guided by the following standards:

NCDA (2015)

- “Career professionals recognize that culture affects the manner in which clients’ issues

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- are defined” (Cultural Sensitivity When Interpreting Assessment, E5b – p. 14)
  - “Career professionals use, with caution, assessment techniques that are normed on populations other than that of the Client. Career professionals recognize the possible effects of age, color, culture, disability, ethnic group, gender, race, language preference, religion, spirituality, sexual orientation, and socioeconomic status on test administration and interpretation, and place test results in proper perspective with other relevant factors. Career professionals use caution when selecting assessments for culturally diverse populations to avoid the use of instruments that lack appropriate psychometric properties for the client population (Multicultural Issues/Diversity in Assessment, E8, p.14)

NCDA MCCD (2009)

- “Understands the psychometric properties of the assessments he/she is using in order to effectively select and administer assessments, and interpret and use results with the appropriate limitations and cautions” (Individual/Group Assessment, p.2)

Assessments are a common component of many career theories, including CIP. The Career Thoughts Inventory (CTI; Sampson, et al., 1996) and Self-Directed Search (SDS; self-directed-search.com) are commonly utilized within CIP, in order to either explore the potential complexity of the individual, to help explore or organize self-knowledge, expand upon options related to self-knowledge, and/or to inform the career decision-making process. Valid assessments that take into account the age and culture of an individual are necessary in order for them to be utilized in an effective and ethical manner. Providing an individual with results that are not generalizable to them may harm the working alliance and also potentially guide them in an unadvisable direction. Using assessments that have any sort of diagnostic component may do more harm than good to an individual if they are not culturally sound. When assessing an individual’s readiness within a cultural frame, it is important to either adapt or adopt measures that take into account the cultural elements that may contribute to an individual’s concerns and experience.

Both the CTI and the SDS have been used in many international settings. Being cognizant of culture and the use of assessments within career counseling and development can present added challenges to the utilization of CIP outside of the US. The CTI assesses an individual’s negative metacognitions (i.e., executive processing domain) that may be creating barriers within an individual’s ability to make career decisions. Lerkkanen, Sampson, Peterson, and Konttine, (2012) evaluated career decision making utilizing the CTI in Finland. Within their research, they evaluated whether it was more effective and valid to adapt or adopt the CTI into Finnish (Lerkkanen et al., 2012). They found that interpreting the CTI into the Finnish language maintained the factor structure of the original (Lerkkanen et al., 2012; Sampson et al., 1996). Holland’s SDS assessment is often utilized to provide individual’s with career options to consider based upon their skills, interests, and values (Holland, 2000). Bullock, Andrews, Braud, and Reardon (2010) researched Holland’s theory within an international context with positive findings. This technical report is accessible on the FSU Career Center website: ([https://career.fsu.edu/content/download/223100/1906274/TechRept\\_50\\_.pdf](https://career.fsu.edu/content/download/223100/1906274/TechRept_50_.pdf)).

Maintaining appropriate understanding and current research on international use of career assessments and theories is necessary for appropriate and valid utilization of assessments within



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the CIP Model. However, evidence-based assessment practices and ethical decision making still need to be implemented, not only within a research context but also within a CIP service model internationally. With the rapid globalization most of the world is experiencing, it is paramount that practitioners not only remain well informed of best practices and use of standardized and non-standardized assessments, but of the implications of the evaluations and data within the individual's cultural context.

### **Cultural Considerations for Ethical and Legal Issues**

Every country and licensing body requires a certain standard of ethical behavior from their licensed practitioners with the expectation of appropriate decision making and behavior. There tends to be some overlap between ethical standards and the legal statutes that govern each country. Career practitioners are expected to maintain the appropriate ethical and legal practices for their county, and are guided by the following standards:

NCDA (2015; Professional Values and Principles, p. 1)

- Supporting the worth, dignity, potential, and uniqueness of everyone
- Honoring diversity and promoting social justice

NCDA MCCD (2009)

- “Employs his/her knowledge and experience of multicultural ethical and legal issues within a professional framework to enhance the functioning of his/her organization and the image of the profession; uses supervision and professional consultations effectively when faced with an ethical or legal issue related to diversity, to ensure he/she provides high quality services for every client/student” (Ethical/Legal Issues, p.3)
- “Engages in coaching, consultation, and performance improvement activities with appropriate training and incorporates knowledge of multicultural attitudes, beliefs, skills and values; seeks awareness and understanding about how to best match diverse clients/students with suitably culturally sensitive employers” (Coaching, Consultations, and Performance Improvement, p.2)

As with the previously noted standards, these specific standards reinforce the key value of practicing cultural sensitivity and humility. Career practitioners are always encouraged to seek out supervision and consultation when necessary, especially when working with individuals from culturally different backgrounds and settings. While no standards specifically describe working in international settings, the sentiment underlying these standards and guidelines is one of sensitivity and respect.

In addition to the standards and guidelines already mentioned, Sampson et al. (2000) created a five-step model for transnational application of career theory into practice. The researchers developed the model as they applied CIP theory to the United Kingdom. The first two steps involved determining and then disseminating identified theoretical principles. In their article, CIP theory was the determined theory, and the principles were disseminated through means of the CIP bibliography (<https://career.fsu.edu/Tech-Center/Resources/Bibliographies>), client and counselor worksheets (<https://career.fsu.edu/tech-center/resources/service-delivery-handouts>), and other resources such as presentations (<https://career.fsu.edu/tech-center/resources/presentations>), and technical reports (<https://career.fsu.edu/tech-center/resources/technical-reports>). The third

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and fourth steps include applying and field testing the theoretical principles to a different national concept, while the fifth step includes a critical review of how the adapted application worked. Following their successful application of CIP to a career service in Coventry, the researchers provided several recommendations for transnational theoretical adaptation. These included understanding the context of the setting, taking a collaborative approach that involves practitioners and policy makers to create an implementation plan, maintaining realistic expectations, and including an evaluative component of the adaption. These five steps provide a guide for practitioners internationally that intend to implement CIP successfully within their cultural setting in an ethical and efficient manner. Additionally, the steps provide an evaluative process for ensuring that the implementation is effective and remains consistent with the theoretical model regardless of the cultural context.

### **Components of Cognitive Information Processing Theory**

Cognitive Information Processing Theory (CIP; Sampson, Reardon, Peterson, & Lenz, 2004) is a comprehensive career theory that focuses on the interaction between domains of knowledge and process. The components of knowing described by the Pyramid of Information Processing and its components (Executive Processing, Decision-Making, Self-Knowledge and Options Knowledge) interact with the process of navigating a career concern termed the CASVE cycle (Communication, Analysis, Synthesis, Valuing, Execution). This approach entails a learning engagement facilitated by the career practitioner in the theory and the manner in which it informs an effective process of career decision-making and problem-solving. A consideration of this approach both to current and future career concerns is also a focus of the interaction between practitioner and client.

In addition to these structural components of CIP, there is a focus on readiness to encounter a career decision. Readiness is defined as capability of an individual to make appropriate career choices within the context of the complexity of family, social, economic and organizational factors that influence career development (Sampson et al., 2004). There are two dimensions of readiness which specifically contextualize the career concern. Capability consists of the cognitive and affective capacity of an individual to engage in effective career problem solving and decision making. Complexity refers to factors within the family, society, economy, or employing organization that affect the ability to process information necessary to solve career problems and make career decisions (Sampson et al., 2004). These two dimensions intersect to offer insight as to the readiness to engage in career decision-making and problem-solving and potential points of intervention for a career practitioner when problematic aspects of readiness are identified. CIP can be used in conjunction with other career theories to comprehensively support those in need of support. Associated assessments and interventions are utilized to uncover associated thoughts and feelings that may be affecting one's engagement with a career concern. The CTI that assesses for the degree and nature of dysfunctional career thought and accompanying workbook (Sampson et al., 1996, 1996a)m and the Career State Inventory which measures readiness (Leierer, Peterson, Reardon, & Osborn, 2017) have a foundation in CIP and have been used in a variety of international settings.

In aligning with the CIP precept of individualizing interventions based on the degree of the need, a differentiated service delivery model (i.e., self-help services, brief staff-assisted

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services, and individual case-managed services) was established (Sampson et al., 2004). The goal of this differentiated service delivery model is to maximize the number of people who can be served by providing an optimal amount and type of assistance that meets clients' needs. Self-help services are designed for more independent use in that practitioners primarily function as a referral source for appropriate educational and occupational information within the context of a time-limited engagement. Brief-staff assisted interactions entail addressing the client's needs in a short duration of time. Individual case-managed services provide the same type of services as brief staff-assisted services, but on an extended basis because of the client's low readiness, as evidenced by low decision-making capability, high complexity of issues compounding the decision-making process, and possible mental health issues.

### **Spirit of CIP**

CIP has specific structures and domains which comprise this approach to career support. While the assessment and techniques provide a framework in which to address career concerns, a philosophy undergirds this process. CIP emphasizes the relationship between the career practitioner and those they support. In addition, modeling and reinforcing information seeking-behavior is a component of delivering career services. Finally, providing the level of support that is aligned with an individual's needs ensures an individualization of the intervention (Sampson et al., 2004).

The differentiated service delivery model is a result of the CIP perspective of individualizing interventions based on the degree of the need and to provide the most good to the most people as there exists a paucity of resources (Sampson et al., 2004). This consideration of equitable distribution of resources is designed to address social injustice as it relates to access to career services (Sampson, Dozier, & Colvin, 2011).

CIP involves a learning engagement in which clients are empowered to understand both themselves and the process of addressing a career concern with the intention of positively impacting their career decision making and problem solving over the lifespan. Instilling a sense of agency to overcome obstacles to career goals using dimensions of CIP is emphasized. Though the career practitioner facilitates this process, the client informs the process and applies interventions derived from the engagement. Though clear in its structure and process of implementation, the spirit of collaborative problem-solving, information seeking, learning, and agency in overcoming career obstacles typifies the CIP approach.

### **CIP in International Settings: Some Observations and Recommendations**

This special issue includes international practitioners' reflections on their experiences integrating CIP theory, in some manner, into their career service delivery. The articles in this present special edition tell a story of how CIP was adapted and implemented into small groups (Rantanen et al.), websites (Hughes & Hyatt), print materials including guides and handouts (Björnsdóttir & Lenz), workshops (Gordon), complete overhauls of physical space (Ahn; Toh & Sampson), and the development of 20 CIP-based career centers (Garis et al.). What emerges from each of these stories is an appreciation of the need for a balance between applying a validated theoretical approach that was developed elsewhere with the cultural values and systems of the country in which this integration is taking place. While each story is unique, some overlap

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among them is observed.

### **Observations:**

Despite the location, population, and venues described in the articles in this special edition, it appears that the authors, perhaps unintentionally, followed the process of the five step model for transnational application of career theory into their practice as proposed by Sampson et al. (2000). Many of the authors identified the differentiated service delivery model as a major draw to CIP theory as a way to meet the burgeoning service demands. In each case, the dissemination of CIP principles occurred through face-to-face engagement and conversations with CIP theorists or visits to the Florida State University Career Center, where the integration of CIP into the practice of career service delivery could be observed. Through those interactions, relationships were formed, and multiple conversations held on how CIP might apply to the particular setting, including possible adaptations. As the authors moved from conceptualization to application, it was clear that formative evaluation was going on and adjustments made when necessary. Many reported that a formal, summative evaluation of the application had yet to occur, but acknowledged that it was desirable, planned for, and would be helpful in informing next steps. Overall, it appears that the implementation and adaptation of CIP as described through the voices of eight different countries was deemed positive and successful.

### **Recommendations:**

Based on the experiences shared in this special edition, several tentative recommendations can be made:

- ☐ Determine the needs of the career service program (Sampson, 2008)
- ☐ Review existing career theories to determine which theory would best meet the specified needs. Consider:
  - o The key elements, underlying assumptions and principles, research base, and existing international applications of each theory being considered.
  - o What constitutes a theory:
- ☐ A career theory is one that is based on empirical research and supported by a body of evidence (Brown, 2003; Sharf, 2013).
  - o The purpose of theory:
- ☐ The assumptions and assertions of a theory are interwoven so as to guide career practitioners' in their conceptualizations of and interventions with clients (Krumboltz & Nichols, 1990).
  - o The caution against creating a theory by pulling from several different theories:
- ☐ While an ability to shift approaches with each client to best meet their needs is recommended (NCDA, 2016), approaching career theories with a buffet-mind approach (i.e., "I'll take this idea from one theory, and that idea from another and create my own theory") is not (Brown, 2002).
- o Thus, when considering applying a theory, the immediate question should not be "How can this theory be adapted to meet our clientele's needs," but, "Which theory appears to best address our clientele's needs?" If a theory needs major or multiple adaptations in order to fit with a specific culture, perhaps that is not the best theory for the situation.
- ☐ Once determined, initiate collaborative conversations with the career theorist(s) or key authors and/or access related resources/professional development regarding the potential

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- application and adaptation of the theory within the context of implementation.
  - ☐ Attend to cultural considerations throughout each step of the process.
  - ☐ Include all key players, including policy makers and those that contribute to program funding throughout the process, as well as staff and representatives of the group being served.
  - ☐ Consider implementing in stages, and remember to include training for all involved.
  - ☐ Maintain an attitude of humility, respect, openness and flexibility throughout the application process.
  - ☐ Evaluate the degree to which specified needs are being met throughout the process, and also have a summative evaluation. Collecting baseline data before implementation and throughout will enable more objective evaluations, but do not neglect anecdotal comments from participants, staff, and others who interface with the program.

A final recommendation would be to document the process and to share the knowledge gained and lessons learned with others through various means. By doing so, theorists and countries seeking to adapt specific theories can continue the learning process, about how specific elements of a theory might need to be adjusted, and also how to expand our understanding of best practices for transnational application of career theory.

### Summary

Transnational application of specific career theories is not a new topic. What is unique is to have several countries report on their story of application of a single career theory, in this case, Cognitive Information Processing theory, within their setting. In this special issue, they invite us all to join them as they share from the lens of their cultural context, and to listen and learn from their experiences.

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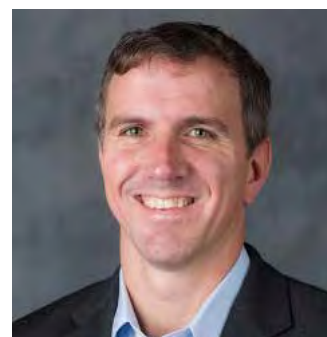
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## Chapter 2

# Applying CIP Theory to Canada's Lighthouse Labs Bootcamp

**Kelly Gordon, MS/EdS**  
Lighthouse Labs

### Introduction

Lighthouse Labs (LHL; [lighthouselabs.ca](http://lighthouselabs.ca)) is a Canadian-based program that was created in 2013 by software developers in response to national employment demands for an increased workforce of those skilled in computer coding. As such, a web development bootcamp was created that consists of a prep module of 70 hours, followed by an intensive, 3 month, 40 - 70 hours per week training. To date, over 20,000 Canadians in six different locations have participated in one of eight programs surrounding coding and data at Lighthouse Labs. In the Web Developer Bootcamp alone, over 1000 graduates have begun careers in professional development.

LHL, with a threefold focus on outcomes, efficiency, and personalization, welcomes a wide array of students across Canada. From high school and university graduates to career changers, First Nations Technology Council (FNTC) award recipients, neuroscientists, accountants, teachers, and musicians have all come through their doors. They welcome anyone who seeks an opportunity for growth, passes admissions criteria (interview, logic test, & tech test, if necessary), and is ready to thrive in an intense learning environment.

There are many factors that make Lighthouse Labs unique in the full-time bootcamp space, including a rigorous admissions process, data-driven education, 1:8 student to mentor ratios, and more, but this article will focus on their industry leading outcomes report and the commitment to continue to provide world class Career Services.

### Career Services at Lighthouse Labs (LHL) Web Development Boot Camp

Part of the undergirding goal of Lighthouse Labs is not only to provide focused, quality training in computer coding, but also to engage in high quality mentorship and career guidance. Over 70% of graduates of the Lighthouse Labs Web Development Bootcamp (formerly including iOS Bootcamp and adding Data Science Bootcamp in near future) are designated as "job seekers." To be a job seeker, students must be legally allowed to work in Canada and sign a Job

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Seeker's agreement promising to:

- Respond to all communication from Career Services
- Attend all Career Services' events
- Ensure the Career Services team is up to date on any changes in your priorities and/or availability
- Complete additional projects to facilitate your continued learning and ensure your coding skills stay sharp. ABC (Always Be Coding!)
- Ensure your resume stays up to date
- Ensure your GitHub account has activity
- Apply for jobs
- Attend industry events, meetups and other networking events to build and leverage your personal networking
- If an interview is arranged for you by Career Services, acknowledge you have received the interview invite and confirm your availability
- Prepare for and attend all interviews
- Prioritize any invites from Career Services to employer or industry events
- Notify Career Services if you have received a job offer
- Notify Career Services immediately if you have any questions, concerns or feel you cannot commit to any of the above requirements

To support job seekers, the program includes a dedicated career services team at each location:

<b>Location (# of simultaneous cohorts)</b>	<b>CS Team</b>	
Toronto (3 cohorts)	Career Services Coordinator	Manager of Employer Relations & Partnerships
Vancouver (3 cohorts)	Career Services Coordinator	Manager of Employer Relations & Partnerships
Calgary (1-2 cohorts)	Career Services Advisor	
Montreal (1 cohort)	Career Services Advisor	
Victoria (Satellite Campus)	Program Lead w/Support from Vancouver CS Team	
Ottawa (Satellite Campus)	Program Lead w/Support from Toronto CS Team	

The Career Services Coordinator (CSC) delivers workshops, holds drop in office hours, books 1 on 1s with students and alumni, reviews career documents (resume, cover letters, thank you letters), runs events, assists with job search strategies, and gives general career advice whenever necessary/needed. It is the more student centric-side of Career Services.

The Manager of Employer Relations and Partnerships (MERP) is responsible for developing relationships with employers, connecting employers to students, keeping up to date with the industry requirements, running events, and attending industry/community events. It is the more employer centric side of career services. Career Services Advisors fulfill the duties and responsibilities of both the CSC and MERP in smaller locations. If/when locations grow to have a new

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cohort each month, the role splits into two.

The career services team was originally designed to support job seekers as individualized case management. Cohort sizes ranged from 7-12, one at a time, and having 2 roles (CSC and MERP) dedicated to job search support proved to be quite successful. The CSC assisted with full-cycle employer relations (15 minute calls, circulating students' resumes, following up with employers on students' candidacy) which led to the CSC not having dedicated time to be more student centric. With the increase in cohort sizes, this was quickly becoming an unsustainable model. June 2019 brought about a change in LHL's bootcamp delivery, moving from a 10 week to a 12 week program. This created adjustments in workshop and program delivery, which caused more strain on the CSC role, as cohort sizes continued to increase alongside this program extension.

Feedback from the May cohort exit survey (Toronto) showed that the students felt this strain as well: "...I expected to have at least some sort of one-on-one with someone from Career Services for general counselling, without the need to have specific questions that we'd like to ask. So far it's been more group focused rather than personalized guidance, which I can see being difficult with so many students."

The current goal of Career Services at LHL is to provide students with the tools, career knowledge, and confidence to be successful while also working behind the scenes to help them find and secure their first post-bootcamp job. LHL aims to achieve that goal by teaching critical ingredients of job searching and helping students develop skills to build viable paths to a development job, and ultimately, a career. Career services are introduced into the 12 week curriculum for all students beginning in week five, for 2 - 3 hours a week. The career curriculum, which all students receive, is below:

- Week 5: Introduction to Career Services, Career Survey, Job Seeker's Agreement Quiz
- Week 6: Career Center Office Hours
- Week 7: Career Center Office Hours, Resume Workshop
- Week 8: Resume Peer Review, First Draft Resumes Due
- Week 9: Interview Workshop, Thank You Letter Assignment, Individual Resume Feedback from CSA
- Week 10: Office Hours, Final Resumes Due
- Week 12: Employer Only Demo Day - students showcase their final projects to employers in a science fair setting
- Week 12: Life after Lighthouse Labs Workshop - job search strategies, how CS and students work together post-graduation
- 6 Weeks Post Grad: Speed Interviewing

After bootcamp, students must actively code, communicate with CS in a timely manner, be available to attend an interview within 36 to 48 hours notice, and have a project current within the month to continue receiving support from Career Services in their job hunt.

### **Why Cognitive Information Processing Theory?**

With the increase in cohort sizes, employment outcomes remained high (93%) in 2019

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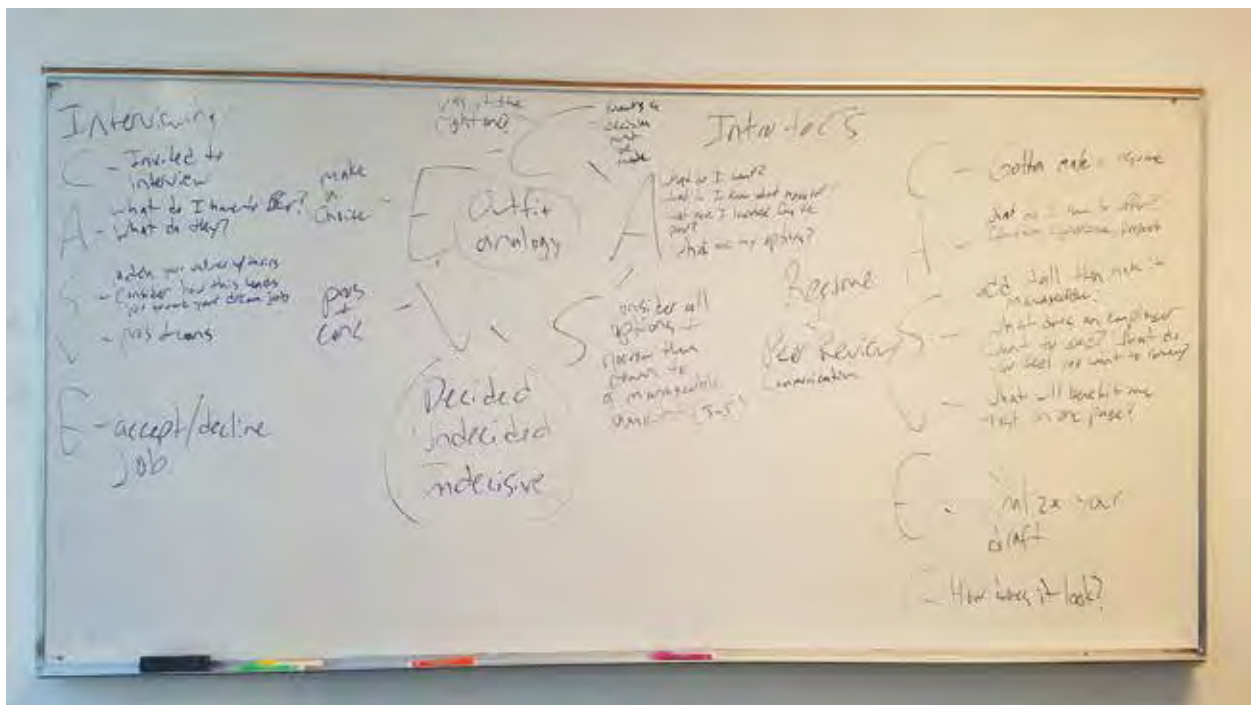
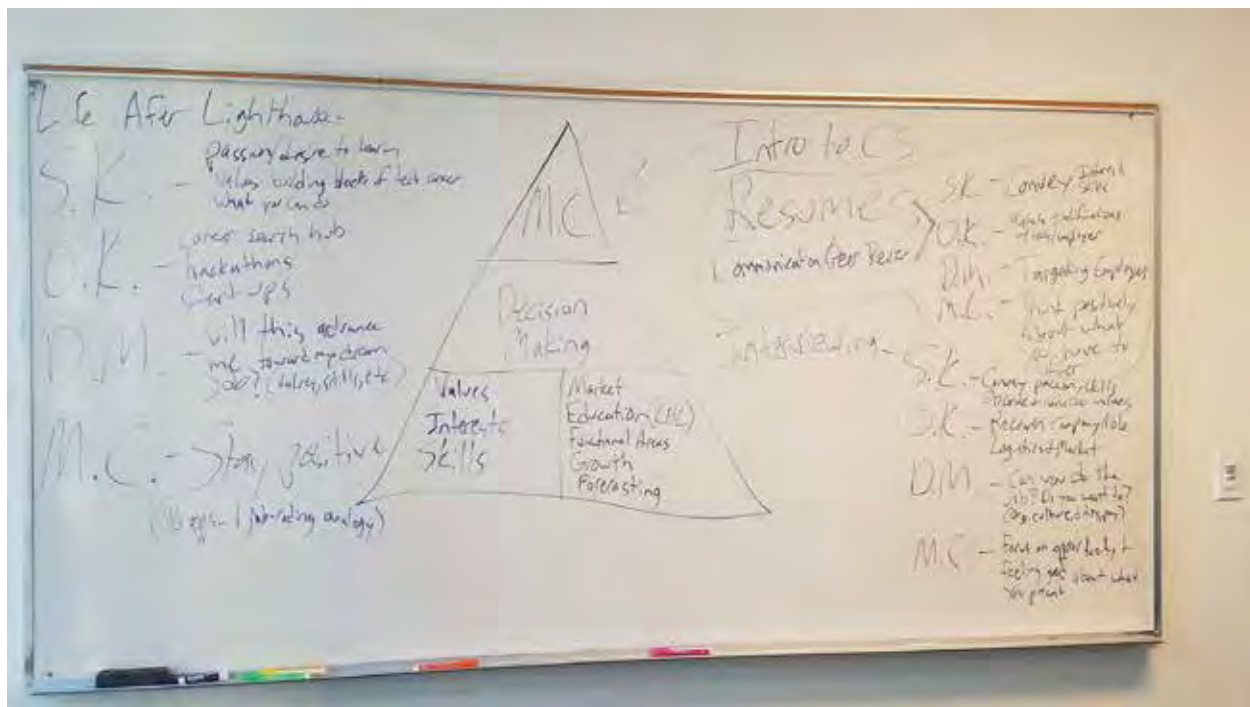
due to the extremely efficient practices outlined above, but self-reported student satisfaction, in terms of career knowledge and being ready for the job hunt, began to show downward trends (visible in table on page 11). The CSA/MERP to student ratio was higher, thus stretched thinner in terms of highly targeted support, and students increasingly showed signs of negative career thoughts. Feedback from the July 22 cohort exit survey (Toronto): ‘...I do not feel extremely confident in the job hunt’.

By proactively helping students learn to curtail negative career thoughts and increase career knowledge/readiness during bootcamp, LHL intended to improve career knowledge, teach reframing techniques, and increase career readiness to begin the job hunt. In considering options for a new approach, LHL’s commitment to deliver world class career services drove decision-making. What would be the most effective way, cost and outcomes-wise, to achieve the above goals while also enhancing LHL’s industry-leading career philosophy? How can we do this without disrupting the current bootcamp schedule and/or hiring more CS staff? With Career Counseling and Career Theory as a whole just beginning to gain traction in Canada, and none yet known to exist in a bootcamp setting, LHL looked to existing theoretical frameworks to adopt and adjust into their model.

The Cognitive Information Processing theory (Sampson et al., 2004) was selected as the best fit for a plethora of reasons. First, it was chosen for the simplicity of delivering career knowledge in a pyramid framework, broken down into self-knowledge, options-knowledge, decision making, and metacognitions. The ability to use an analogy of building a pyramid as an approach to delivering each workshop in a linear fashion, while customizing each section to both LHL’s existing material and the industry as a whole, is invaluable, and reinforces the key elements involved in career decision-making. Second, CIP’s focus on metacognitions as the crux of the pyramid, while also providing reframing techniques, set it apart from all other theories as especially valuable in tackling LHL student’s negative career thoughts. Third, CIP theory has a track record of empirical research supporting its validity (Brown, 2015; Osborn, Hayden, Peterson, & Sampson, 2016) ; and finally, the author spent two years learning how to apply CIP and seeing the outcomes in service delivery first hand.

### **Implementation of CIP**

After understanding the needs of LHL for career services, the first step in implementing CIP into LHL’s student facing program was to present the concept to the Director of Operations and the Director of Career Services. The presentation of CIP and brainstorming session is captured on the whiteboard pictures below.

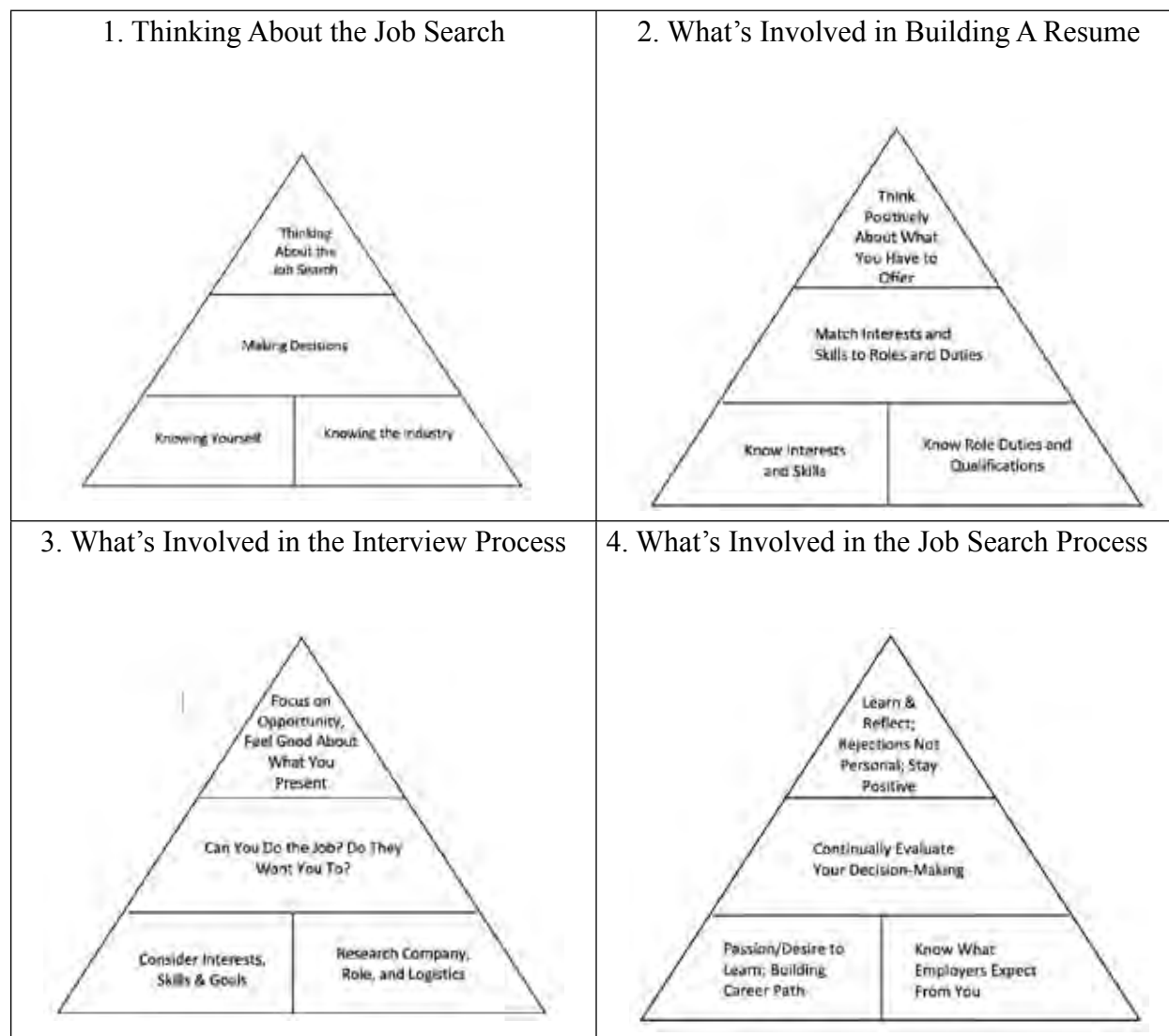


Generally on board with CIP as a whole, especially its focus on metacognitions, the directors suggested some areas that needed to be tailored. To ensure CIP fit seamlessly into LHL's existing career philosophy, minor adjustments were made to the pyramid as a whole. Self-knowledge retained interests and skills, but values were changed to "goals" to reinforce students' focus on building a career path as a developer. Options Knowledge was re-named "Industry

Knowledge” to laser focus on the tech industry while decision-making, the CASVE cycle, and metacognitions remained the same. In addition to this, each workshop topic after Intro to Career Services (which introduces the pyramid outlined above) defined the sections of the pyramid in detail, outlined each step in the CASVE cycle, and contained a reframe exercise in addition to the related activity. Examples are provided below.

### Infusion of CIP into critical classroom presentations.

Classroom presentations have been an essential component of career services delivery at LHL. Specifically, career services provides classes on an introduction to career (which includes an overview of career planning), resume writing/reviewing/cover letters, interviewing, and job searching. The author used the CIP Pyramid as a foundation for each of the presentations, and adjusted in the following ways:



The next table describes content covered for each pyramid component in each workshop, and also outlines how the CASVE Cycle was adjusted.

	<b>Self Knowledge</b>	<b>Options Knowledge</b>	<b>Decision Making</b>	<b>Executive Processing</b>
<b>1. Thinking About Job Search</b>	<p><b>Interests</b> (front end/back end/full stack; tech/non-tech; gaming; sports; education; finance)</p> <p><b>Skills</b> (computer languages, communication, leadership, innovation)</p> <p><b>Goals</b> (Explore the industry/role, ongoing learning, begin taking steps)</p>	Where to find jobs; growth forecasting; working opportunities; market specific information; types of development roles; using tools	<p>1. I need to do something or something is happening.</p> <p>2. What do I need to know and what do I need to do?</p> <p>3. What's relevant? What's possible?</p> <p>4. What's most possible? Most relevant? (top 5)</p> <p>5. Do the #1 thing!</p> <p>6. Did it work?</p>	Be aware of negative thinking; counter it with accurate information; practice reframing negative statements

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<b>2. Resume Writing</b>	Specialization (Full stack, front/back end); what I have to offer (Skills, unique & relevant experience); why I'm interested (passion, interest, research)	Know role duties and qualifications, industry standards, relevant transferable skills	<ol style="list-style-type: none"><li>1. I need a resume</li><li>2. What do I have to offer?</li><li>3. What does an employer want to see? What do I want to convey?</li><li>4. What will benefit me most on one page (most relevant)</li><li>5. Finalize draft</li><li>6. Evaluate – is the resume effective? Am I getting interviews?</li></ol>	Be aware of how I am managing the process, and my thoughts about myself, and the options I see. Reframe negative thinking.
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<b>3. Interview</b>	<p><b>Interests:</b> Front end/back end/full stack); Specific languages, databases; tech/non-tech; know why I'm interested in working there.</p> <p><b>Skills:</b> programs/languages; transferable skills; strengths</p> <p><b>Goals:</b> Explore industry/role; continued learning; take steps toward developing skills</p>	<p><b>Research:</b> product/service, company mission, team, information interviews, glassdoor</p> <p><b>Role Prep:</b> review tech stack; job description; relevant transferable skills</p> <p><b>Logistics:</b> know where you're going, arrive a maximum of 15 minutes early; always be polite</p>	<p>1. I scored an interview! (What am I feeling)?</p> <p>2. What do I have to offer? What are they looking for?</p> <p>3. Match your interests/skills/goals with theirs.</p> <p>4. What went well? Not So well? How did you feel about the opportunity?</p> <p>5. Write thank you letter.</p> <p>6. Did you get an offer? What could you do differently next time?</p>	<p><b>Focus on the opportunity:</b> continue learning, mentorship, new tech stacks, boost resume, pave career path</p> <p><b>Feel good about what you present:</b> skills, ability to learn, passion, projects, strengths</p> <p><b>Be aware of self-talk:</b> reframe negative thoughts before, during and after your interview</p>
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<b>4. What's Involved in the Job Search Process</b>	<p><b>Interests:</b> show your interest/passion for the industry by creating an employer friendly GitHub and staying active</p> <p><b>Skills:</b> Focus on stack preference when choosing new projects (full stack/front end/back end)</p> <p><b>Goals:</b> Explore industry/role; continued learning</p>	<p>Know what employers expect of you (juniors, still learning), know where to find jobs</p>	<ol style="list-style-type: none"> <li>1. I need a job!</li> <li>2. What's out there? What do I have to offer?</li> <li>3. Make connections.</li> <li>4. Write cover letters, network, attend events.</li> <li>5. Apply for jobs.</li> <li>6. Evaluate – did I land an interview?</li> </ol>	<p><b>Be aware of self-talk:</b> reframe negative thoughts before, during and after your job search</p> <p>Consider how you are managing the job search process</p>
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A final pyramid encourages students to keep considering and applying CIP concepts after they complete their training at LHL:



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## Evaluation of CIP Implementation With LHL

After much consideration, it was determined that the effectiveness of the new programming would be evaluated by students' level of understanding how career works in the week five survey, student satisfaction numbers on the exit survey, and amount of student acquiring employment on their own, without the direct help of the MERP, post-bootcamp.

Since the implementation of CIP, LHL has noticed a myriad of positive changes during bootcamp:

- Students are more engaged and participatory during workshops
  - Students are able to recall and name the sections of the pyramid
  - The number of requests for individual meetings during bootcamp decreased
  - The quality of resume submissions greatly increased
  - The incidence of negative thoughts decreased
  - Exit survey results greatly increased
- LHL asked the cohorts in Vancouver and Toronto to respond to an anonymous feedback survey after the Intro to Career workshop to gauge their understanding of both CIP and career decision-making using a scale of 1-5 (strongly disagree, disagree, neutral, agree, strongly agree). The results are in the table below:

Question	Vancouver	Toronto
This workshop helped me to identify what's involved in finding and securing my first development job.	4.29	4.29
This workshop helped me learn how to make effective career decisions.	4.14	4
This workshop helped me learn how to think positively about what I have to offer.	4.57	4.14
This workshop taught me how Career Services and I work together.	4.43	4.29
My knowledge about what's involved in job seeking has increased.	4.43	4.14

Students acknowledged the helpfulness of CIP in understanding how to find and secure their first job, make effective career decisions, and think positively about what they have to offer. This can be attributed directly to the decrease overall in negative career thoughts present in the CIP cohort as compared to cohorts previous.

Upon graduation, each cohort is tasked with completing an exit survey about their experience at LHL. Within that survey, Career Services asks specifically whether students' expectations have been met and to evaluate each workshop on a scale of 1 to 5 (1- did not meet my expectations, 2- met some of my expectations, 3- met my expectations, 4- exceeded my expectations, 5- greatly exceeded my expectations). The table below outlines the aggregate scores for the last 3 quarters as well as the first cohort to graduate with the new CIP programming (Nov 25):

	Vancouver				Toronto			
	Q1	Q2	Q3	Nov 25	Q1	Q2	Q3	Nov 25
<b>CS Expectations Met</b>								
Yes	89.5%	85%	74%	93.75%	80.9%	90.10%	77.23%	93.75%
Kind of	7.9%	19%	23%		14.9%	7.70%	19.53%	
No	2.6%	8%	9%	6.25%	2.1%	6.70%		6.25%
<b>Intro to CS</b>	3.6	3.5	3.5	4.25	3.2	3.6	3.42	3.94
<b>Resumes</b>	3.9	3.6	3.6	4.5	3.3	3.7	3.55	4.25
<b>Interviewing</b>	3.8	3.6	3.5	4.5	3.4	3.8	3.57	4.25
<b>Life After Lighthouse</b>	3.7	3.6	3.5	4.5	3.3	3.7	3.64	4.5

After the implementation of CIP into the workshops, every score across the board in both Vancouver and Toronto increased by an average of over .5 for workshops and over 15% in career services expectations being met. Sample feedback from the November 25th cohort (Vancouver) captured it all: ‘All really good stuff, makes me feel ready to get out there.’

### Reflections on Implementation and Plans for Next Steps

The work required to adjust CIP to fit within the LHL bootcamp model was well worth the overwhelmingly positive results discussed above. CIP’s unique ability to address negative thoughts had a heavy impact on the overall attitude of the cohort as well as increased their ability to reframe negative thoughts on their own. In addition, the pyramid framework allowed for a very organized way to present the workshop material as well as established an expected format promoting a deeper absorption of the material. Both of these results contributed to an overall increase in student satisfaction and job readiness as shown in the tables on page 11.

Moving forward, the success of the implementation of CIP will continue to be evaluated via the amount of students who acquire their first development jobs and the exit surveys of cohorts to come. Also, LHL will begin exploring the adjustment and implementation of the readiness service delivery model to reform the current case management model to support and sustain future scaling.

### Summary

Cognitive information processing theory has been shown to be efficacious for many career issues and concerns across various populations. In this paper, the process of implementing CIP into a career service delivery program for a 12 week technology boot camp in Canada was described. With some tweaking of the CIP pyramid, it was relatively easy to integrate CIP principles into presentations, and value was seen in the repetition of the imagery and content. Preliminary analysis shows that this was valuable content for the students and that they learned more about each area of the pyramid. Future goals will be how to expand career service delivery through CIP to other campuses, continued evaluation and making changes based on student and career services’ needs.

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## About the Author



**Kelly Gordon** is a graduate of both Florida State University (FSU) with a combined MS/EdS in Counseling and Human Systems, specializing in Career Counseling, as well as the University of Central Florida (UCF) with a Master of Business Administration. With research interests in cognitive information processing theory (CIP) and its various applications, Kelly is passionate about combining best business practices with education service delivery models to create cost effective solutions that maximize student success. She can be reached by email at [kelly.gordon@lighthouselabs.com](mailto:kelly.gordon@lighthouselabs.com)

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## Chapter 3

# **“On Career Path” Group Counselling as a Booster for Career Planning and Decision Making Skills Among Finnish University Students**

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**V. Casey Dozier**  
Florida State University

**Leena Itkonen**  
University of Helsinki

**Sanna Selkamo**  
Kuusankoski High School

**Eija Hanhimäki**  
University of Jyväskylä

### **“On Career Path” Group Counselling as a Booster for Career Planning and Decision Making Skills Among Finnish University Students**

Education systems and career counselling practices embedded within these systems vary among countries. Hence, we provide first a very short portrait of the Finnish education system and the role of career counselling in two Finnish universities, in both of which the basic premises of the cognitive information processing (CIP) approach (Sampson, Reardon, Peterson & Lenz, 2004) have been applied. This provides the context for our “On Career Path” group counselling pilot intervention that was implemented in the University of Jyväskylä due to the observation that 68 % of its students report that they receive less career guidance and counselling from the staff than they desire (Rantanen, 2018). Our main aim is first, to describe this pilot intervention

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in detail, and second, to assess its effectiveness with quantitative research design in order to acquire research-based evidence for its further development and possible recommendation for wider entrenchment in higher education institutions. The tentative results show that individuals who had the lowest readiness for career decision making benefitted from the group counselling most, particularly in the form of decreased decision making confusion.

### **Career guidance and counselling in Finnish higher education system**

In Finland, for all children compulsory comprehensive school starts at the age of seven and it lasts nine years until age 16 (Finnish Ministry of Education and Culture, FMEC, 2019). After that, one can continue to upper secondary level education and apply either to general, that is, high school education or to vocational education and training which both last three years. In 2017, from comprehensive school 53% of the young continued to high school and 41% to vocational education (Statistics Finland, 2018). The latter choice leads to vocational qualification whereas the former gives a matriculation examination, that is, a high school diploma. High school graduates typically then continue their educational path either to universities or to universities of applied sciences (UAS). The traditionally defined difference between university and UAS is that, “the mission of universities is to conduct scientific research and provide education based on it, whereas UAS provide more practical education that aims to respond to the needs of the labor market” (FMEC, 2019, n.p.). However, nowadays this dual model of higher education in Finland is under contemplation as universities also strive to respond more rapidly to the needs of labor market, and UAS endeavour to enhance their research-based teaching (Heikkinen & Kukkonen, 2019). In fact, at present, in Finland many universities and UAS are intensifying their collaboration and even merging together as one (Paaso, 2018).

In Finland, both students with a high school diploma as well as students with a vocational qualification can apply to university (FMEC, 2019). Hence, a high school diploma is not a definite prerequisite for entering university, although almost every university student has a high school diploma or dual diploma combining a degree from both high school and vocational education. Another feature of the Finnish higher education system that has existed for a long period of time is that the students choose their major while they are applying to the university. Hence, in many Finnish universities, students start to study their major right away after entering university. However, this is changing to some extent and nowadays in some universities, students enter a broader study program, which is a cluster of majors scientifically close to one another. During their bachelor studies students select any of these study tracks according to their preference which then leads them to certain masters programs (University of Helsinki, 2016; see also <https://www.helsinki.fi/en/admissions>). Either way, in Finland the role of career guidance and counselling in upper secondary level education, when the students are at the age of 16 to 19, is vitally important. This sometimes imposes high expectations and pressures towards high school counsellors as well as heavy strain for the students to identify the “correct” or ideal career choice on the first attempt.

The aim in the Finnish higher education system is that the university students graduate in 5.5 years and in the process achieve the bachelor’s degree approximately in three and then master’s degree in two years (FMEC, 2019). However, in 2015, only 56% of the university students reached the goal of graduating either from bachelor or master studies in 5.5 years (Statis-

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tics Finland, 2017). This percentage highlights the fact that there are many students in Finland, for whom graduating from university on a societally-expected schedule is a challenge. Their educational paths may include detours (e.g., trying to change and find the right major or education), interruptions for various reasons (e.g., health issues, study burnout), or even severe identity diffusion and fear of graduating into unemployed or too demanding working life (Marttinen, 2017; Saukkonen & Syynimaa, 2011). These reasons may prolong studies, and thus, university students would need professional career counselling services as recommended in the guidelines for European countries (European Lifelong Guidance Policy Network, ELGPN, 2015).

Career and recruitment services in some form were established already 25 years ago in 1994 to all universities in Finland. The main aim of these services has been to “to improve the skills and competencies required in working life with the help of career planning services, information about the labour market and training to improve working-life skills” (Lifelong guidance in Finland, p. 23). For example, in the University of Helsinki, a mandatory work-life orientation has been part of the degrees since 2004 and the career services have provided students with career education in cooperation with the subject teachers (Carver, Itkonen & Kanninen, 2014). In 2016, it was also decided that career planning should be included in all degrees (bachelor’s, master’s and doctoral) (University of Helsinki, 2016).

### **The case: Career guidance and counselling in JYU**

The University of Jyväskylä (JYU) offers guidance and counselling services for the students in many forms. The starting point for these activities are the guidelines for high-quality guidance and counselling which have been confirmed by the rector in 2016 (University of Jyväskylä, 2016). In these guidelines, four aspects are emphasized. First, “student guidance should support planning and fluency of the studies by considering each student’s individual study- and work-life related aims in developing their competence and expertise” (p. 4). Second, “the progress of the studies is supported comprehensively by enhancing studyability [cf. the term workability] and wellbeing” (p. 4). Third, “guidance is offered with methods and actions that are easily accessible and versatile” (p. 4). Fourth, “quality of the guidance is ensured by offering in-service training for the JYU staff to enhance their guidance and counselling expertise” (p. 4).

The JYU guidelines for high-quality counselling are based on a guidance system with three levels which have strong resemblance with the differentiated service delivery model, one essential part of the CIP framework (Osborn et al., 2019; Sampson et al., 2004). In the first level, basic guidance is given by the staff (teaching and study affairs personnel) of each JYU unit offering education (faculties, departments), and guidance is given mainly to students as a group. This corresponds with CIP framework’s self-help mode, which is considered sufficient when the circumstances and need for guidance in a particular matter (e.g. study planning and progress) is not complex and students are highly capable in resolving their affairs rather independently. However, if needed, students are entitled to individual meetings. Accordingly, in the second level supplementing guidance is given when the initiative comes from the student for example relating to his or her specific life situation or question regarding studies. In the CIP framework this is called brief staff-assisted services. These services are needed when circumstances for a particular matter are more complex and/or a student is less capable in resolving one’s affairs independently. In the third level, intensive guidance, or in CIP terms, individual case-managed services, is given



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in a situation where a student's studies are not progressing and besides faculty/department staff other experts and consultation is needed as for example from university health care unit. That is, highly complex circumstances is coupled with low capability to handle the situation on one's own from a student's part.

The JYU guidelines for high-quality counselling cover all guidance except guidance for theses (University of Jyväskylä, 2016). Hence, also the importance of career counselling, work-life connections and labor market knowledge are present in these guidelines, but not as strongly as traditional student guidance focusing on study planning and study progress within university. Faculties and departments are urged to utilize portfolio methods, labor market statistics and career follow-up data sets as well as alumni and work-life organization collaboration when supporting the development of students' work-life orientation, career planning skills and growth as an expert of their own field. It is also specifically stated that career counselling is primarily given by each JYU unit offering education (University of Jyväskylä, 2019a). However, the challenge is that the staff are not always specialized in career counselling, and that the availability and quality of career counselling varies greatly between the JYU units.

Another JYU unit offering career counselling is the center for Working Life Skills, Job search and Entrepreneurship that complement the work-life guidance given by JYU faculties and departments. This center serves students from all faculties and its aim is to offer "information and support for job search, tailoring one's CV and improving one's working life skills" (University of Jyväskylä, 2019b, n.p.). This is achieved first, via face-to-face guidance relating to job search issues and CV-tailoring when one is near graduation. Second, this center offers a web-based recruitment service of internships and open jobs for the students as well as vast databank about the current working life in general and the employment, opportunities and career prospects of university alumni. Third, this center organizes courses and meetings where students get into contact with working life representatives and mentors. Fourth, this center provides optional working life studies as well as team and client project courses that are aimed to enhance readiness, attitude and subject matter competence needed in the world of work with the emphasis on employability, career exploration, interaction and communication skills, and entrepreneurship/entrepreneur-like attitude (University of Jyväskylä, 2019).

How well do JYU guidance and counselling services altogether meet its students' needs from the career counselling perspective? This question was answered by 990 second (bachelor stage) and fourth (master stage) year JYU students in December 2016. This happened as a part of the larger "Are you in a hurry?" research project, where students' study-related wellbeing and recovery as well as career planning and management skills were examined (Rantanen, 2018). Despite the afore-presented guidelines and services, the e-survey data indicated the great majority, that is, 68% of the students reported the need for further guidance from the staff regarding working life skills and creating working life networks, and similarly 67% reported the need for further help in planning one's career after graduating. These counts were naturally alarming and hence, the next phase of the "Are you in a hurry?" research project was aimed, first, to critically evaluate the JYU's existing guidance and counselling services from the students' viewpoint, and second, to plan and carry out a pilot group intervention that corresponded to the needs reported by students. The first aim was tapped with focus group interviews after which the same partici-

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pants took part in a face-to-face small group counselling with 8 weekly, 2 hour meetings utilizing “On Career Path” online service and CIP theoretical framework (Sampson et al., 2004).

### **“On Career Path” group counselling intervention**

The basic idea of the “On Career Path” online service (available only in Finnish: <https://urapolulla.fi/>) is to help higher education students reflect their future related questions and career concerns in relation to the labor market information which is provided by another online service called “At work” (available also in English: <https://toissa.fi/home-en-us/>). “At work” online service presents data of the national, Finnish graduate employment surveys and career stories written by hundreds of university alumni. “On Career Path” online service can be used both as a self-help or staff-assisted resource. It is rooted in the career skills model developed and used by the University of Helsinki career services (Carver et al., 2014). This model in turn is based strongly on the CIP approach, where the career planning process is based on the self-knowledge (knowing about myself), occupational knowledge (knowing about my options), CASVE decision making cycle and metacognitions (knowing and monitoring myself as a decision maker) (Sampson et al., 2004). Important theoretical concepts behind the “On Career Path” online service also include the DOTS-model (decisions, opportunities, transitions, self; Law & Watts, 1977; 2003), as well as career adaptability with its four dimensions: concern, control, curiosity and confidence (Savickas & Porfeli, 2012).

These theoretical approaches together provided seven main themes of the “On Career Path” online service, which are 1) values, 2) skills and competences, 3) self-confidence, 4) networking, 5) opportunities, 6) decision-making and 7) preparing for entering working life. These themes are also empirically based on the recurring stories and information provided by the university alumni within the “At work” online service. Hence, from these themes 1, 2 and 3 relate to the self-knowledge (= knowing about myself), 4 and 5 to the occupational knowledge (= knowing about my options), and 6 and 7 to the decision making and action planning (= knowing and thinking about myself as a decision maker) domains of the CIP model (Osborn et al., 2019; Sampson et al., 2004). Additionally, “On Career Path” online service has been influenced yet by two important perspectives when planning and formulating the structure, content and specific tasks within this service. The first is USEM (understanding, skills, efficacy beliefs and meta-cognitions) model of employability (Knight & York, 2004), and the other is the model of pedagogical working life horizon in higher education (Penttinen, Skaniakos & Lairio, 2013).

This “On Career Path” online service provided the framework for our group counselling intervention, which was implemented during fall semester 2017 and offered via an email advertisement to all JYU students in August. In this email, our pilot intervention design was described (see Figure 1) together with three aims for the students during the group meetings and “home-work” in between them. These aims were to enhance according to everyone’s individual situation and needs 1) working life skills and networks, 2) career planning during studies, and 3) preparedness to life after graduation. Students did not get any credits for participating in our rather time-consuming intervention, a fact that was evident from the email advertisement. Hence, despite the great need expressed towards the content of our intervention, only 30 students responded to our invitation.



Figure 1. Pilot intervention design. \* Including scales: career state inventory (CSI), negative career thoughts (CTI) and perceived employability

Eventually 21 students started the group meetings after pre-intervention interviews, as the charted timetables for the group meetings did not suite everyone's schedules. These 21 participants were divided into three small groups with the same main aims and content. From these, 21 participants 16 (76%) filled in all three voluntary e-surveys, that is pre-, post- and follow-up measurements and formed the sample for statistical analyses focusing on the effectiveness of our intervention. All but one participants were female, their mean age was 27, they had studied approximately four years in JYU and they represented nine different departments of JYU.

The aim of the first group meeting was to lay the groundwork for a confidential and supportive group process. The counsellors introduced the whole 8 week process and its aims after which familiarization to each other took place. The process of knowing about myself lasted the next three weeks. It was started with a task for participants to sketch their life span and its critical experiences from the perspective of significant others, turning points, individual interests and possible future occupations (e.g., Peavy, 1997). The participants continued this task as a homework and it was reflected together in the beginning of the second meeting. The main aim of the second meeting was for the participants to recognize their core life values plus their working life and career related values. For the latter purpose, authentic career story videos and tasks from 'Values' section of the "On Career Path" online service was used. For homework, participants were asked to complete the Finnish version of the online VIA (values in action) survey of character strengths (<https://www.viacharacter.org/>; Niemiec, 2013). In the third meeting, the VIA-survey results were reflected together after which those materials and tasks from "On Career Path" online service were focused that emphasized one's skill and competence recognition as well as self-leadership skills in relation to time, stress and goal management. Also, the fourth meeting utilized materials and tasks from "On Career Path" and "At work" online services focusing on how to enhance one's own self-confidence as well as how to prepare oneself to different work-life situations demanding self-confidence.

The process of knowing about my options lasted the next two weeks and covered the fifth and sixth meetings, during which the special focus was on one's networks and employment and career opportunities. The participants watched "On Career Path" alumni videos concerning these themes, drafted and presented to others their own network-map and discussed how to enhance it along with how to use social media in networking. An important task was also to identify one's own working life interests and then match them with one's current/future job opportunities.

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Finally, the last two meetings touched on the process of knowing and thinking about myself as a decision maker via the last two themes of the “On Career Path” online service which are ‘decision-making’ and ‘preparing for entering working life’. In the seventh meeting, the participants watched alumni stories about career planning and decision making during their careers after which the participants did a six phase ‘How am I as decision maker?’ exercise from the “On Career Path” online resources. They also listed their present three most important career goals and pondered for what factors enhance and maintain their hope in achieving these goals (an exercise from Ståhlberg & Herlevi, 2017). During the eighth meeting, preparedness for entering the working life was further enhanced with ‘Finding motto for my career path’ exercise from the “On Career Path” online resources. In addition, the past weeks, experiences and the content of the meetings were reflected independently as well as together to form closure for the group process.

### **Effectiveness of “On Career Path” group counselling pilot intervention**

We measured the effectiveness of our pilot intervention with three self-report instruments: Career State Inventory, Career Thoughts Inventory and a set of perceived employability questions that were developed by us. Career State Inventory (CSI) measures three core constructs to assess one’s readiness for career problem solving and decision making at a given moment (i.e. state) and yet, it is a very brief and concise questionnaire (Leierer, Peterson, Reardon, & Osborn, 2017). First, certainty about a career goal was examined with the question: “List all occupations you are considering right now. Which occupation is your first choice? If undecided, write “undecided.” Second, after the first question, satisfaction with a goal is asked as follows: “How well satisfied are you with your responses to No. 1 above?” with a response scale from 1 ‘very satisfied’ to 5 ‘very dissatisfied’. Third, vocational clarity and confidence in pursuing one’s career and life goals is inquired with three items (e.g., “I am confused about the whole problem of deciding on a career”) with a dichotomized response (1 = true, 2 = false). The total score is calculated based on these questions and it ranges from 2 ‘goal-directed, satisfied and confident’ to 12 ‘frozen, dissatisfied, confused’ (instructions for scoring see Leierer et al., 2017, p. 20 Appendix). CSI has been officially translated into Finnish in “Are you in a hurry?” research project (Rantanen, 2018, Appendix 5) in collaboration with professor James P. Sampson.

The Career Thoughts Inventory (CTI) captures dysfunctional thinking that is sometimes present and behind difficulties in career problem solving and decision making (Sampson, Peterson, Lenz, Reardon & Saunders, 1996a; 1996b; 1998). It consists of three subscales. In Decision Making Confusion (DCM) an individual due to negative emotions and/or incomprehension about the decision making process itself has difficulties in conducting the decision making process. Commitment Anxiety (CA) refers particularly to anxiety and indecision evoked by the incapability to commit oneself to a specific career choice and worries related to the possibly unsuccessful or unfavorable outcome of the decision making process. External Conflict (EC) relates to difficulties in taking responsibility of one’s career decisions due to possibly conflicting career expectations, demands or circumstances between oneself and significant others.

The CTI has been officially translated into Finnish by Jukka Lerkkanen in his doctoral theses (Lerkkanen, 2002) in collaboration with professor James P. Sampson. CTI items are rated with a scale from 1 ‘strongly disagree’ to 4 ‘strongly agree’. The Cronbach’s alphas for DCM as-

sessed with 12 items (e.g., “It is hard to find enough information about jobs which are available”) were .89, .85, and .94 for pre-, post- and follow-up measurements, respectively. The Cronbach’s alphas for CA assessed with 6 items (e.g., “I have too many options that it is hard to choose the best one”) were .83, .78, and .67. The Cronbach’s alphas for EC assessed with 6 items (e.g., “The current situation in my life limits my choices”) were .59, .50, and .72.

Finally, perceived employability refers to an individual’s belief in one’s possibilities to find a job (e.g, Berntson, Sverke & Marklund, 2006; Kirves, 2014; Kirves, Kinnunen, De Cuyper & Mäkikangas, 2014; Rothwell & Arnold, 2007). It is an important concept for our intervention because employability provides control and feelings of security over one’s career (Forrier, Sels, & Stynen, 2009; Fugate, Kinicki, & Ashforth, 2004). In our e-survey, we asked the participants: How would you evaluate your employability after graduation? This question contained four items (e.g., “I have good chances to find a job that matches my education after graduation”, “I believe that I will succeed in recruitment and selection situations”) which were rated with a scale from 1 ‘fully disagree’ to 5 ‘fully agree’. The Cronbach’s alphas for employability beliefs was .68, .75, and .89 for pre-, post- and follow-up measurements, respectively.

For the CSI score, lower scores represent better and higher scores worse career decision preparedness. Friedman non-parametric tests for mean comparisons between pre-, post- and two months follow-up measurements showed that the CSI score decreased in the whole intervention group ( $n = 16$ ) statistically significantly ( $p < .001$ ). The according means were 7.56 for pre, 5.88 for post and 6.13 for follow-up measurement. In addition, when we consider the results for CSI in relation to initial, pre-intervention readiness for career decision making we can see, as illustrated in Figure 2, that those individuals who had the lowest readiness for making career decisions benefitted from the group counselling most. As a group, their mean for CSI decreased from low (mean 9.5) to intermediate (7.6) career decision readiness level.

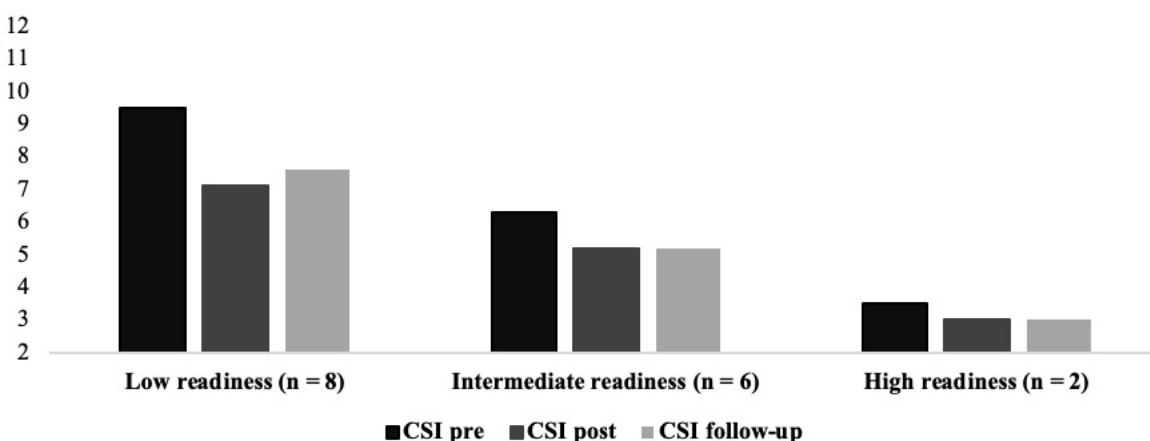


Figure 2. Careers State Inventory (CSI) scores for participants divided into initially low (CSI score > 8), intermediate (CSI score 5-8) and high (CSI-score < 5) readiness for career decision making groups.

Also, negative career thoughts measured with the CTI decreased from pre- to both post-

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and follow-up measurements for CTI total score ( $p < .01$ ) as well as for DMC subscale ( $p < .001$ ). The raw score means were 57.44 (pre), 47.69 (post) and 51.75 (follow-up) for CTI total, and for DCM they were 31.50 (pre), 23.81 (post) and 26.38 (follow-up). In CA, the second subscale of CTI, there was no significant change in means during nor after our intervention. In EC, the third subscale of CTI, there was a significant decrease ( $p < .05$ ) from pre to post intervention measurement but not from pre to follow-up measurement, the raw score means being 11.38, 10.12 and 10.81, respectively. The same was true for perceived employability which increased significantly ( $p < .01$ ) from pre to post intervention measurement but not from pre to follow-up measurement the means being 3.02, 3.71 and 3.36, respectively. Hence, in the case of EC and perceived employability, we observed a subtle bounce back effect where later than right after the intervention the favorable effects tend to fade to some extent.

### **Evaluation of “On Career Path” group counselling pilot and concluding thoughts**

Overall, given the small sample size for statistical analyses (16 out of 21 intervention participants filled in the voluntary post- and follow-up e-surveys), so many positive results denoting increase in career decision readiness, that is, quantitatively significant change from pre to post measurements in CSI score, CTI total score, and DMC subscale, were surprising. However, they are in line with previous research (e.g., Dozier, Osborn, Kronholz, Peterson, & Reardon, 2019), which indicate that individuals with the lowest readiness have the most potential to benefit from interventions, which was observed in the present case as well. They also lend further support for CSI as a valid state (vs. trait) level measure in tapping significant changes in career decision making readiness (Leierer et al., 2017). Furthermore, the present results with such a small sample size speak to the relevant and sound theoretical grounding as well as the competent implementation of the intervention. Hence, it is possible that with a bigger sample size, the effects for the other CTI scales and perceived employability could have retained greater significance. However, this speculation and the present results demand more evidence with diverse and more representative samples before making firm conclusions. It is also important to note another key limitation of the present sample, namely its female domination: only one participant was male.

Reflecting back on the goal for why this intervention was created in the first place, it began with a request from the majority of students (68 %) for further guidance from staff regarding planning one’s career after graduation. However, only 30 students responded to the invitation for group meetings. It is very likely that eight two-hour, face-to-face group meetings without course credits was too time-intensive commitment for many students. Hence, online group meetings, that some of the intervention non-starters already asked for, and pairing group meetings with self-help alternatives (see, for example, Dozier et al., 2019) and a counsellor “cognisant, properly managed and monitored online presence”, that is, co-careering (Kettunen, Sampson, & Vuorinen, 2015, p. 53) are sensible and timely avenues for developing “On Career Path” group counselling further.

By itself, the “On Career Path” website (<https://urapolulla.fi/>) is a self-help resource that a student can capitalize on one’s own. Perhaps this website could be advertised more for those who do not want, need or are not able to attend neither face-to-face nor online groups. In addition, the use of this online service could be coupled with less extensive and time-consuming

staff support than in our pilot intervention, as well as with varying amount of individual sessions instead of group meetings. This would be consistent with the CIP model to provide interventions across various readiness levels (Sampson et al, 2004). Additionally, perhaps more students would commit to the time and the usage of “On Career Path” online resource and attached but voluntary group or individual meetings if they received course credit to participate. This is another consideration given the high number of students who requested services in contrast to the low number who actually participated.

In sum, it was encouraging to see that there was a trend for scores to improve from pre- to post-tests, even with two months follow-up period indicating positive results accompanying the participation on the “On Career Path” group counselling. Hence, this theoretically based intervention, that was created to respond to students’ career planning needs, received empirical support with evident effects despite the small female dominated sample. We conclude that this intervention and similar practices can be recommend to be developed further and promoted for wider use in higher education institutions.

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## Chapter 4

# Application of a CIP theory-based counseling approach for individuals considering university studies in Iceland

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Iceland's career counseling and guidance profession is relatively young, and one of the challenges practitioners face in their daily activities is a lack of available practical tools and counseling methods adapted to Iceland's educational and vocational context. In this article we discuss how a university counseling and career center in Iceland adapted and applied the CIP theory-based counseling approach, developed at Florida State University, with individuals who needed to make educational and vocational choices. First, we describe the university and counseling center context and the services available to registered and prospective students. Next, we discuss the implementation of CIP-based career choice sessions, first in small groups and later in individual sessions. Finally, we describe what has happened since implementation, and offer a few recommendations from what was learned from the process of translating a CIP theory-based approach to an Icelandic context.

### University and Counseling Center Context

The focus for the implementation of a CIP-based approach was a university student counseling and career center (UISCCC) located at Iceland's largest university which is situated in the capital city of Reykjavík. This is a public university, without tuition fees, and everyone that fulfills the entrance requirements (i.e., matriculation examination) are accepted into a majority of the bachelor programs. A few study programs, such as medicine, nursing, and physical therapy, use entrance exams or permit a limited number of students to continue their studies after the first semester. Students who fail to meet preset requirements have the opportunity to select another study program. For the last few years, university enrollment has been around 12,000 to 13,000 individuals, of which approximately two thirds are female students. In 2019, the number of students in undergraduate studies was 7,713, in postgraduate diploma programs 1,176, and in graduate studies 944, of which 631 were doctoral students (University of Iceland, n.d.).

To explain the context, it is important to mention that the UISCCC offers a variety of services within one office. The center's professional staff includes counselors with master's degrees in career and guidance counseling and all are licensed by Iceland's Ministry of Educational and Culture. The staff provide academic counseling (e.g., regarding study choice, study skills, exam

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preparation and techniques, etc.), as well as career counseling which consists of guidelines and feedback regarding job search, how to write résumés and introduction letters, and prepare for job interviews. The counselors are also in charge of the university's disability services. For example, students with specific learning difficulties (e.g., dyslexia, dyscalculia), psychological problems (e.g., depression, anxiety), neuropsychological problems (e.g., ADD, ADHD), autism, chronic illnesses, lack of hearing/deaf, and visual impairment/blind, have the right to receive special assistance (e.g., extended exam time, digital study materials, exam writer, class notes, sign language interpretation, etc.). Finally, licensed clinical psychologists, with master's degrees, provide individual counseling and support to students, in addition to group counseling, and psychoeducation (e.g., stress management, self-esteem, sleeping habits). The next section specifically highlights what typically brings students seeking career guidance counseling to the center.

When students complete their application for bachelor's degree studies at the university, they need to declare their major field of study. Not surprisingly, many students change their major or study program during or after their first year (University of Iceland, 2017; University of Iceland Student Registration, 2014). Thus, one of the services offered at the UISCCC is assisting registered and prospective students in making educational and occupational choices. Self-knowledge, including interests, skills and values, has long been considered an important factor, alongside other elements, (e.g., family, environment) that can influence individual career choices. The history and practice of career counseling has demonstrated that interests are a key factor in helping individuals relate their personal characteristics to educational and occupational choices. Therefore, UISCCC counselors have offered students the use of interest inventories to get an overview of their interests and how their interests can relate to study programs and/or occupations.

For many years UISCCC counselors used the Strong Interest Inventory (SII; Donnay, Morris, Schaubhut, & Thompson, 2005) in small group sessions to assist clients with their career choices. Although the SII was useful and well received by counselors and clients, research indicated that the six Holland types, as reflected in the SII, did not fully capture the interest domains of the Icelandic population (Einarsdóttir, Rounds, & Su, 2010). Furthermore, differences in the educational system, occupations, and the labor market between the U.S. and Iceland always needed to be taken into account when using the SII with clients in Iceland. About a decade ago, an online Holland-based Icelandic Interest Inventory (III; Einarsdóttir & Rounds, 2013, 2019) became available. Three versions of the III were developed for the Icelandic school system, including for students in compulsory education, upper secondary schools and universities (Einarsdóttir & Rounds, 2013). The Icelandic Interest Inventory (Einarsdóttir & Rounds, 2013, 2019) is composed of items related to the Icelandic educational system and study programs as well as the labor market. Participants respond to the items on a computer and the results are presented graphically within the framework of Holland's (1997) six vocational personalities and work environments (RIASEC) in an inner circle. Around it, in a circular arc, are 27 indigenous (basic) interest scales reflecting more specific interest areas. Three colors, grey, yellow, and red, along with statistical scores, represent respondents' strength of interests on each scale as low, moderate, or high, respectively (Einarsdóttir & Rounds, 2013).

At the UISCCC, counselors and clients gradually adapted to using the Icelandic Interest



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Inventory (III). The III was a great improvement for both parties to use since the results could be directly related to Icelandic study programs and job descriptions. However, one challenge for counselors and clients was the graphic presentation of the results and how to use this information to assist clients in moving forward in the decision-making process.

### **Implementation of a CIP theory-based approach**

Before UISCCC counselors started to use the Iceland Interest Inventory (III) with individuals considering university studies, they determined that in order to assist clients in the decision-making process, they needed to encourage them to gather information about study programs and occupations and process the information. Additionally, clients needed to reflect on other factors that might influence the choice process, such as their values, skills, personal characteristics and circumstances. Although the counselors had previous experience assisting clients with those issues, the UISCCC director was interested in coordinating their work by implementing a theory-based method and/or counseling approach for this part of their services. Both she and two of the UISCCC counselors had, on separate occasions in the past, visited the Florida State University Career Center and were impressed by the cognitive information processing (CIP) theory-based approach (Sampson, Reardon, Peterson, & Lenz, 2004; Sampson, 2008) used as part of the center's service delivery process. Furthermore, an ongoing doctoral study at the time (Björnsdóttir, 2018) supported the applicability of a short CIP-based career intervention for students finishing their matriculation exam in Iceland.

Based on prior knowledge of CIP theory's application in career service delivery, and with the authors' permission, the UISCCC director suggested in a meeting with the counselors that a CIP-based approach be used with registered and prospective university students seeking counseling services regarding their educational and occupational choices. To accomplish that goal, the counselors combined an Icelandic translation of CIP's Guide to Good Decision-Making Exercise (GGDME; <https://fla.st/36odiUi>) with the use of the Icelandic Interest Inventory (III). Although the UISCCC counselors did not receive in-depth training on the application of a CIP theory-based counseling approach, most of them were familiar with CIP theory from their masters' studies in counseling and guidance, and were encouraged to read published material to increase their knowledge and understanding.

The GGDME contains activities derived from the two main parts of the CIP theory, the CASVE cycle (five phases: Communication, Analysis, Synthesis, Valuing, and Execution) and the Pyramid of Information Processing Domains, which includes Self-Knowledge, Option Knowledge, Decision-Making Skills Domain (i.e., the CASVE cycle) and the Executive Processing Domain, i.e., understanding how thoughts impact career choices (Sampson et al., 2004). The first activity called, *Knowing I need to make a choice*, relates to the Communication phase and includes both internal and external factors (e.g., events, comments from significant others, feelings, avoidance, physical problems, etc.); the second activity is related to *Understanding myself, options, decision-making and thoughts* (Analysis: values, interests, skills, preferences, knowledge of studies and occupations, decision-making and thoughts); the third section focuses on *Expanding and narrowing options* (Synthesis); the fourth *Prioritizing options* (Valuing: benefits and costs with regard to self, significant others, cultural group, community, and society); the fifth involves *Implementing a first choice* (Execution: plan, try out, apply), and finally *Knowing I*

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*made a good choice* (revisiting Communication: changes, reactions, feelings, avoidance, satisfaction, confidence).

Beginning in early 2014, UISCCC clients who wanted to learn about their interests could choose between the Strong Interest Inventory (SII) and the Icelandic Interest Inventory (III), which were offered in two hours long group sessions with up to eight participants. The group sessions were advertised on the UISCCC website as an option for registered or prospective university students to identify their interests and to relate their interests to study programs at the bachelor or masters level. Clients wanting to participate signed up at the university service desk without any screening for group participation. Those participating in the Strong Interest Inventory had two group sessions. At the first session, they completed the inventory on paper, it was scored after the session, and in the second session they got their results. Those students participating in the group session using the Icelandic Interest Inventory had one session in a computer lab where they completed the inventory online and got their results immediately. Counselors did some presentations in both groups (e.g., explaining the results, next steps, etc.), but they also encouraged participants to ask questions and engage in conversation. Finally, counselors encouraged participants in both groups to review their results after the sessions and to book individual appointments for further support and counseling.

A decision was made to try out the CIP-based handout in the group sessions which focused on the III. One counselor was in charge of each III group session and began the session by explaining the purpose of interest inventories in general, introduced the III, and explained how to answer the items and use the results. Then participants responded to the inventory on a computer at their own pace. When participants received their graphic interest inventory results, the counselor provided a 24-page handout and encouraged participants to work on it in the session. Because participants started at different times on the handout activities, another counselor joined the group to walk around with the counselor in charge to assist participants with the handout exercises and answer their questions. At the end of the session both counselors encouraged participants to continue with the exercises at home and to schedule an individual appointment if they needed more counseling.

The handout contained descriptions and guidelines regarding the results of the III and the 27 subscales (7 pp.), the GGDME (15 pp.), an Individual Learning Plan (ILP; 1 p.; Sampson, et al., 2004) as well as one page with links to useful websites, such as the UI course catalogue, “Næsta skref” with descriptions of occupations in Iceland, the Federation of Icelandic Industries and the Directorate of Labour in Iceland, along with some international websites, e.g., European Employment Services (EURES), O\*Net Online, and Dictionary of Occupational Titles. The Icelandic version of the GGDME was considerably longer than the original one (4 pp.) because each page contained only one or two activities with sufficient blank space for participants to write their responses. No type of readiness screening or assessment instruments were used together with the handout in sessions. However, based on previous experience and communications with clients, the counselors were aware that participants’ career decision-making situations could vary, e.g., some were only seeking confirmation for a career choice they were about to make, while others were more confused or undecided. Therefore, the counselors offered all participants the opportunity to book individual appointments following the group session for further support and

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counseling.

After using the handout, along with the Icelandic Interest Inventory (III), with around 150 individuals in a number of group sessions for approximately one and half years, the UIS-CCC counselors reevaluated the procedure. Although the counselors used similar approach in the group sessions, it was difficult to get some participants to engage in the GGDME activities and to participate in discussions. It was also easy for participants to leave the group session before the counselor could provide guidelines for the next steps because everyone was there on a voluntary basis. The counselors' impressions were that participants' motivation varied, some were more willing than others to use the inventory results and the handout in their decision-making process. Others seemed to be looking for an instant solution or "quick fix," that is they seemed to expect the results to tell them what study program and/or occupation they should choose. Finally, some participants appeared more confident in expressing themselves and asked more questions than others in the group sessions.

Participants did not complete any evaluations of their experiences in the III group sessions. However, based on the counselors' insights and communications with participants, the staff made two changes over a period of eighteen months. First, the counselors translated a guide entitled *Choosing a Major or Occupation* (available on the Florida State University Career Center website, <https://fla.st/37v0mpB>) into Icelandic. Like the GGDME, the guide uses the two main parts of the CIP theory, but it is explicitly designed for FSU students who are ready to actively engage in the career decision-making process and to choose their program of study. UISCCC counselors adapted the educational information and online resources (pp. 7-10) to the Icelandic context and omitted one exercise (p. 3) as well as few action steps (p. 11). This translated handout is shorter (19 pp.) than the earlier one used by the counselors. The first 7 pages describe the III, the guide's material and exercises comprise 11 pages, and the last page contains useful websites. The ILP was not included in this handout because counselors' felt that participants were not ready to make a specific plan about their next steps.

The second change made by the counselors was to begin to offer two hours long individual career choice sessions using the Icelandic Interest Inventory and the revised handout. In the individual sessions, it was easier for counselors to meet clients' needs according to the information they offered in the session and to assist them in working through the CIP exercises. The counselors also emphasized to clients the importance of continuing their work on the handout at home and invited clients to schedule a follow-up appointment if they wanted or needed more guidance. Currently, the UISCCC staff does not know how well this approach works for students with varied career decision-making needs since formal and systematic evaluation of the intervention has not been conducted. The UISCCC staff is aware that this individual approach is more time consuming and less cost-effective than group career choice sessions and most likely some of the clients do not need this level of individual services.

### **Lessons Learned and Recommendations**

The UISCCC counselors made some subjective discoveries during the time they have been using a CIP-based approach with more than 600 clients in group and individual career choice sessions. First, the counselors' impressions were that participants were more satisfied with



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the individual sessions compared to the group sessions. This perceived outcome is not surprising given the previous research that shows counselor support is a critical ingredient in career choice counseling (Whiston, Li, Mitts, & Wright, 2017). Counselors also felt like participants were more ready to work with the handout in the session, as well as to continue at home according to their needs and counselors' guidelines. The level of support provided in individual counseling may have contributed to clients' willingness to engage with the handout. Counselor support has been identified as a critical ingredient that impacts the effectiveness of career interventions (Brown, et al., 2003). This experience can inform practice moving forward in several ways. First, clients with moderate readiness may more readily benefit from a short-term group intervention, which is a type of brief staff-assisted assistance in CIP theory (Sampson, et al., 2004), whereas low readiness individuals might really need the individual sessions. Some high readiness individuals might even not need a face-to-face intervention at all and could manage on their own with the career choice information and guidelines available on the UI website, which in CIP terms is described as a self-help approach (Reardon, 2017). Second, the combined use of the III and the CIP-based handout may not be as well suited for group sessions. With up to eight participants, it was difficult for the counselors to monitor the readiness of each individual to complete the handout and to guide them in filling out the Individual Learning Plan (ILP; Sampson et al., 2004). Additionally, only a limited number of participants booked the individual follow-up appointments offered by the counselors which were intended for more individual support and guidance than could be provided in the group. The question remains if the group sessions provided the support and information participants needed to feel comfortable in making their next steps, but a follow-up with group participants might answer if that was the case.

Providing group-based career interventions is an attractive approach for practitioners and counseling centers because this service delivery format is seen as a more cost-effective way to meet client needs (Pyle & Hayden, 2015; Sampson et al., 2004). Determining who can best benefit from a group intervention by using some kind of readiness screening tool (Sampson, McClain, Musch, & Reardon, 2013) may help improve students' experience by providing more information about their needs and better enabling practitioners using CIP-based interventions to address those needs. One option for the UISCCC might be using *The Career Thoughts Inventory* (CTI; Sampson, Peterson, Lenz, Reardon, & Saunders, 1996) which measures respondents' readiness and negative thoughts related to career problem solving because it has already been translated and tested with Icelandic students (Björnsdóttir, 2018; Björnsdóttir, Kárdal, & Einarsdóttir, 2010).

Based on the experience of using a CIP-based approach within the UISCCC, a few recommendations can be offered to career and guidance counselors and other practitioners who might want to adapt CIP activities and interventions in their setting. First, before implementing the use of the Guide to Good Decision-Making Exercise (GGDME) or the Choosing a Major or Occupation guide, practitioners may want to pilot test the material with a smaller sample of the population in their setting, prior to full implementation, especially in different countries and cultures. This suggestion is consistent with Sampson's (2008) recommendations in his guide to designing and implementing CIP-based programs. Second, it would be informative to have participants complete some type of evaluation at the end of each session to learn more about what students and clients feel is working well and what can be improved. As Sampson (2008) noted,

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“ongoing evaluation of career interventions provides the basis for evidence-based practice and continuous improvement” (p. 72). Osborn, Hayden, Peterson, and Sampson (2016) described the use of a brief pre-post evaluation with clients receiving assistance based on CIP theory that indicated clients who received the intervention reported that they had increased their knowledge about next steps and confidence in making next steps. They also recommended that it would be helpful to talk with those who moved in the opposite direction (i.e., were less knowledgeable, less confident, and/or more anxious) to find out what contributed to those outcomes. Finally, in retrospective, although the UISCCC counselors were familiar with CIP theory from their post-graduate studies, some additional training on using a CIP theory-based approach with clients would have been helpful and may have improved the quality of the intervention and students’ response to it. Sampson (2008) described the importance of providing effective staff training to ensure that a career intervention is successfully implemented.

In November 2019, Iceland’s Career and Guidance Association organized a one-day seminar where practitioners could share with their colleagues what they were using in their daily work. During this seminar, the UISCCC counselors introduced the Icelandic version of the CIP-based handout (i.e., Choosing a Major or Occupation) and how they use it with the Icelandic Interest Inventory (III) with their clients. Following the presentation, several counselors in other educational institutions showed interest in the handout. The interest in this type of intervention shown by other counselors suggests that Iceland’s career counseling and guidance profession may benefit from practical and theory-based tools and counseling methods, adapted for the Icelandic context, as well as providing evidence that a cognitive information processing (CIP) theory-based approach may hold some appeal for practitioners who are seeking ways to more effectively meet the career decision-making needs of the clients they serve.

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## Chapter 5

# The development and its results of a university career center service based on the CIP approach: A case study from Korea

Sungsik Ahn

Soongsil University

Korea University Career Development Center (KUCDC) has changed and evolved its organization and career services or programs to meet students' needs. In this article, a short history of KUCDC is introduced and the preparation phases of career service development based on the cognitive information processing (CIP) approach is described: physical resource, human resource, career services, evaluation, and professional development. Lastly, the outcomes assessed by changes of satisfaction and vocational identity of clients are presented as empirical evidence of the successful transformation of career services in KUCDC based on the CIP approach.

### Introduction

In this article, a case of the Korea University Career Development Center (KUCDC) is presented. Korea University (KU) was established in 1905. KU has 21,165 undergraduates and 8,592 graduate students in Seoul campus, one of the large universities in Seoul, Korea. KU has two campuses, and each has its career center. KUCDC presented in this article is in Seoul campus and serves students of its campus. KUCDC is a centralized career center and it is in collaboration with career services units of colleges such as the career development center of business school. While KUCDC provides comprehensive career services to all undergraduates and graduate students and operates as a headquarter of career service, career service units of colleges provide services to their undergraduates or graduate students.

Career service in KU was one of the services delivered by one or two staff working at the office of student affairs until 1999. Career services at that time were limited to delivering labor market information, providing referral service (e.g. recommending students to employers by employers' request) and occasional career events. Such limited career services had been acceptable and common in Korean universities as Korea's economy had kept being growing and unemployment rates had been lower.

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However, the financial crisis in Asian countries including South Korea in 1997 made big changes in Korean society and economy. Such socio-economical changes pushed the Korean government and universities to take more active roles to prepare college students for employment. In such a socio-economical context, KU took changes to make the function of career services independent from the office of student affairs and the Career Services Team (CST) was set up with four administrative staff and three assistant students in 2000. CST expanded their career services by adding training programs and events to existing services: job searching programs (lecture series of job-search skills, English interview classes), a publication of interview skills booklets, development of KU job system (a portal site for employment information) and occasional job fairs. The budget of CST was increased by double and it was equipped with a computer room so that students could search for job information via the internet, prepare their resumes and essays, and watch videos of job searching skills lectures.

In 2006, CST changed its title to Career Development Center (KUCDC) to expand their career services for more lower-grade students (freshmen and sophomores). KUCDC took gradual changes to expand its services with increased funds from governments such as the Department of Labor and the Department of Education since 2006. From 2006 to 2009, KUCDC developed and provided new programs for freshmen and sophomores (e.g. career development programs, group assessment/interpretation) and reorganized existing programs to ensure its qualities by testing its effectiveness. KUCDC installed two counseling rooms (closed spaces) for career advising or counseling to protect the privacy of counselors and clients, however, the official career counseling service was not launched yet until 2012. Two recruiting rooms were newly installed for recruiters from large companies such as Samsung and LG, and a workshop classroom was installed nearby KUCDC to deliver small group programs.

By 2010, KUCDC had a growing number of participants in various career development programs in areas of self-awareness, job information, job-searching skills, etc. However, those programs and services were initiated by immediate requests of students and some of them were proposed and delivered by out-of-campus for-profit providers. Around 2010, KUCDC needed changes to make its services more sustainable and to rearrange them based on a career development processes. And there were increasing needs for one-on-one career counseling by students. In short, KUCDC needed to transform its entire career services from a provider of programs on regular basis (students can participate in programs only when those programs open) to a provider of ongoing services by adding career counseling and related services. In other words, the changed career service of KUCDC should enable students to use career services whenever and whatever they need.

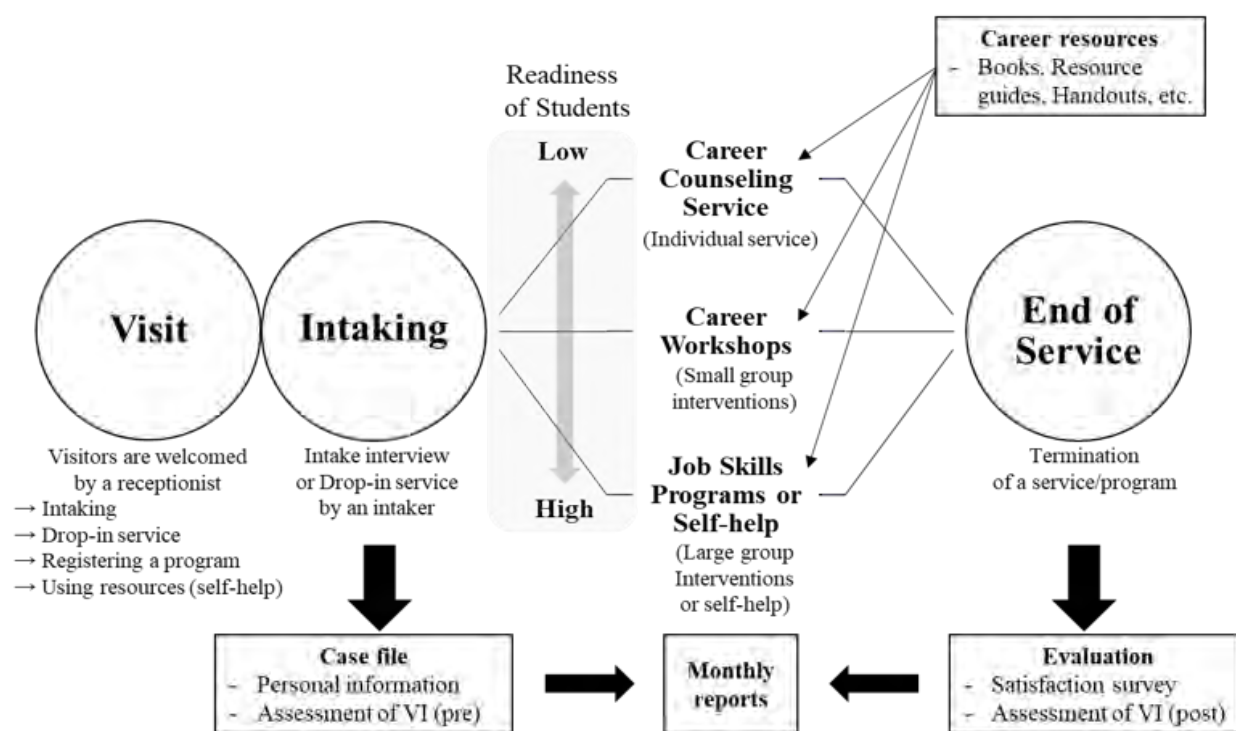
KUCDC needed a theoretically and practically sound foundation for further development. Before transforming the entire career services, KUCDC staff had reviewed literatures of career development theories and models, especially literatures of career service development in higher education (Herr, Rayman, & Garis, 1993; Sampson, 2008; Sampson, Peterson, Reardon, & Lenz, 2000; Sampson, Reardon, Peterson, & Lenz, 2004; Schutt, 2008). Individual programs were developed and implemented based on related career theories or models, however, there were very few literatures for the development of career services in university career centers. The effective career service model based on the cognitive information processing (CIP) approach (Sampson et

al., 2004) was found to be good for transforming career service of KUCDC in cost-effective way.

Based on the CIP approach, KUCDC planned an effective career service flow like Figure 1. All visitors are welcomed and guided to appropriate services along with their needs. Along with the types of questions or needs of visitors, the receptionist welcomes and guides them to proper services. For example, this may include letting them stay in the resource room for book or materials reading, or information searching with laptops, registering them to a program they want, guiding them to intaking service for assessment, resume/essay critique service or career counseling. When visitors are guided to intaking service for seeking proper services, a case file is given to them. A case file includes a registration form and an 18-item vocational identity questionnaire (Holland, Gottfredson, & Power, 1980). For a 15-30 minutes intaking session, an in-taker as a para-professional assesses clients' readiness for career decision making to determine which service is appropriate to their needs and career concerns.

**Figure 1**

**A career service flow of Korean University Career Development Center**



Based on the two-dimensional model of readiness for career decision making (Sampson et al., 2000) and screening and selection of service delivery options (Sampson et al., 2000), clients are screened and recommended to one of the career services by in-takers. In-takers recommend job searching skill development or career development programs (low-cost programs for large audience) to clients with high readiness, career workshops (middle-cost workshop for small group of up to 15 participants) to clients with moderate readiness and individual career counsel-

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ing service (high-cost case management service for each individual) to clients with low readiness.

In-takers were trained to understand CIP approach, service flow, screening processes and various interventions of KUCDC and they were allowed to determine the readiness of clients with their heuristic judgment based on the results of talk with clients and vocational identity questionnaires. In-takers were given specific instructions for screening and allocation of clients when in-takers request advice to senior counselors or whenever there are upcoming events or programs which need new participants for launches. Differently from the suggestion by Sampson et al. (2000), KUCDC did not provide a brief staff-assisted service to clients with moderate readiness until the completion of development of career development materials such as a career resource guide and career development handouts or worksheets. With these career development materials, staff can assist students in clarifying their career concerns and in finding possible ways to solving their concerns (problems).

Based on career service transformation plans, KUCDC had taken steps to prepare transformation until official career counseling service and related services launched. A series of preparation for this transformation of KUCDC career services are described in detail in the following sections in terms of physical resources, human resources, materials and curriculums for career services, evaluation, and professional development. Please note that the order of the following phases is not exactly the order of preparation in the timeline but the areas of preparation. Many of the phases were implemented simultaneously during preparation and some of the phases were implemented after the official launch of career counseling and related services.

## **The development of a university career center service based on CIP approach**

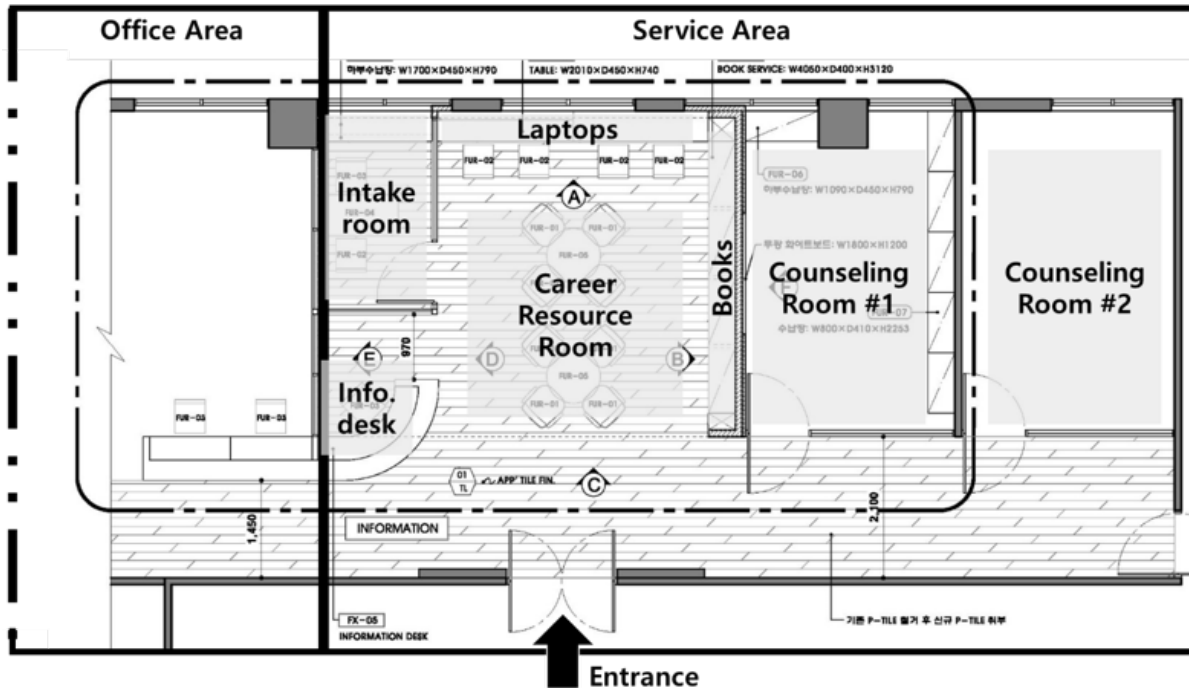
### **Phase I: Transforming physical resources**

The physical space of KUCDC was similar to the environment of other administrative offices. Visitors were not adequately welcomed when they come into the center and there were only benches for waiting in the office. KUCDC redesigned the office space to have an information desk for welcoming and guidance for visitors, a resource room for waiting, book reading or self-help service, an in-take room for in-taking or drop-in service (resume/essay critiques). The service area was separated from the office area by glass barriers so that visitors or clients could receive services in a quiet and secure environment (Figure 2). By renovating physical spaces, KUCDC was then ready for new career services.



Figure 2

A new layout of KUCD office for a career and its related services



Phase II: Placement of human resources

For a transformation of career services in KUCDC, the allocation of professional human resources is key for the effective delivery of career services and career counseling. Until 2012, four administrative staff and three student assistants had worked at KUCDC and one of the staff was a professional career counselor with a master's degree in counseling and GCDF-Korea certification. During the preparation of career counseling service in 2011, career counseling service was offered mainly for assessment interpretation by two invited career counselors with a master's degree in counseling and experience with university students.

For the official launch of career counseling service in 2012, KUCDC hired a career counselor as a main professional career counselor and three to five graduate students in counseling programs of departments of psychology and education as in-takers and para-professionals. One of the three existing student assistants was allocated to the information desk. In 2014, KUCDC hired one additional career professional with a vocational counselor certification which is a national technical qualification issued by the Human Resources Development Service of Korea – a government agency (Youn, Beak, Kwon, & Kim, 2019). Two career counselors hired by KUCDC were financially supported by a fund from the Ministry of Labor from 2012 to 2016 and their official title was *Chui-up-ji-won-kwan* meaning Job Supporting Agent. After the end of financial support from the Ministry of Labor, two positions of career counselors were retained with financial supports by university budgets.

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In addition to professional career counselors, KUCDC recruits a few of counselors-in-trainings from counseling programs of the departments of psychology and the department of education for career counseling service in every semester. Some of them take both roles of in-taker and career counselors on different days. Counselors-in-training were supervised regularly by clinical supervisors outside of KUCDC and attended case sharing meetings with KUCDC career counselors and peers. KUCDC provides training programs for career counselors, counselors-in-training and in-takers for consistent and effective career counseling services.

### **Phase III: Rearrangement or development of career services**

#### **Assessments and career counseling.**

Career assessments used by career counselors include Career Thoughts Inventory (CTI), Myers-Briggs Type Indicator (MBTI), STRONG vocational interest inventory, and career value cards. Before the transformation of career services, MBTI and STRONG inventory are interpreted individually in one-on-one sessions by career counselors. In a new career service system, both inventories and CTI are generally interpreted in a group during career workshops. If career counselors believe clients may benefit from an assessment, counselors can administer and interpret it during sessions or have clients participate in group-interpretation workshops. As the maximum session of career counseling is five sessions per client, counselors and clients can save their sessions by clients' participation in career workshops for assessment interpretation. Career counselors are free to administer any other psychological assessments such as the Minnesota Multiphasic Personality Inventory (MMPI) or Wechsler Adult Intelligence Scale if they need to during career counseling. Career counselors need to understand whole career services based on the CIP approach, however, they are free to use any other career development and psychological theories and models for their career counseling orientation.

#### **Career workshops.**

The career workshop series for small group interventions were developed by two career counselors of KUCDC and an invited career counselor during summer in 2012. They developed a series of ten 2-hour workshops based on the pyramid of information-processing domains and the CASVE cycle of the CIP approach (Sampson et al., 2000). To develop a series of career workshops, career counselors analyzed students' needs and selected topics and then developed curriculum and materials for each workshop. Career counselors had a 2-day workshop for simulation and feedbacks, then they revised curriculum and materials based on their feedbacks. They delivered career workshops for a pilot test in the fall semester in 2012 and made an additional revision of curriculum and materials.

From the spring of 2013, KUCDC launched ten career workshops officially and have offered ten different topics of workshop every month. Curricula and materials of each career workshop are intended to be reviewed every year or semester based on feedbacks by participants and instructors and on the results of satisfaction surveys. The career workshops are presented in Table 1.

**Table 1**

Career Workshop Series based on CIP approach								
Titles		Objectives	Domains	CASVE cycles				
				C	A	S	V	E
101	Career Orientation	Understanding career decision making process Finding negative career thoughts	Meta-cognition	v				
102	Interest	Understanding six Holland codes Group interpretation of STRONG results	Knowledge of self		v			
103	Personality	Understanding personality (16 types of MBTI) Group interpretation of MBTI results	Knowledge of self		v			
104	Skills	Understanding transferrable skills Finding own strengths and transferrable skills	Knowledge of self		v			
105	Values and Decision-making	Finding values by Career Value Card sorting Making potential career decision	Decision-making		v		v	v
201	Exploring options by online	Locating online websites for LMI Evaluating online resources	Knowledge of option		v			
201	Exploring options by offline	Understanding Information interview skills Group tasks of information interviews	Knowledge of options		v			
301	Analysis of Jobs and Employers	Understanding organization charts of large employers Locating/analyzing information of target jobs and employers	Knowledge of options		v			v
302	Successful Essay Writing	Understanding effective writing skills (STAR model) Making an example essay for job searching	Decision-making					v
303	Successful Interview	Understanding evaluation for interview. Mock interviews by an instructor and peers	Decision-making					v

**Career resource guide and handouts.** To deliver self-help services in the resource room of KUCDC, a set of career guide resources was developed by career professionals in 2017: a career development guide booklet, ten resource guides, and thirty handouts. A career development guide booklet includes the introduction of the career decision-making process based on the CIP approach and general guidance of career services and programs of KUCDC. Ten resource

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guides include a list of frequent asked career concerns for each topic and effective guidance to use career resources such as lectures, career workshops, career counseling and handouts (e.g. I don't know what I like and what I am good at, or I don't know what are my strengths regarding my major). Handouts include reading contents or worksheets to solve thirty different career concerns (e.g. A checklist for employment readiness, Making my career story, or A worksheet for job analysis). Those materials can be used for students seeking self-help service in the resource room by a receptionist or in-takers and can be used for career workshops and during career counseling.

**Drop-in service (resume/essay critique).** Resume/essay critique service was highly demanded by students who were searching for jobs nearby graduation. Previously career counselors responded to this request of students whenever counselors were available, however, it had been too demanding for the counselors during the employment season (generally March to May and September to November). Thus, KUCDC determined to provide resume/essay critique service officially to students as drop-in service in 2013. Before its official launch, all in-takers were trained by ex-HR managers and professional job interview trainers to provide resume and essay critique service.

**Rearranging/redesigning existing programs.** While developing and initiating new services like career workshops and career counseling service, existing programs which were focusing on job-seeking skills were continually provided, however, they were redesigned or rearranged in the context of a new career service framework. The overlapped parts of existing job-seeking programs with the newly developed career workshops were removed or revised to provide seamless but not overlapped services by KUCDC. For example, an existing program of MBTI group interpretation by invited instructors was stopped as they were overlapped with career workshops. A one-day program of connecting students with alumni mentors was revised to connect with #302 career workshop to prepare participants for information interviews with mentors.

#### **Phase IV: Evaluation of career services**

Evaluation of career services and programs was conducted in two parts: administrative evaluation by satisfaction survey and clinical evaluation by the improvement of vocational identity questionnaire (VI). All participants or clients of career counseling and workshops are encouraged to take pre-tests of VI which are included in the case files during registration or in-taking, and they are also encouraged to take satisfaction surveys and post-tests of VI after every session of counseling or every career workshop. In case of individual career counseling service, during five years from 2012 to 2016 in school year (in Korea, March to February), all of 985 counseling clients (the number excluded clients who had not shown up to the first session) responded to VI during in-taking and 938 of them (95.2%) responded to VI after the first counseling session. The responding rates varies depending on the types of services (counseling, workshops, resume critiques, etc.), however, around 80-90 % of participants responded to the satisfaction surveys and VI. The gains of VI of each client or participant from the pre-test score of VI are collected every month. The results of career services were reported to the director of KUCDC every month. The report includes the number of participants, the average scores of satisfaction, the results of paired t-tests of pre- and post-tests of VI. The same rules are applied to in-takers when they provide resume/essay critiques.

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For other existing job-seeking skills programs that were proven effective previously, participants take only satisfaction surveys. If any programs which were newly developed and provided for the first time, other assessments that are related to learning objectives are used at pre- and post-intervention for clinical evaluation - effectiveness. For example, a newly initiated interview skill program was assessed before and after its first running with a job-seeking competency inventory developed by a government agency.

### **Phase V: Professional development**

Career counselors and in-takers are encouraged to attend regular professional development training during the summer and winter vacation periods. During 2012-2016, KUCDC provided in-takers with orientation, on-the-job training, and professional development workshops which covered the roles and responsibilities of in-takers as para-professionals, a career service flow based on CIP approach, documentation, helping skills, resume/essay critique skills, basic knowledge of labor market information, career development theories and practices, etc. In-takers were highly encouraged to participate in career workshops and various programs offered by KUCDC and they were given opportunities to attend any programs as observers. As in-takers are graduate students and counselors-in-training, KUCDC tries to offer various experience opportunities of learning as counselors in the career development field and some of them were given chances to be instructors or facilitators in career workshops or other career development programs.

### **Empirical evidence**

#### **The results of career services: the number of participants, satisfaction and VI**

The results of career counseling and career workshop in a new career service system are presented in Table 2. Before the official launch of career counseling and workshops in 2012, a pilot test of intaking and career counseling was conducted with graduate students and invited career counselors during the fall and winter semesters of 2011. In general, the total number of participants and clients for intaking, career counseling, and workshops has increased continually until 2015. The average satisfaction whose range is from 1 to 5 shows gradual increases from 4.4 in 2011 to 4.6 in 2015. VI scores whose range is 0 to 18 shows consistent improvement ranges from 2.3 to 3.6 indicating a more clear and stable sense of their goals, interest, ability, etc. In short, while the number of participants increased dramatically from 1,672 in 2012 to 4,359 in 2015, the outcomes of services assessed by satisfaction and VI improvement showed stability or increases. In other words, KUCDC has delivered a similar or higher quality of career services even though the career services have expanded in quantity.

**Table 2**

<b>The results of career counseling and related services at KUCDC</b>					
Types of services	2011	2012	2013	2014	2015
The number of participants/clients					
In-take	444	895	1,090	1,795	1,971
Drop-In Service	-	-	25	580	983
Career Counseling	269	541	547	377	484
Career Workshop	-	236	522	806	599
Total	713	1,672	2,557	3,962	4,359
Satisfaction					
Drop-In Service	-	-	4.8	4.6	4.7
Career Counseling	4.4	4.5	4.5	4.5	4.6
Career Workshop	-	4.3	4.3	4.4	4.4
Average	4.4	4.5	4.4	4.5	4.6
Vocational Identity increasement					
Drop-In Service	-	-	-	3.4	3.6
Career Counseling	3.2	2.6	2.5	2.5	2.7
Career Workshop	-	2.3	2.7	2.6	2.9

### **The results of screening by in-takers**

There can be a question of how well in-takers screened and allocated students to appropriate services or programs along with the level of students' readiness. As stated earlier, in-takers were allowed to recommend appropriate services with their heuristic judgment based on both their talks with clients and VI scores. As individual career counseling needs higher cost per client when compared to other small or large group interventions, only clients with low readiness should be referred to individual career counseling for cost-effective service delivery. Independent sample t-test of VI scores at intake between groups of clients and non-clients of the career counseling from data of five years from 2011 to 2015 was performed. There was a significant difference in VI scores for a client group ( $M = 5.51, SD = 3.69$ ) and a non-client group ( $M = 7.45, SD = 4.57$ );  $t(2315.949) = -11.36, p < .001$  (Table 3). In other words, in-takers at KUCDC made good decisions to screen students with low readiness for career counseling service.

Table 3

**Results of t-test and Descriptive Statistics for Vocational Identity at intake by groups of clients and non-clients of career counseling**

	Clients of career counseling			Non-clients of career counseling			95% CI for Mean Difference		
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>			
VI	5.51	3.69	985	7.45	4.57	1359	-2.28, -1.60	-11.36***	2314.95

\*\*\*  $p < .001$

### The results of individual career counseling service

The data of 433 clients of individual career counseling at KUCDC were analyzed for evaluating outcomes of career counseling (Ahn, 2018). The outcomes of career counseling service were assessed by two indices: improvement of both satisfaction and VI. Satisfaction was developed by KUCDC and it consists of five items (e.g. Are you satisfied with this session globally?) with five-point Likert-scale from 1 (strongly disagree) to 5 (strongly agree). Satisfaction of the last session ( $M = 4.59, SD = .50$ ) was significantly higher than that of the first session ( $M = 4.50, SD = .45$ );  $t(389) = -3.89, p < .001$ . For the VI, the linear increase between the first and the last session was tested by Latent Growth Model and it was found that intercept ( $M = 4.80, p < .001$ ) and slope ( $M = 3.90, p < .001$ ) of VI were significant. The two outcome indices showed that individual career counseling service during five years at KUCDC was effective.

Ahn (2018) also analyzed the transition patterns of client career concerns during career counseling and its effects on VI improvement. Three transition groups were found and they were Focusing, Advancing and Reconsidering group. Focusing group (71.4%) held only one career concern (e.g., exploration, career decision-making, or job searching skill) during a course of career counseling – from the first session to the last session. Advancing group (26.6%) advanced their career concerns along the career development process (e.g., exploration to career decision-making). Reconsidering group (2.1%) took the career development process backward (e.g., job searching skill to exploration). The advancing group showed significantly more improvement in VI than the other two groups did. In the CIP approach context, the advancing group is a group of movers from the knowledge domain to the CASVE cycle domain and it showed a significant gain in VI score. Therefore, it was found that solving career concerns along the information processing pyramid of the CIP approach is an effective way in career counseling service.

### Conclusion

So far, through a case of the development of career services in KUCDC, the changing phases of career services based on the CIP approach and its results were described. College students in different countries, regions, and universities have different needs of career services and each career service organization will be at different stages of development. The case of KUCDC

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described above can be considered as one of the examples that best reflected the CIP approach among Korean universities. Career development programs based on the CIP approach were often found, however, cases of career service development of career service organizations were rarely found in Korea since the CIP approach and its assessment (CTI) were introduced in Korea in 2003. Even though it is one case of applying the CIP approach to a university career center in Korea, the CIP approach will be an excellent model applicable to other university career centers when such good results in this case are considered.

However, despite these results, there are many things to do for more effective service delivery. For instance, a brief-assisted self-help service with career resources is not yet available in KUCDC. Those resources are well displayed for free pick-up by visitors for self-help service. In the near future, KUCDC needs to develop more various career resources such as handouts, worksheets or online resources via websites or mobile apps for various subgroups or underrepresented students and have staff such as counselors, in-takers, receptionists, or administrative staff be able to assist and help students in a cost-effective way based on CIP approach. Despite many limitations of this article, I hope that this case of successful application of CIP application to a university career center in Korea help career service personnel who want to provide effective career services in the future.

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## Chapter 6

# Applications of Cognitive Information Processing Theory in the Philippines

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### BACKGROUND

#### Higher Education in the Philippines and the STRIDE Project

With more than 2300 institutions, the Philippines boasts one of the largest and oldest systems of higher education in Southeast Asia. The broad contours of this system reflect the country's colonization first by Spain (1565-1898) and then by the United States (1898-1946), leaving the Philippines with a network of elite Catholic institutions—some of which, like the University of San Carlos and the University of Santo Tomas predate Harvard—and a larger system of public land grant-type universities and protestant Christian institutions such as the flagship University of the Philippines (1908) and Silliman University (1901) established in the 20<sup>th</sup> century under American colonial and postcolonial influence. The U.S. colonial regime also instituted for the first time a nation-wide system of mass public schooling that fed the expansion of higher education right through the 20<sup>th</sup> century. Thus U.S. colonial and postcolonial policy was a quite conscious “pedagogical imperialism” intended to re-engineer Philippine society and politics (Ileto 1999, Milligan 2005a), inculcating in the process a widespread, deep faith among Filipinos in the power of education to effect socio-economic progress (Milligan 2005b).

Through the 1950s and 1960s Philippine higher education enjoyed a strong reputation in

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the region, attracting students from Japan, Korea and other Asian countries. Over time, however, the increasing demand for access to higher education led to a proliferation of institutions, many of dubious quality, which fed the growing demand for academic credentials, whether or not those credentials reflected any truly marketable knowledge or skill. At the same time political turmoil and poor economic growth led to inadequate government funding of higher education even as the technological and scientific demands of a modern economy increased exponentially (Gonzalez 1989). Increasingly, many of the brightest and most ambitious graduates of the very best Philippine universities sought opportunities for further study and work abroad, exacerbating the growing gap between what Philippine universities were producing and the changing needs of a modernizing Philippine economy.

This was the context and impetus for the Science, Technology, Research and Innovation for Development (STRIDE) project in the Philippines, a five-year, \$32 million project funded by the U.S. Agency for International Development and implemented by RTI International. Previous assessments by USAID and other international organizations had pointed to a serious mismatch between the academic training provided by Philippine universities and the needs of Philippine business and industry. Curricula, especially in science and technology, were badly out of date. Many university faculty were unfamiliar with the application of their fields of study in the marketplace. Universities—even many of the best universities—lacked the resources and infrastructure necessary to conduct the kinds of research needed by Philippine industry. These studies also pointed to a lack of communication and trust between academe and industry that limited Philippine universities' capacity to contribute to growth and innovation in the Philippine economy.

The STRIDE project (2013-2018) was intended to help bridge this gap between Philippine academe and industry and thus enhance the capacity of selected Philippine universities to contribute to the country's economic growth. It approached these broad goals by working to improve the policy environment for industry-academe-government dialogue and cooperation, by attempting to improve the research capacity of Philippine universities through small grants to support research collaborations with local industry and U.S. universities, and by providing scholarships to Filipino faculty for study in the U.S. Through its implementing partners Rutgers University, the William Davidson Institute at the University of Michigan, and Florida State University's Learning Systems Institute, STRIDE also worked to improve the relevance of university curricula in science and technology by engaging industry representatives in the development of professional science master's programs and establishing comprehensive career centers at selected universities to improve their capacity to equip students with the knowledge, skills and dispositions necessary to success in the workplace.

During the initial project period (2013-2018) the William Davidson Institute and Florida State's Learning Systems Institute worked with Philippine counterparts to establish career centers at eight universities in Luzon, Palawan and Mindanao. Later, under a three-year extension of the project, the Florida State University Learning Systems Institute was engaged to establish career centers at an additional 14 universities. Our experience with career center development in these universities forms the basis for this article.

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## Challenges and Cultural Considerations for Career Counseling in the Philippines

Despite boasting a resilient economy during the global financial crisis of 2008 (Central Intelligence Agency [CIA], 2019), as well as steady growth in industries like construction and business services (Tolentino, Garcia, Restubog, Bordia, & Tang, 2013), the Republic of the Philippines also faces social stressors which significantly impact the career development and decision-making of its residents. One in five Filipinos lives in poverty, while most of the country's wealth is concentrated in the hands of the elite (CIA, 2019). Underemployment remains chronically high, around 18% in the general population (CIA, 2019; National Statistics Office [NSO], 2019). This problem is especially prevalent among young people, as many fresh graduates have difficulty finding work commensurate with their education and skill level (Tolentino et al., 2013). Fierce competition for jobs, combined with longstanding government policies that facilitate the export of Philippine labor, have led many workers to seek employment abroad (Maca, 2018; Tolentino et al., 2013). These career challenges are further exacerbated by the aforementioned mismatch between academic training programs and the demands of local business and industry.

These economic pressures, combined with the core Filipino value of family belongingness, or *pagkapamilya*, results in a unique cultural context for career development (Tuason, Galang Fernandez, Catipon, Trivino-Dey, & Arellano-Carandang, 2012). Indeed, Salazar-Clemeña (2002) identified devotion to family and desire for economic mobility—"family ties and peso signs" (p. 251)—as key influences on the vocational choices of Filipino students. Consequently, young people often choose career paths according to family input, prestige, and perceived opportunities for social mobility. Unfortunately, however, it is not uncommon for students and their families to base these decisions on misinformation and occupational stereotypes (Salazar-Clemeña, 2002), a problem that further highlights the need for improved communication between Philippine educators and employers as well as increased access to career services to help individuals and their families make well-informed career choices.

## CIP THEORY

The context of the STRIDE program necessitated an approach to university career center development that was economical, practical, and compatible with Philippine values. Cognitive Information Processing (CIP) theory proved an excellent fit. The Florida State University Career Center is based upon CIP theoretical underpinnings and has extensive involvement in international consultation. Figure 1 shows international visitations as well as international visitors hosted by the Career Center. Advantages in the use of CIP theory in the Philippines follow.

## International Visitors

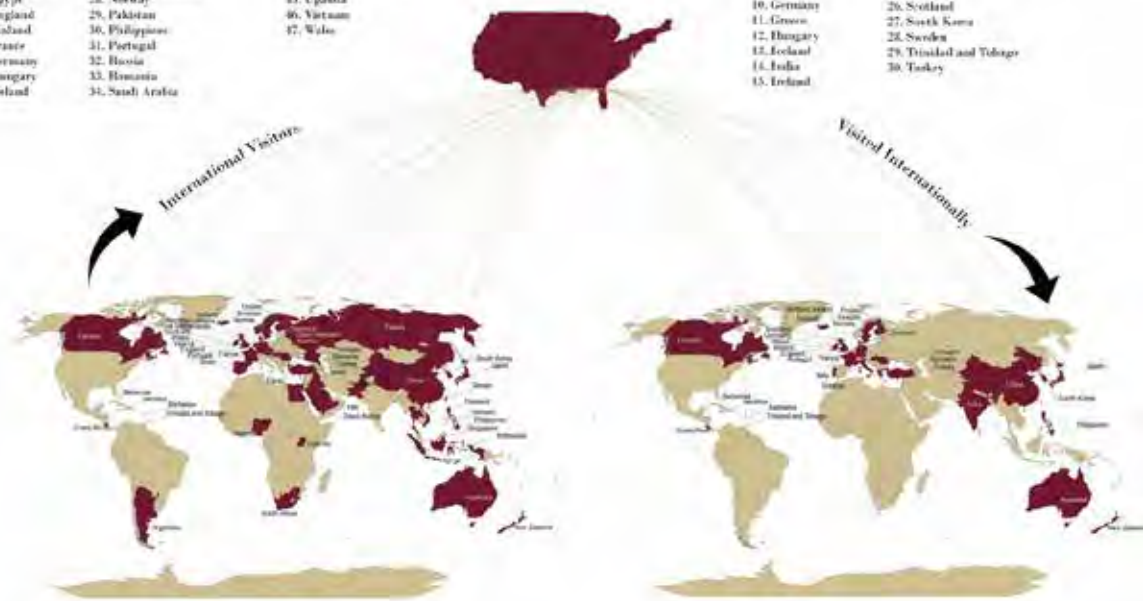
Visitors to the Florida State University Career Center and the Center for the Study of Technology in Counseling & Career Development, 1986 - present.

- |                   |                      |                         |
|-------------------|----------------------|-------------------------|
| 1. Argentina      | 18. Indonesia        | 35. Scotland            |
| 2. Australia      | 19. Iraq             | 36. Singapore           |
| 3. Austria        | 20. Ireland          | 37. South Africa        |
| 4. Bahamas        | 21. Israel           | 38. South Korea         |
| 5. Barbados       | 22. Jamaica          | 39. Spain               |
| 6. Canada         | 23. Japan            | 40. Sweden              |
| 7. China          | 24. The Netherlands  | 41. Taiwan              |
| 8. Costa Rica     | 25. New Zealand      | 42. Thailand            |
| 9. Czech Republic | 26. Nigeria          | 43. Trinidad and Tobago |
| 10. Denmark       | 27. Northern Ireland | 44. Turkey              |
| 11. Egypt         | 28. Norway           | 45. Uganda              |
| 12. England       | 29. Pakistan         | 46. Vietnam             |
| 13. Finland       | 30. Philippines      | 47. Wales               |
| 14. France        | 31. Portugal         |                         |
| 15. Germany       | 32. Russia           |                         |
| 16. Hungary       | 33. Romania          |                         |
| 17. Iceland       | 34. Saudi Arabia     |                         |

## Visited Internationally

Places where faculty and staff from the Florida State University Career Center and the Center for the Study of Technology in Counseling & Career Development have presented, consulted, or provided technical assistance, 1986 - present.

- |               |                                 |
|---------------|---------------------------------|
| 1. Australia  | 16. Italy                       |
| 2. Barbados   | 17. Jamaica                     |
| 3. Canada     | 18. Japan                       |
| 4. China      | 19. New Zealand                 |
| 5. Costa Rica | 20. Northern Ireland            |
| 6. Denmark    | 21. Philippines                 |
| 7. England    | 22. Portugal                    |
| 8. Finland    | 23. Republic of the Philippines |
| 9. France     | 24. Romania                     |
| 10. Germany   | 25. Scotland                    |
| 11. Greece    | 26. South Korea                 |
| 12. Hungary   | 27. Sweden                      |
| 13. Iceland   | 28. Trinidad and Tobago         |
| 14. India     | 29. Turkey                      |
| 15. Ireland   |                                 |



**Figure 1. Countries Visited/International Visitors for the FSU Career Center**

First, CIP theory promotes a triage model of service delivery that encourages efficient and socially responsible use of career center resources (Toh & Sampson, 2019). Recognizing that not all clients require the same level of support, CIP-oriented career centers use readiness assessments to differentiate services according to two dimensions: capability, or one's cognitive and emotional capacity to engage in career exploration, problem-solving, and decision-making; and complexity, or the extent to which circumstantial factors like family roles, financial demands, or social barriers make it more difficult to navigate career decision-making (Sampson, Reardon, Peterson, & Lenz, 2004). Individuals high in capability and low in complexity have the highest level of career readiness and can be served using cost-effective interventions like self-help services (Sampson et al., 2004). Individuals who are either high or low in both dimensions are considered to have a moderate level of career readiness and thus can be effectively supported through brief, staff-assisted services delivered by peer career assistants or other non-clinical staff (Sampson et al., 2004). This then reserves the most time and resource-intensive level of career support (individual, case-managed career counseling) for the individuals who need it most—those with low capability and high complexity—and thereby maximizes use of the limited budget and staff available for career services in many Philippine universities.

A second benefit of CIP theory in relation to the context of the STRIDE project is its practical orientation. CIP theory was designed to integrate theory, research and practice (Samp-

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son, 2017); thus, its key principles are supported by a substantial evidence base (Sampson, Peterson, Reardon, & Lenz, 2019) and lend themselves to hands-on application by practitioners. These practical constructs include the CIP Pyramid of Information Processing and the CASVE Cycle (explained below), both of which can be easily visualized and adapted for use in session with clients (e.g., the Guide to Good Decision-Making Exercise; Sampson, Peterson, Lenz, & Reardon, 2015). CIP theory thus represents an approach that can be readily learned and applied by newly trained practitioners, making it a good fit for university career centers served by the STRIDE project.

Finally, although CIP theory was developed in the United States, its principles complement diverse theories and cultural values. In fact, CIP was designed as an organizing framework to be used in conjunction with the career theories most relevant to varying populations and career challenges (Sampson et al., 2004). In addition, both the CIP Pyramid and the CASVE Cycle allow for variation in cultural context and client worldview. For example, the options knowledge domain of the CIP Pyramid prompts decision-makers to obtain accurate occupational information from their local context, while the Valuing stage of the CASVE cycle invites clients to reflect on their core values, which may vary according to cultural background.

### **The CASVE Cycle**

Based on insights from cognitive psychology, CIP theory helps practitioners and clients understand both the content and process of career decision-making through use of the CIP Pyramid and CASVE Cycle models, respectively (Sampson et al., 2004). The CIP Pyramid represents a hierarchy of domains involved in career choice: first, the foundational components of self-knowledge and options knowledge; second, the process of decision-making which draws from them; and third, the metacognitions which either enhance or detract from successful engagement with career exploration and decision-making. The CASVE Cycle is named for a series of steps that individuals can follow in order to arrive at logical, well-reasoned career decisions. Its first stage, Communication, represents the realization that a decision needs to be made and entails identifying the specific “gap” that exists between one’s current and aspirational state. The second stage, Analysis, consists of closely examining information pertinent to the decision. In the case of career decision-making, this step usually involves analyzing one’s self-knowledge, options-knowledge, and decision-making style as well as monitoring the state of one’s self-talk. The third stage, Synthesis, prompts the decision-maker to generate a list of possible options, first by generating all potential solutions and then narrowing to the best 3-5 options. The fourth stage, Valuing, entails prioritizing the aforementioned options according to one’s values. For individuals making career decisions, this may involve examining the costs and benefits of each option in relation to oneself, one’s family/friends, and society at large. The fifth stage, Execution, consists of taking action to implement one’s first choice (e.g., volunteering to gain experience in one’s newly chosen field or beginning the application process for an advanced degree program). Based on the outcome of this step, the decision-maker returns to the Communication stage, either satisfied with their choice or compelled to repeat the process.

One unique strength of the CASVE cycle is its versatility: it can be applied to many situations, not just career decision-making. Thus, CIP-oriented practitioners not only help clients find a satisfying resolution to their current career challenges but, perhaps more importantly, teach

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them a transferable process that enhances their general decision-making skills. In addition, the CASVE cycle can be applied not just at the personal but also the organizational level. In fact, the CASVE cycle helped structure the problem-solving approach used in the STRIDE project, as explained below.

## **THE FLORIDA STATE UNIVERSITY LEARNING SYSTEMS INSTITUTE AND STRIDE CAREER CENTER PROJECT**

### **Timeline and Participating Institutions**

As noted earlier, the STRIDE project to create selected university career centers based upon the Florida State University (FSU) Cognitive Information Processing (CIP) theory was initiated in October, 2014, and the USAID Project will be completed in March, 2020. The STRIDE Career Center project included 20 universities with training programs conducted in five batches over the six year span. University participants from the Philippines are:

#### Batch One:

1. University of Science and Technology of Southern Philippines
2. Palawan State University
3. Western Philippines University

#### Batch Two:

4. Ateneo de Davao University
5. University of Southeastern Philippines

#### Batch Three:

6. Batangas State University
7. Far Eastern University
8. Jose Rizal University
9. Mariano Marcos State University

#### Batch Four:

10. University of San Carlos
11. Mindanao State University-Iligan Institute of Technology
12. University of San Agustin
13. Western Mindanao State University
14. University of Science and Technology of Southern Philippines-Oroqueta Campus
15. University of Science and Technology of Southern Philippines-Claveria Campus

#### Batch Five:

16. Angeles University Foundation
17. Holy Angel University
18. University of Cordilleras
19. Mapua Manila
20. Bicol University

It should be noted that, in addition to the 20 schools addressed through the FSU sponsored STRIDE Project, three additional schools were part of the initial STRIDE project and were sponsored by the William Davidson Institute (WDI). The schools with Career Centers established through WDI and STRIDE are:

- PHINMA University of Ilolilo
- The Technological Institute of the Philippines (TIP)

- 
- University of Santo Tomas

The training for these three universities was provided by career center experts from US schools including University of California, Berkeley, Stanford and University of Florida (Dey et al., 2017). As a result, there are a total of 23 universities in the Philippines participating in the US-AID STRIDE Career Center project.

The initial FSU-LSI STRIDE project included schools in Batches One and Two. The Project was extended in May, 2019 including schools in Batches Three through Five. Training programs to stand up career centers for batch one and two schools in the initial STRIDE Project were conducted via several on-site visits. Additionally, new career center directors and their supervisors were invited to visit US-based comprehensive career centers at the Florida State University and the Pennsylvania State University. Training programs for the STRIDE Extension Project including schools in Batches Three-Five were conducted at central locations in Manila and the Mindanao Province. The Extension Project also included follow-up on site visitation by the trainer or mentors who are Directors at STRIDE Career Centers at Batch One or Two schools from the initial project.

### **Content and Process of the STRIDE Training Program**

All STRIDE Career Center training programs addressed the following topics:

- Why develop career centers in the Philippines
- Career development theory
- Career counseling process
- Career information
- Career planning assessment
- Experiential education
- Employer relations
- National Association of Colleges & Employers (NACE) and National Career Development Association (NCDA) standards & competencies
- Policies & procedures
- Budget & staffing
- Program planning & evaluation
- Student assistant training addressing topics such as resume/letter/writing and job search skills
- Discussions with stakeholders including the President, senior administrators, faculty, guidance staff, on-the-job (OJT) staff, students, alumni and government/community agency representatives.
- Check list for next steps in creating a university career center.

A STRIDE “Career Center Starter-Kit” was provided to each school that included several popular career information books on topics such as job seeking skills, resume/letter writing and interview skills. These books served as a foundation for creating a career library. Also, copies of Holland’s Self Directed Search (SDS) and supporting Manuals were provided as an initial career planning assessment measure. Finally, the kits included the text based on CIP Theory-*Career Development & Planning: A Comprehensive Approach* (Reardon, Lenz, Peterson, & Sampson, 2019).



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As previously mentioned, an additional advantage of CIP theory is that it is considered as an “organizing approach” and is compatible with other theories such as Holland. As a result, Holland’s Self Directed Search (SDS; Holland & Messer, 2013) is commonly used with CIP.

### **Applications of the CIP CASVE Cycle in STRIDE Career Center Training**

This article focuses on the FSU sponsored project based on CIP theory. A fundamental ingredient of CIP theory is the need to address a gap often found within the Communication stage of CIP’s CASVE cycle. The initial STRIDE Career Center project included needs assessment visitations at selected universities in the Philippines. It was discovered that formal university career centers did not exist in the Philippines. Rather, very limited career programs were sometimes included within guidance offices, or occasionally, a placement officer was designated to offer just a few employer relations programs such as career fairs. Of course, career programs stemming from a guidance office or placement officer model are considered out-of-date and antiquated. Guidance offices find it difficult to focus on the delivery of career programs while also addressing other priorities such as mental health and academic adjustment concerns. As a result, there is little identity or focus on career programs housed within guidance offices. Career programs delivered by a placement officer also represent an antiquated post-World War Two model and lack in their ability to provide current comprehensive career services. The needs assessment represents the analysis stage of the CIP CASVE cycle noted earlier and resulted in the STRIDE project recommendation that selected universities in the Philippines create career centers. Specific STRIDE career center recommendations were:

- Create comprehensive Career Center with a director. Collaborate with Guidance Counselors & academic programs.
- Provide career counseling based on a theoretical model and include information & assessment.
- Acquire additional career planning assessments.
- Create a career resource center and supporting website.
- Create a Career Guide.
- Create a student resume and job listing database & leadership in resume/CV preparation.
- Create a Peer Career Assistant program.
- Offer pre-OJT training programs.
- Conduct a tracer study.
- Create an alumni networking database.
- Create Advisory Boards.
- Create and Employer Partner-Recognition program.

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As noted above, it was recommended that career centers participating in the project be created that have theoretical underpinnings and are based on the leadership of the FSU Career Center and the Center for the Study of Technology and Career Development (a faculty-research unit of the Career Center). As a result, CIP was the theory of choice. There are a number of advantages in the use of CIP as the theory of choice in Philippine university career centers. For example, the needs assessment found that very limited staff and fiscal resources are available to deliver career services and staff members who are delivering career programs often have additional duties associated with their post. A fundamental advantage of CIP is that it is an efficient cost-effective theory for the delivery of career services. Specific points associated with the efficiency of CIP include:

- Increasing numbers of individuals with varying needs are seeking career services
- Increased funding is often not available to meet this increased demand
- CIP theory rests on the service delivery model of self-help & information, brief staff-assisted services, referrals for individual career counseling and peer career assistant programs
- Limiting staff time in delivering individual case-managed services leaves more staff time for
  - brief services that serve more individuals, or
  - longer services for individuals with more extensive needs
- Linking readiness assessment to the delivery of career services
- The differentiated service delivery CIP model has been characterized as “the intelligent allocation of scarce resources” (A. G. Watts, personal communication, 2002)

The CASVE cycle Synthesis stage can be represented in the following rationale to create university career centers in the Philippines:

- Demonstrates an institutional commitment to career services for students, alumni and employers.
- Provides focus for supporting student career development and job seeking.
- Represents the university with employers in serving as a point of contact and conduit for employers who are interested in posting jobs and recruiting/hiring graduates.
- Creates a university system for a career “center” in partnership with colleges/academic departments.
- Professionalization of career services that meet standards.
- Maintain a competitive edge with other schools in the Philippines.
- Become a pioneer and join other universities in the Philippines in evolving from providing guidance, placement and career programs to creating career centers. This will enhance

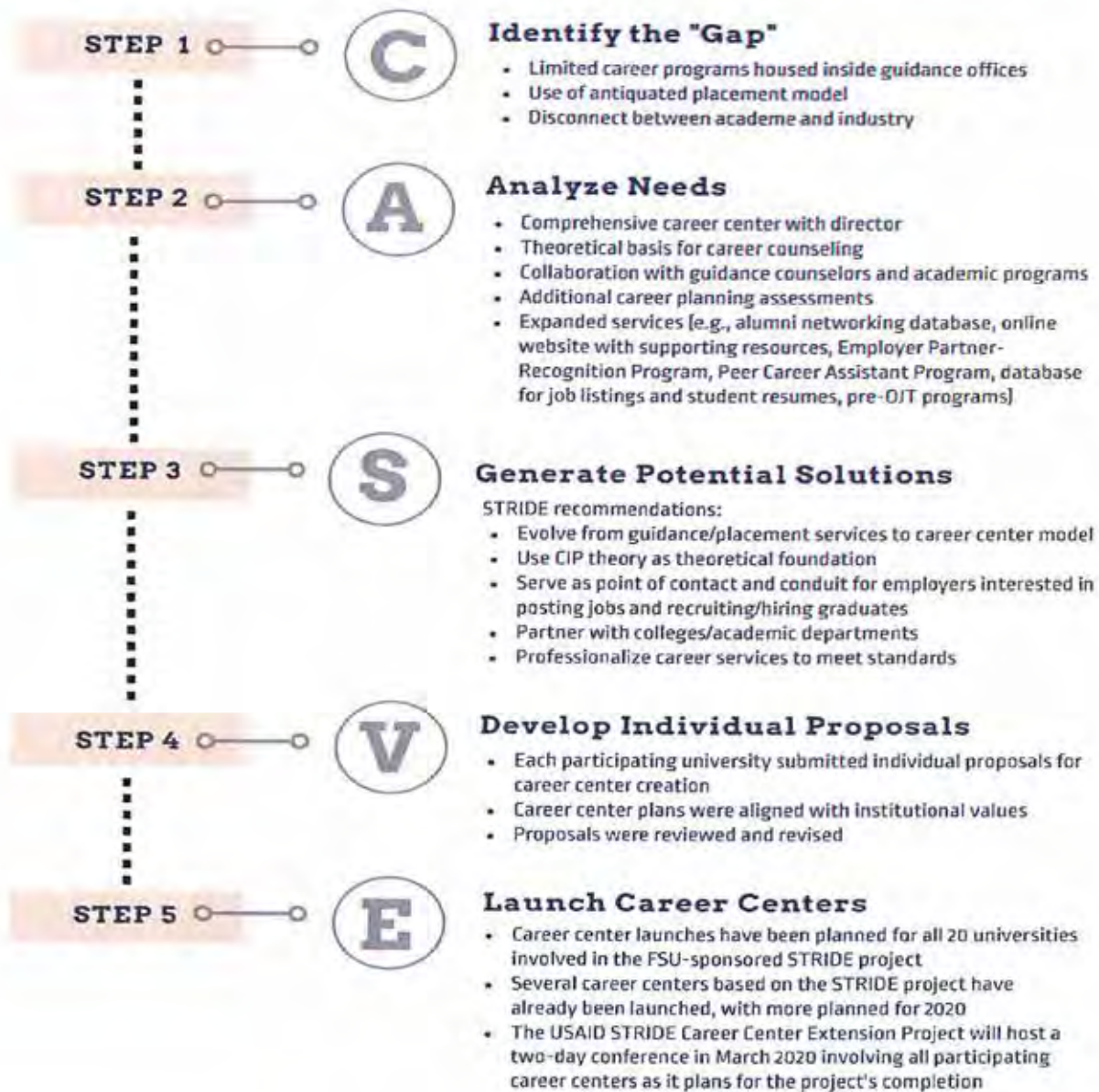
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student career planning, employability, employer relations and eventually contribute to strengthening the national labor market and economy.

The Valuing phase of the CASVE Cycle addresses choosing among options. The first part of the Valuing phase involves the evaluation of each option while the second phase of the Valuing process involves ranking or prioritizing the options. Universities participating in the STRIDE project were asked to prepare Career Center Creation Proposals that represent the Valuing (choice) phase of the CASVE Cycle.

Career Center Creation Proposals were reviewed and revised with Career Centers launched at many of the STRIDE Project schools representing the CASVE Cycle Execution stage. Selected STRIDE schools in the later project batches are presently in the career center creation process with additional launches anticipated during 2020. A concluding part of the USAID STRIDE Career Center project will be a conference and training program planned for March, 2020 involving all 23 participating universities. A summary of the CASVE cycle steps used in the project are shown in Figure 2.

# Applications of the CASVE Cycle in the STRIDE Career Center Project



*Figure 2. Applications of the CASVE Cycle in the Stride Project*

## SUMMARY

Clearly, the USAID STRIDE project to create career centers has had a meaningful impact on universities in the Philippines, with 23 universities successfully involved in the project. As chronicled earlier, 19 of the schools have career center creation based on training and the Cogni-

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tive Information Processing theory developed at the Florida State University. A few observations regarding the STRIDE project follow.

Of course, use of CIP theory and career center creation at the international level involves cultural considerations. For example, family involvement and influence in college student career planning is very strong in the Philippines. This was commonly observed in Career Thoughts Inventory (CTI) scores based on the metacognitive aspect of CIP theory, with elevated scores often observed on the External Conflict (EC) CTI subscale. This appears to represent increased family involvement and perhaps control in the career decision making process. However, it is important to avoid interpreting this trend according Western norms that may pathologize the Filipino focus on family affiliation (Pe-Pua & Protacio-Marcelino, 2000).

As noted earlier, universities in the Philippines face significant budget and staffing challenges. Creating a new career center office with staff already serving in multiple posts with limited resources represents a daunting undertaking. However, use of CIP theory proved advantageous as it is regarded as an efficient career program delivery model that allows for the delivery of services through limited staff including the use of peer career assistants. Also, schools creating career centers appreciated the clarity and organization of a new career center office model based upon CIP theory.

An additional budget challenge facing career centers in the Philippines is the lack of employer fiscal support that is common in the United States. However, as career centers are launched, they are becoming more sustainable through creating a culture of employer fiscal support by charging employer program fees, scholarship programs and employer partnerships.

Many of the STRIDE project Career Centers have been launched and are gaining traction through the support of stakeholders including support from university administrators. Indeed, one school has already launched a “Career Center 2.0 Version”. Other schools are gaining recognition through STRIDE as “Model Career Centers”.

Career Center sustainability in the Philippines is an important ingredient in the STRIDE project. For example, a common project phrase is “once a STRIDE partner; always a STRIDE partner.” This is reflected in the development of Peer Career Center Trainers who have successfully launched career centers and stand ready to support future university career centers in the Philippines. Additionally, the Florida State University will support the future evolution of university career centers through application of CIP theory.

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The entrance to the new Career Center and Alumni Hub at Ateneo de Davao University

From left to right are:

Dominic M. Barnachea, Institutionalization Manager, STRIDE

Wilfredo M. Samante, Director, Alumni Relations, Ateneo de Davao University

Jeff W. Garis, Consulting Faculty, Florida State University

Tesa Manrique, Institutionalization Specialist, STRIDE

Norman Lou S. Padilla, Career Center Officer, Ateneo de Davao University



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## About the Authors

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## Chapter 7

# Reinventing Public Employment Facilitation Services Delivery in Singapore

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The views expressed are those of the authors, and do not necessarily reflect the views or policy prescriptions of the Institute for Adult Learning or the Government of Singapore.

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## Abstract

This article describes the evolution of public employment facilitation services in Singapore as a result of the incorporation of two conceptual frameworks: RightServicing and the Cognitive Information Processing approaches. After the provision of historical content of service delivery, recent innovations in service delivery that strengthened service relevance and outreach are described, along with factors that contribute to their successful implementation. Improvements in service delivery are then examined.

## Introduction

Public employment facilitation services (PES) in Singapore were traditionally disseminated through a linear one-size-fits-all process. Job seekers and income assistance recipients entering the system were typically served on a uniform first-come-first-served approach with little differentiation in the level of servicing. This mode of delivery served the country for about ten years, with the focus predominantly on job matching and getting people to available jobs as speedily as possible. Since 2014, PES delivery increasingly gravitated towards differentiation according to client needs and expectations as well as participatory service delivery with an emphasis on career development and lifelong employability. This move is in tandem with developments in other countries that saw an acceleration towards PES delivery involving coproduction in an effort to reduce costs and meet consumer expectations (Lapsley, 2009).

This paper examines the modernisation and strengthening of PES delivery in Singapore through differentiated service delivery, integrated use of technology in delivering resources and services, and the use of the 'RightServicing' approach, a series of interrelated organizational and service delivery concepts developed by IBM Cúram Research Institute for organizations providing social programmes (Lee-Archer, 2012) which shares common elements with the Cognitive Information Processing (CIP) approach to career problem solving and decision making developed at Florida State University (Peterson, Sampson, & Reardon, 1991; Sampson, Reardon, Peterson, & Lenz, 2004; Sampson, 2008). The PES system is then assessed to determine the extent of service delivery improvement.

## Early PES delivery

PES in Singapore are predominantly delivered to citizens and permanent residents through career centers managed by Workforce Singapore (WSG) and its co-producers. WSG was established in 2016 as a statutory board under the Ministry of Manpower and was formerly part of the abrogated Singapore Workforce Development Agency (WDA), a government agency established in 2003 to enhance the competitiveness and employability of local workers, providing job matching, career advisory, and industry engagement services to workers and businesses. At its inception, these services were provided through 'job centers' that were operated by co-producers such as Community Development Councils (CDCs)<sup>1</sup>, self-help groups and National Trades

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1 The CDC under the People's Association is a government agency that seeks to strengthen social cohesion and assist the vulnerable in society (Community Development Councils, 2015). Social service offices located across the country provide social assistance to citizens residing nearby.

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Union Congress (NTUC), a national confederation of trade unions.<sup>2</sup> In 2008, NTUC established Employment and Employability Institute (e2i) to provide these services with the support of WDA and Singapore National Employers Federation.

A decade after its inception, WDA together with e2i managed seven career centers that were located at easily accessible locations across the country. They provided career advisory, training and placement services for job seekers who were unemployed or seeking to change their career, as well as customized employment facilitation services to employers through job fairs and industry engagement sessions. Training and placement programs were offered through government-funded training providers, namely Continuing and Education Training (CET) centers, which provided Workforce Skills Qualification (WSQ) training.<sup>3</sup> Job seekers who are citizens received heavy government subsidies for course fees and a training allowance. Employers that hired unemployed locals received salary support of up to 18 months, with the amount of subsidy rising with the worker's age and unemployment duration, and received an incentive award should the trainee remain in the job after the attachment period.

Early PES delivery saw little differentiation between job seekers. Job seekers entering the system registered at a WDA career center for a scheduled one-to-one interview with a practitioner identified as a career coach who would assess the individual for job readiness, career advisory, job matching, and training and placement services. This linear one-size-fits all approach, however, meant that not all job seekers registered at the career center received the 'right' level of servicing at the right time.<sup>4</sup> Long term unemployed registrants requiring more intensive career services would tend to be given inadequate assistance while job seekers who could self-help with minimal career guidance would receive an excess of services. This supply-oriented approach to PES delivery was not viable given the increasing demand for services at a time of constrained public resources.

WDA career centers co-located at CDCs had shared facilities with social service offices such as a common entrance, waiting area, and a reception or registration counter. Social assistance recipients were often routed to WDA career services for assistance in job search and placement. While the career centers had self-help designated areas, they tended to be spartan,

2 The NTUC embodies over 90% of trade unions in Singapore and has a strong membership base.

3 WSQ courses are validated by employers, unions and various professional bodies, and are heavily subsidized by the government for citizens and permanent residents.

4 The exceptions are select groups such as at-risk youths, ex-offenders and persons with disabilities who are supported by other government agencies. Youth Employment and Advancement Hub (YEAH), a collaboration between the Ministry of Social and Family Development and Singapore Institute of Retail Studies of Nanyang Polytechnic, provides job matching, career guidance, life skills training, vocational training and apprenticeship to youths between 16 and 21 years not actively engaged in education, training or employment. Singapore Corporation of Rehabilitative Enterprises (SCORE), under the Ministry of Home Affairs, provides rehabilitation, reintegration, training and employment assistance services to ex-offenders. SG Enable under the Ministry of Social and Family Development is dedicated to empowering persons with disabilities and enhancing their employability and employment options.

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comprising a few computer terminals that were often not well supported by signage, career resource materials or staff in attendance. Early PES delivery was supported by the former Jobs Net, an online self-help job portal launched in 2005 that had comparatively limited functionalities with simple vacancy listings by companies registered with the career center. Job seekers could view the postings as part of their job search but could not submit an application for a job through JobsNet and would need to contact the employers outside of the platform.

### **Modernisation of PES delivery**

In 2014, the government launched CET 2020 masterplan in tandem with the official opening of the Lifelong Learning Institute, a CET campus built by WDA that houses CET centers and the flagship WSG career center called WSG Careers Connect (Workforce Development Agency, 2014).<sup>5</sup> Among the objectives of the masterplan were to develop a vibrant CET ecosystem, cultivate deep expertise and lifelong learning among Singaporeans, and enable more informed career decisions through improved delivery of education, training and career guidance services. To sharpen the focus on skills and employment, WDA was reconstituted into two government agencies in 2016, namely, SkillsFuture Singapore (SSG) to drive the national SkillsFuture movement,<sup>6</sup> and Workforce Singapore (WSG) to transform the employment and workforce landscape to meet the economic challenges ahead, in particular, to match the right people to the right jobs, help individuals meet their career aspirations and secure quality jobs, and support companies to become more productive and manpower-lean (Singapore Ministry of Manpower, 2016).

To achieve these objectives, and recognising the inadequacies of the one-size-fits-all approach, WSG strengthened PES delivery in several respects. WSG career centers were redesigned and rebranded as WSG Careers Connect which offer an expanded suite of services that include career counselling programmes tailored to individual job seeker needs, self-help career resources, and workshops. Using a triaged service model, job seekers entering the system are assessed to determine the right level of support and interventions according to their needs and readiness for occupational, educational, training, and career decision making. The model is based on the differentiated service delivery model of the CIP approach that recommends a level of assistance appropriate for job seeker needs according to two dimensions: capability (which refers to intrinsic factors necessary to make informed and careful career choices) and complexity (which refers to extrinsic factors such as family, social, economic and organizational factors that influence career development). There are three levels of assistance: self-help, brief staff-assisted, and individual case managed services (Sampson, Reardon, Peterson, & Lenz, 2004; Sampson 2008).

Following an initial assessment whereby job seekers discuss their employment situation, identify their career goals and align themselves with job opportunities available, an action plan is developed with the career coach to outline the steps needed to achieve their career goals. Individuals assessed with higher level of readiness for decision making (high capability and low

<sup>5</sup> The other campus built by WDA is the Devan Nair Institute for Employment and Employability which houses e2i west (formerly called e2i Career Services Center) and CET centers.

<sup>6</sup> SkillsFuture is a national movement that seeks to provide citizens with the opportunities to develop their fullest potential throughout life.

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complexity) are given self-help assistance; others with moderate readiness (mixed capability and complexity) are given brief staff-assisted services, while individuals with low readiness (low capabilities and high complexity) are accorded more intensive case-managed services.<sup>7</sup> Those requiring specialised support, e.g. youths and ex-offenders, may be directed to assistance at other government agencies.<sup>8</sup> A suite of customised career management and counselling programmes called CARE360 allow job seekers to assess their strengths and skills (Career Catalyst), gain insights into the company, job position and work environment to make informed decisions (Career Activator), stay positive in their job search (Career Recharger), improve job search techniques and differentiate from the competition (Career Energiser), and network with employers, industry experts and other job seekers through curated events (Career 360) (Workforce Singapore, 2018).

The Career Catalyst programme is adapted from the CASVE cycle of the CIP approach (Sampson, Reardon, Peterson & Lenz, 2004). The CASVE cycle comprises communication (identifying the gap between an existing state and a desired state), analysis (thinking about alternatives), synthesis (generating likely alternatives), valuing (prioritising alternatives) and execution (taking action to narrow the gap). The Career Catalyst comprises four similar stages: self-knowledge (improve awareness through Values, Interests, Personality and Skills (VIPS) assessment), explore options (gain insights into job opportunities through in-depth job and occupational research), develop strategies (translate one's VIPS and career history into a job search action plan of personalised branding through résumé, interviews and networking interactions), and execution (implement job search action plan) (Choi and Wong, 2019).

### **Key Aspects of Implementing the CIP Approach**

Two key aspects of implementing the CIP approach as part of reinventing PES delivery in WSG career centers involved renovation of physical space for career services and an emphasis on staff training and supervision to facilitate success in career services delivery. Physical renovations included: (a) creation of a welcoming and comfortable atmosphere for the delivery of resources and services; (b) creation of a greeting area where career coaches can conduct an initial assessment of needs and then direct individuals to the appropriate type and level service; (c) creation of appropriate signage and resources to assist individuals in successfully assessing their needs and locating the information they need; (d) creation of self-help resources available on large computer monitors and the WSG website; (e) creation of a large open area for drop-in services; (f) designation of group rooms for brief staff assistance, (g) inclusion of individual counselling rooms to facilitate individual case-managed services with facilities for video recording of counselling sessions for supervision; (h) developing designated areas for specific aspects of career decision making, such as employment opportunities; (i) provision of adequate information and communication technology (ICT) resources for clients and staff members; (j) creation of user-friendly ICT-based assessment and information resources; and (k) erecting a mural of success stories to motivate and inspire job seekers.

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7        Readiness for career decision making refers to “the capability of an individual to make appropriate career choices, taking into account the complexity of family, social, economic, and organizational factors that influence an individual’s career development” (Sampson, Peterson, Reardon & Lenz, 2003:1).

8        See footnote 4.

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The second key aspect of implementing the CIP approach as part of reinventing PES delivery involved providing staff training in how the revised resources and services were similar or different from previous resources and services. Regular staff supervision was then used to ensure that training was effective and that services were implemented as designed. This training and supervision contributed to maintaining intervention fidelity (Spokane & Nguyen, 2016).

### **Other Features of Modernized PES Delivery**

**Targeted Servicing.** In 2017, WSG appointed two foreign private placement providers, Ingeus from the UK and Maximus from the US, as ‘career matching providers’ to offer career advisory and placement services to unemployed resident professionals, managers, executives and technicians (PMETs) who had been actively looking for work for at least three months or who had been made redundant. Hard-to-place job seekers were directed to these agencies from WSG career centers. These companies have a well-established track record in placing active jobseekers for governments in other countries.

In 2018, the Institute of Banking and Finance (IBF) Careers Connect was launched to provide career services to individuals in the finance industry who had been facing intense disruptions to their work due to digitisation and automation. IBF Careers Connect, evolved from the former Financial Industry Career Advisory Center, was the result of a collaborative tripartite effort among employers, unions and the government, including e2i, SkillsFuture Singapore and Workforce Singapore. Among other activities, the career center helps retrenched or mid-career finance professions to undergo skills conversion under the professional conversion programmes to move into new occupations or industries.

A Career Starter Programme was also launched in 2019 to complement career support in polytechnics and the Institute of Technical Education<sup>9</sup> and provide targeted services through a career starter resource guide, workshops to hone in job search skills, and personalised coaching where needed.

**Mobile Services.** Besides the outreach programmes, including career fairs and road-shows, PES delivery was further enhanced in 2018 with the launch of Careers Connect On-the-Go, a mobile extension of WSG career centers. The service comprised a truck travelling around residential areas to bring PES directly to job seekers. Services offered included career counseling and advisory services, walk-in interviews, on-site job search preparatory workshops, and job referrals from curated community jobs listing.

### **Integrated Use of Technology in PES Delivery**

A contributing factor to the delivery of effective resources and services is the optimization of the capabilities of staff members and harnessing the appropriate information technology. With automation of certain tasks that are repetitive, such as data processing and information delivery, career center staff can allocate more of their time to more complex problem solving and relationship development tasks (Osborn, Dikel & Sampson, 2011), as well as serving job seekers with more complex needs requiring more help (Sampson, 2008). Automation is particu-

<sup>9</sup> The Institute of Technical Education (ITE) is a post-secondary education institution that provides career and technical education.

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larly relevant for self-help PES delivery where individuals can access the services anytime and anywhere; but one-to-one servicing remains appropriate for individuals with low readiness for decision making.

In the case of WSG career services, the virtual platform was revamped concurrently with the physical redesign of the career centers. Jobs Bank was introduced in 2014 as a one-stop job portal that replaced JobsNet.<sup>10</sup> The portal enabled opportunities for job matching between local job seekers and employers to take place online without the need to exit the system.

In 2018, MyCareersFuture.sg replaced Jobs Bank as the landing page for job seekers with strengthened functionalities that more fully complemented physical WSG career center services. The portal allowed job seekers to search for jobs that matched their skillset using optional filters for income level, contract type, and availability of government support; and obtain information on companies with vacancies. In addition, job seekers can be routed to the WSG website to access career resources such as resume writing and interview tips; register online for career coaching services; obtain information related to industry; and participate in virtual career fairs, connecting with employers through live chats. The portal used machine learning to facilitate skills-to-jobs matching to help minimise missed job matches and mismatches (Workforce Singapore, 2019).<sup>11</sup>

Another portal, MySkillsFuture.sg, enabled residents to access online assessment tools to understand themselves better; discover industry insights; explore course options and training programmes according to their career aspirations and learning needs; and hence make informed learning and career choices for skills and career development (SkillsFuture Singapore, 2019). With these portals, job seekers with higher level of readiness for decision making can use self-help facilities to chart their own career and learning pathway, effectively taking a virtual path of the CASVE cycle (or the local contextualised Career Catalyst approach). At the time of writing, MyCareersFuture.sg and MySkillsFuture.sg portals were separate but linked platforms, which meant that PES delivery was less seamless than could have been compared to a single integrated system.

### **Continuous Improvement of PES Delivery**

Maintaining the effectiveness of a differentiated service-delivery model is dependent on making a serious commitment to continuous improvement, including allocating financial resources and staff time to adequately accomplish the work. Continuous improvement in PES delivery can be viewed as a goal, an attitude, and a process. As a goal, continuous improvement aims to create an organizational culture where managers and staff members seek opportunities to improve their career resources and services. As an attitude, continuous improvement is a cautiously

10 Jobs Bank supports the Ministry of Manpower's fair consideration framework, a government thrust to ensure fair access to job opportunities for Singapore citizens. Employers seeking to hire foreign professionals are required to post an advertisement for at least two weeks in Jobs Bank before they are permitted to apply for an Employment Pass (Singapore Ministry of Manpower, 2013).

11 Machine learning is used to match job descriptions provided by hiring employers and skills identified by job seekers and their resumes.



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optimistic expectation that the delivery of resources and services can be enhanced. Finally, as a process, continuous improvement is an ongoing cycle of evaluating current performance, identifying opportunities for enhancement, taking action, and then re-evaluating performance (Sampson, 2006).

To support the modernisation of PES delivery, capability development of WSG career coaches included a structured progression pathway involving acquisition of work competencies in each job and formal certification such as Advanced Certificate in Career Development Facilitation or Global Career Development Facilitation Singapore (Workforce Development Agency, 2015). To raise the quality of career coaching and advisory, WSG developed a credentialing framework that emphasises certification through practice called the Career Development Framework in consultation with the Ministry of Education and e2i.

### **Right Servicing and the CIP Approach**

As part of the ongoing process of continuous improvement, efforts were made to identify possible gaps in meeting the needs and expectations of customers, while streamlining costs and efforts to better manage service delivery within limited resources. PES delivery was assessed, and actions taken to improve, using the right servicing model that permits the delivery of the ‘right’ level of services to achieve socio-economic outcomes in accordance with attributes of the organization and its co-producers, and taking into account the needs and expectations of each client group, a level that neither over-serves the majority nor under-serves the minority (Toh, 2018). The model is based on the ‘RightServicing’ approach of IBM Cúram Research Institute for organizations providing social programmes to achieve socio-economic outcomes in accordance with organizational attributes (Duggan, 2013a, b; Lee-Archer, 2012). The ‘RightServicing’ approach has shared elements with the CIP approach (Toh & Sampson, 2019). Both approaches: (a) have a goal of achieving cost-effectiveness by avoiding over-serving and under-serving individuals; (b) differentiate the level of servicing into three categories for assistance; (c) rely on accurate assessment of individual needs to provide a level of service that effectively and efficiently meets those needs; (d) allow reallocation of time spent in service delivery to better meet individual needs; (e) allow individuals to move between levels of service delivery as their needs change; and (f) harness ICT for effective service delivery to optimise and support (not replace) human resource capabilities.

### **Lessons Learned and Recommendations**

Improvements in career services since the application of the CIP and Right Servicing approaches include targeted approaches in serving different segments of job seekers such as PMETs, long term unemployed, and finance professionals. PES delivery was further streamlined for improved cost-effectiveness, e.g. the reorganization of career services to be managed by co-producers such as e2i, private recruitment agencies, social service offices and non-profit organizations. The use of ICT has also enhanced services for self-discovery and self-help, and facilitated distance individual and group PES delivery.

The sharp improvement in effectiveness of modernized PES delivery is evident in the number of job seekers placed. At the physical career centers, over 30,000 job seekers were matched to jobs in 2018 compared to 9,881 in 2014 and more than double the number in 2008.

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Job seekers assisted through the professional conversion programme who skill up for placements in new occupations or industries increased from 1,000 in 2009 at the inception of the programme to almost 5,000 in 2018. Similarly, the virtual platform MyCareersFuture.sg recorded a total of 2.85 million unique visitors and facilitated more than 1.9 million job applications as at March 2019, compared to about 7,500 employers and 90,000 individuals registered at the former Jobs Bank four years prior at the time of its launch (Workforce Development Agency, 2009 and 2015; Workforce Singapore, 2019).

While the use of the CIP and RightServicing approaches fits with the trend towards differentiating career services according to client needs and expectations and the co-production of service delivery, care needs to be taken to ensure that the physical space and staff members' competencies provide a foundation for this change. Moving from the assumption that one size fits all to the assumption that services should fit the decision making readiness of the individuals served requires that the physical facilities and staff competencies are up to the task. Continuous improvement and staff development are important elements in this process.

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## Chapter 8

# Case Study: Application of CIP Theory at Makerere University in Uganda

Henry Nsubuga

Thomson Ivins

### ABSTRACT

The purpose of this paper is to explore the application of Cognitive Information Processing theory with an international career counseling center. Specifically, this article will focus on the implementation of a guided career development theory, CIP, in Makerere University, one of the oldest English Universities in Africa. The focus of this paper will highlight the structural and cultural challenges facing this career center in Uganda. Additionally, an overview of CIP and CASVE will be provided and how this career center embraced a CIP approach towards its staff, students, and the community at large. Information was collected through literature reviews and a semi-structured interview with the Career Center's Director. This article suggests that international career centers, utilizing Cognitive Information Processing theory, can operate successfully, delivering exemplary services, even in instances where staff and resources are limited.

**Keywords:** Higher education, Career Center, Cognitive Information Processing, Institutional commitment, Community engagement, Uganda, Makerere University

### Applications of Cognitive Information Processing Theory in a Career Center: A case study from Uganda

#### BACKGROUND

Established in 1922 as a technical college, Makerere University (<http://mak.ac.ug>) is the oldest and largest university in Uganda. Serving over 40,000 undergraduate and graduate students, Makerere University is composed of ten constituent colleges and one school. Established as an independent national university in 1970, 95% of Uganda's undergraduate students are enrolled at Makerere University. Located in Kampala, the largest city in Uganda, Makerere University offers 134 Bachelors Programs and 139 master's degree Programs. According to its website, Makerere University's mission is to become "the leading institution for academic excellence and innovations in Africa."

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Since the early 20<sup>th</sup> century, like most developing countries, Uganda has experienced a rural population re-distribution due to economic and political factors. Environmental factors like ground water scarcity, intense dry seasons, and a lack of rainfall have all contributed to the growth of Uganda's cities. Additionally, a significant reduction in land availability has also contributed to urban migration. According to a Ugandan study, 40% of migration is due to economic reasons (Nzabona, Asiimwe, Kakuba, Tuyiragize & Mushomi, 2019). As a result, the government recognized a need to stimulate economic conditions. Thus, in 1997, Uganda established the Government's Poverty Eradication Action Plan (PEAP) with the long-term objectives of reducing income poverty, improving human development, and increasing GDP growth (Nyombi & Kibandama, 2014). As part of the 20-year plan, a focus on education and establishing an educated workforce has been a significant tenant of the vision.

Despite a government initiative on growth, only 6 percent of Ugandan young people are enrolled in higher education (compared to the global average of 26 percent). Still, significant strides have been made. From 2000 to 2010, Uganda's primary education enrollment more than doubled, resulting in 5.2 million total students (Basheka, 2015). As a result, there has been an increase in competition for students seeking higher education, and thus higher competition for jobs after baccalaureate completion.

Despite its growth and a gross domestic product (GDP) that has almost doubled since 2012, employability remains a concern for college graduates in Uganda (Jansson, Bukuluk & Hojer, 2017). Specifically, farming services still account for 64 percent of employment (Amare & Sheferaw, 2017). Thus, those individuals with college degrees are more likely to experience fierce competition from their classmates when pursuing employment (Ngoma & Dithan Ntale, 2016). As a result, all Ugandan community, collegiate and high school counselors must be willing and able to handle students' heightened anxiety and feelings of hopelessness.

The changing occupational landscape in Uganda is like the Western world's journey of becoming more urbanized. Historically, in the west, traditional models of vocational counseling utilized a macro-level approach to counseling by focusing on content and task-oriented skills (Barclay et al., 2013), and the methods used during this period were successful in job placement (Harrington & Long, 2013). However, the occupational landscape was also more predictable and linear. Today, the career paradigm in Uganda, like its western counterparts, is also not so linear. As career paths become more protean, career counseling practitioners must also be willing to become more fluid in working with the developing populations (Barclay et al., 2013). Moreover, career guidance models must account for cultural considerations. In Uganda, the proverb "amagezi si gomu" – no man has a monopoly of knowledge" - holds true for career counseling centers. Thus, career counselors in Uganda must utilize a theory that welcomes cultural context in its application (Duarte, 2017).

### **Challenges and Cultural Considerations for Career Counseling in Uganda**

Despite a growing economy – and one that is slowly moving away from careers in farm-related services - career counselors at Makerere University also must address student perceptions of a market that hires students based on "who they know." Unfortunately, a stigma of nepotism and favoritism exists in many of the college graduates. Thus, vocational counseling must also

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account for challenging negative perceptions about the market, while addressing self-esteem and self-efficacy. Moreover, south Asians have absorbed a large portion of the limited demand of skilled labor opportunities in Uganda (De Haas & Frankema, 2018). Although the influx of South Asians has helped bolster the economy, the opportunities for Ugandan graduates have also been negatively impacted through perceptions of not being able to find employment.

Despite progress of gender equality in the workplace in Western countries, women continue to face challenges in the type of work that is available to them in Uganda. For many women, traditional feminine roles are still encouraged (i.e., domestic duties focused on serving the home). However, for those women attending university, the gender gap narrows significantly. Specifically, of the 37,262 students enrolled in undergraduate programs, 16,529 are female. Nevertheless, the only college where women outnumber the men is the College of Humanities & Social Science. There is limited information as to why the numbers are higher in only in the Humanities & Social Sciences.

### **Integrating CIP with a Ugandan Career Counseling Center**

As noted earlier, integrating a career-guided theory that was created in the United States into a non-Western University must account for cultural differences, respecting both the individual and the current job market. Moreover, any implementation that takes a holistic approach towards career guidance, must be quick to implement, economical, and teachable to students who will undoubtedly face job choices through an evergreen job market. Also, as the market expands, a guided career theory must address the values of that country and the individual. Cognitive Information Processing (CIP) theory (Sampson Jr., Reardon, Peterson, & Lenz, 2004) is an approach that is both easy to implement, train, and teach to participants and practitioners. Also, it allows everyone an opportunity to explore their own interests and values when faced with a paucity of organized, online information.

CIP theory promotes an approach that one size does not fit all when working with individuals seeking career counseling (Reardon et al., 2019). Moreover, CIP promotes an approach that focused on efficient delivery that encourages participants to learn how resources can be leveraged to their benefit. For the counselors of Makerere University, this is a crucial component. Makerere University is limited in career center personnel, so employing a career theory that maximizes a counselor's efficiency is paramount. Also, CIP differentiates its delivery based on the client's emotional and cognitive capacity in their career exploration and career-decision making journey. First, CIP theory assumes that we all maintain different knowledge structures in our memory that guides everyone's approach to career-decision making (Reardon et al., 2019). Most career theories begin the career-decision making process with a focus on understanding one's options in the workforce. This strategy assumes that all job seekers – at the collegiate level – first must address the knowledge one has on their major, the job market, and the skills it takes to gain employment. While CIP includes this domain as part of the career-decision making process, CIP recommends starting the career decision making process with a focus on “knowing about self.” CIP theory posits that it is “easier and less confusing to begin the career-planning process by looking at yourself” (Reardon et al., 2019, p. 15). Specifically, CIP honors a person's own personal history and unique individual experience. This is a primary factor that Makerere University considered when selecting a guiding theory for its career center. Moreover, students at Mak-

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erere University have been more receptive to their career counselors since CIP was implemented as evidenced by an increase in the number of students utilizing the career center resources. Third, CIP utilizes a career decision making process, CASVE (Sampson et al., 2004), that helps provide a framework that is easily understood by career center clients. Moreover, these guidelines can be used throughout one's life – even those “problems” that exist outside of the career decision making world (Reardon et al., 2019). Former students of Makerere University have communicated with their counselors that they have incorporated the CASVE cycle in their current positions when developing solutions to problems in their workplace (Sampson et al., 2004). Ultimately, CIP is rooted in an approach that focuses on how our brain uses information – and past experiences – in the decision-making process. As noted, for a group of students that are experiencing an industrial change – farm life to city life – learning how to think and approach problems has helped them beyond career analysis.

Based on their research, Reardon et al. (2019) identified three different types of career seekers. Those career seekers are decided, undecided, or indecisive. The decided career seeker requires little guidance from outside sources and has done a thorough review of themselves and the options available to them. Essentially, this person is “decided” because of an internal decision-making process and not because of the influence and pressure from outside sources (family, teachers, counselors). Nevertheless, a counselor must still work with these career seekers to fully understand their decision-making process to understand if the person is not making a decision based on reducing their immediate stress level. Career counselors at Makerere University encounter many students who are “sure about their careers,” often come to the center unhappy with their certainty. Specifically, like their Western counterparts, many students at Makerere University have external influences who have “told” them what career they need to choose. An undecided decision maker, in the realm of a career services center, has yet to commit to a major or occupation. For Makerere counselors, the majority of their first- and second-year students fall into this group. Thus, teaching the students how to search various internet resources, while following a career-decision making process, allows them to positively impact more students. Finally, the indecisive career seeker is an individual who struggles in most aspects of the career decision making process, and typically experiences stress in their lives. For these students at Makerere University, they are best served through individual, focused consultation. Since the implementation of CIP, the Makerere career counselors have noticed a reduction in their time spent on individual cases. They posit that it is due to CIPs approach that encourages counselors to teach job seeking skills – thus, requiring less ongoing one on one time with individual counselors.

CIP theory benefits all types of decision makers as its design is rooted in research and practice. It incorporates an approach that is structured in the CIP Pyramid of Information Processing and a decision-making model (CASVE Cycle) which can easily be adapted into all types of decision makers. Moreover, it can be quickly learned by practitioners and career seekers, as noted by the career counselors at Makerere University.

### **Applications of the CIP CASVE Cycle in the Uganda Career Center Training**

Makerere University introduced its first counseling center in 1975. However, the center focused mostly on the utilization of chaplains to help students struggling with personal issues.

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Also, the center housed all medical services provided by the university. Career counseling for students was not introduced as a service offering until 1987. There was no formal training for Makerere career counselors during this time. Instead, the staff's approach was directive and focused on the student's standing in their coursework. For example, if a student excelled in mathematics, that student was "told" to explore careers in engineering. Or, if the student struggled in English, the student was "told" to avoid careers that required strong writing skills. The demand for career related services and career guidance materials grew over the next twenty years. More and more students began requesting career guidance, resulting in the establishment of the official Makerere University Counselling and Guidance Center in 2005. Nevertheless, all counseling services – including academic and mental health) were still included as part of the overall services of the center. Like early Western career center models, a guiding theory was not part of the service delivery model. Instead, counselors used disparate career counseling theories to best serve the students and community. The staff consisted of master's level graduates with a focus on mental health counseling. Although this was a step in the right direction, it would be another ten years until the current Director, Henry Nsubuga, recognized a need for a process that could be "quick" to implement and train other counselors.

In 2018, Makerere University formalized their theoretical approach towards career counseling by implementing CIP in their career services center. Although the career center still helps in mental health planning, the major focus of their center shifted to provide career services to Makerere's undergraduate and graduate students. Moreover, the Makerere University Counseling and Guidance Centre Center (MUCGC) also provided services to its faculty, family members, and the community at large (including retirement planning). Prior to implementing CIP, MKCC did not endorse or utilize a single career choice theory. The impetus to formalizing their processes revolved around the career center's Director, Henry Nsubuga, two-year informal evaluation of personally analyzing career theories that would "fit" with MUCGC. For the Director, his primary focus was finding a theory that was empirically supported while focusing on the values of individual clients. The Director began using CIP after learning about it in his career theory textbooks. He was self-taught, relying on internet resources and published literature. During this time, he believed that he had a theory that would work, but he knew he needed formal training. He initially reached out to a faculty member associated with the FSU Career Center, which ultimately led to a three-month fellowship at Florida State University. There, Henry learned the career center processes, the theory and practice of CIP, and its affiliated systems and assessments. The Director's time at Florida State was funded by the Carnegie Corporation of New York. The remainder of this article will focus on MKCC's gaps prior to implementing CIP, its staff, structure, systems, and overall approach to career service delivery. Finally, a summary of recommendations of other career centers will be provided.

## Gaps

Prior to implementing CIP, MUCGC did not have a specific career guided theory that provided a framework to practitioners when working with clients. As a result, clients never received the same level of service when visiting the career center. Moreover, practitioners were limited in their own ability to help. Also, without a guiding theory, the concept of exploring a client's values was never considered. Instead, practitioners focused on a person's history and skills, and

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began the career planning process from a limited perspective. The director explained, “people never thought about considering values and interests as part of the career planning process.” Prior to CIP, the services were delivered much in the same vein that early western career services were delivered – with a focus on matching a person’s skills to a job. As the director gained experience, his insight into his students taught him that career indecision is not something that only western students deal with. As he sat and worked with each student, he learned that “all people struggle with career thoughts – especially when they learn more of the things they don’t like.” Henry knew a change was needed, and thus his need to find a theory that was structured and formal, while honoring a person’s history and values was crucial. In 2015, Henry began his three-month fellowship at Florida State University. After his time at FSU, and with the help of an FSU Counseling Psychology doctoral student, he returned to Uganda ready to begin implementing CIP in MUCGC.

### **Staff/Structure**

The Director described the working relationship with his staff at MKCC as hierarchical. He directly reports to the deputy President in charge of Finance and administration MUCGC and oversees a staff of three career counselors, a receptionist, and an office assistant. Although the receptionist and office assistant do not personally conduct career counseling, they are also trained by the Director in CIP theory. The Director saw these members as gatekeepers and “promoters” and recognized the importance of the initial encounter with a student struggling with career uncertainty. His staff is markedly smaller from the one he witnessed at FSU, where over 20 full-time and graduates’ students work to serve the 30,000 plus students at FSU. Also, Henry is responsible for the budget of the center as well as securing new resources (namely computers). As a result, a large portion of his job – outside of standard working hours – is lobbying outside investors and companies to help support the center. For example, Mr. Nsubuga secured support from MasterCard Scholars Foundation program which contributes \$10,000 annually towards organizing annual career fairs. Moreover, the staff of three is in his estimation, seven people shy of a full team that can properly handle the demands of the position. MUCGC has a student population of 40,000 undergraduate and graduates, with about 2,000 students visiting the Career Center every year. However, MUCGC also serves the entire community, and the Director is actively engaged in promoting career services via television and radio promotion. Moreover, the Director engages in high school visits across the country over 40 times a year. The Director and his team provide one on one counseling, training support for career Masters’ students in high schools, training for academic staff of MUCGC, and group seminars for first- and second-year students that focus on professional resume writing, cover letters, and overall professionalism in the workplace.

### **Skills**

Despite limited resources, the Director has discovered that training his employees in CIP delivery has helped his employees – and in turn, his clients – considerably. Initially, services were delivered without tools and structure. This led to confusion and lowered morale of his counseling staff. They felt confused and without direction. Thus, the structure of CIP has helped develop confidence in his staff, allowing them to lean into the process. Counselors feel empowered when working with students. Also, by aligning around a theory, the quality of service has

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become more consistent and use a shared language that allows counselors to communicate effectively with each other. This has allowed for weekly collaboration meetings for difficult cases. Moreover, the Director has implemented a community outreach program that enables him to reach high school students and the community at large by offering a “Career Masters” clinic that has reached over 100 schools in the entire country. One lesson learned has been that the earlier the people of Uganda can be reached, the greater the potential impact there is on the choices his fellow Ugandans make. Two tools used by the center include Career Decision Workbook (Sampson, Peterson, Lenz & Reardon, 1996) and Holland Hexagon (Holland, 1992) to clients in a group setting to further his reach.

## **Systems**

As noted earlier, the MUCGC is limited in its resources. For example, they are currently limited in computers (3) and in tables and chairs. Beyond teaching his team the theory of CIP, he has found that the Career Decision Workbook, the Holland Hexagon, O\*Net, and Occupational Outlook Handbook have all been invaluable to meeting the demands of his clients. Even though O\*Net and OOH’s databases are geared towards the American workforce, Mr. Nsubuga still finds the information extremely beneficial to his clients. Thus, rather than relying on job demographics, he helps guide users to information that is pertinent to their process. Specifically, this includes the job duties description, the skills requirements, similar occupations, and Holland Hexagon profiling.

## **Style**

The Director has taken a hands-on approach towards working with his team and his community. He consistently endorses the importance of developing relationships and creating stories behind the use for each of CIPs processes. Culturally speaking, Mr. Nsubuga recognizes the role story-telling plays in Ugandan culture. For example, when teaching and training on CIP, he will tell a story of a client he worked with who struggled in conflicting values – leading to career indecisiveness. Thus, rather than just teaching the material, Henry works to create a relatable story that will resonate with his audience. So, rather than letting the client “lead” – Henry has found CIP to be a theory that allows for a practitioner to indulge in a teaching style that honors the theory, while embracing the culture.

## **What worked well**

For MUCGC, the reason that CIP has become so popular is that the theory embraces both the cognitive and affective way of eliciting information from its clients. While the theory is process-driven, it (CIP) does not require a practitioner to spend equal amounts of time on a specific phase if the client does not need it. (Reardon et al., 2019). Moreover, by treating each client as an individual with unique skills, interests, and values, empowers the clients to understand that they have a role in their career process. This is a cognitive shift for many of his clients who feel that jobs are only obtained through “knowing the right person.” Also, the Director, in an effort to overcome the challenges of limited resources, sees the value in CIP as a theory that can and should be taught in groups, maximizing the impact of his reach. However, like his western counterparts, he still sees the need to utilize other outlets to reach more people. He openly acknowledges the power of social media to reach and influence more people through social media.

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## What needs Improvement

The Director recognizes that his staff is still spread extremely thin – handling both career and mental health issues. Ultimately, the goal is to include a staff that serves distinct purposes. Also, additional funds would help provide a structured curriculum on CIP that could be delivered staff and students alike. According to the Director, he would like Makerere University to offer a career development and planning class to reach more students, but this will require more staff to help in the delivery of their core services – namely, helping students with career goals. Nevertheless, the Director has requested three additional master level graduates for his 2020 budget.

## SUMMARY

Makerere University Counselling and Guidance Center has found success due to the leadership of its Director, Henry Nsubuga. His adherence to an empirically supported career theory has helped reach over 3,000 college students a year, while also helping provide him a structured format that also helps him teach high school students and the community at large. Last year, the MUCGC hosted its largest career fair in history, hosting 18 companies and serving over 4,000 attendees. He credits the process of CIP – and it's easy to teach theory – as a primary reason for the growth of Makerere's career center. Henry also sees an opportunity to teach CIP to supervisors and managers to further the development of their employees.



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## About the Authors

**Henry Nsubuga** is a Counselling Psychologist specialized in career counselling. He is trained as a Global Career Development Facilitator (GCDF). He is the Director of Makerere University Counselling and Guidance Centre. He has undertaken different career research projects with different partners. He is the author of the book 5 STEPS OF MAKING A CAREER DECISION a book that has sold over 7000 thousand copies among high school and university students in Uganda and Kenya. He has written extensively about career services in Uganda and among his writings is a book chapter on the state of career services in Uganda in a book titled “International perspectives in career counselling” published by the National Career Development Association in March 2017. Henry undertook a fellowship with support from IREX-UASP where he studied career services in United States of America in 2015 at Florida State University Career Center. He has developed career services at Makerere University whereby career services now are provided to prospective university students until they get into work. He has built strong relationships between the university and employers and many employers currently participate in university career fairs and other university activities. From 2015 to date he is running several career interventions for students of Makerere University and prospective students. He has presented at a number of international career conferences and in over 150 Ugandan secondary schools to parents and students. Henry also developed a course titled “Innovative approaches to career guidance and counselling for secondary schools” which is popular with school career masters in Uganda to boost their skills in providing career services. He has trained over 500 career masters in Uganda since 2015. Henry Nsubuga has special research interest in career decision making and establishing effective career interventions for schools. He has discussed about career services related topics in Uganda on radio and TV talk shows. He often contributes ideas on several psychosocial issues by the Ugandan media. Henry Nsubuga has both global and local understanding of career guidance and counselling and has vast connections across the world.



### Thomson Ivins

is currently a Registered Mental Health Counselor Intern (LMHC-Intern) in the state of Florida. Thomson received his Master of Arts in Clinical Mental Health Counseling from Sam Houston State University in Huntsville, TX, in May of 2019.





July 2016 Julia Kronholz doctoral student in the Combined Counseling Psychology and School Psychology program at FSU & Henry Nsubuga at the Counseling and Guidance Centre after training 20 Makerere University staff/faculty as Career Advisors.



**Prospective students/parents receiving career services at the Counselling and Guidance Centre**



After training high school training masters August 2015. Career Center Director Henry Nsubuga developed a short course titled **“Innovative Approaches to Career Development and Planning for Secondary Schools.”**



***Career Center Director Henry Nsubuga in the middle hosted at Urban TV***

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## Chapter 9

# Applying Cognitive Information Processing Career Theory to Australian High School Career Development Practice

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Grow Careers

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### Abstract

The Cognitive Information Processing career theory gets to the heart of career development practice. Three practical applications of the theory to careers work in schools are described. These include: (1) the delivery of career services in an Australia high school context; (2) a career service in the form of a website that applies lifelong career development in the context of Australian schools; and (3) a booklet to inform school career practitioners how to apply the differentiated career service delivery model.

*Keywords: CIP, Australia, high schools, career services, decision making*

### Applying CIP to Australian School Career Services

Cognitive Information Processing (CIP; Sampson, Reardon Peterson & Lenz, 2004) guides career practitioners to: (1) assist individuals to develop the skills to solve their career problems and make good career decisions throughout life; (2) deliver career services aligned with each individual's readiness for career decision making; (3) design career websites; and (4) design career development courses, programs and materials.

It should be noted that CIP career theory has many applications. This article describes three different applications of CIP to career services for Australian high school students, including:

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- Differentiated career service delivery in an Australian high school.
  - A self-help website to support career problem solving and decision making in Australian school communities.
  - One title in a series of ‘Careers work in schools’ booklets intended to support career practitioners and teachers.

An overview of these three applications of CIP in Australia will be presented. Each of the applications of CIP will be described, including the rationale, theoretical considerations, any adjustments that were necessary and observations since the implementation.

### **Career Service Delivery in an Australian High School**

In 2008 the first author commenced employment as a Career Practitioner in a relatively large co-educational high school in a small regional Australian city. At the time, the student population from Grades 7-12 was approximately 1,300 students. The majority of students were from an Anglo-Australian background. The student population also included a small proportion of Aboriginal students, students with disabilities or learning difficulties, some who were disengaged or considered to be ‘at risk’ of leaving school early and newly arrived refugees with no or limited exposure to the Australian education system, no understanding of work and occupations in Australia, language barriers and limited capacity to develop contacts and a network of people to support their career development in their new country.

A comprehensive Grades 7-12 career program was already in place. Initially this program was delivered by a qualified Career Practitioner with post-graduate qualifications in career education and vocational psychology, a Career Practitioner with post-graduate qualifications in student counseling and classroom teachers whose load included career education classes. Over the years staffing changes were made leaving one qualified Career Practitioner, a Teacher with practical experience in delivering career services and a para-professional Career Adviser. There were also changes to the delivery of career education classes, such as the number of lessons available for career classes and the year groups that received career classes. Improvements were made to career education content so that it was better aligned with contemporary career development theory and research. The components of the 2008 careers program were:

- Career education classes for all students in Grades 7-9. Grades 7 and 8 students had a one 50 minute lesson per week for 10 weeks. The Grade 7 career education lessons focused on developing a future orientation, self-awareness, and some career exploration. Grade 8 lessons focused on clarifying career interests and abilities and exploring related career options.
- Grade 9 students had one 50-minute career education lesson per week for 40 weeks of the school year. These lessons were delivered by classroom teachers who were supported by a qualified Career practitioner. Students in 9<sup>th</sup> grade reviewed and refined knowledge of self, gained in earlier years and its relationship to career options. Students were exposed to employability skills, post-school options, tools to research career, course and employment options, gaining part-time work while at school, résumé writing, cover letters, selection criteria and job interview skills.
- All Grade 10 students completed a legally required ‘Personal Pathway Plan’ outlining intentions for 11<sup>th</sup> and 12<sup>th</sup> grades and beyond. Students met in pairs with a school Career Practitioner to complete their digital Personal Pathway Plan. This was attached to each



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student's school record and could be viewed by Career Practitioners and students for later career conversations, and by key staff, such as school counselors and House Heads.

- All 11<sup>th</sup> and 12<sup>th</sup> grade students had at least one individual career counseling session with a school Career Practitioner. This enabled the school to meet the legal requirement that each student's Year 10 Personal Pathway Plan be reviewed in Grades 11 and 12.
- All students had the opportunity to attend lunchtime career information sessions presented by local education and training providers, industry groups, employers and employment service and recruitment organizations.
- All students had the opportunity to drop into the careers office for support with their career concerns.

With 1.7 full-time equivalent Career Practitioners it was challenging to deliver this program and adequately meet the career development needs of students with special needs, such as refugees, students with a disability, 'at risk' students, and students referred for specialized career support. The first author read journal articles on CIP career theory and attended a conference where she gained a greater understanding of the differentiated career service delivery model. The potential of this model to streamline career counseling by reserving individual career counseling to those who need it most, while also meeting the career development needs of all students was appealing. This was seen as a solution to making more time available for career interventions for students with special needs. With this in mind, the CIP differentiated career service delivery model was implemented in stages, commencing with career counseling for 11<sup>th</sup> and 11th graders. It was later applied to the Grade 10 careers program and subsequently embedded to the whole school career program. The CIP differentiated career service delivery model was implemented because it is well-structured and considers career decision making processes to determine level of care, which works well with 10<sup>th</sup> through 12<sup>th</sup> graders.

### **The CIP Differentiated Career Service Delivery Model**

The differentiated career service delivery model recognizes that not all individuals need the same amount of career practitioner support. CIP identifies three levels of career service delivery, each with different amount of career practitioner support. Readiness for career decision making is a mechanism for identifying an appropriate level of career service for each student or client as described in Table 1 – levels of career service delivery (Sampson, et. al.,2004; Sampson, 2008).

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## Levels of Career Service Delivery

**Table 1-Levels of Service**

Level of Service	Characteristics
Individual case-managed	<ul style="list-style-type: none"><li>• Intended for students and clients with a low level of career decision making readiness.</li><li>• Intensive career practitioner support.</li><li>• Interventions may include:<ul style="list-style-type: none"><li>• One-to-one career counselling.</li><li>• Career courses with sufficient opportunity for small group interaction.</li><li>• Long-term group career counselling.</li></ul></li></ul>
Brief staff-assisted	<ul style="list-style-type: none"><li>• Intended for students and clients with a moderate level of readiness for career decision making.</li><li>• Career Practitioner support is limited to guiding students and clients in accessing and using relevant tools and resources.</li><li>• Interventions may include:<ul style="list-style-type: none"><li>• ‘Drop-in’ services where an ‘on-duty’ Career Practitioner assists several students or clients in a career resource area.</li><li>• Career education classes and activities.</li><li>• Short-term group career counseling.</li><li>• Workshops</li></ul></li></ul>
Self-help	<ul style="list-style-type: none"><li>• Intended for students and clients with a high level of readiness for career decision making.</li><li>• Students or clients independently access tools and resources in a career resource area or website, supported by materials such as a map of the career resource area, guides that identify resources and their location and information handouts.</li><li>• Career practitioners or administrative staff members monitor students or clients using the resources to check they are finding what they need.</li><li>• If needed, students and clients are able to access career practitioner or administrative support in person or via email or web contact form.</li></ul>

## Individual Learning Plans

Sampson et al. (2004) recommended that an Individual Learning Plan (ILP) be developed



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collaboratively for brief-staff assisted and individual case-managed students and clients. The ILP specifies career development goals and related resources and activities to improve career problem solving and career decision making confidence.

### **Readiness for Career Decision Making**

CIP defines readiness for career decision making as a two-dimensional construct comprised of the dimensions of capability and complexity. Capability refers to capacity to engage in career problem solving and decision making. Complexity refers to contextual factors that make it more or less difficult to process information necessary to solve career problems (Sampson et al., 2004). Table 2 summarizes the CIP construct of readiness for career decision making.

**Table 2-Readiness Component**

Readiness Component	Practical Meaning
Capability	Capacity to engage in career problem solving and decision making: <ul style="list-style-type: none"><li>• Does the student or client know how to solve career problems and make career decisions with confidence?</li><li>• Is the student or client motivated for career decision making and committed to carrying out career plans?</li></ul>
Complexity	Contextual factors that make it more or less difficult to process information necessary to solve career problems: <ul style="list-style-type: none"><li>• Does the student or client have things going on in their life or contextual factors that make it difficult to solve career problems and/or make career decisions?</li></ul>

### **Assessment of Readiness for Career Decision Making**

The Career Thoughts Inventory (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996) and the Career State Inventory (Leierer, Peterson, Reardon, & Osborn, 2017) are two CIP instruments that can be used as measures of career decision making readiness. Several other readiness constructs and instruments can be used (Sampson, Peterson, Reardon, & Lenz, 2000).

### **Using Readiness Assessment Measures in Career Services**

Sampson et al. (2000) recommend these steps when using readiness assessment measures in career service delivery:

- Step 1 – Select a readiness construct.
- Step 2 – Select and administer a related instrument that is reliable, valid and suitable for the students or clients.
- Step 3 – Integrate readiness data with other information obtained in a preliminary interview and develop a working hypothesis regarding readiness for career decision making.
- Step 4 – Collaborate with students or clients in selecting a suitable level of career service, goal setting, and intervention planning.
- Step 5 – Monitor student or client progress and adjust level of career service(s) appropriately

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based on changes in readiness for career decision making.

In the sections that follow, we discuss how applied readiness to a specific setting in Australia.

### **Applying Readiness Assessment and Differentiated Career Services in an Australian High School**

Factors that were considered when selecting readiness constructs and instruments included:

- Readiness assessment instruments appropriate for the vocational development tasks typically faced by students in each grade group.
- Sampson et al.'s (2004) recommendation for brief, quickly scored, inexpensive readiness assessment instruments with a manageable number of scales and appropriate norms.

There are no Australian instruments in print that could be used for readiness assessment purposes. For this reason readiness assessment instruments that are widely used internationally were selected. Table 3 describes the selected readiness assessment instruments.

**Table 3-Readiness Constructs and Instruments Used for an Australian High School**

Construct	Instrument	Group
Career Adaptability	The Career Adaptabilities Scale (CAAS; Savickas & Porfeli, 2012).  Rationale: "Increasing a person's career adaptability resources, or career adapt-abilities is a central goal in career education and counseling" (Savickas & Porfeli, 2012, p. 663).	Grade 10
Vocational Identity	Vocational Identity scale of My Vocational Situation (MVS: Holland, Diager, & Power, 1980).  Rationale: Stable and clear goals, interests, and abilities facilitate career problem solving and decision making in preparation for beyond Grade 12.	Grade 11
Career Indecision	The Career Decision Scale (CDS; Osipow, Carney, Winer, Yanico, & Koschier, 1976).  Rationale: The final year of high school is a career decision point.	Grade 12

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The selected instruments were considered appropriate for an Australian cultural context. The CAAS, MVS and CDS each had acceptable reliability and validity, were manageable and quick to score. MVS and CDS had suitable norms. The first author developed local norms for the CASS.

The readiness assessment measures were administered in either a whole grade group setting of approximately 200 students or in class groups of approximately 25 students. An adjustment was made to Steps 3 and 4 suggested by Sampson et al. (2000). There was no time for preliminary interviews, so students were allocated to an initial level of career service delivery on the basis of readiness instrument cut scores and any other relevant student information.

Students assessed as low in readiness for career decision making had a 50 minute individual career counseling interview, with follow-up individual career interviews as required. Grade 11 and 12 students whose readiness instrument score suggested moderate readiness received either a 50 minute group career counselling session involving 3-5 students or brief individual career counselling of approximately 15 minutes duration, which was the personal preference of one of the Career Practitioners.

Every effort was made over a number of years to provide written ILPs for Grades 11 and 12 students receiving the individual case-managed and brief staff-assisted services. The volume of students and time limitations made it difficult to do this for all low and moderate readiness students; however, an individual learning plan was discussed during career counseling meetings and many students received a follow-up email regarding recommended resources and activities. A summary of each career counseling session was recorded in confidential student records.

Using the locally developed CAAS norms as a guide, Grade 10 students who were low in readiness on the basis of their total Career Adapt-Abilities Scale score were given a general learning plan that corresponded to their CAAS subscales with a score at the 16<sup>th</sup> percentile or lower. At the time when the differentiated career service delivery model was introduced to the Grade 10 careers program, all Grade 10 students had career education lessons, i.e., a brief staff-assisted intervention. For this reason, separate individual learning plans were not provided for moderate readiness Grade 10 students.

Readiness for career decision making was monitored each year when Grades 10, 11 and 12 students completed a readiness screening instrument. Between formal readiness screening times, students were invited to self-refer to a higher or lower level of career service and parents/guardians, teachers, student counsellors often referred students for individual case-managed career services.

### **Lessons Learned from Applying the Career Services Delivery Model**

The differentiated career service delivery model based on readiness assessment made it possible to deliver a careers program that targeted the individual career development needs of all students without overserving or underserving students. In addition, the more efficient use of career practitioner time enabled the delivery of additional career programs to more effectively cater for the needs of specific 'at risk' groups and those in need of intensive support.

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Preparing written ILPs for all moderate and low readiness students in Grades 10, 11 and 12 and following up on the ILPs for all students was problematic, especially for students receiving, brief staff-assisted services. During one 50-minute lesson there was insufficient time to talk to a small group of students, write an ILP and then summarize the career conversation on each on student's career counseling record. Further, the number of students involved and the varied nature of the additional school duties restricted the time available to follow-up on all of the ILPs that were written or verbally agreed on during a career meeting. One way to monitor individual learning plans for students receiving brief staff-assisted services might be to convert the individual learning plans to student learning contracts (Sampson, 2008) that are completed and monitored during career education lessons. This would have the added benefit of personalizing career education classes to make them relevant to the current career development needs of each individual student. Another option might be to have handouts with a list of activities to help with the major areas of career concern to high school students. Activities relevant to individual student career development needs could be identified and actioned. At the time of writing, the effectiveness of the differentiated career service delivery model had not been formally evaluated, yet formal evaluation of the differentiated career serviced delivery model is important to garner school leadership support for its continuation and to inform students and indeed the whole school community of its benefits.

### **Grow Careers Website**

CIP considers the provision of career information and resources via a website as an important component of differentiated career service delivery (Sampson, 2008). There is no shortage of career exploration and career information websites in Australia, yet this is also the problem. It can be confusing for individuals to decide which websites are best to resolve their particular career problem. Grow Careers, an Australian career development consultancy developed a website to solve this problem. The Grow Careers website (<https://www.growcareers.com.au>) is a self-help service suitable for high readiness students. It is a free online career service for all Australian school communities that applies lifelong career development in the context of a school. Elements of this website could also form part of an individual learning plan for brief staff-assisted or individual case-managed students.

### **Website Structure**

Sampson, Carr, Panke, Arki, et al. (2003) distinguished between resource-based websites and needs-based websites. Resource-based websites are organized on the basis of content (e.g., career assessment tools, occupational information, tertiary education courses, etc.). All users are presented with all of the resources and links and choose those that they believe will meet their career development needs. Needs-based websites identify groups of likely users (e.g., students, parents, career practitioners) and present each user group with curated information, resources and external links that match their specific career development needs. The Grow Careers website is needs-based website, although some pages on the website resemble a combined a needs-based and resource-based approach.

### **User Groups**

The likely user groups of the Grow Careers website include:

- 
- Students:
    - Middle Years, more specifically 7<sup>th</sup> and 8<sup>th</sup> grade
    - Secondary, more specifically 9<sup>th</sup>-12<sup>th</sup> grade
  - Parents/guardians
  - Past Students
  - Members of school staff with their own career development needs
  - Career Practitioners

## Content

The content of the Grow Careers website is intended to meet the career development needs of each of the user groups. Sampson et al. (2003, p. 7) define needs as “... the gap between what individuals know and what is necessary for them to know to solve a problem.” For the purposes of the Grow Careers website, needs were identified with reference to the stage of career development and vocational development tasks of concern for each user group (Super, 1990). These include:

- Growth (approximately birth to 13 years for young people, or adults revisiting this stage). The focus of this stage is forming an initial vocational self-concept. Vocational development tasks include: (1) concern for one’s future as a worker; (2) a sense of control over one’s future and ability to make decisions; (3) conviction to achieve; and (4) confidence in one’s abilities.
- Exploration (approximately 14-25 years of age for young people, or adults recycling through this stage at times of career transition). The focus of this stage is implementing self-concept in the world of work. Vocational development tasks include: (1) crystallizing a clear and stable vocational self-concept; (2) specifying career preferences; and (3) implementing an initial or next career step.
- Establishment. The focus of this stage is settling into and succeeding a new work role. The vocational development tasks are: (1) stabilizing by securing and settling into a new position and organization and performing tasks competently; (2) consolidating, through sustained productive work; and (3) advancement for some workers or broadening for some, for example by being on committees or project teams.
- Management. Long-term employees in bureaucratic organizations, e.g., schools or school systems may encounter this career stage. Vocational development tasks include: (1) holding on and doing the same tasks; (2) updating skills to do tasks better; or (3) innovating and doing tasks differently, or doing different tasks.
- Disengagement Stage. The focus of this stage is transition to retirement and eventually implementing self-concept in life roles other than work. The vocational development tasks include decelerating (e.g., reducing workloads), retirement planning and retirement living.

Table 4 presents an overview of the content of the Grow Careers website for each user group using vocational development tasks as a guide to likely career development needs. In addition, related CASVE steps are identified.

**Table 4- User Group Needs Addressed by the Grow Careers Website**

User Group	Career Stage and Likely Career Development Needs Based on Vocational Development Tasks				
	Growth	Exploration	Establishment	Management	Disengagement
Middle Years Student	<ul style="list-style-type: none"> <li>• Future orientation:</li> <li>• Looking ahead</li> <li>• Benefits of extra-curricular activities.</li> <li>• Decision making</li> <li>• Decisions made at school that influence future options.</li> <li>• Choosing school subjects.</li> </ul>	<ul style="list-style-type: none"> <li>• A-Analysis in CASVE cycle-Students explore options and knowledge (Sampson et al., 2004).</li> <li>• Exploring careers</li> <li>• Career options that match interests.</li> <li>• Social support for exploring learning and career options.</li> <li>• Getting a part-time job. résumés, cover letters</li> </ul>	N/A	N/A	N/A
Secondary Student		<ul style="list-style-type: none"> <li>• C-Communication in CASVE Cycle-Students begin to beware they need to make choices (Sampson et al., 2004).</li> <li>• A, S, V- CASVE cycle-Students explore options/knowledge and valuing so that when they graduate they execute (E) (Sampson et al., 2004).</li> <li>• Post-school options</li> <li>• Exploring careers</li> <li>• Career options that match interests.</li> <li>• Exploring courses</li> <li>• Choosing school subjects.</li> <li>• Career decision making</li> <li>• Applying for post-school courses, accommodation and scholarships.</li> <li>• Getting a job – résumés, cover letters, interviews.</li> </ul>	N/A	N/A	N/A
Past Students		<ul style="list-style-type: none"> <li>• Career decisions can be related to communication and/or execution in CASVE cycle (Sampson et al., 2004).</li> <li>• Support for your next career move.</li> <li>• Career options related to interests or valuing in the</li> </ul>			

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**Table 4 User Group Needs Addressed by the Grow Careers Web Site (Continued)**

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User Group	Career Stage and Likely Career Development Needs Based on Vocational Development Tasks				
	Growth	Exploration	Establishment	Management	Disengagement
		CASVE cycle (Sampson et al., 2004). <ul style="list-style-type: none"><li>• Exploring career options can be related to analysis and synthesis in CASVE cycle (Sampson et al., 2004).</li><li>• Exploring courses.</li><li>• Entry into medicine.</li><li>• Job applications</li><li>• Job interviews.</li><li>• Job vacancy websites</li></ul>			
School Staff		<ul style="list-style-type: none"><li>• Changing career focus including career decision making.</li><li>• Career options related to interests.</li><li>• Résumés, cover letters, selection criteria, personal brand</li><li>• Job vacancy websites in education and general</li></ul>	<ul style="list-style-type: none"><li>• Learning, professional development and professional associations.</li><li>• Education unions.</li></ul>	Learning, professional development information and options.	Changing career focus including maintaining continuous sense of self in retirement.
Parents/ Guardians	<ul style="list-style-type: none"><li>• How parents can promote teen career development.</li><li>• Links to resources and information to support their teen.</li></ul>		N/A	N/A	N/A
Career Practitioners	<ul style="list-style-type: none"><li>• Career guides (commercially available) related to each element of the CASVE cycle developed for an Australian school context.</li><li>• Free career education lesson plans</li><li>• Links to careers work in schools books.</li></ul>		N/A	N/A	N/A

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For each user group, the career development needs are displayed on the website as menu items. Each menu item contains information and links to external resources that deal with the related career concern. Each resource is briefly described and where appropriate information is provided on how to use resources. A resource guide that is accessible on the website's home page helps users navigate the website and locate resources to meet their career development needs.

Figure 1 is a screen grab of one page from the user group, Students – Secondary Years.

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More specifically, it is the page that is generated when a user selects the menu item, ‘How do I make decisions about my career?’ After the introductory text, the user is presented with the CIP pyramid of information processing domains, the CASVE cycle and a brief description of each of the elements. The menu items for the user group appear at the bottom of each page, making it easy for users to get the information that will meet their career development needs. The same format is applied to the other user groups, but the menu items will differ, depending on the likely career development needs of the different user groups.

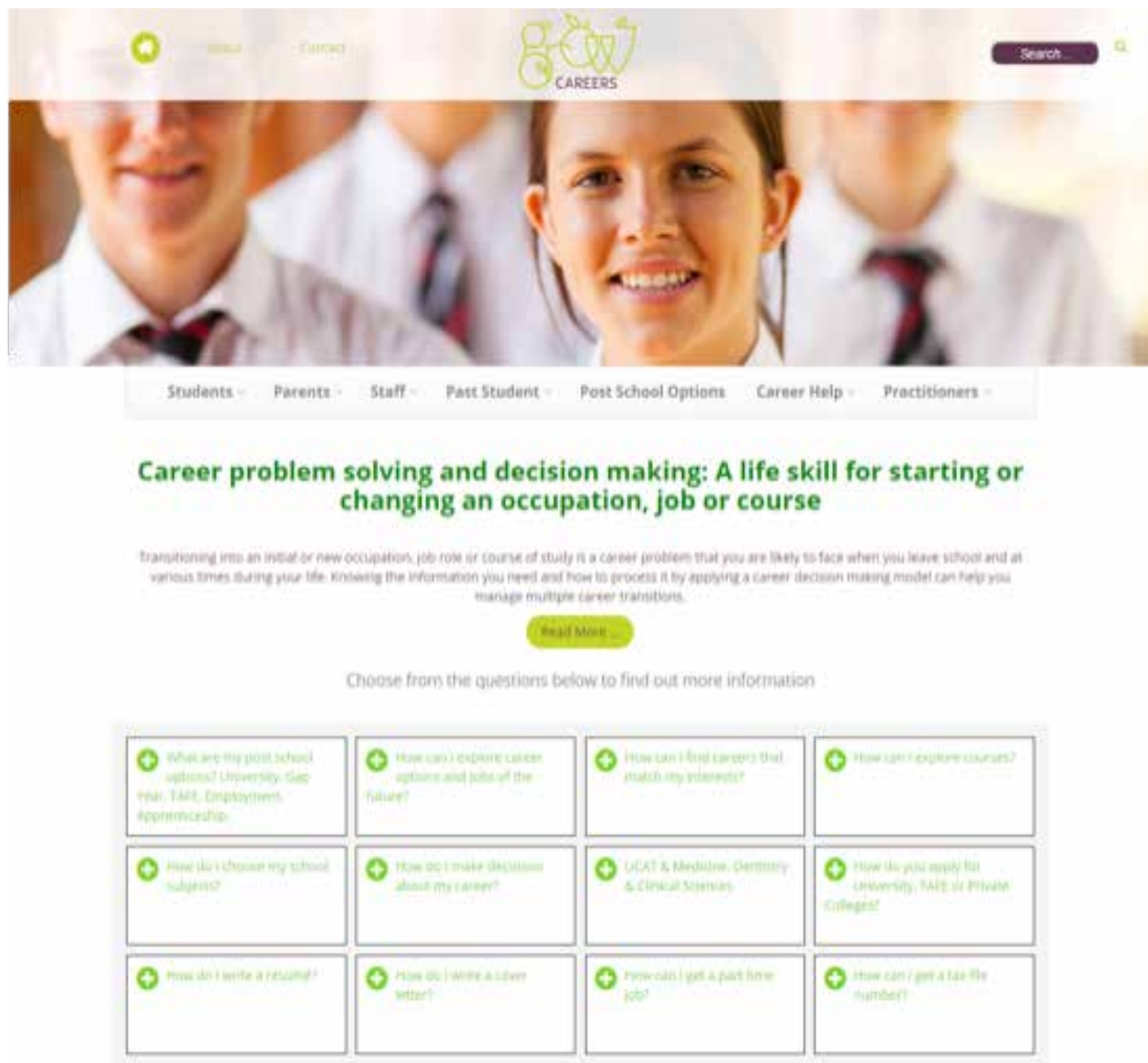


Figure 1 (above) is an example of one page from the students' user group

### Lessons Learned with the Grow Careers Website

Google Analytics data suggests that the Grow Careers website is not yet widely used among Australian school communities. A proposed email marketing campaign may increase the



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exposure and use of the website among schools, individuals and home educators. In the future, a prompt on the website inviting users to respond to an online survey may be a way of gaining data on the extent to which users get the information they need and the ease of navigation. Maintaining the currency of the external links on the Grow Careers website is challenging. Once a broken link has been found, its replacement needs to be identified (if there is one) and the code needs to be altered to reflect any changes or page re-writes.

### **Careers Work in Schools Booklets**

The first author has written booklets currently available in hard copy format to support busy school career practitioners and teachers in delivering career education and career services in schools. The booklet, *Careers work in schools: Cost-effective career services* informs readers about the CIP differentiated career service delivery model and instructs readers in how to apply the model using the Career Adapt-Abilities Scale (CAAS; Savickas & Porfeli, 2012) as a readiness assessment measure. The booklet relates meta-analytic research about the relative effectiveness of career interventions (Whiston, Li, Goodrich Mitts, & Wright, 2017) to types of interventions for individual case-managed services, brief staff-assisted services and self-help services.

Sample learning plans suitable for an Australian context that are related to each CAAS subscale have been created and appear in an appendix in the booklet. Career practitioners who do not have the time to write individual learning plans for all students receiving the brief staff-assisted level of service could use or adapt these. Students could be given learning plans that correspond to the CAAS dimensions they need to further develop. These learning plans may also be suitable for students receiving individual case-managed career services, although there is likely to be sufficient time to write individual learning plans for this level of service delivery.

### **Conclusion**

The integration of career theory and research to career development practice in an Australian school context has been described and demonstrated with three different applications of CIP career theory to the day-to-day work of school career practitioners. The application of the differentiated career service delivery model based on assessment of readiness for career decision making, the Grow Careers website as a self-help career service and the booklet to guide career practitioners in how to implement the differentiated career service delivery model can easily be adapted for use in schools in other countries.

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Catherine Hughes has worked in the field of career education and career counseling for over 30 years. She is the founder of the Grow Careers website for Australian school communities and author of books on careers work in schools and career development resources to support the work of school-based career practitioners. Other recent projects have included providing online support to students undertaking post-graduate study in career development, content writing and structural design of career information websites, writing online career education course content, supporting the development of a career guidance start-up in Sri Lanka, labour market research, content writing of career newsletters for high school students for statewide distribution. Catherine's educational background includes a doctorate in vocational psychology. Her careers work in schools and her research have been published in academic journals and career practitioner publications and presented at national and international conferences. Catherine has mentored career practitioners and students completing post-graduate study in career development.



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