Applying Cognitive Information Processing Theory to Career Counseling and Services

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Workshop Objectives

• Learn a cost-effective theory-based approach to providing career advising and counseling services

• Gain knowledge on the role of readiness assessment in determining client needs, and matching those needs to appropriate levels of service delivery in varied career services settings.

• Develop skills in the use of a screening instrument for assessing clients’ level of readiness for career problem solving and decision making and applying that knowledge to case examples
The FSU Career Center
“Tech Center”

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Graduate Assistants

Career Center is our laboratory
Cognitive Information Processing (CIP) Theory in Career Services

Both practitioner and client play an active role

“Expert” and client versions of concepts

Model is practical, easy to learn and apply, yet accounts for complexity

Emphasis on “getting inside the client’s head” to look at how information is processed

Ultimate aim is to enable individuals to become skillful career problem solvers and decision makers.
Some Myths About CIP Theory

is simply a decision-making model with a rational focus

has only been researched and applied at Florida State

has not been applied or researched with diverse populations or cultures

emphasizes cognition/thinking over feelings

doesn’t deal with chance or unplanned events

focuses solely on the individual, rather than individuals in context
Key CIP Concepts

Pyramid of Information Processing Domains (Knowing)

CASVE Cycle (Doing)

Readiness for Career Choice Model

Differentiated Service Delivery Model
CIP Pyramid Domains

Client Version

Thinking about my decision making

Knowing how I make decisions

CASVE Cycle

Knowing about myself

Knowing about my options
CASVE Cycle - Client Version

Knowing I Need to Make a Choice
Knowing I Made a Good Choice

Understanding Myself and My Options

Implementing My Choice

Choosing An Occupation, Program of Study, or Job

Expanding and Narrowing My List of Options
## Translating Concepts for Client Use

<table>
<thead>
<tr>
<th>Pyramid</th>
<th>The CASVE Cycle</th>
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<tbody>
<tr>
<td>– What’s involved in career choice</td>
<td>– A guide to good decision making</td>
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<tr>
<td>– The <strong>content</strong> of career choice</td>
<td>– The <strong>process</strong> of career choice</td>
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<tr>
<td>– What you need to know</td>
<td>– What you need to do</td>
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<td>– Contributes to an <strong>informed</strong> career choice</td>
<td>– Contributes to a <strong>careful</strong> career choice</td>
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CIP in Practice

Focus is on **creating a learning event**

Goal: clients learn how to solve career problems and make decisions

CIP approach/ concepts can be easily explained to clients
Definition of Readiness

Readiness is the capability of an individual to make informed and careful career choices taking into account the complexity of family, social, economic, and organizational factors that influence career development.

Readiness also includes possessing adequate language skills and literacy skills for communication and learning.
Capability

The cognitive and affective capacity to engage in effective career choice behaviors

How are my career choices influenced by the way I think and feel?
Capability

Honest exploration of values, interests, and skills
Motivated to learn about options
Able to think clearly about career problems
Confident of their decision-making ability
Willing to assume responsibility for problem solving
Aware of how thoughts and feelings influence behavior
Able to monitor and control problem solving
Complexity

Contextual factors, originating in the family, society, the economy, or employing organizations, that make it more (or less) difficult to make career choices

How does the world around me influence my career choices?
Service Delivery Levels

Self-Help Services

Brief Staff-Assisted Services

Individual Case-Managed Services
CIP Readiness Model

- **Complexity** (high)
  - Low readiness
    - High degree of support needed
    - (Individual Case-Managed Services)
  - Moderate readiness
    - Moderate to low degree of support needed
    - (Brief Staff-Assisted Services)
  - High readiness
    - No support needed
    - (Self-Help Mode)

- **Capability** (low)
  - Moderate readiness
    - Moderate to low degree of support needed
    - (Brief Staff-Assisted Services)
  - (low)
Differentiated Service Delivery Model

Individual Enters

Brief Screening

Comprehensive Screening

Self or Staff Referral

Self-Help Services

Brief Staff-Assisted Services

Individual Case-Managed Services

Complete differentiated model of delivering career resources and services
Aim of Differentiated Service Delivery

Individuals and adults should receive the level of help they need, no more and no less

The aim of the differentiated service delivery model (the CIP approach) is to provide
  – the right resource
  – used by the right person
  – with the right level of support
  – at the lowest possible cost
A Word About Assessments

Consider type of clientele served
Assessing various domains of the Pyramid
More is not better—consider value-added
Varied career assessments in terms of methods
## Career Assessment Methods

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<th>Stimulus</th>
<th>Response</th>
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<td>clear</td>
<td>CTI</td>
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<tr>
<td>clear</td>
<td>Self-Directed Search</td>
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<td>clear</td>
<td>structured interview</td>
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<td>clear</td>
<td>Decision Space</td>
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<tr>
<td>ambiguous</td>
<td>Occupational Alter. Question (OAQ)</td>
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<tr>
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<td>Five Lives to Live</td>
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<tr>
<td>ambiguous</td>
<td>Unstructured interview</td>
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Preliminary Assessment

Screening instrument—helps determine readiness for career choice and level of assistance needed, examples--

Career Thoughts Inventory (CTI)
Occup. Alternatives Question (OAQ)
Interpreting Assessments

Level I—meaning of scores
  • relative to others (normative)
  • in relation to external standard (criterion referenced)
  • within individual (idiographic)

Level II—connecting results to CIP pyramid
  CASVE cycle
Career Assessment Examples

- Occupational Alternatives Question (OAQ)
- Career Thoughts Inventory (CTI)
- Decision Space Worksheet (DSW)
Initial Interview

“What brings you here today?”

“I would like to find information comparing the starting salaries of teachers and guidance counselors.”

Concrete request with no problems apparent

No further screening needed - refer to self-help services
Occupational Alternative Questionnaire (OAQ)

List all the occupations you are considering right now.

_________ → _________ → _________

_________ → _________ → _________

Which occupation is your first choice? (If undecided, write “undecided.”)

________________________________________________________________________

How well satisfied are you with your first choice? (Write in the number) ______
1 → Well satisfied with choice
2 → Satisfied, but have a few doubts
3 → Not sure
4 → Dissatisfied and intend to remain
5 → Very dissatisfied and intend to change
6 → Undecided about my future career
Purpose of the OAQ

Measures the career decision state

- degree of certainty pertaining to a career choice
- satisfaction with current choice
- assesses clarity of occupational aspirations
- content indicates level of maturity and level of occupational knowledge
Scoring the OAQ:
1. 1st choice, no alternatives
2. alternatives and a 1st choice
3. alternatives, no 1st choice
4. neither alternatives, nor 1st choice

Note: this is an ordinal scale

Correlates of OAQ
- Commitment anxiety
- Decision-making confusion
- Depression
What is the CTI?

Self-administered
Objectively scored
48-Item measure of dysfunctional thoughts in career choice
10-15 minutes
Purpose of the CTI

Identify individual negative thoughts that impair, impede, or block information processing in career decision making (item level)

Locate blocks in CASVE cycle (construct scales)

Measure general state of indecision or confusion (total score)
Available Norms of the CTI

- 11th and 12th grade high school students
- College students
- Adults
Theoretical Basis of the CTI

- Cognitive Information Processing (CIP) Theory, items and scales
- Beck’s Cognitive Theory, reframe dysfunctional thoughts
Career Thoughts Defined

Outcomes of one’s thinking about

- assumptions,
- attitudes,
- behaviors,
- beliefs,
- feelings,
- plans, or
- strategies

related to career choice
Negative Thinking

- Reduces options
- Distorts perception of options
- Lowers expectations of favorable outcomes
- Blocks information processing
The CTI in Needs Assessment

Identifying the specific nature of negative thoughts

Three CTI Construct Scales

- Decision-making Confusion (DMC)
- External Conflict (EC)
- Commitment Anxiety (CA)

Specific career interventions can be related to specific construct scores
Decision-Making Confusion (DMC)

Inability to initiate or sustain the decision making due to

– disabling emotions
– a lack of understanding about decision making

“I get so overwhelmed, I can’t get started.”
External Conflict (EC)

Inability to balance self-perceptions with input from significant others
Difficulty in assuming responsibility for decision making
“A significant person in my life disagrees with my current choice.”
Commitment Anxiety (CA)

Inability to commit to a specific career choice, accompanied by decision making anxiety

“I am afraid I am overlooking something.”
Where’s the block?

DMC → CAS
forming options

EC → Valuing
who’s in charge of the decision

CA → Execution
converting thoughts into action
Mental health constructs directly correlated with dysfunctional career thoughts

- indecision
- neuroticism
- anxiety
- angry hostility
- depression
- self-consciousness
- impulsivity
- vulnerability

Assessing the personal and social context

Decision Space Worksheet (DSW)
Decision Space Worksheet

Page 1: list elements

Page 2: draw circles within a given circle in proportion to the importance of an element
Decision Space Worksheet (DSW)

Name__________________________ Date____________________

Decision you are making__________________________

Please list all thoughts, feelings, circumstances, people, or events that bear on the decision you are making.

1. ____________________________________________
2. ____________________________________________
3. ____________________________________________
4. ____________________________________________
5. ____________________________________________
6. ____________________________________________
7. ____________________________________________
8. ____________________________________________
9. ____________________________________________
10. ____________________________________________
The Decision Space

Directions:
- The large circle below represents the total decision space.
- Within the large circle, draw smaller circles that represent the magnitude or the relative importance of each item listed on the Decision Space Worksheet (DSW).
Purpose of the Decision Space Worksheet (DSW)

Cognitive mapping task

Helps clients reveal thoughts, feelings, persons, circumstances associated with career decision

Helps clients prioritize importance of contextual influences

Can be used with middle school through college level students and adults
Decision Space Worksheet

Activity

Complete the DSW for any decision at hand
Pair off and share your worksheet

Questions to ask:

how did you find the task?
was any part difficult?
what did you learn?
how do the top 3 elements bear on the decision?
what does open space represent?
Typical Issues Revealed

- Cognitive distortion
- Disabling emotions
- Financial
- Family
- Education

- Interests
- Self doubt
- Employment
- Quality of life
Self-Help Services

Guided by the user
Served in library-like or remote setting
High decision-making readiness
Little or no assistance needed
Brief Staff-Assisted Services

Guided by a practitioner
Served in library-like, classroom, or group setting
Moderate decision making readiness
Minimal assistance needed
Individual Case-Managed Services
Guided by a practitioner
Served in an individual office, classroom, or group setting
**Low** decision-making readiness
Substantial assistance needed
CIP in Instruction

Theory-based undergraduate 3-credit career development class

CIP integrated into text, class lectures, small group activities

CTI used as pre-posttest

Study by Reed, Reardon, Lenz, & Leierer (2001) showed a significant decrease in students’ negative career thoughts
Developing an ILP

goal—the conversion of assessment results into a sequence of learning events culminating in a career decision

the ultimate aim—the development of career problem solving and decision-making skills
Formulate Goals & Learning Activities

Career practitioner and client develop goals to narrow the gap between existing state & desired state

Develop Individual Learning Plan (ILP)
Potential Advantages of ILP Use

Promote collaboration between the career practitioner and the client

Model brainstorming in problem solving

Reinforces idea of career counseling as a "learning event"

Reduces client anxiety about "what next?"

Monitor progress

Tracking client needs
ILP Tasks & Interventions

Readiness
Self knowledge
Occupational knowledge
Identifying options
Making a choice
Developing a plan
Case Study Analysis

What is the nature of the client’s pyramid?
What are the gaps in the clients pyramid?
What other data might be important to look at for this client?
Complete an ILP appropriate for this client’s situation.
CIP in Program Development

International applications
CIP as a "social justice" approach to career services
Policy development & CIP
Diverse populations, translation of materials globally
Visitors from 42 nations to FSU Career Center/Tech Center
CIP in Program Development

Albert Parrillo, guidance counselor in Mechanicsburg, PA, using CIP concepts with a student...

Albert authored a dissertation on *Parental attachment and involvement as predictors of high school students career thoughts*
Sampson Monograph to Highlight Use of CIP in Program Development
CIP in Program Development

Career workshop with secondary school students:
- “CIP approach...can be successfully applied to promote career development on an international scale” (Hirschi & Lage, 2007)

14-week career assistance program—male cricketers, ages 15-16; experimental group improved career goal decidedness and career awareness (AJCD, 2003)

Application of CIP to assist service members’ transition into the civilian world (Clemens & Milsom, CDQ, 2008)
CIP Applications in National, State, & Regional Systems for Career Services

Examples

– Connexions Services in England
– Careers Scotland Centres
– Careers Service in Northern Ireland
– JobLink Centers in North Carolina
– Workforce Centers in Oklahoma
– Private Secondary School in Tasmania
CIP Future Directions

CTI revision

Online delivery of CTI, CTI workbook, and CIP-based interventions

Further convergence of career & mental health counseling (e.g., Decision Space Worksheet, Beck Depression Inventory)

Spirituality & vocational choice (Valuing)

Enhanced use of model reinforced learning in ISB
CIP Future Directions

Further integration of multicultural factors in vocational choice, e.g., the nature of positive family influence on decision making in the Valuing phase of the CASVE Cycle

Career thoughts in relation to other constructs in vocational behavior, e.g., motivation, self-efficacy, career stress
CIP Future Directions

Further integration of CIP and other theoretical perspectives, such as Holland’s RIASEC theory, Social Cognitive Career Theory (SCCT)
For More Information

www.career.fsu.edu/techcenter