Applying CIP Career Theory to Enhance Career Development Outcomes and Design Effective Program Interventions

Janet G. Lenz, Florida State University
Emily Bullock-Yowell, University of Southern Mississippi
Casey Dozier, Florida State University
Seth Hayden, Wake Forest University,
Debra Osborn, Florida State University
James Sampson, Florida State University
National Career Development Association
June 29, 2022
Cognitive Information Processing (CIP) Theory

- 30-year history integrating theory, research, and practice
- CIP theory concepts are practical, easy to learn and apply, yet account for complexity
- Ultimate aim is to help individuals learn how to become skillful career problem solvers and decision makers
- Research and practice applications that span the globe
Key CIP Concepts

- Pyramid of Information Processing Domains (Knowing)
- CASVE Cycle (Doing)
- Readiness for Career Choice Model
- Differentiated Service Delivery Model
Key CIP Theory Figures

What’s Involved in a Career Choice
A pyramid can be used to show what’s involved in making a career choice

Thinking About My Decision Making
Knowing How I Make Decisions

Knowing About Myself
Knowing About My Options

What’s Involved in a Career Choice

A Guide to Good Decision Making

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

Implementing My First Choice

Understanding Myself, Options, Decision Making, and Thoughts

Prioritizing My Options

Expanding and Narrowing My Options

The CASVE Cycle

CIP Readiness Model

Differentiated Service Delivery Model for Delivering Career Interventions

Individual Enters

Brief Screening

Comprehensive Screening

Self or Staff Referral

Self-Help Services

Brief Staff-Assisted Services

Individual Case-Managed Services

Readiness Assessment

Screening instruments

Career Thoughts Inventory (CTI)
Career State Inventory (CSI)
Decision Space Worksheet (DSW)

help determine readiness for career decision-making and intervention and assistance level needed

Connecting CIP Theory to the Eight Critical Ingredients of Effective Career Interventions

Based on meta-analysis and the career intervention literature:

**Support** - Providing support from practitioners and encouraging support from significant others

**Assessment** - Practitioner provision of individualized interpretation of self-assessments

**Information** - Providing career information

**Psychoeducation** - the steps involved in making a career choice and feedback on client plans and strategies

**Writing** - Completing workbooks and written exercises

**Modeling** - Modeling how individuals make choices and how they identify, obtain, and use information

**Dosage** – The amount of treatment necessary to produce an outcome

**Intervention fidelity** - A career intervention is delivered as designed

Evolution of CIP Theory

Permeable Pyramid Boundaries: Interacting domains

Further integration of

- Cultural factors
- Identity
- Trauma
- Emotion
Research Evidence

❖ Career interventions
❖ Diverse populations
❖ Assessments—CTI, CSI, CASVE Questionnaire, DSW

For more info on research, visit the CIP bibliography website.
# Research Evidence-Interventions

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Group</th>
<th>Outcomes</th>
</tr>
</thead>
</table>
| CIP-based courses | undergrads | • Decreased negative thinking  
• Increased GPA  
• Increased graduation rates  
• Decreased major changes and withdrawals |
| CIP-based groups | Middle school & college students; veterans; offenders | • CIP provided effective structure  
• Decreased negative self-talk  
• Satisfaction w/experience  
• Increased career development strategies  
• Increased knowledge of next steps  
• Increased career decision-making self efficacy |
| CIP Differentiated Service Delivery | International career centers; Drop-in advising; individual career counseling; self-help | • Satisfaction, vocational identity increases  
• Satisfaction w/services, knowledge of next steps  
• Applicability internationally |
Research on CIP-based Undergraduate Career Class

TR-61: College Career Courses and Learner Outputs and Outcomes, 1976-2019
TR 59: Strategies for Developing, Managing, and Evaluating a Successful Career Course for 45 Years
TR 55: College Career Courses and Learner Outputs and Outcomes, 1976-2014
TR 53, 44: The Effects of College Career Courses on Learner Outputs and Outcomes
TR 43: Using Grades to Evaluate a Career Course
TR 34: Impact of a Career Course on Retention and Academic Performance
TR 31: Process Evaluation of a Career Course
CIP Applications & Research with…

- Adults
- Athletes
- Diverse ethnicities & races
- International students
- Middle & HS students
- Offenders
- Persons with disabilities
- Undergraduates
- Unemployed adults
- Veterans
CIP-Based Assessment Research; Screening & Research Inventories

**Established** (20+ articles on its use):
- Career Thoughts Inventory
- Career State Inventory

**Newer** (1-3 articles):
- Decision Space Worksheet (DSW)
- CASVE-CQ
- CIP Questionnaire
- Career Outcome Measure Survey

**In Development:**
- Capability/Complexity Measure
Evidence for CIP’s Pyramid Components

Interconnected nature of: self-knowledge, options knowledge, decision-making and executive processing
### Pyramid Components: Independent and Inter-related

<table>
<thead>
<tr>
<th></th>
<th>SK</th>
<th>OK</th>
<th>DCM</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK</td>
<td>.51, .57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DCM</td>
<td>.53, .55</td>
<td>.62, .75</td>
<td></td>
</tr>
<tr>
<td>EP</td>
<td>.54, .54</td>
<td>.45, .49</td>
<td>.49, .60</td>
</tr>
</tbody>
</table>

*Note: Career course showed significant gains in CIP pyramid v. comparison group (Osborn et al., 2020)*

<table>
<thead>
<tr>
<th></th>
<th>SK</th>
<th>OK</th>
<th>DCM</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK</td>
<td>.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DCM</td>
<td>.70</td>
<td>.75</td>
<td></td>
</tr>
<tr>
<td>EP</td>
<td>.61</td>
<td>.55</td>
<td>.74</td>
</tr>
</tbody>
</table>

**Hayden & Osborn (2020), Turk workers**

<table>
<thead>
<tr>
<th></th>
<th>SK</th>
<th>OK</th>
<th>DCM</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK</td>
<td>.51, .58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DCM</td>
<td>.58, .60</td>
<td>.65, .75</td>
<td></td>
</tr>
<tr>
<td>EP</td>
<td>.47, .64</td>
<td>.53, .64</td>
<td>.49, .75</td>
</tr>
</tbody>
</table>

90 students in career planning class, Osborn et al. (2022)

* All Correlations at p < .001
Client Outcomes

❖ What is the effect of a brief-assisted career counseling model on general outcomes?
❖ What are the attitudes of drop-in clients regarding the effectiveness of a brief-assisted career counseling model?
❖ What is the relationship between process characteristics and changes in outcome variables?
❖ (pre and post test scores on knowledge, confidence, anxiety; post test feelings, thoughts about counseling interactions, etc.)
## Change Results (%)

<table>
<thead>
<tr>
<th></th>
<th>Positive (posttest&gt;pretest)</th>
<th>Neutral (posttest=pretest)</th>
<th>Negative (posttest&lt;pretest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge (increased)</td>
<td>38</td>
<td>56</td>
<td>6</td>
</tr>
<tr>
<td>Confidence (increased)</td>
<td>27</td>
<td>64</td>
<td>10</td>
</tr>
<tr>
<td>Anxiety (decreased)</td>
<td>32 (reduced anxiety)</td>
<td>57</td>
<td>11 (increased anxiety)</td>
</tr>
</tbody>
</table>
Contributing to Client Outcomes

❖ Reducing negative thinking and anxiety
❖ Increasing confidence
❖ Connecting career, personality, and mental health factors, e.g., anxiety, depression, hopelessness, neuroticism, etc., to inform interventions
Social Justice and the Design of Career Interventions

- Supply of career services is insufficient in meeting current needs
- CIP’s differentiated service-delivery model serves 60 to 63 percent more clients than traditional appointment-based individual career counseling
- Relying on appointment-based individual career counseling may create unintentional social injustice due to the limited number of people that are served
Designing Theory-based, Cost-Effective Program Interventions

- U.S. based and international applications
- Materials and assessments can be adapted to a variety of settings
- Provides greater access to career assistance
- NCDA monograph that highlights CIP-based program design (Sampson, 2008)
CIP Applications in Training & Supervision

- CIP can be used to train career practitioners in a diverse settings
- CIP provides a theory basis for effective counseling supervision
- CIP theory can be adapted for use in a wide variety of service delivery formats—drop-in, individual counseling, groups, classroom instruction, virtual services
A Bibliography of CIP Theory, Research, and Practice*

January 28, 2022

James P. Sampson, Jr., Florida State University
Janet G. Lenz, Florida State University
V. Casey Dozier, Florida State University Debra S. Osborn, Florida State University Gary W. Peterson, Florida State University Robert C. Reardon, Florida State University
[Additional information on these authors may be found at: https://career.fsu.edu/tc-center/about-us]

Revised with the help of Andrew R. Morrison, Jacob A. Galles, Brittany R. Melvin, Jane Tyler Finklea, Mary Buzzetta, Vanessa F. Freeman, Adam K. Miller, Ryan Sides, David H. Murphy, Carley Peace, Ivey E. Burbriak, and Kelechi Nnaji.

Center for the Study of Technology in Counseling and Career Development (https://career.fsu.edu/Tech-Center), a Florida State University research center funded by the Career Center in the Division of Student Affairs and the Department of Educational Psychology and Learning Systems in the College of Education.

The Career Center
100 South Woodward Avenue
Florida State University
Tallahassee, Florida 32306-4162

[https://purl.lib.fsu.edu/diginole/FSU_libsubv1_scholarship_submission_1593091156_c171f50a](https://purl.lib.fsu.edu/diginole/FSU_libsubv1_scholarship_submission_1593091156_c171f50a)
Thanks For Attending!

For more information, visit: www.career.fsu.edu/Tech-Center