

# Examining cognitive career theories: Current status, future trends, implications for the development and implementation of guidance services

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# **Cognitive Information Processing (CIP) Theory: Theory Overview, Applications, & Research**

# Cognitive Information Processing (CIP)

“Give people a fish and they eat for a day, but teach them how to fish and they eat for a lifetime” (adapted from Lao Tzu)

Goal: individuals learn how to be skillful career problem solvers and decision makers throughout their lives



# Assumptions of Cognitive Information Processing Paradigm

- ◆ Career problem solving is a rational process within a social-emotional context (i.e., social constructivism)
- ◆ Career problems are ill-defined
- ◆ The capacity for career problem solving can be learned
- ◆ The learning of career problem solving skills can be generalized to other career problems and even to life problems

# Role of CIP Theory in Career Problem Solving

- ◆ To put form and structure on an ambiguous task
- ◆ Integrate vital components of information processing
- ◆ Make career problem solving an orderly, systematic, reproducible process for novice career problem solvers
- ◆ Provide a framework for the development of a facilitative learning environment

# Nature of Career Problems

- ◆ Complex and ambiguous cues
  - ◆ Interdependent courses of action
  - ◆ Uncertainty of the outcome
  - ◆ Solutions present new problems
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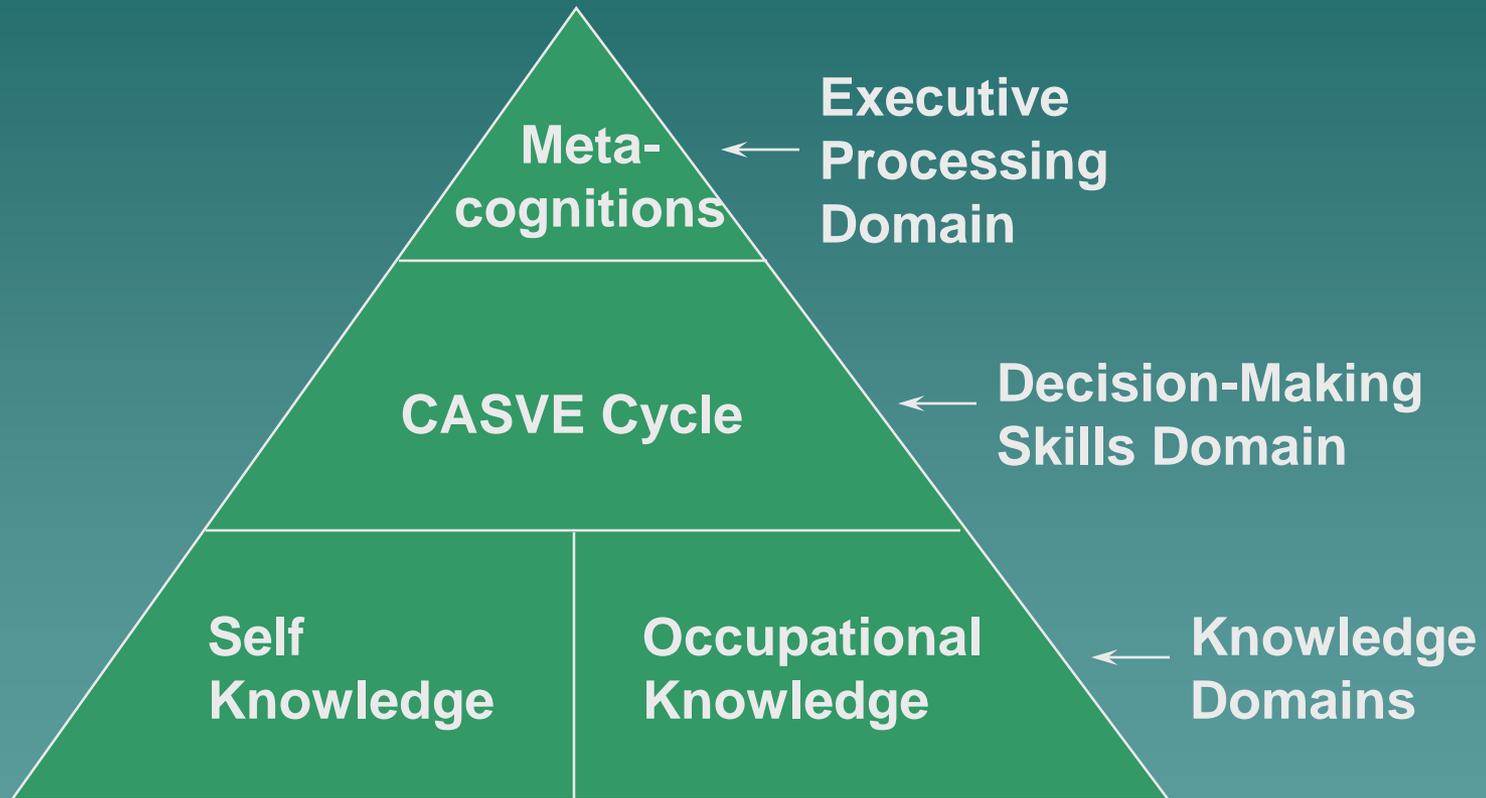
# Guiding Principles of the CIP Approach

- ◆ Both clients and practitioners 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

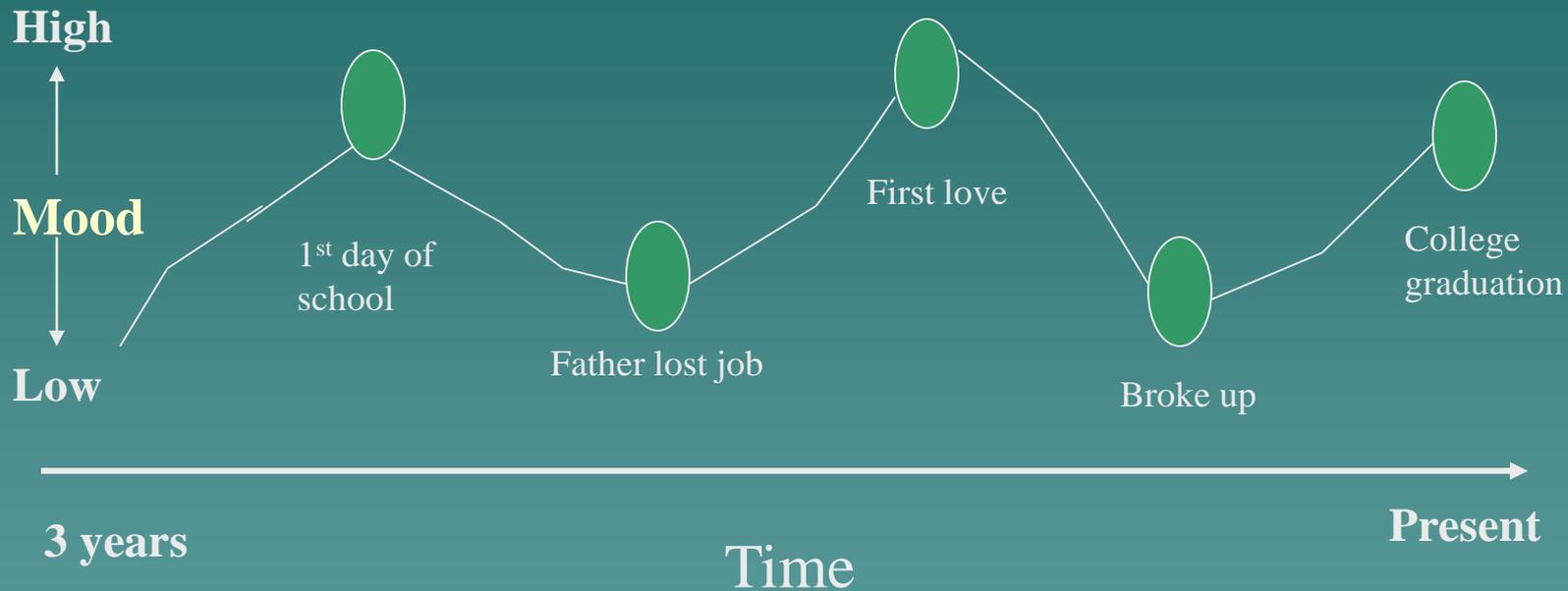
# CIP Overview

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

# Pyramid of Information Processing Domains



# Self-Knowledge



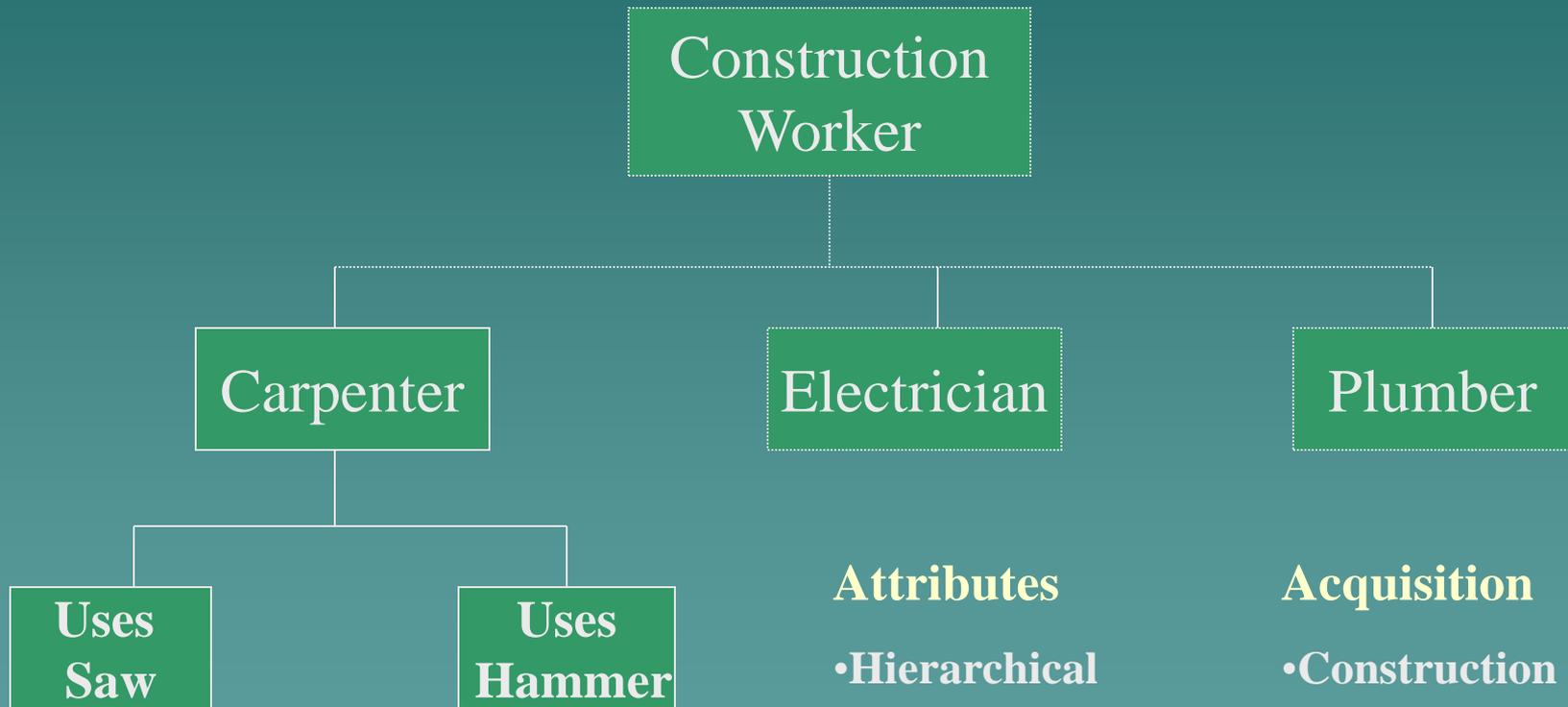
## Attributes

- Temporal schemes
- Episodes
- Non-verifiable, unstable

## Acquisition

- Recall, interpretation
- Reframe, reconstruction
- Thematic representation

# Occupational Knowledge



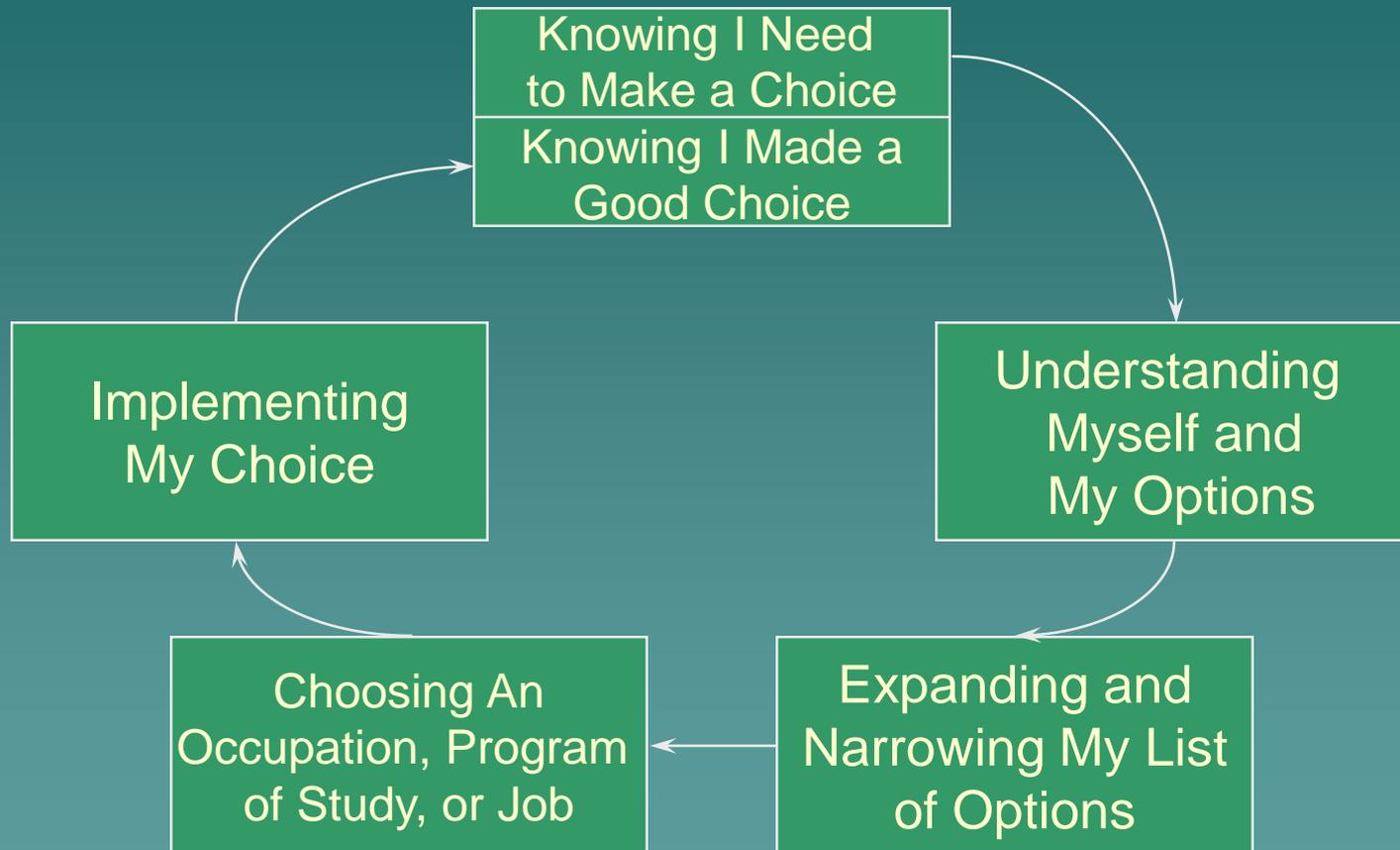
## Attributes

- Hierarchical
- Facts, concepts
- Verifiable, stable

## Acquisition

- Construction
- Inoculation
- Classification

# CASVE Cycle - Client Version



# Executive Processing

## “Thinking about Thinking”

### Self as a Decision Maker

- attitudes
- self awareness
- limits

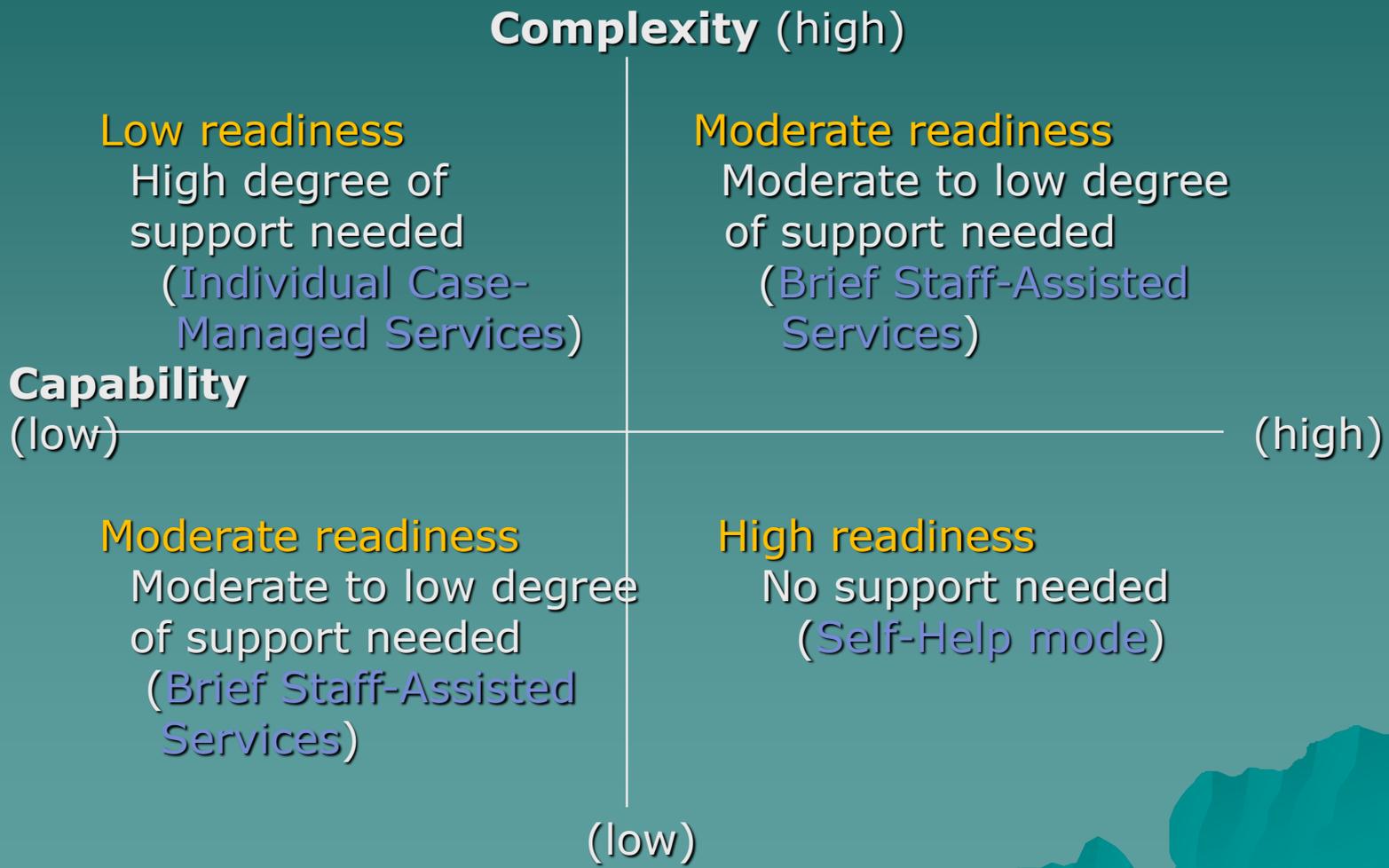
### Regulation

- problem recognition
- cognitive strategies
- monitor, control

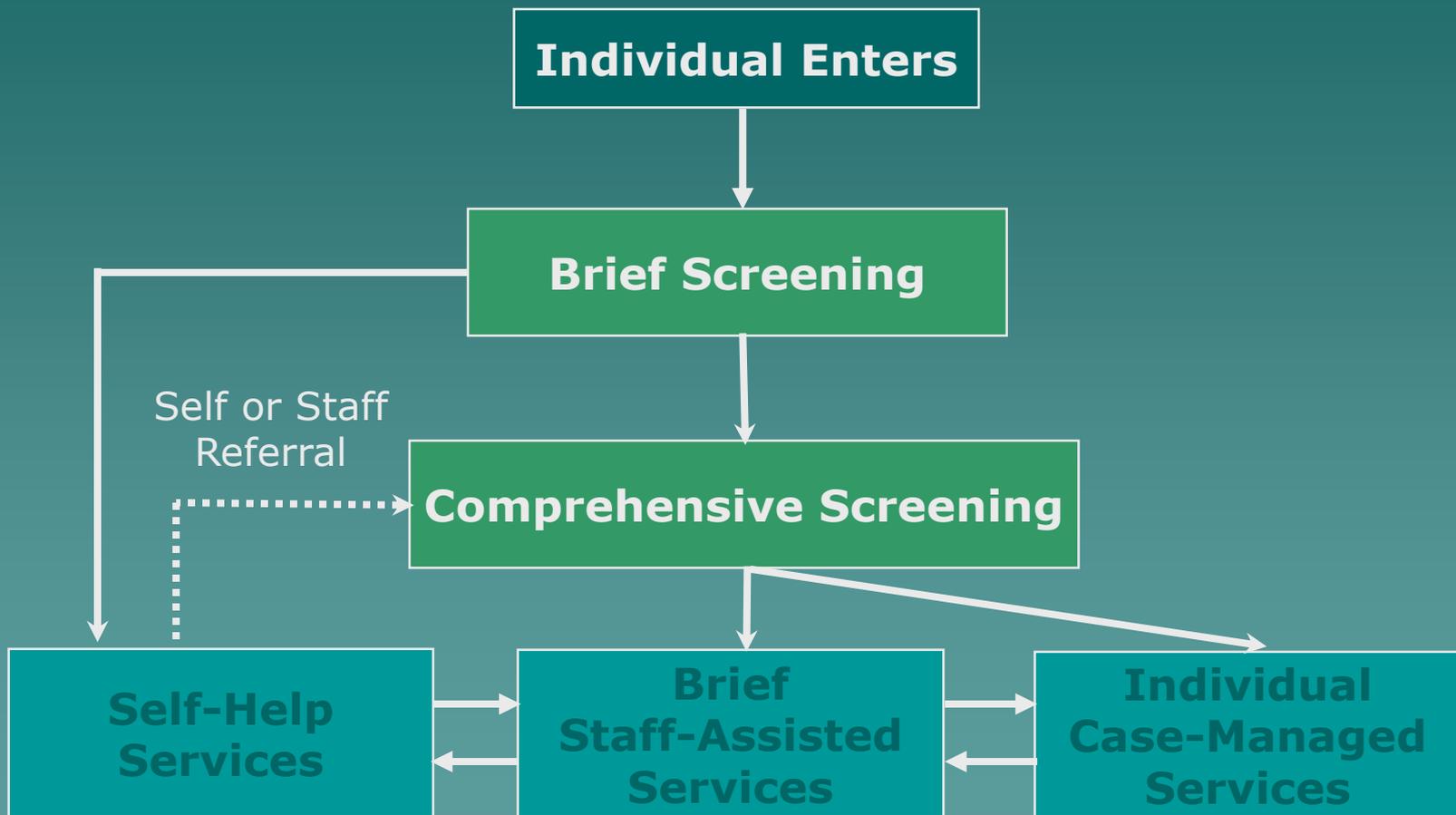
### Development

- detachment, objectification
- positive self talk
- heuristics

# Readiness for Career Choice Model



# Differentiated Service Delivery Model



# CIP in Practice

- ◆ Concrete example of how practitioners can be trained to apply theory in practice
- ◆ Evidence of CIP replication in other settings



# CIP in Practice

- ◆ CIP concepts can be easily explained to clients
- ◆ Focus is on creating a learning event
- ◆ Development & execution of an Individual Learning Plan (ILP)

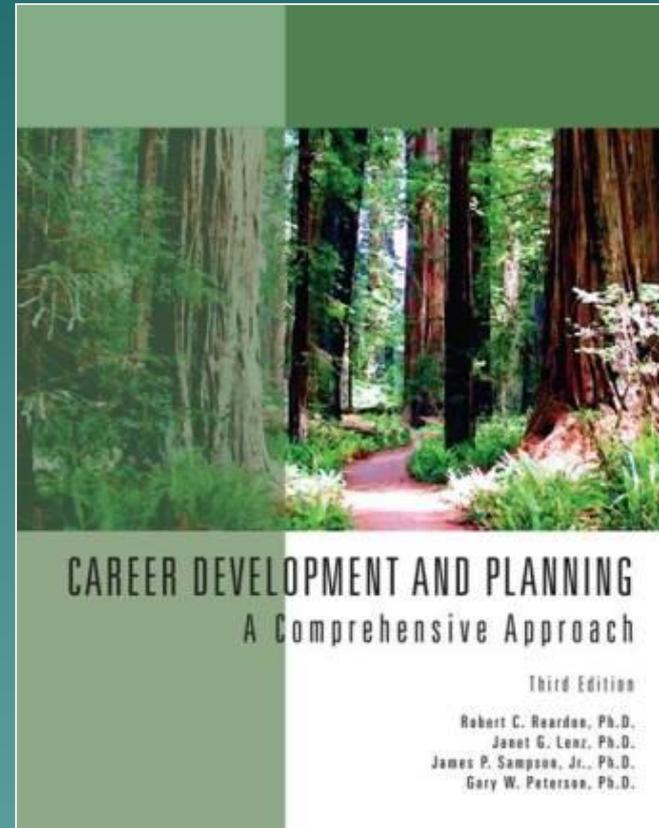


# CIP/CTI in Practice

- ◆ Allows for a holistic approach to the career decision-making process
- ◆ Recognizes the complexity of career decision making
- ◆ Often provides clients with the awareness of things that have kept them “stuck”
- ◆ Provides opportunity to integrate career and mental health issues

# CIP in Instruction

- ◆ Theory-based undergraduate 3-credit career development class
- ◆ CIP integrated into text, class lectures, small group activities
- ◆ CTI used as pre-post test
- ◆ Study by Reed, Reardon, Lenz, & Leierer (2001) showed a significant decrease in students' negative career thoughts



# CIP in Program Development

- ◆ International applications
- ◆ CIP as a “social justice” approach to career services
- ◆ Policy development & CIP
- ◆ Diverse populations, translation of materials globally

# 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*, March 2008)

# CIP Applications in National & State Systems for Career Services

## ◆ Examples

- Connexions Services in England
- Careers Scotland Centres
- Careers Service in Northern Ireland
- JobLink Centers in North Carolina
- Oklahoma Workforce Centers



## Richmond Chambers Careers Service in Northern Ireland

IAEVG Conference, 2009





IAEVG Conference, 2009

# CIP Web-based Application

**CAREER DECISION-MAKING TOOL**

The CDMT helps teachers, counselors, and parents assist their students or children in identifying an appropriate career direction and selecting or developing an educational program or plan that will provide the knowledge and skills needed to succeed within their chosen career field.

The process that students—or anyone else—must go through to identify a career direction and evaluate an educational preparation plan is provided in a six-step decision cycle that may be entered at any point and repeated over and over until a satisfactory conclusion is reached.

Roll your cursor over each step for a description.

**USE THE TOOL**

- STATE & NATIONAL TOOLS
- USER GUIDES
- REFERENCES
- ACKNOWLEDGEMENTS

CDMT HOME

Career Decision Making Tool (CDMT)

<http://www.acrnetwork.org/decision.htm>

IAEVG Conference, 2009

# CIP Research: Dissemination

\*<http://www.career.fsu.edu/techcenter> Tech Center established in 1986

Peterson, G., Sampson, J., & Reardon, R. (1991). *Career development and services: A cognitive approach*. Pacific Grove, CA: Brooks/Cole.

Peterson, G. W., Sampson, J. P., Jr., Lenz, J. L., & Reardon, R. C. (2002). A cognitive information processing approach in career problem solving and decision making. In D. Brown (Ed.), *Career choice and development* (4th ed., pp. 312-369). San Francisco: Jossey-Bass.

Sampson, J. P., Jr., Reardon, R. C., Peterson, G. W., & Lenz, J. L. (2004). *Career counseling and services: A cognitive information processing approach*. Pacific Grove, CA: Wadsworth-Brooks/Cole.

Reardon, R., Lenz, J., Sampson, J., & Peterson, G. (2009). *Career development and planning: A comprehensive approach* (3rd ed.). Mason, OH: Thomson Custom Solutions.

# CIP Research: Analyzing the Bibliography

- 21 dissertations from 9 different universities
- CIP applications: About 36 references
- CTI research: About 27 references
- About 47 refereed journal articles

# CIP Research: CTI Translations

- ◆ Korean
- ◆ Finnish
- ◆ Turkish
- ◆ Icelandic
- ◆ Greek
- ◆ Portuguese\*

# CIP Research: Recent Activity

1. Career thoughts and SDS item response indecision related
2. Maximizing decision-making style and ruminative thought pattern predicted negative career thoughts
3. ADHD symptoms predicted dysfunctional career thoughts
4. High decision-making confusion predicted lower emotional intelligence
5. Psychological well-being strongly related to career thoughts
6. CIP-based workshop increased career choice readiness among 7<sup>th</sup> graders

# CIP Research: Current Activity

1. Communication apprehension related to career thoughts
2. Use of the CTI Workbook in changing negative career thoughts of Pacific Island students
3. Relationships among stress, feelings, and career thoughts
4. Career thoughts and information-seeking behavior
5. Motivation to engage in career planning in relation to career thoughts
6. Exploratory factor analysis of CIP and SCCT constructs

# 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)
- ◆ Spirituality & vocational choice (Valuing)

# 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
- ◆ Further integration of CIP and other theoretical perspectives, such as RIASEC, SCCT

# For More Information



[www.career.fsu.edu/techcenter](http://www.career.fsu.edu/techcenter)