

# Applying Cognitive Information Processing (CIP) Theory to Career Counseling & Services

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# The FSU Career Center



# “Tech Center”

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•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.

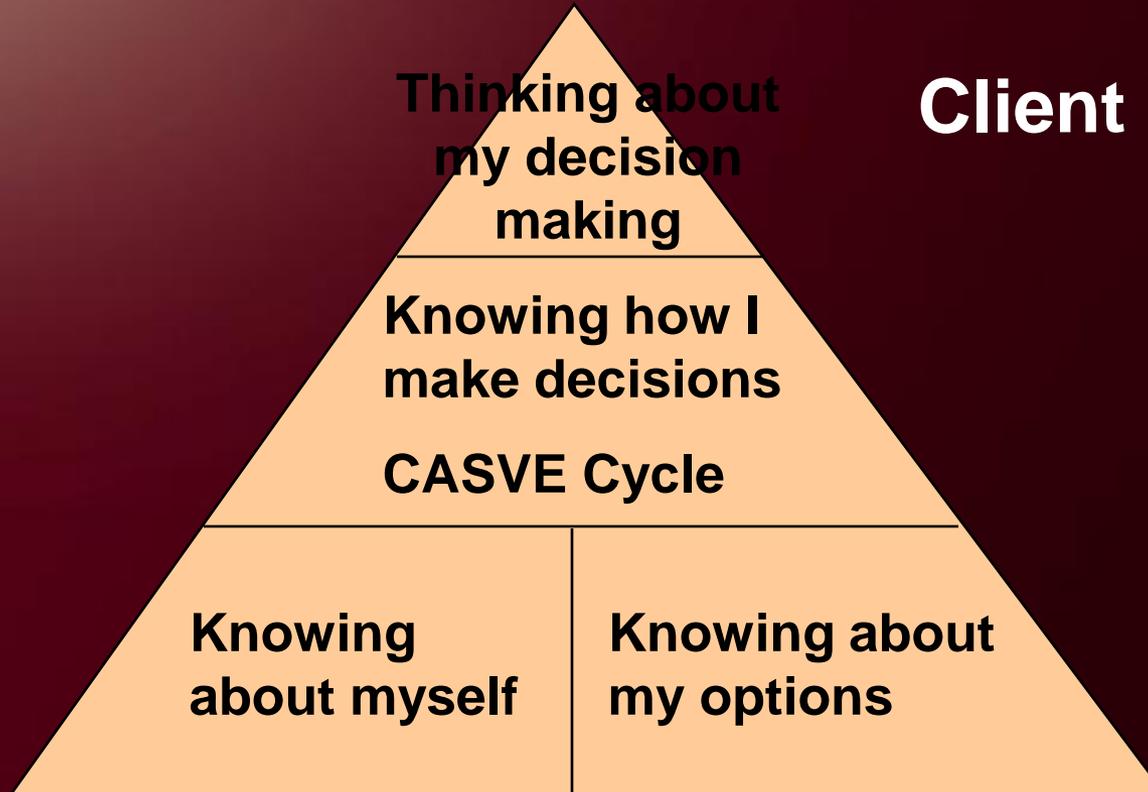
# Some Myths About CIP Theory

- 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

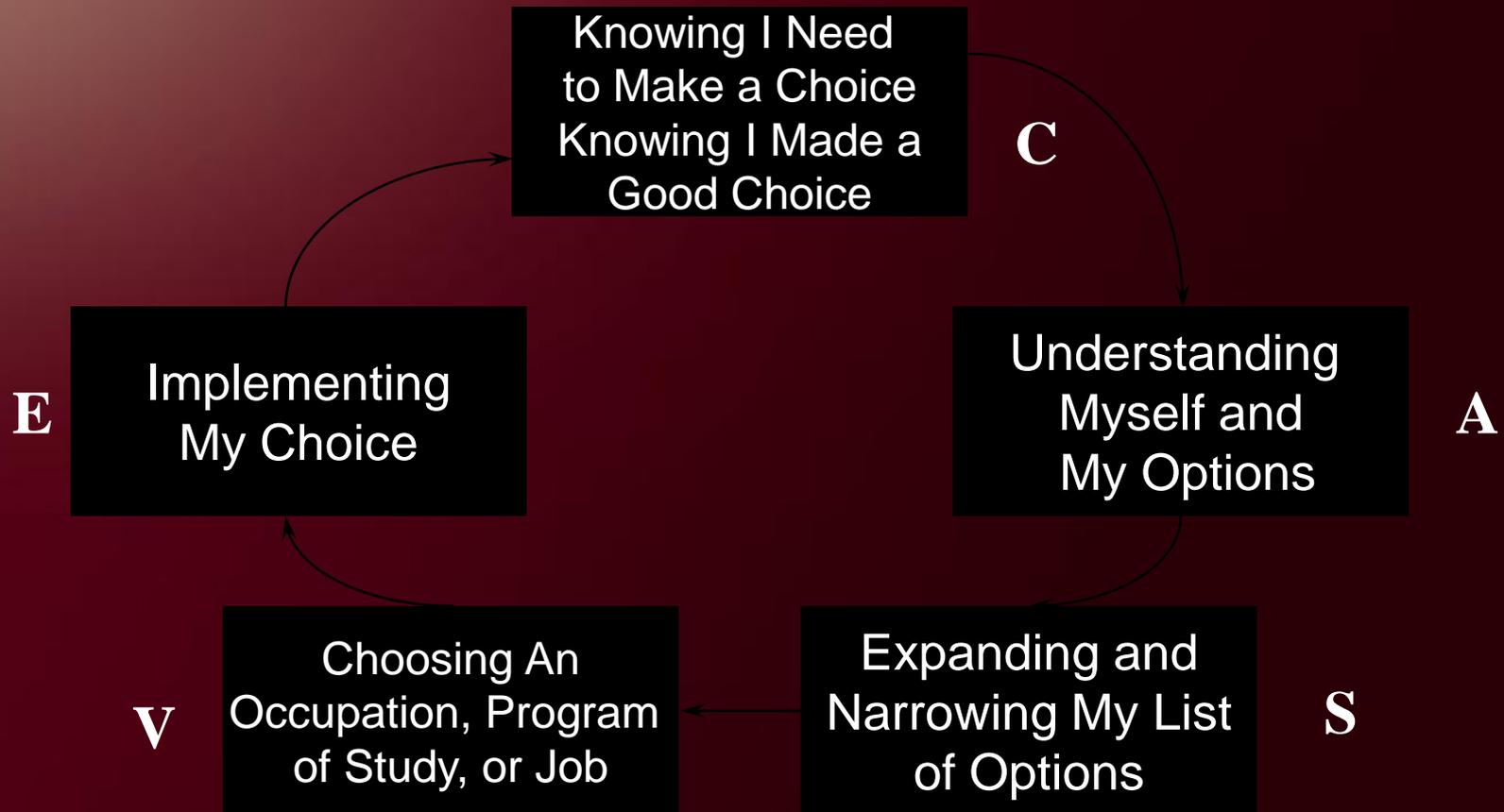
- Pyramid of Information Processing Domains (**Knowing**)
- CASVE Cycle (**Doing**)
- Readiness for Career Choice Model
- Differentiated Service Delivery Model

# CIP Pyramid Domains



**Client Version**

# CASVE Cycle - Client Version



# Translating Concepts for Client Use

## •Pyramid

- What's involved in career choice
- The content of career choice
- What you need to know
- Contributes to an informed career choice

## •The CASVE Cycle

- A guide to good decision making
- The process of career choice
- What you need to do
- Contributes to a careful career choice

# 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?

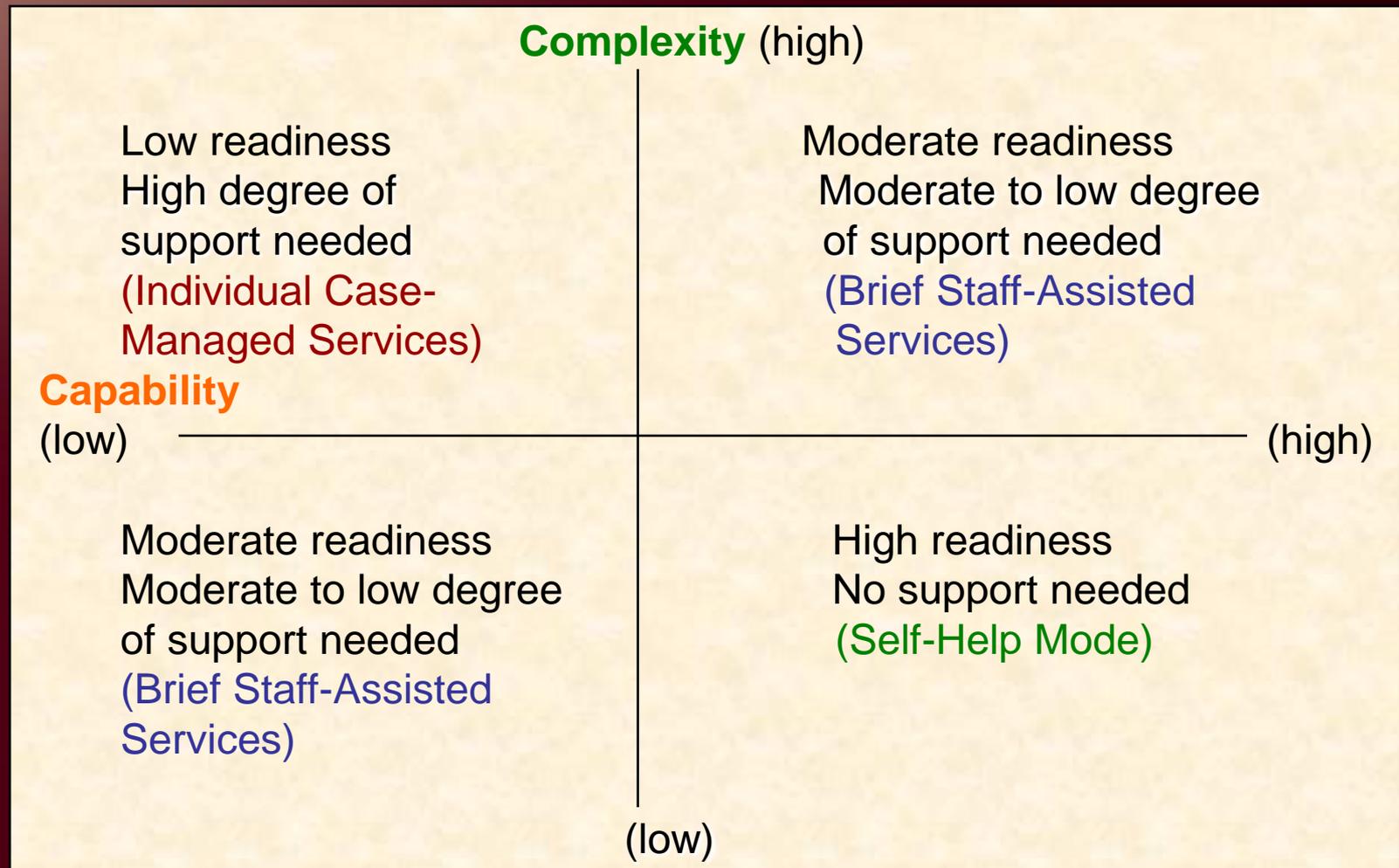


# Service Delivery Levels

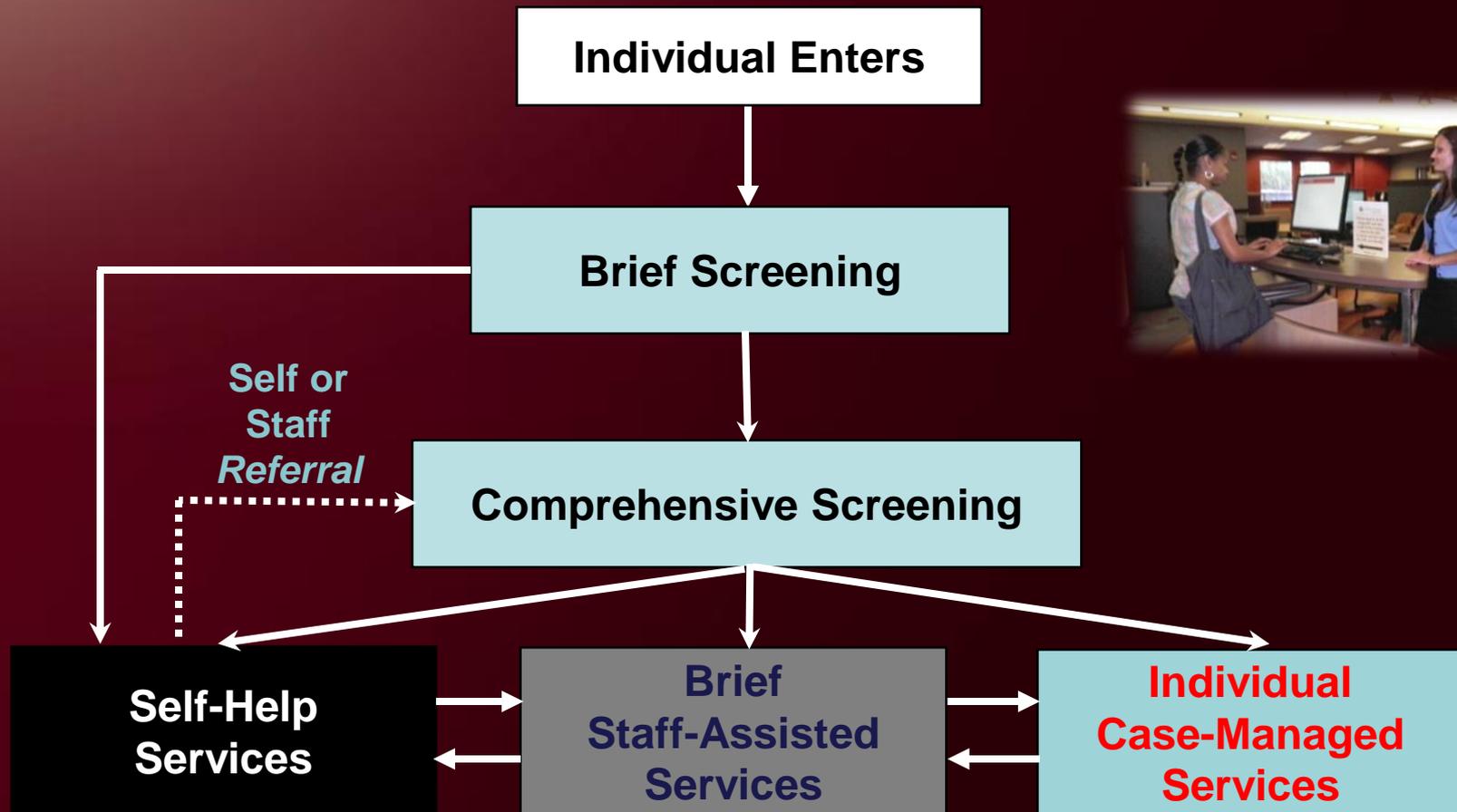
- Self-Help Services
- Brief Staff-Assisted Services
- Individual Case-Managed Services



# CIP Readiness Model



# Differentiated Service Delivery Model



Complete differentiated model of delivering career resources and services

# 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



# 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

## Module 3

### Exploring Your Interests, Values, & Skills

#### Objectives

1. To help you examine some of your interests, values, and skills.
2. To help you relate your self-knowledge to occupations, fields of study, or jobs for further exploration.

#### Rationale

A critical part of learning how to make career decisions involves looking at yourself and asking:

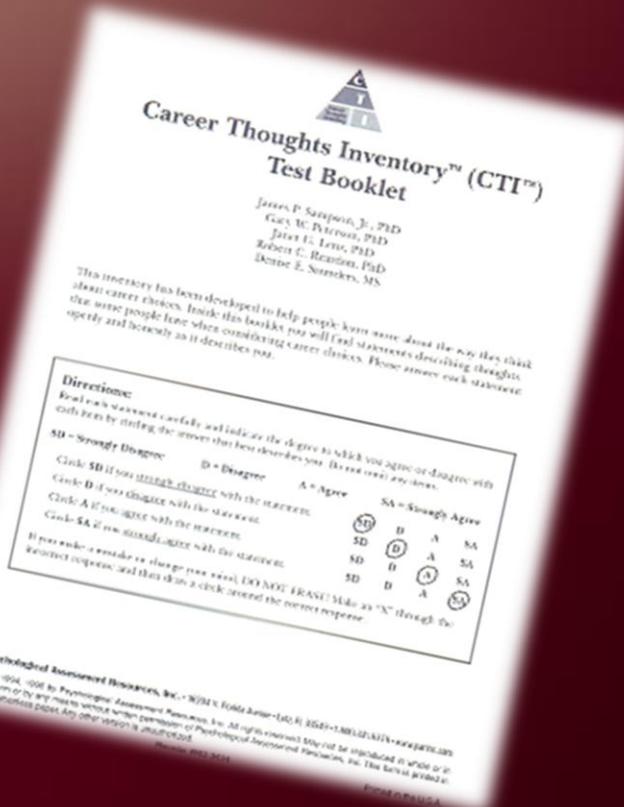
1. What activities am I interested in?
2. What values do I have that might be an important part of exploring possible occupations, fields of study, or jobs?
3. What skills and abilities do I possess or need to develop?

# Career Assessment Methods

		Response	
		clear	ambiguous
Stimulus	clear	CTI Self-Directed Search CACG systems	Structured interview Decision Space
	ambiguous	Occupational Alter. Question (OAQ)	Autobiography Five Lives to Live Unstructured interview

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

# Preliminary Assessment



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

Career Thoughts Inventory (CTI)

Occup. Alternatives Questionnaire (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 Questionnaire (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 Question (OAQ)

## Occupational Alternatives Questionnaire (OAQ)

1. List all the occupations you are considering right now.

_____	_____
_____	_____
_____	_____

2. Which occupation is your first choice? (If undecided, write "undecided.")

\_\_\_\_\_

3. How well satisfied are you with your first choice?  
(Write one of the numbers below in the space to the right.)

\_\_\_\_\_

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

# OAQ

- Scoring the OAQ:

- 1 → 1<sup>st</sup> choice, no alternatives
- 2 → alternatives and a 1<sup>st</sup> choice
- 3 → alternatives, no 1<sup>st</sup> choice
- 4 → neither alternatives, nor 1<sup>st</sup> choice

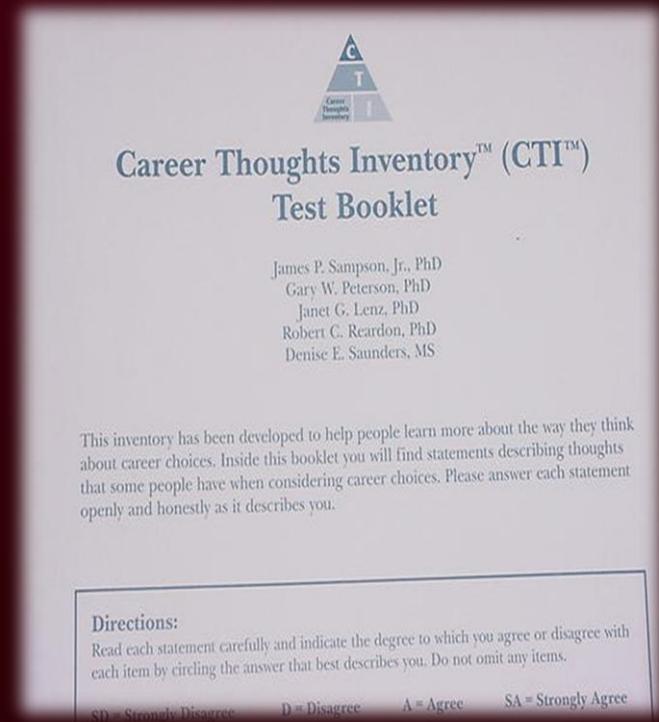
- Correlates of OAQ

- Commitment anxiety
- Decision-making confusion
- Depression

Note: this is an ordinal scale

# 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.”



# 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)

## Decision Space Worksheet (DSW)

Name \_\_\_\_\_ Date \_\_\_\_\_

Decision you are making \_\_\_\_\_

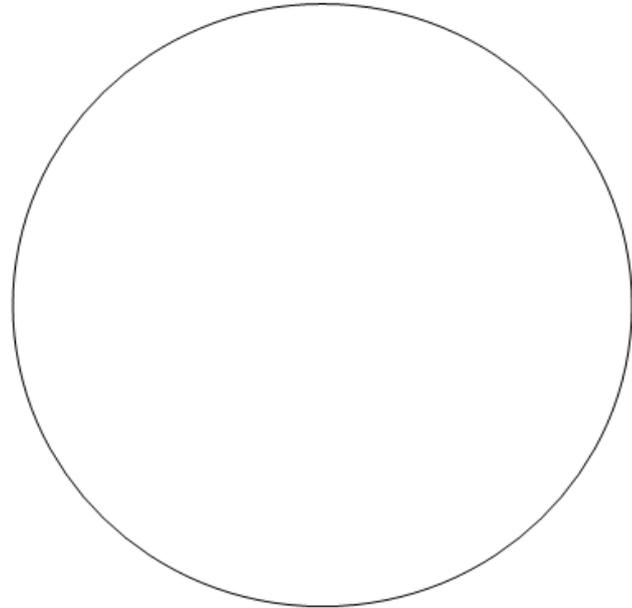
Please list all thoughts, feelings, circumstances, people, or events that bear on the decision you are making.

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

# Typical Issues Revealed

- Cognitive distortion
- Disabling emotions
- Financial
- Family
- Education
- Interests
- Self doubt
- Employment
- Quality of life

# 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)



**Individual Career Learning Plan**

Goals: 1. \_\_\_\_\_  
2. \_\_\_\_\_  
3. \_\_\_\_\_

Activity	Purpose / Outcome	Time Needed	Goal #	Priority

This plan can be modified by either party based upon new information learned in the activities of the action plan. The purpose of the plan is to work toward a mutually agreed upon career goal. Activities may be added or subtracted as needed.

Student/Client \_\_\_\_\_ Date \_\_\_\_\_  
Career Advisor \_\_\_\_\_ Date \_\_\_\_\_

# 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
- Option 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.



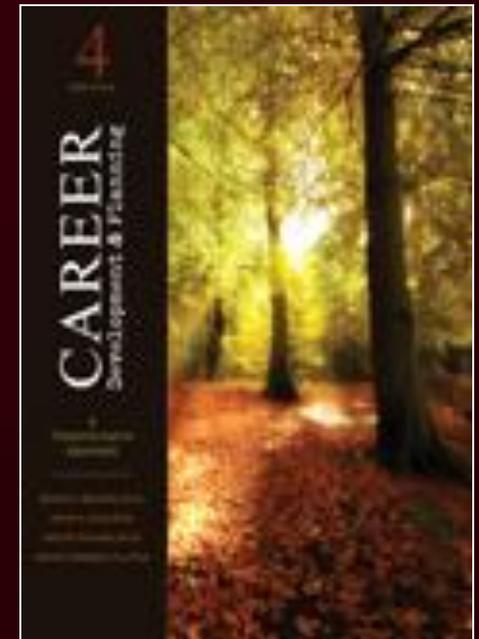
Table 1

Activity	Project/Outcome	Start	Goal	End

In order to be eligible for other forms of financial assistance, you must be a resident of the state in which you are applying for the loan. The amount of the loan is based on your creditworthiness and your ability to repay the loan.

# 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



# 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

- Pacific Island college students in a college success course--CTI Workbook improved CTI total score, and CTI Workbook and career research improved DMC and CA (*JCD*, 2012)
- Application of CIP to assist service members' transition into the civilian world (Clemens & Milsom, *CDQ*, 2008)
- Career workshop with secondary school students:
  - “CIP approach...can be successfully applied to promote career development on an international scale” (Hirschi & Lage, 2007)

# 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

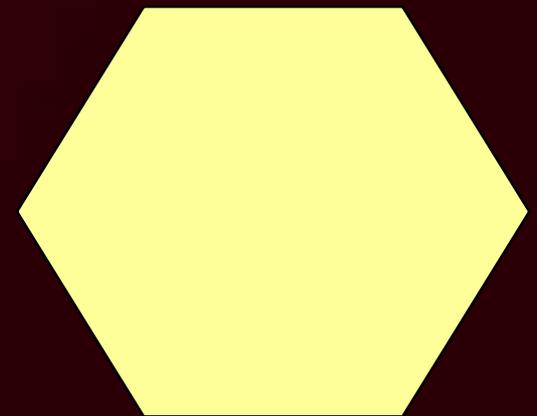
- Further convergence of career & mental health counseling (e.g., Decision Space Worksheet, Beck Depression Inventory)
- Career thoughts in relation to other constructs in vocational behavior, e.g., motivation, self-efficacy, career stress
- Spirituality & vocational choice (Valuing)
- Use of model-reinforced 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

# 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



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**Center for the Study of Technology in Counseling and Career Development**  
*Welcome! What brings you here today?*

am an: **Individual** seeking information about my own career and education choices.  
**Student** learning how to design and deliver career resources and services or exploring graduate study at FSU.  
**Instructor** teaching a career development or planning course.  
**Practitioner** delivering career services or creating career resources.  
**Researcher or program evaluator** examining the delivery of career resources and services.  
**Policy maker or senior administrator** interested in the cost-effectiveness of career services.  
**Developer of computer applications** used in the delivery of career resources and services.

**What's New**

**June 2012**  
NCDA 2012

**February 2012**  
[CIP Bibliography](#)  
[ECDA](#)

**November 2011**  
Poster session on  
"Connecting A Career Theory to Practice..."

**July 2011**  
[The Effects of College Career Courses on...](#)  
[NCDA 2011 Materials](#)

**May 2011**  
[Connecting Holland's Theory to Educational Counseling](#)  
[Connecting Career and Mental Health Counseling...](#)

**October 2010**  
[ECA 2010](#)

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