Roundtable #2-9: Assessing career readiness in culturally and ethnically diverse populations: What can we learn from past research to improve future service delivery?

Jake Galles & Brittany Melvin
Florida State University

Career Thoughts Inventory

Major Findings:
Overall: Results consistently show that the CTI is reliable and valid across various cultural groups. Additionally, the instrument norming was stratified by ethnic background to account for cultural differences, adding to its generalizability.

- In **ethnically and culturally diverse U.S. college students** no ethnicity effects found regarding change in dysfunctional career thoughts after a career intervention
- Decrease in dysfunctional career thoughts as students advanced through Finnish educational system
- In **racially and ethnically diverse U.S. college freshman**, dysfunctional career thoughts decreased after completing a career development course, regardless of gender or race/ethnicity
- Dysfunctional career thoughts negatively related to achievement motivation in Pakistani sample
- Attachment anxiety and avoidance related to negative career thinking in Belgian and Dutch immigrants residing in California
- Significant relationships between the three stages of racial identity development and negative career thinking among African American high school students

Strengths: strong evidence of validity and reliability; well-normed, accounting for cultural differences; CTI workbook intervention; developed from the cognitive information processing theory of career development; short administration time; straightforward administration, scoring and interpretation; cost efficient

Weaknesses: all items are negatively worded, difficult to translate

Career Beliefs Inventory

Major Findings:
Overall: There is inconsistent evidence for the applicability of the Career Beliefs Inventory with samples from diverse cultural backgrounds. However, norms included a sample of ethnically-diverse participants adding to the generalizability of results.

- Cultural differences exist in career aspirations among Caucasians, African Americans, and Hispanics. Caucasian students tended to have increased negative congruence with aspirations
- Vocational interests and beliefs appear congruent in Hispanic professionals
- Factor structure of the CBI with Italian students appears to have little overlap with structure of the instrument used with American samples
- Career resilience led to fewer irrational career beliefs among Taiwanese students
- Acculturation and core beliefs among international students were weakly related
- Career beliefs clarify social experiences’ role in career maturity for ethnically-diverse students

Strengths: strong evidence of validity, easy administration, very well normed in that it accounts for cultural differences

Weaknesses: Not based in one specific theoretical background and instead incorporates elements of various theories, no specific intervention accompanies the assessment, long administration time, very low reliability (.16) for some subscales, fairly expensive
Career Development Inventory

Major Findings:
Overall: Inconsistent findings in the literature regarding applicability with diverse cultural groups; although, overall validity appears to remain stable. Some subscales appear more generalizable than others.

- Majority of scales found to be non-equivalent between Thai and Australian samples
- Career Exploration scale found to be unreliable in Thai high school sample
- College form useful for studying career maturity in international students
- Valid measure of career maturity with Iranian high school students
- Transcultural validity of the CDI vocational maturity concept appears to be well established

Strengths: strong evidence of validity and reliability of affective scales, clear directions for administration, developed from Super's Structural model, free to Vocapher members

Weaknesses: no specific intervention accompanies the assessment; poor reliability of cognitive scales; poor standardization, especially for school form; long administration time; expensive for non-vocapher members

My Vocational Situation

Major Findings:
Overall: Vocational identity and its relative levels during certain stages of development seem to be similar across many ethnic and culturally diverse groups; however, the factors which effect its development seem to differ. Evidence continues to build for the MVS’s validity among ethnically and culturally diverse groups.

- When comparing Caucasian, African American & Hispanic college women, Caucasian women reported higher vocational identity (VI) than Hispanic women; VI was negatively related to ethnic identity and positively related to family cohesion, participation in social/recreational activities & high-quality mentorships.
- When comparing Caucasian and African American college students, no significant difference in VI; positive relationship between VI and positive affect; with a stronger relationship between affect and VI for African American students vs. Caucasian students; a one-factor model provided adequate fit for both groups; VI factor structures not equivalent across groups
- When comparing American and Korean college students, both groups showed optimism/pessimism, career decision-making autonomy & family supports as antecedents to forming VI; however, mediator/moderators between antecedents and VI vary between cultures. Korean students were uniquely affected by extrinsic motivation and family maintenance factors and American students were uniquely affected by the family support orientation index.
- Among Korean college students, MVS showed significant negative relationship with the Korean Career Indecision Inventory (r = -.63)
- When comparing Asian-American and Caucasian college students, no difference in VI.
- When comparing undergraduate and graduate level Taiwanese international students, older students with a lower acculturation level had higher VI.
- In Black South-African college students, strong reliability of MVS scale, limited evidence of construct validity

Strengths: short administration time, easy to administer; fair evidence for reliability & validity, developed by Holland as a secondary construct in his theory of vocational personalities & work environments

Weaknesses: out of print, no interventions, no translations, haphazard norms with no consideration of ethnic/culturally diverse groups, low-quality manual
Career Decision-Making Difficulties Questionnaire

Major Findings:

Overall, the CDDQ seems to have strong evidence of validity (construct, convergent, discriminate, criterion-related) among various ethnic and culturally diverse groups; however, reliability of this instrument (internal consistency, psychometric reliability) seems mixed. Additionally, the many translations of this instrument allows for ease of use for diverse groups worldwide, but each translation requires its own body of research to confirm its reliability and validity.

- In **Australian** adolescents & adults, multidimensional model of CDDQ fit both groups, but 5 first-order factors fit better than 3. In Australian adolescents, the categories of difficulties in the CDDQ were significant determinants of decision status. In Australian adults, the Internal Conflicts & Lack of Knowledge about Additional Sources subscales had relatively low internal consistency.

- In **Israeli** college students, career decision-making difficulties showed: a high positive correlation with expressed career decision-making difficulties and a negative correlation with career decision-making self-efficacy and decidedness.

- When studying the reliability and validity of the **Chinese version** of the CDDQ, 2 stable factors were found, the Chinese version did not confirm readiness to make a career decision; In another study, Cronbach alphas ranged from .48-.87; good construct, discriminate & criterion-related validity; seemed to have psychometric reliability, more confirmation is needed.

- In **Italian** wage-earning apprentices, CDDQ’s 3 dimensions showed a negative correlation with total emotional intelligence (EI); intrapersonal dimension of EI best predictor of CDDQ dimensions.

- When comparing the paper and pencil and Internet **Hebrew versions** of the CDDQ, similar internal consistency and confirmatory structure derivation of 10 categories in both groups.

- When using the **Slavic version** of the CDDQ on **Slovene** elementary students, significant differences between career decided & undecided students on personality and motivational variables

**Strengths**: high cost effectiveness, quick administration, available in many translations and two types of media, high reliability & validity, Internet version automatically scored & provides a report to user.

**Weaknesses**: no available interventions, no manual, no formal publisher, no norm groups.

**References**:


*References from the literature review are available in chart form. Please inquire if you’d like to see more detail.*
<table>
<thead>
<tr>
<th>Instrument</th>
<th>Purpose</th>
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<th>Average Length of Testing Time</th>
<th>Reading Level</th>
<th>Translations</th>
<th>Formats</th>
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<tbody>
<tr>
<td>Career Thoughts Inventory (CTI)</td>
<td>Identify level of readiness for career counseling &amp; nature of career problems</td>
<td>James Sampson, Gary Peterson, Janet Lenz, Robert Reardon, &amp; Denise Saunders</td>
<td>Cognitive information processing (CIP) theory of career development</td>
<td>CTI Workbook</td>
<td>7-15 minutes</td>
<td>6th grade</td>
<td>7 Languages: English, Bulgarian, Finnish, Greek, Icelandic, Korean, Turkish</td>
<td>Paper &amp; pencil</td>
<td>Background with CBT and familiarity with the manual</td>
<td>Cronbach alpha coefficients .74-.97</td>
<td>High face validity, construct validity of 3 factors well supported, but 19 items not included in factors; good discriminant validity</td>
<td>High school: 396, college: 595, adults: 571, stratified by geographic area, gender, &amp; ethnicity</td>
<td>11th grade students &amp; older</td>
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<td>Career Beliefs Inventory (CBI)</td>
<td>Identify assumptions blocking client's career progress</td>
<td>John Krumboltz</td>
<td>Cognitive psychology, cognitive therapy, Social Influence Model</td>
<td>None</td>
<td>45 minutes</td>
<td>6th grade</td>
<td>None</td>
<td>Paper &amp; pencil, self explanatory directions</td>
<td>No specific qualifications needed</td>
<td>Test-Retest: 1 month (.74-.35), 3 months (.68-.27) Cronbach alpha (.16-.84)</td>
<td>Convergent: correlated to occupation &amp; school satisfaction; discriminant: differs from Strong, SDS, MVS, MBTI</td>
<td>7500 US &amp; Australian people; sample size used to evaluate ethnic differences</td>
<td>Male &amp; female, employed &amp; unemployed adults, adult &amp; college students &amp; high school seniors &amp; juniors</td>
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<td>Career Development Inventory (CDI)</td>
<td>Measure affective &amp; cognitive aspects of early career development stages</td>
<td>Albert Thompson, Richard Lindeman, Donald Super, Jean Pierre Jordan, &amp; Roger Myers</td>
<td>Super structural model of career choice</td>
<td>None</td>
<td>60 minutes</td>
<td>School form: 7th grade College form: 9th grade</td>
<td>German, Australian, Portuguese</td>
<td>Paper &amp; pencil booklet, dear directions and guidance</td>
<td>No specific qualifications needed</td>
<td>Cronbach alpha (.53-.9), lowest for cognitive scales; good internal consistency</td>
<td>Cronbach alpha (.70-.90 for 3 major categories, .95 for total score; test-retest .79-.80 for total score</td>
<td>Convergent: DAB, ITED. Two-factor structure well supported. Standardization sample not adequate to establish construct validity</td>
<td>College form: 1345 students, other forms: not representative of target populations</td>
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<td>Career Decision-Making Difficulties Questionnaire (CDDQ)</td>
<td>Locate specific focus of career decision making difficulties</td>
<td>Itamar Gati, Samuel Osipow, &amp; Mina Krausz</td>
<td>Decision-making and information-processing theories</td>
<td>None</td>
<td>7-12 minutes</td>
<td>Unknown</td>
<td>26 languages, some include: Arabic, Chinese, English, Turkish, Flemish, French, German, Greek, Hebrew, Polish, Italian, Spanish, Portuguese, Turkish, Ugandan</td>
<td>On-line, paper &amp; pencil</td>
<td>No specific qualifications needed</td>
<td>Cronbach alpha (.70-.90 for 3 major categories, .95 for total score; test-retest .79-.80 for total score</td>
<td>Convergent (CDDQ &amp; CDS &gt; .77); discriminant (CDDQ &amp; CDMSE, &gt;.50);</td>
<td>&quot;It has no norms, as it is aimed at being an ipsative measure&quot; (I. Gati, personal communication, June 17, 2011)</td>
<td>11th grade students &amp; older</td>
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<td>My Vocational Situation (MVS)</td>
<td>Screen for vocational assistance needs &amp; determine treatment</td>
<td>John Holland, Denise Daiger, &amp; Paul Power</td>
<td>Holland's theory of vocational personalities &amp; work environments</td>
<td>None</td>
<td>5-10 minutes</td>
<td>Unknown</td>
<td>None</td>
<td>Paper &amp; pencil computer version (with SDS computer version)</td>
<td>No specific qualifications needed</td>
<td>KR-20 score of .23-.86 (men in norm sample); .45-.89 (women) test/retest .51-.83; men: .64-.84; women: .62-.93</td>
<td>Convergent - Career Decision Scale: .67 (men), .63 (women); discriminant - Career Factors Inventory: .33 -.49; factorially mixed</td>
<td>Labyrinth sampling, high school, college &amp; graduate students, full-time workers, &amp; faculty</td>
<td>High school &amp; college students, adult</td>
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