

Validity of Two Measures
of Adult Vocational Development

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A major problem encountered in trying to assess career maturity in adults has been that adults vary in degree of development and thus the type of task they face. In studying adults, researchers could not assume homogeneity in tasks faced and concentrate on measuring heterogeneity in coping methods as they had done in constructing career decision readiness measures for adolescents (Super, 1974). Instead, they began by constructing inventories to measure both degree of development and coping methods.

Crites devised the Career Adjustment Inventory (CAI; Crites, 1975) to operationally define the central tasks of career development for adults. In addition to a scale to measure vocational development task completion, the inventory had scales to measure career involvement, career control and coping, work attitudes, and work adjustment mechanisms. The Career Adjustment Inventory was replaced by the Career Adjustment and Development Inventory (CAI; Crites, 1982). The CADI retained only the work adjustment mechanisms section of the CAI. This section consists of 20 incomplete sentence stems, which at this time are interpreted clinically while research on an empirically validated scoring system proceeds. The objectively scored part of the Career Adjustment and Development Inventory (CADI) consists of six scales that measure coping with six vocational development tasks that characterize the career establishment stage. The CADI uses a true/false item response scale and yields six scale scores. Higher scale scores

indicate greater mastery of a task and the total score indicates degree of development within the establishment stage.

Super, Zelkowitz, and Thompson (1975) devised the Career Development Inventory-Adult Form (CDI-A) to measure concern with and completion of 12 vocational development tasks that span from the exploration to the disengagement stage. The item response scale of the CDI-A ranges from "I have already done this" (5), to "I have not yet thought much about it" (1). The CDI-A can be scored for both task completion and concern. Task coping scores indicate action taken and are based on the full 1-5 response scale. Task concern scores indicate awareness and consist of the sum of items rated 2, 3, or 4. Initial reports on the CDI-A supported its validity as a measure of degree of development (Cron & Slocum, 1986; Morrison, 1977; Herr, Good, McCloskey & Weitz, 1982). However, the CDI-A authors concluded that the response scale elicited a response set that produced scores that were more a function of a respondent's chronological age than developmental stage. Therefore, they devised a new response scale for the same items. They renamed the inventory the Adult Career Concerns Inventory (ACCI).

The ACCI is an unidimensional measure of planning attitudes or planfulness, the major dimension of coping readiness. The ACCI measures the concern and awareness elements of planfulness (Super, 1982). The ACCI response scale ranges from no concern (1) to great concern (5). The total score indicates amount of career planfulness. Scale scores indicate the amount of concern relative to each task. The scale with the highest score indicates the task of most concern to the individual

and thus identifies focus of concern and presumably degree of development.

The present study compared responses to the CADI and the ACCI. The CADI and ACCI measures are similar in that they were designed to assess adult career maturity. Their items state vocational behaviors that cluster to form scales which define developmental tasks and the tasks/scales align with each other along the temporal continuum that defines early, middle, and late phases of the establishment stage. Because of these similarities, we expected that the two inventories would indicate a similar degree of vocational development within the establishment stage and that their scales would interrelate systematically.

We hypothesized that the CADI should have a strong negative relationship to ACCI exploration stage scales. Individuals who are concerned with exploration stage tasks generally should not be mastering the establishment stage tasks measured by the CADI. In contrast greater mastery of the establishment tasks measured by the CADI should have a low positive relationship to ACCI maintenance stage concerns because maintenance is the next stage. Very few of the participants should be concerned with the retirement tasks of the disengagement stage so the CADI should not relate to disengagement stage concern. We also hypothesized that the CADI total score would relate highly to the ACCI establishment stage score. Moreover, we hypothesized that the intercorrelations among the six CADI scales and the three ACCI establishment scales would reflect the task/time sequence which defines

three discernible phases of development during the establishment stage. Specifically, we expected that ACCI stabilizing would relate strongest to CADI organizational adaptation and position performance; and that ACCI consolidating would relate strongest to CADI work habits and co-worker relations; and that ACCI advancing would relate strongest to CADI advancement and career plans.

To test the hypotheses about ACCI establishment stage scales and the CADI we had to address a significant dissimilarity between the CADI and ACCI. The ACCI response scale deals with task concern whereas the CADI response scale deals with task coping. As a result, scores on the CADI scales and the ACCI scales are interpreted differently. A high score on one of the CADI scales implies that one has already completed the task measured by the scale and has passed that phase of development. In contrast, a high score on an ACCI scale implies that one is concerned with the task measured by the scale and presumably dealing with that task. Therefore, if one obtains a high concern score on an ACCI establishment scale, we expect a score in the middle range on the corresponding CADI scales that tap the same kind of tasks. For example, a high concern score on the Consolidation scale of the ACCI might correspond to middling scores (working on the tasks but not completed) on the Work Habits and the Co-worker Relations scales of the CADI. In contrast, if one has a low concern score on the Consolidation scale of the ACCI, we could expect both low and high task accomplishment scores on the Work Habits and Co-worker Relations scales of the CADI. One could have low concern scores on these scales either because one has

passed that phase of development as indicated by a high task accomplishment score or one is in an earlier stage as indicated by a low task accomplishment score. This could result in near zero correlations across the establishment scales in the two measures. This lack of association would be ambiguous because it could indicate either a lack of or presence of concurrent validity. Thus, a transformation of the scales so that a high correlation unambiguously implies high concurrent validity was necessary.

To further explore the validity of the ACCI and CADI, we correlated these measures to two measures of work adjustment. Vocational theory states that mastery of developmental tasks relates to adjustment. Therefore, we hypothesized that the process variables of planfulness, concern, and coping would relate similarly to the outcome variables of job congruence and satisfaction.

Methods

Measures

According to Crites (1982), the Career Adjustment and Development Inventory measures vocational development task coping for the establishment stage, that is, from occupational entry to midcareer. The items consist of responses to six tasks required in entering and progressing in the world of work. The six scales represent tasks to be accomplished and scale scores calibrate an individual's progress through establishment. Each scale consists of 15 items to which respondents answer true or false. The inventory has a reported KR20 of .84. The

scales and their reported KR20's follow: Position Performance (.49), Organizational Adaptation (.55), Work Habits and Attitudes (.59), Co-worker Relationships (.52), Advancement (.70), Career Plans (.60).

Crites concluded that the dimensions measured by these scales develop over time and define three discernible phases in career establishment.

There are no published norms for the CADI or published validity studies beyond Crites' initial report. Crites (1979) tested 62 men and 48 women that ranged in age from 20 to 55 with a mean age of 34.7 years. They had a mean of 14.8 years in the work force during which they held a mean number of three jobs. The CADI total score correlated .50 with the four item total score of the Hoppock Job Satisfaction Blank.

According to Super and Thompson (1981), the Adult Career Concerns Inventory measures concern with the career development tasks which characterize the vocational life stages of exploration, establishment, maintenance, and disengagement. The items consist of coping behaviors that address the tasks. Three tasks in each of the four stages are measured by a scale that consists of five items. Thus, the ACCI has 12 scales and 60 items. The respondent indicates amount of concern with each item on a five-point Likert scale that ranges from no concern (1) to great concern (5). The scores for the three scales are summed to yield a stage score. For example, summing the scale scores for the stabilizing, consolidating, and advancing tasks yields the stage score for establishment. A profile of the scale scores depicts the vocational development tasks of most concern to the individual and whether these concerns are typical of the individual's vocational life stage.

Counselors use ACCI scale scores to indicate amount of task concern and the maximum scale score to indicate focus or degree of development. The total score for all 60 items indicates amount of career planfulness. No norms are published nor were we able to find any published validity or reliability studies.

Two work adjustment variables were assessed: occupational fit and vocational satisfaction. Occupational fit was measured with the Vocational Adaptation Scale (Heath, 1976). The Vocational Adaptation Scale (VAS) measures how well a worker integrates personal needs with occupational demands to produce job fit. Participants rated each of its 28 items on a 5-point scale for degree of satisfaction (1=very dissatisfied/5=very satisfied) with how well the position or the respondent fulfilled each occupational demand or personal need. In a study of 68 professional and managerial men in their early 30's, Heath found that the VAS correlated .59 to job satisfaction, and clearly related to maturity as assessed with numerous measures of the variables in his dimensional model of maturing.

To assess job satisfaction, career satisfaction, and career optimism, participants rated (from 1 to 5) their present employment, overall career progress to date, and future career prospects. These three questions have been used by Super and Thompson in their ACCI research. In addition, participants responded to an item asking how concerned they were (from 1 to 5) with making a career change. The respondents also answered questions about their education, how many

years ago they started their first full-time job, and how many jobs they have held since then.

Research Participants

The research participants were 160 sales people (sales managers were not included) who worked for two industrial manufacturers. They were located in the major markets throughout the United States. They were selected because they formed a homogeneous occupational group that in a limited way controlled for the problem of heterogeneity of adult work experience. Also, they were similar in age, education, and years in the work force to the participants in the Crites study (1979), the Heath study (1976), and the Zelkowitz study (1975). One problem with the sample that we did not address was that nine (two in one organization and seven in the other) of the 160 salespeople were female. We did not ask respondents to identify their sex so as to protect the anonymity of respondents.

Data Collection

Potential participants were identified by the Vice President of Sales. In each organization, the Vice President informed his staff about the study during a sales meeting. Test materials were mailed to the 160 salespeople by the investigators. The packet included a cover letter, the demographic questionnaire, ACCI, CADI, VAS, and a stamped envelope addressed to the investigators. The cover letter explained that we sought to understand the changing personal and motivational needs of individuals during various stages of their sales career. Replies were anonymous. The Vice Presidents were debriefed on the

results of the study and the salespeople were sent a letter summarizing the results of the study.

Methods of Analyses

To address the hypotheses relating the CADI establishment scales to the ACCI exploration, maintenance, and disengagement scales, we intercorrelated the scales using scores on the original metric. Because of the difference in meaning between scores on the scales of the CADI and the ACCI, simple across-scale correlations cannot directly indicate whether interpretations of an individual's progress on a career maturity dimension would be the same for both measures. In other words, low across-scale correlations do not imply that the profiles of the scale scores would result in different interpretations.

We handled this problem by changing the metric of the ACCI system. Consider that the six CADI scales are designed in such a way that lower scores are expected as one moves from the first scale (organizational adaptability) to the sixth scale (career plans), i.e., a decreasing profile is expected. A total CADI score (sum of the six scale scores) can be interpreted as a measure that orders individuals by vocational development. The more tasks one has completed (the higher one's total CADI score), the further along the developmental continuum one is expected to be. In contrast, the ACCI expected profile has scales with increasing scores up to the scale that deals with the task of most concern. Scales beyond this maximum concern scale are expected to show decreasing concern scores as tasks listed in them move further along the vocational task continuum. The scale which is closest to a change in

slope in the profile (from increasing to decreasing concern scores), can be used to place an individual on the vocational task continuum. We identified this scale as the one with the maximum concern score. As is corroborated below, all twelve of the ACCI scales have high alpha measures of reliability, so that a maximum score on a particular scale should be a reliable index of the task with which a participant is most concerned. Given that the twelve scales order the tasks according to some vocational development dimension, the scale for which a subject expresses most concern can be used to order that participant on this dimension. Thus, we identified the scale on which each participant showed the maximum concern and assigned each participant a value from one to twelve, depending on the order of that scale among the twelve. With this change in metric for the ACCI we were especially interested in the correlation between the CADI total and ACCI maximum concern scale rank (MAX 12). If the two measures tap the same vocational development dimension, then we expect the ordering of subjects by CADI total score to be highly similar to the ordering obtained from the ACCI maximum concern scale.

Further work on this issue included a change in metric for each ACCI scale so that they could be interpreted in a way similar to each CADI scale. For each subject, we used the scale with the maximum concern score (MAXCON) to rescale the other eleven. The score of the maximum concern scale for an individual was set to zero. For each of the scales further along the vocational task continuum than the maximum concern scale we substituted: original scale score minus maximum scale

score; thereby generating negative scores (lower scores) for these later scales. For each of the scales earlier on the continuum than the maximum concern scale we substituted: maximum score minus original scale score; thereby generating positive scores (higher scores) for these earlier scales. With this change in metric, we expect a decreasing profile of scores, just as we do from the CADI. Correlations of the CADI scales with both the ACCI original and transformed metric scores were examined for within and between stage relations. Also, for all measures, correlations with measures of work adjustment were examined.

Results

Of the 160 people asked to participate, 134 returned materials. The return rate was 81% and 88% for the two organizations. After eliminating incomplete materials, 124 study participants were left. They had worked a mean of 16.32 years with a standard deviation of 9.0 years. They had held a mean of 4.29 jobs with a standard deviation of 2.23 jobs. With regard to education, 8.9% had completed high school, 39.8% had some college, 41.5% had a B. A., and 9.8% had an M. A. Table 1 reports the means, standard deviations, and alphas for all the variables. ACCI scale scores are in the original metric.

 Insert Table 1 About Here

The mean total score for the CADI was 72.19 (SD = 7.40) which was similar to the mean of 74.16 (SD = 7.73) reported by Crites (1979).

The CADI scale means were very similar to those Crites reported. The highest mean scores among the 12 ACCI scales were obtained on the advancement (18.03), innovating (17.66), updating (17.42), and consolidating (17.23) task scales. The VAS mean score of 106.03 (SD = 13.03) compared to 103.1 (SD = 21.4) in Heath's study. This represented an item mean of 3.79 with 4.0 being described as satisfied with one's meeting job demands and fulfilling personal needs. Based on responses to the three satisfaction questions, the participants were satisfied with ($\bar{x} = 2.97$) with their present job but slightly less satisfied with their overall career progress ($\bar{x} = 2.71$) and prospects ($\bar{x} = 2.56$). The recycling item mean of 2.53 (SD = 1.38) fell between little and some concern for the group but 14 people rated it of considerable concern and three people rated it of great concern.

As seen in Table 2, the CADI total score was unrelated to the ACCI original metric total score and stage scores for establishment, maintenance, and disengagement. The CADI total score correlated $-.38$ ($p < .001$) to ACCI exploration scale score and $-.42$ ($p < .001$) to the recycling question. Five of the six CADI scales, work habits being the exception, related significantly to the ACCI exploration stage score with the strongest association being with career plans ($r = -.41$, $p < .001$). In general, the CADI scales did not relate to ACCI establishment, maintenance, or disengagement stage scores. The 18 correlation coefficients among the six CADI scales and the three ACCI stage scores on the original metric had a mean coefficient of $-.07$. Only two were significant: organizational adaptability correlated $-.19$

($p < .05$) to maintenance and co-worker relations correlated $-.20$ ($p < .05$) to disengagement. Again, these results are difficult to interpret for establishment stage scales because of the difference in the meaning of scores on the CADI coping scores versus the ACCI concern scores.

 Insert Table 2 About Here

Table 3 provides the results for the ACCI scores changed by the methods described above. Of particular interest is the correlation between the CADI total score and the order of the scale with the maximum concern score (MAX12). The Pearson $r = .02$ with a 95% confidence interval of $(-.18, .20)$. Thus, we can be confident that the lack of a relationship is not explainable by sampling error in the correlation. For those with maximum concern (MAXCON) expressed in the exploration stage the mean CADI total score was 70.5, for those in the establishment stage the mean CADI was 72.2, for those in the maintenance stage the mean was 72.5, and for those in disengagement stage the mean was 73.6. Given the standard deviation of the CADI as 7.4, this is a small gradient. Therefore, the ordering of subjects by the CADI in terms of vocational development appears unrelated to the ordering by the ACCI.

 Insert Table 3 About Here

Recall that the change in metric designed for the ACCI scales was supposed to provide scale scores with meaning similar to those scales in

the CADI. Table 3 provides the means for these changed scores. For example, the mean for the changed Crystalization scale is 8.53. Notice that the means decrease with movement from the exploration stage to the establishment stage. This is the expected profile discussed above and follows the trend found for the CADI scale means. Correlations across CADI and changed ACCI scales are now slightly positive. Compare these to the corresponding negative correlations in Table 2. We expected to observe some convergent validity among establishment stage scales and discriminant validity between establishment and exploration, maintenance, and disengagement stage scales. No such pattern emerged.

From Table 4, the job satisfaction question correlated .63 ($p < .001$) with the VAS and .41 ($p < .001$) with the CADI total score. The further along the career development continuum, as measured by the CADI, the greater is reported job satisfaction. Job satisfaction associated strongest with the organizational adaptability scale ($r = .39$, $p < .001$). The job satisfaction question related $-.24$ ($p < .01$) to the ACCI total score on the original metric i.e., the greater overall concern the lower is job satisfaction. With regard to ACCI, job satisfaction related $-.51$ ($p < .001$) to exploration stage but was unrelated to scores for the establishment, maintenance, and disengagement scales. Job satisfaction correlated $-.52$ ($p < .001$) to the recycling item. The VAS score related $-.29$ ($p < .01$) to ACCI total score on the original metric, $-.58$ ($p < .001$) to ACCI exploration stage score, and $-.51$ ($p < .001$) to the recycling item. The VAS did not relate to scores for the ACCI establishment, maintenance, and disengagement stage scores on the

original metric. In the lower section of Table 4, correlations with the ACCI transformed scores are provided. The correlation of MAX12 with job satisfaction was not significant ($r=.16$).

Insert Table 4 About Here

Discussion

Both inventories indicated that this group of sales people averaged in the middle to late establishment stage. The CADI calibrated their average progress as having completed the early establishment tasks of position performance and organizational adaptability and the middle establishment task of work habits and attitudes. They were currently dealing with the middle establishment task of co-worker relations and the late establishment tasks of advancement and career planning. The ACCI placed the group on the whole in the late establishment stage and most concerned about the advancement task which equates conceptually with the CADI tasks of advancement and career plans. The ACCI indicated that the group still was concerned with the middle establishment task of consolidation which would include co-worker relations. The ACCI also indicated that the group was strongly concerned with the maintenance stage tasks of updating and innovating.

Although the CADI and ACCI identified the same focus or degree of development for the group, they differed at the individual level. A direct indicator that the ACCI and CADI were not measuring the same

construct is that the CADI total score did not relate significantly to the order of the maximum concern task (MAX12). Further evidence comes from the lack of a convergent and discriminant validity pattern in the correlation of the CADI to ACCI transformed or original scores. Concern with establishment, maintenance, and disengagement tasks was unrelated to establishment task mastery. The original scores indicate that concern with exploration stage tasks related to less task mastery during the establishment stage as measured by the CADI. This result coincides with the expectation that the ACCI exploration scale original scores would correlate negatively with the CADI because they were at the lower extreme of the vocational task continuum. Those workers who are still concerned about exploration tasks find it more difficult to deal with establishment stage tasks.

The above results show that the ACCI and CADI do not tap the same dimension. Establishment stage concern and coping were unrelated. We looked to each inventory's relation to work adjustment variables to understand the difference between concern and coping. Task coping and degree of development as measured by the CADI related to the work adjustment variables of job satisfaction and occupational fit. The correlations were consistent with the proposition in vocational theory that maturity relates to adjustment. The more career mature workers in task mastery were more satisfied with their jobs and more successfully integrating their personal needs with job demands. This was not true for career concern.

ACCI focus or degree of development as indicated by order of maximum concern scale (MAX12) did not relate to the adjustment variables of job satisfaction and fit. If a career maturity dimension is reflected by the type of task about which the most concern is expressed, then that dimension is unrelated to job satisfaction and fit. Amount of concern as measured by the maximum concern score (MAXCON) had low negative correlations with the adjustment variables of job satisfaction and fit. This means that amount of concern for the task of most concern relates to job maladjustment. Planfulness, as measured by the ACCI total score, also had a low negative relation to job adjustment. This relation may be attributed to the moderate relation of exploration stage concern to job fit ($r = -.58$, $p < .001$) and satisfaction ($r = -.51$, $p < .001$) because establishment, maintenance, and disengagement stage concern did not relate to these work adjustment variables. Thus, it seems that workers in the establishment vocational life stage who are still concerned with exploration stage tasks typically mastered by their peers report more job maladjustment. Concern with those tasks typically being faced or anticipated by one's peers was unrelated to adjustment.

Based on their correlations to work adjustment, we concluded that the CADI indicates degree of development but the ACCI does not. After concluding that the ACCI focus measure does not indicate degree of development, we wondered if ACCI amount of concern reflected planfulness or worry because greater maladjustment related to greater concern. We speculate that the ACCI may not always indicate the career maturity variable of planfulness or anticipatory awareness. For some clients,

planfulness (total ACCI score) may indicate worry about career issues and focus of concern (task with greatest scale score) may indicate potential coping response.

From this perspective, the ACCI scales reflect types of coping behaviors not vocational development tasks. For example, high scores (focus) on exploration stage scales of the ACCI for an adult may mean that the worker is concerned with exploratory behavior in response to a problem but is not in the exploration stage of his or her career. This interpretation of ACCI scales as types of adaptive responses rather than developmental task makes sense if one views exploratory behavior as an appropriate response for people in the exploration stage trying to crystallize a general preference, for workers entering a new career stage like establishment or maintenance as they orient to the stage's demands, for workers in the establishment stage who need to explore why they are failing to stabilize, and for recyclers who have achieved maintenance in one field but want to start over in a different field.

This interpretation of the conclusions in the present study resembles the inference drawn by Super and Knasel (1981). They reasoned that the construct of career maturation, the central process in adolescent vocational development, should not be extended to adult vocational development because readiness may not increase with age and the coping attitudes and competencies relevant to the developmental tasks of establishment, maintenance, or disengagement may not vary with age. Instead of maturation, they proposed that adaptation is the central process in adult vocational development. Adaptation emphasizes

interaction between the individual and the environment and thus shifts the focus from individual readiness and decision making to individual action relative to predictable maturational developmental tasks and unpredictable non-maturational tasks. In regard to measurement, this theoretical shift from the maturation process to the adaptation process has important implications. In measuring adolescent maturity, test constructors could assume homogeneity in the decisional tasks faced by adolescents and deal with heterogeneity in decision-making attitudes and competencies. In measuring adult adaptability, test constructors must deal with heterogeneity in tasks encountered and coping methods used. If, as this study suggests, the CADI measures developmental tasks faced and the ACCI measures coping methods used, then to measure adaptability we need both inventories. In tandem, they indicate what a person faces and how they face it. Further research should examine the construct validity and generalizability of this conclusion.

For practical purposes, at this time either inventory probably can be used to measure the degree of development of groups of establishment stage workers for survey research purposes. However, with individuals, either inventory alone may be misleading. The results of this study indicate that one cannot guess an individual's concerns from that individual's degree of development or visa versa. The counselor working to facilitate the vocational development of adult workers should distinguish what tasks a client faces from how that client is responding. Results from either inventory should be interpreted with this distinction in mind.

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TABLE 1

Means, Standard Deviations, and Coefficient
Alphas for the ACCI, CADI, VAS,
and Satisfaction Items

| | Mean | Standard Deviation | Coefficient Alpha |
|---|--------|-----------------------|----------------------|
| Adult Career Concerns Inventory (ACCI) Total | 176.74 | 43.92 | .97 |
| Exploration Stage | 38.07 | 14.54 | .95 |
| Crystallize | 12.06 | 5.16 | .90 |
| Specify | 13.14 | 5.26 | .88 |
| Implement | 13.22 | 4.96 | .86 |
| Establishment Stage | 51.15 | 13.40 | .94 |
| Stabilize | 15.65 | 5.10 | .88 |
| Consolidate | 17.23 | 5.82 | .92 |
| Advance | 18.03 | 4.45 | .87 |
| Maintenance Stage | 49.94 | 13.25 | .95 |
| Hold On | 15.07 | 5.02 | .89 |
| Update | 17.42 | 4.77 | .91 |
| Innovate | 17.66 | 4.66 | .93 |
| Disengagement Stage | 39.97 | 11.95 | .92 |
| Decelerate | 12.73 | 3.97 | .77 |
| Retirement Planning | 13.70 | 4.73 | .89 |
| Retirement Living | 13.84 | 5.39 | .91 |
| Career Adjustment and Development Inventory (CADI) Total | 72.19 | 7.40 | .82 |
| Organizational Adaptability | 13.97 | 1.53 | .65 |
| Position Performance | 12.98 | 1.57 | .53 |
| Work Habits and Attitudes | 12.75 | 1.63 | .54 |
| Coworker Relations | 10.78 | 1.82 | .52 |
| Advancement | 10.81 | 2.24 | .59 |
| Career Plans | 10.90 | 2.12 | .49 |
| Vocational Adaptation Scale (VAS) Total | 106.03 | 13.03 | .92 |
| Job Satisfaction Item | 2.97 | .81 | |
| Career Progress Item | 2.71 | .86 | |
| Career Prospects Item | 2.56 | .99 | |
| Recycle Concern Item | 2.53 | 1.38 | |

TABLE 2

Correlations Between the Adult Career Concerns
Inventory (ACCI) and the Career Adjustment and
Development Inventory (CADI)

| | CADI Total | Organizational Adaptability | Position Performance | Work Habits and Attitudes | Co-Worker Relations | Advancement | Career Plans |
|---------------------|---------------|--------------------------------|-------------------------|------------------------------|------------------------|-------------|-----------------|
| ACCI Total | -.13 | -.13 | -.04 | -.06 | -.15 | -.02 | -.14 |
| Exploration Stage | -.38 | -.33 | -.22 | -.14 | -.28 | -.19 | -.41 |
| Crystallize | -.40 | -.31 | -.21 | -.19 | -.28 | -.21 | -.43 |
| Specify | -.36 | -.30 | -.13 | -.11 | -.32 | -.18 | -.39 |
| Implement | -.30 | -.32 | -.17 | -.04 | -.23 | -.16 | -.28 |
| Establishment Stage | -.09 | -.16 | -.04 | -.03 | -.11 | -.04 | .00 |
| Stabilize | -.17 | -.19 | -.12 | -.09 | -.17 | -.08 | -.08 |
| Consolidate | -.04 | -.06 | -.08 | -.03 | -.10 | -.03 | -.04 |
| Advance | -.02 | -.16 | -.09 | .05 | -.05 | -.02 | -.02 |
| Maintenance Stage | -.11 | -.19 | -.03 | -.07 | -.13 | -.08 | -.01 |
| Hold On | -.10 | -.10 | -.07 | -.08 | -.17 | -.04 | .03 |
| Update | -.11 | -.21 | -.03 | -.02 | -.12 | -.04 | -.03 |
| Innovate | -.11 | -.23 | .04 | -.06 | -.09 | -.11 | -.03 |
| Disengagement Stage | -.10 | -.06 | -.01 | -.09 | -.20 | -.01 | -.06 |
| Decelerate | -.17 | -.14 | -.13 | -.12 | -.22 | -.07 | -.05 |
| Retirement Planning | -.10 | -.03 | -.01 | -.08 | -.20 | -.03 | -.06 |
| Retirement Living | -.10 | .03 | .14 | -.02 | -.15 | .04 | -.05 |

$p < .05 = .18$

$p < .01 = .23$

$p < .001 = .29$

TABLE 3

Correlations Between Transformed Adult Career Concerns Inventory (ACCI) Scores
and Career Adjustment and Development Inventory (CADI) Scores

| | CADI Organizational Total Adaptability | Position Performance | Work Habits and Attitudes | Co-Worker Relations | Advancement | Career Plans | Mean |
|-----------------------------------|---|-------------------------|------------------------------|------------------------|-------------|-----------------|-------|
| ACCI Total | .15 | .13 | -.01 | .12 | .02 | .20 | |
| Exploration Stage | .21 | .11 | .07 | .15 | .08 | .33 | |
| Crystallize | .28 | .17 | .16 | .18 | .12 | .37 | 8.53 |
| Specify | .15 | .04 | .05 | .12 | .06 | .28 | 6.90 |
| Implement | .11 | .07 | -.02 | .08 | .02 | .21 | 6.22 |
| Establishment Stage | .12 | .15 | -.08 | .20 | -.05 | .14 | |
| Stabilize | .16 | .17 | -.04 | .16 | .02 | .21 | 3.32 |
| Consolidate | .09 | .15 | -.10 | .22 | -.12 | .11 | 2.01 |
| Advance | .05 | .07 | -.09 | .15 | -.05 | .04 | -.26 |
| Maintenance Stage | .00 | .01 | -.08 | .08 | -.08 | .04 | |
| Hold On | .00 | -.01 | -.05 | .11 | -.09 | .03 | -2.02 |
| Update | -.01 | -.01 | -.08 | .04 | -.09 | .07 | -1.84 |
| Innovate | -.00 | .07 | -.10 | .02 | .00 | .00 | -2.29 |
| Disengagement Stage | .09 | -.07 | .06 | -.08 | .08 | .03 | |
| Decelerate | .03 | -.02 | .00 | -.10 | .05 | .02 | -6.79 |
| Retirement Planning | .08 | .06 | .07 | -.05 | .07 | .02 | -7.12 |
| Retirement Living | .13 | .16 | .09 | -.06 | .11 | .03 | -7.39 |
| Maximum Concern Rank (MAX12) | .02 | .10 | -.16 | .11 | -.03 | .02 | |
| Maximum Concern Score (MAXCON) | -.15 | -.04 | -.09 | -.11 | -.09 | -.09 | |

$p < .05 = .18$

$p < .01 = .23$

$p < .001 = .29$

TABLE 4

Correlation of Vocational Development Measures to
Job Satisfaction Measures

| | Vocational Adaptation Scale | Present Satisfaction Item | Progress Satisfaction Item | Prospects Satisfaction Item | Recycle Concern Item |
|--------------------------------|-----------------------------------|---------------------------------|----------------------------------|-----------------------------------|----------------------------|
| CADI Total | .59 | .41 | .37 | .39 | -.42 |
| Organizational Adaptability | .52 | .39 | .30 | .34 | -.35 |
| Position Performance | .28 | .20 | .06 | .02 | -.13 |
| Work Habits & Attitudes | .26 | .14 | .17 | .16 | -.22 |
| Co-Worker Relations | .40 | .25 | .23 | .28 | -.36 |
| Advancement | .48 | .34 | .35 | .39 | -.30 |
| Career Plans | .44 | .31 | .34 | .33 | -.31 |
| ACCI Total | -.29 | -.24 | -.14 | -.13 | .45 |
| Exploration Stage | -.58 | -.51 | -.34 | -.26 | .58 |
| Establishment Stage | -.17 | -.14 | -.15 | -.04 | .25 |
| Maintenance Stage | -.16 | -.15 | -.18 | -.14 | .34 |
| Disengagement Stage | -.04 | .00 | -.02 | -.12 | .21 |
| Transformed ACCI Total | .32 | .29 | -.09 | .04 | -.16 |
| Transformed Exploration | .33 | .30 | .14 | .06 | -.22 |
| Transformed Establishment | .06 | .18 | -.04 | -.08 | -.10 |
| Transformed Maintenance | .08 | .05 | .00 | -.02 | .06 |
| Transformed Disengagement | .23 | .24 | .11 | .13 | -.17 |
| Maximum Concern Rank (MAX12) | .09 | .16 | .05 | -.04 | -.05 |
| Maximum Concern Score (MAXCON) | -.26 | -.22 | -.17 | -.18 | .35 |
| Vocational Adaptation Scale | 1.00 | .63 | .42 | .52 | -.51 |

$p < .05 = .18$ or more

$p < .01 = .23$ or more

$p < .001 = .29$ or more

CAREER ADJUSTMENT AND DEVELOPMENT INVENTORY

Progress in your career depends upon many factors, some situational and others personal. Among the latter are your attitudes toward work, your view of your job and your development in pursuing your career. This inventory consists of statements about these aspects of career which may be valuable in your future planning and progress.

Directions: If you AGREE or mostly agree with the following statements about your work, mark the space for "True" on your answer sheet. If you DISAGREE or mostly disagree with the statements, mark "False" on your answer sheet. Please do not make stray marks on the answer sheet.

1. The job I'm doing is the only one I really know anything about.
2. I try to do the best job I can.
3. I'd rather my boss told me what to do than plan my work myself.
4. Besides my boss, I have little idea of who runs the company.
5. I think I'm in the best work there is for me.
6. I often think about changing my job.
7. I feel confident most of the time about how well I can do my job.
8. I don't know if I'm in the right job for me or not.
9. Getting ahead on the job is mostly a matter of chance.
10. Even if my job changes, I feel I can go along with it.
11. I feel close to the people and company where I work.
12. I know who to go to for something I want at work.
13. I don't think of myself as part of the company.
14. I like to set up and schedule my own work.
15. I forever seem to be doing something that's against the company rules.
16. I have a plan for where I want to be in my job five years from now.
17. I want my job to stay the same.
18. I only work because I have to.
19. I seldom talk with others at work.
20. I read the classified ads for other job opportunities.
21. Doing a good job is very important to me.
22. I seldom think about what I'll be doing in the future.
23. I eat lunch with friends at work.
24. I pretty much go along with what the company expects of me.
25. I only do what's expected of me—nothing more.
26. I have a pretty good idea of how much my company makes in a year.
27. Most of my friends are not where I work.
28. I have little or no idea of what I have to do to get promoted.
29. I do as well as I have to on my job to keep it.
30. I don't know my way around where I work.
31. I check the position postings to see what opportunities there are where I work.
32. I don't know what's expected of me socially on the job.
33. I plan to take additional training so I'll have a better chance of getting promoted.
34. Some of my best friends are at work.
35. Work is important to me as a way of life.
36. I often question whether I have the ability to get ahead in my work.
37. I only work to get the things I want.
38. I like to be left alone at work.
39. I've talked with my boss about what I have to do to get promoted.
40. I go out with friends from work.
41. I try to find out what my company's policies and procedures are.
42. I may get promoted but there's not much I can do about it.

43. As far as I'm concerned, it's either the company or me.
44. I get into arguments with others I work with.
45. I feel good when I do my work well.
46. I look forward to seeing my friends at work.
47. I feel that others think I do a good job.
48. I wish I had more friends at work.
49. I feel I have what it takes to get ahead in my job.
50. It's hard for me to change what I'm doing even when told to.
51. I really want to become specialized in my job.
52. I feel like I don't know how my job fits into the "big picture."
53. I think I'm as good as others who have been promoted in my job.
54. I usually have to ask somebody where things are and how to use them in my job.
55. If I have a problem on the job, I know who to see about it.
56. I use what I learned in school on my job.
57. I'll probably be doing the same thing twenty years from now.
58. The training I'm getting doesn't seem to have anything to do with my job.
59. I feel others like me where I work.
60. I admit mistakes I make in my work.
61. I feel that others at work don't like me.
62. I know what to do, and how to do it, to be promoted.
63. I can see how my work fits into what the company is doing.
64. I feel "left out" of what's going on where I work.
65. It's important to me to be as good as I possibly can in my job.
66. I feel I chose the wrong line of work.
67. I often feel others have it in for me where I work.
68. Sometimes it's seniority rather than merit that pays off in getting promoted.
69. It upsets me when they change the work I'm supposed to do.
70. I feel the company has the right to expect me to behave in certain ways on the job.
71. I have a hard time doing the best I can in my job.
72. I feel pretty good about the career I chose for myself.
73. I enjoy having friends at work.
74. I'm confused about what I have to do to get promoted.
75. If I didn't work, I don't know what I'd do with myself.
76. I don't think my company cares about me, or how I get along.
77. What I learned in school has helped me do well on my job.
78. I wish I knew where I was headed in my career.
79. I try to avoid others where I work.
80. You have to do the right things to get ahead.
81. I feel like I'm a part of the company where I work.
82. If something goes wrong on the job, it's usually somebody else's fault.
83. I have a good idea of how I can advance in this company and what the opportunities are.
84. I don't understand what my on-the-job training has to do with my work.
85. It's not what you know but who you know that's important in getting ahead in this company.
86. I get along well with others where I work.
87. My career plans for the future are uncertain.
88. I'm still learning how to do my job.
89. I like to plan my own work.
90. I feel lost where I work.

OPEN-ENDED QUESTIONS

Directions: Listed below are several typical job situations in which problems arise. If you were the worker, how would you handle the situation? Briefly describe what you would do or say in the space provided.

91. When Mark's supervisor said, "Look, we'll do it my way and that's all I want to hear about it," Mark said...

92. Reprimanded by his boss for being absent and late too much, Frank...

Individual Analysis of Career Concerns

 Consulting Psychologists Press, Inc.
577 College Avenue • Palo Alto, CA 94306

NAME _____ DATE _____

The ACCI can be self-scored to yield a profile based on the clusters of career development tasks of most concern to you. The procedures for self-scoring and profile analysis are as follows:

1. On the Career Concerns Chart below, enter the distribution of ratings for each of the groups of 5 items in each sub-stage. For example, if for items 1 to 5, you marked 1 for two items, 2 for two items, and 3 for one item, you would enter those numbers in the appropriate spaces on the Crystallization line.
2. Then compute the average score for the sub-stage by dividing the weighted sum by the number of items in the group. For the above example, the weighted sum would be $2+4+3=9$, divided by 5, equals 1.8. Enter the weighted sum and average in the appropriate columns. Follow the same procedure for each sub-stage and stage.

3. Encircle the number of the response you chose for Item 61.
4. Plot your Career Stage Profile below by marking with an X on the appropriate line the location of each of the four stage averages, i.e., Total Exploration, Total Establishment, Total Maintenance, and Total Disengagement. Connect the four X's to form a profile of your current concerns.

5. Record for each substage the number of items rated either 4 or 5, to show clustering of your major current concerns, and to help interpret stage and substage averages. In interpreting these numbers, refer to the substage averages on the Career Concerns Chart.

More detailed suggestions for interpretation of ACCI results can be found in the Guide for ACCI Analysis, which can be obtained from Consulting Psychologists Press.

CAREER CONCERNS CHART

| Items | Career Concerns | Amount of Current Concern | | | | | Weighted Sum | Average | Amount of Current Concern | | | | | Number of Concerns Rated | |
|-------------------------------|----------------------|---------------------------|--------|------|-------|---------------------|--------------|---------|---------------------------|--------|------|-------|-------|-------------------------------|-----------|
| | | None | Little | Some | Cons. | Great | | | None | Little | Some | Cons. | Great | 4 (Considerable) or 5 (Great) | Substages |
| A: EXPLORATION STAGE | | | | | | | | | | | | | | | |
| 1-5 | Crystallization | | | | | | | | | | | | | | |
| 6-10 | Specification | | | | | | | | | | | | | | |
| 11-15 | Implementation | | | | | | | | | | | | | | |
| 16-15 | TOTAL EXPLORATION | | | | | | | | | | | | | | |
| B: ESTABLISHMENT STAGE | | | | | | | | | | | | | | | |
| 16-20 | Stabilizing | | | | | | | | | | | | | | |
| 21-25 | Consolidating | | | | | | | | | | | | | | |
| 26-30 | Advancing | | | | | | | | | | | | | | |
| 31-30 | TOTAL ESTABLISHMENT | | | | | | | | | | | | | | |
| C: MAINTENANCE STAGE | | | | | | | | | | | | | | | |
| 31-35 | Holding | | | | | | | | | | | | | | |
| 36-40 | Updating | | | | | | | | | | | | | | |
| 41-45 | Innovating | | | | | | | | | | | | | | |
| 46-45 | TOTAL MAINTENANCE | | | | | | | | | | | | | | |
| D: DISENGAGEMENT STAGE | | | | | | | | | | | | | | | |
| 46-50 | Deceleration | | | | | | | | | | | | | | |
| 51-55 | Retirement Planning | | | | | | | | | | | | | | |
| 56-60 | Retirement Living | | | | | | | | | | | | | | |
| 46-60 | TOTAL DISENGAGEMENT | | | | | | | | | | | | | | |
| 61 | CAREER CHANGE STATUS | 1 | 2 | 3 | 4 | 5 (Circle Response) | | | | | | | | | |

CAREER STAGE PROFILE

Crystallization
Specification
Implementation

Stabilizing
Consolidating
Advancing

Holding
Updating
Innovating

Deceleration
Retirement Planning
Retirement Living

Adult Career Concerns Inventory

Developed by Drs. D.E. Super, A.S. Thompson, R.H. Lindeman, R.A. Myers,
and J.P. Jordaan, at Teachers College, Columbia University

This inventory consists of 61 statements of career concerns. How strong are these concerns at this point in your career? Rate each statement according to the following scale. Record your answers on the separate answer sheet, by blackening the appropriate numbered circle, using a #2 pencil. Please answer every item including number 61 which asks about your career change plans.

- | | | | | |
|---------------|-------------------|-----------------|-------------------------|------------------|
| 1. No Concern | 2. Little Concern | 3. Some Concern | 4. Considerable Concern | 5. Great Concern |
|---------------|-------------------|-----------------|-------------------------|------------------|
1. Clarifying my ideas about the type of work I would really enjoy.
 2. Deciding what I want to do for a living.
 3. Finding the line of work I am best suited for.
 4. Learning about beginning jobs that might be open to me.
 5. Identifying the skills required for jobs that interest me.
 6. Choosing the best among the occupations I am considering.
 7. Choosing the most challenging job among those that interest me.
 8. Finding a line of work that really interests me.
 9. Making sure of my occupational choice.
 10. Choosing a job that will really satisfy me.
 11. Getting started in my chosen occupational field.
 12. Deciding how to qualify for the work I want to do.
 13. Meeting people who can help me get started in my chosen field.
 14. Finding opportunities to do work that I really like.
 15. Making specific plans to achieve my current career goals.
 16. Settling down in a job I can stay with.
 17. Making a place for myself where I work.
 18. Doing things to help me stay in the field in which I have started.
 19. Achieving stability in my occupation.
 20. Getting established in my work.
 21. Consolidating my current position.
 22. Developing a reputation in my line of work.
 23. Becoming a dependable producer.
 24. Becoming especially knowledgeable or skillful in my work.
 25. Winning the support of my employer, colleagues, or clients.
 26. Planning how to get ahead in my established field of work.
 27. Improving my chances of advancement in my current occupation.
 28. Doing the things that make people want me in my work.
 29. Finding ways of making my competence known.
 30. Advancing to a more responsible position.
 31. Maintaining the occupational position I have achieved.
 32. Holding my own against the competition of new people entering the field.
 33. Adapting to changes introduced since I got established in my occupation.
 34. Keeping in tune with the people I work with.
 35. Keeping the respect of people in my field.
 36. Keeping up with new knowledge, equipment, and methods in my field.

37. Attending meetings and seminars on new methods.
38. Visiting places where I can see new developments.
39. Getting to know important people in my field.
40. Getting refresher training to keep up.
41. Identifying new problems to work on.
42. Finding out about new opportunities as my field changes.
43. Deciding what new fields to open up or develop.
44. Developing new skills to cope with changes in my field.
45. Developing new knowledge or skills to help me improve in my work.
46. Developing easier ways of doing my work.
47. Concentrating on things I can do as I get older.
48. Cutting down on my working hours.
49. Avoiding occupational pressures I formerly handled more easily.
50. Developing more hobbies to supplement work interests.
51. Finding activities I would like in retirement.
52. Planning well for retirement.
53. Making sure I can have a good life when I retire.
54. Talking to retired friends about retirement and adjustments.
55. Setting aside enough assets for retirement.
56. Having a good place to live in retirement.
57. Having a good life in retirement.
58. Having friends I can enjoy in retirement.
59. Making good use of free time that comes with retirement.
60. Doing things I have always wanted to do but never had time for.
61. After working in a field for a while, many persons shift to another job for any of a variety of reasons: pay, satisfaction, opportunity for growth, shut-down, etc. When the shift is a change in field, not just working for another employer in the same field, it is commonly called a "career change." Following are five statements which represent various stages in career change. Choose the one statement that best describes your current status, and mark the number on the answer sheet.
 1. I am not considering making a career change.
 2. I am considering whether to make a career change.
 3. I plan to make a career change and am choosing a field to change to.
 4. I have selected a new field and am trying to get started in it.
 5. I have recently made a change and am settling down in the new field.