Effective Career Counselling: Relationship Between Work Personality, Learning Style and Client Intervention Preferences

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Abstract

Determining client preference regarding the structure and approach to the career counselling intervention could be expected to benefit the counselling relationship, especially when working with clients who are resistant to typical intervention approaches. A process is proposed that seeks to provide offenders with a choice between two approaches to group career counselling, one that is action-oriented and a second that is grounded in self-reflection. This study focused on the development of an assessment tool that included work personality and learning style in the process of determining the individual's preference for career counselling. This instrument, the Career Counselling Preferences Questionnaire (CCPQ), along with Holland's Self-Directed Search (SDS-E) and Kolb's Learning Style Inventory (LSI) was administered to 60 inmates, parolees, and probationers to investigate these inter-correlations and to determine the validity of the CCPQ in assessing preferences for counselling structure. Four Holland types, Artistic, Investigative, Social and Enterprising, were found to be positively correlated with a "thinking" approach to career intervention. The Social type was found to be additionally correlated with a "doing" approach. The Realistic Holland type, accounting for the largest portion of the sample, was found to be not significantly correlated with either approach, as was the Conventional type. In addition, all six Holland types produced by the CCPQ were strongly correlated with results of the SDS-E. The CCPQ "thinker" construct was supported with a positive correlation to the LSI Abstract Conceptualization score. These results are discussed as per the potential benefits of a dual approach that creates a space for emerging career counselling approaches such as constructivism in the correctional system.

Introduction

There are many services today that provide career counselling and employment skills related training. However, consideration may be lacking as to a systematic means of discerning client preferences in career counselling (Niles, 1993; Galassi, Crace, Martin, James & Wallace, 1992).

The determination of client preference and subsequent application of this information to the choice of career counselling strategy could be expected to proffer certain benefits. This may be especially true when working with clients who are resistant to typical intervention approaches. One such group commonly identified for this characteristic is offenders. In the field of offender rehabilitative services, increasing client responsivity to treatment is considered to be a key component of effective intervention in terms of reducing recidivism (Andrews, Zinger, Hoge, Bonta, Gendreau & Cullen, 1990; Bonta, 1997). This may be witnessed through the reduction of client resistance as is often characterized in correctional counselling interventions by absenteeism, failure to complete homework assignments, disengagement in discussions, argumentativeness and apathy. Accommodating preference for approach may result in a client who is more engaged in a process that has greater meaning and, as a result, who is more positively affected by it. In fact, the importance of client expectations has been a major research focus in psychotherapy for over 40 years but it has

received little attention in the area of career counselling (Galassi et. al., 1992)

The use of a work personality typology such as Holland's (1966, 1973, 1985) to explore relationships between client personalities and career counselling interventions has received historical as well as recent support (Riverin-Simard, 1999; Boyd and Cramer, 1995; Niles, 1993; Rosenberg and Smith, 1985). Holland developed six basic personality types: Realistic, Investigative, Artistic, Social, Enterprising and Conventional (RIASEC) and argued that people tend to affiliate with and be most like one, two or three of the types. Rosenberg and Smith (1985) developed six strategies for career counselling based on these Holland types. They claimed that realistic types would prefer a hands-on approach, investigative types a problem-solving approach, artistic types a low structured approach, social types a highly verbal approach, enterprising types a challenging approach and conventional types a highly structured approach. Niles (1993) explored this concept further in a sample of undergraduate students and found support for parts of this theory. More specifically, realistic and enterprising males preferred congruent career counselling environments, but results were less conclusive for the other typologies.

Boyd and Cramer (1995) in examining this theory, explored four aspects of client preferences as they related to Holland type: the framework of the counselling intervention, career aspirations, the process of decision-making, and counselor characteristics. Overall, support was found for the desirability of considering client personality type when devising a career counselling intervention. In particular, in looking at the

framework of counselling variable, a significant difference was found between the social and realistic types, with the enterprising types responding similarly to social types and conventional types most similarly to the realistic types.

Riverin-Simard (1999) has also suggested that distinctly different career counselling approaches should be provided to clients based on their Holland typology. She proposes that individuals tend towards one of two opposite poles, that of being and doing. More specifically, the pole of "being" describes clients who must first clarify who they are (or have become) in order to deal with the career dilemma they face and that three of Holland's occupational typologies (artistic, social, enterprising) share this pole. Their preferred counselling approach would seek to help them redefine themselves through examination of their personal assets, qualities of their being that make them act and motivate them in vocational activities. On the opposite side, Riverin-Simard suggests that the pole of "doing" describes clients who emphasize what they produce rather than who they are and is represented mainly by Holland's other three typologies (Realistic, Investigative, Conventional). Accordingly, their preferred approach would assist self-definition through acting and doing. Therefore, the first intervention priority should be to get them to act; to accomplish and do

A review of the literature on learning styles (Dunn, 1996; Hewitt, 1995; Simms and Sims, 1995; Dunn and Griggs, 1995; Reiff, 1992; Keefe, 1987; Gregorc, 1979; Messick & Assoc., 1976; Witkin, 1976; Kagan, 1965; Myers, 1962; Jung, 1921) provides support to the concept that adapting intervention strategies to the preferences of the 'learner' (client), will increase the likelihood there will be a positive learning or teaching experience and that client responsivity will be enhanced. Kolb's (1984) experiential learning model is useful in identifying adult learning styles and this information can then be used to modify the approach taken in a career counselling intervention. Kolb maintains there is a four stage cycle of learning that is structured around two dimensions of learning style: concrete experience versus abstract conceptualization (taking in experience) and reflective observation versus active

experimentation (dealing with experience). Kolb proposes that the most effective learners have competencies in and use all four stages when learning. However, some learners are more comfortable with a particular stage and prefer this approach, often skipping other stages.

Using Kolb's (1999) Learning Style Inventory (LSI) that contains 12 sentence stems, each having four completers that are rank ordered by the test-taker to determine the client's preferred way of taking in experience (concrete experience versus abstract conceptualization), will provide an additional assessment of preferred approach to career counselling. This additional measure will provide a means of evaluating the relationship between an individual's preferred counselling strategy and their Holland code as postulated by Riverin-Simard above.

This research was designed to explore the career counselling preferences of a representational sample of Newfoundland offenders. A career counselling preferences questionnaire was designed to provide an assessment tool for career counselors working with this population. Through a comparison of responses on this questionnaire to responses on two standardized and validated instruments that identify work personality by Holland code (Holland, 1985) and learning style (Kolb, 1984), the ability of this questionnaire to accurately identify these indicators for counselling preferences can be established. In effect, clients demonstrating a propensity towards an abstract conceptualization learning style were predicted to be more responsive to a self-reflective approach to career counselling than those who preferred to learn through concrete experience. Additionally, this preference for a reflective, less-structured approach was also expected to exist more frequently in artistic, social and enterprising Holland types in comparison to realistic, investigative and conventional Holland types. The degree of correlation of responses to items on the career counselling preferences questionnaire developed for this study with Holland code and Kolb's learning style could result in a new way of approaching career counselling that reduces resistance and increases client responsivity to the intervention, thus increasing effectiveness of the counselling strategy.

Method

Subjects

The subjects were 60 adult, male offenders selected by means of a stratified random sampling procedure. The sample represented all Federal and Provincial Parolees residing on the Avalon peninsula of Newfoundland, all inmates of Her Majesty's Penitentiary and Salmonier Correctional Institute, and all clients (excluding females and lowrisk males) under supervision of the Corrections and Community Services office in St. John's. This last group included individuals on electronic monitoring, a conditional sentence or under a probation order. The average age of participants was 33 years. The group aged 20 to 29 years accounted for 48% of all participants. The majority of participants were single (60%), currently living in the community in a non-halfway house setting (60%), and were unemployed (72%) at the time of interview. The level of education of the participants ranged from grade 5 to university graduate, with an average of grade 10.

Instruments

The Self-Directed Search, Form E (SDS-E) is based on and developed from John Holland's well established theory (Holland, 1966, 1973, 1985) that links personality with occupational choice. The six personality types (RIASEC) are matched by six types of work-place environments on the assumption that these environments can be classified according to their demands and that people seek out work settings where there are others like themselves who share their interests and skills (Diamond, 1998). The SDS instrument seeks to estimate the test-taker's similarity to these six types by exploring experiences and competencies.

The SDS-E assessment booklet contains 192 items and can be administered in 20 to 40 minutes. The Form E (easy) was selected because of it's applicability to a special client group, that is, adults with low education. Form E was specifically designed for adults (and adolescents) with as low as a grade four reading level.

Internal reliability of the SDS scales is moderate: KR 20's for the six scales ranging from .67 to .94 (Holland, 1991). Comparisons of the internal consistency

between the 1985 and 1990 revision was examined by Ciechalski (1998) and found to be high (Cronbach's alpha above .95). The retest reliability of the SDS summary scales are reported in the manual to also be favourable (.81 to .92).

The Learning Style Inventory (LSI) was developed from David Kolb's (1984) experiential learning model that holds there is a four stage cycle of learning that is structured around two dimensions of learning style: concrete experience versus abstract conceptualization (taking in experience) and reflective observation versus active experimentation (dealing with experience). The cycle is thought to follow a sequence that begins with concrete learning experiences, and moves to reflective experiences where the focus is building meaning and structured understanding. It then progresses to abstract experiences where theory building and logical analysis of ideas are central and ends with active experimentation experiences where application of what has been learned to real life occurs. Kolb proposes that the most effective learners have competencies in and use all four stages when learning. However, some learners are more comfortable with a particular stage and prefer this approach, often skipping or not moving into other stages.

The Learning Style Inventory (LSI) has been developed by Kolb (1999) to help individuals assess their modes of learning and learning styles (Murphy et al., 1999). The LSI contains 12 sentence stems, each having four completers which are rank ordered from four to one by the test-taker. Four is assigned to the completer with the stem that best characterizes the participant's learning style and one is assigned to the least. Reliability testing carried out since introduction of the first version in 1981 found the instrument to be rated as "strong in regard to reliability and fair in terms of validity" (Hickcox, 1995, p.34). Gregg (1989) in his review of this instrument, stated that the reliability of the LSI showed good internal reliability using Cronbach's Alpha but that further research is required to answer questions of validity.

The Career Counseling Preferences Questionnaire (CCPQ) was designed for this study to assess offender's preferences for career counseling interventions. The questionnaire contained 50 statements that require the respondent to indicate their level of agreement or disagreement with each statement on a six point Likert Scale. A six point scale was used in order to eliminate a middle answer. The response choices range from "strongly disagree" to "strongly agree". A total of 50 items were developed in five categories that were considered significant to the determination of career counseling preference. The first two categories, the importance of work and the perceived need for counseling, contain five items each and were designed to assess the client's motivation to engage in the workforce and to engage in a career counseling intervention. The third category, group versus individual counseling preference, contains four items which allow the client to indicate which of these two basic approaches are preferable. The fourth category contains 24 items that were constructed to assess client preferences for active (doing) versus reflective (thinking) approaches to career counseling. The final category of 12 items was developed to provide referencing to the six Holland types in order to investigate the questionnaire's ability to detect differentiated Holland personalities through correlations with responses on the SDS-E.

Development of the 50 items took place over several months and involved numerous revisions. As items were added to the questionnaire they were evaluated for literacy-level and face validity by two experienced career counselors who work with offenders. Once the total group of 50 items was obtained, the items were intermixed throughout the questionnaire and adjustments were made to allow reverse scoring on approximately half of the items. This original draft of the questionnaire was reviewed for wording, item construction, face validity and instrument structure by several individuals wellversed in career counseling and research design. Subsequent drafts were then produced as these revisions were incorporated into the design of the instrument.

In order to determine that the items addressed the theories they were designed to address, a "back translation" procedure similar to that used by Boyd and Cramer (1995), was employed. This process is thought to increase validity and involved five judges assigning the items back to the five categories from which they originated. Three of the judges were correctional workers familiar with career counseling and Holland's

theory and the other two judges were graduate students trained in career counseling and familiar with the population.

Finally, the CCPQ was pilot tested with offenders to obtain their overall impressions of the instrument as well as an item by item critique. This review attempted to determine readability of each item, their comprehension of the items, their explanation of choices on each item and their sense of face validity. Final revisions were made to alleviate any ambiguities or difficulties encountered.

Interview Process

All participants who had been selected for inclusion in the study sample were contacted by phone or in person. A general description of the study was provided which included a brief summary of the three instruments involved. Potential participants were informed that participation was completely voluntary and anonymous and that refusal to participate would not be reported to their supervisory agency (parole or probation officer). If the individual agreed to participate, an appointment was made for the instruments to be administered at a time convenient for the participant.

Each participant met individually with the researcher in a either private interview room in the prison (for those incarcerated) or in a counseling room of the John Howard Society's C-STEP program in St. John's. This setting was chosen to provide consistency for instrument administration, it's central location and because of the positive client perception of this agency as an offender advocacy organization. The initial part of the meeting was used to describe the purpose of the study, the procedure involved and to answer any questions the participant had. The consent form was then reviewed and signed. The three instruments were administered in the order of the CCPQ first, followed by the LSI and finally the SDS-E. The participant was encouraged to take their time and ask questions if unsure of anything. The researcher moved out of the participant's vision but remained within earshot in case assistance was requested. Responses on each instrument were checked for errors or missed items before the interview ended. This meeting lasted approximately 40 -60 minutes per participant.

Results

The majority of participants were found to be unemployed, repeat offenders who had not received any form of career counselling previously. Over 70% have been imprisoned at some time, almost 40% for more than two years. The most common Holland personality was found to be the Realistic type in this sample, as indicated by results of both the SDS-E and the CCPQ. Reliability of

the SDS-E was found to be .80 and higher, while reliability of the other standardized instrument used in the study, the LSI, was lower (alpha of .33 to .71). The study-designed instrument, the CCPQ, was found to produce reliability alphas ranging from .41 to .76 for this sample.

Strong positive correlations were found between the SDS-E and the CCPQ on each of the six Holland typologies, suggesting a role for the CCPQ in screening for work personality (Table 1). The CCPQ also indicated that the majority of participants perceived a need for career counselling, but that approximately half preferred neither group nor individual interventions, the remainder equally split in their preferences for these two approaches. The only Holland typology found to be correlated with the group/individual preference was the Social type, showing a negative correlation with individual career counselling (r = -.266, p<.05).

TABLE 1

CCPQ and SDS-E Inter-correlations (RIASEC)

	CCPQ R	CCPQ I	CCPQ A	CCPQ S	CCPQ E	CCPQ C
	SDS-E R	SDS-E I	SDS-E A	SDS-E S	SDS-E E	SDS-E C
Pearson	604***	.343**	402**	.548***	.534***	.423**
Sig. level	000.	.009	.130	.000	.000	.001**

p<.01 ***p<.001

The Thinker construct of the CCPQ was found to be significantly and positively correlated with four of the Holland types, Artistic, Social, Enterprising and Investigative, as displayed in Table 2. The Doer construct, however, was found

to be correlated with only the Social typology. The Realistic and Conventional Holland types were not found to be significantly correlated with either of these constructs. Approximately 25% of the sample were found to be 'Thinkers'. An

unexpected finding was a positive correlation between the Thinker and Doer scores on the CCPQ (r = .33, p<.05) suggesting the possibility that another construct may be involved in the explanation of these findings.

TABLE 2
CCPQ Thinker/Doer and SDS-E correlations (RIASEC)

	R	I	A	S	E	С
CCPQ Thinker						
Pearson	066	.387**	.423**	.347**	.270*	.130
Sig. level	.639	.003	.002	.009	.046	.354
CCPQ Doer						
Pearson	011	.126	.081	.282*	.006	009
Sig level	.937	.350	.560	.034	.965	.947

Results from the LSI showed a positive correlation (r = .33, p<.05) between the abstract score (AC) and the CCPQ Thinker score. Interestingly, the LSI AC score was also positively correlated with the Investigative typology (r = .35, p<.01) supporting the finding of this Holland type's affinity to the Thinker construct.

Table 3 displays the findings of the relationship between scores on the

Holland Self-Directed Search (SDS-E) and scores on the Kolb Learning Style Inventory (LSI) in this offender population. Six significant correlations were found. The Investigative score for participants was found to be positive correlated with the Abstract Conceptualization score (r = .35, p<.01) as well as the Abstract - Concrete (AC - CE) score (r = .30, p<.05) and negatively correlated with the Active Experimentation score (r

= -.36, p<.01). The SDS-E Artistic score for participants was negatively correlated with their Reflective Observation score (r = -.28, p<.05). Finally, participants'score for Holland's Conventional typology was found to be negatively correlated with their Active Experimentation score (r = -.33, p<.05) and their Active - Reflective (AE - RO) score (r = -.29, p<.05).

TABLE 3
SDS-E and LSI Inter-correlations

	CE	RO	AC	AE	AC - CE	AE - RO
R Pearson	197	.130	015	.084	.088	019
Sig. level	.145	.340	.910	.536	.521	.888
Pearson	104	.051	.346**	355**	.296*	254
Sig. level	.437	.706	.008	.006	.024	.054
A Pearson	.077	275*	.132	128	.055	.067
Sig. level	.578	.042	.337	.353	.692	.627
S Pearson	.131	051	016	028	075	.011
Sig. level	.326	.703	.905	.834	.573	.935
E Pearson	084	110	.187	144	.173	029
Sig. level	.530	.410	.160	.280	.194	.827
C Pearson	137	137	.224	329*	.226	286*
Sig. level	.315	.315	.097	.013	.094	.032

*p<.05 **p<.01

Finally, significant correlations were found between four Holland typologies and three demographic variables of the sample. Years of education was found to be positively correlated with both the Investigative (r = .29, p<.05) and Artistic types (r = .38, p<.05), but negatively correlated with the Realistic typology (r = -.29, p<.05). On the other hand, the total time incarcerated was found to be positively correlated with the Realistic scores (r = .29, p < .05) but negatively correlated with Investigative scores (r = -.35, p<.01). The last demographic variable found to be significantly correlated with a Holland type was size of home town. This was found to be negatively correlated (r = -.27, p<.05) with the Enterprising typology scores of the CCPQ.

Discussion

One of the primary purposes of this study was to investigate the idea put forward by Riverin-Simard (1999) that in times of occupational stress, individuals tend towards one of two opposite poles, either of clarifying who they are and will become (Thinker) or what they produce (Doer) depending upon their characteristics. Although some support was found for this theory, the results were mixed. Comparisons of the SDS-E scores with the CCPQ Thinker scores revealed that four of Holland's six typologies were significantly correlated with this construct. Three of these four were Artistic, Social and Enterprising (ASE); Holland types proposed by Riverin-Simard to share the Thinker pole. Further, when scores of these three types are totaled for

each participant, this combined ASE score on the SDS-E was found to be strongly correlated with the CCPQ Thinker score (r = .41, p<.01). The equivalent combination of Realistic, Investigative and Conventional (RIC) SDS-E scores was found to be not significantly correlated with the CCPQ Thinker scores. Finally, when comparing scores for the CCPQ Doer with the SDS-E ASE combination, the resulting correlation was not significant.

These results then, lend support to the existence of a relationship between Holland's artistic, social and enterprising work personalities and a 'Thinker' approach to career distress or transition. However, other findings from this study suggest this whole postulate to be more complex than first proposed, at least for

this population. One of the greatest detractors is the results regarding the Investigative typology. Scores for this type on the SDS-E were found to be strongly and positively correlated with the Artistic, Social and Enterprising typologies (as well as the Conventional typology). This effect was replicated through the CCPQ results. Additionally, the Investigative scores on the SDS-E were found to be positively correlated with the CCPQ Thinker scores (r = .39, p<.01). It would appear then, that the Investigative typology does not conform to it's proposed membership in a 'doing' genre. In fact, higher scores in this typology are correlated to higher scores in the 'thinking' typologies (ASE) as well as to the CCPO Thinker construct.

This notion that the Investigative typology is actually distinct from the Realistic typology, instead of similar, is supported by other results of the study. For example, higher Investigative scores (in both SDS-E and CCPQ) were found to be positively correlated with years of education and negatively correlated (CCPQ scores only) with time spent in jail. Conversely, higher Realistic scores (in both SDS-E and CCPO) were found to be positively correlated with time spent in jail and negatively correlated (CCPQ scores only) with years of education, the complete opposite. Additionally, scores for the LSI Abstract Conceptualization (AC) learning style were found to be positively correlated with both the SDS-E and CCPO Investigative scores. The LSI AC - CE (abstraction over concreteness) score was also positively correlated with the SDS-E Investigative score. Furthermore, SDS-E Investigative scores were found to be negatively correlated with the LSI Active Experimentation (AE) scores and the CCPO Investigative scores were found to be negatively correlated with the LSI Concrete Experience (CE) scores. These findings strongly suggest that the Investigative occupational personality is very much an abstract learner and prefers a "thinkers" approach to career transition and counselling as opposed to a "doers" approach.

Alternatively, no significant correlations were found between any of the Holland Realistic, Investigative and Conventional typologies and the CCPQ Doer scores. Upon examination of the

relationship of these three Holland types and LSI learning styles, it was found that the SDS-E Conventional type was negatively correlated with LSI active over reflective (AE-RO) scores. Similarly, the CCPQ Realistic type was negatively correlated with LSI Concrete Experience (CE) scores but positively correlated with LSI Abstract Conceptualization (AC) and Reflective Observation (RO) scores. These findings would not be expected of "doers" and indeed, are somewhat surprising. This is particularly true of the negative correlation between the Realistic type and the LSI Concrete learning style. One possible explanation for this may rest with the LSI's ability to accurately measure this style. The LSI's reliability in CE scores for this sample was very low when all 12 items were included ($\mu = .33$) and was only improved when seven items were dropped ($\mu = .65$). Also, upon examination of the five remaining items that are used to construct the CE score, it is apparent that the respondents feelings are emphasized (eg. "when I learn, I like to deal with my feelings", "I learn by feeling", "I learn best when I rely on my feelings", "I learn best when I trust my hunches and feelings") in this learning style. It may be possible that offenders reacted negatively to these items based on this emphasis and, as Realistic types were the most common in this sample, this significant negative correlation was found. Thus, the usefulness of the LSI instrument to indicate an inclination towards a 'concrete' learning style in this sample is doubtful. In fact, Kolb in defending the LSI, has often argued that the best measure of his instrument was not reliability, but construct validity (Highhouse and Doverspike, 1987). As well, none of the significant correlations found by Highhouse and Doverspike between LSI styles and Holland type were replicated by this study.

Overall, results from the LSI proved to be mixed on finding a means of triangulating evidence in the investigation of Riverin-Simard's theory. Support for the theory and for the CCPQ's ability to identify Thinkers, came from the LSI when a positive correlation was found between the LSI Abstract Conceptualization score and the CCPQ Thinker score for participants. However, the positive correlation of the LSI AC

score and the CCPQ Realistic typology contradicts the theory, as mentioned above. The impact of this correlation on the theory is somewhat diminished, however, as it was not replicated by the SDS-E Realistic scores. None-the-less, the correlation is opposite to that expected based on the theory and cannot be dismissed, especially when the relationship between the two measures (SDS-E and CCPQ)of Realistic typology is strong (r = .60, p<.01).

The LSI Reflective Observation (RO) scores also presented findings contradictory to Riverin-Simard's theory. As mentioned above, the CCPQ Realistic typology was positively correlated with LSI RO scores while the CCPO Social and SDS-E Artistic typologies (both proposed 'thinkers') were found to be negatively correlated with the LSI RO scores. The Reflective Observation style is described by Kolb (1999) as "learning by reflecting" and involves viewing issues from different perspectives and looking for the meaning of things. It should be noted that the RO scores were the least reliable of the LSI instrument ($\mu = .48$) and perhaps should not receive undue attention here because of this. At the very least however, one may conclude that these Holland typologies are not simply categorized on one continuum, such as thinking-doing, and most probably represent a number of complexities and constructs.

Conclusion

In light of the present findings, it would appear that a place for constructivist approaches, as distinguished by the development of self as a function of construction in the context of social participation, relationships and dialogue (Peavy, 1996), does indeed exist in the area of career interventions for offenders. The four "thinking" Holland types, Artistic, Investigative, Social and Enterprising, would appear to be most suited to this approach. Based upon the characteristics the CCPQ Thinker items attempted to identify, it would seem that these typologies would benefit from an intervention where reflection and meaningful activity are essential processes and the broader perspective of the client's whole life is considered as opposed to simply making a career choice or focusing on the occupational aspect of the client's life.

Approaches such as Peavy's (1992; 1996) outlined earlier, where the intervention will be active, dynamic and reconstructive and the focus of the intervention will be the client's own perception's and personal meanings of what was, is and will be significant for them, would be appropriate to include in career interventions for these typologies. Typical constructivist activities such as counsellor elicited stories, metaphors, narratives and dialogues soliciting the clients'self-reflections would comprise some of the methods used.

Based on the findings regarding thinking versus doing as a response to career transition, it is clear that more research is required to further understand these constructs and to effectively identify these preferences in clients. Future efforts to understand the interaction of learning styles and work personalities could benefit from the utilization of a more reliable assessment tool. Finally, replication of this study with a population other than offenders would assist in determining the generalizability of these findings.

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