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ABSTRACT

Few career counseling theories have had the long-standing background of Hollands RIASEC theory. His theory, which espouses that job satisfaction increases when there is congruence between individuals interests and environments, has resulted in many practical, reliable, and valid inventories, such as the Self-Directed Search (SDS). The majority of Hollands tools and related studies have focused on high school, college, and adult individuals, with a paucity of studies reporting on the use of SDS with middle school students. The purpose of this paper is to provide information on the processes and outcomes of using a theory-driven assessment tool, i.e., the Self-Directed Search Career Explorer (SDS-CE), with middle school students. Based on the results of 14 separate career counseling groups utilizing the SDS-CE and the statistical analyses results it is concluded that the SDS-CE is a useful tool with a test group of African American middle school students; its use is enhanced when coupled with Cognitive Information Processing theory. (GCP)

Using the Self-Directed Search Career Explorer with Middle School Students: The Practicality of Holland's RIASEC Theory

by

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Using the Self-Directed Search Career Explorer with Middle School Students: The Practicality of Holland's RIASEC Theory

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Introduction

Few career counseling theories have had the long-standing background of Holland's RIASEC theory. His theory, which espouses that job satisfaction increases when there is congruence between individuals' interests and environments, has resulted in many practical, reliable and valid inventories, such as the Self-Directed Search (SDS). The majority of Holland's tools and related studies have focused on high school, college and adult individuals, with a paucity of studies (i.e., two) reporting on the use of SDS with middle school students. The purpose of this manuscript is to provide information on the process and outcomes of using a theory-driven assessment tool, i.e., the Self-Directed Search Career Explorer, with middle school students.

Some may argue disagree with the appropriateness of administering such inventories to children whose vocational identity is far from being stabilized. Holland himself was at first reluctant to create an inventory for this age due to this issue, but decided to do so when he discovered that practitioners were using Form E of the SDS (for adults with reading difficulties) and other inventories with questionable psychometric power for this purpose (Reardon & Lenz, 1998). The reality is that most children must begin making choices during middle school as to which track they will follow in high school. In addition, some states require some type of career assessment as part of developing an individual educational/career plan. A reliable, valid tool that assesses this group's interests provides a framework for helping this population (middle and junior high) make such decisions. Unfortunately, very few valid and reliable interest/career inventories for this population exist.

According to the manual (1994), the SDS was developed with two main purposes: first, to increase the number of clients that a counselor can help, and second, "to provide a career counseling experience for people who do not have, or who do not wish to have, access to a vocational counselor" (p.1). In addition, a strong impetus behind Holland's desire to create the SDS was to create an inexpensive, valid and reliable tool that could be self-administered, self-scored and self-interpreted (Holland, Powell, & Fritzsche, 1994). Other benefits include the translation from theory to practice, an easy-to-understand theory, and an organizational framework (Rayman & Atanasoff, 1999).

The main tenet of Holland's theory is that career choice and satisfaction is determined by the degree to which an individual's interests match with his or her educational or work environment. Through many factor analytic procedures and studies, Holland identified six primary modal types: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional.

Each type has a corresponding environment with similar characteristics. For example, an “Artistic type” person is probably very creative and independent, and thus an artistic environment would provide opportunities for creativity and independence. The other types can be briefly described as follows: Realistic types tend to enjoy hands-on or outdoor activities; Investigative types enjoy researching scientific or medical type questions; Social types enjoy helping or nurturing people; Enterprising types enjoy managing and directing people or sales; and Conventional types enjoy working with or managing numbers or data.

Methods

Participants

Ninety-eight middle school students from a southeastern middle school returned permission forms to be included in career counseling groups (fourteen groups total) and to participate in research. Of the 98, 91 (41 males, 50 females) completed the SDS in its entirety. The majority were African American (95%) and on free/reduced lunch programs. This demographic was similar to that of the school as a whole, which reports that 98% of its students are involved in free/reduced lunch programs. This middle school was the recipient of a five year GEAR-UP grant, which has as its goal increasing the number of middle school students who stay in school, eventually graduate high school and obtain some type of post-secondary training.

Instrument

The SDS Career Explorer (SDS-CE) for middle school students was chosen because of its psychometric properties and appropriateness for use with this age level. Similar in format to the SDS Form R, the inventory has high reliability (greater than .91) and assesses interests and competencies, resulting in a code that is then linked to occupations. It differs in the wording used, such as “jobs” versus “occupations” and “skills” versus “competencies.” In addition, in the job section, where individuals respond to a yes/no question about whether they would consider that occupation, descriptions of each job are given. Finally, a two-letter code is used instead of the three letter code associated with other SDS versions. The SDS-CE is accompanied by the Careers Booklet and a booklet to aid in self-interpretation entitled “You and Your Job.” A computer-generated report, entitled “SDS Career Explorer Interpretive Report,” is also available (Reardon, 1994) and was utilized in this research. Middle school students appear to enjoy using the SDS-CE. In a study conducted by Jones, Sheffield and Joyner (2000), middle school students responded as favorably to the SDS-CE as to two other middle school instruments (Career Key and Job-OE).

Procedures

A six week, 30 minutes-per-session format was utilized based on general group counseling principles and to allow for the application of a specific career counseling theory, Cognitive Information Processing Theory (CIP; Peterson, Sampson, Reardon & Lenz, 1996; <http://www.career.fsu.edu/techcenter>). CIP theory identifies four main components as being involved in career choices: knowledge about self, knowledge about options, decision making and metacognitions (how one thinks about one’s decision making). One week was allotted per CIP component, with a week at the front for introductions and to administer the SDS-CE

and a week at the end for closure. Small groups were formulated from large group classrooms. For example, an art class containing 25 students would be divided into three small groups that would alternate times with a group leader within an hour and a half period of time.

During the first week, introductions were made, confidentiality discussed, and the purpose of the meetings described. The four components of CIP were introduced, using a picture of a pyramid (Sampson, Peterson, Reardon & Lenz, 1992). It was explained that the first discussions would center on self-knowledge. After a brief description of the role of the self-knowledge, the SDS-CE was administered, with this researcher reading the items aloud. The time needed to complete the SDS-CE exceed the time allotted; thus, the administration of the assessment continued in following sessions until the instrument was completed for all students, at which time, their scores were entered into the SDS-CE Interpretive Report computer program (Reardon, 1994) and personal reports generated for each student.

These reports were handed back to the students and discussed in the following session, and students were encouraged to narrow their options by crossing off items that were not attractive to them. To further build upon self-knowledge, this researcher asked the students to write a reason they were crossing off next to each occupation they eliminated. They were also instructed to place a question mark next to occupations they were uncertain about, or for which they needed additional information. During the next session, students met in the media center and were shown how to use various internet-based career information sites, such as the online *Occupational Outlook Handbook* to help narrow options further and increase occupational knowledge. The following week focused on a decision-making strategy and a discussion/game centering on the impact of self-talk on goals. The six weeks concluded with a discussion of what students had learned with respect to self-knowledge and the other components of the CIP model.

Data Analysis

Data from the participants' SDS results were entered into SPSS to identify frequency of typology and to assess for type differences between genders. One-way Analyses of Variance were conducted to determine the presence of significant mean differences. In addition, reliability analyses for the six scales were also conducted.

Results

The two most common primary types by gender were Artistic (N=13; 32%) and Realistic (N=10; 24%) for boys, and Social (N=19; 73%) and Artistic (N=16; 32%) for girls. Using the total scores for each of the six types (RIASEC) as dependent variables, a one-way analysis of variance (ANOVA) was conducted with gender as the between-subjects factor. A main effect was found for two of the dependent variables: Realistic $F(1, 89) = 23.658, p < .0001$; and Social $F(1, 89) = 6.369, p < .05$. Men had higher mean scores on the Realistic scale ($M = 23.24, SD = 13.61$) as compared to women ($M = 11.92, SD = 8.40$), while women had higher Social scale scores ($M = 31.18, SD = 11.80$) as compared to men ($M = 24.93, SD = 11.71$). Investigative was the second most common type for males in the normative sample. These results are also similar to those reported for college students and adults (Holland, Fritzsche & Powell, 1994). An additional ANOVA was conducted with the

sub-scales' totals (Activities, Skills, Careers, Abilities 1 and Abilities 2) used as dependent variables and gender as the between-subjects factor. No significant differences were found. In addition, reliability analyses were conducted on the total scale for each primary type. Internal consistency reports included: Realistic (.86), Investigative (.78), Artistic (.82), Social (.83), Enterprising (.84) and Conventional (.83).

Discussion

This section describes the process and outcomes of using the SDS-CE with middle school students. When the first groups were run, the administration of the SDS was scheduled to take place during the first two sessions. However, given the short amount of time within the sessions, students were still completing the inventory during the third and fourth sessions. Adjustments were made for future groups to complete the SDS prior to the first career counseling session and with an extended period of time (i.e., 90 minutes). This adjustment allowed for the profiles to be scored and reports generated (and thus available) for the first counseling session. This practice proved to be much more effective, and practical, and was continued for subsequent groups. In addition, having the group leader walking among the students and reading the items aloud also proved to be a useful strategy in minimizing the random response patterns and mistakes. It also allowed the group leader to begin each section of the SDS with a brief discussion as to why interests or self-estimates are important considerations in career choice. Therefore, a recommendation is made that when using the SDS-CE as a component of group career counseling, the group leader should schedule the administration of the SDS-CE prior to the groups' beginning, allowing sufficient time for completion. In addition, reading the items aloud is also recommended for students similar to those described in this study.

The coupling of the SDS-CE with CIP theory provided an easy-to-understand framework for the career counseling groups' content and process. The SDS-CE results enhanced self-knowledge, as well as a list of occupations from which students could increase their occupational knowledge. Through the process of crossing off unwanted occupations, question-marking and highlighting additional occupations, the SDS-CE was "hands-on" material from which students were able to practice decision-making skills. Finally, talking about the strengths and weaknesses of the six types also led to a discussion of how to identify and decrease negative self-talk and increase positive self-talk.

At the conclusion of the six week group career counseling experience, anecdotal comments from students indicated that they had learned about their interests, occupations, post-secondary opportunities, decision making approach, and how to improve their self-talk. In addition, many stated that they found the groups enjoyable, and that they would prefer the sessions to be longer in terms of time and the number of sessions. The most common negative statements had to do with physical space, such as room location. These statements seem to suggest that many of the following needs identified by Sears (1995) were being met: the ability to identify personal traits such as interests and skills; to know the difference across main occupational areas; to know about educational options relating to career choice; to recognize what future decisions will need to be made for goal success; and to create appropriate long and short term educational goals. This intervention also is reflective

of career development competencies for middle school students as outlined by the National Career Development Association and the National Occupation Information Coordinating Committee. Based on these observations, a recommendation is made to couch the use of the SDS within a larger framework of career theory and experience (instead of a “test and tell,” one shot classroom guidance approach). In this experience, using the SDS within the CIP approach and using that theory to structure the six week groups were very successful.

Statistical analyses of students’ SDS-CE reports showed that the six scales (e.g., Realistic, Investigative) each have strong internal consistency for this group of middle school students. In addition, no differences were found with respect to the subscales scores when compared by gender. However, gender differences were found on the total scale scores for Realistic and Social. Holland et al. (1994) noted a similar trend in the 1994 normative sample of the SDS with high school students, with 39% of males having Realistic as their main type (as opposed to 2.7% of women). In addition, 45.7% of women had Social as their primary type (as opposed to 10.5% of men).

There are several implications of this study. First, these results suggest that the SDS-CE is a psychometrically sound instrument for this group. Second, males and females respond similarly to the majority of the items, suggesting that there is limited gender bias in the SDS-CE. Third, these middle school students seemed to lean toward “traditional” typology to some degree, with girls choosing characteristics more indicative of helping, and boys choosing characteristics more characteristic of “hands-on.” This could be an indication of gender bias, as some might suggest, but could also be a reflection of sex role socialization (Holland, 1994).

Regardless of the reason, counselors can continue to expose middle school students to men and women employed in non-traditional jobs through the use of strategically planned career days, pointing out examples in the media, and through having students do research on non-traditional occupations. These results are based on one group of students from one school, with the majority of students being African American. Therefore, the results may be limited in terms of generalizability to other middle school students from different ethnic groups or in different locations. A strong recommendation is made for additional research to be conducted with the SDS-CE to determine if the results found in this study are specific only to this school and this particular group of middle school students, or are common across locales and student populations.

Conclusion

This study was an exploratory investigation into the impact of using the Self-Directed Search and CIP theory with middle school career counseling groups. Thus, several limitations exist. First, the study was conducted with students from one school that was mostly African American, of lower socio-economic status, and mostly high risk students. This middle school has the highest percentage of students on free or reduced lunch schedule in the county, as well as having a higher percentage of African American and Latino students when compared to other schools in the county. Certainly, this is not the norm for middle schools in general, and therefore the generalizability of the results are somewhat limited. In addition, the SDS was administered differently than the standardization for the instrument, in some cases,

spanning over four group sessions. In addition, the administrator read the items aloud, which was not done in the instrument standardization process. These two adjustments might have jeopardized the reliability of the results.

Based on the results of fourteen separate career counseling groups utilizing the SDS-CE, and the statistical analyses results, it is concluded that the SDS-CE is a useful tool with this group of African American middle school students and its use is enhanced when coupled with CIP theory.

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