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CAREER EXPLORATION WITH HEARING IMPAIRED STUDENTS: A TECHNIQUE USING THE WIDE RANGE INTEREST AND OPINION TEST

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INTRODUCTION

The use of career exploration inventories is often limited with hearing impaired clients due to language barriers which cause some interest surveys to be inappropriate or create difficulties in communicating the results of an appropriate survey. The purpose of this article is to suggest a modification of the report form of the *Wide Range Interest and Opinion Test* (WRIOT) in order to facilitate interpretation of the results by the hearing impaired client, and to report the results of a pilot study using the suggested modifications.

The Problem of Written Inventories

Two of the more popular inventories, the *Kuder Occupational Interest Survey* and the *Strong-Campbell Interest Inventory,* are written for readers on the 6th grade level or above (Campbell, 1977; Kuder, 1976). For most of the deaf population, the readability of these two instruments is a problem since the average reading level for the deaf population is approximately 5th grade level or below (DiFrancesca, 1972). This is not to imply that the *Kuder* and the *Strong-Campbell* are always inappropriate but that their use would be restricted to hearing impaired students with a minimum of 6th grade reading skills.

A number of career exploration inventories have attempted to provide special forms with lower reading levels. One of the more popular surveys of this type is *Holland's Self-Directed Seach, form E.* This survey is written approximately on the fourth grade reading level (Holland, 1972). Although usable for a broader range of hearing impaired clients than the *Kuder* or the *Strong-Campbell,* there still exist at least two problems with this type of adapted form. The first is that a substantial number of hearing impaired clients read below the fourth grade level. Secondly, for those who read at or near the fourth grade level, the specialized vocabulary of occupations or occupational activities may not be comprehended.

Pictorial Approaches and Work Samples

Picture inventories such as the *Wide Range Interest and Opinion Test* or the *Geist Picture Interest Inventory* are attractive alternatives, but still have some inherent problems in general use (Bolton, 1971). One inherent problem is related to personality development of deaf persons, which has been discussed in terms of experiential deprivation due to the disability itself or due to inadequate family or educational interactions (Donoghue, 1968; Kennedy, 1973; Schlesinger and Meadow, 1972). Although experiential background varies from person to person, a number of clients may not have been exposed to the actual pictured activities of the survey, making the decision difficult when choosing the activity that is preferable. This problem calls into question the validity of picture inventories when used with some hearing impaired clients. Once the survey has

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been completed, the results are reported using language that may be difficult for the client to read and understand. The counselor may then find that explaining the vocabulary on the form hinders a discussion of the results of the survey.

One response to the difficulties with interest surveys has been to use work samples as exploratory experiences with hearing impaired clients. This approach circumvents a lack of an experiential base by providing a number of actual work related experiences for the client. In this way, the client and the counselor are able to make decisions regarding the type of employment that might be sought within the client's field of interest. Although this is an excellent approach, many counselors are limited by a lack of money, time, and space for such a program. These practical limitations require the counselor to search for other methods to help narrow the range of occupational areas to the field of the client's interests. At the same time, it is usually desirable to broaden the client's exposure to more job opportunities within the client's general areas of interest.

Expert vs. Client

Although the *WRIOT* may be used as described above, it has often been restricted to use within a model in which the counselor assumes a major amount of responsibility. Such a counselor assumes the inability of many clients to intepret their own forms due to language barriers. The counselor, therefore, adopts what amounts to a medical model assuming the role of an expert with the client assuming a passive role. Since the medical model requires an "expert" and a "patient", various limitations are inherent in the model One of the more serious limitations of the model occurs when the "counselor-expert" tries to direct the client toward job opportunities prescribed by the test without a dialogue with the client. Within the medical model, there is an assumption that a diagnosis should be made with a subsequent prognosis and treatment. If the client then follows the treatment, he will achieve a "cure". This assumption seems directly opposed to the development of a helping relationship between the counselor and the client. In fact, it may actually block hearing impaired clients from growing by preventing them from taking part in a process of discovery during career exploration. A preferable model in career exploration would be of a cooperative-developmental nature. Instead of the client playing a passive role in the relationship, the client could assume a more active role. The counselor's function would be to assist the client in developing meaning from the results of the survey and other career information. Before a cooperative-developmental relationship can occur between counselor and client when interpreting the *WRIOT*, the language of the report form must be made more understandable to the hearing impaired client.

METHOD

Accessibility

The *WRIOT* report form is organized in rows, which separate various cluster areas of interest, and columns, which describe the level of agreement with the norm population. The areas of cluster interests are reported in + and − symbols leading to easy interpretation, but each row heading may or may not be an unknown term for the deaf reader (see Table 1). By selectively substituting the words and phrases suggested in Table 2, the general cluster areas can be made more understandable.

These modifications are intended to assist in communication; they are not intended to be exactly synonymous with the original cluster titles. The modifications are easily accomplished by overlaying a list prepared by the counselor on the cluster titles. For some clients, an additional overlay should be placed on the three midlde columns that use the word "average"; the phrase "most people's score" should be used instead. It should be noted that the counselor is not affecting the validity of the test by altering the report form, since the test itself was taken under the guidelines specified in the *WRIOT* manual (Jastak, 1979). Since some of the modifications may convey a more limited meaning than the original titles, it is sug-

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gested that the counselor and client explore those interest areas.

When the counselor presents the modified report form to the client, an initial explanation of the meaning and organization of the report form should be given. It should be noted that the three specific jobs are only representative of the cluster areas, rather than inclusive. The client can then read the report in its modified form. In this way, the counselor can assist in exploring any areas that are not clear for the client. Some topics for discussion might include the following: 1) What areas did the test say you might be interested in? 2) What areas are new for you? 3) Do you agree with the areas that show high interest? 4) What have you learned from this, and what do you still want to learn?

As a follow-up to the initial discussion of the report, the counselor might rank order the three top general cluster areas of interest with the client. The client and counselor can then use the occupations listed in the *WRIOT* Manual (1917) to begin development of a list of specific job titles. At this point the counselor will probably read the job titles with the client in sign language, since the jobs suggested may cause comprehension difficulties. Further exploration of the career possibilities suggested can be accomplished by the client and the counselor through use of the *Occupational Outlook Handbook* (1978-79) or other related job information sources.

A Pilot Study

In order to determine whether deaf clients could benefit from the suggested modifications, a pilot study was done concerning deaf students' comprehension of the original cluster interest areas. The following null hypothesis was proposed: When given two lists, the original cluster titles and the modified cluster titles, there would be no difference in the client's ability to define or name a specific job from each cluster.

Students between the ages of 18 and 21 who were attending a postsecondary work-study program were chosen for the study. The research sample consisted of thirty hearing impaired students with a mean reading level of 3.7 as measured by the *Gates Reading Survey*. As a measure of the audiological characteristics of the sample, pure tone averages were determined with a mean of 88.6 decibels in the better ear.

Clients were randomly assigned to two groups. The first group received a list of the original cluster titles before the modified cluster titles. The second group received the modified cluster titles, before receiving the original cluster titles. This was done in order to prevent a practice effect from influencing the results of the study. An hour of unrelated classroom activity separated the completion of the second list for both groups. Students were asked to name one job that would fall into the category of each cluster area or to define the cluster area. Both criteria were accepted, since any experimental design employing a paper and pencil measure with a low academic achieving population presents numerous language and communication difficulties. For the cluster areas S–X, which are not descriptive of job categories, the students were asked to define the phrase used in the cluster. The lists were scored by counting the number of jobs and definitions that agreed with the cluster title and the number of answers that were not appropriate for the cluster area. The mean number of right answers on the original list was 10.47. The mean number of right answers on the modified list was 19.23.

A dependent t-test was computed yielding a value of 8.89. The test was significant at the .001 level of confidence. The null hypothesis was not supported and it was concluded that students were able to interpret the modified list of cluster areas better than they were able to interpret the original cluster area terms. It should be noted that although the modifications of the categories Social Science to Studying Ideas About People and Physical Science to Studying Ideas About Earth Science were understood by a greater number of students; each category, even when modified, was understood by less than one-third of the subjects. One modifi-

cation proved to be slightly more confusing than the original cluster title. Exactly one-half of the students in the study were able to understand the cluster title of Biological Science. When Biological Science was modified to Studying Living Things, less than one-half of the students were able to demonstrate understanding of the term. On the basis of this result, the original cluster title of Biological Science should be retained on any practical modification list produced by the counselor. All three of these cluster titles (Social Science, Physical Science, and Biological Science) should be given special attention during test interpretation, since the majority of hearing impaired clients will probably have difficulties understanding the intended meanings, even when modified. Specific percentages on each category as they were understood by the experimental group are contained in Table 3.

DISCUSSION

Beyond the pilot study, which was essentially a test of two vocabulary lists, the author has had clinical success with the modified list. When the modified list, including the three representative jobs, is placed in context with the actual *WRIOT* report form, clients with reading levels between 2nd and 4th grade have demonstrated an understanding of the central themes on the report. This has led to a number of advantages. By simplifying the language and encouraging the client to interpret the results of the test, the counselor is facilitating the client's own exploration of career possibilities. Interpretations which are made become insights of the client. This has led to discussions *between* the client and the counselor about different job possibilities rather than a discussion *at* the client about occupational choices, an unfortunate pattern in which many counselors for the hearing impaired may find themselves trapped. Chances that the client is misinterpreting the information from the *WRIOT* is greatly reduced, since the counselor is able to get a more complete understanding of the client's thought processes during the interpretive counseling session. In addition, through the dialogue about the meaning of each cluster, the counselor has a built-in validity check of the test, since a client's stated interests and the results of the test may not agree. Finally, and probably of most importance, the client has assumed more responsibility for the movement and direction of his or her career exploration. It may be speculated that one result of this cooperative model would be a contribution toward greater self-sufficiency for the client and independence, after all, is the ultimate goal of most career and vocational counseling.

In summary, this method of modifying the *WRIOT* makes the results of the test more understandable for most deaf clients. The modifications allow the counselor to use the results in an exploratory manner with the client. More control of the counseling process is given to the hearing impaired client. It is a manageable starting place that helps focus the range of a client's interests in a way that helps define further career exploration, leading to eventual placement into a job holding a measure of interest, and hopefully, satisfaction for the client.

Table 1
ORIGINAL CLUSTERS

A	Art	I	Protective Service	Q	Outdoor
B	Literature	J	Social Service	R	Athletics
C	Music	K	Social Science	S	Sedentariness
D	Drama	L	Biological Science	T	Risk
E	Sales	M	Physical Science	U	Ambition
F	Management	N	Number	V	Chosen Skill Level
G	Office Work	O	Mechanics	W	Sex Stereotype
H	Personal Service	P	Machine Operation	X	Agreement

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Table 2
MODIFICATIONS OF CLUSTER AREAS

A Art (painter, florist, beautician)
B Reading & Writing (writer, news reporter, lawyer)
C Music (guitar player, dancer, singer)
E Selling Things (sell cars, sell insurance, sell gas)
F Manager Jobs – Boss (auto parts boss, banker, plant manager)
G Office Work (secretary, typist, file clerk)
H Helping People (taxi driver, bus boy, cook)
I Keeping People Safe (policeman, guard, soldier)
J Teaching or Counseling People (teacher, counselor, nurse)
K Studying Ideas about People (college teacher, doctor, dietician)
L Studying Living Things (vet, farmer, scientist)
M Studying Ideas about Earth Science (chemist, land mapper, steel worker)
N Math (accountant, cashier, bank worker)
O Making or Fixing Machines (plumber, electrician, car repairman)
P Factory – Using Machines (assembly line worker, baker, shoemaker)
Q Outdoor Work (forest ranger, farmer, gardener)
R Sports (car racer, baseball player, coach)
S Likes a Sitting Job
T Likes a Dangerous Job
U Wants high money and importance
V (+ +) = likes hard jobs,
(– –) = easy job
W Likes to work with same sex
X (+ +) = you like many pictures that others like

Table 3
PERCENT OF STUDENTS COMPREHENDING THE ORIGINAL AND REVISED CLUSTER TITLES

Cluster	Percent of Students Correct on Modified Cluster Titles	Percent of Students Correct on Original Cluster Titles
A Art	100%	100%
B Literature	23%	90%
C Music	83%	93%
D Drama	73%	80%
E Sales	73%	97%
F Management	50%	83%
G Office Work	90%	93%
H Personal Service	33%	97%
I Protective Service	27%	67%
J Social Service	27%	100%
K Social Science	30%	43%
L Biological Science	50%	23%
M Physical Science	13%	27%
N Number	70%	83%
O Mechaics	57%	93%
P Machine Operation	57%	90%
Q Outdoor	63%	80%
R Athletics	20%	100%
S Sedentarines	0%	97%
T Risk	10%	77%
U Ambition	6%	93%
V Chosen Skill Level	20%	87%
W Sex Stereotype	10%	73%
X Agreement	10%	77%

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