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The Relationship between Job Satisfaction and Vocational Interest.

Testing Holland's Theory in Kuwait

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# PREFACE

This study was carried out in Kuwait. Moreover, it is very much about Kuwait, its problems and culture differences. The research design was formulated prior to the Iraqi invasion which completely destroyed any hope of implementing the initial plan. When it was possible to return to the country this research project which had its origin in more stable times was not viewed by many potential subjects as crucial to the pressing matter of post-war recovery. This had an inevitable effect on the data that could be collected and on the array of issues that could be reasonably addressed. But now as the country has been physically rebuild, a process which has had a major impact on the shape and inter structure of society, the questions that prompted this study are more relevant than ever!

To understand the situation that gives rise to this study, it is necessary to consider both the general cultural frame and the particular way that employment issues are handled in Kuwait. Adapting Western career theories and practice is not a straightforward task as many relevant situational and cultural factors influence people's career choice. For example, in the Kuwaiti population, the concept of job choice does not have the same meaning as in the West. Job allocation is probably a better description of the process whereby an individual ends up in a particular kind of work. It is therefore, of particular interest to study the relationship between job satisfaction and person-environment congruence in this society and how it differs from the Western perception. How are career choices made in a society where personal congruence can not easily be sought? And how does congruence relates to ultimate satisfaction with work. These questions are then the main focus of this study.

As the concept of career choice is currently not central to employment in Kuwait it follows that facilities and techniques like career counselling services and occupational preference inventories do not exist. However, it is evident that as the country is currently developing in sympathy with western education and business

philosophy- then ideas of personal choice and personal fit will be given attention within the management of human resources. The necessary psychological instruments are not available in Arabic but will be needed in the future. The current study translated Holland's Self-Directed Search (SDS) into Arabic and amended it for use in the new culture, and an Arabic job satisfaction questioner was also produced.

The (pre-invasion) research plan envisaged a sample of 500 workers in Kuwait (both Kuwaiti and non-Kuwaiti) representing the six working environments suggested by Holland, and then to collect further data to test sub-hypotheses arising from the main study. The plan was discupted by the reality of the post-war environment. Some of the difficulties were produced by the practical problems of working in a country still under military curfew. Others arose from attitudes of workers to questions which to them appeared trivial compared to the momentous events that they were living through. The participation rate was dramatically affected by this attitude and many workers refused to take part in the study. In the better time and friendler atmosphere of pre-war Kuwait, 100% cooperation and participation might have been expected. For workers engaged in the complete restoration of the country, the filling in of an inventory or thinking of their own personal wishes was perceived as a luxury they appeared not willing to afford.

The principle practical difficulties arose through security procedures that were in operation. Offices which prior to the war had open access were almost impenetrable. Entering a work place was possible only if a person that was to be interviewed could be named. This ruled out orderly sampling of workers and indeed the casual recruitment of subjects. Explaining the purpose of each visit to layer upon layer of security offices consumed much time than could have been better spent collecting data!

Ironically the condition which made this study so difficult to perform was the very one that made it more necessary. In a time of rebuilding and reassessment people are making new choices and taking upon themselves new responsibilities. The reason for, and implication of, their choices, therefore become of some importance.

Despite the difficulties that had to be overcome, this study has produced usable instruments and meaningful results which hopefully will contribute in accelerating the development of the new Kuwait.

# THE RELATIONSHIP BETWEEN JOB SATISFACTION AND VOCATIONAL INTEREST. TESTING HOLLAND'S THEORY IN KUWAIT

by

**Huda Hassan**

## SUMMARY

The study set out to test the validity of Holland's Self Directed Search (SDS) as a measure of vocational interest in a non-Western (Arab) culture and to test Holland's prediction of a positive relationship between person/environment congruence and job satisfaction in a sample of workers in Kuwait.

A major part of the study was involved the production of an Arabic version of Holland's SDS. The problems inherent in such a cross-cultural exercise are examined. The initial translation was piloted using Arabic speakers in the U.K. and the resultant test was back-translated to confirm a match to the original. It was then tested in Kuwait with 182 workers (119 males and 63 females; 118 Kuwaiti and 64 non-Kuwaiti) that represented amongst them nineteen different occupations covering the six types of work environments as defined by Holland.

The structure of Holland's Hexagonal Model and the validity of the SDS were assessed for "the exploratory factor analysis" and the "Multitrait-Multimethod Matrix" (Campbell and Fiske, 1959). This showed that Holland's model held in the Arabic version of the SDS with a Kuwait population. In particular, the SDS subscales were able to discriminate between each of Holland's personality types except that the activities and the competencies subscales failed to discriminate between the "social" and "enterprising" types.

Using the Arabic version of the SDS, together with a specially developed Arabic job satisfaction scale, Holland's hypothesis that congruence between vocational interest and the current job should be positively correlated with job satisfaction was investigated. No statistically significant relationship was found with

either overall job satisfaction or its intrinsic and extrinsic components. The result is attributed to the unique employment market in Kuwait where jobs are more allocated than chosen and where itrinsic aspects of the work (which might be more related to interests) are thereby less important than extrinsic aspects such as money and promotion.

In conclusion: Holland's theory and the associated interest inventory are shown to be cross-culturally robust, although his hypothesis of a positive relationship between congruence and job satisfaction received no support. The new Arabic version of the SDS and job satisfaction scale are offered as valuable aids to career counselling in Kuwait which, in this post-war period, appears to offer more potential for job choice.

# INTRODUCTION

Work is an important aspect in a person's life as it gives them their identity and usually their main source of income, so it needs to be chosen carefully. A good fit between personal characteristics and the work environment is essential for adjustment, satisfaction and well-being. As a result many studies have examined the relationship between an individual (in terms of interests, abilities, personality) and work outcomes (in terms of satisfaction, performance, well-being etc). According to Super (1957) success in an occupation is related to interests. When work matches personal interests success is highly likely. People tend to enter occupations which are appropriate to their interests, and they tend to leave inappropriate occupations if they do enter them. Satisfaction with work is the outcome of having appropriate interests.

According to this approach, in order to achieve job satisfaction an individual's vocational interests need to be identified and highlighted. In the vocational counselling situation a person is helped to make career decision by focussing attention on the match between a person's vocational interests and the job characteristics.

The present study considers the relationship between vocational interest and job satisfaction, and in particular testing Holland's theory which assumes that individuals whose interest and current working environment are congruent will report greater job satisfaction than those lacking such congruence.

Studies testing the role of interest on job satisfaction are usually based on data collected from students (e.g. Nafziger et al., 1975), where interest is matched with their college major, then the congruence between the two is examined in relation to their satisfaction with their studies.

However, the academic environment is different from the work environment because it does not include aspects such as income and promotion which are very important in determining a worker's satisfaction with their job. In addition, studies examining the relationship between vocational interest and job satisfaction among workers have used only one single occupational group, for example; teachers

(Wiggins et al, 1983), nurses (Hener & Meir, 1981). Beside that, many studies have focused only on overall job satisfaction and have not examined the degree to which person-environment congruence is related to satisfaction with different dimensions of the job (Swaney & Prediger, 1985).

While the relationship between job satisfaction and vocational interest have been studied intensively in the West, little data exists from the Middle East and the State of Kuwait in particular.

Therefore, the present study is novel in using real workers in more than one occupational group (covering the six working environments suggested by Holland). Additionally, the present study examines the relationship between congruence and satisfaction with different dimensions of the job (the job itself, income, social relationship, promotion chances, and relationship with supervisor) in addition to overall job satisfaction.

Overall, this study is cross-cultural; it ues the Self-Directed Search inventory developed in America and based American culture, to measure vocational interest among workers from Kuwait. Where a test is used in a cross-cultural study it has to be adapted to the new culture. Thus an Arabic version of the SDS was developed and some necessary changes introduced to suit the new culture. A job satisfaction scale was also developed.

To understand the cross-cultural aspects of this study the employments situation in Kuwait has first to be examined.

# Employment in Kuwait.

Kuwait is a small country where the total area is 17,818 square kilometres, with a population of (1,697,301) in the last census in 1985[1]. The population in Kuwait is divided into two groups: Kuwaiti citizens, who make up 40 per cent of the population, and non-Kuwaiti residents who make up 60 per cent. The high rate of immigration is due to many reasons. First, the discovery of oil in 1947 and its export abroad which created new fields of employment related to the oil industry. Secondly, the high rate of illiteracy among Kuwaiti citizens compared to non-Kuwaiti. Although illiteracy among the total population has declined rapidly over years, it is still higher among Kuwaiti compared to non-Kuwaiti. In 1985 (26.2%) of Kuwaiti and (20.4%) of non-kuwaiti were illiterate. Illiteracy is higher among females, where (36.9%) of females compared to (15.5%) of males are illiterate. Thirdly, most of the Kuwaiti citizens are concentrated in the non-working age range, less than 20 years and older than 60; the working age in Kuwait is between 18 and 60. Therefore, it is necessary to import a labour force from outside the country. Fourthly, enthusiasm for women to work outside the home is less among Kuwaiti than among non-Kuwaiti. The above factors explain the need of a non-Kuwaiti labour force to fill jobs and to develop the country.

However, because of the decline in economic activity, especially after the 1990 Gulf crisis, and because half of the Kuwaiti citizens are under the age of 15, and hence will enter the labour market in the near future, the government's new policy is to restrict the flow of expatriates and replace them with Kuwaiti nationals who cost the country less. So, one main goal of the government at present is to encourage Kuwaiti people to be educated and to specialize in fields which the country needs. Better education has also led to an increased awareness on the part of the Kuwaiti people to the needs of their country.

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[1]     All statistics in this section are based on the late census available by the (Annual Statistical Abstract, 1987).

The majority of the labour force works in the government sector, and women play a minor role in the labour force. Women contribute only (19.3%) of the labour force (either Kuwaiti and non-Kuwaiti).

Finally, the unemployment rate is very low among the total population (1.5%); this includes those who are seeking work for the first time and those who have worked before. Unemployment is greater among Kuwaiti (2.7%) than among non-Kuwaiti (1.19%). Two reasons can be given for this; firstly there is a restriction of entry to the country for non-Kuwaitis unless they have work permission before coming into the country. Secondly; according to Khouja & Sadler (1979) the unemployment among Kuwaitis is mainly due to their reluctance to accept low paid or unattractive jobs because they can depend on other sources of income.

Kuwait is not an agricultural country because it has harsh weather. The average temperature is 45C in July and 8C in January and there is little rainfall during the year, which does not help plants to grow. Therefore, only a small portion of the labour force work in agriculture: only 3.9% of the total labour force work in agricultural, hunting, and fishing activities. In addition, Kuwait is not an industrial country, because oil is the main resource. As a result only 1.06% of the labour force works in the mining and quarrying industry.

However, because of the above the work options are limited in Kuwait. Therefore, most of the workers (49.3% of total) are concentrated in service activities, mainly in the government sector. This is true for both the Kuwaiti and non-Kuwaiti population. On the other hand, Kuwaiti workers are less represented in the construction section (1.2%), because these jobs are usually done by non-Kuwaitis, mainly from East Asia, while non-Kuwaitis are less represented in the mining and quarrying activities (1.2%), because Kuwaiti workers have the priority in jobs relating to the oil industry.

# CHAPTER ONE
# THE ROLE OF VOCATIONAL COUNSELLING

## 1- The Nature Of Work

We spend most of our life at work. This does not mean that we work all the time as there is a time for rest, leisure and recreation. But work is still the main activity in our daily life.

Simply by definition, work is a central feature of modern industrial society. Work occupies much of the time available to most people for the majority of their lives, and the economic rewards obtained from it determine an individual's standard of living and, to a considerable extent, social status. In most industrialized countries, the average working person spends nearly one-third of his or her waking activities at work (MOW, 1987).

But why do people work? What does work mean and how can it be defined? Is it only a way to earn a living? Is it a thing that we have to do but not necessarily enjoy? Or does it refer to the physical effort that we expend in order to accomplish a task. The definition of work can to some extent explain its importance. It seems that the logical answer to the question "why do people work ?" is that they work to earn money because people have to have money to buy the necessities of life and the usual way to get money is to work for it. Earning money is not the only reason for work, there are people who do not need to work to earn money for the necessities or even for luxuries, but they do work (Super, 1957). Also some people work at jobs or occupations offering less pay than other jobs they might have had, and some other people work as volunteers. So the economic reason for work is not enough to explain why people work. Eighty per cent of the interviewees in the Morse & Weiss (1955) study indicated that they would continue to work even if they could live comfortably

without working. This is because work gives them a feeling of belongingness to the larger society, of having something to do, of having a purpose in life. Even if they had enough money to support themselves, they would still continue to work.

It is not easy to define work, or to suggest a unique meaning to it, because there is no general acceptable theory of the meaning of work. Work can be defined differently according to the writer's assumptions and personal values. Work as a concept is determined by the individual's experiences, values, norms, expectations and by the organisational and environmental context in which they work and live. Part of the complexity in the definition of work results from the fact that work does not have the same meaning and function for all people. A person who highly values the economic outcome of working tends to define work as the main way to a earn living, while for others work is a mechanism through which self-expression and other social needs are fulfilled. According to Gottfredson (1981) work provides personal and self identity. Thus, the definition of work may have different meanings at different times and in different places, societies and cultures.

It is worth looking at how writers have defined work. Hall (1986) for instance, defined work as: "...the effort or activity of an individual performed for the purpose of providing goods or services of value to others, it is also considered to be work performed by the individual" (P. 13). On the other hand, the International Research Team "MOW" (1987) defined work as "paid employment", they exclude the other forms of working where there is no exchange of labour services for pay such as voluntary work.

Furnham (1990) distinguishes between work and employment. He defined work as "... any activity that is directed to goals possibly beyond the enjoyment of the activity itself". While employment is seen as "A relationship based on the exchange of economic rewards for labour" (P. 144). Furnham considers housework, and voluntary work as work rather than employment.

The meaning and definition of work remains controversial. While (51%) of the 371 employees in Weiss & Kahn's (1960) study defined work as an activity which

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requires physical or mental exertion, which has to be performed but not necessarily enjoyed, Donald & Havighurst (1959) argue that one of the main functions of work is to serve or to benefit society and to give people a chance to achieve something. Similarly, Steers & Porter (1991) see work as a source of identity and peer/group relations. The MOW team (1987) found no substantial gender differences in the way people define the activity of work. Thus, work to people means more than just a way to earn money, it gives meaning to life and also gives individuals their identity and their status.

Super (1957) suggested that people work to satisfy three major needs: human relations, work, and livelihood. He added that work provides an opportunity for self-expression especially among higher occupational levels. Self-expression exists if the individuals find in their work outlets for their abilities, interests, and needs and if work itself and the work situation permit them to play the kind of role that is in keeping with their concept. Sometimes self-expression is more a matter of role and values than of outlets for specific types of interests or abilities. In 1966 Sales & Strauss suggested three needs that are satisfied by work; physical and security, social, and egoistic needs. The physical and security needs fulfil desires for money, security and advancement. While the social needs include friendship, the sense of identification with other groups and team-work. Finally, the egoistical needs include feelings of accomplishment, feelings of autonomy, and the increase of knowledge.

Furthermore, some writers have studied the effects of unemployment in order to understand the possible benefits of work (Jahoda, 1982; and Warr, 1987). The suggestion is that the negative psychological effects of unemployment (e.g. anxiety, depression, irritability, etc.) arise from the fact that people are deprived of these benefits, which are themselves inherent in an employment relationship. Although other roles may contain one or more of these functions, a paid job is unique in the overall combination which it provides (Jahoda, 1982).

Warr (1987) proposed his "Vitamin Model". He assumes that mental health is influenced by the environment in a manner analogous to the effects of vitamins on

physical health. The deficiency of vitamins impairs physical health, in the same way the deficiency of work impairs mental health. While the lack of either vitamins or work impair the physical and the mental health, a high level has no extra benefit on health and may become negative after a broad range of moderate quantities. Warr listed nine benefits of work:-

- Opportunity to control job content and employment conditions.

- Opportunity to either use the current skills or acquire new skills.

- Opportunity of filling one's time.

- Environmental clarity which means the ability to gain information about the consequences of actions, future developments and role requirement and performance standards.

- Various tasks can be done within a job.

- Availability of money.

- Physical security which means pleasant working conditions.

- Opportunity for interpersonal contact.

- Provide valued social position.

However, work not only has positive consequences and benefits it also has costs and negative consequences. Marx stressed the negative functions of work. He said that people had become alienated from their work, their workers, and their own identity by the dehumanisation of work in industrial capitalistic society. Work is not intrinsic to human nature but is external to it. It is therefore not the satisfaction of a need, it is merely there to satisfy external needs (cited in Furnham 1990, P. 147). Terkel (1975) shared Marx's view and added that all the signs of job dissatisfaction-absenteeism, poor production- are a result of dehumanizing and humiliating work. Warr (1983) lists several costs of work including boredom, fatigue, reduced freedom, interpersonal conflict, psychological or physical strain, and even impaired health.

Despite its negative aspects, work remains one of the main features of adult life, because it provides a person with a number of benefits that cannot be found in any other aspect of their life. However, because of the importance of work in an

individual's life, and because satisfaction with the job has positive effects on life quality (London et al., 1977), mental health and well-being (Saal & Knight, 1988), people need to choose their jobs carefully.

Although people usually choose the job that enables them to maximize their benefit (e.g. financial reward, satisfaction etc) and minimize their cost (e.g. effort, time etc), some people at times are not able, for one reason or another, to make a proper choice, and may need help in doing so. Vocational counselling exists to provide such kinds of help.


## 2- VOCATIONAL COUNSELLING

### *The Differences between Advice, Guidance, and Counselling.*

Counselling has some similarities and dissimilarities with other types of help, i.e. advice and guidance. They all agree that human beings need help from time to time within different contexts and in different ways. There is an overlap between advice, guidance, and counselling concepts. The overlap exists also on the practice. It is rare that practitioners offer just one type of help. In addition, there is inconsistency in definition and function between these three types of help.

Although advice, guidance, and counselling have common or similar origins, they differ in their emphasis and approach. Counselling takes its framework from many areas of psychology, sociology and philosophy. Guidance adds educational and developmental psychology to these foundations. On the other hand, advice is based mainly on information technology and behavioural science.

In 1993 The Advice, Guidance, and Counselling Lead Body attempts to differentiate and distinguish between these types of help and to highlight the competencies and the qualifications that are needed to provide each of them. This Lead Body suggests a model that represents the overlap between advice, guidance, and counselling, see figure (1).
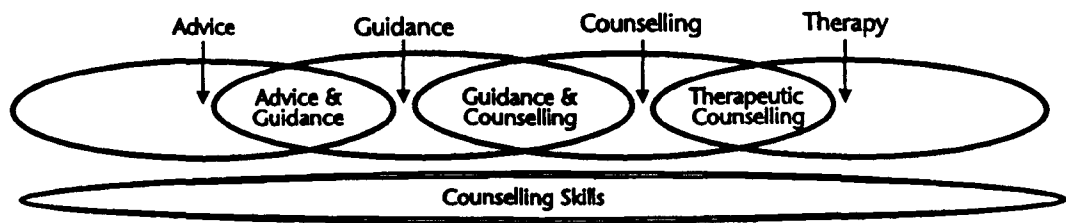
The chain of activities

Russell et al., (1992) provide three separate definitions for advice, guidance, and counselling. They define advice as "a brief consultation to provide someone with appropriate and accurate information, and give suggestions about how to act upon that information" (P. 3). While guidance is "the extended consultation or series of consultations to assist someone to explore concern, provide appropriate and accurate information, give suggestions and support about how to act upon that information" (P. 3). On the other hand, counselling is "the principled use of the relationship to provide someone with the opportunity to work towards living in a satisfying and resourceful way" (P. 3). Therefore, advice is intended to provide information, so it is a completely directive type of help. Guidance is less directive than advice as its emphasis is in identifying client problems and concerns. On the other hand, counselling is less directive than the other types of help as it maintains a relationship with the client. It uses theories and models to establish this relationship. Counselling interest is in the internal world of the client in terms of emotions, and is more involved with client's well-being.

The next section clarifies the role of counselling in helping people to make suitable vocational choices.

# 3- MAKING VOCATIONAL CHOICES

Life can be defined as a developmental process where people transfer from one stage to another: Transferring from childhood to adolescence, to adulthood; from home to school to work; from being single to married and parenthood; from employment to unemployment either through redundancy or retirement. During some of these transitions people may need help to make the changes needed and to accept and to adjust to their new circumstances. Counselling can help in these situations. It may help clients to discover themselves, strengthen their self-images, recognize their strength and weakness and to learn how to make decisions wisely.

Counselling developed from psychotherapy and adopted at the outset a one-to-one relationship. Core features can be identified in counselling: for example: the clients need to feel that the counsellor cares about them; is able to understand their problems; and has a genuine feeling toward them. The counsellor's task is to facilitate the client's understanding of their own abilities, strengths, weaknesses and personality and to show respect, empathy and positive regard. The counsellor also at times needs to give the client information and clarify their attitude toward it, and toward the potential solution to their problem.

One of the situations where counselling is used is in career choice (Vocational Counselling), where a healthy relationship between the people and their working environment needs to be achieved. The relationship between people and their working environment is a mutual one, as both workers and organization (working environment) have complementary aims and goals, so the relationship is two sided. The worker's main aim is to be in a job suited to their abilities and capabilities, which matches their values and interests and satisfies and fulfils their needs. On the other hand, the organization's main aim is to find workers with appropriate abilities to do the job, increase productivity, reduce wastage, and help the organization to achieve its goals. Vocational counselling has the techniques and strategies to reinforce this relationship.

Vocational counselling is "The process of helping a person to develop and accept an integrated and adequate picture of himself and of his role in the world of work, to test this concept against reality, and to convert it into a reality, with satisfaction to himself and benefit to society" (Super, 1951, P. 92). It is a process of helping people to make vocational decisions, helping people to choose the occupation, profession, the training or educational course that will suit them best (Smaler, 1953; and Watts, 1990). Therefore, the vocational counselling process is based on three stages: a) helping clients explore themselves in terms of needs, interests, and abilities and also evaluating their strengths and weaknesses using interest and aptitude tests, b) providing information in order to understand the world of work in terms of opportunities, work requirements and demands, training, experience and rewards, and then c) matching of the self with job (Parsons, 1909). According to Roe (1956) it is not enough to supply vocational information, self-understanding and self-acceptance are in fact rather more important. As Super (1957), suggested- once an individual and a career are matched they will "live happily ever after"

Although it is important to provide a client with information about the world of work in terms of rewards, education, training and qualifications, this information is not sufficient in itself because a client's needs, values, and culture have to be taken into account. Occupational information should be related to the particular aspects of a job which are the most important to the individual.

Vocational counselling helps those who seek a job for the first time (especially the school leavers), where they sometimes are not able to make initial vocational choices, as they have unclear ideas about themselves, their needs, abilities and interests, and do not distinguish clearly between education and training and sometimes are unclear about how far their learning needs relate directly or indirectly to employment. Therefore, they may seek help from others (Alloway, 1986).

However, vocational counselling is not only important for those seeking a job for the first time but also for those with previous work experience, i.e. those who

leave work either because of redundancy or retirement, and those changing their job because of career progression. Therefore, people may need career counselling several times during their working life (Watts, 1980). Hopson & Hough (1973) (in Mitchell et al., 1984) cite evidence from the United States Census, indicating that the average 20-year-old can be expected to change jobs six or seven times during their working life. Wilensky (1960) estimated that the average individual will have 12 different jobs in a 46 year working life. Moreover, Schlossberg (1977) pointed out that, even those who remain for 40 years in the same job at the same level experiences changes, in that their self-concept and self-evaluation alter as time goes by and as other younger people move past them on the career ladder.

The purpose of career counselling is not only to diagnose the individual's abilities, aptitudes, interests and then recommend appropriate occupations, but to help them to work through their problems until they are able to reach their own decision by full use of their skills and talents and not to expect that a decision will be made for them by the counsellor. Therefore, the counsellor's role is to help clients to learn how to make decisions by acquiring a set of decision-making skills which enable decisions to be made as rationally as possible. Making decisions requires identifying and evaluating alternatives and clarifying personal values and interests. The basic assumption in vocational counselling is that each person has the potential for success and satisfaction in a number of occupations.

Counsellors need to prepare their clients for the fact that they may need to make more than one career decision during their working life. Thus, career decision making skills can be taught to be used throughout life. In this connection, Marland (1974) suggested that such skills ought to be taught to all children at an early age.

Career counselling (or vocational counselling) is concerned with the total life of the individual as a person's working life cannot be separated from their non-working life. According to Hayes et al., (1972) the primary aim of career counselling is the promotion of personal satisfaction with life as a whole.

Rodger & Cavanagh (1962) described the vocational counselling process as a task with positive and negative aims. The negative aim is to steer people away from work likely to prove unsuitable to their capacities or inclinations or both. The positive aim is to supply information about apparently suitable occupations and to foster an attitude of "planned procrastination" in the consideration of them.

Counselling can be conducted individually or within groups. In individual counselling, which is based on the one-to-one relationship, the client is helped by the counsellor to learn how to make their own decisions and to solve their own problems through a process of self discovery. This allows the client maximum personal contact with the counsellor, and provides a safe setting to develop a strong and trusting relationship with the counsellor (Hopson, 1985). In group counselling, on the other hand, one counsellor, or more, may work with a group of clients in a session. Hopson (1985) summarises the features of group counselling as follows:-

1- In this type of counselling a counsellor needs to know about group dynamics, communication, decision making, role playing, sources of power, and the perception process in groups.

2- In group counselling the individual has a chance to understand the nature of the relationship between people and to test others' perception of themselves.

3- There is also the possibility of generating helping skills among clients, so they can have an opportunity to help each other.

4- Being in a group, clients often discover that other people have similar problems, which can at the least be comforting.

5- Clients learn to make effective use of other people through mutual support and become less dependent on the counsellor.

Career counselling mainly uses interview and different types of psychometric instruments to achieve its goal. The interview is the first contact between the client and the counsellor, it enables the counsellor to understand the client and their problems, and to clarify their way of thinking and expectation of the counselling sessions. It also helps the client to express themself, and to decide whether to come

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again to see the counsellor or not. In the interview the counsellor should show the client their understanding and concern and that they care, but do not offer sympathy. The counsellor should focus not only on what the client says but how they say it, on what is not said and on the non-verbal communication that is used. The counsellor uses the interview to collect information about the client to build up a profile of the client and then uses it to advise and support the client in making decisions, e.g. choosing a job.

In spite of its importance, the interview is seen by many as not being an ideal way of assessing people, because it is subject to the influence of the interviewer's values and personal interpretation. According to Gothard (1985) some psychologists favour psychological testing over the interview because tests are a much more scientific and objective method of appraisal. Therefore, in the vocational counselling situation the counsellor may rely heavily on tests to provide information to aid the interview process.

Tests are widely used in vocational counselling because of their objectivity and comprehensiveness. Tests can help both the counsellor and the client to understand the client's characteristics, strengths and weaknesses. A wide variety of different tests (e.g. interest, personality, ability) are used in career counselling, depending on the aim that needs to be met in the counselling session. But the counsellors should be cautious in using and interpreting the results of any psychometric measure. As Holdsworth (1976) suggests counsellors have to be discriminating in their use of tests, by looking closely at the purpose for which they were designed, the population for which they were intended, and the commitment to the instruments by those who designed them (cited in Gothard, 1985).

According to Kline (1976) tests in vocational counselling serve three main functions:-

1- Highlight a client's strengths & weaknesses, likes & dislikes, personality characteristics, etc., and like the interview, provide an ipsative profile of an individual.

2- Help clients to see how they measure up to any of these characteristics in comparison with others.

3- Help stimulate new ideas about personal attributes to develop vocationally, and for new opportunities to be considered in education, work and leisure.

But because of the increasing number of people who seek vocational counselling help, self-administered instruments have been developed in order to multiply the number of those who can benefit from this service. Self-administered tests can be used as part of the counselling procedure to help both client and counsellor to have an idea about the client's interests, abilities etc. On the other hand, such an instrument can be used on its own by those who do not have, or who do not wish to have, access to personal counsellors. In addition, self-administered tests enable a person to be less dependent on the counsellor, and so decisions will be less affected by the type of relationship maintained with the counsellor. According to Holland & Gottfredson (1976) impersonal forms of help work well because person to person counselling can sometimes hinder decision making on the part of the client, as it is heavily dependent on the sort of relationship that is established.

Self-administered tests are less expensive and consume less time than traditional counselling methods especially for those who do not need further counselling on personal issues (Krivatsy & Magoon, 1976; and Becker, 1977).

Also in research work like the present study, self-administered instruments are a more convenient way of collecting infomation from individual subjects.

In conclusion, the major aim of vocational counselling is to optimize the fit between people and their working environment.

# 4- <u>Vocational Choice Theories</u>

Many theories have been suggested as to how people make career decisions. During counselling, more than one type of theory may be used depending on the type and nature of the client, the problem, or the goal to be achieved. According to Gothard (1985) few careers counsellors associate their own particular style of helping with a particular theory.

Theories, as Weinrach (1979) suggested, serve as "road maps" for counselling. Because vocational counselling consists of assisting clients in exploring a wide range of variables, theories help organize these variables into a manageable format. Theories of vocational choice and career guidance can be classified into three major groups: Matching, Developmental, and Situational. These approaches are closely intertwined and in many instances draw heavily upon one another both in terms of actual practice and in empirical research (Osipow, 1973). There is no right or wrong theory as they relate to different perspectives. However, all theories agree that occupational choice is affected by more than one single factor and, as Drasgow (1957) suggested, Freud's overdetermination principle would seem to be operating here.

Both matching and developmental theories are personality theories, because they study vocational choice in terms of personality characteristics and personality development. But they do not rule out the effect of work opportunities on career decision.

## A- *The Matching Approach:*

The aim of the matching approach is to match an individual abilities, talents, interests and personality to job demands, requirements and rewards. It sees preparation for work as the problem rather than work itself! Its concerns centre on difficulties in making the "right" choices, and facilitates their transition from and into work (Roberts, 1981). This approach is associated with the development of

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psychometric tests. People choose work that is close to their personal or social characteristics.

The matching approach started with Parsons (1909) who was interested in individual differences in occupational choice, success and satisfaction, but he did not suggest any psychological methods that would ensure the matching of people and jobs.

Many theories adopt the matching approach. For example, psychoanalytic theory suggests that people choose a particular job in order to satisfy their unconscious needs (Brill, 1949; Forer, 1953; and Bordin et al, 1963). It eliminates the effect of interest and abilities in career choice and suggests that vocational counselling is ineffective and personality is more important in making vocational choices. Zagar et al., (1983) supported this notion and they added that personality traits are likely to be more stable while vocational interests may fluctuate with environmental and social factors. Small (1953) saw vocational choice as an ego function. Individuals with different ego strengths will show different degree of reality in making vocational choice. People with a "healthy ego" are more able to choose realistic jobs, while people with an "ill ego" tend to choose fantasy jobs. Psychoanalytic theory does not consider interests and abilities as part of personality.

Osipow's theory (1973) widens the range of factors that affect career decisions to include an individual's values and needs. He hypothesized that needs and personality in general lead to patterns of behaviour that characterise the individual in all the settings in which they operate. He called this "personality style". Thus, if the basic style of people is observed, better prediction may be made of their occupational behaviour. Personality style influences occupational choice and behaviour.

Holland's theory (1985a) is a matching theory. As it is the focus of this study so it is outlined in some detail. Holland's theory, like most matching theories, is a personality theory. But it differs in its emphasis of the importance of interest in vocational choice. Holland suggests that interest is an important aspect of personality

and occupational choice is a function of interest. Holland's theory deals with three issues:

1- "What personal and environmental characteristics lead to satisfying career decisions, involvement, and achievement, and what characteristics lead to indecision, dissatisfying decisions, or lack of accomplishment?"

2- "What personal and environmental characteristics lead to stability or change in the kind of level and work a person performs over a lifetime?"

3- "What are the most effective methods for providing assistance to people with career problems?" (Holland, 1985a).

The theory is based on four hypotheses. Firstly, people can be characterized by their resemblance to each of six personality types: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. A full definition of these types can be found in Holland (1985a). A person's resemblance to each of the personality types can be estimated by the six scales of the Self-Directed Search (SDS): SDS is described in Chapter Three. Holland indicated that the three-letter summary code obtained from the SDS allows for complexity of personality and reduces some of the problems inherent in categorizing a person as a single type. The more closely a person resembles a particular type, the more likely he is to exhibit the personal traits and behaviours associated with that type. Culture, child-parent interaction, social class, physical environment and biological heredity combine to shape and develop an individual's personality.

Each personality type has a characteristic repertoire of attitudes and skills for coping with environmental problems and tasks. Different types select and process information in different ways, but all types seek fulfilment by exercising characteristic activities, skills and talents and by striving to achieve special goals. Consequently, types are often active rather than passive receivers of environmental influence, both seek and avoid environments, problems, and tasks.

By comparing a person's attitudes with those of each model type, it is possible to determine which type he or she most resembles. That model is used to represent a

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person's personality type. Then the other types a person closely resembles can be determined. The total resemblance to each of the six types forms a pattern of similarity and dissimilarity- the individual's personality pattern.

Holland's theory assumes that an individual to some extent resembles one of six basic personality types, but at the same time uses a wide range of strategies for coping with other environments, and thus can cope with more than one environment. Individuals are seen as belonging primarily to one personality type, with apparent influences of a second or third type contributing to their overall approach in coping with their environment. In other words, Holland admits that a six-category scheme, built on the assumption that there are only six types of people in the world, is unacceptable on the strength of common sense alone. But a six-category scheme that allows a simple ordering of a person's resemblance to each of the six models provides the possibility of 720 different personality patterns or repertoires for coping with the environment.

The second assumption of the theory is that environments in which people live can also be characterized by their resemblance to six model environments:- Realistic, Investigative, Artist, Social, Enterprising, and Conventional. An environmental model may be defined as the situation or atmosphere created by the people who dominate in a given environment. Each model environment reinforces a characteristic group of activities, competencies, predispositions or behavioural repertoires and its own characteristic achievement. A full description of the environments is presented in Holland (1985a).

The relationships within and between types or environments can be ordered according to a hexagonal model, in which the distances between the types or environments are inversely proportional to the theoretical relationships between them. The closer two environmental models or personality types are in the hexagon, the greater the similarity (consistency).

The character of an environment reflects the typical characteristics of its members. If we know what kind of people make up a group, we can infer the climate

that the group creates. So, each environment is dominated by a given type of personality, and each environment is typified by physical settings posing special problems and opportunities. Because different types have different interests, competencies, and dispositions, they tend to surround themselves with special people and materials and to seek out problems that are congruent with their interests, competencies, and outlook on the world.

The third assumption of the theory is that people search for environments that will let them exercise their skills and abilities, express their attitudes, values and personality, and take on agreeable problems and roles (congruence). To a lesser extent, environments also search for people through friendships and recruiting practices. A person's search for environments is carried on in many ways, at different levels of consciousness, and over a long period of time.

The fourth assumption is that a person's behaviour is thought to be determined by an interaction between personality and the characteristics of the environment. Based on an individual's personality pattern and the pattern of the environment, some of the outcomes of such a pairing can, in principle, be forecast using knowledge of personality types and environmental models. Such outcomes include choice of vocation, job changes, vocational achievement, job satisfaction, personal competence, and educational and social behaviour.

In addition, Holland suggested four concepts: consistency; differentiation; identity; congruence. These concepts affect the interaction between personality patterns and environments. Consistency is defined as the degree of relatedness between personality types or between environmental models. Degree of consistency or relatedness are assumed to affect vocational preference. Consistent environments provide similar rewards and demands; inconsistent environments provide divergent rewards and demands. For instance, Realistic and Investigative environments are consistent because they are adjacent on the hexagon and involve similar activities, competences, and rewards. For the person, a more consistent personality pattern represents an integration of similar interests, competencies, values, traits, and

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perceptions. Such people are more predictable as well as more resistant to influence. The outcomes of an interaction are influenced by the consistency of a person's personality pattern and the consistency of the environmental model. Consistency of the SDS profile is associated with a more stable work history. Such consistency is also assumed to be conducive to vocational achievement and clarity of personal goals.

The second concept is Differentiation. It is the magnitude of the difference between highest and lowest scores on the six variables used to determine a person's degree of resemblance to a personality type - the greater the difference between the highest and lowest of the six scores, the greater the differentiation. The differentiation of an environment is the percentage difference between the most and least common personality types in a given environment. Differentiated environments encourage a narrow range of behaviour in explicit ways; undifferentiated environments stimulate a broad range of behaviour and provide ambiguous guidance. The differentiated environment is analogous to the person who resembles only one personality type; the undifferentiated environment is analogous to the person with a flat profile who resembles each type to the same degree.

The third concept suggested by Holland is that of Identity. Personal Identity is defined as the possession of a clear and stable picture of one's goals, interests, and talents. Environmental identity is present when an environment or organization has clear, integrated goals, tasks, and rewards that are stable over long time intervals, and an environment with a diffuse identity would have a large set of conflicting and poorly defined goals.

Congruence is the fourth concept. It occurs when a particular personality type lives in an environment that provides the opportunities and rewards desired by this type of personality and is related to its abilities, interests and educational level. So, it is the relationship between the person and the environment. Career involvement and satisfaction will be positively associated with congruence. Super (1981) agreed with this idea. Holland (1985a) assumed that "consistency", "differentiation", and "identity" promoted stability of vocational choice.

Holland suggests that the personality pattern, which is a person's profile, represents the degree of resemblance to each of the six personality types. Well differentiated patterns have sharp peaks and low valleys, whereas poorly differentiated patterns are relatively flat. In some extreme cases, a differentiated personality pattern would represent a person who resembles a single type and no other. In this case the person would be unusually predictable. The opposite case would be a person with a flat profile (resembles each type to the same degree). In this case the person would be very unpredictable.

According to Holland's theory a wise career decision is made when a person's personality type is determined and then matched to the appropriate work environment. Not only does the particular dominant personal orientation influence the career choice a person makes, but the pattern of the orientations within the individual's hierarchy exerts a significant influence. That is, two persons with the same major orientation will choose similar fields, but the stability of their choice is a function of the order of the other five orientations in their personal hierarchy. If the personality pattern is consistent, the choice is likely to be stable, but when the pattern is inconsistent for that occupational environment then the choice is likely to be unstable.

Although choosing a suitable work environment is determined by the personality type, the level within an occupational environment that the individual chooses is a function of several other factors e.g. the individual's intelligence, self-evaluation, and self-knowledge. Self-knowledge refers to the amount and accuracy of information people have about themselves. It differs from self-evaluation which refers to the worth people attribute to themselves. Holland states that the adequacy of occupational choice is largely a function of the adequacy of self-knowledge and occupational knowledge. The greater the amount and accuracy of information people have about each, the more adequate is their choice.

In addition, work decisions are not always easy to make because some environmental factors may challenge such decisions, i.e.. social pressures and opportunities available in society. Holland's theory does not assume that the

environmental variables influence people in random ways. Rather, people with well-structured developmental hierarchies will be less affected by outside pressures than people possessing ambiguous personal hierarchies. In addition, although social pressures, early adolescence and childhood experiences influence the shape of the hierarchy before the stable hierarchy of personal-orientation develops, these experiences are likely to influence vocational choice after the hierarchy is developed (cited in Osipow, 1973).

## B- *The Developmental Approach:*

The Developmental approach emphasises the development of an individual, and uses both education and employment to facilitate personal growth and fulfilment (Reubens, 1977). It sees the relationship between the career counsellors and their clients as assisting the client's developmental process in a non-directive way, helping them to form a clear, objective picture of themselves and to clarify the role that they want their occupation to play in their total life, and equipping them to choose an occupation which will perform this role effectively (i.e. Super, 1963).

The developmental approach started with Ginzberg et al., (1951) and became widely established during the 1960's in America by Super and others. It sees occupational choice as a developmental process extending over many years. The developmental approach is based on the following hypotheses:-

1- Career decision making is a continuous process occurring through development, so career decision making needs to be taught as skill that a person can use at any time.

2- The focus should be not only on what people could offer to their work, but also what their work can offer them in terms of their total personality and life-style.

3- Guidance should be concerned with self development and growth as well as the matching of existing attributes.

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4- Guidance should help a client to choose an occupational role, in connection with leisure, family and community.

5- Guidance does not take decisions on behalf of people, but helps them to make decisions for themselves.

Ginzberg et al., (1951) assumed that at least four factors are involved in vocational choice. These factors are reality, educational, emotional, and the individual's value system. It assumes that the social structure both influences personal development and defines the conditions in which decisions take place. The theory contains four elements:-

1- Vocational choice is a developmental process which takes place over a period of time.

2- Vocational choice is an irreversible process, occurring in reasonably clearly marked periods, which is characterized by a series of compromises people make between their wishes and their possibilities.

3- The process of occupational choice ends in a compromise between interests, capacities, values and opportunities.

4- There are three major periods of the developmental process, Fantasy, Tentative, and Realistic periods.

In 1972, Ginzberg made some changes to his original theory. Firstly, he considered occupational decisions to be life-span phenomenon, not simply short-term events restricted to the adolescent and early adult years. Secondly, the notion of irreversibility was rejected and viewed in terms of the expenditure of time and resources. Finally, the concept of compromise was changed to one of optimization, such that a person is seen as continuously searching for the best fit between preferences, career avenues and current opportunities.

Roe's (1957) theory is a developmental theory, which attempts to explain the relationship between genetic factors and early childhood experiences; the type of parent-child interaction, on the one hand and vocational behaviour on the other. She proposed that every individual inherits a genetic map that shapes abilities and

interests which in turn are related to vocational choice. Strong (1943) Forer (1953) and Grotevant et al., (1977) support the notion of inherited interests. Roe adds that individuals also inherit a tendency to expend energies in some particular way. This expenditure of energy is not under the person's control, but is influenced by genetic inheritance and by the childhood experiences which lead them to develop a style to satisfy their needs throughout life. The resulting style has specific and major implications for career behaviour.

Although Super (1981) classified his self-concept theory as a developmental theory, it seems also to include a matching element, between one's self-concept and occupation, and it also seems to include socialisation because it assumes that career pattern is determined by an individual's parental socio-economic level and work opportunities. Super proposed that people strive to implement their self-concept by choosing to enter the occupation most likely to permit implementation of the self-concept. The particular behaviours people engage in to implement their self-concept vocationally are a function of their stage of life development. The manner in which it is implemented is dependent on conditions external to the individuals. Career decisions are made as a result of the interaction between personal factors (i.e. self-concept, intelligence) and situational factors. In 1963 Super defined vocational self concept as "one's concept of one's self as a member of an occupation" (P.10) He views vocational choice as an expression of self-concepts formulated and reformulated through the life stages. So people choose different jobs because they have different self-concepts.

The process of vocational choice and adjustment, should help people to find out: a) whether the job permits them to play the kind of role they want to play; b) whether the role the job makes them play is compatible with their self-concept; c) whether elements in the job can be assimilated into the self or modified to suit the self. Vocational choice is a process of testing self-concept against reality, of finding out whether individuals can actually live up to their picture of themselves. Super

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proposed five life stages: growth, exploration, establishment, maintenance and decline and during these stages the vocational self-concept develops.

Gottfredson's (1981) theory of occupational aspiration is similar to Super's theory in the sense that it is based on the notion of self-concept. It assumes that self-concept is composed of different elements. The major vocationally relevant elements are gender, social class background, intelligence, vocational interests, competencies, and values. These elements are incorporated into the self-concept at different stages of cognitive development. The self-concept develops over several stages:- 1) orientation to size and power stage (ages 3-5 years), 2) orientation to sex role (6-8 years), 3) orientation to social valuation (9-13 years) , and 4) orientation to the internal unique self (around age 14).

A person's cognitive map of occupations develops with age. When career decisions need to be made, some criteria are used to eliminate some types of occupations as potential alternatives. These criteria are sex-type, prestige level, fields of work and interest. When a compromise is needed between jobs, vocational interests are sacrificed first, job level or prestige second, sex type last, because the latter are "more central aspects of self-concept and are more obvious cues to one's social identity" (P. 549). The compromises continue until eventually most people report being in the type of work they want. In addition, Gottfredson assumed that a person will take the availability of jobs into consideration.


### C- *The Situational Approach:*

This approach is concerned with the efficient utilization of the work force, and when necessary at the expense of individual worker fulfilment. Although Roberts (1981) accepts "that at some level of reality individual's work orientations may well develop through stages and by means of processes specified in particular occupational choice theories" (P. 283), he sees occupational choice as being unrealistic and irrelevant to most people, because they do not have a real choice of jobs, but take

what is available to them. Roberts' view (1968, 1981) is that occupational preferences are mainly determined by the occupational structure, employer's recruitment practices and the system of social stratification. Social class determines the type and the amount of a person's education and the occupational level, thus the individual's aspiration has a marginal effect on their choice. In conclusion it is meaningless to try to understand the career of the typical worker in terms of the implementation of the self-concept because most people experience a considerable mis-match between self-concept and occupation, and consequently they modify their aspirations through socialization processes in line with occupational experiences. Roberts sees guidance as ineffective and suggests that career guidance should concentrate not on raising unrealistic expectations, but on helping people to adjust successfully within the opportunity structures open to them. According to Roberts (1979), the labour economists believe that if people are given the facts about the manpower needs of the country they will make appropriate choices.

Brim (1966) and Sewell & Hauser (1975) share the same opinion, and stress the important influence of society on decision making, and conclude that vocational choice is not the result of a personal decision but the result of external influences out of the person's control- what a society needs the worker to be. Super (1981) called this procedure manpower-selection not occupational choice.

Finally, Blau and his associates (1956) suggested a comprehensive scheme with which to conceptualise occupational choice in a cultural framework, where social and economic structure exerts an influence on vocational choice. They see occupational choice as a developmental process, with career decisions being based on a compromise between preferences for particular occupations and expectations of being able to enter them. They assume that eight factors (four pertaining to occupations and four characterizing individuals) determine occupational entry. The first four factors are; vacancies, qualifications, physical appearance, rewards expected from work. The other factors (individual characteristics) include; a person's

information about an occupation, a person's skills appropriate to the job, the social characteristics that influence hiring decisions, and finally people's value orientations.

## 5- EVALUATING CAREER CHOICE APPROACHES

Theories of career choice are intertwined. Although they have different origins and basic assumptions, they have similar aims in assisting people to find possible and suitable jobs. Theories differ in their emphasis on the importance of various factors that affect job choice. For example, the developmental theories emphasise the importance of the developmental process but do not rule out the effect of situational factors such as the availability of jobs in the labour market (the "situational approach"). Similarly, although the matching theories focus on the link between peoples' personal characteristics and job demands, they also assume that interest in a job develops over time and is shaped by early life experience; the "developmental concept". They also assume that career choice is determined by the job options available to people; the "situational approach".

Developmental theories believe that career choice is a result of a developmental process over a long period of time and during this process many factors outside a person's control will influence and shape the final job decision. Therefore, in order to be able to help people to make decisions, their history in terms of child-parent relationships and social influences have to be studied to identify the factors that have influenced the shaping of their self-concept and in turn their job choice.

The developmental approach appears to eliminate a person's capability for free choice because it assumes that variables outside a person's control determine their choice. Roe's theory (1957), for example, assumes that heredity is the only factor that forces a person to choose a particular job, while Super (1981) and Gottfredson (1981) focus on the influence of social expectation, social-class background and other social

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factors, which are each outside a person's control, on the developing self-concept which in turn effects a person's career choice.

Developmental theories then deny an individual's ability to change or compromise with the outside world in order to choose a suitable job, but assume that individuals choose what society and other people think is suitable for them. This is in contrast to the belief that the effect of social factors in career choice is exaggerated because people have the potential ability to change and compromise with the outside world.

The developmental approach cannot be used with every candidate because it is time consuming and expensive, therefore, the counsellor's ability to provide the service to a large number of clients is limited. However, not all clients need this long and expensive service because many have clear ideas about what they want and only need clarification and confirmation. The developmental approach might only be relevant with some cases where clients do not really know what they want or how to make a career decision because they have an ambiguous, unclear idea about themselves.

On the other hand, the matching approach takes less time and so is cheaper because it aims to categorise a person's characteristics in terms of abilities and interests, then to match them with job demands and requirements.

The matching approach is simple to understand and easy to apply using straightforward assessment techniques (i.e. tests, interview). The matching approach is useful and helpful especially for those who have less serious problems in making career decisions, and can provide a career counselling service to a wide range of people. Also it helps clients to be more involved in decision making as getting them to fill in tests and inventories promotes more self-knowledge and understanding.

However, the situational approach does not believe that people have a real opportunity to choose their jobs but have to take what is available to them. Therefore, it shares with the developmental approach the idea that people choose a particular job because of factors not under their direct control; they have less freedom and less

involvement in taking decisions. The situational approach is more applicable when there are few jobs available in the labour market.

Each approach has some merit and weakness, therefore, in practice the most effective way of helping a client is to look at the person as a whole within a developmental context while at the same time attempting to match their personal characteristics to work demands, perhaps using psychometric tools.

Holland's theory was selected for cross-cultural examination and recommended for use in career counselling in Kuwait because it is clear and less complex than any.other theory. It classifies people and working environments into six types of personality and models which cover most jobs in the world of work. A person is held to resemble one type of personality more than any other type but at the same time has strategies for coping with other types and environments. Classifying a person to one type of personality makes the match between a person and an environment a straightforward task. At the same time, the three letters that are obtained by the SDS (summary code) not only represent the type of personality a person most resembles but also the second and the third ranking category. This enables people to widen the job options that are suitable to them.

In addition, the theory provides a tool to assess a person's interests (The Self-Directed Search "SDS") and also has developed a dictionary of occupations to enable the user to translate their interest pattern into a list of appropriate jobs. The advantage of the SDS is that it measures a person's vocational interest using more than one method. Interests are measured by the activities and competencies a person expresses and is good at, the type of occupations a person would like most to do and how a person estimates themselves on a list of abilities. Holland's instrument is the premier and most widely used interest inventory in the West and it has an impressive record of supporting research going back over thirty years. It has a strong theoretical base and is practical and economical to use. As such it was an obvious choice for this study.

However, although Holland considers his theory as a personality theory, it cannot be generalized to all situations. In other words, it would be inappropriate to

use Holland's theory to describe a person's personality in situations other than career choice. Holland's theory exaggerates the role of interest in career choice and less emphasis is placed on the effect of social and situational factors (e.g. family expectations, and sex-role).

Some of Holland's assumptions and principles are more theoretical than practical. For example, the concept of congruency, consistency, differentiation and their effect on job satisfaction, achievement and stability have not yet been confirmed empirically.

In conclusion, regardless of type, theories of career choice hold that career decision should be made in connection with a client's total life; work cannot be separated from other aspects of life. The aim of the counsellor is to help clients achieve successful adjustment in their lives.

In general, there is no real concept of vocational choice in Kuwait at the present time. People take what is available to them. This is not only because few options are available, compared to the West, but also people do not know how to make career decisions, perhaps due to the lack of occupational information and career counselling services.

The combination of situational and matching approaches are probably more suitable to the current situation in Kuwait, as they are realistic, easy to apply and economic. The matching approach could be facilitated by taking assessment tools that are readily available in the West and translate and adapt them for use in Kuwait.

## 6- Conclusion

Because work is very important for people, it needs to be chosen carefully and career counselling can help in this situation. In choosing a job a person makes a statement about the kind of person he wants to be. Career decisions are not only determined by a person's preference for a particular job but also by social influences

and family expectations, by individual needs and personality and by the labour market situation and the availability of jobs. To help a person make a vocational choice the career counsellor should take the client's needs, sex, age, culture and sub-culture into consideration because these may affect a client's preference for one particular job rather than another. Also counsellors should be aware of their own values because these may effect their style in counselling and may indirectly encourage or discourage a client from choosing a particular job.

# CHAPTER TWO
## CROSS-CULTURAL ISSUES IN VOCATIONAL COUNSELLING
## WITH SPECIFIC REFERENCES IN KUWAIT

### 1- Cross-Cultural Research

In the last chapter we examined the role of counselling in vocational choice making and the importance of identifying a client's abilities, interests, and personality while making job choices. Various means can be used to identify a person's characteristics. Psychometric tests are usually used in personal assessment.

Nearly all psychometric instruments are made in the West, and so represent Western culture, which is obviously very different from other cultures. In most cross-cultural studies, especially in the developing countries (where psychology is a new area and very few tests are available) tests and experimental procedures developed in the West are regularly adapted and used in different cultures. But when a single test is used to compare different cultures or different ethnic groups in the same culture, results have to be treated with caution. Even if the sample characteristics could be matched satisfactorily, tests measure different things with different groups (or measure the same thing in a different ways). So to eliminate bias in tests when used in different cultures, they need to be specifically adapted to the new culture.

Cultures differ from each other in their recognition of what is right and what is wrong, and also in their definition of terms like intelligence, personality etc. Therefore, when a test needs to be used in a culture other than the original one, changes are essential. The changes vary in nature, and range from rephrasing and replacing sentences, to omitting items.

According to Ortar (1972) the extent of modification required depends on the distance between the source culture and the culture for which the test is being adapted. However, there are no objective instruments for measuring cultural distances, so that the components of a test (in term of attributes to be measured, the

criterion, the test language, the subject background, and norms) which require attention need to be dealt with directly. Thus test components have to be considered because the same item is likely to produce different responses in the two groups because of differences between the two cultures. Similar concepts across cultures cannot be taken for granted. Cultural differences must be investigated before it can be determined whether a given instrument promises to be a fair measure of the characteristics under consideration.

This chapter will deal with some issues in cross-cultural research with reference to the differences between the West and the Middle-East, and the situation in Kuwait in particular.

Cross-Cultural studies started with anthropology which attempts to find differences and similarities between and within various cultures (in terms of values, traditions, history etc). Also it is interested in discovering and understanding cause-and-effect relationships, and in developing general theoretical statements about them. Cross-Cultural psychology joins anthropology in its interest in studying cultural differences, but its attention is oriented toward identifying the similarities and differences in human behaviour which can be attributed to cultural variables. Eckensberger (1972) defined cross-cultural psychological research by saying: "Cross-Culture research in psychology is the explicit, systematic comparison of psychological variables under different cultural conditions in order to specify the antecedents and processes that mediate the emergence of behavior differences" (P. 100).

This type of research attempts to discover the variance in human behaviour arising from different cultural variables. It selects the antecedent conditions for behavioural differences in nature by maximizing the systematic variance of environmental conditions across cultures, and then investigating behavioural consequences which do not occur in all cultural contexts (Sears, 1961). Eckensberger (1972) recognized the objects of the cross-cultural research as a method of developing new models of test construction and application of theories that stress process

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constructs (e.g. thinking, adaptability) more than structures (e.g. most of the intelligence factors), and the inclusion of experimental conditions into the validity process of tests. This is because each culture has its own identity and most of the variance in human behaviour is the result of cultural differences. Therefore, each culture needs to be understood in its own context.

Berry & Dasen (1974) stated three goals of cross-cultural psychology. The first is to transport present understanding (knowledge, hypotheses, and laws) to other cultural settings, to test their applicability and generalizability. The second is to explore new cultural systems to discover behavioural variations and differences which have not been experienced within the researcher's own cultural context. Thirdly, to compare prior understanding with newer knowledge obtained within diverse cultures to generate more universal generalizations about human behaviour (cited in Berry, 1979).

However, it is worth stating that the researchers' perceptions of the world are largely determined by what they have experienced as important variables (Kuhn, 1970 cited in Lonner, 1979, p. 17), and their perception of other cultures is coloured by their own cultural values which they might find difficult to define objectively.

Furthermore, cultures differ in their definition of what is right and what is wrong. The same behaviour has different meanings in different cultures, what is right in one culture is probably wrong in another, but it should not be seen in terms of "better" or "worse" because it is actually manifested differently. Diaz-Guerrero (1977) believed that even those variables that appear to be universal, vary from one culture to the other when age, sex, social class, and other specific aspects are taken into account. In this context, Stroebe (1972) and Bakare (1972) found that when socioeconomic class is held constant the differences in scores between cultures become much smaller. As a consequence, before studying another group's behaviour, its culture has to be recognized and understood, and the identifying of a particular behaviour has to be made within the context of its own culture and environment and by a person who is familiar with that culture and its language. Eckensberger (1972)

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suggested that culture and its members' behaviour can be interpreted only in the culture's own term i.e. "Cultural Relativism". When the researchers are alien from the culture they are studying, they will not be able to provide an objective explanation of that culture, because their explanation will be biased by their own culture and values. Pedersen (1979) concluded that much of what is considered as psychological data is not universally, but only relatively true, as it applies in the context of those who share the cultural assumptions of the experimenters and writers. Because different cultural conditions relate to different forms of behaviour and because of the complexity of human behaviour, it is not easy to generalize results from one study to another. Therefore, it is inadequate to use a psychological theory or test that was initially developed for one culture in another culture, and assume that the same images and concepts will appear in the second culture, unless it is efficiently adapted. As Lonner (1979) suggested, any differences noticed in applying a theory in a different culture is the result of a mismatch of theory and culture; differences are due to the fact that theory has a different form, function and meaning in a different culture. Kline (1988) concluded that when a test is used in a culture different to the original it has to be validated in the new culture. Only then can cross-cultural psychology begin. Eckenberger (1972) regarded cross-cultural research using tests, as a part of the process of construct validity.

## The influence of culture on behaviour and personality:

The relationship between culture and personality can be seen from the perspective of a behaviour-culture relationship. The relationship between culture on the one hand and behaviour and personality on the other is mutually dependent. In one way or another, culture effects and is affected by an individual's behaviour and personality. Culture first shapes and changes behaviour by reinforcing or rejecting certain types of behaviour, in turn the behaviour which is rooted in an individual's

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personality has an impact on customs and institution and produces cultural changes. Therefore, as cultural factors affect an individual's behaviour in many ways; behaviour cannot be measured or analysed independently of culture. Although there are individual differences in how individuals are influenced by culture, all are influenced in one way or another.

The influence of culture on behaviour and personality produces contradictory opinions. One approach (Draguns, 1979) suggests that the reason for the existence of different types of personality is that culture variables have direct and major effect on personality. On the other hand, other approaches assume that culture only affects the external behaviour of human beings and leaves the core of personality unchanged (Tylor, 1958). While Draguns (1979) suggested that culture shapes all our experiences and behaviour and leaves an impression on the "internal" organization of behaviour and would produce different "types of people" or, at least, different distributions of such types in various cultures, Tylor (1958) proposed a "Psychic Unity of Mankind" which hypothesises that cultures produce divergent external trappings of custom and behaviour while leaving the inner core of human experience untouched. Sears (1961) shared Tylor's view about the universality of human variables, and assumed that while on the surface humans being are different, at core they share the same "Transcultural variables". He gave the example of aggressive behaviour: he suggested that the desire to harm and injure others is a universal motive across all humans, but that the aggressor's instrumental activities, that serve to hurt someone else, will differ from one culture to another. Therefore, the motive is universal but the way of expressing it is individually unique. According to this view, all human beings are similar in personality but they differ in their culture-specific behaviour.

## 2- Some Issues in Cross-Cultural Studies

Cross-cultural research is interested in understanding the differences between cultures. The instruments used vary with the nature and the purpose of the research, and include different types of tests or inventories, observations, and interviews. Regardless of this diversity, some corner stone issues remain. Researchers in cross-cultural studies believe that it is vital first to frame a theory and formulate hypotheses about the relationship between cultural conditions and psychological consequences. Eckensberger (1972) suggested that theory is important, first to formulate hypotheses about the "systematic variance" between cultures, second to help in the preselection of samples according to the specific hypotheses and to maximize the "systematic variance". Finally, because the experimenter cannot manipulate cultural conditions, assumptions with regard to variables that produce additional variance have to be deduced from theory. Eckensberger (1972) added that the researcher in the cross-cultural field should seek the kind of theory that meets the following demands: 1) "It should be formulated independently of a special sample", 2) "It should explicitly contain assumptions about interactions between the individual and his environment" and 3) "It should be developmental in nature" (P. 104).

Because of the comparative nature of cross-cultural research two persistent methodological concerns need to be identified. The first is the emic-etic approach, while the second is related to problems in the establishment of various types of equivalence, specially when psychometric instruments used. The emic-etic dimension explains the uniqueness and universality of a behaviour. The etic refers to the construct, stimulus, behaviour or any sociological abstraction that is unequivocally recognized everywhere (Lonner, 1979). It seeks the universals of human behaviour. When the etic approach is used in cross-culture research, the researcher's aim is to compare cultures in the same aspects, e.g. intelligence. According to Kline (1988), although it is easy to gather etic data from different

cultures, it is difficult to establish meaningful comparison. This is because the same behaviour may be perceived differently in different cultures.

On the other hand, the emic is the construct, stimulus, concept or abstraction that is totally unique (Lonner, 1979). The emic approach studies the uniqueness of behaviour. It encourages the understanding of culture within its own terms, and assumes that the meaning of behaviour as seen by members of the culture is what is most important. Behaviour cannot be analysed or understood as independent from culture. The interpretation of a behaviour given by people from the same culture may vary from that given by others from a different culture, because meaning given to a behaviour is affected by the observers' values and norms. Therefore, when the observers belong to different culture their comprehension of the behaviour will be coloured by their own, as well as their culture's, values. The emic research aspires to study and recognize the influence of variables on a particular event in a single culture.

According to Lonner (1979) "If the social-scientific world consisted only of the etics, comparative research would be an easy task, but if it consisted only of emics, then comparativism would be impossible as no two things would share anything in common" (P. 19). Most cross-cultural studies are etic, where more than one culture is studied. Lonner deduced that the etic approach is explicit in cross-cultural psychology, where, 1) tests or standard experiments are used as if they are universal markers, 2) studies examine more than one culture at a time in the same research program, 3) theory or criteria are employed that are not culture-specific, and 4) generalizations are drawn across cultures by using any or all of these factors.

Cross-cultural research often attempts to compare cultures on just one aspect (i.e. personality, intelligence, interests etc). Usually tests are used as the main instruments and scores are compared. But when a test, or any experimental procedure, developed in one culture is used in another, it has to be adapted to the new culture in order to make the results comparable. The problems which emerge from comparing different cultures can be due to; the sample, the language, the content of the test, the test instruction, and the testing situation as a whole. When scores of

people from two cultures are compared, the tests that are used have to be equivalent. As a result, the other methodological concern in cross-cultural research is in the establishment of test equivalence. The term "Equivalence" is based on the idea that the psychological meaning of overt behaviour should be judged in terms of its implications and aims, rather than in terms of formal similarity or dissimilarity of observable phenomena (Poortinga, 1975). There are four types of equivalence, Functional, Conceptual, Linguistic (or Translation), and Metric.

## A- *Functional Equivalence*

This type of equivalence relates to the fact that the behaviour or the concept that is being measured or tested has the same function in different cultures. As a result, the researcher has to make sure that the items in the two tests refer to the same behavioural function and are measuring the same thing. Frijda & Jahoda (1966) stressed the need for functional equivalence. They suggested that the behavioural phenomena which are compared should have the same function in different societies, i.e. they should provide similar means to reach similar goals. Eckensberger (1972) proposed that neither formally identical items, nor formally identical responses, nor formally identical situations can be compared because the individuals investigated and the items used will be different. Therefore, he suggested that functional equivalence is the solution to comparison problems. Functional equivalence can be achieved when items in tests refer to the same construct and latent variables.

## B- *Conceptual Equivalence*

This type focuses on the existence of meanings that individuals attach to specific stimuli such as test items, certain words, type of behaviour etc. In the test a single item has to have the same meaning for all people in different cultures regardless of the individual words used. In order to achieve conceptual equivalence, and to overcome the problems associated with verbal tests, "culture-reduced" tests have been developed.

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Flier (1972) classified "culture-reduced tests" into "culture-free" and "culture-fair" tests and distinguished between them. A "culture-fair" test is one that restricts the influence of culture factors on skills between two or more cultural groups, while a "culture-free" test is one that meets the above requirement and can be applied to all culturally determined skills.

Culture-free and culture-fair tests are developed for use when psychological measurement is affected by cultural factors which are not identical across different groups. When such tests are used, it is supposed that intergroup differences only reflect racially genetic factors (Poortinga, 1975). The object of these tests is to reduce the number and level of culture factors that determine the skills required to solve test problems and to broaden the group that can benefit from the test. This can be done, as Flier (1972) suggested, through expanding the instructions and the practice component. Instructions are a significant part of a test. It is not only the content of the test that affects a person's response but also the test's instructions. A clear instruction tells the subject the purpose of the test which in turn may alter the response. Ortar (1972) stressed the importance of the test's instructions in giving a subject a clear idea of the principles underlying the test; rewriting instructions can make it unnecessary to change test items. Gitmez (1972) suggested that the test instructions might determine a subject's performance. Instructions people receive determine their attitude to the task and their performance. In addition, variations in performance are caused by variations in the way an individual identifies the task to be performed. The response made to them is in part dependent on the interpretation of the task.

Most culture-free and culture-fair tests are non-verbal tests, they contain symbols, and pictures, which are supposed to be familiar to all subjects, despite their culture background; the subject needs only to grasp the test concept to be able to attempt to solve the test problems.

Verma & Mallick (1988), Arici (1972), and Frijda & Jahoda (1966) doubted the existence of culture-free or culture-fair tests even if their designers claimed them

to be so, because each psychological test is necessarily influenced by the culture and ideological perspective of its designers. Similarly, Irvine et al., (1972) doubted the existence of such tests noting that even a culture-free test like "Raven's Matrices" is highly susceptible to cultural influence. Rimland (1972) distrusted the fruitfulness of the culture free and culture fair tests (intelligence tests in particular) because, although these tests are widely used in cross-cultural studies, most of these show that they do not permit low aptitude individuals (such as minority-group members) to score any higher relative to the general population than they do on more standard intelligence tests. Poortinga (1975) thought that the manipulation of the test content until equal mean scores were obtained makes a test unsuitable for the study of the effect of cultural variables; as a result culture-fairness is a rather "anomalous" concept in intercultural research. The objection to these tests is that some symbols may not be familiar to all people so all will not perceive them equally, primarily because an individual's understanding is contingent upon experience. For example, in a culture where car, plane, and train are not a means of transport, these cannot be included in a test. This means that even culture-free and culture-fair tests have to follow the cultural context. Semin (1972) warned that even when a test does not contain words, the pictures or the symbols that are used in the test ought to be familiar in the culture where the test is to be used.

## C- *Linguistic or Translation Equivalence*

Some writers e.g. Kline (1988) combine this type of equivalence with that of "conceptual equivalence". The linguistic equivalence involves both spoken and written language forms used in the comparative psychometric instruments, i.e. questionnaires, interviews, tests, and instructions given during experiments. The standard procedure to achieve linguistic equivalence is to translate the test's words, phrases, and sentences with the assumption that the other language is able to provide equivalence. According to Ortar (1972) a reliable translation, being dependent on the existence of specific terms and usage in the adapting language, would serve as a

protection against cross cultural misinterpretation of meaning or problem. Although the normal procedure in cross-cultural studies is to translate tests developed in Western countries, this procedure is regarded by many as an uncertain way of producing an equivalent test. Often a straightforward translation produces a different test! Therefore some modification needs to be introduced to reduce the differences. Modifications vary in kind and extent. Adaptation may vary from paraphrasing of a few items to the construction of a new test based on the original model.

De Kohan (1972) argued that a good translation of test items is very difficult to provide, and moreover there is no general agreement on what is a good translation. A word by word translation sometimes does not produce the true meaning of a statement, while the free translation may add meaning which was not intended by the author of the test. This is also true when a statement is rephrased, because the new statement might not have an equivalent meaning or may involve a different level of difficulty compared to the original form. Sometimes the translator does not "feel" the cultural implications associated with certain words. Ortar (1972) suggested that for efficient translation, the translator should be familiar with both languages as well as both cultures.

According to Locke & Booth (1955), although any concept can be expressed in any language, a particular concept may be easier to verbalize in one language than in another. Thus translation might not be equivalent. They added that a generalized style of thought in a particular culture may be detectable in lexical and syntactic forms, but such relations are subtle and very hard to establish.

As well as the fact that the meaning of a sentence depends on the lexical, the structural and the extra linguistic meaning (De Kohan, 1972), it is also depends on a person's experience and on environmental factors associated with the sentence.

Another difficulty noted by De Kohan is that tests' authors usually do not give reasons for using particular items, and item analysis is rarely reported. The usual report makes a general statement about indexes of validity and reliability for the whole test.

While Coffman (1963) insisted on the importance of studying test items and language usage and adjusting time limits when trying to standardize a test for use in a different culture (cited in De Kohan, 1972). De Kohan (1972) suggested that this is not enough because finding new instruments depends more on the real logical structure of thought than on language itself.

Many writers have suggested that a standard way of ensuring that translation is adequate is to use back translation on the grounds that if the original and the back translation versions are identical, then this is strong evidence of a lack of conceptual confusion. Kline (1988) suggested that although tests must be able to be accurately back translated, this method on its own is not sufficient to demonstrate conceptual equivalence.

To overcome the problems arising from the translation of verbal tests, non-verbal tests are usually recommended. The previous discussion of culture-free and culture-fair tests is relevant to non-verbal tests. McElwain (1972) supports the superiority of non-verbal tests over verbal tests as they tell us more about a subject's abilities and they give a similar range of scores across different cultures.

The superiority of non-verbal tests over verbal tests is due to the fact that the verbal test is more subject to cultural influence (Ortar, 1972; De Kohan, 1972; and Fatouros, 1972). Irvine et al., (1972) suggested that verbal tests appear to differentiate unfairly between socioeconomic groups. Ortar (1972) suggested that, although in non-verbal tests any culture differences are comparatively well hidden, the validity of the test might be disappointing. When a non-verbal test is used cross-culturally, the adapter has to be aware of the familiarity of symbols for the subjects. Much the same as with a verbal test, the concepts in the non-verbal test have to be understood and comprehended by subjects. To avoid the ambiguity of non-verbal test items, subjects are usually provided with examples before the testing procedure is undertaken to help them capture the concepts used in the test. Ortar (1972) suggested that when non-verbal tests are used the adapter has to analyse the instrument and separate the problems to be solved. A subject should first be given an opportunity to

be acquainted with the symbols before solving the test problems. He added that in the absence of a preparatory stage, any test is in reality a measure of behaviour in a novel situation and not a measure of abstract thinking, special abilities, or whatever else is the aim of the test in the source culture.

## D- *Metric Equivalence*

This type of equivalence refers to the situation where a test is used to obtain scores for subjects from different cultures which are then compared using an interval scale. According to Lonner (1979), when no evidence is available to prove that the subject's score levels are metrically equivalent, any comparisons drawn from the data may be inaccurate, as the sets of scores cannot be compared. The common way of achieving metric equivalence is by item analysis and factor analysis. Factor analysis is a very important statistical technique that can be used in comparative studies as it helps to check the construct validity of the test when used across cultures. According to Kline (1988) "If there are universals in human behaviour, factor analysis is a technique ideal for uncovering them (P. 12). He explained this method by suggesting that analysis can be applied to items in the two cultures and then making use of those items that (within the limits of sampling error) behave similarly. This can be extended to comparing the correlations and factor loadings of the scale with other variables and utilising only those scales for which the pattern of loadings and correlations does not change, on the assumption that if item loadings are the same, it is highly likely that the variables measured must be the same. According to Kline in the construction of a test there should be two stages, first a factor analysis of items, then the identification of any emerging factors (independently of the item loading) against external criteria by experimental methods and by locating them in factor space. These new factors that emerge as different in both cultures are the ones which would be expected to be useful in cross-cultural research because they highlight cultural differences. In addition, he suggested three ways to deal with items that fail to fit into the new culture and so make comparison between the two cultures possible.

The failed items can: a) either be left in the test (if they are few); or b) they can be removed and the scores on the successful items recalculated; or c) by replacing the failed items with equivalent ones that suit the culture. The first method is acceptable since the factor structure remains unchanged. The second approach is the best in order to eliminate error and allow comparisons with other cultures. Replacing the items with equivalent ones, which is the third approach, is sometimes difficult to achieve because the items' concepts may not have the same meaning in the different culture, or the new item suggested does not represent the concept under study.

In summary: when a test is applied cross-culturally it has, to some extent, to meet these four types of equivalence.

## 3- Vocational Interest Inventories in Cross-Cultural Studies

Cross-cultural research on vocational interests can be divided into two major categories: 1) Those studies in which researchers have examined the adequacy of inventories developed in one culture for use in another culture, and 2) Those in which the psychological construct of interests and the structure of interests across cultures have been described (Hansen, 1987). The present study can be classified as falling in the first category.

According to Fouad & Hansen (1987) cross-cultural research on vocational interests has attempted to answer one of the following three questions:- 1) Are structures underlying interests equivalent across cultures? 2) Can cultural influences in interest measurement be kept to a minimum or eliminated? 3) Are vocational interests of professionals similar across cultures?

Although considerable research has been done on the way cultural differences affect performance on ability tests (e.g. intelligence, Lonner, 1979), the effect of cultural differences on vocational interests has received less attention. Additionally, as Hansen (1987) noted, the field of cross-cultural interest measurement represents a

very small percentage of the literature on interests. The reason for this is that problems encountered when interest inventories are used cross-culturally are less serious than those associated with other types of test (e.g. intelligence and personality). Cole (1973) believed that the structure of interests is largely the same by sex, race, social class, and language of inventory taken by bilingual persons. Karayanni (1987) believed that vocational interest inventories are less threatening than most other inventories when used in cross-cultural situations. This is due to the nature of the interest inventories which measure a subject's "likes" and "dislikes" on a list of occupations or activities or both. These occupations or activities share common features; they nearly all produce the same response and mean the same thing in most cultures, i.e. they are structurally similar. For example, a carpenter's occupation will be perceived similarly across populations from different cultures because it is a job with common activities, i.e. working with wood, using certain types of tools. Hansen (1987) similarly argued that although the level of interests may vary, the world of work can be organized into a structure that is an approximation of Holland's hypothesized hexagon and that is reasonably unvarying across cultures.

Meir et al., (1973) reported data supporting the hypothesis that the structure of occupations is similar in American, Jewish, and Arab cultures. In addition, many other studies prove that most occupations have similar structure, by showing that people having the same occupations in different cultures have the same vocational interest patterns. Lonner & Adams's (1972) found that psychologists in nine Western cultures shared the same interest pattern as measured by Strong Vocational Interest Blank. Fouad et al., (1989) reached similar conclusions when students and professional engineers in the United States and Mexico were compared on their vocational interests.

It is interesting to mention that the Fouad et al., (1986, 1987) studies concluded that a greater similarity exists in interests for occupations based on laws of nature than for occupations based on man-made laws. This conclusion is a result of finding that Mexican and U.S.A. student engineers were more similar in their interest

than Mexican and U.S.A. student lawyers. In other words, more similarity is found when occupations relating to Science and Technical fields are compared than when occupations relate to Law or Art because technical occupations are less influenced by cultural variables.

Because these studies show occupations appear to be structurally similar, interest inventories can reasonably be used without being normed in each country, in spite of the fact that most of these inventories are developed and normed in the United States. Hansen (1987) suggested that data from some interest inventories (based primarily on U.S.A. normative samples) are sufficiently robust for cross-cultural use. Therefore, less problems emerge when the same interest inventory is used for cross-cultural comparison.

Yet the present author contends that a difficulty in comparing occupations in various cultures exists when Holland's occupational classification is used. As explained earlier, this system classifies occupations according to their relation to the six working environments (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional). Each occupation has a three-letter code which represents its correlations with the most resembled environments. The first letter shows the most resembled environment, the second shows the somewhat less resembled, while the third letter shows the least resembled. Occupations seem nearly the same cross-culturally when they are compared on the first letter, but they are different when the second and the third letters are used for the comparison. In other words, occupations with the same title are probably related to the same main working environment, but their relationship with other environments varies between cultures, depending on the culture's values, the structure of the occupation and the additional activities it includes.

One of the main issues raised when interest tests are used, either cross-culturally or within the same culture, is that interest assessment results are strongly influenced by experience. If one has never experienced a particular occupation, then it is unlikely that one will express an interest in that task. Spitzer & Levinson (1988)

suggested that it is important to ascertain the range of experiences a client has had in order to properly determine if a "low interest" score reflects lack of interest or lack of experience. If the latter is the case, it would be best to provide the client with some exposure to tasks common to that occupation, and then to re-assess their interest in those tasks. This point has to be considered very seriously in cross-culture research and practice, because some occupations do not exist in some cultures, or may be restricted to one sex.

However, as in any cross-cultural situation, researchers who study vocational interest cross-culturally or counsellors who use Western vocational interest inventories in practice, should be aware of the various linguistic and cultural factors that influence the scores, such as the importance of prestige and sex roles and the extent of family and social pressures on the individual's vocational interest. Fouad & Hansen (1987) suggested that before an interest test is used in a culture other than the original, the researcher should determine four facts: a) Whether the variable of interest exists in the culture; b) Whether the test is appropriate for the culture; c) Whether the translation of the interest is valid; and d) Whether new norms must be collected.

The awareness of cultural influence would enable the researcher or the counsellor to better understand the "interest scores" and so assist subjects by providing better help for those who seek help in planning their careers. The counsellor and the researcher must understand the changes that are taking place in the society as well as the various trends, values, and customs that direct and regulate vocational behaviour.

## 4- Summary

Irvine et al., (1972) concluded that although cultural influences may be difficult to identify, they do exist. The results, particularly those showing cultural

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variation in item difficulty and individual variation in strategies of item solution, imply that the experimenters have to justify their assumption that the same test can be used in different cultures.

Attention should be paid not only to the contents of the test but also to the methods of interpretation and evaluation. The core of the difficulty in the interpretation of results cross-culturally is that performance on a test calls for many attributes, in combination, to be present for good performance. These attributes vary between and within cultures. In addition, the variation in performance is also attributed to subject's attitude, motivation, and social response to the test. Using a test in a different culture is not a matter of direct translation and simple comparison of mean scores, as some items need to be changed so as to be suitable for the other culture. Tests need to be validated even within the same culture where there are different groups living in the same country. This is because there are many differences both in environment and education. Because a test is validated for a certain population, its use for other populations or subpopulations is invalid unless it is specifically validated.

A person's sex, socioeconomic class, physical or intellectual level, attitudes toward the test situation etc, need to be considered when a test is chosen to identify a person's ability, interest, intelligence etc, and in the interpretation of results. For example, when subjects are from a poor socioeconomic background they may not have had the experience or education to perform adequately on the test. It may therefore be unwise to compare intelligence test scores of subjects coming from different socioeconomic backgrounds. As De Kohan (1972) stated, a person's performance on a test is a combination of their ability and experience, groups who have been deprived of test-related experiences may appear lower in the ability scales.

Using the same instrument in comparative studies is a controversial matter. Some researchers (e.g. Drenth, 1972) have abandoned any attempt to compare different groups using the same instrument, even after translation, because translation, it is claimed, will alter the instrument, and motivation can never be held constant.

While other, e.g. Eckensberger (1972) support the collection of comparative data but propose restrictions on the acceptable types of data and call for "functional equivalence" in tests to be interpreted cross-culturally. Arici (1972) suggested that despite the problems of adapting tests to different cultures, psychologists in less-developed countries should continue to use tests because the consequences of not using tests seem to be more serious and dangerous than the hazards of using them. Cronbach & Drenth (1972) summarise the demands of cross-cultural research workers: that the test should be homogeneous within each culture; the indices representing the difficulties of the items should have the same order in the cultures considered, and the test should have the same factor loadings when the same battery is applied in each culture.

# VOCATIONAL COUNSELLING IN KUWAIT

Chapter One stressed the importance of counselling in vocational choice in the West and showed how it helps job seekers to make decisions wisely by helping them to recognize their abilities, and personality (using psychometric instruments), to discover the working world around them, and the opportunities that are available. Furthermore, the previous section discussed the problems encountered when psychometric tests are used cross-culturally and how it is vital to consider cultural influences when tests are used cross-culturally. The present study is a cross-cultural one, where an American interest inventory, "The Self-Directed Search" (SDS) was adapted and used with a sample of workers in Kuwait to test the following question: "Is Holland's theory, which assumes a positive relationship between job satisfaction and vocational interest, applicable in Kuwait." In addition, the study aims to test the construct validity of the SDS in Kuwait so that it can be used in future to help job seekers to make career decision. This section will examine the situation in Kuwait in terms of the factors influencing career choice and the importance of introducing career counselling services there.

## A- *The Current Situation in Kuwait*

Awareness of the importance of vocational counselling, both for people in work and for young people about to start work is developing rapidly in the industrialized Western countries and in Britain in particular. The number of counselling offices (both private and public) and the people seeking their services is increasing. New technologies and approaches (e.g., computer assisted counselling) are constantly being introduced. In other words, vocational counselling services are well established in Western countries. However, establishing such services in the Arab countries is a different story and is not simply a matter of transplanting Western practices into "indigenous" societies (Moracco, 1978). Counselling practices are influenced by cultural values, customs and the economic situation. Yet establishing

vocational counselling is not a luxury but a necessity for developing countries, for as Arici (1972), has suggested these countries cannot and should not tolerate wasteful use or loss of their human resources. The researcher agrees with Arici in his belief that all societies should utilize the skills of its citizens for the continuation and development of the society. No nation seems to wish to leave the development and allocation of its manpower to chance, so a variety of means have to be used to accomplish these ends. The quality of the means used depends on the general developmental level of the country concerned.

In Kuwait, as in most developing countries, there is no clear procedure for selection and placement but it occurs on a trial and error basis. A worker's performance on the job is the basis for the final decision; those who prove their ability to do the job well are retained and those considered unsuccessful are replaced but not fired. No attention is paid to a person's interest in the job. When a person fails to do the job the usual reason given is lack of ability.

However, because it is impossible to give every candidate a chance to try himself out in every position, and because the resources of the developing countries are limited, the trial and error approach is not economic. It results in a high level of misplacement and a rapid turnover of personnel, which wastes the country's manpower, time, and money. In addition, the Kuwaiti government has recently tried to reduce the number of non-Kuwaiti workers in the labour force, particularly as a result of the 1990 crisis. Furthermore, population growth and the recent economic problems have considerably reduced the number of jobs available now and in the near future. Additionally, it is worth mentioning that half of the Kuwaiti population is under the age of 15 and these citizens will enter the labour market in the near future.

Vocational counselling helps people to make good vocational adjustments as well as facilitating smooth functioning of the economy through the effective use of manpower. According to Super & Crites (1962) individuals have certain abilities, interests, personality traits and other characteristics which, with self-knowledge will make them happy, more effective workers and more useful citizens. Thus, to ensure

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the maximum utilization of the Kuwaiti labour force and to accelerate the development of the State, people now need professional vocational counselling and the introduction of new selection procedures more than ever before. The West's experience in vocational counselling can help in establishing such services in Kuwait. But it has to be remembered that cultural differences need to be considered. Introducing career counselling will serve two main goals: developing the country and allowing it to profit from its manpower; and above all increasing an individual's life and job satisfaction and positive mental health, by allocating them into jobs matching their abilities and interests: Hayes et al., (1972) explained the importance of freedom in individual choice of occupations for both the individual and the society. For the individual, choice of occupation probably ranks in importance with choice of spouse in terms of its implications for later satisfaction and adjustment. The occupation people choose can be an important determinant of their entire style of life. For society occupational choice is important in order to reduce the cost of training people, and because if society is to function smoothly and efficiently, sufficient numbers of people need to be encouraged to occupy specific occupations. It is not claimed that introducing counselling will solve all the state's problems and improve the economy but at least it is an important factor in building the country's economy.

## B- *Issues Affecting Career Decision Making in Kuwait*

In Kuwait, as in most developing countries, vocational counselling is one of the topics ignored both by the State and society. Career decisions in Kuwait correspond with Roberts' (1981) situational approach. It is influenced by three main factors, the expectations and orientation of family and society, the type of qualification a person holds, and the availability of jobs. In these expectations there is a big difference between Western culture and both Arabic and Islamic culture. While self-expression and individual identity are the main features characterized in the West, these are less obvious in the Arabic and Islamic countries. A person's identity

is seen in terms of family expectation, and self-expression reflects family values. Children are brought up in a close social relationship and taught to see themselves as part of a bigger system: the "Family". In earlier times people recognized themselves as belonging not only to the immediate family but also to the extended family and kin. Although recently family size has shrunk and the extended family has started to disappear, it still has an influence on a person's view.

Additionally, in the West, maturity is seen as having independence from others. In most Eastern cultures, maturity emphasizes continuous dependency on relations with others. In these societies there is a great acceptance of dependence among interfamily relationships, even as adults, without embarrassment or judgements of immature behaviour. So, maturity does not mean being totally independent of the family unit. While in the West children are taught to make independent decisions, Arabic and Moslem children are encouraged by the society to share decision making with others, i.e., the family and relatives. The head of the family, i.e., the father, is usually consulted before any decision is made, because he reflects the family expectations and values.

However, the father's authority in the Arabic family is not a dominant authority, but a constructional authority because it is based on mutual understanding. Children in Arab countries invariably consult the father or another high authority figure in the family with all their problems and before making any decisions. This is because of the belief prevailing in Arab and Islamic cultures that old people are wiser because they have had more experience. Absolute paternal authority in the Arabic family was more common in the past, but recently more widespread education has led to changes in traditional thought and fathers have become more aware of their children's right to make their own decisions albeit under the father's supervision.

In Arabic and Islamic countries, children do not really prepare to choose their future job at an early age. Decisions are left until after graduation from school or university. Most jobs children think about can be considered as fantasy. Gottfredson (1981), supports this fact when she mentioned that younger people do not seriously

consider and start collecting information about jobs until they reach a point of having to make a career decision. Therefore, realism of vocational choice increases just before young people enter the labour market.

In Arabic countries during the school years, children are encouraged, and to some extent pushed, by the family to put effort into gaining good educational qualifications with high grades in order to enable them to find a professional high prestige job with good salary. Roe's (1957) idea of "overdemanding attitude" can explain this behaviour where parents make heavy demands on children in terms of performance and high achievement in school and work.

Families see success in school and in holding a professional and high prestige job as an honour to the whole family. Most of the attention is oriented toward professional jobs in the medical and science field. No serious attention is paid to the child's interest or capability, because the big dream is to have a good qualification and a good job. The influence of family expectation on children's interests is clearly seen in Karayanni's (1987) study. He compared groups of Arabic and Jewish students on their vocational interest. Significant differences were found between the two populations in the type of job interest. Arab students expressed relatively higher levels of vocational interest in out-door, technology, and science occupations, whereas Jewish students expressed higher levels of vocational interest in the arts, entertainment and culture. Moracco in his study (1976) compared vocational maturity of Arab and American high school students and concluded that there is a maturational difference between Arab students and Western students when making vocational choices. In Western culture children have a chance to make their own career decisions, while in Arab countries decisions (i.e. career choices) are influenced by family pressure expectation, therefore their vocational maturity remains low.

The family influence is seen when families pressurise children to choose sex typed jobs. Gottfredson's (1981) assumption that in career decisions, a person rules out jobs on the base of first sex-stereotype, then prestige, is quite clear in Arabic and Islamic societies. More pressure is put upon females than on males to choose

traditional jobs, mainly in educational and medical professions, but not nursing (Youssef, 1974). In the Arabic and Islamic societies women are encouraged, and forced to some extent, to have few contacts with men, therefore, the teaching and medical professions (doctors in particular) are more favoured because they have contacts only with women and children. It is important to mention that schools, hospitals and clinics are sex-segregated in Kuwait.

The family influence on children's career decisions is based not only on tradition but also is reinforced by the Islamic religion. Islam always encourages children to obey and respect the elders and parents in particular. It also supports consulting others in making decisions, and finally it favours less contact between the sexes. It is important here to clarify one point. Islam does not discourage women seeking jobs outside the home, but it expects that women stick in their main role as being housewives and mothers; earning money and satisfying the family's economic needs is left to men. This explains why Moslem women, compared to women in other developing countries, are characterized by the lowest rate of economic integration, particularly in non-agricultural activities (Mernissi, 1976).

Moracco (1978) is clear on this point when he explains that Arabic men tend to choose jobs on the bases of remuneration, status and extrinsic satisfaction rather than intrinsic satisfaction. Their ultimate aim is financial security and the opportunity to offer financial help to others, particularly the family. Traditionally, men in Arab cultures have always been the main source of financial security for the family with women playing a minor role in the family budget, while men and women in Western culture share in the family finance. However, choosing a job because of its position and financial benefits is common practice for most human beings, and extrinsic job satisfaction is still perhaps the dominant factor when choosing an occupation.

The other factor that dominates career decision making in Kuwait is qualifications. The qualification determines the job a person can occupy, the grade in that job, and the salary received. Because of the state policy in recruiting people and because of the salary system (where salaries and wages depend on the job grade that

is dependent on the qualification a person holds) most workers see the job only as a way to earn money and to some extent to fulfil social needs. As a result, people do not care much about the type of work they do as long the job is seen as "decent" and they are able to do it with minimum efficiency. For this reason when workers are not satisfied with their work it is usually because it does not provide the financial rewards they need. This is particularly true of men.

A third factor, the availability of jobs naturally influences vocational decisions in Kuwait. This factor includes two variables. The first is the narrow range of occupations available in the society. Because the state is still developing and less technology is available, compared to the West, the range of occupations in the society is limited. This variable leads to the second one. Because of this limitation on the number of options and because the educational level is not very high among the population, workers tend to concentrate on certain types of jobs, producing overcrowding in some jobs and shortages in others.

Recently the government has attempted to replace non-Kuwaiti workers with Kuwaiti workers. So, Kuwaitis have priority in getting government jobs. Still no attention is given to people's interests.

The main practical obstacle in creating a formal career counselling system in Kuwait is the lack of trained counsellors. Additionally, people are generally not aware of the role of the career counsellor in helping them make career choices. Because jobs are available, workers move easily from one job to another if they feel they have made the wrong choice- a situation that perhaps explains why people rarely feel they need professional career advice.

To conclude, in order to maximize the benefit from man power, people have to be helped in choosing their jobs. Counselling can play a major role in this situation, but the cultural factors need to be taken into consideration.

# CHAPTER THREE

## HOLLAND'S SELF DIRECTED SEARCH

The present study focuses on identifying the relationship between vocational interest and job satisfaction among workers in Kuwait. The subjects' vocational interest is measured by the "Self-Directed Search" (SDS), while their job satisfaction is measured by a job satisfaction scale.

The SDS is an American inventory, based on American culture, which needs to be adapted for use in Kuwait. However, before presenting the steps of adapting the SDS in Kuwait, which will be discussed in Chapter Five, it is instructive to demonstrate the structure of the SDS first in this chapter.

## 1- The Structure Of The SDS

The SDS is an outgrowth of a theory of vocational choice by Holland (Holland, 1959, 1968, 1985a). The entire SDS is based on that theory of personality types and environmental models. The theory classifies an individual's personality and working environment into six categories (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional). It assumes that each individual attempts to choose a job that matches their personality type. When people choose jobs congruent with their personality, some outcomes are expected, e.g. Job Satisfaction, Job Stability, etc. The SDS can be used to determine the degree of a person's resemblance to each personality type.

The SDS is a self-administered, self-scored, and self-interpreted vocational counselling tool. It uses a broad range of content- activities, competencies, occupations, and self-ratings to assess the person's resemblance to each type. A

person may be defined by vocational interest as manifested in vocational and educational preferences, current employment, or scores on certain interest scales.

The SDS includes two booklets: 1) An Assessment booklet and 2) An Occupational Classification booklet "Occupations Finder". The Assessment booklet consists of five main sections. 1- The Daydreams, 2- Activities, 3- Competencies, 4- Occupations, and 5- Self-Estimates. The Daydream section asks the users to list up to eight jobs they thought about during their life starting with the recent one and working backward. This section had an accidental origin. Holland (1985c) stated that while testing his theory, he began to test the predictive validity of a person's stated vocational aspiration and discovered that such aspirations predicted the category of the subsequent aspiration more effectively than the high-point code of the VPI or scales from the old SVIB. Holland & Gottfredson (1975) suggested that the most recent daydream is the best predictor of subsequent vocational plans. Touchton & Magoon (1977) supported this suggestion when—they found that occupational daydreams can be used effectively to predict occupational choices of college women, these predictions are strengthened by the additional data provided by the experimental learning associated with the SDS.

The Activities and Competencies sections include six scales (one for each personality type). Each scale has a list of eleven activities or competencies and the users are asked to state their "Like" or "Dislike" for engaging in certain activities or choose "Yes" or "No" options showing their competencies in doing different activities. The Occupational section includes six scales (one for each personality type). Each scale has fourteen job titles and the users are asked to show their interest by choosing either "Yes" or "No". The last of the five sections is the Self-Estimates section, which includes two sets of six rating scales, each rating corresponding to a type. The users are asked to rate themselves on a scale of seven points on these sets. The total items in the SDS is 228.

There are another two sections. The first one indicates how to score the assessment sections to obtain a three-letter code summarising a person's resemblance

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to the six personality types. The person's summary codes are obtained by adding their responses on the scales in the desired direction and choosing the highest three. People use their summary codes to search for suitable jobs in "The Occupational Finder", which will be discussed later on. The last section in the assessment booklet, "Some Next Steps", suggests how people can obtain more information to make vocational decisions and includes several safeguards to prevent negative outcomes. The booklet contains a duplicate page for recording occupations that resemble the person's summary codes so that a counsellor or administrative unit may keep a record.

To use the SDS, a person fills out the assessment booklet and obtains a three-letter occupational code: the highest three scale scores which represent one's vocational interest. The code is then used to locate suitable occupations in the occupational classification booklet, "The Occupational Finder". Holland (1985c), and Holland et. al., (1986) claim that filling in the SDS comprehensive self-review increases a person's knowledge of the number of vocational options available to them. In short, the SDS provides a vocational counselling experience by simulating what a person and a counsellor might do together in several interviews. Most people can complete the SDS in 40 to 50 minutes.

The test was developed for two main purposes: to multiply the number of people a counsellor can serve, and to provide a vocational counselling experience for those who do not have, or who do not wish to have, access to vocational counsellors (Holland, 1985c). However, in order to make the SDS accessible to most people, an easy form (Form E) was developed for adolescents and adults with limited reading skills. The scoring is simplified; two-rather than three-letter codes are used throughout. Each occupation title in the Occupations section is followed by a simple sentence of explanation. Form E (which has 203 items) is also slightly shorter than the regular form of the SDS (228 items). A special version of the SDS also has been created for the blind. The SDS is clearly suitable for persons aged 15 and older, but the upper and lower limits have not been well investigated. SDS has some

limitations, it is not helpful for people who are grossly disturbed, uneducated, or illiterate.

Holland (1985c) claims that SDS is not replacing vocational counsellors. In many instances, for example, a few people obtain unusual codes and profiles that require the skilful assistance of counsellor. Other clients may have vocational difficulties and decision-making problems that require personal counselling and other forms of assistance.

Healy & Mourton (1984) warned that counsellors should not use the SDS for those who have already chosen their jobs because they found that SDS lowered student's estimates of their career decision making. 51% of the undecided subjects in McGowan (1977), who used the SDS arrived at a career choice without the aid of a counsellor. This can help to use a counsellor's time effectively by maximizing student self-involvement and by identifying those individuals requiring professional help. In addition, it was found that subjects who took the SDS expressed their satisfaction with their occupations or their future plans, considered more alternative occupations, and reported less need to see a counsellor (O'Neil & Magoon, 1977; Zener & Schnuelle, 1976; Atanasoff & Slaney, 1980; Holland et al., 1978; and Krivatsy & Magoon, 1976). SDS achieves its effects because it includes a large number of occupational options. Additionally, the availability of the instructional booklet increases the number of options subjects can consider (Holland et al., 1978).

## 2- The Validity of the SDS

Many studies have been carried out to test the validity of the SDS. Rachman's et al., (1981) study supported the construct validity of the SDS when it was used with professional accountants. The factor analysis method was used, and it was found that the structure of the SDS instrument as a whole was quite clear and that most of the items which are supposed to measure one personality type form a unidiminsional set.

But the activity subtest and the ability subtest failed to discriminate between the enterprising and social types. Thus, the entire test measures four of the personality types suggested by Holland: Realistic, Investigative, Artistic, Conventional. The other two Enterprising and the Social, are combined into one factor. A sixth factor was found which described the general factor of the interest subtest (occupations).

On the other hand, the concurrent validity of the SDS has also been supported by other studies. It was found that the SDS has similarities with some other vocational interest inventories. While the Fitzsimmons & Melnychuk (1979) study compared the SDS to the Canadian Occupational Interests Inventory (COII), Holland & Nafziger's (1975) study compared the SDS with the following tests and inventories: The Kuder Preference Record, The Thurstone Temp Schedule, the Ohio Psychological Examination, The Bennett Mechanical Comprehension Test and the Minnesota Paper Form Board. They all found that there is similarity between the SDS scales and these tests and inventories.

Other studies carried out among subjects differing in sex, race, and educational level, found that SDS can effectively discriminate among different occupational groups. This is consistent with Holland's theoretical framework, which proposed that individuals tend to choose actual occupational environments consistent with their personal orientations (Henry & Bardo, 1987; Andrews, 1975; Crowley, 1979; Bingham & Walsh, 1978; Horton & Walsh, 1976; Matthews & Walsh, 1978; O'Brien & Walsh, 1976; Fishburne & Walsh, 1976; Gaffey & Walsh, 1974; and Ward & Walsh, 1981).

In the same way, Sporane & Walsh (1978), found that the SDS scales can be used to discriminate between people in the same job, thus people in a given occupation score higher in that occupation (scale) than on any other. But in that study sex differences were found, when men and women in an enterprising environment were compared. Although high occupational level workers tend to be more differentiated and more masculine than low occupational level workers, for males the enterprising scale was the highest score while for women in the same job the

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enterprising scale was the second highest score. Walsh, Horton & Gaffey (1977) concluded that although men and women tend to respond differently on different SDS scales, women did not report significantly lower mean raw scale scores than men in the non-traditional female occupations.

In addition to the number of studies concerning the validity of the SDS, Holland's theory as a personality theory has been tested extensively. Holland (1985a) suggested that individuals do not choose their job arbitrarily but they choose to work in environments that are congruent with their personality orientations and characteristics and people in certain occupations tend to be different from people in other occupations. Super (1957) and Strong (1943) shared the same idea. Holland's (1968) study showed that subjects classified as belonging to a type of personality possess characteristics related to that type. Similarly, Super & Bohn (1971) found that boys who have a specific occupational goal or who choose a specific field of study in high school and college tend to be different from boys with other objectives.

Miller (1962), Salomone & Slaney (1978), and Mount & Muchinsky (1978a) report studies carried out on workers, and Payne & Sabaroche (1985) and Henry et al., (1987) report studies carried out on students, which supported Holland's idea and found that individuals who work or choose to work in particular vocational environments are likely to have personality characteristics and orientations that are consistent with that particular work environment. Salomone & Slaney (1978) revealed that this is not only true for professional workers but also for nonprofessional workers. Therefore, the search for personality-environment fit is a long-term one and not limited to educational or vocational choice (Varca & Shaffer, 1982; and Salomone & Slaney, 1978).

Although many studies support the idea that people choose a job close to their personality characters, one has to be careful in generalizing this notion because as Galinsky & Fast (1966) suggested "many people consciously or unconsciously think of choosing a particular occupation in the hope of assuming characteristics that seem inherent in members of that occupation" (P. 91).

However, an important question is, whether individual differences in characteristics are the cause of entry into the particular occupations or the result of engaging in them. Super & Bohn (1971) discussed this, saying that if individual differences exist before a certain type of person enters an occupation, these differences may be important determinants of success and satisfaction; making use of them in vocational guidance and in personal selection would be possible and desirable. But if these differences do not exist to any significant degree before occupational training and experience, or if they are produced to any substantial degree by such experience, then to attach importance to them in vocational guidance or selection may be to deprive individuals of opportunities from which they might benefit and occupations in which they might be as successful as others. It would also deprive occupations and enterprises of potentially valuable manpower.

Becker & Strauss (1956) and Brim (1966) propose that workers tend to take on the attitudes and values of the occupation in which they work for a significant period even if they are non-congruent choices. In contrast Super & Bohn (1971) concluded that individual differences in intelligence, special aptitudes, interests, and self-concepts exist prior to occupational training and experience and that they are not much affected by later experience in the occupation. Similarly, Holland (1973) believes that interest in particular job activities and competencies is prior to vocational choice.

On the other hand, Salomone & Slaney (1978) suggested that although individuals make vocational decisions after careful consideration in order to find a job close to their personality characteristics, the environment may somehow exert an influence over the personality types of the workers; that is, the environment may have changed the personality types of the workers in the same way.

A major criticism of the SDS is that it is sexist (Henry, et al., 1988). According to Weinrach (1979), data obtained from Holland's studies indicated that women score higher than men on the SDS conventional scale and men score higher on the SDS realistic scale. This is considered as evidence that the instrument is sexist,

because it discourages women from entering the skilled trades and men from entering office occupations. In addition, Hesketh & Dawis (1991), suggested that Holland's theory fails to separate the skills and abilities component from values, needs and interests, and does not define clearly the components in either the person or the environment.

### 3- The Classification of Occupations

The SDS includes two booklets, The Assessment booklet and The Occupational Finder booklet. The Occupational Finder is an abbreviated version of "Holland's Occupational Classification".

Many attempts were made to classify occupations. Barr made the first attempt to classify occupations to use in Terman's studies of gifted children in (1925), but it did not result directly in any formal classification system. It used intelligence level as a criteria. The occupations were ranked according to the need to be able to learn and the amount of intelligence characteristics of men in a particular occupation.

Another criteria used in classifying occupations is the socioeconomic level of the job which reflects the prestige attitudes in Western cultures (Caplow, 1954). On the other hand, "The Standard Industrial Classifications", which was prepared by the Technical Committee on Industrial Classification Bureau of the Budget in the U.S. (1942), classified occupations on the bases of the location of work, the kind of industry or enterprise in which the individual work.

Strong (1943) classified occupations on the basis of the personality of those who engaged in an occupation (workers). He sees interest as being a personality dimension. The assumption is that an occupation attracts individuals with certain personality traits or molds them according to its requirements.

Roe's (1956) Classification Occupations System, classified every occupation on each of two sets of categories, one is called groups and the other is called level.

Group subdivisions indicate the primary focus of activity in the occupation. Classification into level depends on the degree of personal autonomy and the level of skill and training required.

In 1959 Holland developed his occupational classification system on the assumption that every job requires a worker to function to some degree in relation to data, people, and things. He classified occupations into six categories:-

- Realistic occupations (R), include skills trades, many technical and some service occupations.

- Investigative occupations (I), include scientific and some technical occupations.

- Artistic occupations (A), include artistic, musical, and literary occupations.

- Social occupations (S), include educational and social welfare occupations.

- Enterprising occupations (E), include managerial and sales occupations.

- Conventional occupations (C), include office and clerical occupations.

Holland's occupational classification rests upon his theory of personality types. He classified occupations according to the degree of involvement of Data, People and Things. Jobs were seen to differ in their degree of involvement in data, people, and things. Accordingly, occupations were categorized into one of the six working environments (R,I,A,S,E,C). For example, jobs requiring high level of involvement with people and low level of involvement with data and things are categorised as belonging to social environment. While jobs requiring high level of involvement with data and low on other factors are categorised under conventional environment, and jobs requiring high level of involvement with things and low on other factors are categorised as belonging to realistic environment.

Jobs are coded according to their relationship with three main working environments. The codes provide a brief summary of what an occupation is like by showing its degree of resemblance to three occupational groups.

The occupational classification system is an important part of Holland's theory. With this classification it is possible to use the theory to interpret and predict

the behaviour and activities of a person and the influence of occupations or environments assigned to a particular category. This classification with the help of the Self-Directed Search is used in vocational counselling to help match a person's vocational interest with a suitable occupation according to Holland's vocational choice theory.

Crowley (1979) supported Holland's classification of working environments, when the sample in his study ordered their working environment preferences in a manner similar to that proposed by Holland. As a result of this classification, Holland produced the Hexagon model which is an arrangement of these six categories. The adjacent categories are most closely related, the close relationships are represented by short distances on the hexagon, Figure (2) illustrates these relationships[1].

### Figure 2
### A Hexagonal Model for Interpreting
### Inter- and Intra-Class Relationships
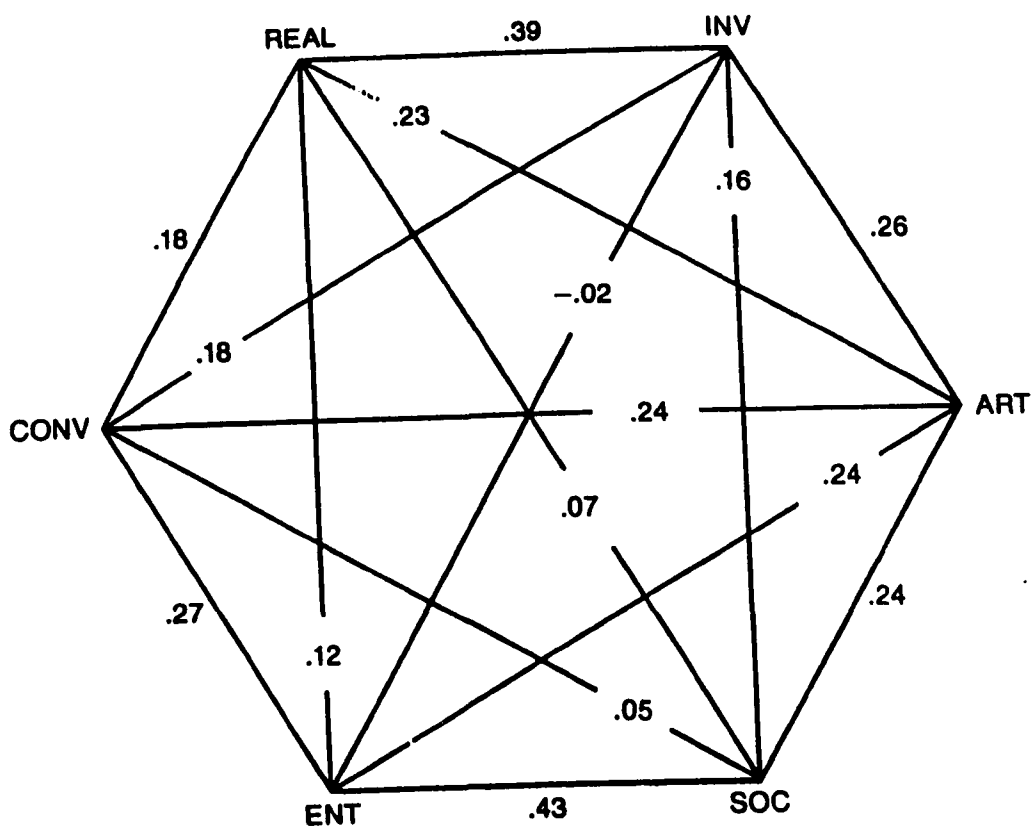


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Holland et al., (1973) assume that the classification organises occupations into similar or homogeneous groups. If the classification performs this task well, individuals in the same occupational category should resemble one another in these ways: a) they should possess similar personal traits and talents, b) they should possess similar work histories or they should move among the same or similar occupational categories. Each occupation is described by the three letter code which provides a brief summary of what an occupation is like by showing its degree of resemblance to three occupational groups.

The value of the hexagonal arrangement is supported by an earlier longitudinal study by Holland & Whitney (1968). It was found that when students changed their occupational preferences, the majority of such changes were accomplished by movement to an adjacent major category.

In addition, Blum, Karweit & Sorensen (1969) applied this classification to the work histories of a national sample of men, aged 30-39. The results revealed that Holland's classification can be instructive in the study of occupational mobility. The results show that the majority worked in a single major occupational class rather than wandering from class to class. That is the classification has predictive value in the analysis of transition from occupation to occupation within the careers of individuals (cited in Holland et al., 1972). Similarly, Holland et al., (1973) found that the system can forecast occupational movements. Men with consistent codes are more likely to have stable work histories.

Gottfredson (1980) compared Holland's occupational typology with the other five systems for describing occupations: An Occupational Prestige Scale, An Occupational Self-Direction Scale, the Dictionary of Occupational Titles, The Census Bureau Classification, and The Occupational Reinforcer Patterns developed in conjunction with the Minnesota theory of work adjustment. The results indicated that Holland's occupational typology has considerable validity for describing work activities, general training requirements, and rewards. Gottfredson's (1980) study revealed that jobs differ in their degree of dealing with "people" and "things", and

levels of involvement with "people" and "things" vary systematically within as well as between job types, which supports Holland's classification.

In addition, Toenjes & Borgen (1974), and Eberhardt & Muchinsky (1984) attempted to test Holland's hexagonal model using data other than vocational interest. Toenjes & Borgen study used data that measured the reward or reinforcer characteristics of occupations (i.e. the Occupational Reinforcer Patterns (ORP) data). The ORP data provides relatively direct measures of work reward characteristics of single occupations, expressing salient rewards or reinforcers on 21 different dimension, i.e. ability utilization, achievement, activity, etc. They concluded that the hexagonal model fits well with data which directly measures the reward conditions of occupations, and although the hexagonal shape was distorted, the six occupational groups were arranged in the order suggested by Holland.

Similarly, Eberhardt & Muchinsky (1984) tested the structural validity of Holland's hexagonal Model using Owens' method (biodata) of assessing people. This method classifies people into types using a wide range of criterion variables (e.g. performance in college, personal problems, occupational success, etc.). The classification schemes of people has been related to classification schemes of the environment. The authors' final conclusion is that the structure of Holland's hexagonal model of vocational interests is highly supported, but there are unequal distances between the vertices around the hexagon, especially the opposite-type positions.

Prediger (1982) used results from two separate studies to back the general structure of the hexagon model. He examined the nature of the interest dimension underlying the hexagon in terms of data, ideas, things, and people. The hexagonal relationship is also reconfirmed by Schmitt & White (1978); Edward & Whitney (1972); Bobele et al., (1976); Cunningham et al., (1977); and Cole et al., (1971).

In the Occupational Finder, the classification is used to categorise occupations according to the types or subtypes that they most resemble. The classification includes six main categories corresponding to the types, each with eleven to sixteen

sub-categories, such as Realistic-Investigative-Artistic,Realistic-Investigative-Social, and so on. The use of sub-categories, or combinations of the six types, makes it possible to refine interpretations or predictions of the behaviour and activities of persons and the influence of occupations or environments assigned to a particular category (Holland, 1985c).

The arrangement of the Occupational Finder follows the hexagonal model in which the most closely related occupational categories are adjacent, the close relationships are represented by short distances on the hexagon.

The current Occupational Finder (Holland, 1985b) includes 1,156 occupations. Occupations were selected to form a relatively representative sample of the 12,099 possible occupations in U.S.A. and to represent nearly all three-letter sub-groups (Holland, 1985c). The individual occupations are arranged according to personality types and subtypes. In addition, each occupational subtype is arranged according to the level of general educational development (GED) that an occupation requires according to the Dictionary of Occupational Titles (DOT: prepared by the U.S. Department of Labour Employment; 1977). With few exceptions, each occupation is also designated by its current DOT number, indicating its classification in the DOT scheme.

# CHAPTER FOUR

# THE RELATIONSHIP BETWEEN JOB SATISFACTION AND VOCATIONAL INTERESTS

## Introduction

Most approaches to job satisfaction agree that an individual's response to their job is dependent on the interaction between them and their environment, or the degree of person-environment congruency (e.g. Strong, 1943; Super, 1953; Katzell, 1964; Locke, 1969; Smith et al., 1969; Lawler, 1973; Elizur et al., 1977; Holland, 1985a; and O'Reilly, 1977). Many outcomes are expected from the person-environment congruence for both the person and the organisation. For example, a person can gain job satisfaction, which is an end in itself, good well-being and mental health. The organization can gain higher productivity, minimum accident rates, less absenteeism and turnover, and resultant financial benefit.

The greater the match between a person and the work environment the more satisfaction will be experienced. Job satisfaction research has dealt primarily with two relationships: 1) between satisfaction and job characteristics, and 2) between satisfaction and individual's characteristics. The person-environment congruency as Klein & Wiener (1977) suggested, consists of three elements: 1) The congruency between the person's needs and the capacity of the organization to meet these needs. 2) The congruency between the person's abilities and job demands, and 3) The congruency between the person's vocational interests and job activities. The third element refers to the degree of agreement between people's interests, as measured by interest inventories, and their present jobs. The greater the interest congruency, the higher job satisfaction will be. The third element is the focus in the present study, namely to examine the congruence between vocational interest and job satisfaction in

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Kuwait, using Holland's (1985a) "Vocational Choice Theory" and "The Self-Directed Search" inventory as a measure of vocational interest.

Before examining the relationship between job satisfaction and vocational interests, which is the core of the present study, it is instructive to evaluate the concepts of "Vocational Interest" and "Job Satisfaction" separately.

# SECTION ONE

## VOCATIONAL INTERESTS

Interest is an expression of a persons's reaction to their environment. This reaction is a consequence of satisfaction or dissatisfaction with the job. 'Interests' are also used to describe an individual's personality. Zagar et al., (1983) compared two personality measures, the Minnesota Multiphasic Personality Inventory (MMPI) and the Edwards Personal Performance Schedule (EPPS) with the Kuder Preference Record C (KPR-C) as a measure of vocational interest. They found that the personality tests and the interest inventory described six similar dimensions! Turner and Horn (1977) confirmed this finding. Miller (1993) concludes that there is some behavioural similarity between personality tests and interest inventories as there is some genuine overlap on what is being assessed between these instruments.

Interest is an important dimension of personality. It is not only a person's values, needs, and self-concept that are important in understanding their personality but also their interests (Super & Bohn, 1971; Holland, 1985a). According to Super (1973) "Assessment of needs and traits may help us to understand the make-up of people, but does not help us to predict educational or occupational behavior" (P. 190). Super & Crits (1962) and Super & Bohn (1971) saw that scores in an interest inventory reveals a person's view of their own self-concept.

Moreover, although this idea is dated, it is worth mentioning that Super & Bohan (1971), Roe (1957), Sarbin & Anderson (1942), and Forer (1953) claimed that interests are inherited. According to Strong (1943), because interests reflect inborn abilities, and these abilities can be inherited, so interest can be inherited. Grotevant et al., (1977) found that children's interests are more similar to their biological parents than to their adoptive ones. Moloney, et al., (1991) found that 45-50% of the variation in vocational interests is attributed to genetic factor, while the other 50% is attributed to other factors including environment.

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Vocational interest has been seen as one of the most successful dimensions in predicting occupational choice, and is an important factor in academic and occupational success (Thomas et al., 1970), managerial performance (Gellatly et al., 1991) and occupational choice (Scharf, 1970). In this context Strong (1943) pointed out that interests provide additional information which is not available from analyses of abilities and aptitudes in making career decision.

Vocational interests reflect people's like and dislike of vocational activities or types of job. According to Pryor (1991) people prefer a particular job over others because they prefer certain aspects in this job, in a hope of achieving some particular outcome. Pryor (1991) defines vocational interest as " the relational statement of the relative preferences of the person for various work activities" (P. 25).

Interests, and vocational interest in particular, like any other aspect of personality, develop over time. During childhood and early adolescence interests are not stable and are more likely to be influenced by family and social background, and life and educational experiences. Around late adolescence and early adulthood, interests start to become stable and enable a person to make vocational choice.

Strong (1955) explained the development of interest by stating that people inherit the response towards objects. Then they start to learn to like certain types of activities and dislike others. People learn to like certain activities because these activities help in obtaining goals and achieving satisfaction. Once an activity is identified as liked or disliked it continues to have an effect on people and become stable. The interests are stable not only because of past experience but also because of repeated reinforcement. Therefore, Spitzer & Levinson (1988) recommend that it is important to introduce interest assessment to individuals prior to the time of vocational choice, in order to enlarge their career options and stimulate career exploration and thought.

Super & Bohn (1971) asked three questions about vocational interests; Are interests related to occupations people enter?, Can we predict people's future occupations from their interest scores? And can we predict the stability of people's

occupational membership from interests. Studies provide positive answers to these questions. For example, because interest is considered as one aspect of personality, it is found that people tend to choose jobs that resemble their personality, as measured by their interests (Mount & Muchinsky, 1978a; Salomone & Slaney, 1978; and De Voge, 1975).

In addition, Whitney (1969), and O'Neil & Magoon (1977) found that interest can predict a person's future jobs years later. Finally, stability in a job can also be predicted from interest. Crowley (1990), Becker (1977) and Peiser & Meir (1978) proposed that those who enter a job congruent with their interest patterns stay longer in their jobs.


## 1- Measurement of Vocational Interest


Interests can be measured by different means; inventories, check-lists, card sorts, interviews etc. The advantages and disadvantages of these methods are presented in Pryor (1991). However, regardless of type, all interest measures require the subjects to present their likes and dislikes on a list of occupations or activities.

Inventories are widely used in measuring interests. They contain a series of job titles or job activities representing different fields of work. According to Zytowski (1973) the validity of an interest inventory must "rest upon their ability to point to what the person will do, or what he is most likely to gain satisfaction from, at some future date" (P. 5). In other words, inventories should not only be able to tell what the subjects' current interests are, but also should be able to predict any changes in their future interests.

Several inventories have been developed, for example, Self-Directed Search by Holland, Strong Vocational Interest Blank, the Kuder Occupational Interest Survey etc. According to Seligman (1980) interest inventories are the most helpful instrument to use in career counselling, because they are the least threatening type of

test, they have the most relevance for career planning, and they are easy to understand and are acceptable to most clients. This is because interest inventories do not involve judgements about a person's abilities, success, achievement etc.

While interest inventories differ in number of items, construction, administration, scoring procedure, and in reporting scores, they share two common features; firstly subjects are asked to express their likes or dislikes on a list of activities and job titles, secondly most of them cover the same work areas. Cole & Hanson (1971) compared several interest inventories and found that they include homogeneous scales and common interest domains. This circular configuration is common to most interest instruments. Similarly, Zytowski (1972) supports the idea that no inventory is demonstrably superior to any other. According to his studies counsellors may choose any available inventory to measure a client's interest without fear of obtaining different scores from different inventories. Katz (1987) states that there is considerable similarity between the conceptual structures of interest inventories, therefore using multiple-items scales will provide similar results as when a single scale is used.

Two methods are used to develop interest inventories. The first is, the "people-similar" method, where the test taker's likes and dislikes are compared with the likes and dislikes of satisfied workers in a particular occupation. The second method is, "activity-similar" method, where a person's expressed likes and dislikes are compared to the activities performed in various occupations.

Many attempts have been made to categorise interests into groups to resemble occupational classifications. However, although these attempts give interest categories different labels, the constructs are the same. For example, Super (1957), classified interests into:-

a) Scientific interests: Work with scientific phenomena.

b) Technical or material interests: Dealing with how to apply the scientific knowledge.

c) Humanistic or social welfare interests: The focus here is on helping people because people are important in themselves.

d) Systematic or business detail interests: The focus here is on ordering, recording, controlling system rules.

e) Business contact interests: Dealing with people for the good they can do to oneself or to one's organisation.

f) Literary interests: The focus is in the use of words for the expression of ideas or for the influence of others.

g) Musical and Artistic interests: The focus is in media of expression.

Roe (1956) similarly suggested eight categories; Technology, Outdoor, Science, General Cultural, Arts and Entertainment, Service, Business Contact, and Organization. She suggested that these interests are arranged in a circular order. Holland's (1985a) classification is not very different but he proposed a hexagonal rather than a circular model. He classifies interests into six groups; Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. The circular arrangement of interests, which is suggested by Roe (1956) and the "The Hexagon Model" suggested by Holland (1985a) do exist in most inventories. According to Hansen (1984) "Attempts to verify Holland's hexagonal representation of the world of work show in general that the structure of interests approximates the theoretical organization proposed by Holland" (P. 168). The Hexagonal model suggests that interest categories are related to each other in a circular order in which classes adjacent in the circle are most closely related, followed by alternative groups, while those most widely separated are the least related.

Gati (1979) suggested a hierarchical model in which the proximities among the fields or types of interests are represented by a "tree" with the field or types being located at the ends of the branches. The distances between any pair of fields or types is the shortest route along the branches correlating them.

Before choosing an inventory to assess a person's interests, many variables need to be considered, such as validity and reliability, client's sex, educational level,

experience, and needs. In addition, the aims of both the client and the counsellor should be clear.

A person's scores on an interest inventory is not a measure of the person or of the work but a record of the situation at a particular instance: it may thus change over time.

A person's interests are strongly influenced by experience (Holland, 1973). If one has never encountered tasks common to a particular occupation, then interest in those tasks is unlikely to be expressed. Consequently, it is important to assess the range of experiences a person has had in order to determine if a "low interest" score reflects lack of interest or lack of experience. If lack of experience is the case, it would be best to expose the person to tasks common to that occupation, and then to re-assess interest in those tasks (Spitzer & Levinson, 1988).

Holland (1980) suggests that the beneficial effects of inventories are due to three common elements: a) They expose a person to information about occupations and interpretative materials, b) filling out inventories or talking to counsellors involves cognitive rehearsal of vocational aspirations, c) the combination of occupational information and rehearsal may stimulate conceptions of occupational structure and self-understanding. In addition, Holland (1980) suggests that people who took interest inventories listed more vocational choices, increased their satisfaction with current choice, and reported increased self-understanding. Similarly, Seligman (1980) proposed that interest inventories play a vital role in translating likes and dislikes into occupational terms, providing insight into academic and occupational dissatisfaction, broaden and increase the realism of options, and facilitate conflict-resolution and decision- making.

In contrast, Barry & Wolf (1962) have reservations about using interest inventories in vocational guidance. They do not recommended using them with adolescents whose interests are not stable at this time. In addition, they claim that interest inventories tend to narrow and limit interests for more able and gifted students who have many interests they wish to pursue.

According to Gottfredson (1986) the importance of vocational interest in career choice has been exaggerated; other factors, i.e. family and social expectations, labour market opportunities, financial constraints and family responsibility, have more effect on individual career choice and may limit it. In addition, in her theory, Gottfredson (1981) assumes that when youngsters reach the point of making a vocational decision they first sacrifice vocational interest, then 'job level', but they give up 'sex-type' last because this is a "more central aspect of self-concept and more obvious cues to one's social identity" (P. 549). In summary, although vocational interest is important in vocational choice, it is not the only factor that determines an individuals' career. Interest inventories are useful for those who do not know how to order and interpret their interests in terms of choosing a job.

## 2- Expressed vs Inventoried Interest

Super (1957) defined four types of interests; expressed interests, manifest interests, inventoried interests, and tested interests. A) Expressed interest is the expression of likes and dislikes when people are simply asked what they enjoy doing and what they do not enjoy doing. B) Manifest interests are expressed not in words but in action through participation in activities. This can be recognized by asking individuals what they do with their free time. C) Inventoried interests are people's scores on a large number of questions concerning likes and dislikes, or concerning the order or preference for groups of activities in responses of standardized interest inventories. These responses are then summarized by statistical methods which yield a score for each of a number of occupations or types of occupational activities. D) Tested interests are defined by what has been learned. People learn about what interests them, therefore these interests are inferred from their knowledge as measured by tests. According to Super (1957) manifest interests of adolescents seem to have

little relationship with inventoried interests, occupational preferences, or occupations entered.

But, is it necessary to use inventories or is expressed interest enough?. Which is more valid in predicting a person's future job "Expressed" or "Inventoried" interests?

The correlation between expressed and inventoried interests tends to be moderate (between 0.40 to 0.60) and sizeable discrepancies between the two are not uncommon (Nelson, 1971). So the superiority of inventoried interest over the expressed has not yet been confirmed. Some studies have found that expressed interests are more helpful and more predictive than inventoried, while other studies conclude the reverse. Additionally, some researches suggest that both expressed and inventoried interests should be considered equally useful as they have similar validity.

Several studies have suggested that expressed interests are more predictive of actual choice than of inventory score, and when measured and expressed interests do not agree, expressed choice should be given prior consideration (Holland & Lutz, 1968; and Bartling & Hood, 1981). Wiggins & Weslander (1977) found expressed vocational choices of high scholars to be more predictive of employment status four years after graduation than either the Vocational Preference Inventory (VPI) or the Kuder Preference Record-V (KPR-V). Borgen & Seling's (1978) believed that if expressed and measured interests disagreed, expressed choices had superior predictive or concurrent validity to measure interests. This is because they found in their study that if expressed and measured interests do not agree, the hit rates in predicting career choice were 41% for expressed interests and only 22% for measured (SVIB) interests. But when both sources agreed the hit rate jumped to 70%.

Whitney (1969) found that although expressed choice is just as valid in predicting career choice as interest inventories, expressed interests are preferred because they involve multiple factors affecting career choice: self-knowledge; personality; background characteristics; labour market conditions; parental and social expectations, which cannot be measured by an inventory. In addition expressed

interests are quicker and cheaper to obtain. Similarly, Holcomb & Anderson (1978) concluded that the interest inventory does not seem to add anything to the subjects' expressed interests in predicting subjects' success in choosing their college major.

Healy & Mourton (1984) and Bartling & Hood (1981) went further, when they suggested that counsellors need to be cautious in recommending interest inventories, (i.e., SDS) to college students who have made occupational choices, even if the choice is tentative. Similarly, Zytowski (1973) suggested that interest inventories are useful only for those who seek to plan ahead to maximize their occupational satisfaction.

One the other hand, some reject the use of expressed interests and heavily recommend the use of interest inventories. Crowley (1990) for example, sees interest inventories as being more effective than expressed preferences in predicting the type of work a person will enter. Similarly, Connolly (1968) defended interest inventories as a useful way of helping a person to find a suitable job, and suggested that evidence showed that simple answers to the question "What kind of work are you interested in?" can be very misleading. The reason is that people rarely think in terms of broad occupational categories, but tend to think about a particular kind of job and, in their anxiety to please, name the first occupation that comes to mind. Also young people tend to give different answers to a direct question when they are asked at intervals over a period of time, whereas, around a certain age, the answers to occupational interest questionnaires remain reasonably unchanged. In addition, a direct question of occupational interest has another disadvantage, in that it is not easy to compare statements made by different people and to gauge the strength and direction of one individual's interests in relation to those of another. Interest inventories are designed to do this, and so help the counsellor focus on a range of occupations. They are also relatively easy to use, and in conjunction with the other evidence can be of great value (Connolly, 1968).

Darley & Hagenah (1955) believed that inventoried interests are genuine, while expressed interests are what people believe that they are interested in. In

addition, Seligman (1980) prefers inventoried over expressed interest because expressed interest only reflects a person's wish to enter a particular job in order to acquire its prestige or its financial rewards without indicating real interest in the activities involved in the performance of the job.

Some other studies found that expressed interests are as good as inventoried interests in predicting future jobs (Dolliver & Will, 1977; Bond, et al., 1989; and McArther & Stevens, 1955). Persistence in both occupation or college major is likely when expressed choice is congruent with measured interests. Thus people whose expressed choice is congruent with interest score, are more likely to continue in a college major or job (Becker, 1977; Borgen & Seling, 1978; Laing et al., 1984; and Crowley, 1990).

From his review of studies comparing expressed and inventoried interests (Strong Vocational Interest Blank in particular), Dolliver (1969) concluded that although the reliability of inventoried interest exceeds that of expressed interests, their predictive validities are similar.

In conclusion both expressed and inventoried interest should be considered for use in vocational counselling for four reasons. The first is that where there is agreement between expressed and inventoried interest this is highly predictive of the job chosen (Laing et al., 1984; and Bartling & Hood, 1981). The second is that although expressed and inventoried interest can both predict a person's choice, they are in fact measuring different types of preference. According to McArther & Stevens (1955) the inventory predicts "Ambitious careers", while expressed interest predicts "Responsive careers", and the validity of the expressed interest depends on the amount of realistic information available to the person. Therefore, although each is equally valid, they are not interchangeable; each may be useful with a particular type of person. The third reason is that agreement between expressed and inventoried interest may reflect stable self-concept, maturity and adjustment (Becker, 1977). The final reason is that, while an interest inventory may help orient a client to new occupational areas, expressed interests may help those who have considered a lot of

occupational areas but have difficulty in narrowing their choices (Dolliver & Will, 1977). Borgen (1986) suggested that when expressed and inventoried interests agree, counsellor and client can accept the interest results as confirmation of choices and increase their forecasting confidence. But when they disagree, the counsellor should look for alternative sources of information, or alternative counselling actions.

The importance of either inventoried or expressed interest on job choice is influenced by social class. For upper classes, occupational choice can be identified more by expressed interest, while inventoried interest is the best predictor of middle class adult occupational choice (Super & Crites, 1962). According to Seligman (1980) it might be that upper class adults are more vulnerable than middle class to social pressure which limits their opportunities to select occupations which match their interests.

Touchton & Magoon's (1977) study suggested that although recent aspiration is the best single predictor of vocational plans, expressed job aspirations alone have some limitations. Therefore, combining interest inventory scores with recent job aspiration will increase overall prediction. This is because:

1- Improvement in the accuracy of prediction can sometimes be accomplished by the addition of one or more variables. The improvement in accuracy of prediction in the SDS, for example, occurs when the SDS summary code is the same as the most recent daydream code.

2- The experience of working through a self- administered and self-interpreted inventory such as the SDS can be in itself valuable. For people learn to consider data relevant to the process of decision-making. Learning the process is likely to have more lasting effects than simply learning outcomes.

Interest inventories are usually recommended to those who are unable to state their vocational goal so as to expose them to new ideas.

# 3- Sex Bias in Interest Inventories

There is concern as to whether sexual bias exists in interest inventories for they have been developed and standardized almost exclusively with white males. Therefore, it is believed that they may discriminate against ethnic minorities and females. Sex bias has been defined as "The condition which influences an individual to limit his/her consideration of career options solely on the basis of that person's sex" (AMEG Commission Report on Sex Bias in Interest measurement, 1973; cited in Seligman, 1980, P. 71).

Sex bias exists in both the type of occupations listed and in the use of raw scores. It has been recognized that most of the jobs in interest inventories are masculine jobs and when feminine jobs are used they are of low status (Birk, 1974a). In his review of studies using Strong Vocational Interest Blank for women (SVIB-W) Huth (1973) concluded that even the form of this test which is designed to measure female interests does not differentiate the interests of most women and cannot predict their career commitment. In addition, Schlossberg & Goodman (1972) recognized that the occupational scales in (SVIB) differed significantly for men and women; women's occupations are generally of lower status and lower salary.

Galassi et. al., (1985) justified the structure of interest inventories because "women should have exposure to non-traditional occupations to broaden their options as well as to give them an opportunity to consider occupations that often offer greater pay and satisfaction than do many of the more traditional occupations for women" (P. 127).

Similarly, Munley et al., (1973) pointed out that if a counsellor uses only the women's form, women will miss the chance to be exposed to males' occupational areas, especially for those who have interests similar to men's. They suggested that for the benefit of clients, both forms of the SVIB need to be introduced because advantages exist for women who take both forms.

But for reasons of economy, "Sex-balanced" scales need to be used such that both men and women should be able to respond at equal rates on the same scale, i.e. there should be a balance of female and male favoured items. Or the inventories' instructions should be liberalized so that it is not necessary that the individual has had the opportunity to perform some activity but only be interested in trying the activity for the listed interests in the inventory (Gottfredson, 1986). Therefore, a unisex form of the Strong inventory (SVIB-SCII) was developed in 1974 in order to provide matched-Sex Occupational Scales. Thus, one booklet and one profile is used for both men and women, and all subjects are scored on all scales. In addition, Vocational Interest Inventory (VII) was also developed by Lunneborg (1981) to overcome the sex bias in interest inventories.

Sex bias also exists when raw scores are used to compare males and females. Prediger & Hanson (1976) believed that Holland's theory and his interest inventories are biased because there are extensive and stereotypic differences in the VPI and SDS raw scores obtained by women and men and interest reports based on VPI and SDS raw scores are sex-restrictive. They added that "using a single raw score code for an occupation, despite the highly divergent scores obtained by males and females in general, needlessly and seriously restricts the occupational options that interest inventories identify for male and female counselees" (P. 179). Therefore, they suggested two solutions; either i) providing separate raw score codes for men and women in occupations, or ii) using standard scores for Holland's scales so that both men's and women's scores can be directly compared. Zytowski (1973) pointed out that the use of raw scores should be restricted and used only to compare a person's own scores on different scales. But normalized or standard scores allow a person to be compared to an occupation or a normative group.

Birk (1974b) recommends that changes be introduced to minimize errors and misrepresentations in the interpretation of interest inventories results and to maximize benefits. These changes are: 1) improving the writing style used for manuals to remove male bias; 2) using case studies which equally represent men and

women and that show men and women in non-stereotypic roles; 3) test statements should give all clients the right to consider the full range of career options; and 4) if an inventory limits the options available to subjects, this shortcoming should be acknowledged and suggestions offered to overcome the limitation.

In spite of the attempts to minimize sex bias in interest inventories, sex differences remain (Holland, 1979). In other words, it is difficult to obtain a test free of sex bias. For instance, Lunneborg (1981) was forced to include some "sex bias" items in his "Vocational Interest Inventory" (VII). This was because the aim was to encourage exploration of non-traditional occupations. Similarly, using gender neutral words in the SDS had only a little effect on item responses (Boyd, 1978) and liberalized SDS instructions have produced only minor profile differences, have failed to increase test-taker satisfaction, and have failed to increase the number of options or the number of nontraditional options a college women considers (Holland, 1979). Tittle et al., (1978) did not find any significant differences between the SDS standard and revised forms. Also the revision of occupational titles and test taking instructions in interest inventories to reduce sex role stereotyping has no significant effect on the assessment codes or on the vocational aspirations of subjects (college women).

However, Gottfredson (1986) justified the existence of sex differences in interest inventories because people tend to highly value and to try to implement their gender self-concepts in the occupational sphere. In addition, Hansen (1986) suggested that differences between males and females in the area of interest occur now as they did in the 1920's. As a result any attempt to reduce sex differences in occupational preference have little effect. Furthermore, the superficial appearance of bias often has little relation to the real existence of bias (Gordon & Rudert, 1979) and the finding that scores differ by social group is not by itself evidence that tests are biased.

## 4- The Role of Work Values and Needs in Vocational Choice

The main aim of counselling is to help people to find a suitable working environment, and for this it is not only people's interests that need to be taken into account, but also their working needs, working values and expectations. Studies show that the way people evaluate and choose work depends on underlying values (Blood, 1969) and the strength of needs (Wanous, 1974).

Hurt & Holen (1976) suggested that using congruence as a single criteria in helping people to make a decision may be misleading. This is because "The stereotypic notions about occupations, which frequently pervade both inventoried and expressed interest may cause a spurious consistency" (P. 90). To overcome this shortcoming, other criteria such as "working values" (Super, 1973; and Pryor, 1991) and "expectation" (Snyder, 1979) are needed in order to facilitate vocational decision making.

Like expectancy theory, the 'work values' notion assumes that different people prefer different aspects of work and expect different outcomes. Work values or expectations are those things that a person thinks are important. Pryor (1991) defined work values as "The statement of the relation between a person and a particular quality or reward of work" (P. 32). In this context Super (1973) defined interest as "The specific activities and objects through which values can be attained and needs met" (P. 190).

Identifying a person's expectation and work values might gives the counsellor the opportunity to provide the client with a realistic preview of outcomes associated with work. Accordingly, Snyder (1979) recommended that interest inventories should be modified to include an assessment of the client's expected outcomes. The assumption is that when a person's needs and values are met, life adjustment will follow.

To sum up, in order to reach a clear and accurate evaluation of an individual, it is vital to consider interests along with abilities, aptitudes, expectations, values and

other personality characteristics (Miller, 1993). Therefore, as Gottfredson (1986) suggests, counsellors should not rely heavily on interest inventory results but interpret and use them together with other sources of information.

# SECTION TWO

## JOB SATISFACTION

Job satisfaction is of importance in occupational psychology where the main aim is to achieve adjustment and satisfaction among workers in organizations. Plamore (1969) who, in a longitudinal study used a range of medical, social and psychological variables to predict the age at which people would die, found that one of the strongest overall predictors was job satisfaction (r=0.26). According to Saal & Knight (1988) there is a reciprocal relationship between job satisfaction and life satisfaction. Job satisfaction is related to work behaviours like absenteeism, turnover, and aggressiveness. It is of importance because:

A- job satisfaction and happiness at work are ends in themselves.

B- It may influence other attitudes such as life satisfaction, self-confidence and family attitudes.

C- Job satisfaction has been shown to be related to; fatigue, headaches, sweating, mental health, labour turnover, blood cholesterol levels, longevity, absence, complaints and grievances (Davies et al., 1982; Locke, 1984; MCB, 1984).

Job satisfaction is a very broad topic. Here, only job satisfaction as a concept, its conditions and theories will be discussed in detail in so far as it has a direct bearing upon the present research (i.e. congruency and satisfaction). Other aspects of job satisfaction, will only be mentioned briefly.

Satisfaction is an extremely personal matter and no one can really tell whether or not people are satisfied other than the people themselves. According to Turner & Lawrence (1965) the worker's perception of their work determines job satisfaction more than any external intervention. Job satisfaction and dissatisfaction is an emotional response to the work situation; and like many other phenomena does not have a unique definition. According to Locke (1969), "definitions are tied to the measurement whims of particular scientists rather than to the facts of realities" (P.

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313). Locke (1969), defined job satisfaction as a "Pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values" (P. 316). While Smith et al., (1969) see job satisfaction as a personal feeling towards one's job.

Super (1953), views satisfaction in respect to the self-concept. He suggested that work satisfaction and life satisfaction not only depend on the extent to which individuals find adequate outlets for their abilities, interests, personality traits and values, but also on the extent to which the job and the way of life that goes with it, enable people to play the kind of role that they want to play. Each job requires people to play a specific role and engage in specific activities. People who like to play a particular role will choose an associated type of job. Thus the degree of satisfaction attained is proportional to the degree to which the self-concept has been implemented. Similarly, Brophy (1959) suggested that vocational satisfaction is a function of agreement between individuals self-concept and their occupational role (cited in Elizur et al, 1977).

In spite of Schaffer's (1953) and Mobly & Locke's (1970) claim that most people are not fully aware of their own needs and may not be able to identify their own values accurately, workers needs have to be specified and met in order to increase satisfaction. This is because people see occupations in ways which are relevant to their own needs (Hoppock, 1957; and Kidd, 1981). Wiggins (1976) stressed the importance of assessing a person's needs, in addition to abilities, as a part of the counselling, hiring and placement process. He argued that job selection should include evaluation of the work-environment in terms of their potential for fulfilling the needs of the individual.

Job satisfaction exists when a person receives from a job what they expect to fulfil their needs (Small, 1953; Blood, 1969; and Elizur et al., 1977). In the same way dissatisfaction is determined by the strength of an individual's needs or drives and the extent to which a person can perceive and utilize opportunities for the satisfaction of those needs (Schaffer, 1953; and Locke, 1969, 1984).

Satisfaction can result from a job which either meets our present needs or from one which promises to meet them in the future. Thus adequacy of occupational choice improves as people are better able to identify their own needs and the potential need satisfaction offered by a particular occupation.

Job satisfaction exists when job outcomes permit individuals to attain and satisfy the needs that are most important to them (Hulin & Smith, 1965; Adams, 1963; and Katzell, 1964). In particular Schaffer (1953) showed that job satisfaction is positively related to satisfying the strongest two or three needs. He suggested that "overall satisfaction will vary directly with the extent to which those needs of an individual which can be satisfied in a job are actually satisfied, the stronger the need, the more closely will job satisfaction depend on its fulfilment" (P. 19). Locke (1969) and Mobley & Locke (1970) suggested that as people do not seek satisfaction from the same aspects in their jobs, it is important to multiply satisfaction by the importance rating and sum of these weighted scores to calculate the individual's job satisfaction. The sum of the satisfaction score for more important job aspects correlates significantly higher with overall job satisfaction than do sums of satisfaction scores for less important job aspects.

Job satisfaction exists not only when jobs satisfy people's needs but when people believe that what they receive from the job is fair (Locke, 1984; Adams, 1963; and Lawler, 1973). People usually compare their input to the job, in terms of effort, experience, and qualification with the outcomes they receive from the job. If they realise that their input is greater than what they receive, it is more likely that they will be dissatisfied. Smith et al., (1969) hypothesize that a person's feelings about work is associated with the perceived difference between what is expected as fair and reasonable and what is experienced. Locke (1969) suggested that values and expectations often coincide, because most people only value what they believe they have some reasonable chance to attaining. But when values and expectancies are separated experimentally, it is values rather than expectations which determine satisfaction.

However, people sometimes try to adjust their expectation to match what they know that the job can provide. When the two variables are close, it is more likely that a person will experience job satisfaction. According to Hulin & Smith (1965) the longer the workers have been in the job the more they know what to expect. In addition, a person not only compares input and outcomes from work, but also compares input and outcomes with the input and outcomes of other people who do the same job. When perception of this comparison is positive there will be satisfaction, but when the perception is negative dissatisfaction is more likely.

In addition to the person's needs, values and expectation, job satisfaction is also determined by genetic factors (Arvey et al., 1989) . In their study on "Monozygotic Twins", they found that 30% of the variance in job satisfaction is attributable to heredity. This is true for both intrinsic and general job satisfaction. The authors suggested that the genetic factors may influence the twin to seek and remain in similar working environment and to respond similarly to their work contexts.

This finding suggests that a person's satisfaction is not only influenced by work environment and content, but also by the individual's personality. Hackman & Lawler III (1971) and Brief & Aldag (1975) support this notion; they found that people with different levels of need are satisfied with different aspects in their work. Those with high needs level are satisfied with intrinsic features in the job, while those with lower needs level are satisfied with extrinsic features.

## 1- Job Satisfaction Theories

Many theories have attempted to explain how job satisfaction or dissatisfaction emerge. All theories agree that satisfaction is a consequence of needs fulfilment and people differ in their satisfaction because they have different need strength. Theories differ in naming these needs, how these originate, and how

satisfaction exists. Although there are individual differences in what employees want from a job, there are also broad similarities; these are presumably the result of people having the same underlying needs.

Both need theories and motivation theories can be used to explain job satisfaction. The need theories assume that satisfaction is a direct result of need fulfilment, while motivation theories see satisfaction as a result of cognitive processes. Maslow's (1943) and Murray's (1938) theories are examples of need theories. Maslow (1943) arranges needs in a hierarchy and suggests that fulfilling lower needs activates the next level of need. He assumes that all human beings have the same innate needs, while Murray believes that needs develop and change as a result of the life experience. In his Manifest theory, Murray (1938) suggested that human needs are learned through day-to-day living. Not all people experience the same needs as each learns different things during life. Murray added that needs are activated by events in the person's environment. When the appropriate event for a given need is present, then that need becomes active or manifest, otherwise it is latent. If a person does not possess a need in the first place, the event will have no effect. Unlike Maslow's theory, Murray suggests that more than one need can be active at the same time.

Although Maslow's theory is considered as an initiative theory that classifies human needs, the main concern of the theory is the hierarchical ordering of needs. Not all people have to experience the needs in the same order suggested by Maslow because the importance of a particular need is affected by cultural norms and values. In addition, when Wahba & Bridwell (1976) reviewed the literature they did not find much support for the existence of the five groups of needs proposed by Maslow.

The other concern of need theories is the difficulty of adequately defining the concept of needs or identifying a set of needs that is adequate to explain behaviour in a variety of situations. According to Salancik & Pfeffer (1977), the concept of need is ambiguous in terms of its origins, development, and even its meaning and measurement. This limits the utility of the need concept. In addition, although need

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theories acknowledge persons' freedom to choose their behaviour, at the same time they assume that people are inevitably motivated to satisfy their needs.

Herzberg's (1959) theory shares the belief that need structures are universally distributed; it suggests that there are two types of needs (hygiene needs and motivator needs) and each type is satisfied by a particular type of reward or factor (hygiene factors and motivator factors). The hygiene needs are influenced by the physical and the psychological conditions in which people work, they are satisfied by rewards (hygiene factors) which are concerned with the context of the job (i.e. supervision, interpersonal relations, salary, etc.). The motivator needs are influenced by self-esteem and self-respect and satisfied by motivator factors concerned with the nature of the work itself (i.e. achievement, work itself, responsibilities, etc.) Fulfilling the hygiene needs does not of itself result in job satisfaction, but reduction or elimination of dissatisfaction (neutral state), while frustrating these needs, can lead to job dissatisfaction. On the other hand, when the motivator needs are fulfilled a person will experience satisfaction, but in the absence of such factors the person will not experience dissatisfaction but a neutral state similar to the one that is associated with the presence of hygiene factors.

Although Herzberg's theory is clear and easy to understand, it has not received widespread support in practice. The main problem relates to the way that data has been collected. In interviews Herzberg and his colleagues used the critical incident technique to find out which factors in jobs caused satisfaction and which factors caused dissatisfaction. In the incident technique workers are asked about the events they had experienced at work which either increase their job satisfaction or decrease it. In other words, workers are asked to recall a time when they felt exceptionally good about their jobs. This technique has been criticised because unhappy workers are more likely to claim that their dissatisfaction is due to circumstances beyond their control, such as the working conditions or supervisors. At the same time when people experience things that make them happy they usually attribute this to their own effort and skills. According to Hulin & Smith (1965) studies which have tried to replicate

Herzberg's results using techniques other than the critical incident interview have failed. A further criticism of the theory is that it is based upon a sample (of accountants and engineers) which is not representative. King (1970) identified another problem; he found that Herzberg was not consistent in his description of the two-factor theory, and the roles played by motivation and hygiene factors. King identified at least five different versions of the theory in Herzberg's writings, ranging from the statement that, collectively, motivators have a stronger effect on satisfaction than on dissatisfaction whereas hygiene factors have a stronger effect on dissatisfaction than on satisfaction, to the relatively strict statement that only motivators influence satisfaction and only hygiene factors influence dissatisfaction.

However, according to Ott (1965) job satisfaction is located on a single continuum and there is a linear relationship between satisfaction and dissatisfaction in which each directly affects the other so that as one increases the other decreases. Therefore satisfaction and dissatisfaction are not independent of each other as Herzberg's theory claims (cited in Ejiogu, 1980).

Locke's (1976) value theory stresses that job satisfaction may be closely related to whether or not our work provides us with what we want, desire, or value. People compare what the job provides with what they value or find important in it. Therefore, satisfaction is the consequence of this comparison. Attaining or failing to attain a more important value produces more satisfaction or more dissatisfaction, respectively, than do less important values. Although Locke's theory is not classified as a need theory, it is in fact similar to a need theory in two aspects: The first is that what people value most is what they need. Second it arranges values in a hierarchy, but it does not assume that all people have the same values. People differ from each other in their evaluation and in the degree to which they value things

Adams' Equity Theory (1963, 1965) and Vroom's (1964) expectancy theory provide a cognitive approach to job satisfaction. The Equity theory applies more specifically to pay satisfaction, and suggests that satisfaction is based on a perceived comparison of what workers believe they should receive, in terms of job outcomes,

and what they actually receive. The perceptions of what should be received depend on: the perception of what a person brings to the job (in terms of skills, education, experience etc.), the perception of outcomes actually received (in terms of pay, recognition from a supervisor) and the perception of the input and the outcomes of referent others. The referent others are those who hold similar jobs, having equivalent education etc., to whom persons can compare themselves. Job satisfaction exists when a person perceives that the outcome received is fair. In other words, inequity exists if the person believes that other workers are receiving greater outcomes for the same amount of input, or if others were receiving the same outcomes in return for lower inputs. To achieve equity in this case, workers alter their inputs by either changing the quantity or the quality of their work. On the other hand, the theory assumes that inequity also exists if persons perceive that the outcome they receive is greater than their input. So to achieve equity in this case workers will increase their input.

The last assumption of inequity raises an important question. The theory believes that workers are rational in their judgement of their input and outcomes. In fact, in the case of overfulfilment, people will not experience dissatisfaction because it is relatively easy for them to magnify or exaggerate their perception of their inputs in order to justify to themselves a higher reward level. The other criticism of equity theory is that it neglects the role of other factors influencing the feeling of equity. For example, even if people receive outcomes that are fair in relation to their input, they will still be dissatisfied if the outcomes are not enough in satisfying their needs.

Vroom's (1964) expectancy theory represents a cognitive approach. The core assumption of his theory is that people tend to engage in a particular behaviour because: a) of their expectation that the behaviour will be followed by a given outcome, b) these outcomes are more desired and valued. Vroom's theory contains two related models; valence and expectancy. The valence model is used to predict the valences or the values that workers place on various outcomes. The valence of an outcome is the satisfaction that the worker anticipates receiving from an outcome.

Accordingly, an outcome will have a positive valence if people believe that it has instrumentality for obtaining other valued outcomes. The instrumentality is defined as the extent to which the person believes that attaining one outcome is associated with attaining other outcomes. The instrumentality ranges from (-1.00 to +1.00).

The second model in Vroom's theory is that of expectancy, which is defined as the perception of probability that an outcome would follow a behaviour, and it ranges from zero to +1.00. The strength of motivation to engage in any behaviour depends on both the expectancy that various outcomes will follow the performance of a particular behaviour, and the importance (valence) of those outcomes.

Although Vroom's expectancy theory is very popular because it is easily understood and useful in practice, researchers testing the theory have voiced some concern.

The first criticism is that the theory assumes that people make decisions in a rational way. Therefore, even if a first-level outcome has a very positive valence, no effort will be made to obtain that outcome if there is not an expectancy that such effort will be effective. In fact, a less rational model would predict that people will make more effort to obtain highly valued outcomes, even if the expectancy to obtain these outcomes is very small. Therefore, the theory has been criticised for being an over elaborate model of how people make decisions, and the majority of decisions are made in a less rational, more haphazard manner (Slovic et al., 1977).

The other concern relates to the research methods used to test the theory. It is not relevant to use "between-subjects" designs to test the theory because the aim of the theory is to predict individual choice rather than the differences between people in their choice. Therefore, a "within-subjects" design is more suitable (Mitchell, 1974). In this type of design, predicted level of effort under different conditions for the same person can be computed, and then the ability of the model to predict individual choices can be properly tested.

Similarly, "Social and Cognitive" theories use a cognitive approach to explain job satisfaction. They assume that people's job satisfaction is determined by their

perception of other workers' behaviour and attitudes. This perception will shape and form people's attitudes towards their job and the organisation. This approach shares a common feature with Equity theory, in that people tend to use other workers as a source of information. People usually use co-workers who hold similar jobs and have similar interests as models to follow (Salancik & Pfeffer, 1977).

At present no theory can claim that it is an ideal theory to describe job satisfaction, because each has limitations and shortcoming. Therefore, when job satisfaction is studied an eclectic attitude to theory is wise.

It is generally agreed that job satisfaction is a personal feeling towards a job and it is the outcome of needs and values fulfilment. These needs and values are learnt through life experience, either inside the job or outside the job. People are seen to have similar needs but at different intensities. The intensity of need is influenced by life experience. Some people learn to value physical needs, while others learn to see identity fulfilment and achievement in a job as more important.

In addition, it is more reasonable to suggest that more than one need is activated at a time. As a result it is difficult to suggest any ordering of needs, because of individual differences in their relative importance.

It is not only needs fulfilment that leads to job satisfaction but also a person's perception that what they receive from the job is fair. As Equity theory suggests, people usually compare what they receive with what they bring to work in terms of qualification, experience, effort etc. They also compare what they receive with what others who do the same job receive.

Therefore, when job satisfaction is studied and measured it is important to consider production within a broad theoretical framework.

## 2- The Measurement of Job Satisfaction

Job satisfaction is a multidimensional concept (Cross, 1973; and Smith et al., 1969). According to Saal & Knight (1988) this has at least two important implications. First it may be misleading to speak of job satisfaction without specifying the precise aspect of the job to which the satisfaction refers. The second concerns the measurement of satisfaction. Different aspects of a job may require different types of measurement. Most studies recognize five job aspects: the work itself, pay, promotion, social relationship, and the relationship with supervisor. The dimensions of the job depend on the nature of the study. Hulin & Smith (1965) consider that, when job satisfaction is studied its aspects need to be treated independently because they have different relationships with other independent variables (e.g. age, tenure, salary desired minus salary received).

Dunham & Smith (1979) distinguish between Extrinsic and Intrinsic satisfaction: 1) Extrinsic satisfaction includes aspects of satisfaction that are not an integral part of the job itself, it contains: pay; promotion prospects; supervision; co-workers; the firm; physical working conditions; job security and social status.    2) Intrinsic satisfaction includes aspects that arise "naturally" from the nature of the work performance. There is something in the job itself which motivates people, this includes: skill variety; task identity; autonomy; feedback from job; achievement; creativity. According to Turner & Lawrence (1965) intrinsic satisfaction does not automatically lead to overall job satisfaction.

Accordingly, Warr et al., (1979) defined job satisfaction as " the degree to which a person reports satisfaction with intrinsic and extrinsic features of the job" (P. 133). While total job satisfaction is defined as "the sum of all separate items, and overall job satisfaction is reported satisfaction with the job as a whole" (P. 133).

Many methods are used to study satisfaction, the findings of research on satisfaction depend on how satisfaction is measured. The most common way of determining individuals' satisfaction with work is by asking them. According to

Hoppock (1935) three approaches are usually used in measuring job satisfaction. First is the direct question about satisfaction: "Do you like your job?". The second type is phrased as a question, "If you had it to do again, would you choose your present occupation?". The third approach infers satisfaction from the worker's behaviour. How workers feel about their jobs may be less well revealed by verbal behaviour than by performance on their jobs.

Hoppock (1935) found that when direct questions are asked about a person's job satisfaction, most workers, regardless of socioeconomic level, were satisfied. Although there were some expected differences in satisfaction among workers (those working at a higher level were more satisfied than those at the lower level) the general picture was of overall job satisfaction. However, when the question is phrased differently, different results may be produced. Although the direct question showed that nine out of ten workers are satisfied, job satisfaction dropped roughly to two-thirds when a differently phrased question was used. However, it is still clear that the majority of workers report being satisfied in their jobs.

Satisfaction with the job usually generalises. An extreme dissatisfaction with one aspect of a job may have strong effect on satisfaction with other aspects and the reverse is true. Workers who report high satisfaction with one aspect are likely to report high satisfaction with all other aspects of their job. Smith et al., (1969), concluded that although job aspects are discriminably different, they are in fact correlated. For example, as job level increases, individuals generally have more control over the pace and quality of their work, and are likely to be more satisfied with the work itself. Job level is also correlated with pay.

## 3- Job Satisfaction and Employee Behaviour

Job satisfaction is an important aspect for both the employer and the employee. According to Saal & Knight (1988) knowing what variables are related to

satisfaction can help in making predictions about what type of person will be satisfied under given circumstances and so suggests ways to improve satisfaction.

The importance of satisfaction can be recognized where behaviours associated with dissatisfaction are observed. Dissatisfaction can lead to negative responses which harm both the person and the organization. One of these is withdrawal from the job situation, either physical withdrawal (lateness, absenteeism, turnover) or psychological withdrawal (passive and disinterested in the job). Other types of response to dissatisfaction are seen in assertive and aggressive responses made in an attempt to change the conditions producing dissatisfaction. Also some workers may retreat into Alcohol and Drugs (Saal & Knight, 1988).

Absenteeism and turnover which are examples of the withdrawal behaviour are costly problems. The total number of working days lost annually through sickness absence is higher than the number lost through industrial stoppages. In Britain in 1990-1991, the number of working days lost through sickness and injury were over 25 million (Labour Force Survey, 1990) compared to just under 2 million for industrial stoppages (Annual Abstract of Statistics, 1992). Likewise, high turnover adds financial stress to an organization in selecting and training new employees, and it may disrupt social relationships within work groups (Saal & Knight, 1988). There are three features of the relationship between absenteeism and turnover. Firstly, there is a positive relationship between turnover and absenteeism, according to Davies & Shackleton (1982) a person who is more often absent from work is more likely to leave the job. Secondly, Herzberg et al., (1957) suggested that the two behaviours are on different ends of a continuum of withdrawal behaviour, beginning with absenteeism and ending with turnover. Thirdly, Porter & Steers (1973) said that although absenteeism and turnover share some common factors, they are in fact different: A) the negative consequences for the individual associated with turnover are greater than those associated with absenteeism, B) absenteeism is more likely to be an easier decision than leaving a job, C) in the case of the turnover the decision to leave depend on the availability of another alternatives.

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In addition to other reasons for absenteeism and turnover (e.g. family problems, illness, mobility upward to new positions in the case of turnover), the effect of satisfaction on withdrawal behaviours have been extensively studied. No clear cut relationship is found between job satisfaction and absenteeism (Saal & Knight, 1988; Porter & Steers, 1973; Brayfield & Crockett, 1955; and Herzberg et al., 1957). The possible reason for this is that the organization may use punishment procedures to deal with absenteeism (e.g. cutting pay, delaying promotion etc.).

In contrast, the relationship between job satisfaction and turnover is clearer. Two studies conducted by Hulin (1966, 1968) found that turnover is higher among dissatisfied workers than satisfied workers.

In their review of fifteen studies, Porter & Steers (1973) conclude that all except one found a negative relationship between turnover and job satisfaction, (i.e. the higher job satisfaction is, the lower the turnover will be and the vice-versa). Brayfield & Crockett (1955) also reach the same conclusion. In other words, employee satisfaction and employment stability are positively related.

Although there is a link between job satisfaction and turnover this link is neither simple nor direct. Job dissatisfaction seems to trigger or contribute to a chain of decisions on the part of the worker that vary across individuals, jobs, and economic conditions. In order to have a clear picture about the relationship between job satisfaction and turnover, a person's commitment to the organization should be taken into consideration. Commitment is a general emotional reaction; it develops slowly and is more stable than job satisfaction (Saal & Knight; 1988).

Porter & Steers (1973) use expectancy theory to explain the relationship between job satisfaction and turnover. They suggest that people become dissatisfied when their job is not able to meet their reward expectations. This explanation can be applied to some extent to absenteeism.

Lucas et al., (1990) suggested that an individual's job performance should be considered when the relationship between job satisfaction and turnover is studied. They found that for high performers, there is a negative relationship between job

satisfaction and turnover, but for low and average performers no significant relationship is found. They believe that this is because higher levels of job performance offer employees the ability to more readily translate feelings of dissatisfaction into action (leaving the job). This is true for both intrinsic and extrinsic job satisfaction.

However, the availability of jobs in the labour market can distort the relationship between job satisfaction and turnover. With high unemployment people tend to remain in their jobs even if they are not satisfied.

In the case of productivity no relationship has been found between job satisfaction and productivity. Although Hoppock (1935) argues that people who are satisfied with their job will work well enough to keep it, while those who are not satisfied will perform in such a way as to lose it voluntarily or involuntarily, there is no evidence to indicate that job satisfaction increases productivity. If such a relationship does exist this is because high productivity causes job satisfaction rather than job satisfaction causing productivity (Locke, 1984; Saal & Knight, 1988; and Davies & Shackleton, 1982). According to Locke (1984), productivity is determined by more than just job satisfaction. Productivity depends on the employees' knowledge and abilities, supervisory competence, work environment, etc. So, dissatisfaction may not lead to lower productivity, except in a strike situation or when a substantial number of the more competent employees resign.

## 4- Individual Differences in Job Satisfaction

People differ in their motivation and satisfaction as they differ in their needs and the importance they attribute to them as well as their perceptions of their input and outcomes.

When people or groups are compared in their satisfaction, they have to be similar in all other variables. According to Saal & Knight (1988) when males and

females are compared in their satisfaction, other variables (e.g. education, tenure, pay etc.) have to be similar. In this section individual differences in satisfaction will be examined.

## *1- Gender*

Studies report that women are as satisfied as men with their work (Centers et al., 1966; and Hodson, 1989). Several reasons are given for this. Herzberg et al., (1957) and Kanter (1977) point out that although women are more satisfied with their jobs in overall terms, they are in fact interested in different job aspects than those of men. Women place a higher value on good social relationships with colleagues, salary and advancement, while men heavily value the opportunities to use their talents or skills (Centers et al., 1966).

Another reason for the differences between men and women in job satisfaction is that women focus their attention on their role as wives and mothers, and their social life has priority over their satisfaction in their working life (Veroff et al., 1981). Finally, because workers usually compare themselves to others of the same sex in appraising their jobs ("reference groups", Crosby, 1982), women feel more satisfied than men because they usually compare themselves to other non-working women rather than to men. Hodson (1989) found that women are more satisfied if they are employed in a female-typed occupation and compare themselves to non-worker women.

## *2- Age*

Although studies do not agreed on the direction of the relationship between age and job satisfaction, they do agree that older workers are more satisfied than

younger ones (Hulin & Smith, 1965; Weaver, 1980; Hoppock, 1935; and Duke, 1989). Herzberg et al., (1957) concluded from his review that there is a U-shaped function describing the relationship between job satisfaction and age. Job satisfaction starts high when young people start their first job, then it goes down over the next few years and remains at a low level until workers are in their early thirties when job satisfaction begins to rise again. This rise continues in most cases through the remainder of their working life.

On the other hand, Luthans & Thomas (1989) suggest a curvilinear relationship between age and job satisfaction. They assume that younger workers start with low levels of job satisfaction, that increase with age until reaching a peak before it starts to fall again before retirement.

The positive relationship between age and job satisfaction possibly exists because younger workers are less adjusted to jobs in their first few years (Herzberg et al., 1957), while the increase in job satisfaction in the latter years is because older workers tend to limit their expectations and aspirations (Luthans & Thomas, 1989).

### 3- Tenure

The relationship between job satisfaction and tenure follows the same U-shape suggested by Herzberg et al., (1957) who argues that as older workers have spent more years in the job than younger workers, it is to be expected that changes in job satisfaction with length of service will have the same direction with increasing age. Klein & Wiener (1977) and Wiener & Klein (1978) found a positive correlation between job tenure and satisfaction.

Lucas et al., (1990) found that the likelihood of turnover depends upon extrinsic rather than intrinsic dissatisfaction.

Warr (1985) explained the positive relationship between tenure and job satisfaction by saying: "Continuing employment in one role increasingly binds an individual into that role and reduces awareness of alternatives" (P. 235).


## 4- Job Characteristic and Job Level


People differ in their satisfaction according to their job content. Jobs that contain moderate to high degrees of autonomy, variety, task identity, responsibility, feedback and knowledge and skill requirement, lead to greater satisfaction than jobs that lack these characteristics (Hackman & Lawler III, 1971; and Turner & Lawler, 1965). Duke (1989) found a positive relationship between these job aspects and job satisfaction for both employees and supervisors. Hackman & Lawler III (1971), and Brief & Aldag (1975) pointed out that these characteristics are more important for those with higher order needs.

In addition, people at higher occupational levels are higher in their satisfaction than those at lower levels (Herzberg et al., 1957; Weaver, 1980; and Davies & Shackleton, 1982). Centers et al., (1966) and Weiss & Kahn (1960) found that those in high level jobs tend to value and be satisfied with intrinsic job components (e.g. opportunity of self-expression, interest value of work etc.), while those in lower occupational levels more highly value the extrinsic aspects of the job (pay, security, social relationship etc.).

# SECTION THREE

## THE RELATIONSHIP BETWEEN JOB SATISFACTION AND VOCATIONAL INTEREST

This section examines the relationship between vocational interests, congruence and job satisfaction. Lawler III (1973) states that satisfaction is a function of both the person and environment, which raises the question of whether congruence between people and the working environment can lead to job satisfaction. Job satisfaction models similarly agree that individuals' effective reactions toward the job are dependent on an interaction between people and their environment (e.g. Locke, 1984; Maslow, 1943).

Congruence is the fit between a person and his environment. It is the attachment between an individual's personality traits and the demands of the job. A Congruent working environment is the one that best allows the expression of a person's interests and competencies. Congruence is measured in several ways depending on the purpose of the study. The relationship between people and their environments is an important one because many outcomes are expected to result from it. These outcomes include; job satisfaction (Wiggins et al., 1983), stabilities (Peiser & Meir, 1978), adjustment (French et al., 1974; and Hesketh & Dawis, 1991), mental health (Klein & Wiener, 1977), well-being (Meir, et al., 1986). The basic assumption is that if people's characteristics and environment are congruent they are more able to cope with their environment. The concept of congruence between people and their working environment goes back to 1468 when Rodrigo Sanchezde Arevado published his book "Mirror of Human life" (Chabassus & Zytowski, 1987). In his book he emphasizes the importance of ability and interest to achieve person-environment fitness, in addition, he provides the first description of occupations.

The Minnesota Theory of work adjustment explained by Hesketh & Dawis (1991) examines the person-environment relationship; it suggests that job satisfaction

is a feature of work adjustment. The theory stresses the importance of taking all the individual's characteristics (in terms of abilities, knowledge, interests and needs), as well as the environmental characteristics ( in terms of rewards, demands, conditions) into consideration if a person-environment fit is to be achieved. The first assumption is that, in the case of availability of alternatives; adjustment, satisfaction, well-being and mental health is related to how long people stay in  jobs. There is positive correlation between tenure and both work adjustment and satisfaction. The second assumption is that job satisfaction is related to the extent to which a job can meet a person's needs, interests, and values. In addition, adjustment and satisfaction are also related to the agreement between "temperamental" aspects of the person and the emotional demands that the job makes.

The theory assumes that individuals develop typical patterns of responding over time, therefore it is important to analyse people's past behaviour to identify and predict their modes of behaviour, adjustment, and satisfaction.

The theory suggests four styles that can be used when mismatch between the person and the environment occurs and adjustment needs to be restored. Using any of these styles depends on the stable modes of responding as well as on the nature of the situation. The styles are:

1- Flexibility; which is the level of tolerance between individuals and environments mismatches.

2- Activeness; which means changing the other party (individual or environment) to achieve adjustment.

3- Reactiveness; which includes changing oneself (individual or environment) to improve adjustment.

4- Perseverance; which is the length of time that individuals or environments continue trying to improve adjustment using either active or reactive modes.

In this context Forer (1953) mentioned two aspects of successful occupational adjustment, where in many cases they are closely related. These two aspects are: i)

satisfaction in tackling the tasks involved, and ii) success in carrying them out. Success is primarily a function of ability, aptitude and disposition.

According to Hesketh & Dawis (1991) the Minnesota theory of work adjustment can also be used in understanding career choice because it suggests that career decision is a consequence of person-job fit.

Holland (1985a) suggested four levels of congruence (person-environment fit) in relation to the hexagonal model. The first extensive level is where the personality type matches the environment. The next is of a match to an adjacent environment. The third is where personality type matches an alternative environment. The last and most extreme degree of incongruence is where personality type matches an environment opposite to the one the person is in.

Here the focus is on how congruence, in terms of vocational interests, affects a person's attitude towards the job i.e. "Job Satisfaction". Examining this relationship is of help in clarifying the relevance of interest measures in vocational counselling.

From his theory Holland (1959, 1968, 1973, 1985a) states that job satisfaction is a direct result of a person's vocational interest and job characteristics. Similarly, Strong (1943) expects that occupational interest scales are indicative of satisfaction with various aspects of the occupational environment, although he did not single out one or more aspects as more important than any others.

Super (1957) suggested that job satisfaction is primarily a function of interests. He pointed out that although other factors such as abilities may affect job satisfaction, liking for the work activities would seem to be a major contributing factor leading to job satisfaction. According to Super & Bohn (1971) because interests are a measure of a person's likes and dislikes, job satisfaction should likewise be a function of likes and their relevance to the job. If Interests tell us anything about an individual's working life, they should tell us something about their work satisfaction.

Studies testing the relationship between congruence and job satisfaction have produced contradictory results. A few studies have found weak to moderate

relationships between job satisfaction and vocational interest congruence, with correlations usually between r=0.20 to r=0.47. Studies can be categorised into three groups. The first group supports the theory and find that satisfaction with work is higher for those whose interest typology matches their environmental. In other words, congruent persons are more satisfied with their jobs than incongruent. The second group fails to find such a positive relationship. While the third suggests that if job congruency is combined with other factors such as the length of service (tenure), or self-esteem, then job satisfaction is more likely to exist.

The first group of studies show that workers who are in a job that matches their interests are more satisfied with their work than others who are not. Thus, the subject's perception of the work itself and subsequent overall job evaluation is more positive when the work environment is congruent with their interests. There is much evidence to support this position (e.g. O'Reilly III, 1977; Swaney et al., 1985; Smart et al., 1986; and Gati & Meir, 1982).

Mount & Munchinsky (1978b) found a positive relationship between job satisfaction and congruency using Holland's environment typology. Congruent employees were significantly more satisfied with all aspects of their job (work, pay, promotions, supervision, and co-workers as well as overall satisfaction) than incongruent employees. Therefore, the congruency with the job not only leads to satisfaction with the job itself but also to other work aspects.

Studies examining the relationship between congruence and job satisfaction have treated extrinsic and intrinsic aspects of the job independently. Swaney et al., (1985) and Smart et al., (1986) found a positive relationship between congruence and satisfaction with intrinsic aspects, while Elton et al., (1988) found the same relationship but with extrinsic aspects.

Likewise, in studies of nurses (Hener & Meir, 1981) and teachers (Wiggins, 1976) it was found that the higher the congruency level the higher the job satisfaction. Other studies using students (e.g. Morrow, 1971; Walsh & Lewis, 1972; and Nafziger

et al., 1975) found that congruent students were more satisfied with their college major than incongruent students.

Peiser & Meir (1978) used "The Ramak Interest Inventory" and Roe's Job Classification to test three of Holland's concepts: Congruency, Consistency, and Differentiation. They found a positive correlation between job satisfaction and congruency for both men and women. However, although the relationships between job satisfaction and consistency, differentiation and congruency exist, congruency contributes more to job satisfaction than the other two aspects.

On this approach, for an individual the feeling of being involved in and satisfied with a job is usually of primary importance. For employers it is more important that employees have the basic abilities to do the job well, and a real interest is of secondary concern, although it may provide some guarantee that these abilities will be fully utilised (Connolly, 1968).

The second type of study that tests the relationship between congruence and job satisfaction failed to find such a relationship e.g. Amerikaner et al., (1988); Dolliver et al., (1972); Kats, (1950); and Berdie, (1944). Similarly, Schletzer (1966) compared subjects' congruent interests with three types of job satisfaction scales (Hoppock Job Satisfaction Blank, Bryfield-Rothe Job Satisfaction Blank, and Job Dimension's Inventory) but failed to find any relationship. He summed subjects' scores on the three job satisfaction scale to achieve a global measure of job satisfaction, but still no relationship was found.

It is worth noting that studies which failed to find any relationship between job satisfaction and congruence (e.g. Kates, 1950; Schletzer, 1966; and Berdie, 1944) used the Strong interest scales to measure subjects' vocational interest. The failure is due to some extent to the fact that "Strong in setting up his occupational scales did not attempt to differentiate the satisfied from the dissatisfied members of the occupation" ( Kates, 1950, P. 251).

However, the third group of studies that test the relationship between congruence and job satisfaction support the relationship between the two factors but

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suggest that other variables (i.e. tenure, self-esteem, and self-concept) need be taken into consideration.

In their studies Klein & Wiener (1977), and Wiener & Klein (1978), found that tenure is a moderate factor in the relationship between congruence and job satisfaction. But they did not suggest how long one needs to be in the job in order to be satisfied! They found that the long tenure group were more satisfied with their supervisors and work itself than short-tenure employees. For the other satisfaction indices (pay, promotion, and co-workers), no significant correlations were found with interest congruency for both short and long-tenure. They explain their finding by suggesting that the work itself and the supervision simultaneously have two job attributes: 1) They have a continuous and daily impact on working life, and 2) they have an immediate relevance to task activities. The other aspects of the job (pay, promotion, co-workers) have either but not both of these attributes. They suggested that the degree of congruency between people's vocational interests and their present job may not have an impact on job feelings unless the individual has had a long exposure to job activities and experience. The consequences of interest congruency take time to emerge.

On the other hand, Dipboye et al., (1978) partially support the relationship between job satisfaction and congruence when self-esteem is a moderator factor. Although they found that a positive relationship between intrinsic job satisfaction and science interests for high but not for low self-esteem subjects, the difference between the two groups was not significant.

Moreover, Fricko & Beehr (1992) suggested that although congruence determines job satisfaction, subjects' gender needs to be taken into consideration. They found that those in jobs dominated by the other sex, even if congruent with their interests, were less satisfied than those who entered same sex jobs. Their finding confirm Gottfredson's theory (1981), that sex-stereotype has more effect in determining occupational choice than interest because sex-stereotype is at the core of a person's identity.

It is important to mention that studies supporting the relationship between congruence and satisfaction (e.g. Dipboye et al., 1978; Wiener & Klein, 1978; Swaney et al., 1985; and Smart et al., 1986) found that congruence is only related to overall satisfaction and intrinsic satisfaction but not to extrinsic job satisfaction. Mount & Munchinsky's (1978b) study is an exception as they found that congruence with the job does not only lead to satisfaction with the job itself but also with other aspects of the job (pay, promotion, supervision, and co-workers). In addition, Elton & Smart (1988) found that women and men at the highest level of congruence are slightly more satisfied with extrinsic aspects of the job than those at the lowest level of congruence.

According to Borgen (1986) even a weak correlation between congruence and job satisfaction is important. He concluded from his review that although the correlation between the two variables is usually low (around 0.30), this coefficient does not constitute a failure as it may still be useful in vocational counselling. This is because many factors other than interest may contribute in predicting job satisfaction. Borgen explains that when the correlation between interest and job satisfaction is as high as (0.70) for example, this would mean that job satisfaction is principally a function of interest. This is difficult to accept, as many other factors e.g. abilities, rewards also influence job satisfaction. Borgen's (1986) conclusion is supported by Strong (1955) who claims that there are some intermediate factors which effect the relationship between interest and job satisfaction. These factors include: time on the job; salary; status of the job; age; marital status; retirement plan; campus belongingness; and the affinity between job duties and college major.

However, even where there is a relationship between job satisfaction and congruence, this relationship does not hold for all working environments. Satisfaction with work is influenced by the type of environment the person works in (Dipboye et al., 1978). In their studies Mount & Muckinsky (1978b) report higher job satisfaction among congruent workers in Investigative, Conventional, and Enterprising environments than among workers in Social and Artistic environment. In addition

those who work in Social environments are more satisfied with their co-workers than those working in an Enterprising environment.

Gottfredson & Holland (1990) explain the weak relationship between interest and job satisfaction by suggesting that individuals' judgment of satisfaction may depend on their "frames of reference", where people compare themselves to others having the same job. The other explanation is "perceived alternatives", persons will be satisfied with their job, even if it is not congruent with their interest, when only few work alternatives are available.

In addition, Wiener & Klein (1978) suggested several reasons for the failure of studies to find a strong relationship between job satisfaction and vocational interest. Firstly, these studies assessed job satisfaction by means of overall and global measures, with no attention to specific job components. Secondly, studies investigated the overall relationship between interests and job satisfaction with no attempts to identify conditions under which this relationship may or may not occur.

## Consistency, Differentiation and Job Satisfaction

Congruency, Consistency, and Differentiation are the three corner stones of Holland's theory. Although Holland's theory stresses the importance of congruency on job satisfaction, it does not rule out the influence of consistency and differentiation, "The consistency, differentiation, and optimal staffing of an environment promote involvement, satisfaction, and stability of vocational choice" (P. 44). Studies testing the relationship between satisfaction on the one hand and consistency and differentiation on the other, have not found support for this hypotheses (Gati & Meir, 1982) and have sometimes found a negative relationship (Gottfredson & Holland, 1990). However, Peiser & Meir (1978) and Hener & Meir (1981) found positive correlations between job satisfaction and both consistency and differentiation only when vocational interests were congruent with occupational field.

Nafziger et al., (1975), failed to find any relationship between satisfaction and both consistency and differentiation, among students, even in the presence of congruency. So, these studies prove that consistency and differentiation have no direct effect on satisfaction except in some cases where congruence exists.

# THE AMBIGUITY IN HOLLAND'S THEORY:

The aim of this study is to test the assumption of the relationship between job satisfaction and vocational interests and Holland's theory precisely. However, Holland's assumption about this is not very clear. Holland (1985a) suggests that "Vocational satisfaction, stability, and achievement depend on the congruence between one's personality and the environment in which one works" (P. 10). Also he states that "Career involvement and satisfaction will be positively associated with congruence" (P. 31). That is, he assumes that people will be satisfied with their job when they are engaged in work activities and competencies that are associated with their personal disposition and characteristics, so satisfaction is a result of congruency. Strong (1943) shared the same assumption.

However, the job satisfaction literature presents four rules of thumb : Firstly, job satisfaction is a result of fulfilling a person's most important needs. Secondly, job satisfaction can be related to at least five job aspects (work itself, pay, social relationship, promotion, supervision). Thirdly, these aspects need to be treated separately when satisfaction is studied because each aspect is satisfied by different factors. Fourthly, there are two types of satisfaction : intrinsic satisfaction, which relates to the nature of the job, and extrinsic satisfaction, which deals with factors outside the job itself, such as pay, promotion, and social relationships. In addition to that there is also total satisfaction which is the sum of the intrinsic and extrinsic satisfaction, and there is also the overall satisfaction which is the satisfaction with the job as a whole unit. Therefore, the theory needs to be more precise in its assumptions and state which type of satisfaction is most influenced by congruence. Congruence has nothing to do with satisfaction when the job has failed to fulfil the most important need of the individual. For example, when people value the financial reward more than any other aspect and the job is unable to provide an acceptable level of reward, people will express dissatisfaction even if their dispositions fit well with the job, i.e. are congruent.

According to Swany et al., (1985) and Smart et al., (1986) Holland's assumption is more applicable to intrinsic satisfaction, because it deals directly with the job itself. That is, when people are interested and capable of certain types of activities they will probably experience satisfaction with the job and enjoy doing it, but it does not mean that they will be satisfied with low pay, or poor social relationship that may be associated with this particular job. However, Turner & Lawrence (1965) believe that intrinsic satisfaction does not automatically lead to overall job satisfaction.

Therefore, the relationship between congruence and job satisfaction specified by Holland needs to be treated with caution. Different job aspects have to be treated independently when the relationship between congruence and job satisfaction is studied. In addition, the other type of satisfaction, i.e. total and overall satisfaction should not be ignored.

# CHAPTER FIVE

## THE DEVELOPMENT OF AN ARABIC VERSION OF THE SELF-DIRECTED SEARCH AND AN ARABIC JOB SATISFACTION SCALE

The main aim of the present study is to test the validity of Holland's interest inventory (SDS) cross-culturally and examine his theory concerning the relationship between job satisfaction and congruency (a person's vocational interest and current job).

When a test or a technique is used cross-culturally it has to be adapted to suit the new culture and to make the comparison between cultures possible. Because the SDS is based on American culture, it was necessary to introduce some changes. This chapter will present the steps of adapting the SDS in Kuwait, then will discuss the job satisfaction scale which was developed especially for this study.

## 1- The Arabic Version of the SDS

The SDS was used in the present study because it is a self-administered, self-scored inventory, and its items are clear and comprehensive, so the subjects can use it in their own time and without the need for the researcher to be present. In addition, the SDS is easy to fill in because subjects need only to shade or circle a proper answer. This type of response is most suitable for subjects from developing countries (Cho, 1972).

Furthermore, it was used because it measures vocational interest using different types of assessment. It uses a broad range of content: activities, competencies, occupations, and self-ratings to assess the person's resemblance to one of Holland's six personality types. According to Holland (1985a) a person's resemblance to each personality type may be defined by vocational interest as

manifested in vocational and educational preferences, current employment, or scores on certain interest scales.

It is also chosen because of its high reliability and validity when it is used outside its original country. (The validity of the SDS in Kuwait will be presented later in Chapter Six).

## Developing an Arabic version of the SDS

There is apparently an Arabic translation of the Self-Directed Search in the possession of the Psychological Assessment Resources (PAR) the publisher of the test. For contractual reasons this is not available to anyone! A copy of the explanatory letter from R. Bob Smith, President of (PAR), is included on Appendix 1. Therefore it was necessary to translate the available English version of the SDS into Arabic.

As discussed in Chapter Two, if a test is to be used in a country other than the one in which it was created, it is necessary to validate it cross-culturally. Because the SDS was developed in America and most of its items are based on American culture, some of these items needed to be re-structured to be applicable to the new culture under study -Kuwait. In addition, it was realized that some of the items were out of date because the inventory was developed during the 1970's, the first version of the SDS being published in 1971. Thus some changes were necessarily introduced.

In the first section, occupational daydreams, the subject is asked to: "List below the occupations you considered in thinking about your future. List the careers you have daydreamed about as well as those you have discussed with others. Try to give a history of your tentative choices and daydreams. Put your most recent job choice on Line 1 and work backwards to the earlier jobs you have considered". Kuwaiti subjects were asked to list five jobs (instead of eight as in the original

version) they had thought about before choosing their current one. This section is supposed to measure a person's expressed interest.

The reduction was made on the assumption that subjects would not be able to remember more than about five. As the "pilot study" section in the Methodology Chapter will show that subjects were only able to remember a maximum of four jobs, so the number was reduced to four in the main study. This was the only section of the test which subjects found difficulty with. The main reasons were that, i) there is a limited range of jobs available in Kuwait, compared to the West. ii) in Kuwait, like in most developing countries, children do not really give thought to their choice of a future job at an early age but leave decisions until after graduation from school or university. (This issue was dealt with in Chapter Two). Because of these factors, a question about a person's aspiration, as the one in the SDS, is difficult to digest in a society like Kuwait. As one subject who refused to answer this question said "it is a silly question"! which makes this point clearly.

As a result most of the subjects mentioned jobs that they aspire to at the present time, not in the past. These jobs were accepted as an indication of expressed interest. The instructions for this section should be modified in a future study, and replaced by the following question, "If you were not working in your present job what jobs would you like?'.

In addition, because the aim of the current study is not "counselling" and because the dictionary of occupational titles is not available in Kuwait, subjects were not asked to code their daydream jobs, it was left to the researcher to do so. The omission of the Occupational Finder exercise was not thought to affect the outcome as Holland et al., (1978) found that its addition did not alter the effects of the SDS. Because no classification of occupations is available in Kuwait and because most occupations are similar in most countries, Gottfredson & Holland's (1989) dictionary was used in this study to code subjects' job aspirations.

In the next three sections of the test subjects are asked to respond either by "like" or "dislike" to lists of activities, competencies, and occupations. These were

classified into six groups identical to Holland's environmental classifications (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional). In the translated version the "type of environments" is written as a whole, instead of the abbreviation in the original version, to make it more comprehensive. Also some items have been changed either because they are not applicable to the situation in Kuwait or because they are out of date. In the Social activities the following statement "Work for the Red Cross" was changed to "Work with the Red Crescent". In the enterprising activities, the statement "Take charge of a political campaign" was interchanged to "Manage an election campaign". In the Conventional activities the following statement "Fill out income tax forms" was replaced by "Fill in a loan form" because their is no income tax or any other type of personal tax in Kuwait.

The social life pattern in the Arab countries is different to that in Western countries, so the statement "I could work as a neighbourhood organizer" in the Social competencies was changed to "I can organise social programmes".

Three statements were changed in the Conventional competencies because they are out of date. "I can operate a duplicating or adding machine" was modified to "I can operate a type-writer or calculator", "I can use a bookkeeping machine" was altered to "I can use a computer for accounting", and "I can use simple data processing equipment such as a keypunch" was altered to "I can use a word-processor".

In the Realistic occupations the "Locomotive Engineer" was replaced by "Civil Engineer" because no railway transport system exists in Kuwait. The "IBM Equipment Operator" was modified to "Computer Operator" because this statement is applicable to all types of computer.

Although the whole SDS assessment booklet was translated the last four pages were excluded from the main study. These pages are "How to organize your answers", "What your Summary Code means", "Some next steps", and "Duplicate Summary page". The reason for that is as mentioned before, the purpose of the study was not counselling or to test the SDS capability to help people find jobs. In

addition, subjects in the pilot study found it difficult to complete these pages, as the Dictionary of Occupational Titles is not available in Arabic. Therefore, the researcher organised the subjects' answers and found their summary codes.

In addition, sentences concerned with consulting  counselling centres and occupational information or trying part-time work, which are in the "Some next steps" page, were not included in the translation. They  were omitted because no vocational services are available in Kuwait. Also the "ethnic and racial influences" section was omitted because these cannot be found in Kuwait.


## 2- The Development of the Job Satisfaction Scale


In order to measure subjects' job satisfaction a short scale was needed. As the completion of the SDS inventory takes at least 40 minutes, a short job satisfaction scale was considered more suitable. An appropriate scale could not be found in the literature that was short, easy to understand and covered all aspects of work. Thus a decision was made to develop a new scale in Arabic.

Job satisfaction is a multidimensional concept (Cross, 1973; Smith et al., 1969). A job can be seen as having five aspects: the work itself, pay, promotion, social relationship, relationship with supervisor.   Hulin & Smith (1965); Locke (1969); Smith et al., (1969); and Mobley & Locke (1970) suggested that whenever job satisfaction is studied, its aspects have to be treated separately. The dimensions of the job depend on the nature of the study (Smith et al., 1969; Cross, 1973). Satisfaction with a job is usually generalised, an extreme dissatisfaction with one aspect of a job may have a strong effect on satisfaction with other aspects and the reverse is true. Workers who reports high satisfaction with one aspect are likely to report high satisfaction with all other aspects of their job (Smith et al, 1969). Smith et al., (1969) concluded that although job aspects are discriminably different, they are in fact correlated. For example, as job level increases, individuals generally have more

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control over the pace and quality of their work, and are likely to be more satisfied with the work itself. Job level is also correlated with pay, however, and hence satisfaction.

In the present study, five dimensions of the job were considered and direct statements were used (face validity) to measure subjects' satisfaction. Direct statements were used to make it easy for subjects to understand the statements. The Job Satisfaction scale can be seen in Appendix 3.

The scale consisted of six statements, five of them concerning satisfaction with five aspects of the job, and one related to overall satisfaction with vocational choice. The first question concerned satisfaction with vocational choice (overall satisfaction), i.e a response to the following statement: 'In general, how satisfied are you with your vocational choice!'. The other five statements related to five aspects of job satisfaction: satisfaction with the job itself (its nature, responsibilities and duties) i.e. a response to the statement: 'I am satisfied with my work duties and responsibilities'. Then a statement concerning satisfaction with the social life in the job: 'I am satisfied with my social relationships with my colleagues at work'. The next statement related to satisfaction with salary or income: 'I am satisfied with my monthly income from the job'. The following statement concerned satisfaction with the promotion system: 'I am satisfied with the promotion system in the job'. And the final statement related to satisfaction with supervisors: 'I am satisfied with my supervisor'.

A Likert scale was used with these statements and the responses ranged from: strongly disagree(1), disagree(2), unsure(3), agree(4), strongly agree(5).

A final point needs to be mentioned concerning satisfaction with physical conditions. This aspect of satisfaction was excluded from the job satisfaction scale because the study was carried out soon after the 1990 Gulf crisis where it was believed that a subject's response to this item might be unreliable.

# CHAPTER SIX

# METHODOLOGY

The main object of this study is to test Holland's theory concerning the relationship between job satisfaction and person-environment congruency. This predicts that people who are in jobs which resemble their vocational interests (as measured by the SDS) are more satisfied with their work than those who are not; that "career involvement and satisfaction will be positively associated with congruence" (Holland, 1985a, P. 31).

The present study is one of the few studies to test the relationship between job satisfaction and congruence among workers in a non-Western country. The study was carried out in The State of Kuwait. Three issues are considered:-

1- Is the SDS able to identify the six types of personality suggested by Holland when it is applied in a different culture?. This issue concerns the construct validity of the SDS.

2- The relationship between congruence and job satisfaction is studied extensively in the West and weak to moderate correlations are found. Therefore, the second issue in this study is: Does this relationship between job satisfaction and vocational interests also exist in a non-Western culture?

3- To ask⊄ what value the SDS is in vocational counsellig, and to particularly examin whether career choice is more related to expressed or inventoried interest.

# 1- Subjects

182 subjects participated in this study (119 male, 63 females), and (118 Kuwaiti, 64 Non-Kuwaiti[1]). Their ages ranged from 21-51 with a mean of 32.35 years. Subjects are distributed over nineteen jobs. These jobs were selected from the "Dictionary Of Occupational Titles" (U.S. Department of Labour Employment, 1977). Care was taken to choose at least two jobs falling in each of Holland's six occupational environments (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional). Each job was represented by between 8 and 11 subjects, with a range of experience between 6 months and 25 years, (mean is 9.14 years, SD=5.51). Table 1 shows the distribution of subjects among the occupations, and working environments.

These jobs were chosen because of ease of access in the aftermath of the 1990 Gulf Crisis. Subjects were chosen because they had at least six months experience in their jobs and agreed to participate in the study; they were classified by sex and nationality.

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[1]    The Non-Kuwaiti sample are Arab workers who came from different Arab countries to work in Kuwait. All the subjects (Kuwaiti and Non-Kuwaiti) used the same classical Arabic language although they speak different dialects. No differences are expected of found between the Kuwaiti and the Non-Kuwaiti groups as a result of language and culture differences, as these groups have the same language and very similar cultures.

## Table No. 1

Distribution of Subjects across Occupational Environment, Job Title, Nationality, and Sex.

| Environment | Job Title | Nationality Kuwaiti | | Non-Kuwaiti | | Total |
|---|---|---|---|---|---|---|
| | | M | F | M | F | |
| Realistic | Aircraft Mechanic | 10 | – | – | – | 10 |
| | Fire-Fighter | 9 | – | – | – | 9 |
| | Compositor | 1 | – | 5 | 3 | 9 |
| Investigative | Radiologist | – | – | 8 | 2 | 10 |
| | Pharmacist | – | 1 | 8 | – | 9 |
| | Medical-Laboratory Technician | 5 | – | 3 | 2 | 10 |
| | Dentist | 2 | 7 | – | 1 | 10 |
| Artistic | Copy Writer | 2 | – | 7 | – | 9 |
| | Newspaper Editor | 3 | – | 3 | 3 | 9 |
| | Photojournalist | 2 | – | 9 | – | 11 |
| Social | Midwife | – | 2 | – | 6 | 8 |
| | Psychologist | 1 | 7 | 1 | 1 | 10 |
| | Preschool Teacher | – | 9 | – | – | 9 |
| Enterprising | Emergency Medical Technician | 8 | – | 2 | – | 10 |
| | Head Tellers | 8 | – | – | – | 8 |
| Conventional | Accountant | 7 | 4 | – | – | 11 |
| | Clerks Route | 10 | – | – | – | 10 |
| | Telephone Operator | – | 10 | – | – | 10 |
| | General Clerk | 5 | 5 | – | – | 10 |
| Total | | 73 | 45 | 46 | 18 | 182 |
| Total | | 118 | | 64 | | |

## 2- <u>Instruments used in the study</u>

In order to test the relationship between job satisfaction and person-environment congruency in Kuwait an Arabic version of both the SDS and Job Satisfaction Scale were needed.

### A- *The Arabic Version of the Self-Directed Search Inventory (SDS)*

An Arabic version of the SDS was developed for use in this study. Some changes were necessary as discussed in Chapter Five. A copy of the new version of the SDS can be seen in Appendix 2.

The SDS assessment booklet is organized in terms of six personality types suggested by Holland (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional "RIASEC" scales). Each personality type is measured by four separate methods (activities, competencies, occupations, and self-rating). The scales and the items are arranged in the assessment booklet in the following way:-

Activities: Six subscales of eleven items each. The subjects indicate likes or dislikes on a list of activities.

Competencies: Six subscales of eleven items each. The subjects rate their ability on the skills listed by choosing either "Yes" or "No".

Occupations: Six subscales of fourteen items each. The subjects indicate preferences for the occupations listed by choosing either "Yes" or "No".

Self-Estimates: Two sets of six ratings, each rating presenting one type of personality. Subjects rate themselves on a scale from 1 to 7. The entire test contains thirty subscales.

A subject's score is obtained by counting responses made in the desired direction. People's typological resemblances are determined relative to their own

score rather than to scores of a special norm group. In addition, the SDS contains a daydream section which measures a subject's expressed interest.

### B- *Job Satisfaction Scale*

To measure subjects' job satisfaction, a six item job satisfaction scale was developed and used. A copy of the job satisfaction scale can be found in Appendix 3. The scale contains five statements measuring five separate aspects of job. These are:- the job itself, relationship with colleagues, income, promotion, and relationship with supervisor. In addition, there is one question relating to overall job satisfaction (vocational choice). The scale was discussed in Chapter Five.

### 3- The Pilot Study

The comprehensiveness of the new Arabic version of the SDS was tested through a pilot study. Although it was impossible to conduct the pilot study in Kuwait during the Gulf Crisis of 1990, the researcher was able to find a few Kuwaiti citizens (10 subjects) who were in the U.K. at that time to take part in the pilot study. Because the present study aims to test Holland's theory among workers from Kuwait, care was taken to choose subjects with work experience to take part in the pilot study. Subjects did not belong to one working environment, but covered a wide range of occupations (e.g. teacher, pharmacist, clerk, laboratory technician, etc.). The ten subjects were asked to answer the full SDS assessment booklet- "The Arabic Version". Subjects suggested a few changes in the structure of the language but overall they managed to fill in the inventory easily. In spite of that, they failed to list more than four occupations in the daydream section and they found it impossible to

understand and code their daydream jobs or to interpret the meaning of the summary code. For this reason these tasks were excluded from the main study.

## 4- Examining the Accuracy of the Translation of the Arabic Version of the SDS

As stated in Chapter Five, PAR gave permission to use the SDS under three conditions, one of these was to carry out a back translation. So, when the translation was completed and the suggestions from the pilot study were introduced, the Arabic version was given to a translator who was familiar with both the Arabic and the English language, and who had no previous experience with the SDS, to translate from Arabic back into English. However, the SDS is in "American-English" and the back translation was in "English-English" so both the original version and the back translation were given to a native English speaker (an English teacher from the language centre in Hull University) to compare. Minor changes were made which did not effect the meaning.

After that the inventory was ready to use. Three copies of the Arabic version and a copy of the English back translation were sent to the publisher in Florida with a letter mentioning the changes and the reasons for them. A copy of both the Arabic version and the back translation are in Appendix 2.

## 5- Procedures

Before gaining access to the jobs used in the study, permission was requested from the relevant Ministries. The researcher personally contacted the Ministries to which each job related to explain the purpose of the study and asked permission to carry it out. Written permission was given, (see Appendix 4). Occasionally

permission was given by telephone or by personal contact. Thirty-three managers were approached and asked to participate in the study, only four managers (one preschool head master, and 3 supervisors in one of the newspapers) refused to take part.

Appointments were made to see the remaining 29 managers and each one was given 10 copies of the instruments (i.e. the Arabic version of the SDS and the job satisfaction scale). The purpose of the study was explained to them, and instructions given as to how to fill in the forms. They were then asked to encourage their workers to complete them. A total of 290 forms were distributed, 200 forms were returned, and 182 were considered usable (response rate of 69%).

It was necessary to contact the managers several times to ensure the maximum number of completed forms. Forms were collected and after they had been checked by the researcher any uncompleted forms were returned for completion. If necessary subjects were interviewed shortly afterwards to answer their queries and give them help in completing the forms. Most difficulties arose in the daydream section; most of the subjects found it difficult to understand the instructions or were unable to remember their aspirations.

Forms were then coded and subjects were categorised into Holland's six personality types according to the highest letter of their three letter summary code, which describes the subjects' vocational interests.

Because of the low rate of response and the limited number of subjects available for investigation, for some occupations subjects were recruited from more than one organisation (i.e. Telephone Operator, Dentist, Clerks Route, Compositor, Copy Writer, Newspaper Editor, Photojournalist, Psychologist, General Clerk).

The other point that needed to be addressed is confidentiality. Subjects had the option to put their names on the forms. Writing their name would not affect a person's position in the organisation because their response on the SDS has nothing to do with their ability and capability of doing the job which, in turn will not affect their position in the organisation. On the other hand, it is expected that if subjects'

anonymity is not guaranteed it may affect their responses on the job satisfaction scale. This worry is probably exaggerated as supervisors in Kuwait do not have full authority to fire workers or to delay their promotion. According to Article (32) from "The Civil Service Law" (1979); the Cabinet Minister is the only person that has the authority to fire a person, and then only for public security reasons. Therefore, the supervisor has only a minor effect on this decision. In addition, according to Article (22) from the same law, job promotion can be done either by election by the supervisor, which rarely happens, or by seniority which is more common. Promotion by seniority means that workers are automatically promoted every five years, but it does not necessarily involve changes in their position or responsibility. It only means moving to a higher grade with some increase in salary.

In summary, job security is a right for all people in Kuwait. As a result it appears that expressing satisfaction or dissatisfaction with the job has little effect on a worker's position or promotion in their job.

## 6- Person-Environment Congruence

In order to test the assumption of the relationship between job satisfaction and congruence, person-environment congruence needs to be identified. Each person and each job was classified according to one of Holland's typologies. The personality type of subjects was assessed using the SDS inventory, while each job was assessed by coding it according to Gottfredson & Holland's (1989) dictionary. Iachan's (1984) method was used to compare a person's three letter summary occupational code (obtained from the SDS) with: 1) The three letter code of the current job title. 2) The three letter codes of the jobs mentioned in the day dream section. Because there is no dictionary for occupational titles in Kuwait, Gottfredson & Holland's (1989) dictionary was used to code jobs.

Iachan's method measures the agreement between two "judges". When a person is assessed differently by two judges, Iachan's index can be used to measure the degree of agreement between the two judges (e.g. the summary code which was obtained from the SDS and the work environment code that was obtained from the Dictionary of Occupational Classification). Iachan's index is a theoretically derived mathematical model. It is a measure of agreement for partially ordered data. It uses the highest ranks obtained from two "judges" for comparison.

Iachan developed his index because other indices (i.e. Zener-Schnuelle; 1976 and Kwak & Pulvino; 1982) are not completely satisfactory and less general than his. He noted that the Zener-Schnuelle (1976) index, for example, does not discriminate sufficiently among the possible outcomes of agreement; the result is that outcomes that are clearly not equivalent have the same measure of agreement. On the other hand, Kwak & Pulvion's (1982) index is mainly applicable to the hexagonal model, therefore it requires knowledge of all pairwise correlations between the six types to calculate the agreement, so it is more complicated than Iachan's. The Kwak & Pulvion (1982) index is used to find matches in corresponding positions in only two codes, whereas Iachan's index allows for contributions of any kind of match.

According to Iachan (1984), his index is a complete and elegant statistical solution for assessing the agreement between any two three-letter codes in the Holland's classification system. He added that when a comparison is made, the three letter codes of the vocational interest (summary code) and the three letter codes of work environment or job preferences have to be used; the first letter is not enough for the comparison. According to Spokane (1985) the "first-letter agreement indices should not be used in congruence research with mixed male and female samples. Indices which use three or more letters of the personal code are preferable to first-letter indices" (P. 334).

The additional merit of Iachan's index is that it is more accurate than the Zener-Schnuelle (1976) index, and is a more complete and simple solution than Kwak & Pulvion's one. Also it provides a more precise tools for research.

Iachan (1984) argued that his index may have broader applications outside vocational settings. It can be used for example to measure the agreement between counsellor-client, and husband-wife etc.

Iachan provides a table that can be used for calculating the comparisons. This table results from applying a mathematical equation developed by Iachan (1984) (see Appendix 5). The agreement between the two three-letter codes can be achieved by adding the weights corresponding to positions where matches occur. Holland (1985c) used Iachan's index to categorise individuals into one of the four following groups, which shows how close they are to their work or preference.

The groups are:-

Poor match 0-13.

Not close match 14-19.

Reasonable match 20-25.

Very close match 26-28.

Iachan's index is highly supported by Holland, he described it as " the most accurate technique for assessing the degree of agreement between any pair of three-letter codes. It is expected to become the most popular way to assess the degree of congruence between a person's SDS and one or more vocational aspirations" (Holland; 1985c, P. 85). The other reason for using Iachan's index in this study is that it classifies congruency into four levels similar to those suggested by Holland; the 'very close matched' group is like the first level of congruence (extreme degree of congruence), the 'reasonable close matched' group is in agreement with the second level of congruence, the 'not close matched' group is similar to the third level of congruence (lesser degree of congruence), and the 'poor matched' group corresponds to the fourth level of congruence (extreme degree of incongruence).

The main object of the current study is to compare congruents and incongruents in their job satisfaction. Subjects classified as either a 'reasonable match' or 'very close' match, are congruent subjects because they are in jobs which resemble their vocational interests. Their first or second high scores in the SDS

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matched their first or second job code. On the other hand, incongruent subjects are those who are classified as belonging to either the 'poor matched' or 'not close matched' groups. They are currently working in jobs that do not resemble their vocational interests as measured by the SDS.

Therefore, in the analysis, subjects who were classified as 'not close matched' or as 'poor matched' were put in one group, while those classified as 'reasonable close matched' or 'very close matched' were together in another group, although they are shown separately in the tables.

## 7- Analysis

To answer the first question concerning the validity of the SDS in a different culture, both "Multitrait-Multimethod Matrix" (MTMM), (Campbell & Fiske, 1959) and "Exploratory Factor Analysis" approaches were used. Golden et al., (1990) suggested using both methods for complete analysis of an assessment instrument, because they are complementary.

According to Campbell & Fiske (1959) the support for validity requires the demonstration of both convergent validity and discriminant validity. MTMM matrices can be evaluated by the extent to which they meet the following criteria: 1- the reliability coefficients (monotrait, monomethod) should be higher than other correlations in the matrix; 2- the validity coefficients (monotrait, heteromethod) should be sufficiently high to encourage further research and exceed their adjacent row and column correlations (heterotrait-heteromethod triangles); 3- the same pattern of correlations should be found in all heterotrait triangles, both for the monomethod and heteromethod approaches; and 4- higher correlations would be expected between the same traits measured by different methods than for different traits measured by the same methods.

In other words this method proposes collecting measures of two or more traits each of which is assessed by two or more methods. Multiple indicators of the same

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trait should be substantially correlated (convergent validity), whereas indicators of different traits should be sufficiently distinct as to allow differentiation among the traits (discriminant validity). Method effects are inferred when correlations among the different traits are higher when measured by the same method.

The Multitrait-Multimethod Matrix presents the intercorrelations resulting when each of traits (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional) is measured by several methods (activities, competencies, occupations, and self-rating scales). This method suggests that the systematic variance among test scores can be due to responses to the measurement features as well as to the trait content. Therefore, if the six personality types cannot be found in this study, is this because the methods (activities, competencies, occupations, and self-rating), do not measure the six personality types, or do these personality types (traits) not contain the features suggested by the methods?.

Factor analysis was also used to support the previous method. It combines variables that have similar structure in one common factor, depending on the correlations between them. The "Principal components analysis" method was used to extract the relevant factors.

First of all the default Kaiser criterion was used for the expected number of factors (i.e. all factors with eigenvalue greater than one), then six factors were specified in the hope of obtaining the six personality types suggested by Holland. The extracted factors were subjected to four rotation methods (i.e. Equamax, Varimax, Quartimax, and Oblimin).

The Equamax method was used in the rotation stage to eliminate the overlap between the subscales measuring different types of personality. It is a combination of:- i) the "Varimax" method which simplifies the factors by minimizing the number of variables (subscales) that have high loading on a factor (personality type), and ii) the "Quartimax" method which simplifies the variables by minimizing the number of factors on which each variable loads.

To test the relationship between job satisfaction and congruence, Chi$^2$ and Lambda were applied. Job satisfaction aspects are the dependent variables while congruence is the independent variable. In addition, Lambda ($\lambda$) reflects the reduction in error when values of one variable are used to predict values of the other. Lambda always ranges between 0 and 1. A value of 0 means that the independent variable (congruence) is of no help in predicting the dependent variable (job satisfaction). A value of 1 means that the independent variable perfectly specifies the categories of the dependent variable. Thus Lambda tests the ability of congruence to predict or cause job satisfaction.

Multiple-Linear-Regression Analysis was also used to examine the relationship between job satisfaction aspects (the five aspects and the overall satisfaction), as dependent variables, with a set of independent variables (i.e. sex, nationality, congruence, age, tenure). The Multiple-Regression analysis has the advantage of providing an estimate of the relationship of one independent variable with one dependent variable while holding the other independent variables constant. This method enables us to obtain an estimation of the extent to which the various aspects of job satisfaction can be predictable by some other variables (i.e age, sex etc.) and the extent to which they are differently related to the independent variables being considered in this investigation.

To answer the third question in this study the Correlation Coefficient was used to test the relationship between inventoried interests, as measured by the SDS, and the expressed interests, mentioned by subjects in the daydream section. Separate analyses were carried out for males and females and for Kuwaiti and non-Kuwaiti groups.

# CHAPTER SEVEN

## ANALYSIS OF THE RESULTS

All the vocational scales are scored by counting subject's responses made in the desired direction. Table No. 2 shows that subjects scored highest on the four subscales measuring social interest (activities, competencies, occupations, and self-rating), and lowest on the artistic subscales.

Table No. 2

Description of the Means and Standard Deviation of the Subjects' Scores on the Four Scales and the Summary Code over the Six Personality Types.

|  |  | R | I | A | S | E | C |
|---|---|---|---|---|---|---|---|
| Activity | Mean | 4.07 | 4.86 | 3.87 | 6.25 | 6.50 | 4.82 |
|  | SD | 3.05 | 2.88 | 2.56 | 2.35 | 2.67 | 3.02 |
| Competence | Mean | 6.09 | 4.78 | 3.63 | 7.48 | 6.63 | 4.71 |
|  | SD | 3.03 | 3.00 | 2.36 | 2.46 | 2.58 | 2.33 |
| Occupation | Mean | 4.05 | 3.84 | 3.25 | 4.08 | 3.66 | 2.60 |
|  | SD | 3.30 | 3.89 | 3.58 | 3.63 | 3.41 | 3.39 |
| Self-rating | Mean | 8.13 | 8.67 | 7.07 | 10.04 | 8.85 | 9.46 |
|  | SD | 3.01 | 2.87 | 3.28 | 2.28 | 2.96 | 2.86 |
| Total Scale | Mean | 22.19 | 22.41 | 17.87 | 27.77 | 25.64 | 21.63 |
|  | SD | 9.99 | 10.25 | 10.00 | 8.03 | 8.97 | 8.48 |

In addition, each subject's summary code was obtained by adding scores from the four measurements of the six scales (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional). The three highest scores represent a person's vocational interests and personality. Again tables 2 & 3 show that only 8.2% of the total subjects have Artistic interests ($\overline{X}$=17.87, SD=10.0), while the highest

percentage (31.3%) expressed interests in the Social environment ($\overline{X}$=27.77,

SD=8.03).

Table No. 3 The Frequencies of the SDS Codes for Males and Females an the Total Sample.

| Code | Male (N=119) | | Female (N=63) | | Total (N=182) | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| RI | 8 | 6.7% | - | - | 8 | 4.4% |
| RA | 2 | 1.7% | - | - | 2 | 1.1% |
| RS | 9 | 7.6% | 1 | 1.6% | 10 | 5.5% |
| RE | 3 | 2.5% | 1 | 1.6% | 4 | 2.2% |
| RC | 6 | 5.0% | 1 | 1.6% | 7 | 3.8% |
| Total | 28 | 23.5% | 3 | 4.8% | 31 | 17.0% |
| IR | 9 | 7.6% | - | - | 9 | 4.9% |
| IA | 1 | 0.8% | 2 | 3.2% | 3 | 1.6% |
| IS | 6 | 5.0% | 5 | 8.0% | 11 | 6.0% |
| IE | 2 | 1.6% | 1 | 1.6% | 3 | 1.6% |
| IC | 4 | 3.4% | - | - | 4 | 2.2% |
| Total | 22 | 18.5% | 8 | 12.7% | 30 | 16.5% |
| AR | 2 | 1.7% | - | - | 2 | 1.1% |
| AS | 5 | 4.2% | 5 | 8.0% | 10 | 5.5% |
| AE | 1 | 0.8% | 1 | 1.6% | 2 | 1.1% |
| AC | - | - | 1 | 1.6% | 1 | .55% |
| Total | 8 | 6.7% | 7 | 11.1% | 15 | 8.2% |
| SR | 9 | 7.6% | 1 | 1.6% | 10 | 5.5% |
| SI | 9 | 7.6% | 6 | 9.5% | 15 | 8.2% |
| SA | 2 | 1.7% | 8 | 12.7% | 10 | 5.5% |
| SE | 3 | 2.5% | 17 | 27.0% | 20 | 11 % |
| SC | 1 | 0.8% | 1 | 1.6% | 2 | 1.1% |
| Total | 24 | 20.2% | 33 | 52.4% | 57 | 31.3% |
| ER | 9 | 7.6% | - | - | 9 | 4.9% |
| EI | 1 | 0.8% | - | - | 1 | 0.55% |
| EA | 3 | 2.5% | - | - | 3 | 1.6% |
| ES | 7 | 5.9% | 3 | 4.8% | 10 | 5.5% |
| EC | 7 | 5.9% | - | - | 7 | 3.8% |
| Total | 27 | 22.7% | 3 | 4.8% | 30 | 16.5% |
| CR | 2 | 1.7% | - | - | 2 | 1.1% |
| CI | 1 | 0.8% | 2 | 3.2% | 3 | 1.6% |
| CA | 1 | 0.8% | 1 | 1.6% | 2 | 1.1% |
| CS | 2 | 1.7% | 2 | 3.2% | 4 | 2.2% |
| CE | 4 | 3.4% | 4 | 6.4% | 8 | 4.4% |
| Total | 10 | 8.4% | 9 | 14.3% | 19 | 10.4% |

This can be attributed to the culture, where society encourages some types of activity while discouraging others. In a society like Kuwait, people are encouraged to show a tendency for caring and helping others, while at the same time artistic interests are discouraged. This is for two reasons: Firstly, most artistic activities like singing, dancing, acting are not favoured by the Islamic religion, therefore, they are not encouraged by society. This was clear from a comment made by a female subject (pre-school teacher). In her answer on the artistic activities and occupations, she mentioned that she can sing and would like to, but because it is against the Islamic law she chose the "No" option. Secondly, society encourages people, from an early age, to be interested and spend time in "useful" activities, in science and the social area.

There are similarities between norms obtained from this study and those of Holland's[1]. Table 4 shows that the differences between male and female scores on the six working environments have some consistency in both the current study and Holland's study. Females in both studies score less than males in realistic, investigative, enterprising, and conventional environments. On the other hand, they score higher on social and artistic environments. In addition, males and females in both studies have low scores in non-traditional environments; whereas males scored less in conventional and artistic areas and females scored less on the realistic scale.

According to these results the SDS shows cross-cultural consistency as an interest inventory as when it is used in different cultures the same pattern of scores is found.

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[1]    Holland's norms were taken from The Self-Directed Search Manual (1985), Table B-2, P. 66.

The Comparison between the Present Study Norms and Holland's Norms.

| | | The Present Norms | | Holland's Norms | |
|---|---|---|---|---|---|
| | | M<br>N=119 | F<br>N=63 | M<br>N=578 | F<br>N=860 |
| R | Mean | 26.08 | 14.84 | 24.02 | 11.63 |
| | SD | 8.53 | 8.33 | 10.88 | 7.09 |
| I | Mean | 23.48 | 20.39 | 26.38 | 22.21 |
| | SD | 10.46 | 9.59 | 10.08 | 9.20 |
| A | Mean | 17.76 | 18.08 | 19.00 | 25.25 |
| | SD | 9.71 | 10.61 | 10.41 | 9.78 |
| S | Mean | 26.87 | 29.48 | 28.86 | 34.35 |
| | SD | 7.89 | 8.05 | 8.38 | 6.96 |
| E | Mean | 27.00 | 23.06 | 24.49 | 19.53 |
| | SD | 8.46 | 9.39 | 9.76 | 8.11 |
| C | Mean | 22.81 | 19.41 | 18.64 | 17.56 |
| | SD | 7.97 | 9.02 | 9.59 | 8.59 |

## 1- TESTING THE VALIDITY OF THE SDS

In order to test the utility of Holland's assumption, that congruence between job nature and vocational interests lead to job satisfaction, albeit in a culture for which it was not designed (i.e. Kuwait), and before using SDS to measure the sample's vocational interest, it is necessary to test the ability of the SDS to identify the same six types of personality suggested by Holland. In other words, the validity of the SDS in a different culture needs to be established first, which will answer the first question in this study. Multitrait-Multimethod Matrix and Exploratory Factor Analysis were used for this purpose.

The Multitrait-Multimethod Matrix by Campbell & Fiske (1959) was used to explore the intercorrelations between subscales. The matrix presents the intercorrelations resulting when each of several traits (i.e. Realistic, Investigative, Artistic, Social, Enterprising, and Conventional) is measured by each of several methods (i.e. Activities, Competencies, Occupations, and Self-Rating scales). Tables 5a-5f show the intercorrelations matrix (see appendix 6). High correlations (0.40 and above) were found between different subscales measuring a specific type of personality (convergent validity) and low correlation between different subscales measuring different types of personality (discriminant validity). For example, the (activities, competencies, occupations, and self-rating) subscales, as different measures of the Realistic type are highly correlated with each other, and mainly less correlated with other subscales measuring different types of personality, and this is also true for subscales measuring Investigative and Artistic personality.

However, the subscales measuring Social, Enterprising, and Conventional personality types are less clear than the others. The activities and competencies subscales measuring social and enterprising personalities overlap; therefore, they can not discriminate between these two types of personalities. The occupation and self-rating subscales are more able to discriminate between the two types (social and enterprising). In addition, both enterprising and conventional types are correlated on the activities, occupation, and self-rating subscales.

Finally, all subscales, except self-rating, measuring conventional type are highly correlated with each other. As a result it can be concluded that most of the subscales that are supposed to measure one type of personality do in fact do so, as they are highly correlated with each other and less correlated with other subscales measuring different personality types. Therefore, one can confidently sum the relative subscales to obtain one score for each personality type.

To clarify the intercorrelations between the subscales, factor analysis was used to test the existence of the six personality types suggested by Holland. Data from the entire test were subjected to factor analysis.

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As mentioned in the Methodology Chapter the "Principal Component analysis" method was used with the default Kaiser criterion for the expected number of factors (i.e. all factors with eigenvalues greater than one), then six factors were specified in an attempt to replicate the six personality types suggested by Holland. Factors in each case were subjected to four rotation methods (i.e. Equamax, Varimax, Quartimax, and Oblimin).

In the case of the default Kaiser criteria all four rotation methods produced similar patterns of loading, although there were slight differences between them (see Tables in Appendix 7). Seven factors were found, four represented four types of personality suggested by Holland (i.e. realistic, artistic, investigative, and conventional). In addition, it was found that the SDS does not discriminate between the social and the enterprising personality types as they have high loadings on the same factor (factor five). Also it appears that the SDS contains two method factors; an occupational interest factor and a self-rating factor.

When the six factors were specified in an attempt to replicate Holland's six personality types, some differences appeared. The Equamax, Varimax, and Quartimax rotation methods produced similar patterns of loading with slight differences between them. Four of the factors represent four types of personality resembling those suggested by Holland (i.e. realistic, artistic, investigative, and conventional). Also a combination of social and enterprising personality types was found. However, only one method factor appears in this case (i.e. the self-rating factor). The other method factor (occupational) found in the previous stage seems to disappear.

When the six specified factors were subjected to an oblique rotation method (Oblimin), they did not produce a simple structure (see Appendix 7), though there was a similar general pattern of factor loadings matching those found in the other rotation methods. Three of the factors represented the realistic, artistic, and enterprising personality types. The fourth factor was a combination of social and enterprising

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types. The fifth factor was the self-rating method factor and the sixth factor was a mix of conventional personality type and the occupation method factor.

However, as the six factors solution failed to replicate Holland's personality types and the seven factors produced a clear structure, the seven factors solution was preferred.

Therefore, in order to minimize the number of subscales measuring a particular type of personality and to ensure that each type is measured by almost similar subscales, the Equamax method was chosen as the rotation which produced the least overlap between the subscales and the simplest structure.

Only results obtained from the Equamax rotation method will be used to discuss the structure of the SDS in this section, as similar findings were obtained from the Varimax, Quartimax and Oblimin method. (The Equamax rotation method is a combination of Varimax, which simplifies the factors, and the Quartimax, which simplifies the variables, so it has the merits of both methods).

Factors that have eigenvalues[2] greater than 1.00 are regarded as common factors. A loading of 0.40 has been taken as the cut-off point. Therefore, all variables with loading of 0.40 have been considered as belonging to the factor. Seven factors with an eigenvalue greater than 1.00 have been extracted which account of 73.5% of the total variance (Table 6).

Table 7 presents the loadings of the subscales on the seven factors after the "Equamax" rotation. From that table we can see that the first three factors represent three types of personality (Artistic, Realistic, and Investigative). The fourth factor is a combination of the Social and the Enterprising types. The Social and Enterprising activities and competencies subscales cannot discriminate between the Enterprising and the Social types because they load heavily on the same factor. They are (0.73, 0.65) for the Social type and (0.72, 0.67) for the Enterprising type. On the other hand, both social and enterprising occupation and self-rating subscale do not load on this

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2    Eigenvalue presents the total variance explained by each factor, while Communality is the proportion of variance explained by each variable accounted for by the extracted factors.

factor, they are (0.40, 0.17) and (0.17, 0.31) respectively. It seems that the occupations and the self-rating subscales can clearly discriminate between the social and the enterprising types. Thus, the activities and competencies subscales for the Social and the Enterprising types need to be reconsidered to make them more clear and distinguishable.

The fifth factor is the Conventional factor which contains the conventional activities, competencies and occupations subscales.

The sixth factor which was extracted is a Self-rating method factor. Four out of six types are heavily loaded on this factor (>0.40), they are (Investigative, Social, Enterprising, and Conventional). This factor also includes a heavy load on the enterprising competencies subscale. Both Realistic and Artistic types also have loadings on this factor but they do not reach 0.40.

The final factor is also a method factor (the Occupational factor) which corresponds to the interest subscale. All six of the personality types prescribed by Holland have high loadings on this factor.

The last two factors (Self-rating and Occupation) appear to be measures of common methods and not to be trait related. They seem to be expressing a more general rather than specific attitude which is less dependent on the environment than are the circumstance of the other subscales. The Occupational factor represents a person's attitude towards jobs in general term rather than in terms of specific activities and abilities, while the self-rating subscale may reflect a person's self-concept in some general sense (i.e. more or less positive). These last two factors do not differentiate between Holland's personality types.

The present study found five traits (personality types) corresponding to those suggested by Holland (realistic, investigative, artistic, conventional and a combination of social and enterprising). It also found two method factors measuring general attitude towards occupations and towards one's self.

The existence of the occupation and the self-rating subscales as independent method factors may reflect real differences between people's personalities or echo

response bias, where people tend to see themselves as having high abilities on the abilities in the self-estimate subscale or they tend to like most of the occupations listed in this subscale. For example, the "occupational" method factors may reflects genuine differences in people's interest in jobs (i.e. that some people like more jobs than other people) or might reflect differences in their willingness to say that they like certain jobs. Similarly, for the other method factor (self-rating), individuals may really vary in their estimation of themselves as having different degrees of ability, or they might vary in their desire to acknowledge that they have different levels of ability.

In summary the results show that the SDS contains:- 1- Five activities and competencies subscales: Realistic Investigative, Artistic, (Enterprising and combined Social), and Conventional. 2- Three self-rating subscales; Realistic, Investigative, and Artistic. 3- Five Interests or occupational subscales; Realistic, Investigative, Artistic, Social, and Conventional. In addition, the SDS contains two method factors; the occupational interest factor and the self-rating factor.

Overall, regardless of the rotation used, it is concluded that the structure of the SDS instrument as a whole is fairly clear and most of the scales which are supposed to measure one personality type form a unidimensional set. As a result the construct validity of the SDS, to some extent, has been confirmed. These results confirm those found by Rachman et al., (1981) when they examined the construct validity of the SDS among a sample of Canadian professional accountants.

If we take into consideration the nature of the present sample, a heterogeneous one, we can conclude that the SDS is able to discriminate five types of personality; Realistic, Investigative, Artistic, Social & Enterprising (combined), and Conventional, even if used in a different culture.

Table No. 6

The Extracted Seven Factors of the SDS

| Variables | Communality | Factors | Eigenvalue | Varience |
|---|---|---|---|---|
| R activity | .772 | 1 | 6.32 | 26.3% |
| competence | .727 | 2 | 2.98 | 12.4% |
| occupation | .790 | 3 | 2.28 | 9.5% |
| self-rating | .693 | 4 | 1.71 | 7.1% |
|  |  | 5 | 1.66 | 6.9% |
| I activity | .746 | 6 | 1.47 | 6.1% |
| competence | .776 | 7 | 1.22 | 5.1% |
| occupation | .811 |  |  |  |
| self-rating | .809 |  |  |  |
|  |  |  |  |  |
| A activity | .793 |  |  |  |
| competence | .833 |  |  |  |
| occupation | .798 |  |  |  |
| self-rating | .697 |  |  |  |
|  |  |  |  |  |
| S activity | .745 |  |  |  |
| competence | .644 |  |  |  |
| occupation | .772 |  |  |  |
| self-rating | .588 |  |  |  |
|  |  |  |  |  |
| E activity | .743 |  |  |  |
| competence | .740 |  |  |  |
| occupation | .680 |  |  |  |
| self-rating | .711 |  |  |  |
|  |  |  |  |  |
| C activity | .761 |  |  |  |
| competence | .632 |  |  |  |
| occupation | .746 |  |  |  |
| self-rating | .627 |  |  |  |

# Table No. 7

The Loading on the Common Factors for the Entire Test (SDS).

| Factors | A | R | I | S+E | C | Self-rating | Occupation |
|---|---|---|---|---|---|---|---|
| R activity | -.05 | .81* | .15 | .18 | .17 | -.06 | .17 |
| competence | .19 | .81* | .09 | .07 | .13 | -.02 | .01 |
| occupation | 00 | .67* | .04 | -.02 | .18 | .04 | .56* |
| self-rating | .11 | .77* | .09 | -.03 | -.05 | .28* | -.02 |
| | | | | | | | |
| I activity | -.05 | .20 | .79* | .25 | .06 | -.04 | .11 |
| competence | -.03 | .08 | .84* | .12 | .21 | -.02 | .04 |
| occupation | .08 | .16 | .64* | 00 | .02 | .05 | .60* |
| self-rating | -.02 | -.03 | .75* | -.10 | .13 | .46* | -.04 |
| | | | | | | | |
| A activity | .83* | .04 | -.04 | .21 | .12 | -.09 | .16 |
| competence | .88* | .05 | .01 | .18 | .13 | .06 | .07 |
| occupation | .79* | .08 | .03 | .02 | .03 | .11 | .39* |
| self-rating | .73* | .15 | -.05 | .09 | -.13 | .34* | -.07 |
| | | | | | | | |
| S activity | .21 | -.17 | .22 | .73* | -.02 | .11 | .28 |
| competence | .27 | .07 | .12 | .65* | -.12 | .31 | .10 |
| occupation | .20 | -.09 | .12 | .40* | .08 | .10 | .73* |
| self-rating | .21 | -.19 | .24 | .17 | -.42 | .48* | .12 |
| | | | | | | | |
| E activity | -.03 | .26 | .07 | .72* | .36 | .15 | .04 |
| competence | .15 | .16 | -.02 | .67* | .06 | .48* | .07 |
| occupation | .20 | .27 | -.13 | .17 | .35 | .31 | .55* |
| self-rating | -.03 | .15 | .05 | .31 | .12 | .74* | .19 |
| | | | | | | | |
| C activity | -.03 | .10 | .16 | .23 | .82* | .06 | .02 |
| competence | .21 | .05 | .22 | .00 | .70* | .20 | .05 |
| occupation | 00 | .08 | .09 | -.17 | .66* | .13 | .50* |
| self-rating | .11 | .04 | .05 | .04 | .26 | .73* | .09 |

In addition, the above results, to some extent, confirms the translation accuracy. Translating the SDS into Arabic is not a straightforward task, as some items in the inventory had to be changed to suit the current situation in Kuwait. Therefore, regardless of these changes, the new version of the SDS remains able to identify and differentiate between the six personality types suggested by Holland and to support the existence of the hexagonal model which is the basic structure of Holland's theory. This will be discussed in the following section. As a result, it can be assumed that the new suggested items measure the same thing intended by the original version of the SDS. This confirms the accuracy of the translation.

One of the difficulties with the translation was posed by the SDS' "Introduction". This explains the aim of the inventory in helping subjects to explore occupations. This should either have been excluded or been re-designed to explain that the purpose of this study was not "counselling". The inclusion of the original introduction page resulted in some subjects refusing to participate in the study, because they had already chosen their jobs. In spite of that, we can confidently suggest that the SDS has cross culture utility as an interest inventory.

## 2- Testing the Hexagonal Model

Table 3 presents the subjects' summary codes (represented by the highest two scores on the test). The results agreed with Holland's (1985a) statement, that infrequent codes tend to be inconsistent in terms of the hexagonal typology and frequent codes tend to be consistent. Jobs in environments adjacent to each other in the hexagon were mentioned more frequently than other types of jobs, accept when Social environment is involved as a second letter of the summary code. Although Social environment is opposite to the Realistic environment in the hexagon and it is far from the Investigative environment, jobs following in the (RS, IS) types are

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mentioned more frequently than any other type of job related to these two environments (R,I), which contradicts Holland's suggestion.

In addition, according to Holland's theory, personality types close together in the hexagon are more similar in their characteristics, attitudes and skills than those who are not. On the hexagon, the adjacent categories are the most closely related types, the alternate categories are the next most closely related types; and the opposite categories on the diagonal are the least related types. Therefore, the correlations between the personality types close together in the hexagon should be greater than alternate types and greater than those that are opposite in the hexagon. The intercorrelations between the six scores on the SDS which represent personality types in this study were calculated (see Table 8). This was done by correlating the R's score for all subjects with their other scores (I,A,S,E,C). Then the I's scores were correlated with the other remaining scores (A,S,E,C,) and so on.

## Table No. 8

The Intercorrelations of SDS Summary Code for the Entire Subjects.

| Adjacent Types | RI .28** | IA .084 | AS .43** | SE .50** | EC .49** | CR .32** | Mean .35 |
|---|---|---|---|---|---|---|---|
| Alternative Types | RA .19* | IS .33** | AE .36** | SC .18* | ER .39** | CI .35** | Mean .30 |
| Opposite Types | RS .099 | IE .29** | AC .20** | | | | Mean .19 |

10 out of 15 correlations were significant at the (.001) level, 3 at the (.01) level, while 2 were not significant (IA, RS). Table 8 shows that the mean of the correlations between the adjacent types is slightly greater than that between alternative types, which in turn is greater than that among the opposite types, they are ($\overline{X}=.35$, $\overline{X}=30$, $\overline{X}=.19$) respectively.

It is clear that the correlations between adjacent types are higher than the alternate, which is in turn greater than the opposite types, except when the investigative type is involved. The correlations between the investigative and both the alternate and the opposite personality types are greater than with the adjacent types. The correlations between the investigative and both social and conventional types, which are alternate are; $r=0.33$, $r=0.35$ respectively, and $r=0.29$ with the opposite type (Enterprising), while with the adjacent types (Artistic and Realistic) are; $r=.084$, and $r=.028$ respectively. In addition, the realistic type is correlated more with the alternate type "enterprising" $r=0.39$, than the adjacent types "investigative" and "conventional". The correlations are; 0.28 and 0.32 respectively.

Although the hexagonal shape was distorted, the six occupational groups were arranged in the same order suggested by Holland. These results confirmed Toenjes & Borgen (1974) results. Also it supports Eberhardt & Muchinsky's (1984) finding that although Holland's hexagonal model is supported, there are unequal distances between the vertices around the hexagon, especially the opposite-type positions. In summary the hexagonal model suggested by Holland is partially supported.

# 3- Job Satisfaction

The correlations between items on the job satisfaction scale range from 0.13 to 0.55. Results in Table 9 show that the first variable "satisfaction with vocational choice" (overall satisfaction) is significantly correlated with all other variables, except satisfaction with supervisor. The correlation coefficient of this aspect ranged from 0.29 to 0.46, its lowest correlation is with the "relationship with supervisor" variable and the highest is with the "activities" aspect. Similarly, the activity aspect is correlated with all aspects, except the social relationship one. Its correlations ranged from 0.24 to 0.46. The highest correlation is with the "vocational choice" aspect. On the other hand, the social relationship aspect has the weakest correlation with all other variables. Its correlation coefficients ranged from 0.13 to 0.35. The highest correlation is with the variable "satisfaction with supervisor", and the lowest correlations are with "salary" and "promotion". In addition, satisfaction with income is strongly correlated with "satisfaction with promotion" chances (r=0.55).

## Table No. 9

### The Intercorrelations among the Job Satisfaction Scale Items.

|            | Overall | Activity | Social | Salary | Promotion | Supervisor |
|------------|---------|----------|--------|--------|-----------|------------|
| Overall    | –       |          |        |        |           |            |
| Activity   | .46*    | –        |        |        |           |            |
| Social     | .30*    | .24      | –      |        |           |            |
| Income     | .37*    | .31*     | .13    | –      |           |            |
| Promotion  | .35*    | .34*     | .13    | .55*   | –         |            |
| Supervisor | .29     | .40*     | .35*   | .23    | .34*      | –          |

Factor analysis was used with "Quartimax" rotation method. This method often results in a general factor with high-to-moderate loading on most variables. This method was used to check the possibility of adding scores obtained from different job aspects together to give a score measuring total job satisfaction. Tables 10 and 11 show that two common factors which were extracted with eigenvalues greater than 1.00, which account of 61.3% of the variance.

The first factor is the "personal satisfaction" factor. It contains two variables; satisfaction with "social relationship" and "with supervisor". Their loadings are (0.81 and 0.71) respectively.

The second factor is "financial satisfaction". It contains two variables "income" and "promotion" satisfaction and their loadings are 0.84 and 0.82 respectively. The other two variables, satisfaction with vocational choice and job activities are related to the both factors. They are loaded 0.55 and 0.56 on the first factor and 0.44 and 0.41 on the second factor. Also these two variables are moderately correlated with each other, (r=0.46).

Factor analysis results failed to extract one general factor where all items load heavily on it. Therefore, items in the job satisfaction scale have been treated independently in relation to person-environment congruence because each item measures a different aspect. According to Mobley & Locke (1970), when job satisfaction needs to be studied its aspects have to be treated independently because satisfaction with each aspect is related to its importance to an individual. In other words, different people like different aspects of their job.

In addition, items in the job satisfaction scale were treated independently in order to examine how the congruence between a person's interest and working environment affects their satisfaction with different job aspects. Beside that, the main aim of the study is to test the relationship between congruency and intrinsic satisfaction, therefore, this aspect has to be treated independently from other aspects of the job in its relation with congruence.

## Table No. 10

### The Extracted Two Factors for the Job Satisfaction Scale.

| Variables | Communality | Fcators | Eigenvalue | Variance |
|---|---|---|---|---|
| Overall Satisfaction | .512 | Personal | 2.62 | 43.7 |
| | | Financial | 1.05 | 61.3 |
| Activity Satisfactin | .519 | | | |
| Social Satisfaction | .674 | | | |
| Income Satisfaction | .719 | | | |
| Promotion Satisfaction | .707 | | | |
| Supervisor Satisfaction | .542 | | | |

## Table No. 11

### The Common Factors loading for the Job Satisfaction Scale.

| Variables | Factor 1 Personal | Factor 2 Financial |
|---|---|---|
| Overall Satisfaction | .55* | .46* |
| Activity Satisfaction | .59* | .41* |
| Social Satisfaction | .81* | .13 |
| Income Satisfaction | .11 | .84* |
| Promotion Satisfaction | .19 | .82* |
| Supervisor Satisfaction | .71* | .20 |

Subjects are classified as "satisfied" when they choose "satisfied" (4) or "extremely satisfied" (5) options on their response on job satisfaction scale.

Table 12 shows that subjects' satisfaction on the job satisfaction scale is not consistent over different job aspects. Subjects tend to be more satisfied with:- social relationships (92.9%, $\bar{X}$=4.48, SD=0.69), job duties (90.1%, $\bar{X}$=4.31, SD=0.87), supervisor (86.3%, $\bar{X}$=4.22, SD=1.14), and their job as a whole (86.3%, $\bar{X}$=4.18, SD=.98). On the other hand, they tend to be less satisfied with salary and promotion chances. Only 34.6% ($\bar{X}$=2.68, SD=1.42) felt that the promotion system is satisfactory, while 54.9% ($\bar{X}$=3.22, SD=1.41) were satisfied with their income.

These finding agreed with the conclusions of Smith et al., (1969): On average, workers are more satisfied with certain areas and much less so with others.

## Table No. 12

The Means for the Job Satisfaction Scale among the Total Sample (N=182) with the Number and the Percentage of Who are Classified as "Satisfied" (rates > 3).

|  | Mean (N=182) | N | % of the satisfied subjects |
|---|---|---|---|
| Overall Satisfaction | 4.18 | 157 | 86.3% |
| Activity Satisfaction | 4.31 | 164 | 90.1% |
| Social Satisfaction | 4.48 | 169 | 92.9% |
| Income Satisfaction | 3.22 | 100 | 54.9% |
| Promotion Satisfaction | 2.68 | 63 | 34.6% |
| Supervisor Satisfaction | 4.22 | 157 | 86.3% |

Satisfaction with different job aspects was examined across the six environments (see Table 13). While no significant differences were found, it was noted that workers in realistic and conventional environments are more satisfied with social relationships with colleagues and supervisors. Those in investigative and artistic environments are more satisfied with the job overall and job activities, but people working in social and enterprising environments expressed more satisfaction in their relationship with colleagues. These results support Mount & Muchinsky's (1978b) suggestion that people from different working environments are satisfied with different aspects of their jobs.

## Table No. 13

The Differences between Working Environments in Job Satisfaction (% of sample who report being "satisfied" ).

|   | Overall | Activity | Social | Income | Promotion | Supervisor |
|---|---------|----------|--------|--------|-----------|------------|
| R | 89.3%   | 89.3%    | 100%   | 57.1%  | 28.6%     | 100%       |
| I | 94.9%   | 94.9%    | 87.2%  | 79.5%  | 35.9%     | 82.1%      |
| A | 96.6%   | 96.6%    | 93.1%  | 13.8%  | 17.9%     | 79.3%      |
| S | 77.8%   | 81.5%    | 92.6%  | 62.6%  | 51.9%     | 77.8%      |
| E | 83.3%   | 77.8%    | 94.4%  | 55.6%  | 27.8%     | 88.9%      |
| C | 75.6%   | 92.7%    | 92.7%  | 53.7%  | 41.5%     | 90.2%      |

Although workers in all environments see salary as unsatisfactory, those who work in an artistic environment are significantly less satisfied with this aspect than workers in any other environment. The relationship between satisfaction and the salary aspect is significant ($X^2$=30.1, DF=5, P<.001).

This result may be due to sample characteristics. All subjects in the artistic environment were working in newspapers where salaries, in general, are not good. In

addition, 75.9% of those people are non-Kuwaiti, so they receive less salary than the Kuwaitis. It is worth mentioning that, in general term, Kuwaiti citizen receive more than non-Kuwaitis even if they do the same job.

A general conclusion that can be drawn from the job satisfaction results so far is that economic rewards obtained from the job (i.e. salary and promotion) are more important to people in Kuwait than other job aspects.

## 4- Congruency

The first letter of both job title and summary code were used to find the congruence between subjects' vocational interests and working environment. In other words, how subjects differ in choosing a work environment related to their vocational interests. There are significant differences between subjects in choosing a work environment related to their vocational interests ($X^2$=99.3, DF=25, P<.001). Subjects who work in realistic, investigative, and social environments have interests related to their environments, while others in artistic, enterprising, and conventional environments expressed their interests in environments not related to their current one. The majority of those who work in artistic and enterprising environments are interested in social activities, while those in a conventional environment find enterprising activities more interesting. The percentages are (31.0%, 38.9%, & 31.7%) respectively.

The next step was to examine the congruence among subjects in all environments, i.e. how many subjects chose jobs resembling their vocational interests, as measured by the SDS. This was done by comparing an individual's current job title code (which was obtained from Gottfredson & Holland's (1989) dictionary) with their three letter summary code. Iachan's (1984) Index was used for this purpose.

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In the analysis the results of the subjects who were 'very close matched' or 'reasonable close matched' were put together in one group, while subjects who were classified as not closely matched or poorly matched were joined in another group.

Table 14 demonstrates that most (57%) of the subjects were in incongruent jobs, while only 43% were in jobs close to their vocational interest. Amongst the congruents 26.4% had a 'reasonable close match' and 17% were in 'very close matched' jobs.

### Table No. 14

**The Agreement between the Summary Code and the Code of the Current Job for the Total Sample.**

| Congruency | N | % | Total Sample N | % |
|---|---|---|---|---|
| **Congruents** | | | | |
| Very Close Match | 31 | 17.0% | | |
| | | | 79 | 43% |
| Reasonable Close Match | 48 | 26.4% | | |
| **Incongruents** | | | | |
| Not Close Match | 26 | 14.3% | | |
| | | | 103 | 57% |
| Poor Match | 77 | 42.3% | | |
| Total | 182 | 100% | 182 | 100% |

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## 5- Testing Holland's Theory ( The Relationship between Job Satisfaction and Congruence

In his theory (1985a) Holland assumes that one of the outcomes of being in a job close to one's vocational interest is job satisfaction, so to answer the second question in this study concerning the relationship between congruency and job satisfaction, both congruent and incongruent subjects are compared in their level of satisfaction across the five job aspects (the job itself, social relationship, income, promotion, and relationship with supervisor) and overall satisfaction.

$Chi^2$ and Lambda ( $\lambda$) were used to examin the effect of congruency on workers' satisfaction. No significant differences were found between congruents and incongruents in their overall job ($X^2$=.14, DF=1, P=.71,$\lambda$=.00), or with the nature of the job ($X^2$=.35, DF=1, P=.55, $\lambda$=.00). In addition, congruent subjects are no more satisfied with the other job aspects than incongruents. There is no differences in satisfaction with the promotion chances ($X^2$=1.08, DF=1, P=.29, $\lambda$=.00), income ($X^2$=.61, DF=1, P=.44, $\lambda$=.00), relationship with supervisor ($X^2$=.25, DF=1, P=.62, $\lambda$=.00), or Social relationship with colleagues ($X^2$=.62, DF=1, P=.43, =.00).

These results do not support Holland's assumption concerning the relationship between congruency and job satisfaction.

The relationship between job satisfaction and person-environment congruency is not consistent over all job satisfaction aspects (Table 15). Congruent and incongruent workers do seem to be satisfied with different job aspects but these differences are not significant at any level. According to Smart et al., (1986) " the person-environment fit hypothesis is not equally applicable to all dimensions of job satisfaction" (P. 223).

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The Percentage of Satisfied Congruents and Incongruents.

| | Congruents | Incongruents |
|---|---|---|
| Overall Satisfaction | 91.9% | 88.0% |
| Activity Satisfaction | 90.9% | 92.2% |
| Social Satisfaction | 97.3% | 97.0% |
| Income Satisfaction | 60.8% | 56.1% |
| Promotion Satisfaction | 32.9% | 47.1% |
| Supervisor Satisfaction | 84.6% | 91.0% |

Multiple Regression was used to investigate further the relation between the five aspects of job satisfaction and overall satisfaction with some other variables such as: age, sex, nationality, congruency , and tenure (the number of years in the job).

Correlations were found only between overall job satisfaction and both age and nationality (R=0.31, Beta weight for age is 0.26, P<.001, and Beta weight for nationality is 0.18, P<.001). Therefore, older workers seem to be more satisfied with their job overall than young workers. In addition, non-Kuwaitis are overall more satisfied than Kuwaitis. This means that a subject's age and nationality can used to predict a person's overall satisfaction. Other variables (sex, congruency, and tenure) made no contribution to predicting overall job satisfaction.

No relationship was found between satisfaction with the other job aspects (job nature, relationship with colleagues, income, promotion, and supervisor) nor any of the variables: age, sex, nationality, tenure, and congruency. The only exception was that, as expected, a correlation was found between financial satisfaction and the number of years in a job (job tenure), (r=0.28, Beta weight 0.28, P<.001). This result

is expected because according to the salary system in Kuwait, salaries increase with length of service, and satisfaction tends to rise with salary.

The study failed to support Holland's assumption of the relationship between congruence and job satisfaction. It was found that congruents are not significantly more satisfied than incongruents.

This result is confirmed by an earlier finding that the majority of the subjects (90.1%) expressed their satisfaction with the job activities (intrinsic satisfaction), while at the same time only (43%) of the total sample are in a job congruent with their vocational interest. It appears that congruence with the job has no effect on intrinsic satisfaction. This is probably because people are able to adjust to jobs even if they do not match their interests. In addition, the current sample is probably more interested in the outcomes obtained from the job (income, prestige) rather than the nature of the job. This conclusion is consistent with the belief raised in Chapter Two which suggests that people in Kuwait recognize the job only as a source of financial and prestige rewards.

## 6- The congruence between vocational interest and future job

When subjects were asked whether they were thinking of changing their jobs in the near future, 42 subjects (23.2%) said they were, but 30 of them (71.4%) were able to name the job they would like to move to. Some of them named the place they would like to move to without mentioning a particular job. When asked about this they said it was because they would like to move to that particular place. These results indicate that some people in Kuwait seem to choose their jobs not because of interest but because of reasons external to the nature of the job (mainly job prestige and salary).

In fact very few subjects chose jobs similar to their current job. Only one Kuwaiti male out of 28 working in Realistic jobs expressed a willingness to move to a job in the same environment. Similarly only two Kuwaiti females out of 27 working

in the Social environment thought of moving to another job in the same environment. Two Kuwaiti males out of 28 working in the Enterprising environment wished to choose Enterprising jobs whilst four Kuwaitis (one male and three females) out of 31 working in Conventional jobs thought of taking conventional jobs in future. Lastly, none of the subjects working in the Investigative environment and the Artistic environment would like to change to other jobs in the same environment.

These results are not consistent with Holland's suggestion that people tend to choose jobs congruent with their interests. From this study it seems that people choose jobs for reasons other than the job nature (i.e. the financial reward and prestige). His theory in terms of congruence appears not to hold at least for Kuwait, as congruence has no affect on intrinsic satisfaction.

Regardless of that, this study shows people in Kuwait and in the West have similar vocational interest structure.


## 7- Expressed VS Inventoried Interest

To find the relationship between expressed and inventoried interest subjects were asked to list jobs they thought of taking up before choosing their current ones (expressed interest), jobs related to the Investigative and Enterprising environments were mentioned more frequently while jobs in the Realistic and Conventional environments were mentioned less frequently (Table 16). These results show that there are differences between expressed and inventoried interest. In measured interest subjects showed more interest in social environment, i.e. scored higher on social subscales. On the other hand, they expressed more interest in investigative and enterprising environments. The differences between expressed and inventoried interest are probably related to job prestige. Expressed interest represent a person's reaction to the job's content, its prestige, and rewards associated with it, while inventoried interest mainly represents a person's reaction to the job's content. As a

result, jobs related to investigative and enterprising environments have more prestige than those in other environments, so are mentioned more frequently in expressed interest.

Table No. 16

The Work Environments of the First Three Aspirations Mentioned by the Subjects.

|       | First aspiration | | Second aspiration | | Third aspiration | |
|-------|------|-------|------|-------|------|-------|
|       | N    | %     | N    | %     | N    | %     |
| R     | 17   | 10.0% | 19   | 13.2% | 16   | 14.4% |
| I     | 46   | 27.1% | 29   | 20.1% | 23   | 20.7% |
| A     | 32   | 18.8% | 14   | 9.7%  | 18   | 16.2% |
| S     | 31   | 18.2% | 28   | 19.4% | 24   | 21.6% |
| E     | 33   | 19.4% | 36   | 25.0% | 22   | 19.8% |
| C     | 11   | 6.5%  | 18   | 12.5% | 8    | 7.2%  |
| Total | 170  | 100%  | 144  | 100%  | 111  | 100%  |

Note: The missing values were exculded when the percentages were calculated.

Moreover, Holland (1985c) suggested that the relationship between the code of the current vocational aspiration and the SDS summary code is important because the resemblance between the two is an indicator of the likelihood of a person maintaining that aspiration. Codes for job aspiration were obtained from Gottfredson & Holland's (1989) dictionary.

Iachan's Index was used to examine the congruency between expressed interest (job aspiration) and inventoried interest (summary code). Less than half of the subjects mentioned jobs close to their vocational interest (summary code), (see Table 17). These results are not very different from those found earlier, where 43% of the subjects are in jobs congruent with their vocational interests, measured by the SDS (Table 14). These results show that subjects in this study do not choose or aspire to jobs related to their vocational interest. These results contradict Holland's

suggestion that people tend more to choose jobs which resemble their vocational interest.

It is probably that either people, in this study, are unable to identify their vocational interest, or they choose jobs for reasons other than the nature of the job itself.

In addition, Table 17 shows that subjects' summary codes are closest to their first job aspiration, and closer to their second job aspiration then to their third. This confirms Holland's (1985c) suggestion that recent job aspiration can predict a person's vocational interest better than earlier job aspirations can.

Table No. 17

The Number and Percentages of Subjects whose Summary Code is Congruent with Job Aspirations.

| | Male (N=119) | | Female (N=63) | | Total (N=182) | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| First Aspiration | 45 N= 112 | 40.2% | 34 N= 58 | 58.6% | 79 N= 170 | 46.5% |
| Second Aspiration | 37 N= 94 | 39.4% | 27 N= 50 | 54.0% | 64 N= 144 | 44.4% |
| Third Aspiration | 27 N= 75 | 36.0% | 15 N= 36 | 41.7% | 42 N= 111 | 37.8% |

Note: 1- The missing values were excluded when percentages were calculated
      2- The fourth job aspiration was excluded because only few subjects mentioned it.

Iachan's (1984) method was used again to compare the congruence between the current job and both subject's summary code (inventoried interest) and job aspirations code (expressed interest). First of all, a significant correlation was found

between inventoried and expressed interests, this correlation exists for the first two aspirations, (r1=.30, P<.001; r2=.30, P<.001) (see Table 18).

## Table No. 18

**Correlations between the Summary Code and Job Aspirations and the Intercorrelations between the Four Job Aspirations.**

|  | First | Second | Third | Fourth | Summary Code |
|---|---|---|---|---|---|
| Aspiration 1 | 1.00 |  |  |  | .30* |
| Aspiration 2 | .35* | 1.00 |  |  | .30* |
| Aspiration 3 | .16 | .33* | 1.00 |  | .10 |
| Aspiration 4 | .11 | .19 | .49* | 1.00 | .13 |

In spite of these correlations it was found that the average congruence (Iachan's Index) between current jobs and scores on the interest inventory is greater than that between current jobs and expressed interest. The averages are 21.57 and 19.01 respectively. If we used Iachan's classification to compare these averages we can see that the average (21.57) falls into the third group of congruency 'reasonable close match'. The average (19.01) falls into the second group of congruency 'not close match'. These results suggest that more congruency is found between current job and inventoried interest, and less congruency is between current job and expressed interest. In other words, people tend to choose more jobs congruent to their measured interest than to their expressed interest.

In summary, both expressed and inventoried interests need to be used to predict a person's vocational interest and career plans. But when expressed interest does not match measured interest, it is more appropriate to rely on interest inventories to predict people's vocational interest. These findings contradict Bartling & Hood's (1981) suggestion that when measured and expressed interest do not agree, expressed choice should be given prior consideration.

It is worth mentioning that every aspiration has a significant correlation with the one next to it (P<.001, see Table 18).

## 8- Gender Differences

No significant difference was found between males and females in their overall satisfaction and the five aspects of job satisfaction (see Table 19). Females are no more satisfied than males in job activities ($X^2$=.41, DF=1, P=.52), overall satisfaction ($X^2$=1.1, DF=1, P=.29), financial rewards ($X^2$=1.9, DF=1, P=.17), and the promotion system ($X^2$=.09, DF=1, P=.76). Also they did not show any differences in their satisfied with social relationship with colleagues ($X^2$=.82, DF=1, P=.36) and with supervisor ($X^2$=.56, DF=1, P=.45).

**Table No. 19**

**Means, and Standard Deviations for the Job Satisfaction Scale among both Males and Females, with the Number and Percentage of who are Classified as "Satisfied" (rate > 3).**

| Job Aspects | Male (N= 119) | | | | Female (N=63) | | | |
|---|---|---|---|---|---|---|---|---|
| | X | SD | N | % | X | SD | N | % |
| Overall Satisfaction | 4.24 | .88 | 105 | 88.2% | 4.08 | 1.14 | 52 | 82.5% |
| Activity Satisfaction | 4.27 | .87 | 106 | 89.1% | 4.37 | .90 | 58 | 92.1% |
| Social Satisfaction | 4.46 | .72 | 112 | 94.2% | 4.48 | .76 | 57 | 90.5% |
| Income Satisfaction | 3.10 | 1.39 | 61 | 51.3% | 3.40 | 1.46 | 39 | 61.9% |
| Promotion Satisfaction | 2.64 | 1.39 | 40 | 34.2% | 2.75 | 1.49 | 23 | 36.5% |
| Supervisor Satisfaction | 4.16 | 1.18 | 101 | 84.9% | 4.37 | 1.04 | 56 | 88.9% |

Both males and females were compared in terms of their summary codes (see Table 3). It is worth noting that there is a significant difference between males and females in the summary code -which represents their vocational interest- ($X^2$ =31.9, DF=5, P<.001). Males were concentrated in Realistic and Enterprising jobs, while females were concentrated in Social and Conventional jobs. What are the most interesting occupational environments for men are the least interesting for women. However, the reverse is not true. Males tend to be interested in occupational environments in the following order: R,E,S,I,C,A; while females showed their interests in the following order S,C,I,A,(R&E). These results confirm that males and females tend to differ in their vocational interests. These results support Holland's assumption that men and women in general have widely divergent personality patterns and career aspirations and interests.

Males and females showed differences in selecting jobs close to their vocational interest (Table 20). Females tended to be significantly more successful than males in choosing jobs similar to their personality (vocational interest). 43 males (36.1%) are in jobs close to their vocational interest, while 36 female (57.1%) work in jobs akin to their vocational interest ($X^2$=7.4, DF=1, P<.01). These findings contradict Swaney & Prediger's (1985) results. They found that the overall level of congruence for males was significantly greater than for females.

The differences between men and women in choosing congruent jobs might be attributed to the role of men and women in the society. Men are mainly the family breadwinners, therefore they have to work to satisfy their families' financial needs. Thus they choose jobs that meet their needs even if those jobs do not match their vocational interest. On the other hand, in traditional societies women play a minor role in the family income, so their participation in the labour force is optional. As a result they have more chance to choose their jobs carefully and end up with jobs congruent to their interest.

The Agreement between the Summary Code and the Code of the Current
Occupations for Males (N=119), and Females (N=63).

| | Male | | | Female | | |
|---|---|---|---|---|---|---|
| | N | % | Congruence N % | N | % | Congruence N % |
| **Congruents** | | | | | | |
| Very Close Match | 16 | 13.4% | 43 36.1% | 15 | 23.8% | 36 57.1% |
| Reasonable Match | 27 | 22.7% | | 21 | 33.3% | |
| **Incongruents** | | | | | | |
| Not Close Match | 17 | 14.3% | 76 63.9% | 9 | 14.3% | 27 42.9% |
| Poor Match | 59 | 49.6% | | 18 | 28.6% | |

When the relationship between congruence and job satisfaction was examined

among males and females, no significant correlations were found, neither for overall

job satisfaction nor for the other five aspects of satisfaction (Table 21).

Table No. 21

The Correlations between Congruence and Job Satisfaction for both
Males (N=119) and Females (N=63).

| | Male | Female |
|---|---|---|
| Overall Satisfaction | .13 | .03 |
| Activity Satisfaction | -.08 | -.03 |
| Social Satisfaction | -.07 | .01 |
| Income Satisfaction | .07 | -.07 |
| Promotion Satisfaction | -.18 | -.05 |
| Supervisor Satisfaction | -.12 | -.23 |

In addition, there are differences between males and females in the type of jobs they considered before entering their current ones (their aspirations). Significant differences were found between males and females in their patterns of choice. For the first job dream male choice is as follows: I,A,E,R,S,C, while females tend to choose jobs in the following order: S,I,E,C,A,R ($X^2$=25.6, DF=5, P<.001). For the second aspiration the results are not very different; males mentioned jobs in the following order: E,I,R,A,S,C, while females chose the following: S,C,E,I,A,R ($X^2$=30.4, DF=5, P<.001). For their third job dream males listed jobs in the following order: I,R,E,A,S,C, while females listed jobs so : S,E,A,C,I ($X^2$=20.7, DF=5, P<.01). These results support the idea that males and females usually choose or aspire to different jobs and that females tend to choose or aspire to traditional "female" jobs (mainly social).

According to Gottfredson (1981) social and family expectation have a big influence on peoples job choice. In the present study when subjects are compared in their fields of interest and job aspiration, it is noticeable that although most males show an interest in realistic activities, they choose jobs that are more acceptable by society when they come to plan their career e.g. investigative and enterprising, while females find social jobs more acceptable, Therefore both their interests and aspirations are matched.

Holland et al., (1973) found that women's decision-making scores (based on future possibilities) were, on average, higher than men's scores. Higher scores are associated with greater congruency between aspirations and SDS assessment. In addition, Nafziger et al., (1975) found that the congruency between the codes of current occupation and future occupational aspiration was greater for women than for men.

Thus in this study although more women than men aspired to jobs close to their vocational interest, as measured by SDS these differences are not significant: for the first job dream: ($X^2$=2.08, DF=1, P=.15), for the second aspiration job: ($X^2$=.29,

DF=1, P=.59) and third aspiration job ($X^2$=.90, DF=1, P=.34). The results are presented in Table 17.

When a comparison was made between changing job in the future and vocational interests (Summary code), for those subjects who showed a willingness to change their jobs in the near future, women tended to be more likely than men to mention jobs resembling their vocational interests.

## 9- The Comparisons between Subjects by Nationality.

Kuwaiti and non-Kuwaiti workers show some differences in expressed satisfaction. Non-Kuwaiti workers tended to be more satisfied with their vocational choice (overall satisfaction) and the other aspects of job than Kuwaitis did. These differences are significant only or overall satisfaction, and the job's nature (see Table 22). Non-Kuwaitis are overall more satisfied than Kuwaiti ($X^2$=12.34, DF=1, P<.001) and also more satisfied with the job's intrinsic aspect ($X^2$=5.06, DF=1, P<.05). There is no differences between the two groups in their satisfaction with promotion chances ($X^2$=1.38, DF=1, P=.24), salary ($X^2$=7.78, DF=1, P=.38), social relationship with colleagues ($X^2$=.89, DF=1, P=.34) or with supervisor ($X^2$=.65, DF=1, P=.42).

Kuwaiti and non-Kuwaiti were significantly different in the type of working environment they are in, at the present time ($X^2$=60.3, DF=5, P<.001). In this sample, Kuwaitis tended to be working in environments in the following order: C,E,R,S,I,A; whereas non-Kuwaitis were in occupational environments in the following order: I,A,(R&S),E, (see Table 1). The two groups differ but not significantly in their vocational interest ($X^2$=2.78, DF=5, P=.73). Kuwaitis seem to be interested in the occupational environment in the following order: S,E,R,I,C,A. On the other hand, Non-Kuwaiti vocational interest was in the following order: S,I,R,E,A,C. (see Table 23).

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Table No. 22

Means, and Standard Deviations for the Job Satisfaction Scale among both Kuwaiti and Non-Kuwaiti, with Number and Percentage of those who classified as "Satisfied" (rate > 3).

| Job Aspects | Kuwaiti (N=118) | | | | Non-Kuwaiti (N=64) | | | |
|---|---|---|---|---|---|---|---|---|
| | X | SD | N | % | X | SD | N | % |
| Overall Satisfaction | 4.02 | 1.10 | 94 | 79.7% | 4.50 | .59 | 63 | 98.4% |
| Activity Satisfaction | 4.21 | .99 | 102 | 86.5% | 4.47 | .62 | 62 | 96.9% |
| Social Satisfaction | 4.49 | .78 | 108 | 91.6% | 4.42 | .64 | 61 | 95.3% |
| Income Satisfaction | 3.09 | 1.47 | 62 | 52.5% | 3.41 | 1.29 | 38 | 59.4% |
| Promotion Satisfaction | 2.51 | 1.48 | 37 | 31.9% | 2.98 | 1.27 | 26 | 40.6% |
| Supervisor Satisfaction | 4.16 | 1.21 | 100 | 84.7% | 4.36 | .97 | 57 | 89.1% |

Table No. 23    The   Frequencies   of   the   SDS   Codes   for   Kuwaiti and Non-Kuwaiti and the Total Sample.

| Code | Kuwaiti (N=118) | | Non-Kuwaiti (N=64) | | Total (N=182) | |
|------|-----|------|-----|------|-----|------|
|      | N   | %    | N   | %    | N   | %    |
| RI   | 3   | 2.5% | 5   | 7.8% | 8   | 4.4% |
| RA   | -   | -    | 2   | 3.1% | 2   | 1.1% |
| RS   | 9   | 7.6% | 1   | 1.6% | 10  | 5.5% |
| RE   | 4   | 3.4% | -   | -    | 4   | 2.2% |
| RC   | 4   | 3.4% | 3   | 4.7% | 7   | 3.8% |
| Total | 20 | 16.9% | 11 | 17.2% | 31 | 17 % |
| IR   | 5   | 4.2% | 4   | 6.3% | 9   | 4.9% |
| IA   | 2   | 1.7% | 1   | 1.6% | 3   | 1.6% |
| IS   | 7   | 5.9% | 4   | 6.3% | 11  | 6.0% |
| IE   | -   | -    | 3   | 4.7% | 3   | 1.6% |
| IC   | 4   | 3.4% | -   | -    | 4   | 2.2% |
| Total | 18 | 15.3% | 12 | 18.8% | 30 | 16.5% |
| AR   | 1   | .85% | 1   | 1.6% | 2   | 1.1% |
| AS   | 5   | 4.2% | 5   | 7.8% | 10  | 5.5% |
| AE   | 1   | .85% | 1   | 1.6% | 2   | 1.1% |
| AC   | 1   | .85% | -   | -    | 1   | .55% |
| Total | 8  | 6.8% | 7   | 10.9% | 15 | 8.2% |
| SR   | 7   | 5.9% | 3   | 4.7% | 10  | 5.5% |
| SI   | 6   | 5.1% | 9   | 14.1% | 15 | 8.2% |
| SA   | 5   | 4.2% | 5   | 2.8% | 10  | 5.5% |
| SE   | 17  | 14.4% | 3  | 4.7% | 20  | 11 % |
| SC   | 1   | .85% | 1   | 1.6% | 2   | 1.1% |
| Total | 36 | 30.5% | 21 | 32.8% | 57 | 31.3% |
| ER   | 6   | 5.5% | 3   | 4.7% | 9   | 4.9% |
| EI   | 1   | .85% | -   | -    | 1   | .55% |
| EA   | 1   | .85% | 2   | 3.1% | 3   | 1.6% |
| ES   | 9   | 7.6% | 1   | 1.6% | 10  | 5.5% |
| EC   | 5   | 4.2% | 2   | 3.1% | 7   | 3.8% |
| Total | 22 | 18.6% | 8   | 12.5% | 30 | 16.5% |
| CR   | 2   | 1.7% | -   | -    | 2   | 1.1% |
| CI   | 3   | 2.5% | -   | -    | 3   | 1.6% |
| CA   | -   | -    | 2   | 3.1% | 2   | 1.1% |
| CS   | 2   | 1.7% | 2   | 3.1% | 4   | 2.2% |
| CE   | 7   | 5.9% | 1   | 1.6% | 8   | 4.4% |
| Total | 14 | 11.9% | 5   | 7.8% | 19  | 10.4% |

When the two groups were compared on the congruency between current job and vocational interest, non-Kuwaitis tend to be more successful than Kuwaitis in choosing jobs related to their vocational interests (see Table 24). 50 (42.4%) of the Kuwaitis were in jobs close to their interests compared with 29 (45.3%) of the non-Kuwaiti. But this difference is not significant ($X^2$=.15, DF=1, P=.70).

Table No. 24

**The Agreement between the Summary Code and the Code of the Current Occupations for Kuwaiti (N=118), and Non-Kuwaiti (N=64).**

| | Kuwaiti | | | Non-Kuwaiti | | |
|---|---|---|---|---|---|---|
| | N | % | Congruence N % | N | % | Congruence N % |
| **Congruents** | | | | | | |
| Very Close Match | 20 | 16.9% | | 11 | 17.2% | |
| | | | 50 42.4% | | | 29 45.3% |
| Reasonable Match | 30 | 25.4% | | 18 | 28.1% | |
| **Incongruents** | | | | | | |
| Not Close Match | 16 | 13.6% | | 10 | 15.6% | |
| | | | 68 57.6% | | | 35 54.7% |
| Poor Match | 52 | 44.1% | | 25 | 39.1% | |

However, no differences were found between Kuwaiti and non-Kuwaiti in terms of the relationship between congruency and job satisfaction, for both groups the correlations between congruence and job satisfaction aspects are nearly zero. Therefore, congruence cannot help in predicting job satisfaction. Table 25 presents these correlations among the two groups.

The two groups differ significantly in the type of jobs they aspired to, but this is true only for the first and third aspiration. For their first choice, Kuwaiti indicated

jobs related to the six environments in the following order: E,(S&I),R,C,A; while the non-Kuwaiti result was as follows: A,I,S,E,R,C. This difference is significant $(X^2=39.2, DF=5, P<.001)$. As a second choice, Kuwaitis hoped to work in jobs in the following order: E,I,S,C,R,A, while the non-Kuwaiti dreamt of jobs in this order: E,S,I,A,R,C; this difference is not significant $(X^2=6.6, DF=5, P=.25)$. For the third aspiration Kuwaitis listed jobs in the following order: S,I,E,R,C,A but the non-Kuwaiti listed jobs in the following order: A,E,(R&I&S),C. This difference is significant $(X^2=14.3, DF=5, P<.01)$.

Table 26 shows some inconsistent and non-significant differences between Kuwaiti and non-Kuwaiti in their aspiration and how close it is to their vocational interests. Generally speaking, more non-Kuwaitis aspire to be in jobs resembling their vocational interests.

Finally, it is interesting to notice that only 7 non-Kuwaitis (N=64) were thinking of changing their jobs in the near future. This is consistent with the results that non-Kuwaitis are more able to engage in jobs close to their vocational interest. In addition, the chances of non-Kuwaitis finding alternative employment is less than that of Kuwaitis because most non-Kuwaiti workers enter the country with a work permit to occupy a particular job.

## Table No. 25

The Correlations between Congruence and Job Satisfaction for both Kuwaiti (N=118), and Non-Kuwaiti (N=64).

|  | Kuwaiti | Non-Kuwaiti |
|---|---|---|
| Overall Satisfaction | .09 | -.04 |
| Activity Satisfaction | -.05 | -.07 |
| Social Satisfaction | .01 | -.14 |
| Income Satisfaction | -.05 | .21 |
| Promotion Satisfaction | -.17 | -.03 |
| Supervisor Satisfaction | -.10 | -.23 |

## Table No. 26

The Congruence between Job Aspirations and Vocational Interests for Kuwaiti (N=118), and Non-Kuwaiti (N=64).

|  | Kuwaiti | | Non-Kuwaiti | | Total | |
|---|---|---|---|---|---|---|
|  | N | % | N | % | N | % |
| Aspiration 1 | 50 N= 110 | 45.5% | 29 N= 60 | 48.3% | 79 N= 170 | 46.5% |
| Aspiration 2 | 42 N= 95 | 44.2% | 22 N= 49 | 44.9% | 64 N= 144 | 44.4% |
| Aspiration 3 | 28 N= 77 | 36.4% | 14 N= 34 | 41.2% | 42 N= 111 | 37.8% |

Note: The missing values were excluded when percentages were calculated.

# SUMMARY AND CONCLUSION

The study's findings can be summarized as follows:-

1- Holland's typology as a conceptual framework for understanding work environments and personality types and the relatedness between them appears to be applicable cross-culturally. The hexagonal model which represents the relationships between working environments and personality types was supported by the present data.

2- Support was found for using the Self-Directed Search as a measure of vocational interest, five of the six personality types suggested by Holland: Realistic, Investigative, Artistic, Conventional, and a combination of Social and Enterprising. The activities and the competencies subscales do not discriminate between Social and Enterprising types.

3- The occupation and the self-rating subscales contribute to two independent method factors. These either reflect genuine general differences in personality or response bias.

4- The study failed to support the hypothesis that person-environment homogeneity leads to satisfaction with one's job. Congruents did not show more satisfaction with their job nature than incongruents.

5- To identify a person's vocational interest it is best to take both expressed and measured interest into consideration. When the two do not agree, measured interest is the better predictor.

6- Males and females differ in their patterns of vocational interest. Both tend to prefer traditional sex-role stereotyped working environments.

7- The extrinsic aspects of the job (i.e. income and promotion opportunities) are the main sources of dissatisfaction among workers in Kuwait.

8- Generally speaking, workers in Kuwait do not make vocational decisions or choose jobs which resemble their vocational interest. This is either because they are

not quite clear about their interests, or they have less opportunities to select congruent jobs as the range of options is to some extent narrow compared to that in the West.

In conclusion, although Holland's theory of congruence and his interest inventory (SDS) are supported cross-culturally, some changes and clarifications need to be introduced. Holland's theory needs to clarify the relationship between vocational interest and job satisfaction and to specify which aspect or aspects of jobs are more affected by person-environement fit.

The SDS needs to be improved to increase its ability to discriminate between the social and enterprising types, and some items in the inventory need to be updated. Yet despite these specific points the SDS has proved to be cross culturally robust.

# CHAPTER EIGHT

## DISCUSSION

Work is one of the most important aspects of a person's life. It is desirable that they get satisfaction from it. This can only be achieved if there is harmony between a person and their environment. This harmony is measured as congruence - the degree of match between a person and their work. There have been many studies to investigate the relationship between congruence and job satisfaction. Results provide support for the notion that greater congruence leads to greater satisfaction but the correlations found, although positive, are relatively modest (r=0.20 to r=0.47) (Mount & Muchinsky; 1978b, & Spokane; 1985). The present study was designed to explore the relationship betweenperson-environment congruence and job satisfaction among a sample of workers from the State of Kuwait using the Self-Directed Search (SDS) to measure vocational interests.

## The Arabic Version of Holland's SDS

Translation of an instrument into another language, let alone another culture, is bound to be a difficult task and one full of potential dangers. For in translation the conceptual structure of the test may be lost and the individual questions rendered meaningless. One only has to read the English instructions to a Japanese electronic device to see that dictionary translations are capable of producing English which is grammatical but nonsense. However, with interest inventories the translation problems are less than with other instruments because they use lists of activities and these are common to most cultures; most societies have their singers, firefighters, carpenters, etc. Still the three types of equivalents -functional, conceptual and linguistic- have to be borne in mind in the translation. In moving from the American

version of the SDS to Arabic most items were translated on a word to word basis and it was relatively easy to hold the function and meaning across words. Thus words like "electrician" or "read poetry" represented exact equivalents. The process was helped by the richness of the Arabic language which allowed in almost cases the straightforward linguistic equivalents.


## How Generalisable is Holland's Typology and Inventory ?


The present study demonstrates how robust Holland's typology is in a cross-cultural context. Kuwaiti subjects found the new Arabic version of the SDS convenient to use, and the conceptual framework for understanding work environments appears to transfer successfully to this Arabic culture. It is evident that the SDS would prove a useful instrument for use in Kuwait. The study has confirmed that Holland's typology is generalisable to a different culture and that the SDS discriminates well with an Arab population.

Overall, the SDS, in its Arabic version, produced results that were very similar to those produced by the English version in the West. The Test obviously reflects an interest pattern structure which generalises beyond the American culture in which it was devised. It is of more than technical interest to note that the same interest pattern was found both in the present study and in Holland's work (1985c). It suggests that the measures tap some fundamental features of personality which exist across these very different cultural groups.

It was found that the SDS is able to extract five out of the six personality types suggested by Holland among workers from Kuwait; these are (Realistic, Investigative, Artistic, Conventional, and a combination of Social and Enterprising types). Factor analysis and multitrait-multimethod support the structure of the SDS as a whole and found that most of the items that are designed to measure one personality type do in fact do so. The only exception is that the activity and the competence subscales

cannot discriminate between the social and the enterprising types. These results confirm those of Rachman et al., (1981) in their test of the construct validity of the SDS among a sample of Canadian professional accountants.

Beside that, it was found that the SDS contains two method factors (i.e. occupation and self-rating) which represent general attitudes toward occupations and toward evaluating oneself, these method factors are not suggested by Holland. However, although the occupation and self-estimate subscales share some common features with other subscales, (i.e. identifying subject's interest toward different working environment) they seem to measure something different from that of the activities and competencies subscales. The occupation scale appears to measure general attitude towards occupations in relation to certain outcomes (e.g. rewards that are available in the job, job prestige, etc.) which is less dependent on ability, environment, and other factors than are the other scales. The self-estimates scale is a self-report test that reveals individuals' perceptions of what they think they are good at in general term not in terms of specific activities listed in the instrument. The existence of the occupation and self-rating factors either reflect real differences in people's personalities or reflect response bias. In either case they do not provide good discrimination between the Holland's types.

The activities and the competencies subscales only provide examples of the activities included in an environment or job which may either not be favoured by the persons or might not have been experienced by them, so they cannot decide if they have interests in it or not. On the other hand, the self-estimates subscales ask people to judge their abilities in a general sense, i.e. "Mechanical ability", "Musical ability", etc.

This study prompts speculation as to why Holland's model transfers so successfully to this apparently very different culture. It lends support to the view that the test is one of personality and suggests that it taps basic features that transcend cultural differences. This could be so, but a simpler explanation would be that it is constructed simply at the level of expressed interests and that the interest pattern in

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Kuwait is not as different as the difference in culture might suggest. The supposition here is that Kuwait, over the last few years, has developed its commercial and leisure attitudes within a more Western philosophy. It would be interesting to translate Holland's SDS into other languages, like Chinese, and see if the model holds up in cultures differing as much as possible from the American one within which it was developed.

This study also shows that it is important to use the SDS interest inventory to confirm a person's expressed interest, as a significant correlation was found between expressed and inventoried interest. When the scores on the interest inventory matched those for expressed interest a reliable hint is provided of a person's stable vocational interest. But when expressed and measured interest do not match, measured interest appears to be much more important in predicting vocational interest because it gives a better prediction of congruence with the job, which is the main object of career counselling. Ideally, therefore, both measures ought to be used in helping a particular client.

## The Hexagonal Model

Holland's model is substantiated in its Arabic version in Kuwait and the hexagonal model emerges clearly from the analysis. For the entire test, the psychological relationship among types offers empirical support for the hexagonal model suggested by Holland, where the correlations among adjacent types are greater than those among the alternate, which in turn are higher than opposite types. The only exception is the investigative type. The correlations between the investigative type and both the alternative and the opposite personality types are greater than with the adjacent types. It is clear that the theoretical structure of the hexagonal model exists. This is confirmed by Meir et al., (1973), when they found that the circular order of the occupational fields exists in both Jewish and Arab cultures. These results

sum up an important finding, that Holland's interest inventory (SDS) is a cross-cultural instrument if sensitively translated to ensure equivalence. In addition, results show that Holland's personality types can be demonstrated in a completely different culture to that in which it was originally designed.

## The Nature of Work in Kuwait

This thesis started with an analysis of work, its conceptualisation and its place in our lives. It was concluded that work serves a number of social and individual functions. In the West, where most of the research has been done, there is at the present time a greater emphasis on the intrinsic value of work rather than on extrinsic goals and rewards. Research reports consistently show that financial rewards are not at the top of any employee's list of the reasons for working. Research on employment/unemployment has consistently emphasised the positive effects of work on the quality of life and in particular on feelings of well-being and mental health. Consistent with this is the development of career counselling services and the academic interest in job satisfaction -and consequently, research on congruence in job satisfaction.

The present research project shows that in Kuwait perceptions of work are rather different, and not least the expected positive relationship between congruence and job satisfaction is not seen! Differences arise both through cultural and religious traditions and through the organisation of a society which is perhaps unique in the world as having no significant manufacturing or agricultural base, and relying almost exclusively on oil revenue, foreign investments and trade.

Although the social security system in Kuwait is generous, there is no unemployment benefit in operation. This alone predisposes people to find work and, in the first instance, make income the major prerogative. Allied to this is the concept

of family and the role of the male within it; the father is expected to earn enough to keep the family without his wife having to work.

Additionally, the Islamic religion tends to foster a particular attitude to work - an attitude than anywhere in Europe would be labelled the Protestant work ethic! For work is seen as morally good; it is part of human nature to work -work is intrinsic to human nature and not extrinsic to it. Work is seen in terms of use, not only to the individual, but to society in general. Work does not alienate people but rather it provides them with their identity, which is in stark contrast to the views of Marx!

Work then gives status. From the results of this study which show general dissatisfaction (65%) with earnings and promotion prospects it would seem that status is a major factor in judging employment success. This fits well with perceptions of people at work in Kuwait where job prestige and the public trappings of a successful career are very evident in the society. Thus in general, it would appear that the personal identity workers gain from their jobs in Kuwait derives from the prestige and status that the job brings, rather than from the interest it engenders for them.

## Job Satisfaction in Kuwait

In this sample of workers in Kuwait, high levels of job satisfaction were found overall with a clear majority satisfied with their activities at work, with their supervision and social relationship with their colleagues. But only just over half were satisfied with their income and about two-thirds expressed dissatisfaction with promotion prospects. It is the extrinsic aspects of financial reward, with its associated prestige, and the prospects of increasing that reward through progress up the career ladder that seem of primary importance to workers in Kuwait.

## Vocational Interest in Kuwait

It is evident from this study that workers in Kuwait, as demonstrated in this representative sample, pay less attention to the interest aspects of their work; income is of the major importance. Reports from subjects reinforced the view that job acceptability, in terms of status within accepted society norms is of overriding importance. Thus, while some subjects expressed an interest in singing or dancing this could not be translated into a career as jobs in the entertainment sector are not consistent with most families social and religious values. Similarly, other subjects expressed their interest in realistic jobs like mechanic or carpenter but such hand skilled trades do not carry with them prestige in Kuwaiti society and, therefore, may not be pursued. The attitude of society, as expressed through subjects' choices, can be seen in the discrepancy between interests and aspirations. Interest in "realistic" environments was the second-most frequent choice amongst subjects but very few mentioned realistic jobs when asked for their aspirations. They were much more likely to list in an enterprising environment which are seen to be much more socially acceptable and carry greater prestige.

## Congruency in Employment in Kuwait

Despite the failure to find a correlation between congruence and job satisfaction, the data on congruence are of particular interest. For they show that the majority of the sample (57%) were in jobs that were incongruent with their interests. In the West this would be seen as a worrying figure, but in Kuwait it fails to predict dissatisfaction with the job! It seems that workers in Kuwait do not expect to find interest in their jobs and so are not disappointed when they do not.

## Congruence and Job Satisfaction in Kuwait

Holland's assumption of job satisfaction as an inevitable outcome of person-environment congruence was not confirmed in Kuwait. It was found that congruent workers are not more satisfied with their job activities "intrinsic satisfaction" than incongruents. This finding is consistent with some other studies (e.g. Amerikaner, et al., 1988, Dolliver, et al., 1972, etc.), which found that congruence does not help in increasing satisfaction with the job.

The failure to find statistically significant differences in intrinsic satisfaction between congruents and incongruents could arise from a number of reasons; firstly, people are satisfied with their jobs, even when they are not a good fit, if there is an opportunity in the job for them to fulfil other important needs. This is because people tend to generalise their satisfaction with one aspect of the job to other aspects. The evidence from this study suggests that workers in Kuwait probably consider the extrinsic aspects of the job (i.e. financial rewards, promotion opportunities) as the most important aspects, therefore, they gain satisfaction from their jobs even if they are not congruent with their interests as the nature of the job is less important to them.

This attitude is reinforced by the kind of information given to job seekers in Kuwait. This information emphasises the financial rewards that can be obtained from the job and stresses the opportunities for advancement. Less attention is paid on the nature of the job or its responsibilities. No attention is paid towards people's interests, needs, and values. There is, in fact, no concept of career decision making within the culture, and no qualified career counsellors or suitable instruments to assess people are available at the present time.

The lack, in quantity and quality, of job information tends to make people see jobs only as a source of financial and prestige rewards. This orientation, specially among men, reflects the values that dominate the society in Kuwait, and most traditional societies, where men are the major family income provider, and women play a minor role.

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Secondly, people are satisfied with incongruent jobs when they can compensate and meet their interest in activities outside the job. This explanation is suggested by Melamed & Meir (1981) who found that the compensatory effect of avocational activities emerges when such activities are congruent with the person's personality pattern. In addition, Meir et al., (1986) suggested that avocational activities function as compensation for people in incongruent occupations. Therefore, when people have an opportunity to fulfil their interests in activities outside the work place, they probably could manage to adjust to their incongruent working environment.

The other possibility for the lack of support for the link between congruence and job satisfaction is the one given by Holland (1973) and Gottfredson (1981). They suggest that people adapt to and become satisfied with jobs, even though they are not an optimum fit because people are more likely to change themselves than change their jobs. In this context, Strauss (1974) suggested that most people, if they have to, can adjust to non-challenging work environments by lowering their expectations, and changing their need structure.

Satisfaction with incongruent jobs is likely when there are less jobs available in the labour market, or when people choose job for reasons other than the job nature. As discussed in Chapter Two, people in Kuwait have less opportunity for free job choice, so they pick up what is available to them. As a result they are probably able to adopt strategies for adjustment and satisfaction with their jobs.

In addition, Spokane (1985) believes that congruence should not be treated as a "single point in time" phenomenon, because changes in congruence are rapid and subtle, and much valuable data will be lost in that case. As a result, Elton & Smart (1988) suggested that the best results in the relationship between job satisfaction and vocational interest are obtained in longitudinal studies. In this type of study workers' job satisfaction and their congruence to the job are measured over a period of time, whereas they may change over time because as Schlossberg (1977) suggested that people self-concept and self-evaluation alter as time goes by. The present study lacks

this methodology which might explain the failure to find positive relationships between person-environment congruence and job satisfaction.

Finally, another possible reason of the failure to support Holland's theory in this study is maybe a result of the way job satisfaction is measured. Satisfaction with job aspects is examined using a single item for each aspect, this was because one of the study's main aims is to examine the effect of congruence on different job aspects. It could be argued that the use of just a single item could give an inaccurate and incomplete indication of the state of job satisfaction experienced.

In future research it would be important to focus attention on the intrinsic aspect of the job and test its relationship with congruency. Also a scale containing more than one item measuring intrinsic job aspects would more useful and more appropriate. In addition, phrased rather than direct questions would offer a better measure of job satisfaction. According to Hoppock (1935) when a direct question is used to measure job satisfaction nine out of ten subjects are satisfied, but this will drop to two-thirds when a phrased question is used.

## Gender Differences

There were no significant differences between males and females in either overall or specific aspects of job satisfaction. While there are clear dichotomies based on gender within Kuwaiti society, these do not seem so apparent in the world of work where there is a remarkable similarity in patterns of satisfaction in both sexes, with high levels of satisfaction with the work environment -the nature of the job itself, the social processes or the supervisor. However, there were low levels of satisfaction for income and promotion prospects.

Yet there are specific gender differences in vocational interests reflecting the traditional sex-role areas of work. Males see realistic and enterprising types as more interesting while for females the social and conventional types are preferred. This

may reflect real sex differences or, more likely, social influences in a culture where people are expected and encouraged to develop interests corresponding to gender. According to Gottfredson (1981), social and family expectations have a big influence on people's job choice. This influence is obvious in this study. Although most males show an interest in realistic activities few aspire to realistic jobs and mention jobs more acceptable to the family and society, i.e. investigative and enterprising. In addition, the shift from realistic to enterprising jobs probably reflects the desire for high level jobs, and these are more readily available in the enterprising area.

Gottfredson (1981) also makes the point that gender is at the centre of the self concept which determines career decisions, leading workers into sex-stereotyped employment. In Kuwait in particular there are a number of possible reasons why women have jobs that resemble their personality. Foremost is that the female interest profile demonstrated here matches the conventional pattern for women's work, and certainly there is cultural pressure for women to occupy only certain kinds of jobs. Second, the decision by women to work is a real active choice for them. They are encouraged and expected to stay in the home; the husband is perceived as the bread winner and there is no pressure for the wife to work. So if she does decide to seek employment, it might be expected that the job will be chosen on the basis of its appropriateness to her interests.

It is worth emphasising that sex segregation, and hence demarcation and stereotyping is more obvious in Kuwait than in the Western world by virtue of the traditions of Islam. As a religion, Islam teaches sex segregation and its moral teachings are reinforced and amplified by culture and tradition. Women are not expected to work outside the home and certainly are not encouraged to do so. Within the Islamic framework their main role is seen to be that of wife and mother, a role which is rewarded and given social status. So fewer women seek work, and those that do appear to look for work in the traditional sex-stereotyped jobs. Kuwaiti society is much less dogmatic over religious principles than other more fundamentalistic states,

but still respect for religion and the traditions of Islam are major determinants of self-concept which is reflected in the choice of work.


## Vocational Guidance in Kuwait : Present and Future


As detailed in the Introduction of this thesis, an analysis of vocational guidance in the West identified developmental, differential and situational approaches by analysing how people make career choices and how they can be helped in this task.

It is evident that there is no clear developmental component present at all in career decisions in Kuwait!   This is exceedingly odd and unusual because by definition any person passing through life is in a developmental situation and one would expect their accumulative experience to have a bearing on their choices and decisions. The situation in Kuwait is demonstrated not to be like that. The aim of the individual, strongly supported by their parents and family, appears to be to endeavour to reach the highest possible educational level in order to secure a worth while career, but in circumstances which render the direction of the education attainment largely irrelevant.   Jobs that are open to people are determined, it would seem, almost exclusively by the level of education rather than the content or, indeed, the interests of the person having the qualifications. The qualification is  regarded as a measure of a person's general competence not of their knowledge.  If a developmental component is to be identified in job choice, it is probable that this would be seen in the attitude of the family to their own perceived status and expressed in terms of expectation for the child to rise to a particular rank in society.

Job choice is made at the point of entry into the labour market.  This is apparently a situation tailor-made for a differential approach to career choice, where psychometric assessment of the individual could be matched to the parameters of the job.  But since job parameters and person parameters (other than status and level of

education) are not the criteria, such an approach is, for the time being at least, not relevant.

The model that best describes career choice in Kuwait is a situational approach as described by Roberts (1981), where choice is determined by opportunity structure. Jobs are selected from amongst those which are available. In this choice, personal interest seems to be suppressed or is subservient to family expectations.

A full understanding of the psychology of careers can only be obtained if it is realised that in Kuwait it is the State that directly finances most of the wealth of the inhabitants. Most Kuwaiti citizens are paid (if not directly employed) by the State. The society is essentially service-oriented rather than being involved in manufacturing. The principle services of health, education, environment and defence are paid for directly by the State through its own income and not through spending the taxes of its population.

But how can a society function if jobs are allocated in this way? First, it has to be acknowledged that there tends to be a general correlation between educational level and a range of social and intellectual competencies. Graduates, for example, during their studies of specific material acquire a range of flexible, transferable work skills which enable them to adapt readily to new tasks. Second, Kuwait has a history of importing technical skills. Through the use of expatriate labour it has been able to advance at a tremendous pace to become the highly technological state that it is today. However, there are clear signs of changing attitudes.

Now that Kuwait has a physical, economic and technological structure in place, and with a growing population of its own it is seeking to directly service its own specialised technical needs. Overseas consultants which once would have been imported to do the job are increasingly being used to train other indigenous workers to do so. Thus local workers with specific skills are increasingly being employed for those skills rather than bringing in foreign labour. This obviously makes senses both socially and economically. It will clearly have a major effect in the job market in future, necessitating selection on the basis of specific, rather than general competence.

Already the signs are there that those in employment are being subject to assessment and subsequent in-service training is being arranged. Obviously, this change will have a knock-on effect in vocational choice. Workers will need to represent their specific abilities to an employer and will therefore seek to plan their education appropriately and in respect for their own interests. The prediction is that then vocational counselling will be born in Kuwait and there will be a need for interest inventories, etc. to asset the counsellors in their work. Moreover, it could then be that intrinsic aspects of work achieve more prominence and, indeed, that there might emerge a positive correlation between congruence and job satisfaction! The suggestion is made that this present study could usefully be replicated, using younger workers, in five years' time to see if this pattern does indeed emerge and if there was a positive correlation this would be an indication of the changing working practices and working environment in Kuwait.

### General Conclusion

There are two mains advantages of the current study:

1- The new Arabic version of the Self-Directed Search that developed from the original one can be used confidently in career counselling in Kuwait to measure people's vocational interest.

Even though Holland's typology and the Self-Directed Search inventory are based on American culture, it is so robust that it can be used in Kuwait to help people in their search for suitable jobs, despite social and culture differences.

2- The study failed to find a positive relationship between congruence and intrinsic job satisfaction. The result is attributed to the unique employment market in Kuwait where jobs are more allocated than chosen and where intrinsic aspects of the work, which might be more related to interests, are thereby less important than extrinsic aspects such as money and prestige.

## Some Suggestions for Future Research

Evidence for a positive relationship between congruence and job satisfaction is not provided in this study, and indeed support for this hypothesis in the Western literature is far from straightforward. Yet this is an important conceptual link. It could be argued to be the reason of the justification of vocational counselling! For if it really does not matter -in terms of satisfaction- what job a person can do as long as they survive it, then there is little point in committing expenditure and resources in order to channel them into a job matched to their personality and interests. It is more than usually appropriate in this situation to say that more research is needed! In particular, much more needs to be known about the concept of job satisfaction and most of the variance which remains unexplained in the literature needs to be accounted for. The following suggestions are therefore made for future projects:

1- Because congruence does change as a result of change in self-concept and self-evaluation it would be interesting to study the relationship between congruence and job satisfaction under different levels of congruency, and to investigate the degree of satisfaction when congruence between person and environment is changed (either increased or declined). This would necessitate a longitudinal study.

2- Another need is to test the effect of self-concept as a moderating factor in the relationship between congruence and job satisfaction. It could be argued that congruents might have high self-concepts so they are more aware of their vocational interest and do choose job resemble their interest than incongruents (Wallence, et al., 1990), therefore they may express more satisfaction with their jobs.

3- In future research a homogenous group should be used to examine the relationship between congruence and job satisfaction, because this relationship will obviously differ according to the working environment. According to Gottfredson & Holland (1990) research with a heterogeneous sample will obscure the congruence-

satisfaction relationship by including sources of variance in job satisfaction associated with differences in the occupations themselves.

4- The job satisfaction scale used in this study needs to be developed further. It would be interesting to ask specifically what aspects of work are perceived as being more important to employees in Kuwait. Using these data it would be instructive to examine differences in satisfaction levels between those who rate intrinsic aspects of the job higher and those who prefer the extrinsic aspects.

5- The failure to confirm Holland's congruence hypothesis is attributed to the way in which the employment market in Kuwait operates, with jobs not being chosen on the basis of the worker's interests. All the indications are that this situation is changing very rapidly. It would be of major interest, both at an academic level and as an index of this change in society, to replicate the present study, say in five years' time, concentrating on younger workers at the start of their careers. The prediction is that if this new choice situation pertains, then the congruence hypothesis would hold.

6- The success of Holland's model in coping in a very different (Arabic) culture to the one in which it was designed raises the question of whether its generality arises because it is tapping fundamental factors (personality?) or whether the result here is due to an underlying similarity between Kuwaiti and Western culture. It would be intriguing to translate the instrument into other languages -like Chinese -and so test it in a variety of different cultural settings.

The attempt to establish career counselling in Kuwait has a long way to go.

Hopefully, this study will provide a good starting point.

# REFERENCES

ADAMS, J. 1963. Toward an Understanding of Inequity. Journal of Abnormal and Social Psychology, 67, 5, 422-436.

ADAMS, J. 1965. Inequity in Social Exchange. In Berkowitz, L. (Ed.), Advances in Experimental Social Psychology, Volume 2. Academic Press, New York and London.

A LEAD BODY FOR ADVICE, GUIDANCE, AND COUNSELLING, 1993. The Advice, Guidance, and Counselling Lead Body, Hertfordshire.

ALLOWAY, J. 1986. Advice and Guidance to Individuals. Manpower Services Commission, Sheffield.

AMERIKANER, M., ELLIOT, D., & SWANK, P. 1988. Social Interest as a Predictor of Vocational Satisfaction Individual Psychology. The Journal of Adlerian Theory Research and Practice, 44, 3, 316-323.

ANDREWS, H.A. 1975. Beyond the High Point Code in Testing Holland's Theory. Journal of Vocational Behavior, 6, 101-108.

ANNUAL ABSTRACT OF STATISTICS 1992. Central Statistical Office. A Publication of the Goverment Statistical Service. HMSO, London.

ANNUAL STATISTICS1 ABSTRACT 1987. Ministry of Planning Central Statistics Office. State of Kuwait.

ARICI, H. 1972. Laying the Groundwork for Test Application in Less-Developed Countries. In Cronbach, L. & Drenth, P. (Eds.), Mental Tests and Cultural Adaptation. Mouton, Netherlands.

ARVEY, R.D., ABRAHAM, L.M., BOUCHARD, T.J., & SEGAL, N.L. 1989. Job Satisfaction: Environmental and Genetic Components. Journal of Applied Psychology, 74, 2, 187-192.

ATANASOFF, G., & SLANEY, R. 1980. Three Approaches to Counselor-Free Career Exploration Among College Women. Journal of Counselling Psychology, 27, 4, 332-339.

BAKARE, C. 1972. Social-Class Differences in the Performance of Nigerian Children. In Cronbach, L. & Drenth, P. (Eds.), Mental Tests and Culture Adaptation. Mount, Netherlands.

BARRY, R., & WOLF, B. 1962. Epitaph for Vocational Guidance. Columbia University, U.S.A.

BARTLING, H., & HOOD, A. 1981. An 11-year Follow-Up of Measured Interest and Vocational Choice. Journal of Counseling Psychology, 28, 1, 27-35.

BECKER, S. 1977. Personality Correlates of the Discrepancy Between Expressed and Inventoried Interest Scores. Measurement and Evaluation in Guidance, 10, 1, 24-30.

BECKER, H.S., & STRAUSS, A.L. 1956. Careers, Personality and Adult Socialization. American Journal of Sociology, 62, 3, 253-263.

BERDIE, R. 1944. Prediction of College Achievement and Satisfaction. Journal of Applied Psychology, 28, 239-245.

BERRY, J. 1979. Research in Multicultural Societies, Implications of Cross-Cultural Methods. Journal of Cross-Cultural Psychology, 10, 415-434.

BINGHAM, R., & WALSH, W. 1978. Concurrent Validity of Holland's Theory for College-Degreed Black Women. Journal of Vocational Behavior, 13, 242-250.

BIRK, J. 1974a. Interest Inventories: A Mixed Blessing. Vocational Guidance Quarterly, 22, 4, 280-286.

BIRK, J. 1974b. Reducing Sex Bias-Factors Affecting the Client's View of the Use of Career Interest Inventories. National Institute of Education, Washington, D.C.

BLAU, P.M., GUSTAD, J.W., JESSOR, R., PARNESS H.S., & WILCOX, R.S. 1956. Occupational Choice: A Conceptual Framework. Industrial Labor Relations Review, 9, 532-543.

BLOOD, M. 1969. Work Values and Job Satisfaction. Journal of Applied Psychology, 53, 6, 456-459.

BOBELE, R., ALSTON, H., WAKEFIELD, JR.J., & DOUGHTIE, E. 1976. A Comparison of Holland's Model Using Constructs Measured by Two Different Methods. Journal of Vocational Behavior, 9, 245-250.

BOND, S., BORDIERI, J., & MUSGRAVE, J. 1989. Tested Versus Self-Estemated Aptitudes and Interests of Vocational Evaluation Clients. Vocational Evaluation and Work Adjustment Bulletin, 22, 3, 105-108.

BORDIN, E.S., NACHMAN, B., & SEGAL, J.S. 1963. An Articulate Framework for Vocational Development. Journal of Counseling Psychology, 10, 2, 107-116.

BORGEN, F.H. 1986. New Approaches to the Assessment of Interests. In Walsh, W. & Osipow, S. (Eds.), Advances in Vocational Psychology, Volume I: The Assessment of Interests. Lawrence Erlbaum Associates, London.

BORGEN, F., & SELING, M. 1978. Expressed and Inventoried Interests Revisited: Perspicacity in the Person. Journal of Counseling Psychology, 25, 536-543.

BOYD, V.S. 1978. Neutralizing Sexist Titles in Holland's Self-Directed Search: What Difference Does it Make? In Tittle, C.K., & Zytowski, D.G. (Eds.), Sex-Fair Interest Measurement: Research and Implications (Pp. 21-25). National Institute of Education, Washington, D.C.

BRAYFIELD, A., & CROCKETT, W. 1955. Employee Attitudes and Employee Performance. Psychological Bulletin, 52, 5, 364-424.

BRIEF, A.P., & ALDAG, R.J. 1975. Employee Reactions to Job Characteristics: A Constructive Replication. Journal of Applied Psychology, 60, 2, 182-186.

BRILL, A.A. 1949. Basic Principles of Psychoanalysis. Garden City, New York: Doubleday.

BRIM, O.G. 1966. Socialization Through the Life-Cycle. In Brim, O.G., & Wheeler, S. (Eds.), Socialization After Childhood. John Wiley & Sons, New York.

CAMPBELL, D.T., & FISKE, D.W. 1959. Convergent and Discriminant Validity by the Multitrait-Multimethod Matrix. Psychological Bulletin, 56, 2, 81-105.

CAPLOW, T. 1954. The Sociology of Work. University of Minnesota Press, Minneapolis.

CENTERS, R., & BUGENTAL, D.E. 1966. Intrinsic and Extrinsic Job Motivations Among Different Segments of the Working Population. Journal of Applied Psychology, 50, 3, 193-197.

CHABASSUS, H., & ZYTOWSKI, D. 1987. Occupational Outlook in the 15th Century: Sanchez de Arevalo's, Mirror of Human Life. Journal of Counseling and Development, 66, 4, 168-170.

CHO, S. 1972. Procedure for Group Test Administration in Developing Countries. In Cronbach, L., & Drenth, P. (Eds.), Mental Tests and Cultural Adaptation. Mouton, Netherlands.

THE CIVIL SERVICE LAW 1979. The Kuwait University Press.

COLE, N.S. 1973. On Measuring the Vocational Interests of Women. Journal of Counseling Psychology, 20, 105-112.

COLE, N., & HANSON, G. 1971. An Analysis of the Structure of Vocational Interests. Journal of Counseling Psychology, 18, 5, 478-486.

COLE, N., WHITNEY, D., & HOLLAND, J. 1971. A Spatial Configuration of Occupations. Journal of Vocational Behavior, 1, 1-9.

CONNOLLY, T.G. 1968. Interests and Occupations. The Careers Research and Advisory Centre, Cambridge.

CRONBACH, L., & DRENTH, P. 1972. Summary and Commentary. In Cronbach, L., & Drenth, P. (Eds.), Mental Tests and Culture Adaptation. Mouton, Netherlands.

CROSBY, F. 1982. Relative Deprivation and Working Women. Oxford University Press, Oxford.

CROSS, D. 1973. The Worker Opinion Survey: A Measure of Shop-Floor Satisfaction. Occupational Psychology, 47, 193-208.

CROWLEY, A. 1979. Work Environment Preference and Self-Concepts: An Investigation of Holland's Theory. British Journal of Guidance and Counselling, 7, 1, 57-63.

CROWLEY, T. 1990. The Occupational Interests Surveyor. The Manual. Hobsons, Cambridge.

CUNNINGHAM, C., ALSTON, H., DOUGHTIE, E., & WAKEFIELD, JR.J. 1977. Use of Holland's Vocational Theory with Potential High School Dropouts. Journal of Vocational Behavior, 10, 35-38.

DARLEY, J., & HAGENAH, T. 1955. Vocational Interest Measurement. University of Minnesota Press, Minneapolis.

DAVIES, D.R., & SHACKLETON, V.J. 1982. Psychology and Work. Methuen, London.

DE KOHAN, N. 1972. Test Construction and Standardization in Different Culture Settings. In Cronbach, L., & Drenth, P. (Eds.), Mental Tests and Cultural Adaptation. Mouton, Netherlands.

DE VOGE, S. 1975. Personality Variables, Academic Major, and Vocational Choice: A Longitudinal Study of Holland's Theory. Psychological Reports, 37, 1191-1195.

DIAZ-GUERRERO, R.A. 1977. Mexican Psychology. American Psychologist, 32, 11, 934-944.

DIPBOYE, R.L., ZULTOWSKI, W.H., DEWHIRST, D., & ARVEY, R.D. 1978. Self-Esteem as a Moderator of the Relationship between Scientific Interests and the Job Satisfaction of Physicists and Engineers. Journal of Applied Psychology, 63, 289-294.

DOLLIVER, R.H. 1969. The Strong Vocational Interest Blank Versus Expressed Vocational Interests: A Review. Psychological Bulletin, 72, 95-107.

DOLLIVER, R.H., IRVIN, J.A., & BIGBY, S.S. 1972. Twelve-Years Follow-Up of the Strong Vocational Interest Blank. Journal of Counseling Psychology, 19, 212-217.

DOLLIVER, R., & WILL, J. 1977. Ten-Years Follow-Up of the Tylor Vocational Card Sort and the Strong Vocational Interest Blank. Journal of Counseling Psychology, 24, 1, 48-54.

DONALD, M., & HAVIGHUGST, R. 1959. The Meanings of Leisure. Social Forces, 37, 4, 353-360.

DRAGUNS, J. 1979. Culture and Personality. In Marsella, A., Tharp, R., & Ciborowski, T. (Eds.), Perspectives on Cross-Cultural Psychology. Academic Press, London.

DRASGOW, J. 1957. Occupational Choice and Freud's Principle of Overdetermination. Vocational Guidance Quarterly, 6, 67-68.

DRENTH, P. 1972. Implications of Testing for Individual and Society. In Cronbach, L., & Drenth, P. (Eds.), Mental Tests and Culture Adaptation. Mount, Netherlands.

DUKE, K.M. 1989. A Research Model for Relating Job Characteristics to Job Satisfaction of University Foodservice Employees. Journal of The American Dietetic Association, 89, 8, 1087-1091.

DUNHAM, R., & SMITH, F. 1979. Organizational Surveys: An International Assessment of Organizational Health. Glenview, Lllinois, Scott Foresman & Company, London.

EBERHARDT, B., & MUCHINSKY, P. 1984. Structural Validation of Holland's Hexagonal Model: Vocational Classification Through the Use of Biodata. Journal of Applied Psychology, 69, 1, 174-181.

ECKENBERGER, L. 1972. The Necessity of a Theory for Applied Crosscultural Research. In Cronbach, L., & Drenth, P. (Eds.), Mental Tests and Cultural Adaptation. Mouton, Netherlands.

EDWARD, K., & WHITNEY, D. 1972. Structural Analysis of Holland's Personality Types Using Factor and Configural Analysis. Journal of Counselling Psychology, 19, 2, 136-145.

EJIOGU, A.M. 1980. Theories of Job Satisfaction and Job Performance: An Overview and Critique. The University of Hull Department of Adult Education. Newland Papers, No. 2, Hull.

ELIZUR, D., & TZINER, A. 1977. Vocational Needs, Job Rewards, and Satisfaction: A Canonical Analysis. Journal of Vocational Behavior, 10, 205-211.

ELTON, C.F., & SMART, J.C. 1988. Extrinsic Job Satisfaction and Person-Environment Congruence. Journal of Vocational Behavior, 32, 2, 226-238.

FATOUROS, M. 1972. The Influence of Maturation and Education on the Development of Mental Abilities. In Cronbach, L., & Drenth, P. (Eds.), Mental Tests and Culture Adaptation. Mount, Netherlands.

FISHBURNE, F., & WALSH, W. 1976. Concurrent Validity of Holland's Theory for Non-College Degreed Workers. Journal of Vocational Behavior, 8, 77-84.

FITZSIMMONS, G., & MELNYCHUK, D. 1979. The Concurrent Validity of the Canadian Occupational Interest Inventory and the Self Directed Search. Canadian Counsellor, 13, 4, 219-224.

FLIER, H. 1972. Evaluating Environmental Influences on Test Scores. In Cronbach, L., & Drenth, P. (Eds.), Mental Tests and Cultural Adaptation. Mouton, Netherlands.

FORER, B. 1953. Personality Factors in Occupational Choice. Educational and Psychological Measurement, 13, 361-366.

FOUAD, N., & HANSEN, J. 1987. Cross-Cultural Predictive Accuracy of the Strong-Campbell Interest Inventory. Measurement and Evaluation in Counseling and Development, 20, 1, 3-10.

FOUAD, N., HANSEN, J., & ARIAS, F. 1986. Multiple Discriminant Analyses of Cross-Cultural Similarity of Vocational Interests of lawyers and Engineers. Journal of Vocational Behavior, 28, 85-96.

FOUAD, N., HANSEN, J., & GALICIA, F. 1989. Cross Cultural Similarity of Vocational Interest of Professional Engineers. Journal of Vocational Behavior, 34, 1, 88-99.

FRENCH, J.Jr., ROBGERS, W., & COBB, S. 1974. Adjustment as Person-Environment Fit. In Coelbo, G., Hamburg, D., & Adams, J. (Eds.), Coping and Adaptation. Basic Books, New York.

FRICKO, M.A., & BEEHR, T.A. 1992. A Longitudinal Investigative of Interest Congruence and Gender Concentration as Predictors of job Satisfaction. Personnel Psychology, 45, 1, 99-117.

FRIJDA, N., & JAHODA, G. 1966. On the Scope and Methods of Cross-Cultural Research. International Journal of Psychology, 1, 109-127.

FURNHAM, A. 1990. The Protestant Work Ethnic. Routledge, London.

GAFFEY, R., & WALSH, W. 1974. Concurrent Validity and Holland's Theory. Journal of Vocational Behavior, 5, 41-51.

GALASSI, M., JONES, L., & BRITT, M. 1985. Non-Traditional Career Options for Women: An Evaluation of Career Guidance Instruments. Vocational Guidance Quarterly, 34, 2, 124-130.

GALINSKY, M.D., & FAST, I. 1966. Vocational Choice as a Focus of the Identity Search. Journal of Counseling Psychology, 13, 1, 89-92.

GATI, I. 1979. A Hierarchical Model for the Structure of Vocational Interests. Journal of Vocational Behavior, 15, 90-106.

GATI, I., & MEIR, E.I. 1982. Congruence and Consistency Derived from the Circular and the Hierarchical Models as Predictors of Occupational Choice Satisfaction. Journal of Vocational Behavior, 20, 3, 354-365.

GELLATLY, I., PAUNONEN, S., MEYER, J., JACKSON, D., & GOFFIN, R. 1991. Personality, Vocational interest, and Cognitive Predictors of Managerial Job Performance and Satisfaction. Personality and Individual Differences, 12, 3, 221-231.

GINZBERG, E., GINZBURG, S.W., AXELRAD, S., & HERMA, J.L. 1951. Occupational choice: An Approach to a General Theory. Columbia University Press, New York.

GINZBERG, E. 1972. Toward a Theory of Occupational Choice: A Restatement. Vocational Guidance Quarterly, 20, 169-176.

GITMEZ, A. 1972. Instructions as Determinants of Performance: The Effect of Information about the Task. In Cronbach, L., & Drenth, P. (Eds.), Mental Tests and Cultural Adaptation. Mouton, Netherlands.

GOLDEN, C.J., SAWICKI, R.F., & FRANZEN, M.D. 1990. Test construction. In Goldstein, G., & Hersen, M. (Eds.), Handbook of Psychological Assessment (2nd Ed.). Pergamon press, New York.

GORDON, R.A., & RUDERT, E.E. 1979. Bad News Concerning I.Q. Tests. Sociology of Education, 52, 174-190.

GOTHARD, W.P. 1985. Vocational Guidance, Theory and Practice. Croom Helm, London.

GOTTFREDSON, G.D., & HOLLAND, J. 1989. Dictionary of Holland Occupational Codes, 2nd Edition. PAR, Psychology Assessment Resources, Florida.

GOTTFREDSON, G.D., & HOLLAND, J.L. 1990. A Longitudinal Test of the Influence of Congruence: Job Satisfaction, Competency Utilization, and Counterproductive Behavior. Journal of Counseling Psychology, 37, 4, 389-398.

GOTTFREDSON, L. 1980. Construct Validity of Holland's Occupational Typology in Terms of Prestige, Census, Department of Labor, and Other Classification Systems. Journal of Applied Psychology, 65, 6, 697-714.

GOTTFREDSON, L. 1981. Circumscription and Compromise: A Developmental Theory of Occupational Aspirations. Journal of Counseling Psychology Monograph, 28, 6, 545-579.

GOTTFREDSON, L. 1986. Special Groups and the Beneficial Use of Vocational Interest Inventories. In Walsh, W., & Osipow, S. (Eds.), Advances in Vocational Psychology, Volume I: The Assessment of Interests. Lawrence Erlbaum Associates, London.

GROTEVANT, H., SCARR, S., & WEINBERG, R. 1977. Patterns of Interest Similarity in Adoptive and Biological Families. Journal of Personality and Social Psychology, 35, 667-676.

HACKMAN, J.R., & LAWLER III, E.E. 1971. Employee Reaction to Job Characteristics. Journal of Applied Psychology Monograph, 55, 3, 259-286.

HALL, R. 1986. Dimensions of Work. Sage, New York.

HANSEN, J. 1984. Interest Inventories. In Goldstein, G., & Hersen, M. (2Ed.), Handbook of Psychological Assessment. Pergamon Press, New York.

HANSEN, J. 1986. Strong Vocational Interest Blank/ Strong-Campbell Interest Inventory. In Walsh, W.& Osipow, S. (Eds.), Advances in Vocational Psychology. Volume I: The Assessment on Interests. Lawrence Erlbaum Associates, London.

HANSEN, J. 1987. Cross-Cultural Research on Vocational Interests. Measurement and Evaluation Counseling and Development, 19, 4, 163-176.

HAYES, J., HOPSON, B., & DAWS, P. 1972. Career Guidance: The Role of School in Vocational Development. Heinemann Educational Books, Oxford.

HEALY, C., & MOURTON, D. 1984. The Effects of an Abbreviated Self-Directed Search on the Career Decision Competencies of Community College Students. The Vocational Guidance Quarterly, 33, 1, 55-62.

HENER, T., & MEIR, E. 1981. Congruency, Consistency, and Differentiation as Predictors of Job Satisfaction within the Nursing Occupation. Journal of Vocational Behaviour, 18, 304-309.

HENRY, P., & BARDO, H. 1987. Expressed Occupational Choice of Nontraditional Premedical Students as Measured by the Self-Directed Search: An Investigation of Holland's Theory. Psychological Reports, 60, 575-581.

HENRY, P., BARDO, H., & BRYSON, S. 1988. The Impact of Race and General on Holland's Self-Directed Search for Nontraditional Premedical Students. College-Student Journal, 22, 2, 206-212.

HERZBERG, F., MAUSNER, B., PETERSON, R., & CAPWELL, D. 1957. Job Attitudes: Review of Research and Opinion. Psychological Service of Pittsburgh. Pittsburgh, Pennsylvania.

HERZBERG, F., MAUSNER, B., & SNYDERMAN, B. 1959. The Motivation of Work. John Wiley & sons, New York:.

HESKETH, B., & DAWIS, R. 1991. The Minnesota Theory of Work Adjustment: A Conceptual Framework. In Hesketh, B., & Adams, A. (Eds.), Psychological Perspectives on Occupational Health and Rehabilitation. The Psychlogical Corporation, Harcourt Brace Jovanovich, Australia.

HODSON, R. 1989. Gender Differences in Job Satisfaction: Why aren't Women more Dissatisfied? The Sociology Quarterly, 30, 3, 385-399.

HOLCOMB, W., & ANDERSON, W. 1978. Expressed and Inventoried Vocational Interests as Predictors of College Graduation and Vocational Choice. Journal of Vocational Behavior, 12, 290-296.

HOLLAND, J. 1959. A Theory of Vocational Choice. Journal of Counseling Psychology, 6, 1, 35-45.

HOLLAND, J. 1968. Explorations of a Theory of Vocational Choice. Journal of Applied Psychology Monograph Supplement, 52, 1, 1-37.

HOLLAND, J. 1973. Making Vocational Choices: A Theory of Careers. Englewood Cliffs, Prentice-Hall, New Jersey.

HOLLAND, J. 1979. The Self-Directed Search: Professional Manual. Palo Alto, CA: Counselling Psychologists.

HOLLAND, J. 1980. The Influence of Vocational Interest Inventories: Some Implications for Psychological Testing. The Counseling Psychologist, 9, 1, 83-86.

HOLLAND, J. 1985a. Making Vocational Choice: A Theory of Vocational Personalities and Work Environments. Eglewood Cliffs, Prentice-Hall, New Jersy.

HOLLAND, J. 1985b. The Occupational Finder. Psychological Assessment Resources, Florida.

HOLLAND, J. 1985c The Self-Directed Search. Professional Manual- 1985 Edition. Psychological Assessement Resources, Florida.

HOLLAND, J., & GOTTFREDSON, G.D. 1975. Predictive Value and Psychological Meaning of Vocational Aspirations. Journal of Vocational Behavior, 6, 349-363.

HOLLAND, J. & GOTTFREDSON, G.D. 1976. Using a Typology of Persons and Environments to Explain Careers: Some Extensions and Clarifications. Counseling Psychologist, 6, 3, 20-29.

HOLLAND, J., & LUTZ, S. 1968. The Predictive Value of a Student's Choice of Occupation. Personnel and Guidance Journal, 46, 428-436.

HOLLAND, J., & NAFZIGER, D. 1975. A Note on the Validity of the Self-Directed Search. Measurement and Evaluation in Guidance, 7, 4, 259-262.

HOLLAND, J., & RAYMAN, J. 1986. The Self-Directed Search. In Walsh, W., & Osipow, S. (Eds.), Advances in Vocatioanl Psychology, Volume I: The Assessment of Interests. Lawrence Erlbaum Associates, London.

HOLLAND, J., SORENSEN, A., CLARK, J., NAFZIGER, D., & BLUM, Z. 1973. Applying an Occupational Classification to a Representative Sample of Work Histories. Journal of Applied Psychology, 58, 1, 34-41.

HOLLAND, J., TAKAI, G., GOTTFREDSON G., & HANAU, C. 1978. A Multivariate Analysis of the Effects of the Self-Directed Search on High School Girls. Journal of Counselling Psychology, 25, 5, 384-389.

HOLLAND, J., VIERNSTEIN, M., KUO, H., KARWEIT, N., & Blum, Z. 1972. A Psychological Classification of Occupations. Abstracted in JSAS Catalogue of Selected Documents in Psychology, 2, 84. The Center for Social Organisation of Schools. The Johns Hopkins University, U.S.A.

HOLLAND, J.L., & WHITNEY, D.R. 1968. Changes in the Vocational Plays of College Students: Orderly or Random? ACT Research Report No. 25. American College Testing Program, Iowa.

HOPPOCK, R. 1935. Job Satisfaction. Harper, New York.

HOPPOCK, R. 1957. Occupational Information. McGraw-Hill, New York.

HOPSON, B. 1985. Counselling in Work Settings. In Warr, P. (Ed.), Psychology at Work. Penguin Books, Harmondsworth.

HORTON, J., & WALSH, W. 1976. Concurrent Validity of Holland's Theory for College Degreed Working Women. Journal of Vocational Behavior, 9, 201-208.

HULIN, C. 1966. Job Satisfaction and Turnover in a Female Clerical Population. Journal of Applied Psychology, 50, 280-285.

HULIN, C.1968. Effects of Changes in Job-Satisfaction Levels on Employee Turnover. Journal of Applied Psychology, 52, 122-126.

HULIN, C., & SMITH, P. 1965. A Linear Model of Job Satisfaction. _Journal of Applied Psychology_, 49, 3, 209-216.

HURT, D., & HOLEN, M. 1976. Work Values in Vocational Interest Exploration. _Journal of Vocational Behavior_, 8, 89-93.

HUTH, C.M. 1973. Measuring Women's Interests: How Useful? _Personnel and Guidance Journal_, 51, 8, 539-545.

IANCHAN, R. 1984. A Measure of Agreement for Use with the Holland Classification System. _Journal of Vocational Behaviour_, 24, 133-141.

IRVINE, S., & SANDERS, J. 1972. Logic, Language and Method in Construct Identification Across Cultures. In Cronbach, L., & Drenth, P. (Eds.), _Mental Tests and Cultural Adaptation_. Mouton, Netherlands.

JAHODA, M. 1982. _Employment and Unemployment: A Social-Psychological Analysis_. Cambridge University Press, Cambridge.

KANTER, R.M. 1977. _Men and Women of the Corporation_. Basic Books, New York.

KARAYANNI, M. 1987. The Impact of Cultural Background on Vocational Interest. _Career Development Quarterly_, 36, 1, 83-90.

KATES, S. 1950. Rorschach Responses, Strong Blank Scales, and Job Satisfaction Among Policemen. _Journal of Applied Psychology_, 34, 249-254.

KATZ, M.R. 1987. Theory and Practice: The Rational of a Career Guidance Workbook. _The Career Development Quarterly_, 36, 1, 31-44.

KATZELL, B. 1964. Personal Value, Job Satisfaction, and Job Behavior. In Borow, H. (Ed.), _Man in a World at Work_. Houghton Mifflin, Boston.

KHAN, S.R., ALVI, S.R., SHAUKAT, N., HUSSAIN, A., & BAIG, T. 1990. A Study of the Validity of Holland's Theory in a Non-Western Culture. _Journal of Vocational Behavior_, 36, 132-146.

KHOUJA, M.W. & SADLER, P.G. 1979. _The Economy of Kuwait. Development and Role in International Finance_, Macmillan, London.

KIDD, J. 1981. Self and Occupational Awareness as Influences on the Career Development of Young People. In Watts, A., Super, D., & Kidd, J. (Eds.), Career Development in Britain. CRAC, Cambridge.

KING, N. 1970. Clarification and Evaluation of the Two-Factor Theory of Job Satisfaction. Psychological Bulletin, 74, 18-31.

KLEIN, K.L., & WIENER, Y. 1977. Interest Congruency as a Moderator of the Relationships between Job Tender and Job Satisfaction and Mental Health. Journal of Vocational Behavior, 10, 92-98.

KLINE, P. 1976. Psychological Testing: The Measurement of Intelligence, Ability, and Personality. Malaby Press, London.

KLINE, P. 1988. Cross-Cultural Personality Measurement. In Verma, G., & Bagley, C. (Eds.), Cross-Cultural Studies of Personality, Attitudes and Cognition. Macmillan, London.

KRIVATSY, S., & MAGGON, T. 1976. Differential Effects of Three Vocational Counselling Treatments. Journal of Counselling Psychology, 23, 2, 112-118.

LABOUR FORCE SURVER 1990-1991. Office of population Censuses and Surveys, HMSO, London.

LAING, J., SWANEY, K., & PREDIGER, D. 1984. Integrating Vocational Interest Inventory Results and Expressed Choices. Journal of Vocational Behavior, 25, 304-315.

LAWLER, E.E. III 1973. Motivation in Work Organizations. Brooks/Cole, California.

LOCKE, E.A. 1969. What is Job Satisfaction? Organizational Behavior and Human Performance, 4, 309-336.

LOCKE, E.A. 1976. The Nature and Causes of Job Satisfaction. In Durincetti, M.D.(Ed.), Handbook of Industrial and organizational Psychology. Rand McNally, Chicago.

LOCKE, E. 1984. Job Satisfaction. In Cruneberg, M., & Wall, T. (Ed), Soical Psychology and Organizational Behaviour. John Wiley & Sons, New York.

LOCKE, W., & BOOTH, A. 1955. Machine Translation of Languages. John Wiley & Sons, New York.

LONDON, M., CRANDALL, R . & SEALS, G. 1977. The Contribution of Job and Leisure Satisfaction to Quality of Life. Journal of Applied Psychology, 63, 3, 328-334.

LONNER, W. 1979. Issues in Cross-Cultural Psychology. In Marsella, A., Thrap, R., & Cibonowski, T. (Eds.), Perspective on Cross-Cultural Psychology. Academic Press, London.

LONNER, W., & ADAMS, H. 1972. Interest Patterns of Psychologists in Nine Western Nations. Journal of Applied Psychology, 56, 2, 146-151.

LUCAS, G.JR., BABAKUS, E., & INGRAM, T. 1990. An Empirical Test of the Job Satisfaction-Turnover Relationship: Assessing the Role of Job Performance for Retail Managers. Journal of the Academy of Marketing Science, 18, 3, 199-208.

LUNNEBORG, P.W. 1981. The Vocational Interest Manual. Western Psychological Services, Los Angeles.

LUTHANS, F., & THOMAS, L.T. 1989. The Relationship between Age and Job Satisfaction: Curvilinear Results from an Empirical Study: A Research Note. Personnel Review, 18, 1, 23-26.

McARTHUR, C., & STEVENS, L. 1955. The Validity of Expressed Interests as Compared with Inventoried Interests: A Fourteen Years Follow-Up. Journal of Applied Psychology, 39, 3, 184-189.

McELWAIN, D. 1972. Remarks on Testing in the Pacific. In Cronbach, L., & Drenth, P. (Eds.), Mental Tests and Culture Adaptation. Mount, Netherlands.

McGOWAN, A. 1977. Vocational Maturity and Anxiety among Vocationally Undecided and Indecisive Students. Journal of Vocational Behavior, 10, 196-204.

MARLAND, S. P. JR. 1974. Career Education: A Proposal for Reform. McGraw-Hill. New York.

MASLOW, A.H. 1943. A Theory of Human Motivation. Psychological Review, 50, 370-396.

MATTHEWS, D., & WALSH, W. 1978. Concurrent Validity of Holland's Theory for Non-College Degreed Working Women. Journal of Vocational Behavior, 12, 371-379.

MCB UNIVERSITY PRESS 1984. Survey Item Bank: Volume I Measures of Satisfaction. Quality of Working Life: Journal, 1, 2. British Telecome in Association with MCB University Press.

MEIR, E.I., & MELAMED, S. 1986. The Accumulation of Person-Environment Congrurnces and Well-being. Journal of Occupational Behavior, 7, 4, 315-323.

MEIR, E., SOHLBERG, S., & BARAK, A. 1973. A Cross-Cultural Comparison of the Structure of Vocational Interests. Journal of Cross-Cultural Psychology, 4, 4, 501-508.

MELAMED, S., & MEIR, E.I. 1981. The Relationship between Interests- Job Incongruity and Selection of Avocational Activity. Journal of Vocational Behavior, 18, 310-325.

MERNISSI, F. 1976. The Moslem World: Women Excluded from Development. In Tinker, I., Bramsen, M., & Buvinic, M. (Eds.), Women and World Develompent. Praeger, New York.

MILLER, S.JR. 1962. Relationship of Personality to Occupation, Setting, and Function. Journal of Counselling Psychology, 9, 2, 115-121.

Miller, M. 1993. Psychometric Associations: Links between Personality and Interests. The British Psychological Society, 9, 4, 5-7.

MITCHELL, L., & KRUMBOLTZ, J. 1984. Research on Human Decision Making: Implications for Career Decision Making and Counselling. In Brown, S.D., & Lent, R.W. (Eds.), Handbook of Counselling Psychology. John Wiley & Sons, New York.

MITCHELL, T.R. 1974. Expectancy Models of Job Satisfaction, Occupational Performance and Effort: A Theoretical, Methodological, and Empirical Appraisal. Psychological Bulletin, 81, 1096-1112.

MOBLEY, W.H., & LOCKE, E.A. 1970. The Relationship of Values Importance to Satisfaction. Organizational Behavior and Human Performance, 5, 463-483.

MOLONEY, D.P., BOUCHARD, JR.T., & SEGAL, N.L. 1991. A genetic and Environmental Analysis of the Vocational interests of Monozygotic and Dizygotic Twins Reared Apart. Journal of Vocational Behavior, 39, 76-109.

MORACCO, J.C. 1976. Vocational Maturity of Arab and American High School Students. Journal of Vocational Behavior, 8, 367-373.

MORACCO, J.C. 1978. Implementing Self-Concept in Vocational Choice in the Arab Middle East. Journal of Vocational Behavior, 13, 204-209.

MORROW, J. 1971. A Test of Holland's Theory of Vocational Choice. Journal of Counseling Psychology, 18, 5, 422-425.

MORSE, N., & WEISS, R. 1955. The Function and Meaning of Work and the Job. American Sociological Review, 20, 2, 191-198.

MOUNT, M.K., & MUCHINSKY, P.M. 1978a. Concurrent Validity of Holland's Hexagonal Model with Occupational Workers. Journal of Vocational Behavior, 13, 348-354.

MOUNT, M.K., & MUCHINSKY, P.M. 1978b. Person-Environment Congruences and Employee Job Satisfaction: A Test of Holland's Theory. Journal of Vocational Behavior, 13, 84-100.

MOW INTERNATIONAL RESEARCH TEAM 1987. The Meaning of Working. Academic Press, London.

MUNLEY, P.H., FRETZ, B.R., & MILLS, D.H. 1973. Female College student's Scores on the Men's and Women's Strong Vocational Interest Blanks. Journal of Counseling Psychology, 20, 3, 285-289.

MURRAY, H.A. 1938. Explorations in Personality. Oxford University Press, Oxford.

NAFZIGER, D., HOLLAND, J. & GOTTFREDSON, G. 1975. Student-College as a Predictor of Satisfaction. Journal of Counseling Psychology, 22, 2, 132-139.

NELSON, A.G. 1971. Discrepancy between Expressed and Inventoried Vocational Interests. Vocational Guidance Quarterly, 20, 21-24.

O'BRIEN, W., & WALSH, W. 1976. Concurrent Validity of Holland's Theory for Non-College Degreed Black Working Men. Journal of Vocational Behavior, 8, 239-246.

O'NEIL, J., & MAGOON, T. 1977. The Predictive Power of Holland's Investigative Personality Type and Consistency Levels Using the Self Directed Search. Journal of Vocational Behavior, 10, 39-46.

O'REILLY, C. III 1977. Personality-Job Fit: Implications for Individual Attitudes and Performance. Organizational Behavior And Human Performance, 18, 36-46.

ORTAR, G. 1972. Some Principles for Adaptation of Psychological Tests. In Cronbach, L., & Drenth, P. (Eds.), Mental Tests and Cultural Adaptation. Mouton, Netherlands.

OSIPOW, S. 1973. Theories of Career Development. Appleton-Century-Crofts, New York.

PARSONS, F. 1909. Choosing a Vocation. Houghton Mifflin, Boston.

PAYNE, M., & SABAROCHE, H. 1985. Personality Type and Occupational Preference: Testing Holland's Theory in the Caribbean. International Journal for the Advancement of Counselling, 8, 147-156.

PEDERSEN, P. 1979. Non-Western Psychology: The Search for Alternatives. In Marsella, A., Tharp, R. & Ciborowski, T. (Eds.), Perspectives on Cross-Cultural Psychology. Academic Press, London.

PEISER, C., & MEIR E. 1978. Congruence, Consistency, and Differentiation of Vocational Interests as Predictions of Vocational Satisfaction and Performance Stability. Journal of Vocational Behavior, 12, 270-278.

PLAMORE, E.B. 1969. Physical, Mental and Social Factors in Predicting Longevity. The Gerontologist, 9, 103-108.

POORTINGA, Y. 1975. Some Implications of Three Different Approaches to Intercultural Comparison. In Berry, J., & Lonner, W. (Eds.), Applied Cross-Cultural Psychology. Swets & Zeitlinger, Amsterdam.

PORTER, L., & STEERS, R. 1973. Organizational, Work, and Personal Factors in Employee Turnover and Absenteeism. Psychological Bulletin, 80, 2, 151-176.

PREDIGER, D. 1982. Dimension Underlying Holland's Hexagon: Missing Link between Interests and Occupations? Journal of Vocational Behavior, 21, 259-287.

PREDIGER, D., & HANSON, G. 1976. Holland's Theory of Careers Applied to Women and Men: Analysis of Implicit Assumptions. Journal of Vocational Behavior, 8, 167-184.

PRYOR, R. 1991. Assessing People's Interests, Values and other Preferences. In Hesketh, B., & Adams, A. (Eds.), Psychological Perspectives on Occupational Health and Rehabilitation. The Psychological Corporation Harcourt Brace Jovanovich, Australia.

RACHMAN, D., AMERNIC, J., & ARANYA, N. 1981. A Factor-Analytic Study of the Construct Validity of Holland's Self-Directed Search. Educational and Psychological Measurement, 41, 425-437.

REUBENS, B. 1977. Bridges to Work. Martin Robertson, London.

RIMLAND, B. 1972. A Search for Test of Practical Intelligence. In Cronbach, L., & Drenth, P. (Eds.), Mental Tests and Cultural Adaptation. Mouton, Netherlands.

ROBERT, P.O. 1979. The Interaction of Vocational Counseling with the Economic System. In Weinrach, S. (Ed.), Career Counseling: Theoretical and Practical Perspectives. McGraw-Hill, London.

ROBERTS, K. 1968. The Entry into Employment: An Approach Towards a General Theory. Sociological Review, 16, 165-184.

ROBERTS, K. 1981. The Sociology of Work Entry and Occupational Choice. In Watts, A., Super, D., & Kidd, J. (Eds.), Career Development in Britain. CRAC, Cambridge.

RODGER, A. & CAVANAGH, P. 1962. Personnel Selection and Vocational Guidance in Society. In Welford, A.T. (Ed.), Problem and Method of Study. Routledge & Kegan Paul, London.

ROE, A. 1956. The Psychology of Occupations. John Wiley & Sons, New York.

ROE, A. 1957. Early Determinants of Vocational Choice. Journal of Counseling Psychology, 4, 3, 212-217.

RUSSELL, J., DEXTER, G., BOND, T. (1992). Differentiation between Advice, Guidance, Befriending, Counselling Skills and Counselling. The Advice, Guidance, and Counselling Lead Body, Hertfordshire.

SAAL, F., & KNIGHT, P. 1988. Industrial/ Organizational Psychology, Science and Practice. Brooks/Cole, California.

SALANCIK, G., & PFEFFER, J. 1977. An Examination of Need Satisfaction Models of Job Satisfaction. Administrative Science Quarterly, 22, 427-456.

SALES, L., & STRAUSS, G. 1966. Human Behaviour in Organization. Prentice-Hall, London.

SALOMONE, P., & SLANEY, R. 1978. The Applicability of Holland's Theory to Nonprofessional Workers. Journal of Vocational Behavior, 13, 63-74.

SARBIN, T.R., & ANDERSON, H.C. 1942. A Preliminary Study of the Relation of Measurement Interest Patterns and Occupational Dissatisfaction. Educational Psychology Measurement, 2, 23-36.

SCHAFFER, R.H. 1953. Job Satisfaction as Related to Need Satisfaction in Work. Psychological Monographs, Whole No. 364, 1-19.

SCHARF, R. 1970. Relative Importance of Interest and Ability in Vocational Decision-Making. Journal of Counseling Psychology, 17, 258-262.

SCHLETZER, V.M. 1966. SVIB as a Predictor of Job Satisfaction. Journal of Applied Psychology, 50, 1, 5-8.

SCHLOSSBERG, N. K. 1977. The Case for Counselling adults. In Schlossberg, N. K. & Entire, A. D. (Eds.), Counselling Adults. Brooks/Cole, PP.77-86, California.

SCHLOSSBERG, N. K., & GOODMAN, J. 1972. Imperative for Change: Counselor Use of the Strong Vocational Interest Blanks. Impact, 2, 25-29.

SCHMITT, N., & WHITE, K. 1978. Relationships between Job Motivation Variables and Interest Measures. Journal of Vocational Behavior, 12, 333-341.

SEARS, R. 1961. Transcultural Variables and Conceptual Equivalence. In Kaphan, B. (Ed.), Studying Personality Cross-Culturally. Row, Peterson and Company, New York.

SELIGMAN, L. 1980. Assessment in Developmental Career Counseling. Carroll Press, Cranston.

SEMIN, R. 1972. Why Certain Tasks from Mental Tests Must be Adapted whereas Operational Tasks Need not. In Cronbach, L., & Drenth, P. (Eds.), Mental Tests and Culture Adaptation. Mouton, Netherlands.

SEWELL, W.H., & HAUSER, R.M. 1975. Educational, Occupational and Earnings. Academic Press, New York.

SLOVIC, P., FISCHHOFF, B., & LICHTENSTEIN, S. 1977. Behavioral Decision Theory. Annual Review of Psychology, 28, 1-39.

SMALER, J. 1953. Toward a Theoretical Base for Vocational Counselling. Personnel and Guidance Journal, 32, 34-35.

SMALL, L. 1953. Personality Determinants of Vocational Choice. Psychological Monographs, 67, 1, 1-21.

SMART, J.C., ELTON, C.F., & McLAUGHLIN, G.W. 1986. Person-Environment Congruence and Job Satisfaction. Journal of Vocational Behavior, 29, 2, 216-225.

SMITH, P., KENDALL, L., & HULIN, C. 1969. The Measurement of Satisfaction in Work and Retirement: A Strategy for the Study of Attitudes. Rand McNally & Company, Chicago, Lllinois.

SNYDER, R. 1979. Improving Interest Measurement Through the Use of Expected Theory. Vocational Guidance Quarterly, 28, 2, 160-165.

SPITZER, D., & LEVINSON, E. 1988. A Review of Selected Vocational Interest Inventories for Use by School Psychologists. School Psychology Review, 17, 4, 673-692.

SPOKANE, A.R. 1985. A Review of Research on Person-Environment Congruence in Holland's Theory of Careers. Journal of Vocational Behavior, 26, 306-343.

SPORANE, A., & WALSH, W. 1978. Occupational Level and Holland's Theory for Employed Men and Women. Journal of Vocational Behavior, 12, 145-154.

STEERS, R. & PORTER, L. 1991. Motivation Theory in Perspective. In Steers, R. & Porter, L.(4th Ed.), Motivation and Work Behavior. McGraw-Hill, New York.

STRAUSS, G. 1974. Workers: Attitudes and Adjustments. In Rosow J.M. (Ed.), The Worker and the Job. Englewood Cliffs: Prentice-Hall, 73-98, New Jersey.

STROEBE, M. S. 1972. Cognitive Development of Children. In Cronbach, L., & Drenth, P. (Eds.), Mental Tests and Culture Adaptation. Mount, Netherlands.

STRONG, E.JR. 1943. Vocational Interests of Men and Women. Stanford University Press, Stanford.

STRONG, E.K. JR. 1955. Vocational Interests 18 Years After College. University of Minnesota Press, Minneapolis.

SUPER, D.E. 1951. Vocational Adjustment: Implementing a Self-Concept. Occupations, 30, 88-92.

SUPER, D.E. 1953. A Theory of Vocational Development. American Psychologist, 8, 185-190.

SUPER, D. 1957. The Psychology of Careers. Harper & Brothers, New York.

SUPER, D.E. 1963. Self-Concepts in Vocational Development. In Super, D.E., Starishevsky, R., Matlin, N., & Jordaan, J.P. (Eds.), Career Development. Self-Concept Theory. College Entrance Examination Board, New York.

SUPER, D. 1973. The Work Values Inventory. In Zytowski, D (Ed.), Contemporary Approaches to Interest Measurement. University of Minnesota Press, Minneapolis.

SUPER, D.E 1981. Approaches to Occupational Choice and Career Development. In Watts, A., Super, D., & Kidd, J. (Eds.), Career Development in Britain. CRAC, Cambridge.

SUPER, D., & BOHN, M. 1971. Occupational Psychology. Tavistock, London.

SUPER, D., & CRITES, J. 1962. Appraising Vocational Fitness. Harper & Brothers, New York.

SWANEY, K., & PREDIGER, D.C. 1985. The Relationship between Interest-Occupation Congruence and Job Satisfaction. Journal of Vocational Behavior, 26, 1, 13-24.

TECHNICAL COMMITTEE ON INDUSTRIAL CLASSIFICATION, BUREAU OF THE BUDGET 1942. Standard Industrial Classification Manual. Government Printing Office, Washington.

TERKEL, S. 1975. Working. Penguin, Harmondsworth.

TERMAN. L.M. 1925. Genetic Studies of Geniun. Stanford University Press, Volume I, Stanford.

THOMAS, L.E., MORRILL, W.H., & MILLER, C.D. 1970. Educational Interests and Achievement. Vocational Guidance Quarterly, 18, 199-202.

TITTLE, C., & ZYTOWSKI, D. 1978. Sex Fair Interest Measurement: Research and Implications. Educational National Institute, Pp. 21-25, Washington, D.C.

TOENJES, C., & BORGEN, F. 1974. Validity Generalization of Holland's Hexagonal Model. Measurement and Evaluation in Guidance, 7, 2, 79-85.

TOUCHTON, J., & MAGOON, T. 1977. Occupational Daydream as Predictors of Vocational Plans of College Women. Journal of Vocational Behavior, 10, 2, 156-166.

TURNER A.N., & LAWRENCE, P.R. 1965. Industrial Jobs and the Worker. Harvard University Graduate School of Business Administration, Boston.

TURNER, R., & HORN, J. 1977. Personality, Husband-Wife Similarity, and Holland's Occupational Types. Journal of Vocational Behavior, 10, 111-120.

TYLOR, Sir E. 1958. Primitive Culture. Harper, New York.

U.S. DEPARTMENT OF LABOUR EMPLOYMENT AND TRAINING ADMINISTRATION 1977. Dictionary of Occupational Titles, Fourth Edition. JIST, U.S.A.

VARCA, P., & SHAFFER, G. 1982. Holland's Theory: Stability of Avocational Interests. Journal of Vocational Behavior, 21, 3, 288-298.

VERMA, G.K., & MALLICK, K. 1988. Problems in Cross-Cultural Research. In Verma, G. (Ed.), Attitudes and Cognition. Macmillan, London.

VEROFF, J., DOUVAN , E., & KULKA, R. 1981. The Inner American. Basic, New York.

VROOM, V.H. 1964. Work and Motivation. John Wiley & Sons, New York.

WAHBA, M.A., & BRIDWELL, L.B. 1976. Maslow Reconsidered: A Review of Research on the Need Hierarchy Theory. Organizational Behavior and Human Performance, 15, 212-240.

WALSH, W., HORTON, J., & GAFFEY, R. 1977. Holland's Theory and College Degreed Working Men and Women. Journal of Vocational Behavior, 10, 180-186.

WALSH, W., & LEWIS, R. 1972. Consistent, Inconsistent and Undecided Career Preferences and Personality. Journal of Vocational Behavior, 2, 309-316.

WANOUS, J. 1974. Individual Differences and Reactions to Job Characteristics. *Journal of Applied Psychology*, 59, 5, 616-622.

WARD, C., & WALSh, W. 1981. Concurrent Validity of Holland's Theory for Non-College- Degreed Black Women. *Journal of Vocational Behavior*, 18, 356-361.

WARR, P 1983. Work and Unemployment. In Drenth, A.J., Thiery, M., Willems, P.J., & De Wolff, C.J. (Eds.), *Handbook of Work and Organization Psychology*. John Wiley & Sons, London.

WARR, P. 1985. Attitudes, Actions and Motives. In Warr, P. (Ed.), *Psychology at Work*. Penguin, Harmondsworth.

WARR, P. 1987. Workers without a Job. In Warr, P. (Ed.), *Psychology at Work*. Penguin, Harmondsworth.

WARR, P., COOK, J., & WALL, T. 1979. Scales for the Measurement of Some Work Attitudes and Aspects of Psychological Well-Being. *Journal of Occupational Psychology*, 52, 129-148.

WATTS, A.G. 1980. Educational and Careers Guidance, Services for Adults: A Rational and Conceptual Framework. *British Journal of Guidance and Counselling*, 8, 1, 11-22.

WATTS, A.G. 1990. The Role of Guidance in Educational Change. In Watts, A.G. (Eds.), *Guidance and Educational Change*. Hobsons, Cambridge.

WEAVER, C.N. 1980. Job Satisfaction in the United States in the 1970s. *Journal of Applied Psychology*, 56, 364-367.

WEINRACH, S. 1979. The Holland Model: What it is and How it Works? In Weinrach, S. (Ed.), *Career Counseling: Theoretical and Practical Perspectives*. McGraw-Hill, London.

WEISS, R., & KAHN, R. 1960. Definitions of Work and Occupation. *Social problems*, 8, 1, 142-151.

WHITNEY, D.R., 1969. Predicting from Expressed Vocational Choice: A Review. *Personnel and Guidance Quarterly*, 48, 4, 279-286.

WIENER, Y., & KLEIN, K. 1978. The Relationship between Vocational Interests and Job Satisfaction: Reconciliation of Divergent Results. Journal of Vocational Behaviour, 13, 298-304.

WIGGINS, J. 1976. The Relation of Job Satisfaction to Vocational Preferences Among Teachers of the Educable Mentally Retarded. Journal of Vocational Behavior, 8, 13-18.

WIGGINS, J., LEDERER, D., SALKOWE, A., & RYS, G. 1983. Job Satisfaction Related to Tested Congruence and Differentiation. Journal of Vocational Behavior, 23, 112-121.

WIGGINS, J.D., & WESLANDER, D. 1977. Expressed Vocational Choice and Later Employment Compared with Vocational Preference Inventory and Kuder Preference Record Vocational Scores. Journal of Vocational Behavior, 11, 158-165.

WILENSKY, H. L. 1960. Work, Carrer, and Social Integration. International Social Science Journal, 12, 4, 543-560.

YOUSSEF, N.H. 1974. Women and Work in Developing Societies. Population monograph Series, No. 15, University of California. Greenwood Press, Westport.

ZAGAR, R., ARBIT, J., FALCONER, J., & FRIEDLAND, J. 1983. Vocational Interests and Personality. Journal of Occupational Psychology, 56, 203-214.

ZENER, T., & SCHNUELLE, L. 1976. Effects of the Self-Directed Search on High School Students. Journal of Counselling Psychology, 23, 4, 353-359.

ZYTOWSKI, D.G. 1972. A Concurrent Test of Accuracy-Of-Classification of the Strong Vocational Interest Blank and the Kuder Occupational Interest Survey. Journal of Vocational Behavior, 2, 245-250.

ZYTOWSKI, D.G 1973. Considerations in the Selection and Use of Interest Inventories. In Zytowski, D. (Ed.), Contemporary Approaches to Interest Measurement. University of Minnesota Press, Minneapolis.

APPENDIX NO. 1

May 2, 1991


Ms. Huda Hassan
8 Wolfreton Villas
Anlaby
HULL HU10 6QS
UNITED KINGDOM

Dear Ms. Hassan:

In response to your recent request to translate the Self-Directed
Search into Arabic, permission is hereby granted to you to
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Sincerely,


R. BOB SMITH, III, Ph.D.
President

RBS/bm


ACCEPTED AND AGREED:                    ACCEPTED AND AGREED:


BY:_____            BY:_____
        MS. HUDA HASSAN                         R. BOB SMITH III, Ph.D.
                                                President
                                                PAR, Inc.

DATE:__25/6/91_____            DATE:_____

May 28, 1991


Ms. Huda Hassan
Department of Psychology
The University of Hull
Hull, HU6 7RX
UNITED KINGDOM

Dear Ms. Hassan:

I am responding to your recent letter requesting a copy of the Arabic version of the Self-Directed Search. Unfortunately, the terms of the contract between PAR and the company that did the Arabic translation do not permit me to provide copies of the translation to anyone.

I hope you understand. If I can be of any further assistance, please let me know.

Sincerely,


R/ BOB SMITH III, Ph.D.
President

RBS/bm

**APPENDIX NO. 2**

John Holland's
Self-Directed Search

**Assessment Booklet**

**A Guide to Educational and Vocational Planning**

This booklet may help you to know more about the occupations which you might be thinking. If you have already chosen an appropriate occupation, this booklet is going to confirm your decision, and may suggest other options.

If you are not sure about which type of job to choose then this booklet may provide you with some information about a few jobs to consider. Many people who have already used this booklet found it very helpful and enjoyable. If you follow the instructions carefully you will find it a very enjoyable experience.

Do not rush, you will gain more by performing this task carefully. Use a pencil to make it easy to change your answers if you wish.

Name:

Age:                    Sex:                    Date:

## Occupations you would like to start.

1- List below the occupations that you considered when you thought about your future and discussed with others. Then write them down starting with the last one first ( the last job on line one and so on ).

| Occupation | Code | | |
|------------|------|------|------|
| 1- | [] | [] | [] |
| 2- | [] | [] | [] |
| 3- | [] | [] | [] |
| 4- | [] | [] | [] |
| 5- | [] | [] | [] |

2- Use the Occupations- Index to decide the three letter code for every occupation that you have written in the previous step. In looking for occupation codes it would help you to have more information about jobs around the world. The process usually takes approximately 5 to 15 minutes.

If you can not find the exact occupatin in the Occupational- Index, use the occupation that seems most like occupation you like.

If you are in a hurry,leave the coding until you have filled in this booklet.

## Activities

Shade in under ( L ) for activities you would like to take part in.  Shade in under ( D ) for activities which you do not like to take part in.

## Realistic Activities (R)

|  | L | D |
|---|---|---|
| -Repair electrical devices | [] | [] |
| -Repair cars | [] | [] |
| -Repair mechanical things | [] | [] |
| -Make things with wood | [] | [] |
| -Raise beef cattle or dairy cows | [] | [] |
| -Use metal instruments | [] | [] |
| -Work as a hunting or fishing guide | [] | [] |
| -Do workshop course | [] | [] |
| -Do mechanical drawing course | [] | [] |
| -Do woodcraft course | [] | [] |
| -Do car mechanic course | [] | [] |

Total No. of L's [      ]

## Investigative Activities (I)

|  | L | D |
|---|---|---|
| -Read scientific books or magazines | [] | [] |
| -Work in a laboratory | [] | [] |
| -Work on a scientific project | [] | [] |
| -Study a scientific theory | [] | [] |
| -Work with a chemical elements | [] | [] |
| -Read special subjects on my own | [] | [] |
| -Apply mathematics to practical problems | [] | [] |
| -Do Physics course | [] | [] |
| -Do Chemistry course | [] | [] |
| -Do Mathematics course | [] | [] |
| -Do Biology course | [] | [] |

Total No. of L's [      ]

## Artistic Activities (A)

|  | L | D |
|---|---|---|
| -Sketch, draw or paint | [] | [] |
| -Act in a comedy or play | [] | [] |
| -Design furniture, clothing, or posters | [] | [] |
| -Play music with a band | [] | [] |
| -Practise a musical instrument | [] | [] |
| -Write for newspaper or magazine | [] | [] |
| -Create sculpture or photographs | [] | [] |
| -Write novels or plays | [] | [] |
| -Read or write poetry | [] | [] |
| -Do Art course | [] | [] |
| -Develop or compose music | [] | [] |

Total No. of L's [      ]

## Social Activities (S)

-Meet important educators or therapists    []   []
-Read sociology articles or books    []   []
-Work with the Red Crescent    []   []
-Help others with personal problems    []   []
-Nurse or  care for infants    []   []
-Study juvenile delinquency    []   []
-Teach in a college    []   []
-Read books on psychology    []   []
-Help handicapped people    []   []
-Do course in Human Relations    []   []
-Teach in a secondary school    []   []

Total No. of L's [      ]


## Enterprising Activities (E)

-Influence others    []   []
-Sell things    []   []
-Learn strategies for business success    []   []
-Operate my own business or service    []   []
-Attend business meetings    []   []
-Do short course in administration and leadership    []   []
-Serve as an officer of any group    []   []
-Supervise other people work    []   []
-Meet important executive and leaders    []   []
-Lead a group of people to achieve some goals    []   []
-Manage an election campaign    []   []

Total No. of L's [      ]


## Conventional Activities (C)

-Fill in a loan form    []   []
-Type letters or papers for yourself or for others    []   []
-Add, subtract,multiply, and divide numbers for
 business, or accounting    []   []
-Operate different types of business equipment    []   []
-Keep records of expenses    []   []
-Set up a record system    []   []
-Do business course    []   []
-Do bookkeeping accountant course    []   []
-Do Commercial maths course    []   []
-Operate a computer    []   []
-List supplies and products    []   []

Total No. of L's [      ]

## Competencies

Shade in under ( Yes ) for the activities which you are well qualified to do. Shade in under ( No ) for the activities that you are not qualified to do, or you have never done it before.

                                                                    **Yes   No**

## Realistic Competencies ( R )

- I have used electrical carpenter tools,such as          []    []
  electric saw, lathe or sander
- I can do scale drawing                                  []    []
- I can change a car's oil and tire                       []    []
- I can operate electric tools such as drill and          []    []
  sewing machine
- I can polish furniture or woodwork                      []    []
- I can read graphic drawing                              []    []
- I can do simple electric repairs                        []    []
- I can repair furniture                                  []    []
- I can use most carpenter tools                          []    []
- I can do simple radio and television repairs            []    []
- I can do simple plumbing repairs                        []    []
                                Total No. of Yes's   [    ]

## Investigative Competencies ( I )

- I can use algebra to solve mathematical problems        []    []
- I can do a scientific experiment or survey              []    []
- I can understand the "half-life" of a                   []    []
  radioactive element
- I can use logarithmic tables                            []    []
- I can use a calculator or a slide rule                  []    []
- I can use a microscope                                  []    []
- I can make a computer program to study a                []    []
  scientific problem
- I can describe the function of the white blood cells []    []
- I can interpret a simple chemical equation              []    []
- I know why satellites do not fall back to earth         []    []
- I can name three kinds of food with a high protein   []    []
  content.
                                Total No. of Yes's   [    ]

## Artistic Competencies ( A )

- I can play a musical instrument                                [] []
- I can take part in choral singing                              [] []
- I can play as a soloist                                        [] []
- I can act in a play                                            [] []
- I can explain what I have read                                 [] []
- I can write news stories or technical reports                 [] []
- I can sketch people so that it's possible to                  [] []
  recognise them.
- I can do an oil or water colour painting,                     [] []
  or a sculpture
- I can develop or compose music                                [] []
- I can design clothes, posters, or furniture                   [] []
- I can write good stories or poetry                            [] []
                               Total No. of Yes's  [     ]


## Social Competencies ( S )

- I can talk easily to all kind of people                       [] []
- I can lead group discussions                                  [] []
- I am good at explaining things to others                      [] []
- I have participated in charity  campaigns                     [] []
- I can organise social programmes                              [] []
- I can teach children easily                                   [] []
- I can teach adults easily                                     [] []
- I am good at dealing with people who are worried              [] []
  and have problems
- I can plan entertainment for a party                          [] []
- I am competent at entertaining people older than me           [] []
- People seek me out to tell me their problems                  [] []
                               Total No. of Yes's  [     ]


## Enterprising Competencies ( E )

- I have earned an award for my work as a salesperson           [] []
  or leader
- I know how to be a successful leader                          [] []
- I am a good speaker                                            [] []
- I can manage a small business or service                      [] []
- I can make a social or work group work together               [] []
  in harmony
- I have a reputation for dealing with who are troubled[]        []
- I can organise a sales campaign                               [] []
- I can organise other people's work                            [] []
- I am an ambitious and assertive person                        [] []
- I am very good at making others work in the way               [] []
  I want.
- I am a good salesperson                                        [] []
                               Total No. of Yes's  [     ]

## Conventional Competencies ( C )

- I can type 40 words per minute                                      [] []
- I can operate a type writer or calculator                           [] []
- I can practise shorthand in writing                                 [] []
- I can file letters and papers                                       [] []
- I have worked as a clerk in an office                               [] []
- I can use a computer for accounting                                 [] []
- I can do a lot of paper work in a short time                       [] []
- I can use a calculator                                              [] []
- I can use a word-processor                                          [] []
- I can post credits and debits                                       [] []
- I can keep accurate records of payment and sales                    [] []

                    Total No. of Yes's   [     ]

## Occupations

This inventory aims to find out about your feelings and attitudes about many kinds of work. Shade in under ( Yes ) for jobs which you like or are interested in, Or shade in under ( No ) for jobs you do not like

.

                                                        Yes    No

- Airplane Mechanic                                     []     []
- Fireman                                               []     []
- Car Mechanic                                          []     []
- Carpenter                                             []     []
- Fish & Wildlife expert                                []     []
- Agriculture expert                                    []     []
- Lorry driver                                          []     []
- Surveyor                                              []     []
- Construction Inspector                                []     []
- Radio Operator                                        []     []
- Bus driver                                            []     []
- Civil engineer                                        []     []
- Machinist                                             []     []
- Electrician                                           []     []

                    Total R yes's   [     ]

- Meteorologist    [ ]   [ ]
- Biologist    [ ]   [ ]
- Astronomer    [ ]   [ ]
- Medical Laboratory Technician    [ ]   [ ]
- Anthropologist    [ ]   [ ]
- Zoologist    [ ]   [ ]
- Chemist    [ ]   [ ]
- Independent Research Scientist    [ ]   [ ]
- Scientific articles writer    [ ]   [ ]
- Editor of a Scientific Journal    [ ]   [ ]
- Geologist    [ ]   [ ]
- Botanist    [ ]   [ ]
- Scientific research assistance    [ ]   [ ]
- Physicist    [ ]   [ ]

Total I yes's   [    ]

- Poet    [ ]   [ ]
- Orchestral conductor    [ ]   [ ]
- Musician    [ ]   [ ]
- Novelist    [ ]   [ ]
- Actor    [ ]   [ ]
- Free-lance Writer    [ ]   [ ]
- Musical Arranger    [ ]   [ ]
- Journalist    [ ]   [ ]
- Artist    [ ]   [ ]
- Singer    [ ]   [ ]
- Composer    [ ]   [ ]
- Sculptor    [ ]   [ ]
- Playwright    [ ]   [ ]
- Cartoonist    [ ]   [ ]

Total A yes's   [    ]

- Sociologist    [ ]   [ ]
- Secondary School Teacher    [ ]   [ ]
- Juvenile Delinquency Specialist    [ ]   [ ]
- Speech Therapist    [ ]   [ ]
- Marriage Counsellor    [ ]   [ ]
- Headmaster    [ ]   [ ]
- Physical Therapist    [ ]   [ ]
- Clinical Psychologist    [ ]   [ ]
- Social Science Teacher    [ ]   [ ]
- Director of Welfare Agency    [ ]   [ ]
- Youth Camp Director    [ ]   [ ]
- Personal Counsellor    [ ]   [ ]
- Social Worker    [ ]   [ ]
- Vocational Counsellor    [ ]   [ ]

Total S yes's   [    ]

- Speculator                                          [] []
- Buyer                                                [] []
- Advertising Executive                                [] []
- Factory representative                               [] []
- Life insurance Salesperson                           [] []
- Television and Radio Broadcaster                     [] []
- Business Executive                                   [] []
- Restaurant  Manager                                  [] []
- Ceremonies Organiser                                 [] []
- Salesperson                                          [] []
- Real Estate Salesperson                              [] []
- Tourist Guide                                        [] []
- Department Store Manager                             [] []
- Sales Manager                                        [] []

                              Total E yes's    [     ]

- Bookkeeper                                           [] []
- Business Teacher                                     [] []
- Budget reviewer                                      [] []
- Qualified Accountant                                 [] []
- Credit Investigator                                  [] []
- Court typist                                         [] []
- Banker                                               [] []
- Tax Expert                                           [] []
- Inventory Controller                                 [] []
- Computer Operator                                    [] []
- Financial Analyst                                    [] []
- Cost Evaluator Officer                               [] []
- Payroll clerk                                        [] []
- Bank Instructor                                      [] []

                              Total C yes's    [     ]

## Self- Estimates

1- Compare yourself with others who are in your age group and assess yourself on each of the following traits. Give the nearest estimation. Circle the most relevant number. Avoid estimating yourself the same in each abilities.

| | Mechanical Ability | Scientific Ability | Artistic Ability | Teaching Ability | Sales Ability | Clerical Ability |
|---|---|---|---|---|---|---|
| High | 7 | 7 | 7 | 7 | 7 | 7 |
| | 6 | 6 | 6 | 6 | 6 | 6 |
| | 5 | 5 | 5 | 5 | 5 | 5 |
| Average | 4 | 4 | 4 | 4 | 4 | 4 |
| | 3 | 3 | 3 | 3 | 3 | 3 |
| | 2 | 2 | 2 | 2 | 2 | 2 |
| Low | 1 | 1 | 1 | 1 | 1 | 1 |
| | R | I | A | S | E | C |

| | Manual Skills | Maths Ability | Musical Ability | Under-standing of others | Managerial Skills | Office Skills |
|---|---|---|---|---|---|---|
| High | 7 | 7 | 7 | 7 | 7 | 7 |
| | 6 | 6 | 6 | 6 | 6 | 6 |
| | 5 | 5 | 5 | 5 | 5 | 5 |
| Average | 4 | 4 | 4 | 4 | 4 | 4 |
| | 3 | 3 | 3 | 3 | 3 | 3 |
| | 2 | 2 | 2 | 2 | 2 | 2 |
| Low | 1 | 1 | 1 | 1 | 1 | 1 |
| | R | I | A | S | E | C |

## How to organise your answers

Go back to page ( 3 ) and record on the following pages how many times you have chosen (L) for activities and how many times you have chosen (Yes) for Competencies and Occupations.

| Activities (pp.3-4) | ---- | ---- | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|
| | R | I | A | S | E | C |

| Competencies (pp.5-7) | ---- | ---- | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|
| | R | I | A | S | E | C |

| Occupations (pp.7-9) | ---- | ---- | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|
| | R | I | A | S | E | C |

| Self-Estimates (p.10) (what number did you circle) for each skill) | ---- | ---- | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|
| | R | I | A | S | E | C |

---

| Total Scores | ---- | ---- | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|
| | R | I | A | S | E | C |

1- Add together the five R scores, the five I scores, the five A scores etc.

2- Your three highest scores give your Summary Code. Fill them in below. If you got two letters that have the same scores write them down in the same square #

Summary Code    [   ]    [   ]    [   ]

         Highest        2nd        3rd

## What Does Summary Code Means

    The summary code is an easy way to organise information about people's occupations. It can be used to discover your own pattern, interests, self-estimates, and competencies which match the patterns of interest and competencies which many occupations demand. In this way the summary code can help you to identify some occupations to consider.

    It is important to look at the Occupations- Index, enclosed with this inventory in order to find out all possible ways of arranging your three -letter codes. For example, if your codes are ESC, search for all the ESC, ECS, SEC,SCE, CES, and CSE occupations then fill in stage 1 and 2. Stage (1)- Write down all occupations which are similar to your codes. If your code is SEI occupations with codes of SEI are ideal for you. Then go to stage (2) whether you find an occupations identical to yours or not.

**Occupation**

**Qualification required**

_____    _____

_____    _____

_____    _____

_____    _____

_____    _____

Stage (2)- Write down a list of occupations whose codes are similar to yours. Look in the Occupations- Index for five arrangements of your summary code. For example,if your code is IRE, search for occupations with codes of IER, RIE, REI, EIR and ERI. If your summary code includes tie such as RIEA, as shown in page 11 #, you must look for more similarities between the letters and its arrangements.

**Summary Code**    **Similar Codes**

_____    _____ _____ _____ _____ _____

**Occupation**    **Qualification required**

_____    _____

_____    _____

_____    _____

_____    _____

_____    _____

## Some Extra Steps

1- The Self-Directed Search or any other vocational interest inventory is very useful when it confirms your vocational choice or when it provideShyou with other possibilities to think about. If it fails to support your choice do not change your plans but do more searching to make sure that you have understand your chosen career and the other occupations suggested by the inventory.

2- Compare your summary code with the codes of the jobs that you would like to have, as mention in page 2. They should be similar but not necessarily identical letter for letter. It is important that the three letters you have got in the summary code are similar to the three letters for the jobs you have already chosen. For example, if your summary code is RIE, and the occupation you desire is coded IRC, then, occupations with codes of RIA, EIR, RSA would be suitable for you. If there is no relation between your summary code and the occupations you wish to follow, it is better to try to find out to what extent you are satisfied with your choice by discussing the matter with the vocational counsellor or a friend.

3- Look for the required qualification for each occupation you are interested in.

4- Think about any health or physical problems that may effect your choice.

5- Try to get more information about jobs by consulting people working in the occupation that you would like.

Most people feel happy when talking about their job. Remember that people may not be strictly accurate when talking about their job, so talk to several people doing the same job.

6- Remember that the result you have reached from this inventory will have been effected by many factors in your background- your sex, your age, your parents' occupations. For instance, often society encourages men and women to aspire to different types of jobs. Women usually concentrate on social, artistic, and conventional jobs, while men usually concentrate on investigative, realistic, and enterprising jobs. Yet we know that all types of jobs could be performed successfully by both sexes. If your summary code is different from that of the job you are considering , keep this in your mind because you may decide to stick to the job you would like.

7- Remember that you are the only one who can make your vocational decision.

بحث توجيـه الـذات

كتيـب التقييـم : مرشدك لتخطيط مستقبلك العلمى والمهنى .

يمكن لهذا الكتيب مساعدتك فى التعرف على الوظيفة التى سـوف تشغلها . اذا كنت قد اتخذت قرارك واخترت الوظيفة المناسبة لك فان هذا الكتيب قد يدعم قرارك أو قد يقترح لك اختيارات أخرى .

اذا كنت غير متأكد ما هى الوظيفة التى ستختارها ، فان هـذا الكتيب قد يساعدك على التعرف على مجموعة صغيرة من الوظائف للتفكير بها .

معظم الافراد الذين استخدموا هذا الكتيب وجدوا فى ملء هـذا الكتيب متعة ومساعدة . اذا اتبعت تعليمات هذا الكتيب بدقة ، سـوف تجدها خبرة ممتعة . لاتتعجل ، لانك سوف تستفيد كثيرا اذا أديت هـذه المهمة باتقان . استخدم القلم الرصاص لكى يسهل عليك تغيير اجابتـك اذا أردت .

| الاسـم : | العمـر : |
|---|---|
| الجنـس : | تاريخ اليوم: |

ترجم هـنا البحث بتصريح مـن الناشـر :-

الوظائف التى تحلم بشغلهــا :

١ ـ اذكر الوظائف التى أخذتها بعين الاعتبار عند التفكير فى مستقبلــك والتى ناقشتها مع الاخرين ، ثم دون هذه الوظائف بالترتيب التنــازلى على حسب حداثتها ( أحدث وظيفة فى السطر رقم ١ وتليها الوظيفة الاقدم وهكذا ) .

الوظائـــــف :

١ ـ

٢ ـ

٣ ـ

٤ ـ

الوظائف التى تحلم بشغلها :

١ – اذكر الوظائف التى أخذتها بعين الاعتبار عند التفكير فى مستقبلـك والتى نـاقشتها مع الاخرين ، ثم دون هذه الوظائف بـالترتيب التنازلى على حسب حداثتها ( أحدث وظيفة فى السطر رقم ١ وتليها الوظيفة الاقدم وهكذا ) .

الوظائـــــف :

١ –

٢ –

٣ –

٤ –

الانشطـــــــــة :

ظلل أسفل الحرف ( أ ) للانشطة التى تحب ممارستها . وظلل أسفل
الحرف ( ل ) للانشطة التى لا تحب اداءها

## الانشطة الحرفية (ح)

| ل | أ | |
|---|---|---|
| ☐ | ☐ | – تصليح الاشياء الكهربائية |
| ☐ | ☐ | – تصليح السيارات |
| ☐ | ☐ | – تصليح الاشياء الميكانيكية |
| ☐ | ☐ | – بناء الاشياء من الخشب |
| ☐ | ☐ | – تربية الابقار أو الماشية |
| ☐ | ☐ | – استخدام الادوات المعدنية أو المعدات |
| ☐ | ☐ | – العمل كمرشد لصيد الحيوانات أو الاسماك |
| ☐ | ☐ | – دراسة مقرر فى الورشة |
| ☐ | ☐ | – دراسة مقرر فى الرسم الميكانيكى |
| ☐ | ☐ | – دراسة مقرر فى الاعمال الخشبية |
| ☐ | ☐ | – دراسة مقرر ميكانيكا سيارة |

المجموع الكلى للحرف أ  ☐

انطة البحث (ب)

| ل | أ | |
|---|---|---|
| ☐ | ☐ | قراءة الكتب والمجلات العلمية |
| ☐ | ☐ | العمل فى المختبر |
| ☐ | ☐ | العمل فى مشروع علمى |
| ☐ | ☐ | دراسة نظرية علمية |
| ☐ | ☐ | التعامل بالمواد الكيميائية |
| ☐ | ☐ | قراءة موضوعات خاصة بمفردى |
| ☐ | ☐ | تطبيق قوانين الرياضيات على المشاكل العملية |
| ☐ | ☐ | دراسة مقرر فى الفيزياء |
| ☐ | ☐ | دراسة مقرر فى الكيمياء |
| ☐ | ☐ | دراسة مقرر فى الرياضيات |
| ☐ | ☐ | دراسة مقرر فى الاحياء |

☐ المجموع الكلى للحرف أ

الانشطة الفنية (ق)

|  | أ | ل |
|---|---|---|
| الرسم التخطيطى ورسم اللوحات والتلوين | ☐ | ☐ |
| التمثيل فى مسرحية نكاهية أو تمثيلية | ☐ | ☐ |
| تصميم أثاث ،ملابس أو ملصقات | ☐ | ☐ |
| العزف مع فرقة موسيقية | ☐ | ☐ |
| العزف على آلة موسيقية | ☐ | ☐ |
| الكتابة للجرائد و المجلات | ☐ | ☐ |
| النحت أو التصوير الفوتوغرافى | ☐ | ☐ |
| كتابة روايات أو مسرحيات | ☐ | ☐ |
| قراءة أو كتابة الشعر | ☐ | ☐ |
| دراسة مقرر فى الفن | ☐ | ☐ |
| تطوير او تاليف أى نوع من الموسيقى | ☐ | ☐ |

المجموع الكلى للحرف أ ☐

الانشطة الاجتماعية (أ)

| ل | أ | |
|---|---|---|
| ☐ | ☐ | ــ لقاء التربويين والاختصاصيين المهمين . |
| ☐ | ☐ | ــ قراءة المقالات أو الكتب المتخصصة بعلم الاجتماع . |
| ☐ | ☐ | ــ العمل فى الهلال الاحمر . |
| ☐ | ☐ | ــ مساعدة الاخرين فى مشاكلهم الخاصة . |
| ☐ | ☐ | ــ رعاية الاطفال . |
| ☐ | ☐ | ــ دراسة الاحداث والجانحين . |
| ☐ | ☐ | ــ التدريس فى كلية . |
| ☐ | ☐ | ــ قراءة كتب فى علم النفس . |
| ☐ | ☐ | ــ مساعدة الافراد المعاقين . |
| ☐ | ☐ | ــ دراسة مقرر فى العلاقات الانسانية . |
| ☐ | ☐ | ــ التدريس بالمدارس الثانوية . |

المجموع الكلى للحرف أ ☐

أنشطة المغـامرة (م)

<div dir="rtl">

| ل | ١ | |
|:-:|:-:|:--|
| ☐ | ☐ | ـ التأثير على الاخريـن . |
| ☐ | ☐ | ـ بيـع الاشيـاء . |
| ☐ | ☐ | ـ تعلم استراتيجيات النجاح فى الاعمال . |
| ☐ | ☐ | ـ ادارة اعمالى الخاصة . |
| ☐ | ☐ | ـ حضور مؤتمرات للاعمال . |
| ☐ | ☐ | ـ دراسة مقرر قصير فى الادارة والقيادة . |
| ☐ | ☐ | ـ الخدمة كموظف فى أى مجموعة . |
| ☐ | ☐ | ـ الاشراف على أعمال الاخرين . |
| ☐ | ☐ | ـ لقاء التنفيذيين والقياديين المهمين . |
| ☐ | ☐ | ـ قيادة مجمـوعة من الافـراد من اجل تحقيق يعض الاهداف |
| ☐ | ☐ | ـ ادارة حملة انتخابية . |

</div>

المجموع الكلى للحرف ا ☐

الأنشطة التقليدية (ت)

| ل | أ | |
|---|---|---|
| ☐ | ☐ | - تعبئة نموذج طلب قرض . |
| ☐ | ☐ | - طباعة الأوراق والرسائل سواء لك أو للآخرين . |
| ☐ | ☐ | - القيام بعمليات جمع ، طرح ، ضرب ، و قسمة الأرقام في الأعمال الإدارية و المحاسبية |
| ☐ | ☐ | - تشغيل الأنواع المختلفة من الآلات التى تستخدم فى الأعمال الإدارية . |
| ☐ | ☐ | - حفظ سجلات تفصيلية للنفقات . |
| ☐ | ☐ | - وضع نظام للسجلات . |
| ☐ | ☐ | - دراسة مقرر فى إدارة الأعمال . |
| ☐ | ☐ | - دراسة مقرر فى مسك الدفاتر الحسابية . |
| ☐ | ☐ | - دراسة مقرر فى الرياضيات التجارية . |
| ☐ | ☐ | - تشغيل الحاسب الآلى ( الكمبيوتر ) . |
| ☐ | ☐ | - جرد التجهيزات أو المنتجات |

☐ المجموع الكلى للحرف أ

الكفـــاءات :

ظلل أسفل كلمة ( نعم ) للانشطة التى يمكنك ان تؤديها بكفـاءة وظلـل أسفل كلمة ( لا ) للانشطة التي لم تؤديهـا من قبـل او التى تؤديها بـدون اتقـــان .

الكفاءات الحرفيـة (ح)

| لا | نعم | |
|----|-----|---|
| ☐ | ☐ | ـ أستطيع استخدام ادوات النجارة الكهربائية مثل المنشار الكهربائى أو المخرطة أو السنفرة . |
| ☐ | ☐ | ـ أستطيع ان أرسم رسم بيانى . |
| ☐ | ☐ | ـ أستطيع ان أقوم بتبديل زيت أو اطار السيارة . |
| ☐ | ☐ | ـ أستطيع تشغيل الالات الكهربائية مثل المثقاب أو المطحنة أو ماكينة الخياطة . |
| ☐ | ☐ | ـ أستطيع نقل الاثاث أو الاشياء الخشبية . |
| ☐ | ☐ | ـ أستطيع ان أقرأ الرسم التخطيطى |
| ☐ | ☐ | ـ أستطيع ان أقوم بتصليحات كهربائية بسيطة . |
| ☐ | ☐ | ـ أستطيع ان أصلح الاثاث . |
| ☐ | ☐ | ـ أستطيع ان أستخدم معظم أدوات النجارة . |
| ☐ | ☐ | ـ أستطيع ان أقوم بتصليحات بسيطة للتليفزيون أو الراديـــو . |
| ☐ | ☐ | ـ أستطيع ان أقوم بتصليحات بسيطة للادوات الصحية . ( أعمال السمكرة ) |

☐   المجموع الكلى لكلمة نعم

كفاءات البحث (ب)

| لا | نعم | |
|---|---|---|
| ☐ | ☐ | - أستطيع أن أستخدم الجبر لحل المسائل الرياضية. |
| ☐ | ☐ | - أستطيع أن أنجز تجربة أو بحث علمي. |
| ☐ | ☐ | - أنا أفهم العمر النصفي للعناصر المشعة. |
| ☐ | ☐ | - أستطيع أن أستخدم جداول اللوغارتمات. |
| ☐ | ☐ | - أستطيع أن أستخدم الآلة الحاسبة أو المسطرة الرياضية. |
| ☐ | ☐ | - أستطيع أن أستخدم المجهر ( الميكروسكوب ). |
| ☐ | ☐ | - أستطيع برمجة الكمبيوتر لدراسة مسألة علمية. |
| ☐ | ☐ | - أستطيع أن أشرح وظيفة خلايا الدم البيضاء. |
| ☐ | ☐ | - أستطيع تفسير معادلة كيميائية بسيطة. |
| ☐ | ☐ | - أنا أعرف لماذا لا تسقط الاقمار الصناعية. |
| ☐ | ☐ | - أستطيع ذكر ثلاث مواد غذائية تحتوى على نسبة عالية من البروتين. |

المجموع الكلى لكلمة  نعم  ☐

الكفاءات الفنية (ن)

| لا | نعم | |
|:---:|:---:|:---|
| ☐ | ☐ | – أستطيع العزف على آلة موسيقية . |
| ☐ | ☐ | – أستطيع أن أشارك بالغناء مع كورال موسيقى . |
| ☐ | ☐ | – أستطيع أن أقوم بالعزف المنفرد . |
| ☐ | ☐ | – أستطيع التمثيل فى مسرحية . |
| ☐ | ☐ | – أستطيع تفسير ما أقرأ . |
| ☐ | ☐ | – أستطيع كتابة قصص اخبارية أو كتابة تقارير تقنية . |
| ☐ | ☐ | – أستطيع أن أرسم صورة تخطيطية للاشخاص بجيث يمكن تمييزهم . |
| ☐ | ☐ | – أستطيع أن أرسم لوحات زيتية – مائية أو أن أقوم بالنحت . |
| ☐ | ☐ | – أستطيع ان أقوم بتطوير أو تاليف قطعة موسيقية . |
| ☐ | ☐ | – أستطيع ان أصمم ملابس ، ملصقات أو أثاث . |
| ☐ | ☐ | – أنا أكتب قصص أو قصائد شعرية جيدة . |

المجموع الكلى لكلمة نعم ☐

## الكفاءات الاجتماعية (١)

| لا | نعم | |
|:---:|:---:|:---|
| ☐ | ☐ | – أستطيع بسهولة أن أخاطب كل فئات الناس . |
| ☐ | ☐ | – أستطيع أن أقود النقاش داخل مجموعة . |
| ☐ | ☐ | – أنا جيد فى شرح الاشياء للاخرين . |
| ☐ | ☐ | – ساهمت فى الحملات الخيرية . |
| ☐ | ☐ | – يمكننى القيام بتنظيم برنامج اجتماعى. |
| ☐ | ☐ | – أستطيع تدريس الاطفال بسهولة . |
| ☐ | ☐ | – أستطيع تدريس الكبار بسهولة . |
| ☐ | ☐ | – أنا جيد فى مساعدة الافراد القلقين أو الذين لديهم مشكلة . |
| ☐ | ☐ | – أستطيع ان أخطط لفقرات ترفيهية فى أى حفلة . |
| ☐ | ☐ | – أستطيع بكفاءة أن أبهج من هم أكبر منى سنا . |
| ☐ | ☐ | – يسعى الاخرون فى طلبى ليخبرونى بمتاعبهم . |

المجموع الكلى لكلمة نعم ☐

كفاءات المغامرة (م)

| لا | نعم | |
|:---:|:---:|---|
| ☐ | ☐ | ‏- نلت مكافأة على عمل كرجل مبيعات. أو قائد |
| ☐ | ☐ | ‏- أعرف كيف أكون قائد ناجح . |
| ☐ | ☐ | ‏- أنا خطابى جيد . |
| ☐ | ☐ | ‏- أستطيع ان أدير عمل صغير أو خدمة . |
| ☐ | ☐ | ‏- أستطيع ان أجعل أى مجموعة عمل أو مجموعة اجتماعية تعمل منسجمة . |
| ☐ | ☐ | ‏- لدى صيت فى امكانيتى فى التعامل مع الافراد المشاغبين . |
| ☐ | ☐ | ‏- أستطيع ان أنظم حملة لترويج السلع . |
| ☐ | ☐ | ‏- أستطيع ان أنظم عمل الاخرون . |
| ☐ | ☐ | ‏- أنا شخص طموح وذو اصرار . |
| ☐ | ☐ | ‏- أنا جيد فى جعل الآخرون يؤدون العمل بالطريقة التى أريدها . |
| ☐ | ☐ | ‏- أنا بائع جيد . |

المجموع الكلى لكلمة نعم ☐

(ت) الكفاءات التقليدية

نعم لا

☐ ☐       - استطيع ان أطبع ٤٠ كلمة بالدقيقة .

☐ ☐       - استطيع تشغيل آلة التصوير أو الآلة الحاسبة .

☐ ☐       - استطيع ان أستخدم الاختزال فى الكتابة .

☐ ☐       - استطيع ان أنظم الرسائل المتبادلة والاوراق داخل الملفات .

☐ ☐       - شغلت وظيفة كتابية .

☐ ☐       - استطيع استخدام الكمبيوتر في الحسابات .

☐ ☐       - استطيع ان أنجز أعمال كتابية كثيرة فى فترة قصيرة .

☐ ☐       - استطيع استخدام الآلة الحاسبة .

☐ ☐       - استطيع استخدام الكمبيوتر فى الطباعة .

☐ ☐       - استطيع القيام بعمليات تحديد الدائن و المدين.

☐ ☐       - استطيع الاحتفاظ بسجل دقيق للمدفوعات أو المبيعات..

المجموع الكلى لكلمة نعم ☐

## الوظائـــف :

يهدف هذا البحث الى التعرف على اتجاهاتك أو مشاعرك تجاه مجموعة مــن
الوظائف . ظلل أسفل كلمة ( نعم ) للوظائف التى تثير اهتمامك أو ظلل أسفــل
كلمة ( لا ) للوظائف التى لا تحب أداءها أو لا تثير اهتمامك .

| لا | نعم | |
|---|---|---|
| ☐ | ☐ | — ميكانيكى طيـــران . |
| ☐ | ☐ | — رجل مطافـى .. |
| ☐ | ☐ | — ميكانيكى سيارات . |
| ☐ | ☐ | — نجـــار . |
| ☐ | ☐ | — اخصائى أسماك وحيوانات أليفة . |
| ☐ | ☐ | — اخصائى زراعـــة . |
| ☐ | ☐ | — سائق شاحنـــة . |
| ☐ | ☐ | — متخصص بالمسح الارضى . |
| ☐ | ☐ | — مراقب انشاءات . |
| ☐ | ☐ | — فنى بالاذاعـــة . |
| ☐ | ☐ | — سائــق بـــاص . |
| ☐ | ☐ | — مهندس مدنـى . |
| ☐ | ☐ | — ميكانيكـى . |
| ☐ | ☐ | — كهربائـى . |

ح المجموع الكلـى لكلمة نعم   ☐

| لا | نعم | |
|:---:|:---:|:---|
| ☐ | ☐ | - عالم الارصاد . |
| ☐ | ☐ | - عالم أحياء . |
| ☐ | ☐ | - عالم فلك . |
| ☐ | ☐ | - فنى مختبر طبى . |
| ☐ | ☐ | - عالم بأصل الانسان" انثروبيولوجيا " |
| ☐ | ☐ | - عالم حيوان . |
| ☐ | ☐ | - عالم كيميائى . |
| ☐ | ☐ | - باحث علمى مستقل . |
| ☐ | ☐ | - كاتب للمقالات العلمية . |
| ☐ | ☐ | - رئيس تحرير مجلة علمية . |
| ☐ | ☐ | - عالم جيولوجيا . |
| ☐ | ☐ | - عالم نبات . |
| ☐ | ☐ | - مساعد باحث علمى . |
| ☐ | ☐ | - عالم فيزياء . |

ب المجموع الكلى لكلمة نعم ☐

| لا | نعم | |
|:--:|:--:|:--|
| ☐ | ☐ | - شاعــــر . |
| ☐ | ☐ | - قائد فرقة موسيقية " ماسترو " . |
| ☐ | ☐ | - موسيقــى . |
| ☐ | ☐ | - روائــى . |
| ☐ | ☐ | - ممثـل |
| ☐ | ☐ | - كاتب صحفى مستقـل . |
| ☐ | ☐ | - مطور ألحان موسيقية . |
| ☐ | ☐ | - صحفــى . |
| ☐ | ☐ | - فنــان . |
| ☐ | ☐ | - مغنــى . |
| ☐ | ☐ | - ملحــن . |
| ☐ | ☐ | - نحــات . |
| ☐ | ☐ | - مؤلف مسرحيــات . |
| ☐ | ☐ | - رسام كاريكاتـير . |

ف المجموع الـكلى لكلمة نعـم ☐

| لا | نعم | |
|---|---|---|
| ☐ | ☐ | – عالم اجتماع . |
| ☐ | ☐ | – مدرس ثانوى . |
| ☐ | ☐ | – اخصائى أحداث وجانحين . |
| ☐ | ☐ | – اخصائى فى مشاكل النطق والسمع . |
| ☐ | ☐ | – مرشد نفسى لمشاكل الزواج . |
| ☐ | ☐ | – مدير مدرسة ( ناظر مدرسة ) . |
| ☐ | ☐ | – اخصائى علاج طبيعى . |
| ☐ | ☐ | – أخصائى نفس اكلينكى . |
| ☐ | ☐ | – مدرس علوم اجتماعية . |
| ☐ | ☐ | – مدير مؤسسة خدمات اجتماعية . |
| ☐ | ☐ | – مدير مخيم للشباب . |
| ☐ | ☐ | – مرشد نفسى فردى ( لخدمة الفرد ) . |
| ☐ | ☐ | – اخصائى اجتماعى . |
| ☐ | ☐ | – مرشد مهنى . |

أ  المجموع الكلى لكلمة نعم ☐

| لا | نعم | |
|:---:|:---:|:---|
| ☐ | ☐ | ‏- مضارب تجاري . |
| ☐ | ☐ | ‏- وكيل مشتريات . |
| ☐ | ☐ | ‏- منفذ دعاية واعلان . |
| ☐ | ☐ | ‏- مندوب لمصنع . |
| ☐ | ☐ | ‏- بائع بوليصات تأمين على الحياة . |
| ☐ | ☐ | ‏- مذيع فى الاذاعة أو التليفزيون . |
| ☐ | ☐ | ‏- مدير أعمال تنفيذية . |
| ☐ | ☐ | ‏- مدير مطعم . |
| ☐ | ☐ | ‏- منظم مراسيم رسمية . |
| ☐ | ☐ | ‏- رجل مبيعات . |
| ☐ | ☐ | ‏- سمسار . |
| ☐ | ☐ | ‏- مرشد سياحى . |
| ☐ | ☐ | ‏- مدير محل تجاري |
| ☐ | ☐ | ‏- مدير مبيعات . |

‏م المجموع الكلى لكلمة نعم ☐

| لا | نعم | |
|:---:|:---:|:---|
| ☐ | ☐ | \- كاتب حسابات . |
| ☐ | ☐ | \- مدرس ادارة أعمال . |
| ☐ | ☐ | \- مراجع للميزانية . |
| ☐ | ☐ | \- محاسب مؤهل . |
| ☐ | ☐ | \- مدقق حسابات . |
| ☐ | ☐ | \- كاتب الاختزال فى محكمة . |
| ☐ | ☐ | \- امين صندوق في بنك |
| ☐ | ☐ | \- خبير ضرائب . |
| ☐ | ☐ | \- مراقب جرد . |
| ☐ | ☐ | \- مشغل أجهزة كمبيوتر . |
| ☐ | ☐ | \- محلل مالى . |
| ☐ | ☐ | \- مقيم تكاليف . |
| ☐ | ☐ | \- مجدول رواتب . |
| ☐ | ☐ | \- مفتش بنكى . |

ت المجموع الكلى لكلمة نعم. ☐

تقديــر الـــذات :

قارن نفسك بالاخرين الذين هم فى سنك ، وقيم نفسك بكل من السمات التالية ، أعطى أقرب تقدير لنفسك . أرسم دائرة حول رقم محدد وتجنـب وضع نفس التقييم لكل الاستعدادات .

| | المهارات الكتابية | مهارات البيع | القدرات التدريسية | القدرات الفنية | القدرات العلمية | القدرات الميكانيكية |
|---|---|---|---|---|---|---|
| عالى | ٧ | ٧ | ٧ | ٧ | ٧ | ٧ |
| | ٦ | ٦ | ٦ | ٦ | ٦ | ٦ |
| | ٥ | ٥ | ٥ | ٥ | ٥ | ٥ |
| متوسط | ٤ | ٤ | ٤ | ٤ | ٤ | ٤ |
| | ٣ | ٣ | ٣ | ٣ | ٣ | ٣ |
| | ٢ | ٢ | ٢ | ٢ | ٢ | ٢ |
| منخفض | ١ | ١ | ١ | ١ | ١ | ١ |
| | ت | م | أ | ف | ب | ح |

| | المهارات الادارية | المهارات القيادية | تفهـم الآخرين | القدرات الموسيقية | القدرات الحسابية | المهارات اليدويـة |
|---|---|---|---|---|---|---|
| عالى | ٧ | ٧ | ٧ | ٧ | ٧ | ٧ |
| | ٦ | ٦ | ٦ | ٦ | ٦ | ٦ |
| | ٥ | ٥ | ٥ | ٥ | ٥ | ٥ |
| متوسط | ٤ | ٤ | ٤ | ٤ | ٤ | ٤ |
| | ٣ | ٣ | ٣ | ٣ | ٣ | ٣ |
| | ٢ | ٢ | ٢ | ٢ | ٢ | ٢ |
| منخفض | ١ | ١ | ١ | ١ | ١ | ١ |
| | ت | م | أ | ف | ب | ح |

**APPENDIX NO. 3**

## The Relationship between Vocational Interest and Job Satisfaction.

The aim of this research is to study the relationship between individuals' vocational interest and their job satisfaction.

Please read carefully the statements on the next pages and choose the suitable answers. There is no right or wrong answers as your answers only show your personal opinion. Make sure that you answers all the statements.

All responses will be treated confidently and no one will be access to it except the researcher.

Thank you for your help and participation.

The researcher

Huda Hassan.

# Job Satisfaction Scale

1- What is your current job title?

2- How long have you been working in this job?

3- In general, how satisfied are you with your
   vocational choice (tick the appropriate answer).

| Extremely Satisfied | Satisfied | Not Sure | Not Satisfied | Extremely Dissatisfied |
|---------------------|-----------|----------|---------------|------------------------|
| 5                   | 4         | 3        | 2             | 1                      |

4- Do you think you will change your job in the near
   future?

   Yes          No

5- If you choose (Yes) to the previous question, what
   is the title of the job you would like?

6- Read the following statements and decide how far
   you agree with each of them by putting a circle
   around the suitable number:-

A) I am satisfied with my work duties and
   responsibilities

| Strongly Agree | Agree | Unsure | Disagree | Strongly Disagree |
|----------------|-------|--------|----------|-------------------|
| 5              | 4     | 3      | 2        | 1                 |

B) I am satisfied with my social relationships with my
   colleagues at work

| Strongly Agree | Agree | Unsure | Disagree | Strongly Disagree |
|---|---|---|---|---|
| 5 | 4 | 3 | 2 | 1 |

C) I am satisfied with my monthly income from the job

| Strongly Agree | Agree | Unsure | Disagree | Strongly Disagree |
|---|---|---|---|---|
| 5 | 4 | 3 | 2 | 1 |

D) I am satisfied with the promotion system in the job

| Strongly Agree | Agree | Unsure | Disagree | Strongly Disagree |
|---|---|---|---|---|
| 5 | 4 | 3 | 2 | 1 |

E) I am satisfied with my supervisor

| Strongly Agree | Agree | Unsure | Disagree | Strongly Disagree |
|---|---|---|---|---|
| 5 | 4 | 3 | 2 | 1 |

العلاقه بين الرضا عن العمل
واهتمامات الفرد
_____

يهدف هذا البحث الى دراسة العلاقه بين اهتمامات الفرد ومدى رضاءه عن عمله.

المطلوب أن تقرأ بدقه الفقرات على الصفحات التاليه ، وأن تختار الاجابه

الأقرب اليك . ليس هناك اجابه صحيحه أو خاطئه لان أجابتك تعبر عن وجهة

نظرك الشخصيه .

تأكد من أنك قد أجبت على كل الفقرات قبل تسليم الابحث.

الاجابات ستعامل بسريه ودقه تامه ، ولن يطلع عليها غير الباحث، وستستخدم

للبحث العلمي فقظ.

نشكر لك مساهمتك وتعاونك معنا .

مع تحيات الباحث .


الباحث
هدى حسن الناصر

قياس الاداء في العمل

ـ لنأخذ اسم الموظفة التي نريد قياس أدائها .

ـ ٢ـ ماهي نقطة البداية في الموظفة ؟

ـ ٢ـ نضع علامة على درجة الاتقان وكان ما عليها من الخبرة في العمل ( من علامة الاداء )

١ ـ غير راضٍ عن نوعية الاداء

٢ ـ غير راضٍ عن نوعية الاداء

٣ ـ غير راضٍ عن نوعية الاداء

٥ ـ غير راضٍ عن نوعية الاداء

ـ ٢ـ من خلال المعلومات عن نوعية وكمية أداء أن نقرر فيما اذا كانت الموظفة ( جيدة ) أم أنها لا تصل الى المستوى المطلوب ؟

١ ـ غير راضٍ عن نوعية الاداء

٢ ـ غير راضٍ عن نوعية الاداء

٣ ـ غير راضٍ عن نوعية الاداء

٥ ـ غير راضٍ عن نوعية الاداء

ـ وعلى ضوء النتائج التي نحصل عليها من خلال المعادلات السابقة نقرر الامر الاتي :

أ) أن نقرر نوعية الموظفة والاستمرار في تعيينها .

ب) أن نقرر نوعية الموظفة ونخطط من علاقتها في العمل .

١ ـ غير راضٍ عن نوعية الاداء

٢ ـ غير راضٍ عن نوعية الاداء

٣ ـ غير راضٍ عن نوعية الاداء

٥ ـ غير راضٍ عن نوعية الاداء

ج) أنا راضي عن الدخل الشهرى الذى أحصل عليه من الوظيفه .

| موافق جدا | موافق | غير متأكد | غير موافق | غير موافق على الاطلاق |
|---|---|---|---|---|
| ٥ | ٤ | ٣ | ٢ | ١ |

د) أنا راضي عن فرص و نظم الترقيه فى مكان عملي .

| موافق جدا | موافق | غير متأكد | غير موافق | غير موافق على الاطلاق |
|---|---|---|---|---|
| ٥ | ٤ | ٣ | ٢ | ١ |

هـ) أنا راضي عن الشخص المسؤل والمشرف على عملي .

| موافق جدا | موافق | غير متأكد | غير موافق | غير موافق على الاطلاق |
|---|---|---|---|---|
| ٥ | ٤ | ٣ | ٢ | ١ |

**APPENDIX NO. 4**

بسم الله الرحمن الرحيم

**KUWAIT UNIVERSITY**
Vice Rector for Academic Affairs
Cultural Relations

جامعة الكويت
العلاقات الثقافية
مساعد مدير الجامعة للشئون العلمية

الى من يهمـــه الامـــــــــــر
============================

تشهـد جامعـة الكويت أن المبعوثـة / هـدى حسـن الناصـر ـ معيدة عضو بعثـــــــة
بقسـم علم النفـــــس .

والمذكورة موفدة من قبل جامعـة الكويت لمواصلـة دراستهـا فى المملكة المتحدة لدراسـة الدكتـــــوراه
فى مجـال علم النفـس ـ وترغب تجميع معلومات وأخذ عينـات من الموظفيـن الكويتيـن العامليـــــــن
فى وزارات الدولـــة ومؤسساتهـا بشأن دراسـة العلاقـة بين الرضا عن العمل واهتمامات الافـراد .

لذلك يرجى التفضل بمساعدتهـا لاكمـال مسيـرة دراستهـا فى المجـال الذى ارسلت للدراســـــــة
من اجلـــــــــه .

وقد اعطيت لهـا هـذه الشهـادة بناءا على طلبهـا لتقديمهـا الى الجهـات المعنيـة .

مديـــن عام الجامعـــــــة

عبد الرحمن البحر
ABDULLAH A. AL-BAHAR

نسخــة الى /
الثقافية / الملف العـام

بسم الله الرحمن الرحيم

وزارة الصحة العامة

ادارة العلاقات العامة

تليفون/ ٢٤١٨٥٢٨

/ ٢٤١٧٦٥٨

المرجـع/ ع ع م /٦ ع ـ ع

التاريـخ/ ٧ ع / ٨ / ١٩٩١

حضرة السيد/ مدير مستشفى الصباح ـــــــ المحـترم،

تحية طيبة .. وبعـد،

يرجى التكرم بتسهيل مهمة السيدة/ هدى محمد السالم مندوب معيدة عضو بعثة بجامعة الكويت

وذلك لاجراء لمقابلات مع قسم

① الصيدلة

② فني الاشعة

③ قسم مختبرات

وكذلك المباني بحيث على الدراسة

مع التفضل بضرورة مراعاة الآتـي:

١ -

٢ -

٣ -

شاكرين لكم حسن تعاونكم

وتفضلـوا بقبول فائق الاحـترام،،،،

إدارة العلاقات العامة
مدير ادارة العلاقات العامة
قسـم الاعـلام

د. عادل عبد المحسن المختم
مدير مستشفى الصباح

٢٥ ـ ١٢

بسم الله الرحمن الرحيم

وزارة الصحة العامة

ادارة العلاقات العامة

تليفون/٢٤١٨٥٢٨

/٢٤١٧٦٥٨

المرجع/ ٤٤/١٦٢-ج

التاريخ/ ٢٦/٨/١٩٩١

حضرة السيد/ _مدير مستشفى العلاج_ المحترم،

تحية طيبة .. وبعد،

يرجى التكرم بتسهيل مهمة السيد.ة _صلاح حسن الناصر_

مندوب _محيته عضو بعثة جامعة الكويت_

وذلك لاجراء _لعلاجات مع عزيز مسمى المرضى ج مستش_

_العلاج وذلك لاعداد بحث علمى_

مع التفضل بضرورة مراعاة الآتــي:

١-

٢-

٣-

شاكرين لكم حسن تعاونكم

وتفضلــوا بقبول فائق الاحــترام،،،

بسم الله الرحمن الرحيم

وزارة الصحة العامة

ادارة العلاقات العامة

تليفون/ ٢٤١٨٥٢٨

/٢٤١٧٦٥٨

المرجع/ ٤٤/ ع ح ح

التاريخ/ ح ح ١٨ /١١/ ١٩٩١

حضرة السيد/ ــــــــ ادارة الطوارئ الطبية ــــــــ المحترم،

تحية طيبة .. وبعـد،

يرجى التكرم بتسهيل مهمة السيدة ــــــــ هدى حسين الناصر

مندوب ــــــــ محررة عضو بعثة بجامعة الكويت

وذلك لاجراء ـــــــــــــــــ

عدة لقاءات مع عدد من رجال الاسعاف

وذلك لاعداد بحث علمي

مع التفضل بضرورة مراعاة الآتـي:

١ -

٢ -

٣ -

شاكرين لكم حسن تعاونكم

وتفضلـوا بقبول فائق الاحـــترام،،،،

١٢ - ٢٥

بسم الله الرحمن الرحيم

وزارة الصحة العامة

ادارة العلاقات العامة

تليفون/ ٢٤١٨٥٢٨

. /٢٤١٧٦٥٨

المرجـع/ ٤٤ /ع ـ ح ـ ع

التاريــخ/ ٢٦/١١/١٩٩١

حضرة السيد/ مدير ادارة طب الاسنان ـــ المحترم،

تحية طيبة .. وبعـد،

يرجى التكرم بتسهيل مهمة السيد/ة حسين حسين ناصر

مندوب محرية وعضو بعثة بجامعة الكويت

وذلك لاجراء اجراء لقاءات مع عدد من اطباء الاسنان

وذلك لاعداد بحث علمى

مع التفضل بضرورة مراعاة الآتـي:

١ ـ لامسور

٢ ـ

٣ ـ

شاكرين لكم حسن تعاونكم

وتفضلــوا بقبول فائق الاحـــترام،،،

إدارة العلاقات العامة المعلومات

قستم الإعــلام

٢٥ ـ ١٢

" بسم الله الرحمن الرحيم "

وزارة التربية
منطقة حولي التعليمية
مراقبة الخدمات التعليمية

والاجتماعات الخاصة مثل أنموذج روضة مؤسسة
بعد التخييم ...

نرجو التكرم بتسهيل مهمة المبعوثة / هدى جعفر حامد محمد حسين
عضو لجنة بقسم علم النفس جامعة الكويت
لاجراء بحث يتعلق بالعلاقة بين الرضا عن العمل على
مجموعة من المدرسات

راجياً ان يتم البحث تحت اشرافكم

مع خالص الشكر

مدير منطقة حولي التعليمية

نسخة للملف .

APPENDIX NO. 5

## Measuring the fit between a person and an occupation.

### The Iachan index (Iachan, 1984)

1. Obtain the person's Occupational type code.

2. Look up the code for the occupation the person is considering.

3. For each of the three letters in the person's code, find the number in the table below corresponding to its match with the occupation's code.

4. Add the value together.

|  |  | Person's three-letter code | | |
|---|---|---|---|---|
|  |  | First letter | Second letter | Third letter |
| Occupation code: | First letter | 22 | 10 | 4 |
|  | Second letter | 10 | 5 | 2 |
|  | Third letter | 4 | 2 | 1 |

| Score | Description |
|---|---|
| 26-28 | Very close match. |
| 20-25 | Reasonably close match. |
| 14-19 | Not close. |
| 0-13 | Poor match. |

**The Equation for Measuring Agreement in Iachan's Index.**

$$M = \sum_{i=1}^{k} \sum_{j=1}^{k} \delta_{ij} w_{ij},$$

**APPENDIX NO. 6**

## Table No. 5-a

### The Intercorrelation Matrix for the Subscales for the Entire Test
### Realistic Scale

| | Activity | Competence | Occupation | Self-Rating |
|---|---|---|---|---|
| **R activity** | 1.00 | | | |
| competence | .62** | 1.00 | | |
| occupation | .61** | .54** | 1.00 | |
| self-rating | .58** | .51** | .43** | 1.00 |
| | | | | |
| **I activity** | .38 | .18 | .21 | .16 |
| competence | .19 | .18 | .16 | .09 |
| occupation | .28 | .23 | .48** | .14 |
| self-rating | .06 | .05 | .00 | .20 |
| | | | | |
| **A activity** | .15 | .21 | .09 | .07 |
| competence | .05 | .23 | .11 | .13 |
| occupation | .09 | .19 | .27 | .17 |
| self-rating | .00 | .18 | .07 | .29 |
| | | | | |
| **S activity** | .09 | -.03 | .00 | -.01 |
| competence | .12 | .20 | .14 | .11 |
| occupation | .12 | .02 | .30 | .06 |
| self-rating | -.07 | -.08 | -.09 | .05 |
| | | | | |
| **E activity** | .37 | .29 | .23 | .20 |
| competence | .20 | .20 | .20 | .17 |
| occupation | .29 | .30 | .48** | .25 |
| self-rating | .19 | .13 | .21 | .29 |
| | | | | |
| **C activity** | .30 | .20 | .25 | .13 |
| competence | .22 | .20 | .27 | .11 |
| occupation | .26 | .17 | .39 | .10 |
| self-rating | .12 | .16 | .17 | .20 |

## Table No. 5-b
## Investigative Scale

|  | Activity | Competence | Occupation | Self-Rating |
|---|---|---|---|---|
| **R** activity | | | | |
| competence | | | | |
| occupation | | | | |
| self-rating | | | | |
| | | | | |
| **I** activity | 1.00 | | | |
| competence | .64** | 1.00 | | |
| occupation | .55** | .56** | 1.00 | |
| self-rating | .50** | .58** | .44** | 1.00 |
| | | | | |
| **A** activity | .08 | .06 | .12 | -.07 |
| competence | .03 | .06 | .12 | .04 |
| occupation | .06 | .05 | .35 | .02 |
| self-rating | -.03 | -.05 | .04 | .10 |
| | | | | |
| **S** activity | .32 | .19 | .25 | .08 |
| competence | .15 | .20 | .24 | .12 |
| occupation | .20 | .16 | .44** | .08 |
| self-rating | .14 | .02 | .18 | .26 |
| | | | | |
| **E** activity | .32 | .22 | .17 | .14 |
| competence | .16 | .14 | .27 | .10 |
| occupation | .10 | .10 | .33 | .10 |
| self-rating | .20 | .14 | .17 | .38 |
| | | | | |
| **C** activity | .25 | .30 | .14 | .21 |
| competence | .15 | .31 | .23 | .25 |
| occupation | .13 | .18 | .35 | .26 |
| self-rating | .11 | .04 | .17 | .31 |

## Table No. 5-c
## Artistic Scale

|  | Activity | Competence | Occupation | Self-Rating |
|---|---|---|---|---|
| R activity | | | | |
| competence | | | | |
| occupation | | | | |
| self-rating | | | | |
| | | | | |
| I activity | | | | |
| competence | | | | |
| occupation | | | | |
| self-rating | | | | |
| | | | | |
| A activity | 1.00 | | | |
| competence | .73** | 1.00 | | |
| occupation | .68** | .72** | 1.00 | |
| self-rating | .52** | .59** | .51** | 1.00 |
| | | | | |
| S activity | .37 | .33 | .26 | .12 |
| competence | .26 | .37 | .28 | .38 |
| occupation | .35 | .27 | .40** | .19 |
| self-rating | .16 | .19 | .19 | .26 |
| | | | | |
| E activity | .21 | .16 | .10 | .11 |
| competence | .19 | .32 | .27 | .34 |
| occupation | .33 | .35 | .40** | .27 |
| self-rating | .08 | .15 | .20 | .20 |
| | | | | |
| C activity | .11 | .11 | .01 | -.03 |
| competence | .21 | .26 | .23 | .05 |
| occupation | .09 | .12 | .20 | -.01 |
| self-rating | .15 | .16 | .24 | .22 |

## Table No. 5-d

### Social Scale

| | Activity | Competence | Occupation | Self-Rating |
|---|---|---|---|---|
| R activity | | | | |
| competence | | | | |
| occupation | | | | |
| self-rating | | | | |
| | | | | |
| I activity | | | | |
| competence | | | | |
| occupation | | | | |
| self-rating | | | | |
| | | | | |
| A activity | | | | |
| competence | | | | |
| occupation | | | | |
| self-rating | | | | |
| | | | | |
| S activity | 1.00 | | | |
| competence | .45** | 1.00 | | |
| occupation | .56** | .40** | 1.00 | |
| self-rating | .25 | .39 | .34 | 1.00 |
| | | | | |
| E activity | .42** | .38 | .27 | .03 |
| competence | .36 | .66** | .32 | .23 |
| occupation | .17 | .24 | .39 | -.01 |
| self-rating | .19 | .37 | .28 | .22 |
| | | | | |
| C activity | .19 | .08 | .10 | -.13 |
| competence | .04 | .18 | .13 | -.01 |
| occupation | .01 | -.02 | .24 | -.14 |
| self-rating | .08 | .20 | .18 | .30 |

## Table No. 5-e
## Enterprising Scale

|  | Activity | Competence | Occupation | Self-Rating |
|---|---|---|---|---|
| R activity | | | | |
|   competence | | | | |
|   occupation | | | | |
|   self-rating | | | | |
| | | | | |
| I activity | | | | |
|   competence | | | | |
|   occupation | | | | |
|   self-rating | | | | |
| | | | | |
| A activity | | | | |
|   competence | | | | |
|   occupation | | | | |
|   self-rating | | | | |
| | | | | |
| S activity | | | | |
|   competence | | | | |
|   occupation | | | | |
|   self-rating | | | | |
| | | | | |
| E activity | 1.00 | | | |
|   competence | .56** | 1.00 | | |
|   occupation | .42** | .39 | 1.00 | |
|   self-rating | .39 | .57** | .47** | 1.00 |
| | | | | |
| C activity | .46** | .17 | .32 | .23 |
|   competence | .24 | .23 | .24 | .18 |
|   occupation | .18 | .05 | .50** | .22 |
|   self-rating | .26 | .35 | .31 | .49** |

## Table No. 5-f
## Conventional Scale

|  | Activity | Competence | Occupation | Self-Rating |
|---|---|---|---|---|
| **R** activity | | | | |
| competence | | | | |
| occupation | | | | |
| self-rating | | | | |
| | | | | |
| **I** activity | | | | |
| competence | | | | |
| occupation | | | | |
| self-rating | | | | |
| | | | | |
| **A** activity | | | | |
| competence | | | | |
| occupation | | | | |
| self-rating | | | | |
| | | | | |
| **S** activity | | | | |
| competence | | | | |
| occupation | | | | |
| self-rating | | | | |
| | | | | |
| **E** activity | | | | |
| competence | | | | |
| occupation | | | | |
| self-rating | | | | |
| | | | | |
| **C** activity | 1.00 | | | |
| competence | .54** | 1.00 | | |
| occupation | .51** | .45** | 1.00 | |
| self-rating | .29 | .36 | .20 | 1.00 |

APPENDIX NO. 7

## The Extracted Seven Factors of the SDS

| Variables | Communality | Factors | Eigenvalue | Varience |
|-----------|-------------|---------|------------|----------|
| R activity | .772 | 1 | 6.32 | 26.3% |
| competence | .727 | 2 | 2.98 | 12.4% |
| occupation | .790 | 3 | 2.28 | 9.5% |
| self-rating | .693 | 4 | 1.71 | 7.1% |
| | | 5 | 1.66 | 6.9% |
| I activity | .746 | 6 | 1.47 | 6.1% |
| competence | .776 | 7 | 1.22 | 5.1% |
| occupation | .811 | | | |
| self-rating | .809 | | | |
| | | | | |
| A activity | .793 | | | |
| competence | .833 | | | |
| occupation | .798 | | | |
| self-rating | .697 | | | |
| | | | | |
| S activity | .745 | | | |
| competence | .644 | | | |
| occupation | .772 | | | |
| self-rating | .588 | | | |
| | | | | |
| E activity | .743 | | | |
| competence | .740 | | | |
| occupation | .680 | | | |
| self-rating | .711 | | | |
| | | | | |
| C activity | .761 | | | |
| competence | .632 | | | |
| occupation | .746 | | | |
| self-rating | .627 | | | |

The Loading on the Common Factors for the Entire Test (SDS). Equamax Rotation with 7 Factors.

| Factors | A | R | I | S+E | C | Self-rating | Occupation |
|---|---|---|---|---|---|---|---|
| R activity | -.05 | .81* | .15 | .18 | .17 | -.06 | .17 |
| competence | .19 | .81* | .09 | .07 | .13 | -.02 | .01 |
| occupation | .00 | .67* | .04 | -.02 | .18 | .04 | .56* |
| self-rating | .11 | .77* | .09 | -.03 | -.05 | .28* | -.02 |
| I activity | -.05 | .20 | .79* | .25 | .06 | -.04 | .11 |
| competence | -.03 | .08 | .84* | .12 | .21 | -.02 | .04 |
| occupation | .08 | .16 | .64* | 00 | .02 | .05 | .60* |
| self-rating | -.02 | -.03 | .75* | -.10 | .13 | .46* | -.04 |
| A activity | .83* | .04 | -.04 | .21 | .12 | -.09 | .16 |
| competence | .88* | .05 | .01 | .18 | .13 | .06 | .07 |
| occupation | .79* | .08 | .03 | .02 | .03 | .11 | .39* |
| self-rating | .73* | .15 | -.05 | .09 | -.13 | .34* | -.07 |
| S activity | .21 | -.17 | .22 | .73* | -.02 | .11 | .28 |
| competence | .27 | .07 | .12 | .65* | -.12 | .31 | .10 |
| occupation | .20 | -.09 | .12 | .40* | .08 | .10 | .73* |
| self-rating | .21 | -.19 | .24 | .17 | -.42 | .48* | .12 |
| E activity | -.03 | .26 | .07 | .72* | .36 | .15 | .04 |
| competence | .15 | .16 | -.02 | .67* | .06 | .48* | .07 |
| occupation | .20 | .27 | -.13 | .17 | .35 | .31 | .55* |
| self-rating | -.03 | .15 | .05 | .31 | .12 | .74* | .19 |
| C activity | -.03 | .10 | .16 | .23 | .82* | .06 | .02 |
| competence | .21 | .05 | .22 | .00 | .70* | .20 | .05 |
| occupation | .00 | .08 | .09 | -.17 | .66* | .13 | .50* |
| self-rating | .11 | .04 | .05 | .04 | .26 | .73* | .09 |

The Loading on the Common Factors for the Entire Test (SDS).
Varimax Rotation with 7 Factors.

| Factors | A | R | I | S+E | C | Self-rating | Occupation |
|---|---|---|---|---|---|---|---|
| R activity | -.04 | .82* | .15 | .18 | .16 | -.06 | .13 |
| competence | .19 | .81* | .09 | .07 | .12 | -.03 | -.03 |
| occupation | .02 | .69* | .05 | -.01 | .19 | .05 | .52* |
| self-rating | .12 | .77* | .09 | -.03 | -.06 | .28* | -.06 |
| | | | | | | | |
| I activity | -.04 | .20 | .79* | .25 | .06 | -.04 | .09 |
| competence | -.03 | .09 | .84* | .12 | .21 | -.02 | .02 |
| occupation | .10 | .18 | .65* | .02 | .04 | .06 | .58* |
| self-rating | -.01 | -.02 | .75* | -.09 | .13 | .46* | -.06 |
| | | | | | | | |
| A activity | .84* | .05 | -.03 | .20 | .12 | -.10 | .12 |
| competence | .88* | .05 | .01 | .17 | .13 | .05 | .03 |
| occupation | .81* | .09 | .03 | .02 | .04 | .11 | .35* |
| self-rating | .73* | .15 | -.05 | .08 | -.13 | .32* | -.11 |
| | | | | | | | |
| S activity | .23 | -.16 | .22 | .73* | -.02 | -.12 | .26 |
| competence | .29 | .07 | .12 | .66* | -.12 | .30 | .06 |
| occupation | .24 | -.07 | .13 | .41* | -.06 | .10 | .71* |
| self-rating | .23 | -.19 | .25 | .18 | -.41* | .48* | .11 |
| | | | | | | | |
| E activity | -.01 | .27 | .07 | .72* | .36 | .14 | .00 |
| competence | .17 | .17 | -.02 | .68* | .06 | .47* | .03 |
| occupation | .23 | .29 | -.12 | .18 | .37 | .31 | .51* |
| self-rating | -.01 | .16 | .06 | .33 | .12 | .73* | .16 |
| | | | | | | | |
| C activity | -.03 | .11 | .16 | .24 | .81* | .06 | -.02 |
| competence | .22 | .06 | .22 | .01 | .70* | .19 | .01 |
| occupation | .03 | .11 | .09 | -.16 | .67* | .14 | .48* |
| self-rating | .13 | .05 | .05 | .05 | .26 | .73* | .06 |

The Loading on the Common Factors for the Entire Test (SDS).
Quartimax Rotation with 7 Factors.

| Factors | A | R | I | S+E | C | Self-rating | Occupation |
|---|---|---|---|---|---|---|---|
| R activity | -.03 | .82* | .15 | .18 | .16 | -.07 | .09 |
| competence | .19 | .81* | .08 | .07 | .11 | -.03 | -.06 |
| occupation | .04 | .70* | .05 | .00 | .19 | .05 | .50* |
| self-rating | .12 | .76* | .09 | -.03 | -.07 | .27* | -.08 |
| I activity | -.04 | .21 | .79* | .25 | .06 | -.05 | .07 |
| competence | -.03 | .09 | .84* | .12 | .20 | -.03 | -.00 |
| occupation | .12 | .19 | .66* | .03 | .05 | .07 | .56* |
| self-rating | -.01 | -.02 | .75* | -.08 | .13 | .46* | -.07 |
| A activity | .85* | .05 | -.03 | .19 | .12 | -.11 | .09 |
| competence | .89* | .05 | .01 | .17 | .12 | .04 | -.00 |
| occupation | .82* | .09 | .04 | .02 | .05 | .09 | .33* |
| self-rating | .73* | .14 | -.05 | .08 | -.14 | .31* | -.13 |
| S activity | .24 | -.15 | .22 | .73* | -.02 | -.13 | .24 |
| competence | .30 | .08 | .13 | .66* | -.12 | .29 | .04 |
| occupation | .26 | -.05 | .14 | .42* | -.04 | .09 | .70* |
| self-rating | .24 | -.18 | .25 | .19 | -.41* | .47* | .11 |
| E activity | -.01 | .27 | .07 | .73* | .35 | .12 | -.03 |
| competence | .18 | .17 | -.02 | .69* | .06 | .45* | .01 |
| occupation | .25 | .31 | -.11 | .19 | .37 | .30 | .49* |
| self-rating | .00 | .17 | .06 | .34 | .13 | .73* | .14 |
| C activity | -.02 | .12 | .16 | .24 | .81* | .05 | -.05 |
| competence | .22 | .07 | .22 | .02 | .70* | .19 | -.02 |
| occupation | .04 | .13 | .11 | -.14 | .68* | .14 | .46* |
| self-rating | .14 | .05 | .05 | .07 | .27 | .72* | .04 |

The Loading on the Common Factors for the Entire Test (SDS).
Oblimin Rotation with 7 Factors.

| Factors | R | A | I | Self-rating | C | S+E | Occupation |
|---|---|---|---|---|---|---|---|
| R activity | .84* | -.03 | .21 | -.01 | -.27 | -.23 | -.21 |
| competence | .83* | -.23 | .12 | -.04 | -.20 | -.14 | -.06 |
| occupation | .73* | -.11 | .11 | -.11 | -.28 | -.07 | -.58* |
| self-rating | .77* | -.17 | .13 | -.11 | -.28 | -.05 | .00 |
| | | | | | | | |
| I activity | .25 | -.02 | .82* | -.02 | -.12 | -.30 | -.18 |
| competence | .15 | .00 | .86* | -.03 | -.25 | -.17 | -.11 |
| occupation | .26 | -.18 | .69* | -.13 | -.10 | -.11 | -.65* |
| self-rating | .05 | -.03 | .78* | .49* | -.15 | .01 | -.01 |
| | | | | | | | |
| A activity | .10 | -.85* | .00 | .00 | -.11 | -.28 | -.22 |
| competence | .12 | -.90* | .05 | -.15 | -.11 | -.27 | -.13 |
| occupation | .16 | -.84* | .08 | -.20 | -.04 | -.13 | -.43* |
| self-rating | .18 | -.76* | -.01 | -.38* | .14 | -.17 | .04 |
| | | | | | | | |
| S activity | -.10 | -.33 | .28 | .04 | .02 | -.75* | -.34 |
| competence | .13 | -.41* | .21 | -.37 | .12 | -.71* | -.15 |
| occupation | .00 | -.36 | .22 | -.18 | .04 | -.47* | -.76* |
| self-rating | -.16 | -.29 | .28 | -.48* | -.43* | -.23 | -.12 |
| | | | | | | | |
| E activity | .34 | -.11 | .17 | -.22 | -.38 | -.75* | -.12 |
| competence | .24 | -.31 | .09 | -.53* | -.07 | -.74* | -.13 |
| occupation | .39 | -.35 | -.01 | -.39 | -.39 | -.27 | .59* |
| self-rating | .24 | -.14 | .17 | -.77* | -.14 | -.40* | -.22 |
| | | | | | | | |
| C activity | .22 | -.03 | .23 | -.14 | -.83* | -.28 | -.09 |
| competence | .17 | -.26 | .28 | -.27 | -.71* | -.09 | -.11 |
| occupation | .22 | -.08 | .17 | -.20 | -.69* | .09 | -.54* |
| self-rating | .14 | -.23 | .14 | -.76* | -.26 | -.14 | -.12 |

## The Extracted SIX Factors of the SDS

| Variables | Communality | Factors | Eigenvalue | Varience |
|-----------|-------------|---------|------------|----------|
| R activity | .769 | 1 | 6.32 | 26.3% |
| competence | .691 | 2 | 2.98 | 12.4% |
| occupation | .667 | 3 | 2.28 | 9.5% |
| self-rating | .692 | 4 | 1.71 | 7.1% |
|  |  | 5 | 1.66 | 6.9% |
| I activity | .714 | 6 | 1.47 | 6.1% |
| competence | .711 |  |  |  |
| occupation | .716 |  |  |  |
| self-rating | .798 |  |  |  |
|  |  |  |  |  |
| A activity | .743 |  |  |  |
| competence | .756 |  |  |  |
| occupation | .791 |  |  |  |
| self-rating | .665 |  |  |  |
|  |  |  |  |  |
| S activity | .742 |  |  |  |
| competence | .638 |  |  |  |
| occupation | .556 |  |  |  |
| self-rating | .552 |  |  |  |
|  |  |  |  |  |
| E activity | .689 |  |  |  |
| competence | .737 |  |  |  |
| occupation | .578 |  |  |  |
| self-rating | .670 |  |  |  |
|  |  |  |  |  |
| C activity | .666 |  |  |  |
| competence | .567 |  |  |  |
| occupation | .687 |  |  |  |
| self-rating | .616 |  |  |  |

The Loading on the Common Factors for the Entire Test (SDS).
Equamax Rotation with 6 Factors.

| Factors | A | R | I | S+E | C | Self-rating |
|---|---|---|---|---|---|---|
| R activity | -.05 | .83* | .17 | .17 | .17 | -.03 |
| competence | .14 | .81* | .07 | .03 | .08 | .04 |
| occupation | .13 | .72* | .16 | .09 | .31 | -.04 |
| self-rating | .09 | .75* | .08 | -.09 | -.07 | .31* |
| | | | | | | |
| I activity | -.08 | .20 | .78* | .25 | .04 | .02 |
| competence | -.08 | .08 | .81* | .11 | .17 | .04 |
| occupation | .21 | .21 | .76* | .15 | .18 | -.02 |
| self-rating | -.06 | -.05 | .72* | -.15 | .13 | .48* |
| | | | | | | |
| A activity | .81* | .06 | -.04 | .24 | .12 | -.04 |
| competence | .83* | .06 | -.01 | .18 | .11 | .12 |
| occupation | .86* | .11 | .09 | .11 | .12 | .08 |
| self-rating | .68* | .14 | -.08 | .03 | -.15 | .39* |
| | | | | | | |
| S activity | .22 | -.12 | .23 | .79* | -.01 | -.05 |
| competence | .25 | .09 | .11 | .62* | -.12 | .39 |
| occupation | .38 | -.01 | .27 | .58* | .11 | .01 |
| self-rating | .26 | -.19 | .27 | .17 | -.35 | .48* |
| | | | | | | |
| E activity | -.09 | .28 | .03 | .67* | .31 | .25 |
| competence | .11 | .18 | -.05 | .62* | .06 | .55* |
| occupation | .32 | .33 | -.03 | .27 | .49* | .22 |
| self-rating | .00 | .16 | .08 | .29 | .19 | .72* |
| | | | | | | |
| C activity | -.11 | .11 | .11 | .21 | .76* | .11 |
| competence | .16 | .05 | .19 | -.01 | .68* | .21 |
| occupation | .11 | .13 | .19 | -.05 | .79* | .01 |
| self-rating | .13 | .03 | .05 | .01 | .32 | .70* |

The Loading on the Common Factors for the Entire Test (SDS).
Varimax Rotation with 6 Factors.

| Factors | A | R | I | S+E | C | Self-rating |
|---|---|---|---|---|---|---|
| R activity | -.04 | .83* | .16 | .17 | .16 | -.04 |
| competence | .15 | .81* | .06 | .03 | .08 | .03 |
| occupation | .13 | .72* | .15 | .09 | .31 | -.06 |
| self-rating | .09 | .76* | .07 | -.08 | -.07 | .31* |
| | | | | | | |
| I activity | -.07 | .20 | .78* | .25 | .04 | .01 |
| competence | -.08 | .08 | .81* | .11 | .17 | .03 |
| occupation | .21 | .21 | .76* | .14 | .18 | -.03 |
| self-rating | -.05 | -.04 | .72* | -.13 | .13 | .49* |
| | | | | | | |
| A activity | .82* | .06 | -.04 | .22 | .11 | -.06 |
| competence | .84* | .06 | -.01 | .16 | .10 | .10 |
| occupation | .86* | .11 | .09 | .09 | .12 | .06 |
| self-rating | .69* | .14 | -.08 | .03 | -.15 | .38* |
| | | | | | | |
| S activity | .24 | -.12 | .24 | .79* | -.01 | -.09 |
| competence | .27 | .09 | .11 | .63* | -.12 | .36 |
| occupation | .39 | -.01 | .27 | .57* | .11 | -.01 |
| self-rating | .27 | -.18 | .27 | .19 | -.34 | .47* |
| | | | | | | |
| E activity | -.08 | .28 | .03 | .68* | .31 | .21 |
| competence | .14 | .18 | -.05 | .64* | .06 | .52* |
| occupation | .33 | .33 | -.03 | .27 | .50* | .19 |
| self-rating | .02 | .16 | .07 | .32 | .19 | .71* |
| | | | | | | |
| C activity | -.09 | .11 | .11 | .21 | .76* | .09 |
| competence | .16 | .06 | .18 | .01 | .68* | .21 |
| occupation | .12 | .13 | .18 | -.06 | .79* | .01 |
| self-rating | .14 | .04 | .05 | .03 | .32 | .70* |

The Loading on the Common Factors for the Entire Test (SDS).
Quartimax Rotation with 6 Factors.

| Factors | A | R | I | S+E | C | Self-rating |
|---|---|---|---|---|---|---|
| R activity | -.04 | .82* | .16 | .18 | .16 | -.06 |
| competence | .15 | .81* | .06 | .03 | .08 | .02 |
| occupation | .14 | .72* | .15 | .08 | .31 | -.08 |
| self-rating | .09 | .76* | .07 | -.06 | -.07 | .31* |
| I activity | -.06 | .20 | .78* | .24 | .04 | .00 |
| competence | -.08 | .08 | .81* | .10 | .18 | .03 |
| occupation | .22 | .21 | .76* | .13 | .18 | -.04 |
| self-rating | -.04 | -.04 | .72* | -.11 | .14 | .50* |
| A activity | .82* | .06 | -.04 | .20 | .11 | -.09 |
| competence | .84* | .05 | .01 | .15 | .10 | .08 |
| occupation | .87* | .11 | .09 | .08 | .12 | .04 |
| self-rating | .69* | .14 | -.09 | .04 | -.15 | .37* |
| S activity | .25 | -.13 | .24 | .77* | -.01 | -.13 |
| competence | .28 | .09 | .11 | .65* | -.12 | .32 |
| occupation | .39 | -.02 | .27 | .55* | .11 | -.05 |
| self-rating | .27 | -.18 | .27 | .21 | -.34 | .46* |
| E activity | -.06 | .28 | .03 | .69* | .31 | .17 |
| competence | .15 | .18 | -.05 | .67* | .07 | .48* |
| occupation | .34 | .33 | -.03 | .28 | .49* | .17 |
| self-rating | .03 | .17 | .07 | .36 | .20 | .68* |
| C activity | -.09 | .11 | .11 | .22 | .76* | .08 |
| competence | .17 | .06 | .18 | .00 | .68* | .19 |
| occupation | .12 | .13 | .18 | -.06 | .79* | .00 |
| self-rating | .15 | .05 | .04 | .07 | .33 | .69* |

The Loading on the Common Factors for the Entire Test (SDS).
Oblimin Rotation with 6 Factors.

| Factors | R | A | I | Self-rating | C | S+E |
|---|---|---|---|---|---|---|
| R activity | .85* | -.02 | .22 | .02 | -.28 | -.24 |
| competence | .82* | -.19 | .11 | -.06 | -.19 | -.12 |
| occupation | .76* | -.18 | .21 | .02 | -.41* | -.18 |
| self-rating | .76* | -.15 | .11 | -.33 | -.03 | -.02 |
| I activity | .26 | .00 | .80* | -.04 | -.13 | -.31 |
| competence | .15 | .03 | .83* | -.06 | -.25 | -.17 |
| occupation | .29 | -.26 | .79* | -.02 | -.27 | -.24 |
| self-rating | .04 | .00 | .74* | -.51* | -.18 | .01 |
| A activity | .13 | -.84* | .02 | .01 | -.13 | -.31 |
| competence | .13 | -.86* | .05 | -.16 | -.13 | -.28 |
| occupation | .19 | -.88* | .15 | -.12 | -.16 | -.22 |
| self-rating | .18 | -.72* | -.03 | -.42* | .13 | -.15 |
| S activity | -.06 | -.33 | .31 | .05 | -.03 | -.78* |
| competence | .15 | -.39 | .20 | -.39 | .07 | -.70* |
| occupation | .06 | -.47* | .34 | -.03 | -.16 | -.62* |
| self-rating | -.15 | -.32 | .29 | -.48* | .33 | -.25 |
| E activity | .36 | -.06 | .15 | -.23 | -.37 | -.73* |
| competence | .26 | -.28 | .08 | -.54* | -.11 | -.72* |
| occupation | .43* | -.41* | .08 | -.24 | -.55* | -.39 |
| self-rating | .27 | -.14 | .18 | -.72* | -.24 | -.43* |
| C activity | .23 | .03 | .19 | -.12 | -.78* | -.28 |
| competence | .18 | -.21 | .26 | -.24 | -.69* | -.11 |
| occupation | .26 | -.14 | .24 | -.05 | -.81* | -.04 |
| self-rating | .15 | -.22 | .14 | -.72* | -.34 | -.17 |