THE EFFECTS OF INDIVIDUAL CHARACTERISTICS ON THE RELATIONSHIPS BETWEEN PERSON INTEREST-WORK ENVIRONMENT CONGRUENCY AND JOB INVOLVEMENT AT UNIVERSITAS TERBUKA (THE INDONESIAN OPEN LEARNING UNIVERSITY)

by

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ABSTRACT

Since the development of theory of vocational interest by Holland (1966), researches in vocational interest have shown that the interactions between people and work environment seem to be consistent in predicting their behavior. People tend to be more involved and satisfied with their jobs when they work in an environment which reflects or corresponds with their interests (Kuder, 1977; Hansen & Cambell, 1985; and Holland, 1985).

A person's fit or congruence with work environment has been used in predicting the person's job involvement (Blau, 1987 and Furnham & Walsh, 1990). One of the instruments for measuring a person's fit or congruence is the Self Directed Search Inventory (SDS), developed by Holland (1985). One instrument for measuring person's job involvement is Lodahl and Kejner's Job Involvement Scale (1965).

Studies which have been conducted at Universitas Terbuka (UT) in Indonesia found that UT provided poor quality of services (Abzeni, 1993, and Hardhono, 1994). This may be due to a lack of congruent interactions between employee and work environment which may constrain involvement in the job. This study examined the interactions of person with work environment in predicting job involvement and included individual characteristics as

contextual variables. This study provides important information for increasing employee involvement and for improving the quality of UT's services.

The main findings of this study were: firstly, the Indonesian versions of the Self Directed Search Inventory (Activity Scale) and Job Involvement Scale were comparable to the original English versions. Secondly, most work sites in Universitas Terbuka were characterized by a social type of work environment which was appropriate since UT is an educational institution. Thirdly, the employees' perceptions of congruence with work environment and job involvement differed by the levels of employee knowledge of UT and by age levels (senior and junior employees). However, different lengths of services (late, mid and early careers) did not relate to either degree of congruency or job involvement. Fourthly, the congruence of employee with work environment significantly predicted his/her job involvement, and the employee's knowledge of UT also significantly predicted both degree of congruency and job involvement. Furthermore, the interactions of person's interest-work environment congruency and job involvement was influenced by both employee knowledge of UT and the increasing employee age.

This study, therefore, provides a number of implications to Universitas Terbuka in increasing the employee congruence or fit with work environment which may

increase his/her involvement with the job. By increasing employee congruence or fit with work environment, There may be the benefits of improvement of UT's productivity as well as employee satisfaction.

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CHAPTER I

INTRODUCTION

Background

The relationships between individual, environment and behavior have been acknowledged since the contribution of behaviorism (Watson, 1925), however Bandura (1977) sharpened that construct by developing reciprocal determinism in social learning theory. Bandura (1977) suggested that there are continuous reciprocal interactions between individual, behavioral and environmental determinants. The individual and the environmental situations do not function as independent units but, in conjunction with the behavior itself, reciprocally interact to determine behavior.

According to Holland (1985) personality characteristics and the occupational environment have a great impact on the individual's attitude. The degree of congruency between personality and environment will contribute to the degree of occupational satisfaction. When individuals chose occupations, they tend to choose occupations which reflect their motivation, knowledge, personality and ability. This can be interpreted to mean that an individual's interest acts as a manifestation or an expression of his/her personality and a predictor of occupational memberships and satisfaction (Tranberg, Slane & Ekeberg, 1993).

Because interest has dimensions of intensity (strength tendency) and duration (continuation in experience), and consists of cognitive, behavioral and affective components (Davis, 1990), the work environment may contribute to the intensity and duration of individual's interests which effect to job involvement.

Since the development of hexagonal model of personality interests by Holland (1967), the theory of interest has been remain unchanged (Davis, 1990). There appears to be agreement among researchers that interest can be conceptualized as a stable personality trait (Cole & Hanson, 1978 and Holland, 1985) which is influenced by cognitive, behavioral and affective components (Bingham, 1937; Strong & Campbell, 1971 and Kuder, 1977).

A number of researches have been conducted which have investigated the relationships between the person-environment fit and satisfaction (Wiggins, 1984; Meir, Keinan and Segal, 1986, and Tranberg, Slane & Ekeberg, 1993), but few studies have investigated the effects of the individual characteristics on the relationships between person-environment congruency and job involvement. The concept of person and environment congruency is described as the degree of fit or congruence between the attributes of an individual and the work environment. The individual attributes which might be closely related to the work environment are vocational interest.

This study was conducted to determine the relationships between person-work environment congruency, individual characteristics and job involvement. Research into the relationships between person-work environment congruency, individual characteristics and job involvement may contribute to the universality of the construct that the continuous relationships between person and environment produce specific behaviors (Bandura, 1977).

According to Holland (1985), there are six personality types which share a common set of construct with work environment so that it is possible to classify people and work environment in the same terms. These six types are **realistic, investigative, artistic, social, enterprise and conventional type**. Holland (1985) suggested that the work environment which might be established in post secondary education may be more dominated by the social type because it is predominantly filled by the social type of people. Social type of people express themselves by being sociable, responsible, humanistic, showing concern with welfare of others and proficient in verbal and interpersonal skills (Strong & Campbell, 1974). Social type of people constitute social type of work environment which is characterized by the manipulation of others to inform, train, develop, cure or enlighten (Holland, 1985).

According to Holland's theory (1985), a post secondary education work environment such as Universitas

Terbuka is a social type of work environment. This type of work environment encourages people to be helpful, cooperative and sociable and to prefer verbal and interpersonal activities (Strong & Campbell, 1974 and Holland, 1985). However, some studies which were conducted at Universitas Terbuka found that the university provided poor quality of services such as the response time to student's complaints, delays in distribution of examination results, the slow pace of registration process, confusion about students' information resources, and the quality of the staff responses to requests for service (Abzeni, 1993; Hardhono, 1994). Accordingly, there must be a lack of an appropriate work environmental type or incongruent relationships between employee's interest and work environment which restrains employee's involvement on his/her job (Kuder,1977; Holland, 1985; Blau, 1987; and Furnham & Walsh, 1990).

This research focused on determining the relationships between person-work environment congruency and job involvement by including the individual characteristics as a contextual variables. This type of research could contribute to an organization achieving effectiveness of the employee to work and in improving the quality of UT's services.

Overview of Universitas Terbuka
(The Indonesian Open University)

Universitas Terbuka (UT) was established in 1984 (Presidential Decree, 1984). UT provides a new system in Indonesian higher education, distance education, which is based on the independent learning. Students learn entirely from printed learning materials (module) with little assistance in the form of tutorial or other face-to-face learning opportunities.

Universitas Terbuka is the only higher education institution in Indonesia which provides distance education. The knowledge of distance education system is considered anew not only for UT's employees but also for Indonesian society, in contrast with the traditional face-to-face university which has been well established in Indonesia. These situations may also contribute to the problems faced by UT.

Since beginning, Universitas Terbuka has faced many constraints; both technical and societal. The main technical obstacles are due the dispersed location of students throughout more than a thousand islands, lack of a good postal system and an effective communication system with a moderate price. These factors result in the lack of timely delivery of course materials, processing students' registrations and students' examinations. Further, the relative inexperience of UT's staff and the reliance on

professors from other university, there have also been difficulties encountered in the development of course materials.

The societal constraints refers to the acceptability on the part of the society of UT's credibility as a university and the quality of its graduates. The credibility and the quality of the programs, graduates and services restrain the acceptance of UT in the professional communities, as well as general public.

Professional acceptance which relies on the quality of programs and lecturers, and the quality of research centers will require a long period of time whereas the general public acceptance is required immediately because UT has experienced substantial decreases of students enrollment (UT's Statistics, 1992). The public acceptance will be strengthened by UT's competence in running its institutions, and UT services might be the essential component in supporting its attractiveness to its public.

Many of the problems of managing UT have already been solved but there are many others which still exist. One of the existing problems is the poor quality of services such as the response time of student's complaints, delays in the distribution of the examination results, confusion about students' information resources and the quality of staff (Abzeni, 1993; Hardhono, 1994). It is not exactly clear what factors cause these problems. However, the human factor,

UT's employees, may be the most influential factor contributing improving to these conditions. Yet employee effectiveness may not have been given sufficient attention.

Universitas Terbuka has not directed much time or attention to employee effectiveness because of the need to deal with immediate technical matters: distribution of learning materials, student registration and evaluation, and budgeting (Setijadi, 1992). However, employee effectiveness should also be improved in order to provide better quality of services. Employee effectiveness may be improved when employees work in an environment where they are involved in their job, which demands their competencies and which offers them the chance to exercise their skills and abilities.

The poor services mentioned above may be a result of a lack of employee effectiveness, which, in turn , may lower employees' involvement in their jobs. Employee effectiveness may also be influenced by the degree of the congruency between the person's personality and the environment where he works (Strong & Campbell, 1973; Holland, 1975; Kanter 1992). There is evidence that individuals are more likely to perform well when they are working in an environment which they prefer, which demands their special competencies, and which reinforces their personal dispositions (Strong & Campbell, 1971; Holland, 1975; Kuder, 1977).

Job involvement is very complex, consisting of many interacting factors. One of the elements which might be a

significant influence is the congruency between the person's interest and the work environment (Farris, 1971 and Blau, 1987) which is indicated by the sense of belongingness of the individual to colleagues. The colleagues' belongingness assists in employee involvement, and it is a very powerful tool to fight employee absenteeism and turn-over (Blau, 1987). It seems that individual interest-work environment congruency and job involvement interact with each other in influencing individual performance.

Problem Statement

When job involvement is considered to be a function of individual differences and person-situation interaction (Lodahl, 1964; Hall & Mansfield, 1975 and Blau, 1987), the degree of interest-work environment congruency and individual characteristics such as age, education, length of experience, gender, occupation and the knowledge of UT are likely to produce differences in job involvement. It would seem that those individual's characteristics may serve as a contextual variable in determining the degree of job involvement and the degree of congruency.

Few studies have been conducted focusing the relationships between person-work environment congruency, job involvement and individual characteristics. However, many studies have been conducted focussing the relationships between the congruency and work satisfaction (Zalesny and

Farace, 1988; Ostroff, 1993 and Tranberg, Slane & Ekeberg, 1993). Since job involvement has a dimension of the extent of the person's psychological identification with his/her job (Blau, 1987), job involvement might closely relate to the person-work environment congruency because person-work environment congruency is seen as the extent of fit or congruence between a person's type of personality interest with his/her work environmental type (Holland, 1985, Furnham & Walsh, 1990).

This study explored the relationships between person-work environment congruency, individual characteristics and job involvement in a specific population, the staff of Universitas Terbuka. Recognition of the association between interest-work environment congruency and job involvement may furnish appropriate information which may be valuable for understanding and overcoming problems in the work place. By understanding the employees' interests, UT may also be able to place them into a suitable environment where they are able to make better use of their abilities and skills.

Instruments

The Self Directed Search Inventory (SDS) (Holland, 1985) was used for assessing the degree of interest-work environment congruency. The Job Involvement Scale (Lodahl and Kejner, 1965) was used for measuring person's job involvement. Individual demographics served as contextual

variables, which might relate to both the degree of congruency and job involvement. Both standardized instruments had never been employed in research in Indonesia and so it was necessary to develop an Indonesian language version of each instrument. This study may therefore contribute to knowledge as to the universality of these instruments in other cultures.

Limitations

This study had some limitations concerning its generalizibility. Due to the limited sample of Universitas Terbuka's population, the results and the discussions are limited to the sample of the study.

Another limitation was the instruments used for this study. The interpretations of Job Involvement was based on the Lodahl & Kejner's definition which was the employee psychological identification of the job is represented by perceptions of the importance of job to the self image. Congruency in this study refers to the Holland's interpretation which is differences between person interest type and work environmental type using Self Directed Search Inventory (1985 revision) "Activity Scale" .

Purposes of the Study

The main purpose of this study is to examine the effects of individual characteristics on the relationships between interest-work environment congruency and job

involvement. However, this purpose can be subdivided into the following:

1. To develop "Bahasa Indonesia" translation versions of Holand Self Directed Search Inventory "Activity Scale" (1985) and Lodahl & Kejner Job Involvement Scale "reduced twelve items" (1965).
2. To identify what kinds of work environments exist in the area of the study.
3. To identify the differences in job involvement and in the degree of congruency between gender, status, experience, age, education, and level of the knowledge about UT ;
4. To identify the relationships between the interest-work environment congruency, individual characteristics and job involvement; and
5. To identify the effects of individual characteristics on the relationships between interest-work environment congruency and job involvement.

CHAPTER II

LITERATURE REVIEW

Overview

Barnard (1938) suggested that every organization operates in both physical and social environments. As a system, organization is working on the domain of its purposes and goals (Scott, 1990). These conditions are reflected in both the social and physical activities of the organization.

In any event, organization must deal with the people, the behavior and the environment because these are the essential factors of any organization. The social learning approach is one of the prominent theoretical constructs which can describe the interactive nature of the environment-person-behavior variables.

Bandura (1977) pointed out that there are continuous reciprocal interactions between individual, behavioral and environmental determinants. The individual and the environmental situations do not function as independent units but, in conjunction with the behavior itself, reciprocally interact to determine behavior. This theory seems to be a comprehensive construct in understanding the behavior in organization.

The interactions of individual, environment and behavior

The connections between personality and environment in addressing the individual behavior in organization becomes important since behaviorism has had a great influence on modern psychology, especially, the contribution of the social learning theory. Learning has occupied a central role in the micro perspective of organizational behavior (Luthans, 1981).

The most influential contribution of social learning theory is the propositions of the continuous interactions between personality, environment and behavior (reciprocal determinism) and the modelling process of learning.

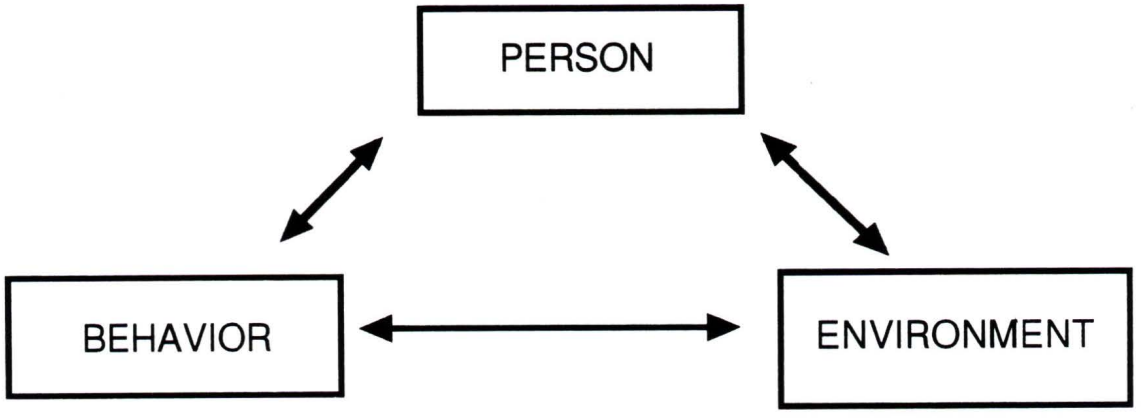

Figure 1 : Reciprocal Determinism

conceptual framework for understanding behaviors in the organization because it incorporates both cognitive and behavioristic concepts.

Bandura (1977) mentioned that :

> ...it is difficult to imagine a socialization process in which language, mores, vocational activities, familial customs and educational, religious and political practices of a culture are taught to each new members by selective reinforcement of fortuitous behavior, without benefit of models who exemplify the cultural pattern in their own behavior. Most of the behaviors that people display are learned either deliberately or inadvertently, through the influence of example (p.5.).

Bandura has presented comprehensive construct in addressing the reciprocal interactive nature of person, behavior and environment and in understanding the modelling learning from others.

Since humans are members of society, their relationships with others typically occur in the context of a socially organized system of activities (Ickes and Knowles, 1982). The relationship between individuals is also determined by the interpersonal competency which is composed of those adaptive dispositions and skills which facilitate a person's ability to cope with other people and to face the vicissitudes of life by relying selectively on one's inner resources and the resources of the environment, including people, institutions, tools or information (Holland ,1976).

According to Holland (1985), vocational interest is defined as an expressive act which reflects a person's motivation, knowledge, personality and ability. There are certain characteristics of individuals which cause them to behave in different or similar ways. These stereotypes represent vocational interests and have reliable and important psychological and sociological meanings.

The similarity of traits and interests force individuals to build social relationships with others who are similar stereotypes. This view indicates that individual interest may be useful in the study of organizational behavior because organizational structure and process are determined by the people who are attracted to, selected by and remain in the organization (Schneider, 1987).

Holland (1973) also proposed that vocational satisfaction depends on the congruency between one's personality and the environment in which one works. Predigger (1982) found, in his study, that there is an activity link between interest and occupation focusing on the work tasks characterizing the occupation. Individuals tend to work more comfortably among friends whose tastes, talents and values are similar to theirs. Individuals are also more likely to perform well at a vocation in which they fit psychologically.

The Hexagonal Model of Personality Interest

Holland (1968) developed the hexagonal model of personality interest based on the people-thing dimension and the data-idea dimension. The hexagonal model of interest furnishes a meaningful context in which every person presents predominantly a particular type of personality interest. It is also possible that a person may evidence more than one type of personality interest, however he belongs predominantly to one type of personality interest. The six types of personality interest were developed based on the similarities and dissimilarities among them.

Each type of personality interest is a product of a characteristic interaction between a variety of cultural and personal forces including peers, parents, social class, culture, and physical environment (Holland, 1973). Those six types of personality interest are realistic, investigative, artistic, social, enterprising, and conventional.

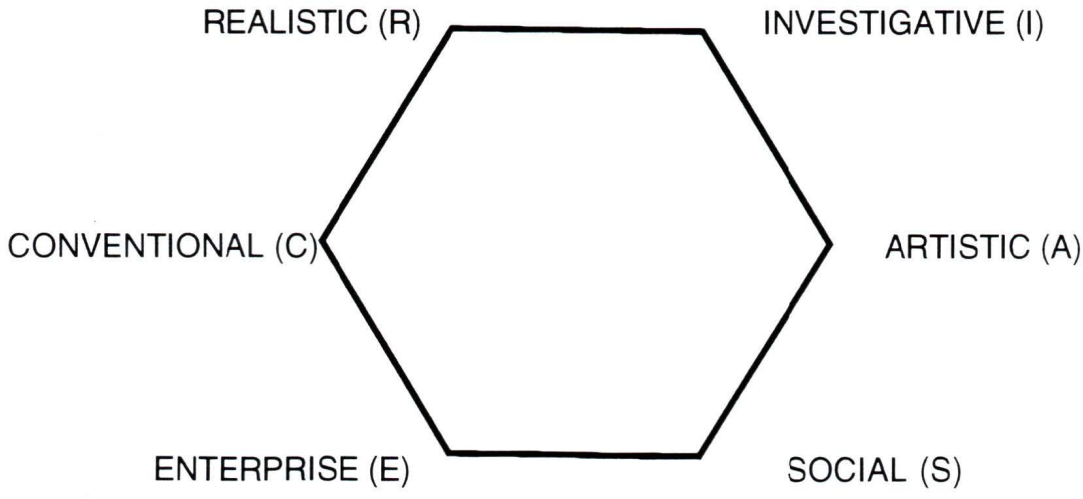

Figure 2 : Hexagonal Model of Personality Interest Type

The Person and Work Environment Congruency

The interactions between people and environment assist people to search for the environment which lets them **exercise** their skills and abilities, **express** their attitude and values, and **take on** agreeable problems and roles; therefore, the congruency between interest and work environment plays an important role in expressing an individual's attitudes.

The work environment is constructed by both the physical setting and the social relationships among members. The six types of personality interests correspond to the characteristics of the common physical and social environments. The type of work environment is transmitted through other people so that it reflects the nature of its members and the dominant features of the environment reflect the typical characteristics of its members. Therefore, a certain type of environment represents the dominant type of people at work.

The realistic type of environment may consist predominantly of realistic people who are characterized by the ordered systematic and explicit manipulation of objects, tools, machines, and animals (Holland, 1985). In this type of work environment, realistic people may fit better than other types of personality interest.

It is also evident that people will be more involved when they work in an environment - physical and social -

which corresponds with or reflects their interests (Lawler and Hall, 1970; Farris, 1971). Then, the degree of the job involvement is determined by the degree of congruency between interest and work environment.

A high degree of congruency is associated with a high degree of involvement, because an individual prefers what he does and the environment supports his demand in exercising his skills and ability. However, these circumstances might also be determined by such individual characteristics as personal demographic variables and personality variables in that they might influence employee willingness to work.

Job Involvement

Job involvement has been viewed as consisting of multi-dimentional variables. However, it can be categorized into three theoretical perspectives: first, job involvement is considered to be an **individual** characteristic; second, it is considered to be a function of the **situation**; and third, it is considered to be a **product of person-situation interaction** (Hall and Rabinowitz, 1975).

Research in Job Involvement as Individual Characteristics

There are many studies conducted to determine the relationships between the work environment and job attitudes (one of which is job involvement).

Job involvement has been viewed as a function of increasing age. Schwyhart and Smith (1971) found

significant relationships between job involvement and age ($r = .18$, $p<.05$) and satisfaction ($r = .44$, $p<.05$) in a sample of middle managers. Job involvement was measured by the 20-item Lodahl and Kejner scale. The authors concluded that workers for whom the job is important to their self-images tend to be satisfied with the organization and to view the job as being more important as they grow older. In this case, the satisfied workers might be influenced by their preference in doing their job. Concerning the involved workers and aging, the fact that workers become aware of the organization and well socialized with their environment may have an influence.

With the same instrument, Jones, James and Bruni (1975) and Hall and Mansfield (1975) also found significant relationships between job involvement and age ($r = .36$, $p<.01$; $r = .29$, $p<.01$ respectively). These studies may indicate that older people tend to view their jobs as becoming more important to their self-images (Lodahl and Kejner, 1965). Hall and Mansfield (1975) also found that work experience and level of education made significant relationships with job involvement with a sample of civil service and military employees ($r = .35$, $p<.01$). However, Schneider and Hall (1971) found no significant relationships in their study of U.S. Forest Service professionals. Schneider and Hall used six of the twenty items of the

Lodahl and Kejner scale. In addition to these findings, the increasing age and length of service might be associated with the success of the socialization process in the work environment which is indicated by the greater congruency between interest and work environment.

Research in The Person-Environment Interactions and Job Involvement

Job involvement is also seen as a product of the person-situation interaction which reflects the similarity of the person to the work environment. The work environment can be classified as both a physical environment and a social environment. Zalesny and Farace (1988) suggested that work environment has been found to have a great influence on employee attitudes and behavior. Their study, conducted in a Midwestern state government agency, revealed that there was a significant proportion of variance in job perception and attitude controlled by work environment, gender and job function ($F(30,1646) = 11.15$, $p < .001$). However, there is no significant gender difference was found which could be accounted for by work environment. The social environment made a significant independent contribution to the variance explained by job and organizational involvement ($R2 = .04$, $p < .05$). The social environment was viewed as the type of behavior which is appropriate or expected for a particular social setting. The greatest independent contribution to the variance of work environment (physical env. $F= 5.05$, $p<.001$;

social env. $F = 6.91$, $p < .001$) was accounted for by job functions - clerical, professional and manager. The researchers proposed that the social environment may be most related to employee response. The social environment made significant , independent contributions to the variance explained in job involvement. These findings may indicate that employees will be more involved when they feel accepted and a part of their work environment. These findings also support the person-environment fit theory in which the belongingness of the individual to the work environment influences to the attitude (Holland, 1985).

The congruency of person and environment was studied as it relates to absenteeism, frustration and stress by Furnham and Walsh (1990). The results revealed that the person (in this study - psychiatric nurses) and environment congruency were correlated with the absenteeism ($r = .22$, $p<.08$), frustration ($r = .49$, $p<.01$) and sex ($r = .32$, $p<.001$). However, in a second study with a different sample (working adult), researchers found that there was no relationship between person-environment congruency and stress and sex.

In both researches, the person-environment congruency was assessed through use of Self Directed Search inventory (SDS). The mixed results above - first and second research - might be a result of inappropriate methodology in assessing the congruency and the validity of the work stress

instrument. The congruency was calculated by matching the three letters between interest and environment. This technique may result in a lack of detailed information because it rejected the differences in the scores. This technique for assessing person-environment congruency has been adopted for this study; however, some modifications are needed, such as adding the quotient of the individual scores divided by environmental scores.

The relationships between people and work environment (organizational climate) congruency have been studied as they relate to the individual outcomes (job involvement is one of the functions of individual outcomes). Ostroff (1993) conducted canonical correlational analysis and found that there was high significance in the correlational analysis of the individual outcome (job attitude) and organizational climate (Wilk Lamda = .19, $F = 2.85$, $p < .0001$). A second canonical correlational analysis was employed to assess individual outcome (job attitude) and personal orientation relationships and yielded significant correlation (Wilk Lamda = .15, $F = 3.30$, $p<.0001$). The results suggested that both organizational climate and personal orientations had significant and independent relationships with the measures of job behavior and attitude.

Swaney and Predigger (1985),using Holland's (1963) hexagonal model of interest and work environment types, reported that there were significant differences between

satisfaction and gender and the level of congruency between job interest and work environment (X2 (3, 1688) = 21.97, p<.0001). The satisfied members obtained greater congruency than dissatisfied members (Z = -3.91, p<.00005). The researchers used non-parametric statistics due to the assumptions of a lack of normality. These findings support an evidence that people tend to be more satisfy and more involved to their job when their environment supports and match their personal predisposition, such as interest.

Summary

The reciprocal interactions between person, environment and behavior as addressed by social learning theory provides a significant conceptual framework for understanding the organization as a system.

There have been many researches studying the interactions between person and environment in addressing human behavior, however, there are contradictory results due to the complexity of understanding and predicting human behavior. Since human behavior is situational, people are able to control and adjust to the environment so that they can fit into any situation which they like. In addition to the situational characteristic, there are certain characteristics of individuals which cause them to behave in different or similar ways. These stereotypes represent vocational interest.

The similarity of traits and interests both force individuals to build social relationships with others who are similar stereotypes, and let them exercise their skills and abilities, express their attitude and values, and take on agreeable problems and roles.

In conclusion, the reciprocal interactions between person, work environment and job involvement result in significant consequences which have reliable sociological and psychological meanings in understanding organization and in overcoming problems in the work place.

CHAPTER III

RATIONALE

According to Blau (1987) the interaction or congruence of person with her/his work environment predicts the extent of job involvement. The high degree of fit or congruence between individual and work environment predicts the extent to which a person remains and is involved in his/her job. However, individual differences in length of experience, age, gender, and levels of education also influence the extent of job involvement (Rabinowitz & Hall, 1981 and Blau, 1987).

Holland (1985) pointed out that the congruency of person with work environment gravitated to a person's satisfaction and performance. There is also evidence that person perceived of fit or congruency with work environment differently which may be influenced by job characteristics, such as: autonomy, skill variety, task identity and feedback (Hackman and Oldham, 1976) or by individual characteristics, such as length of socialization on the job, vocational maturity, and educational behavior (Holland, 1985).

There must be relevant interactions between fit or congruency of a person with his/her work environment, individual differences, job involvement and satisfaction.

According to Farace & Zalesny (1988) work environment is constructed by both the physical setting and the social relationships among members. The type of work environment

may demand a certain type of person for a certain task. On the other hand, a certain type of people for a specific task may also constitute a certain type of work environment. Therefore, the type of work environment represents the interactions of people and task.

Holland (1985) proposed six types of personality interests: **realistic, investigative, artistic, social, enterprise and conventional types** in which each type of personality interest reflects a common characteristic of traits and behaviors. Holland (1985) also suggested that because personality types and work environment share a common set of constructs, it is possible to classify people and work environments in the same terms and thus predict the outcome of pairing people and environment.

People will be more involved when they work in an environment which corresponds with or reflects their interests (Lawler and Hall, 1970; Farris, 1971). A high degree of congruency, therefore, is associated with a high degree of involvement and the individual differences may serve as contextual variables which influence both degree of congruency and job involvement.

Studying the interactions between interest-work environment congruency, job involvement and individual characteristics is expected to furnish important information in overcoming the problems at the Universitas Terbuka (UT)

and in increasing employee involvement to their job in order to improve the quality of UT's services.

The Operational Definitions

The operational definitions of variables used throughout this study are defined as follows:

The Interest-Work Environment Congruency

Interest is defined as manifestations of preferences for activities which are a constellation of likes or dislikes leading to consistent patterns of behavior (Kuder, 1977, and Hanson, 1978). This definition is used for this study. The work environment, here, refers to the dominant feature of people interest in work site (Holland, 1985, and Hesket & Gardner, 1993).

The concept of interest-work environment congruency refers to the relationships between the person's interest type and his/her work environmental type. Congruency is defined as the extent of the relationship between the person's interest and his/her work environment (Holland, 1976; Furnham & Walsh, 1990; Hesketh & Gardner, 1993). The Holland's Self Directed Search Inventory (1985) was used for assessing both person's interest type and his/her work environmental type. The "Activity Scale" of Self Directed Search (chosen from 3 scales) consisted of 66 items was used to assess six types of person's interest type as well as

work environmental type: realistic, investigative, artistic, social, enterprise and conventional type.

Job Involvement

Lodahl and Kejner's (1965) definition is used for job involvement. They define job involvement as the degree to which a person is psychologically identified with his work represented by the importance of work in his total self image. Job involvement was measured by a reduced twelve item of Lodahl and Kejner's twenty-item Job Involvement Scale.

The Knowledge of UT

The knowledge about UT used here refers to employee's knowledge about the main tasks of UT. Knowledge of UT served as one of individual characteristic variables. There are three main tasks which are expected to improve in order to increase UT's services (Basic Developmental Planning of UT 1992-2000, 1992, and Setijadi, 1992). These three tasks are registration process, examination process and student support services. The four-item instrument for measuring this needs was developed by researcher.

Research Questions

This study focused on the investigation of the relationships between degree of congruency, individual characteristics and job involvement. Comparative, correlational and regression analysis were used for answering these following research questions:

1. Are there any differences between the original Holland's Self Directed Search and the Indonesian translation ?
2. What kinds of work environments exist in the areas of the study?
3. Are there any differences in interest-work environment congruency between gender, occupation and the level of age and experience ?
4. Are there any differences in job involvement between gender, occupation and the level of age and experience?
5. What are the relationships between the variables ?
6. What are the associations between individual characteristics, the degree of congruency and job involvement?
7. What is the effect of the individual characteristics on the relationships between the degree of congruency and job involvement ?

Variables

Because of some reasons: unequal sample size and fitting normal distributions of data set, for comparative analysis, some variables were categorized into levels, however, correlational and regression analysis used continuous score. The defined groups that were studied for comparison :

1. Individual characteristics: age, occupation, education, gender, experience and knowledge about UT.

- By employing median split, the age variable was transformed into two levels. The transformation was conducted due to unequal sample size on the six age categories. The levels of age are:
    1. Junior staff; below 35 years; and
    2. Senior staff; above 35 years
- Occupation was classified as "academic staff" and "administrative staff".
- Education was categorized into four levels:
    1. Secondary school.
    2. College.
    3. Undergraduate.
    4. Graduate.
- Gender was classified by "male" and "female".
- Using quartile split, the experience variable was classified into three levels. This categorization was conducted in order to obtain appropriate sample size for comparison and to represent the normal distribution of data set.
    1. "Late career" where score located above the fourth quartile.
    2. "Mid career" where score located between the third and the second quartile.
    3. "Early career" where score located below the first quartile.

2. Knowledge about UT variable was transformed into three levels. By using a quartile split, the fourth quartile was labelled "expertise"; second and the third quartile was weighted "moderate"; and first quartile was weighted "novice". The categorization was conducted to determine the level of employee knowledge of UT.
3. The degree of congruency: low, moderate and high. Degree of congruency was calculated by quartile statistics. Upper quartile scores are considered to be high congruency. Lower quartile scores were considered to be low congruency and middle quartile scores were considered to be moderate congruency.

The following continuous variables will be studied for correlational and regression analysis :

1. The interest-work environment congruency. A high score showed the high congruency;
2. Job involvement. A high score showed the high involvement;
3. Individual characteristics :age, occupation, education, gender, experience and employee knowledge about UT.
   - Age was weighted as :
     - one: below 25 years old
     - two: 25 - 30 years old
     - three: 31 - 35 years old
     - four: 36 - 40 years old
     - five: 41 - 45 years old

    - six: above 45 years old
- Occupation was labeled as zero for "academic staff" and one for "administrative staff".
- Education was weighted as :
    - "one" for secondary school graduated
    - "two" for high school graduated
    - "three" for diploma I graduated
    - "four" for diploma II graduated
    - "five" for diploma III graduated
    - "six" for undergraduate
    - "seven" for graduate
- Gender was labeled as zero for "male" and one for "female".
- Experience showed the length of services (in years). High score indicates the longer services.
- Knowledge about UT was assessed by a four-item scale which developed by researcher. High score indicates high level of expertise.

CHAPTER IV

METHODOLOGY

Overview

The study was conducted at Universitas Terbuka (UT) in Jakarta, Indonesia. Data was collected from June to August 1994. A survey method was employed. Data was derived from questionnaires consisted of four parts: demographic variable, the knowledge of UT, Job Involvement Scale (Lodahl & Kejner, 1965) and Self Directed Search Inventory "Activity Scale" (Holland, 1985). The standardized questionnaires for assessing the person's interest type and work environmental type (Self Directed Search Inventory) which was developed by Holland (1985) and for measuring Job Involvement Scale which was developed by Lodahl and Kejner (1965) were used. These instruments were modified for use in Indonesia. The other questionnaire was developed by researcher for measuring the employee knowledge of UT.

Sample and Data Collecting

Data was collected from a sample employees of the Universitas Terbuka. There are 1593 employees, about 763 employees work in the central office in Jakarta and 830 employees work at the 32 regional offices spread throughout Indonesia (UT Computer Center, 1993).

A cluster random sampling method was used to select a sample of 400 respondents. A total of 271 questionnaires was

distributed randomly to 763 employee who work in 13 major work sites in central office in Jakarta. The rest of 129 questionnaires were distributed randomly to the 250 employees who work in 7 of the 32 regional offices. Because of the limited time, and the accessibility of communication, the only regional centers which that were included in the study were located on Java. This resulted in employee from the central office in Jakarta and seven regional centers in Java being included and twenty five regional centers being excluded.

The Instruments

Two of the three instruments were based on standardized instruments which were written in English; the Self Directed Search Inventory (1 scale, Activity Scale, chosen from 3 scales) for assessing interest and work environmental type and Lodahl and Kejner's Job Involvement scale (12 items reduced from 20 items) for assessing Job Involvement. The other instrument was developed by the researcher for assessing employee's knowledge about UT.

Self Directed Search Inventory (SDS)

Congruency between person's interest and work environment was assessed through use of the Holland's Self Directed Search Inventory 1985 revision (SDS). Only one scale was used for a number of reasons. First, this study explored employee's interest which were indicated by

person's preferred activities rather than the person abilities or occupations. Second, the total number of items (198 items) were equally separated into 3 scales: Activity Scale, Competency Scale and Occupation Scale, which may lead unwillingness to respond. For these reasons, this study only used one scale of Self Directed Search Inventory: Activity Scale. The activity Scale consists of 66 items representing 11 items in 6 sub scales : **Realistic, Investigative, Artistic, Social, Enterprise** and **Conventional types** which were assessed with 2 point Likert-scale items by the choice of "like" weighted by one or "dislike" weighted by zero.

The descriptions of 6 sub scales which assess 6 types of person's interests and work environmental types are presented as follow (Holland, 1985).

The Realistic Type

The specific heredity and experiences of person lead to a preference for activities that entail the explicit, ordered or systematic manipulation of objects, tools, machines, and animals. The work environment encourage people to see themselves as having mechanical ability and lacking ability in human relation.

The Investigative Type

The special heredity and experiences of the person lead to a preferences for activities that entail the observational, symbolic, systematic and creative

investigation of physical, biological and cultural phenomena. The work environment encourages people to see themselves as scholarly, as having mathematical and scientific abilities

The Artistic Type

The special heredity and experience of the person lead to a preference for ambiguous, free, unsystematized activities that entail the manipulation of physical, verbal, or human material to create art forms or products. The work environment encourages people to have an expressive, original, intuitive, feminine, independent and artistic abilities.

The Social Type

The special heredity and experiences of person lead to a preference or activity that entail the manipulation of others to inform, train, develop, cure, or enlighten. The work environment encourages people to see themselves as liking to help others, understanding of others, cooperative, and sociable and to prefer interpersonal relationships.

The Enterprising Type

The special heredity and experiences of person lead to a preference for activities that entail the manipulation of others to attain organizational goals or economic gain. The work environment encourage people to see themselves as aggressive, popular, self-

confident, sociable, and as possessing leaderships and speaking abilities.

The Conventional Type

The special heredity and experiences of person lead to a preference for activities that entail the explicit, ordered, systematic manipulation of data. The work environment encourage people to see themselves as conforming, orderly, non-artistic, and as having clerical competencies.

The assessment of person's interest score was derived from the total of the choices of "like" in each sub scale. The three highest scores of each person from six sub scales were presented in the three initial letters and assigned as person's interest type. The example of assessing the person's interest type is shown as follow.

Table 1 : Method for assessing the person's interest type.

	Score of choice "like"						
Respondent	R	I	A	S	E	C	Interest type
X	11	9	6	0	7	1	RIE

Abbreviation: R-Realistic; I-Investigative;A-Artistic; S-Social; E-Enterprise and C-Conventional

The person "X" had realistic type of interest (RIE). The internal reliability (corrected split-half) of SDS estimates of the summary scale, with the U.S. sample of high school

and college and adults, ranged from .83 to .91 for females and .84 to 95 for males (Holland, 1985).

Work environment was assessed by a type of environmental assessment technique (EAT) based on Holland's types of interest (Austin and Holland, 1963). This technique converted the cumulative score for each type of interest into a percentage of the total population in each division or work site. There were 18 work sites used in this study: 5 regional office work sites and 13 main work sites in center office. The three highest percentages of interest types respectively were used as work environment type and were represented in the three initial letters as well. For example, the cumulative scores of Activity Scale in the Faculty of Social Sciences work site are shown in Table 2. By using the formula of environmental assessment technique, the work environmental type was

$$= \frac{\textbf{Total score of each interest type}}{\textbf{Total score of all interest type in each work site}} \times \textbf{100 \%}$$

$$= \frac{\text{Total score "R"}}{\text{Total score of work site}} \times 100\ \% = \frac{70}{351} \times 100\% = 19\%$$

Table 2 : The technique of assessing work environmental type

	R	I	A	S	E	C	Total	Type
Cum.score	70	45	90	106	25	15	351	
	19%	14%	26%	30%	7%	4%	100%	SAR

Abbreviation: R-Realistic; I-Investigative;A-Artistic; S-Social; E-Enterprise and C-Conventional

The Faculty of Social Sciences had social type of work environment which was represented by the three initial letters (SAR) associated with the three highest percentages.

The technique of calculating person's interest-work environment congruency was adopted from Furnham and Walsh (1990) with some addition. Congruency score was calculated by matching the three letters of person's interest type and the three letters of work environment type. The highest congruency was given score 9 when the personality interest type was match exactly the work environmental type and it was given score 8 when all the letters were match but the secondary letter and the tertiary letter were reversed. The lowest score was given score 0 when there were no letters which match. The technique of calculating congruency score are shown as follow.

Table 3 : The technique of calculating congruency score.

Work-environmental Type	person's Type	Congruency Score
SAR	SAR	9
	SRA	8
	SA_	7
	SR_	6
	S__	5
	_AR	4
	_RA	3
	RA/AS/RS/AR (two letter were matched unordered)	2
	A/R/S (one letter was matched)	1
	None	0

Abbreviation: S - Social; A - Artistic; R - Realistic

Then, the congruency score of each individual was added to the quotient of the person's score(s) divided by the environmental score(s) based on the three letters of the environmental type. The final degree of congruency score of each person is derived by using this following formula :

$$\text{The degree of Congruency} = \text{Congruency Score} + \frac{\text{person's score(s)}}{\text{environmental score(s)}}$$

For example, person "X" had realistic interest type (RIE) with personal score: R = 11; I = 9; A = 6; S = 0; E = 7; C = 1, who worked in the social type of work environment (SAR)

with work environmental score: R = 70; I = 45; A = 90; S = 106; E = 25; C = 15. Person "X" congruency score was 1, because only one letter was match (RIE - SAR; refer to table 3). By using above formula, person "X" final degree of congruency was

$$\text{Congruency score} = 1 + \frac{S + A + R}{S + A + R} = 1 + \frac{0 + 6 + 11}{106 + 90 + 70}$$

$$= 1.06$$

This formula provided more detailed person's congruency scores in that the proportion of the differences between person and environmental scores was also included.

Job Involvement Scale

The job involvement was assessed by Lodahl and Kejner's (1965) job involvement scale. Only twelve of twenty items were used for several reasons: the factor stability problems have been found in twenty items scale (Blau, 1987); the difficulties in translating into Indonesian Language; and some repeated items. The eight items which were excluded were:

1. The major satisfaction in my life comes from my job.
2. Sometimes, I lie awake at night thinking ahead to the next day's work.
3. I have other activities more important than my work.
4. I live, eat, and breathe my job.
5. I would probably keep working even if I did not need money.

6. I avoid taking extra duties and responsibilities in my work.
7. Most things in life are more important than work.
8. I used to care more about my work, but now other things are more important to me.

These eight items could influence the consistency of person's job involvement scores and effect the interpretation of results. A four point Likert scale was used in assessing the job involvement range from, 1 = strongly disagree to 4 = strongly agree. Corrected split half reliability estimates for the replication studies of the original English version were reported ranging from .72 to .89 (Lodahl & Kejner, 1965). The twelve items which were included in the study were

1. I will stay overtime to finish a job, even if I am not paid for it.
2. Sometimes, I would like to kick myself for the mistakes I make in my work.
3. I can measure a person pretty well by how good a job he does.
4. I am very much involved personally in my work.
5. I am really a perfectionist about my work.
6. The most important things that happen to me involve my work.
7. To me, my work is only a small part of who I am (reversed score).

8. For me, mornings at work really fly by.
9. I feel depressed when I fail at something connected with my job.
10. I used to be more ambitious about my work than I am now (reversed score).
11. Quite often I feel like staying home from work instead of coming in (reversed score).
12. I usually show up for work a little early, to get things ready.

Employee Knowledge of Universitas Terbuka

Knowledge of UT was assessed by the following four questions scored on a five point scale mentioned by Klimoski and Gravenkemper (1982): (almost none =1, limited = 2, adequate = 3, good understanding = 4 and excellent understanding = 5). The four activities are the main activities which are stressed in the Universitas Terbuka's Developmental Planning 1992 - 2000 (1992). The four items for measuring knowledge of UT were :

1. What is the level of your understanding of UT's registration process ?
2. What is the level of your understanding of UT's student academic services ?
3. What is the level of your understanding of UT's student administrative services ?
4. What is the level of your understanding of UT's examination process ?

Translation of Instruments

This study was conducted in Indonesia, and, thus, translation of the instruments into Indonesian language (Bahasa Indonesia) was needed. In order to reduce the error in translating the instruments due to differences in grammatical structure and cultural perceptions, the back translation technique and pilot study ware employed (Prieto, 1992).

There were three steps in the translation process. First, the translation from English to Indonesian Language, by researcher and English native speaker who took Indonesian Language course at University of Victoria, was based not only on the meaning of the words but also on the meaning of the whole context. A preliminary check involved a number of bilingual individuals examining the appropriateness of Indonesian Language translation. Four staff of Universitas Terbuka who were in a graduate program at the University of Victoria were asked to review the Indonesian Language translation and compare it to the original English version. Generally, reviewers supported the appropriateness of Indonesian Language translation. However, some revisions were made in order to provide clearer meanings. The translation of "perfectionist" (I am really perfectionist about my work) was "bersungguh-sungguh" which should be "menginginkan berhasil". The translation of "involved" ("I

am very much involved personally in my work") was "bersemangat" which should be "berhubungan". The translation of "ambitious" ("I used to be more ambitious about my work than I am now") was "ambisius" adopted from English word (Echols & Shadily, 1990), however, this word tended to be unclear so that it was revised with "bersemangat". These revisions served as first draft of instruments.

Second, two bilingual individuals, one bilingual who graduated from graduate studies at University of Victoria and the other bilingual who worked as course designer in LPPPB (the Universitas Terbuka English Certificate Program), were asked to translate the first draft instruments backed to English. Third, the back-translated version was compared to original instrument. The third step involved researcher and two bilingual individuals. Due to the differences between original instruments and back-translated instruments especially on the Job Involvement Items, the comparisons of the original and back-translated instruments were essentially based on the interpretation of whole meanings of the sentences and the way words were used (Ethnographic translation)(Brislin, 1980). The researcher and two bilingual individuals discussed the differences of the original English versions and back-translated versions. The important differences were found mostly in Job Involvement Items. The original sentence "I am really perfectionist about my work" was translated into Bahasa Indonesia " Saya

sangat menginginkan berhasil dalam bekerja" and it was back translated into English as "I want to be success in my work". The original sentence "I would like to kick myself for the mistake I make in my work" was translated in to Bahasa Indonesia "Saya sangat menyesal terhadap kesalahan yang saya perbuat dalam bekerja" and the back-translated version was "I am very disappointed with the mistake which I make in work". However, the evaluators agreed that these differences did not substantially change the meanings so that there were no necessary changes in the first draft instruments.

Pilot Study

A pilot study was conducted with seven staff from Faculty of Social Science of Universitas Terbuka. The pilot study was used to evaluate the quality of the first draft of instruments in terms of grammatical errors and the pattern of the responses. Pilot study revealed some grammatical errors which were corrected. Due to the large number of the items which were 88 items separated in: 6 items of demographic variables; 4 items of employee knowledge of UT; 12 items of Job Involvement Scale; and 66 items of Self Directed Search Inventory "Activity Scale", some respondents suggested the larger font to ease reading difficulties and avoid oversight. The descriptive statistics are shown in Table 4.

Table 4 : Descriptive statistics of pilot study (N = 7)

Variables	Mean (X)	Standard Dev. (SD)	Median	Range	Variance
Age	3.86	0.90	4.0	2.0	0.81
Gender	0.29	0.49	0	1.0	0.24
Education	5.86	0.69	6.0	2.0	0.48
Experience	7.70	2.27	8.0	6.0	5.16
Occupation	0.43	0.54	0	1.0	0.29
Knowledge	11.14	1.14	10.0	9.0	1.29
Involvement	31.29	4.79	31.0	15.0	22.90

The descriptive statistics of variables showed that the distributions of data, means and standard deviations were similar to U.S. data. The distributions of data were clustered to the mean and the means of variables were located within the quartile range and closed to the median. No extreme data set was found. However, 3 respondents did not respond to some of the Job Involvement Items: number 1, 3 and 9 which measured by Likert's four-item scale range from 1 = strongly disagree to 4 = strongly agree. In order to avoid blank items which might indicate unwillingness to response, 1 scale was added to the Likert's four-item scale indicated "no opinion" weighted by "zero". If the "no opinion" scale was chosen by a sufficient number of respondents, it was treated separately, however, since it was chosen by a few respondents, a zero score was treated as missing data and excluded from further analysis. These revisions constituted final instruments used in this study.

Data Analysis

The data were analyzed in terms of differences in job involvement and in degree of congruency between gender, occupational status, the levels of age, education, experience and knowledge of UT and in term of relationships in the main-three variables: the degree of congruency, job involvement and individual characteristics. Descriptive statistics, t-test, analysis of variance, correlation and standard and hierarchical multiple regression were employed to analyze the data.

The first step in data analysis was to compute the descriptive statistics of all variables and to estimate the reliability of the instruments. The preliminary data analysis also consisted of screening the data set in order to examine the assumptions of univariate, bivariate and multivariate statistics.

Second, comparisons were made between this study and the previous study using the same instruments in order to answer research question number one: Are there any differences between the Indonesian translation instruments (Holland's Self Directed Search Inventory Activity Scale" and reduced twelve items Lodahl and Kejner's Job Involvement Scale) and the Original English version instruments.

The third step involved the use of the Environmental Assessment Technique (EAT) in determining the work environmental type of each work site (18 work sites; 13

works sites in central offices and 5 regional office work sites) in order to answer research question number two : What kinds of work environments exist in the area of study?.

The fourth analysis employed analysis of variance (ANOVA) and T-tests to answer the following research question number three and four:

- Are there any differences in interest-work environment congruency between gender, occupation, the level of age and the level of experience?
- Are there any differences in job involvement in individual characteristics and the degree of congruency?

The fifth analysis used correlation in order to answer research question number five: What are the relationships between the variables ?

The sixth analysis employed standard multiple regression to answer research question number six to examine the relationships between individual characteristics, degree of congruency and job involvement. Multiple regressions were performed to examine the effects of the individual characteristics both on the degree of congruency and job involvement.

The seventh analysis employed hierarchical multiple regression in order to answer research question number seven. Hierarchical regression analysis was conducted in order to examine the effects of individual characteristics

when they are entered into regression equation. The shared variance of the congruency, job involvement and individual characteristics was examined in order to estimate the influences of individual characteristics on the relationships between congruency and job involvement. The shared variance was derived using this following formula (Cohen & Cohen, 1983) :

$$\textbf{Shared Variance } (sr^2) = R^2 - (sr1^2 + sr2^2)$$

R = square multiple R
sr1 = square semi partial correlation coefficient (sr^2) of congruency
sr2 = square semi partial correlation coefficient (sr^2) of each individual characteristics

The shared variance of each individual characteristic and the degree of congruency accounted for job involvement were examined whether it was significant by using this following formula (Cohen & Cohen, 1983).

$$F = \frac{sr^2 (n - k - 1)}{(1 - R^2)}$$

sr^2 = square shared variance of each individual characteristics and congruency
R^2 = square multiple R
n = sample size
k = the number of independent variables

CHAPTER V

RESULTS

Overview

Data were analyzed in terms of differences in degree of congruency and job involvement between gender, different occupations, the levels of age, education, and length of experience, and in terms of the relationships between degree of congruency, job involvement and individual characteristics variables. T tests, analysis of variance (ANOVA), correlation, and standard and hierarchical multiple regressions were employed to analyze data.

Prior to the data analysis, several procedures were conducted. These procedures included descriptions of response rates, estimations of reliability of the instruments and preliminary data analysis which entailed examination of the assumptions of univariate, bivariate and multivariate statistics.

The SPSS-PC statistical package (Nie et all, 1975) and SYSTAT (Wilkinson, 1986) were used to analyze the data and interpret the results.

Response Rate

A total of 400 questionnaires were distributed and 251 questionnaires were returned. Seven incomplete questionnaires were omitted. The remaining 244 questionnaires were considered valid for further analysis.

The response rates of various work sites are listed in Table 5. The 244 valid questionnaires represent a response rate of 69 per cent. Questionnaires from two of the regional centers, Yogyakarta and Purwokerto, were not returned and were excluded from Table 5.

Table 5 : Response rates of the questionnaire

Work site	Number sent	Number returned (gross)	Non Valid	Valid Responses (net)	Response rate (net)
1. Regional center					
1. Semarang	20	17	0	17	85%
2. Jember	15	10	0	10	67%
3. Malang	15	10	0	10	67%
4. Surabaya	15	11	0	11	73%
5. Surakarta	20	16	1	15	75%
2. Faculties					
1. FMIPA	25	19	0	19	76%
2. FEKON	20	12	1	11	55%
3. FISIP	25	21	1	20	80%
4. FKIP	25	15	0	15	60%
3. Library	18	12	0	12	67%
4. Audio/Video	20	15	0	15	75%
5. Warehouse	18	12	0	12	67%
6. Examination	20	14	1	13	65%
7. Research	15	12	0	12	80%
8. BAAK[1]	25	16	2	14	56%
9. BAU[2]	25	15	1	14	56%
10 Computer	15	13	0	13	87%
11 Type setting	20	11	0	11	55%
TOTAL	356	251	7	244	69%

Abbreviation:
FMIPA = Faculty of Natural Sciences
FEKON = Faculty of Economics
FISIP = Faculty of Social Sciences
FKIP = Faculty of Education
[1]BAAK = Academic Administrative Bureau
[2]BAU = General Administrative Bureau

Reliability of Instruments

Cronbach's reliability coefficient Alpha of the 66-item Activity Scale of Self Directed Search with 244 sample ranged from .77 to .87 on the realistic, investigative, artistic, social, enterprise and conventional sub scales.

Table 6 : The Alpha reliability coefficients of Indonesian translation of Self Directed Search (Activity Scale)

Sub scale	Alpha reliability Coefficient
Realistic	.81
Investigative	.78
Artistic	.87
Social	.85
Enterprise	.77
Conventional	.84

The artistic sub-scale had the highest Alpha .87 and the lowest Alpha was .77 which was 11-item enterprise sub scale. The Alpha of conventional sub scale was .84 and the Alpha of social sub scale was .85. The other sub scales, realistic and investigative, ware .81 and .78 respectively.

Compared to the Alpha reliability coefficient of the Holland's Self Directed Search instrument (1985) which consisted of three scales; Activity, Competency and Occupation scales ranged from .81 to .93, the Indonesian translation had similar patterns of internal consistency to the original English version.

Cronbach's Alpha was used to test the internal consistency reliability of reduced twelve-item job

involvement scale. With the sample of 244 respondents, Alpha reliability coefficient of Indonesian version of reduced twelve-item job involvement scale was .64. Using split-half reliability, the replication studies of original instrument had reliability coefficient range from .56 to .80. The Indonesian translation of reduced twelve-item job involvement scale had a similar reliability to the original English instrument in measuring job involvement.

Cronbach's Alpha was also used to test the internal consistency of the four-item test of employee knowledge of UT. The reliability coefficient of four-item knowledge of UT was .88. This instrument would seem to be a reliable measure of employee knowledge of UT. The detailed results of the Alpha reliability coefficient were shown in appendix A.

Preliminary Data Analysis

Prior to the statistical data analysis, examination of the assumptions of univariate, bivariate and multivariate statistics was conducted.

The examinations of the assumptions of univariate statistics consisted of examination of normality and freedom from outliers. The descriptive statistics are shown in Table 7.

Table 7 : Descriptive statistics of all variables (N = 244)

Variables	Mean (X)	Median	Std Dev (SD)	SK 1)	KR 2)
REALISTIC	4.41	4.00	3.16	.45	-1.03
INVESTIGATIVE	6.20	6.00	3.07	-.06	-1.05
ARTISTIC	4.23	3.50	3.43	.59	-.79
SOCIAL	7.76	8.00	2.79	-.68	-.39
ENTERPRISE	5.74	5.77	3.14	-.19	-1.02
CONVENTIONAL	5.73	5.00	3.35	-.00	-1.13
KNOWLEDGE OF UT	12.09	12.00	3.24	.67	.34
JOB INVOLVEMENT	33.13	34.00	5.28	-1.46	4.15
CONGRUENCY	5.03	5.21	2.24	.09	-.87
AGE	3.22	3.00	1.09	.87	.58
GENDER	.40	0	.49	.40	-1.85
EDUCATION	4.49	6.00	1.96	-.37	-1.63
EXPERIENCE	6.98	8.00	2.65	-.57	-1.06
OCCUPATION	.52	1.00	.50	-.08	-2.01

Abbreviations: SK = skewness and KR = kurtosis

The descriptive statistics showed that the mean and standard deviation of all variables seemed to be normal because all means were located within the quartile range and were closely located to the median. The distributions of data for all variables seemed to be normal clustered to the mean, however, the job involvement variable showed a very high kurtosis (Kurtosis = 4.15). The box plot showed that job involvement variable had four extreme outliers (see Appendix B). Given that the outliers were located more than 3 standard deviation (SD) below the mean, these four cases were deleted from further analysis (Tabachnick and Fidell, 1989). The z-scores of the four outliers are shown in Table 8.

Table 8 : The z-score of univariate outlier

Case No.	Score	Z-score
1	8.00	- 4.76
6	12.00	- 4.00
11	14.00	- 3.62
3	15.00	- 3.40

The remaining 240 cases were considered valid for further analysis. The removal of outliers changed the coefficient of kurtosis of job involvement variable substantially from 4.15 to -.8. The detailed results of the descriptive statistics after removing outliers are shown in Appendix C.

Scatterplots and correlation coefficients were used to examine the bivariate assumptions of linearity and freedom from outliers (Tabachnick & Fidel, 1989). The scatterplot showed that all variables tended to be linear and no outlier was found. The data were considered ready to further analysis with no further deletions. The scatterplot and correlation coefficient are shown in Appendix D.

The examinations of multivariate assumptions of freedom from outlier showed that ten outliers were found from the standardized residual (Tabachnick & Fidel, 1989). The residual statistics of the multivariate outliers are shown in Table 9.

Table 9: The standardized residual of multivariate outliers

CASE NO.	Z RESIDUAL
8	**-4.05**
3	**-3.95**
1	**-3.66**
2	**-3.02**
5	**-3.01**
4	-2.69
209	2.37
7	-2.27
28	-2.07
234	2.03

Five of the ten cases were deleted from further multivariate analysis because they had extreme z values 3 standard deviation below the mean. The remaining 235 cases were valid for multivariate analysis. The detailed residual statistics were shown in Appendix E.

Assumptions of multicolinierity and singularity were not found. The coefficient correlation between all variables did not exceed .70 (Tabachnick & Fidel, 1989).

In summary, the preliminary data analysis on univariate, bivariate and multivariate found univariate and multivariate outliers. Given the extreme z score of some outliers, 3.00 standard deviation (SD) below the mean, those outliers were removed from the data. The remaining data which had z scores which did not exceed 3.00 (SD) below or above the mean were included in further analysis.

This result in 240 cases were valid for univariate and bivariate analysis, whereas, there were 235 remaining cases which were valid for multivariate analysis.

Results

The results were organized into seven sections. Each section presented the main results of this study. These seven sections addressed the following research questions:

1. Are there any differences between the original English version of Holland's Self Directed Search Inventory (1985) and Lodahl & Kejner's Job Involvement scale (1965)and the Indonesian translation version ?
2. What kinds of work environments exist in the areas of the study?
3. Are there any differences in interest-work environment congruency between gender, occupation and the level of age and experience ?
4. Are there any differences in job involvement between gender, occupation and the level of age and experience?
5. What are the relationships between the variables for correlational analysis ?
6. What are the associations between the congruency, job involvement and individual characteristics ?
7. What is the effect of the individual characteristics on the relationships between interest-work environment congruency and job involvement?.

Comparison of the Original English version Instruments and The Indonesian Translation Version

Comparison of the original instrument and the Indonesian version was undertaken to identify any patterns of differences between this study and the previous studies in order to ascertain the comparability of the Indonesian translation instruments to the original English language version.

The Reliability of Instruments

There were no important differences in the internal consistency of both Indonesian translation versions of Self Directed Search Inventory "Activity Scale" and reduced 12-item Job Involvement Scale and the original English versions.

The Alpha reliability of Indonesian translation of Self Directed Search "Activity Scale" ranged from .77 to .87 on the Realistic, Investigative, Artistic, Social, Enterprise and Conventional sub scales. The original English version of Self Directed Search which consisted of 3 scales: Activity, Competency and Occupation ranged from .81 to .93.

The other instrument, reduced 12-item Indonesian version of Job Involvement Scale, was .64. Whereas, the reliability coefficients of the replication studies using the original English version of 20-item Lodahl & Kejner's Job Involvement Scale were range from .56 to .80.

In summary, both the Indonesian translation versions and the original English versions of instruments were similar in terms of the internal consistency.

The Self Directed Search Inventory (SDS)

A comparison of the coefficient correlation between this study and the previous studies (Vondracec, 1987 and Furnham & Walsh, 1990) using the Holland's Self Directed Search Inventory (SDS) is shown in Table 10.

The comparisons of the coefficient correlation were conducted by calculating the Z-values. Z value is the estimate of the absolute difference between correlation coefficients. This is formula of Z value (Waugh, 1952).

$$Z = \frac{T2 - T1}{\sqrt{\frac{1}{n1 - 3} + \frac{1}{n2 - 3}}}$$

Note : T1 and T2 were the transformed value of correlation coefficient (r1) and (r2) by using Albert E. Waugh's table (1952).

Table 10 : The comparisons of correlation coefficient with the earlier studies.

	VARIABLE	r (N=244)	r1 (N=149)	r2 (N=46)	Z(r-r1)	Z(r-r2)
1	R AND I	**.32**	**.35**	**.41**	.29	.55
2	R AND A	.27	.41	.15	1.33	.73
3	R AND S	.29	.10	.13	1.81*	.97
4	R AND E	.37	.26	.26	1.05	.67
5	R AND C	**.39**	**.26**	**.18**	1.24	1.27
6	I AND A	**.34**	**.26**	**.42**	.76	.49
7	I AND S	.48	.04	.28	4.19**	1.21
8	I AND E	.38	.17	.47	2.00*	.55
9	I AND C	.43	.20	.13	2.19**	1.82*
10	A AND S	**.43**	**.33**	**.45**	.95	.12
11	A AND E	.36	.34	.49	.19	.79
12	A AND C	.31	.20	.15	1.05	.97
13	S AND E	**.59**	**.42**	**.68**	1.62	.55
14	S AND C	.52	.16	.39	3.43**	.79
15	E AND C	**.62**	**.21**	**.49**	3.91**	.79

The correlation coefficients of main interest types are printed in underline.
Abbreviations : R - Realistic; I - Investigative; A - Artistic; S - Social; E - Enterprise; C - Conventional.
r = correlation coefficient based on this study.
r1 = correlation coefficient based on Vondracec's study (1987).
r2 = correlation coefficient based on Furnham & Walsh's study (1990).
*) significant at p < .05
**) significant at p < .01

Comparisons of the correlation coefficients revealed that the study produced some significant differences from Vondracec's study (1987); six correlation coefficients out of fifteen were significantly different. However, generally, there were no important differences from the previous findings of Furnham and Walsh (1990); only one out of fifteen correlation coefficients was significant different. This results suggested that the Indonesian translation Self

Directed Search Inventory "Activity Scale" had similar patterns of the original English version studied by Furnham & Walsh (1990).

These results also suggested that the patterns of correlation coefficients between main interest types in the Furnham and Walsh's English version tended to be similar to The Indonesian translation version.

The Job Involvement Scale

The comparison of the original job involvement scale with a U.S. norms with the Indonesian version of job involvement scale with an Indonesian population were conducted. Due to the differences in number being used, the means and standard deviations of the original Lodahl & Kejners' study and Indonesian translation study were converted into percentages. The percentage of means was calculated by dividing the means with the maximum score, then, multiplying by 100%. The maximum score of the original 20 items scale was 80 and the Indonesian version of reduced 12 items was 48. The percentage of standard deviation was calculated by multiplying standard deviation with quotient of percentage mean divided by mean. Using a t-test, the comparisons between percentage means of original study and Indonesian translation were estimated. The comparisons of means and standard deviation are shown in the following Table.

Table 11: Comparison of Standard Deviation (SD) and Mean (X)

Job Involvement	mean	% mean	SD	%SD	t
- Original Version Lodahl & Kejner 20-item scale (N = 70)	48.06	60.1	9.56	11.96	21.6
- Indonesian Version 12-item scale (N = 240)	33.48	69.8	4.56	9.49	

Table 11 shows that the means of both studies were significantly different ($t = 21.6$, $p < .001$). The Indonesian version had greater mean (mean = 69.8) than the original Lodahl & Kejner's study (mean = 60.1). This may be explained by the differences in employee perceptions of the importances of job to themselves because of different types of jobs in this study.

The differences in the patterns of job involvement between reduced twelve-item Indonesian translation of job involvement scale and the Original English version of Lodahl & Kejner's job involvement scale were examined. The differences were examined by comparing the correlation coefficients of job involvement with demographic variables between this study and the previous studies: Schwyhart & Smith (1972), Hall & Mansfield (1975), and Robert Knoop (1986).

By using the Z formula (see page 60), the differences of the correlation coefficients were estimated. The Z values of the comparisons are shown in Table 12.

Table 12: The comparison of the correlation coefficients between job involvement and demographic variables.

Demographic Variables	r1	r2	Z (r1-r2)
1. Age	.12	.18	.84
2. Experience	-.06	.08 .14	.29 1.05
3. Education	.06	-.05	.15
4. Gender	-.07	-.03	.55

r1 = correlation coefficient from this study.
r2 = correlation coefficient form previous studies; Schwyhart & Smith (1972), Hall & Mansfield (1975) and Robert Knoop (1986).

Comparisons of the correlation coefficients between job involvement and demographic variables with the previous studies revealed that there were no significant differences in the correlation coefficients between the reduced twelve Indonesian translation job involvement scale and the original English version. It seems that the patterns of job involvement between the Indonesian version with an Indonesian population were similar to the patterns of the original English version with the U.S. population.

The differences were found in the directions of the correlation coefficients on education and experience. For example, in this study, the correlation between job involvement and level of education was .06 whereas in the Knoop's study (1986) was -.05. The other differences were the direction of correlations between length of experience and job involvement which was -.06 in this study whereas in

the replication studies of Hall and Mansfield (1975) were .08 and .14. However these correlation coefficients were very low, below .10.

Type of Work Environment in The Areas of Study

In order to answer research question number one, the environmental assessment technique (EST) was used. This technique converted the absolute numbers for each type of interest into a percentage of the total population for every division (Holland, 1965). The three highest percentages of interest types respectively, were used as work environment type and were represented in the three initial letters (refer to page 39). The types of the work environment are shown in Table 13.

Table 13 showed that, generally, all areas of study were characterized by social type of work environment which might be dominated by the social competencies, such as; cooperative, sociable, understanding, kind and helpful (Holland, 1985). Only three divisions out of eighteen divisions represented different types of work environment: Audio/video had an investigative work environment; Warehouse had a conventional work environment; and Type Setting had an artistic work environment. These results suggested that generally, the work environment in UT was characterized by the dominance of the social activities.

Table 13 : The work environment type

Division (Work site)	R	I	A	S	E	C	TYPE
		(in %)					
Regional off.							
1. Semarang	13	18	10	23	16	20	SCI
2. Jember	14	17	9	23	19	18	SEC
3. Malang	13	15	12	22	20	18	SEC
4. Surabaya	14	19	11	21	71	18	SIC
5. Surakarta	11	16	15	23	18	17	SEC
Faculties							
6. FMIPA	13	8	11	31	19	18	SIE
7. FEKON	13	20	15	23	14	15	SIC
8. FISIP	13	16	13	24	18	16	SEI
9. FKIP	10	22	15	22	16	15	SEI
10 Library	14	15	17	24	13	17	SAC
11 Audio/Video	13	22	14	22	21	8	ISE
12 Warehouse	16	14	10	20	19	21	CSE
13 Examination	13	19	10	26	17	15	SIE
14 Research	11	20	12	22	17	18	SIC
15 BAAK	14	17	11	24	15	19	SCI
16 BAU	18	17	10	21	17	17	SRI
17 Computer	14	21	7	25	16	17	SIC
18 Type setting	12	15	27	21	13	11	ASI

Abbreviation :
- R = Realistic; I = Investigative; A = Artistic; S = Social; E = Enterprise; C = Conventional.
- BAAK : Academic Administrative Bureau
- BAU : General Administrative Bureau
- FMIPA : Faculty of Natural Science
- FEKON : Faculty of Economic
- FISIP : Faculty of Social Science
- FKIP : Faculty of Education

The interest-work environment congruency in gender, occupation and the level of age and experience

This section addressed research question number three, determining whether there is any different interest-work environment congruency on the basis of gender, occupation the level of age, experience or knowledge about UT. ANOVA and t-test were employed to analyze the group differences.

A summary of the results is shown in Table 14. The detailed ANOVA and t-test results can be seen in Appendix F.

Table 14: The summary of ANOVA and t test of mean differences in interest-work environment congruency

Variables	Mean	SD	P(HV)	F or T ratio	p
1. Gender			.14	1.03	.31
- Male	4.98	2.07			
- Female	5.27	2.37			
2. Occupation			.31	6.07	.01*
- Academic	5.46	2.28			
- Administrative	4.77	2.08			
3. Age			.49	6.89	.00**
- Senior	5.99	2.07			
- Junior	4.20	1.95			
4. Experience			.69	2.11	.12
- Early Career	4.98	2.34			
- Mid Career	4.19	2.14			
- Late Career	5.59	2.13			
5. Education			.65	2.37	.07
- Secondary	4.63	2.10			
- College	4.94	1.95			
- Undergraduate	5.39	2.26			
- Graduate	5.65	2.41			
6. The Knowledge of UT			.60	4.77	.009**
- Expert	5.81	2.27			
- Moderate	4.96	2.06			
- Novice	4.65	2.25			

Abbreviation : SD - standard deviation; P (HV) - probability of homogeneity of variance; P - probability of F or T value.

*) significant at $p < .05$
**) significant at $p < .01$

Table 14 shows that the probabilities of homogeneity of variance between groups in all variables were not

significant indicating that the variance of variables was homogeneous between group so that the results of ANOVA and t-test can be interpreted with confidence.

A t-test showed that the different occupational types had a significant difference in the degree of congruency ($t = 6.07$, $p < .05$). The academic staff (mean = 5.46) had more congruent relationships between their interest and work environment than did the administrative staff (mean = 4.77).

A t-test also revealed that the level of age was significant in the degree of congruency ($t = 6.89$, $p<.01$). The senior staff (mean = 5.99) tended to have more congruent relationships than the junior staff (mean = 4.20).

ANOVA showed that the level of employee knowledge about UT had significant differences between the levels in degree of congruency ($F (2,237) = 4.77$, $p < .01$). The Tukey posthoc test was conducted in determining the differences. The differences were found in the expert (mean = 5.81) and moderate (mean = 4.86) levels, and the expert and the novice (mean = 4.65) levels. The expert employees perceived more congruent with their work environment than did moderate and novice employees' knowledge of UT. The absolute mean differences are shown in Table 15.

Table 15: Matrix of absolute mean differences of the level of employee knowledge about UT

	Expert	Moderate	Novice
Expert	.000		
Moderate	.848*	.000	
Novice	1.160**	.312	.000

*) significant at p < .05
**) significant at p < .01

The job involvement in the individual characteristics and the degree of congruency

This section addressed research question number four; whether there are any differences in job involvement between gender, occupation, age, experience, employee knowledge about UT and the degree of congruency. ANOVA and t-tests were conducted to test the group differences. A summary of results is shown in Table 16.

Table 16 showed that the homogeneity of the variance in some variables, gender, occupation and education was violated, however, in these variables, mean differences were not found.

The mean differences in Individual characteristics were only found in the age variable and the level of knowledge of UT and the variance between groups seem to be homogeneous which means that the mean difference between the groups can be interpreted by confidence.

Table 16: The mean differences in job involvement among variables.

Variables	Mean	SD	P(HV)	F or T ratio	P
1. Gender			.00	1.16	.25
- Male	33.76	3.59			
- Female	33.06	5.69			
2. Occupation			.00	.87	.38
- Academic	33.75	5.33			
- Administrative	33.23	3.74			
3. Age			.77	4.37	.00**
- Senior	34.72	4.46			
- Junior	32.23	4.34			
4. Experience			.19	2.05	.13
- Early career	33.20	3.89			
- Mid career	33.10	4.71			
- late career	34.50	4.81			
5. Education			.00	.48	.69
- Secondary	33.32	3.39			
- College	33.03	4.56			
- Undergraduate	33.64	5.13			
- Graduate	34.33	5.61			
6. The Knowledge of UT			.77	8.18	.00**
- Expert	35.47	4.20			
- Moderate	32.92	4.56			
- Novice	32.60	4.39			
7. The level of congruency			.81	30.16	.000***
- Low	30.37	.27			
- Medium	33.70	3.98			
- High	36.13	4.64			

Abbreviation : SD - standard deviation; P (HV) - probability of homogeneity of variance; P - probability of F or T value.

1-tailed test

*) significant at $p < .05$

**) significant at $p < .01$

***) significant at $p < .001$

A t-test showed that the differences in job involvement were found between senior staff and junior staff ($T = 4.37$, $p < .01$). The senior employees (mean = 34.72) had higher job involvement than did the junior employees (mean = 32.23).

An ANOVA revealed that there were significant differences in the job involvement between the level of employee knowledge about UT; expert, moderate and novice ($F(2,237) = 8.18$, $p < .01$). Tukey's posthoc test was employed to determine the differences between the level of employee knowledge of UT. The differences were found between expert group (mean = 35.47), and moderate group (mean = 32.92) and between expert group and novice group (mean = 32.60). There was no difference between moderate group and novice group. The mean differences are summarized in Table 17.

Table 17: Matrix of absolute mean differences of the level of knowledge about UT

Group	Expert	Moderate	Novice
Expert	0		
Moderate	2.55 **	0	
Novice	2.87 **	.32	0

*) significant at $p < .05$
**) significant at $p < .01$

Mean differences in job involvement were also found in the independent variable, the levels of congruency, ($F(2,237) = 30.16$, $p < .001$). Tukey's poshoc test revealed that the differences were found in all levels of congruency. This result suggested that the more congruent the

relationships between staff's interest and his/her work environment, the more involved he/she works. The high level of congruency (mean = 36.87) produced greater involvement than either medium level of congruency (mean = 33.79) or low level of congruency (mean = 29.45). There was also significant difference in job involvement between medium level of congruency and low level of congruency. The absolute mean differences can be seen in Table 18.

Table 18: Matrix of absolute mean differences of the level of congruency

The Level of Congruency	High	Moderate	Low
High	0		
Moderate	2.43 *	0	
Low	5.76 *	3.33 *	0

*) significant at $p < .05$

The relationships between variables for correlational analysis on the degree of congruency and job involvement

This section presents the correlations between individual characteristic variables, congruency and job involvement, in order to answer research question number five: What are the relationships between variables?. The relationships showed the directions and the strength of correlation between variables. A summary of the results of the correlational analysis are shown in Table 19. Detailed results of the correlational analysis can be seen in appendix D.

The correlational analysis revealed that the levels of employee knowledge of UT was positively correlated with both congruency ($r = .21$, $p < .01$) and job involvement ($r = .29$, $p < .01$). The increasing knowledge of UT positively associated with the increasing degree of congruency and job involvement.

Table 19: The Correlation coefficients between contextual variables, congruency and job involvement. (N = 240)

Controlling Variables	Congruency(IDV) r	Job Involvement(DV) r
1. Gender	.07	-.08
2. Age	.15*	.12*
3. Experience	-.09	-.06
4. Education	.16*	.06
5. The knowledge of UT	.21**	.29**
6. The congruency(IDV)		.61**

Abbreviation : IDV - Independent Variable; DV - Dependent Variable; r - correlation coefficient.

1-tailed test.
*) significant at $p < .05$
**) significant at $p < .01$

Increasing age also significantly positive correlated with both the degree of congruency ($r = .14$, $p< .05$) and the level of job involvement ($r = .12$, $p< .05$). This finding suggested that the older people tend to indicate higher congruency and greater job involvement. However, the correlation coefficients were very low.

The degree of congruency (independent variable) was also positively correlated with job involvement ($r = .61$, $p < .01$). This result suggested that the more congruent employees' interest with work environment, the more involved they were on the job.

An increased degree of congruency was also related to the increased level of education ($r = .16$, $p < .05$). The more educated the employees, the more congruence of their interest with work environment.

The length of services and gender differences did not have significant correlations with either degree of congruency or job involvement.

In summary, most demographic variables appeared to influence only to the degree of congruency. Whereas, employee knowledge about UT and the increasing age, the only demographic variables, was positively correlated with both degree of congruency and job involvement. Employee fit or congruence with work environment was also positively correlated with job involvement. Further examination conducted in order to estimate those relationships in multivariate analysis.

The association between individual characteristics, degree of congruency and job involvement

This section presents the associations between individual characteristics, the degree of congruency and job involvement in order to answer research question six: What is the association between individual characteristics, the degree of congruency and job involvement ? Standard multiple regression was used to examine the standardized regression coefficient (Beta) in order to estimate the effects of the individual characteristics and the degree of congruency to job involvement (Cohen & Cohen, 1983).

Multiple regression showed that individual characteristics produced significant variability to the degree of congruency (R^2 = .10, F (6,228) =4.27, p< .001). However, only knowledge of UT (Beta = .21, p < .01) and age (Beta = .14, p < .05) were significant in predicting the degree of congruency. The other individual characteristics did not show significant relationships with degree of congruency. Results of standard multiple regression, in which degree of congruency served as dependent variable, are shown in Table 20.

Table 20 : Multiple regression of individual characteristics and the degree of congruency

Dependent Variable.. **DEGREE OF CONGRUENCY**

Multiple R	.32	R Square	.10
Adjusted R Square	.08	Standard Error	2.09

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	6	112.66	18.78
Residual	228	1003.72	4.40

F = 4.27 Signif F = .0004

Variables in the Equation

Variable	B	SE B	Beta	T	P
EDUC	.03	.11	.03	.29	.77
KNOWLEDGE	.14	.04	.21	3.35	.00
GENDER	.41	.29	.09	1.44	.15
AGE	.28	.13	.14	2.07	.04
EXPR	-.07	.06	-.08	-1.14	.26
OCCUPATION	-.29	.43	-.07	-.69	.49
(Constant)	2.81	.94		3.00	.00

Standard multiple regression was also used to examine the association between job involvement as dependent variable, individual characteristics and the degree of congruency as independent variables. The results of multiple regression are shown in Table 21.

Table 21 : The multiple regression of the degree of congruency, individual characteristics and job involvement

Dependent Variable.. **JOB INVOLVEMENT**

Multiple R	.67	R Square	.46
Adjusted R Square	.45	Standard Error	3.01

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	7	1766.76	252.39
Residual	227	2062.02	9.08

F = 27.79 Signif F = .00

Variables in the Equation

Variable	B	SE B	Beta	T	P
CONGRUENCY	1.11	.09	.60	11.69	.00
EDUC	-.01	.16	-.00	-.05	.96
KNOWLEDGE	.24	.06	.19	3.74	.00
GENDER	-.58	.41	-.07	-1.41	.16
AGE	.20	.19	.05	1.05	.29
EXPERIENCE	-.12	.08	-.08	-1.37	.17
OCCUPATION	.22	.62	.03	.36	.72
(Constant)	25.54	1.37		18.59	.00

From ANOVA results in Table 21, the degree of congruency and individual characteristics were significant in predicting job involvement (R^2 = .46, F(7.227) = 27.79, p<.001), however, only the knowledge of UT (Beta = .19, p < .01) and the degree of congruency (Beta = .60, p < .001) produced significant variability in job involvement. The degree of congruency was directly related to increased job involvement and served as a significant predictor to job involvement as well as the employee knowledge of UT. The effect of age was decreased in predicting job involvement after degree of congruency was entered into multiple

regression equation. This suggests that age may indirectly effect to increased job involvement. Increasing age may increase the effects of degree of congruency on job involvement.

The summary of the relationships between variables is shown in Figure 3.

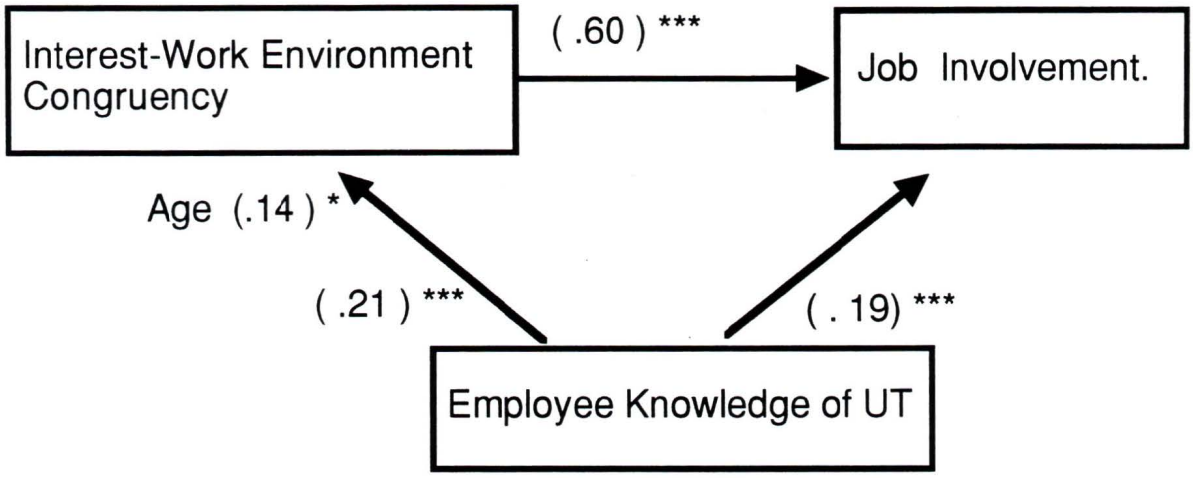

Figure 3 : The Summary of Association between Individual Characteristics, Congruency and Job Involvement

*) significant at p < .05
***) significant at p < .001

The effects of the individual characteristics on the relationships between interest-works environment congruency and job involvement

This section answers research question number seven, whether there is a significant effect of the individual characteristics on the relationships between congruency and job involvement. A hierarchical regression analysis was conducted in order to examine the effects of individual

characteristics when they were entered into regression equation.

Previous findings suggested that the degree of congruency significantly predicted to job involvement (Beta=.60, $p<.001$). However, the individual characteristics: the knowledge of UT, and increasing age also predicted significantly to either degree of congruency or job involvement. Therefore, the interactions between degree of congruency with job involvement might be predicted by individual characteristics.

Shared variance of the congruency, job involvement and individual characteristics were examined in order to estimate the effects of individual characteristics on the interactions between congruency and job involvement. The shared variance was obtained from this following formula (Cohen & Cohen, 1983):

$$\textbf{Shared Variance (sr2)} = R1^2 - (sr1^2 + sr2^2)$$

R1 = square multiple R
sr1 = square semi partial correlation (sr^2) of degree of congruency
sr2 = square semi partial correlation (sr^2) of each individual characteristics

Shared variance revealed the effects of individual characteristics on the interactions between degree of congruency and job involvement. The shared variance is illustrated in the following figure.

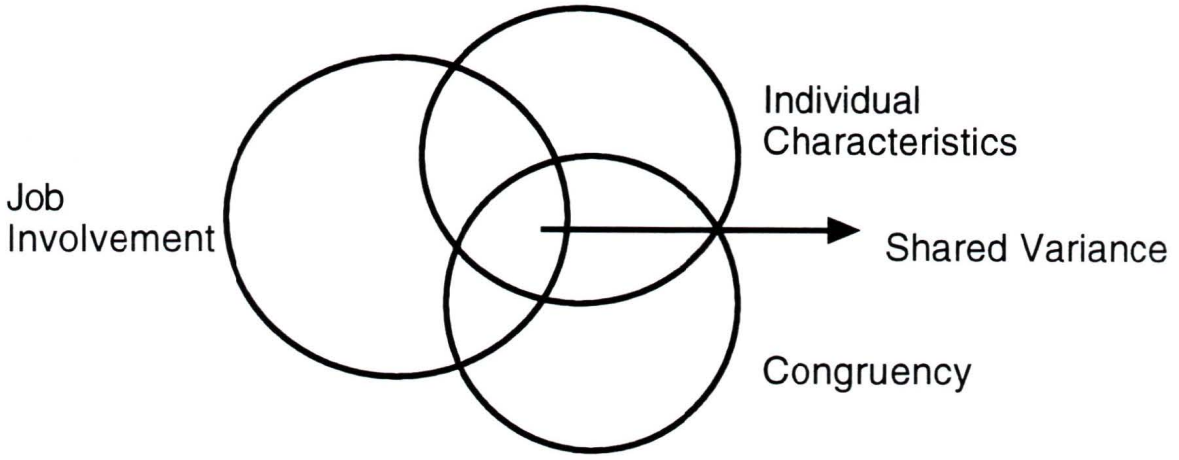

Figure 4 : Shared Variance of Individual Characteristics and Congruency Accounted for Job Involvement

Shared variance of each of individual characteristics: the knowledge of UT and age, degree of congruency accounted for job involvement was examined whether it was significant or not by using this following formula (Cohen & Cohen, 1983).

$$F = \frac{sr^2 \ (n - k - 1)}{(1 - R^2)}$$

sr^2= shared variance
R^2 = square multiple R.
k = the number of independent variables
n = sample

The independent variable, the degree of congruency, was entered into first regression equation, and each of the individual characteristics: the knowledge of UT ,and age, was entered individually into a second multiple regression equation. The shared variance between degree of congruency, individual characteristics accounted for job involvement revealed the changes on the relationships between the degree of congruency and job involvement.

The effects of the level of knowledge of UT

The changes in the effects of independent variable, degree of congruency, on job involvement in the second multiple regression equation was tested whether the knowledge of the UT made significant changes in the effect of congruency accounted for job involvement. The results of hierarchical regression are shown in Table 22.

Table 22: The results of the unique effects of the congruency when the knowledge of UT entered in equation.

Independent Variable : JOB INVOLVEMENT

Variable(s) Entered on Step Number
1. CONGRUENCY
2. KNOWLEDGE OF UT

Multiple R	.67		
R Square	.45	R Square Change	.03
Adjusted R Square	.45	F Change	13.79
Standard Error	3.01	Signif F Change	.00

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	1724.88	862.44
Residual	232	2103.90	9.07

F = 95.10 Signif F = .0000

Variable	Part Cor (sr)	sr^2	F	Sig F
CONG	.59	.349	147.35	.0000
KNOW.	.18	.033	13.79	.0003
(Constant)			932.93	.0000

*) Shared variance = R^2 - (sr^2 cong + sr^2 know)
= .45 - (.35 + .03) = .07

Abbreviation: - cong = degree of congruency
- know = knowledge of UT

The result suggested that the level of the knowledge about UT had significant independent variability in job involvement after removal by the degree of congruency

(sr = .18, p<.01). The knowledge of UT produced about 3.3 percent variability in job involvement independently as estimated by change in R square change when knowledge of UT entered into regression equation.

The level of knowledge about UT also made significant changes on effects of degree of congruency on job involvement as estimated by shared variance = .07 (F (2,231) = 30.16, p<.001).

$$F = \frac{sr^2 (n - k - 1)}{(1 - R^2)}$$

$$= \frac{.07 (240 - 2 - 1)}{(1 - .45)} = 30.16$$

There was about 7 percent changed variance in degree of congruency predicting to job involvement.

These results suggested that the level of knowledge about UT had significant effects on the variability in job involvement independently and also produced significant changes on the variability of degree of congruency accounted for by job involvement. This results suggested that the increasing job involvement as a result of increasing degree of congruency was influenced by the increasing knowledge of UT.

The effects of age (seniority)

This section presents the effects of the age on the relationships between degree of congruency and job

involvement. The results of the hierarchical regression are shown in Table 23.

Table 23: The results of hierarchical regression when the age variable entered into second equation

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Dependent Variable : JOB INVOLVEMENT

Variable(s) Entered on Step Number
1.. CONGRUENCY
2.. AGE

Multiple R	.65		
R Square	.42	R Square Change	.00
Adjusted R Square	.42	F Change	.93
Standard Error	3.09	Signif F Change	.34

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	1608.68	804.34
Residual	232	2220.10	9.57

F = 84.05 Signif F = .00

Variable	Part Cor (sr)	sr^2	F	Sig F
CONG	.63	.39	160.01	.000
AGE	.05	.002	.93	.35
(Constant)			1337.77	.000

*) Shared variance = R^2 - (R^2 cong + R^2 age)
= .42 - (.39 + .002)
= .02

The unique effects of the age was not significant to make variability in job involvement (= 0,048: F (2,232) =.93, p > .05). There was only .2 percent of age variable independently explained to the variability in job involvement.

However shared variance between congruency and age accounted for job involvement was significant (shared variance = .02, $F(2,232) = 8.17$, $p > .001$).

$$F = \frac{sr^2 (n - k - 1)}{(1 - R^2)}$$

$$= \frac{0.02 (237)}{(1 - .42)} = 8.17$$

Increasing age significantly changed the effects of degree of congruency to job involvement. This result suggested that increasing age effected the increased job involvement which was a result of increased congruency.

Summary

In summary, the assessment of the work environmental type revealed that Universitas Terbuka (UT) generally was characterized by social type of work environment with 15 (83%) from 18 work sites constituting social type of work environment.

The comparative analysis showed that the degree of congruency differed by the age of respondents, the employee occupational type and the employee knowledge of UT. Whereas, job involvement differed by the age of respondents and employee knowledge of UT and the degree of congruency.

Most individual characteristics, except length of experience and gender, were significantly correlated with degree of congruency. However, the increasing employee knowledge of UT and increasing age were the only individual characteristics which significantly predicted degree of congruency.

The degree of congruency considerably correlated with job involvement (r = .61), followed by the employee knowledge of UT (r = .29) and age (.12). However the effect of increasing age to job involvement was decreased on multivariate analysis. The employee knowledge of UT - the only individual characteristics - and degree of congruency were significantly predicting job involvement. Increasing age may indirectly effect to increased job involvement. The

increasing age may strengthen the effects of congruency to job involvement.

By using the hierarchical regression, test of the shared variance between each individual characteristics: the employee knowledge of UT and increasing age, and degree of congruency accounted for job involvement revealed that both employee knowledge of UT and increasing age produced significant effects on the relationships between congruency and job involvement. It can be suggested that the increasing degree of congruency which resulted in increasing employee job involvement was influenced by either increasing employee knowledge of UT or increasing age.

CHAPTER VI

DISCUSSION

Overview

This section presents a discussion of the results of this study. The presentation is divided into five sections:

1. The Indonesian versions of Self Directed Search Inventory "Activity Scale" and Job Involvement Scale.
2. The work environment type in Universitas Terbuka.
3. Description of congruency, job involvement and individual characteristic variables.
4. The associations between individual characteristics, the degree of congruency and job involvement
5. The effects of the individual characteristics on the relationships between the degree of congruency and job involvement.

The Indonesian Versions of Self Directed Search Inventory and Job Involvement Scale

This section discusses the similarities and the differences of the original English language versions and Indonesian translations of the Holland's (1985) Self Directed Search Inventory: Activity Scale and the reduced (Lodahl and Kejner, 1965) Job Involvement Scale with the original English versions in order to estimate the effectiveness of translation of instruments.

Self Directed Search Inventory (Activity Scale)

The reliability of the Indonesian version of Self Directed Search Inventory (Activity Scale) ranged from .77 to .87. These are similar to the original English versions which ranged from .81 to .93. These results indicated that the Indonesian translation of the Holland's Self Directed Search "Activity scale" instrument has similar patterns of internal consistency to the original English language version for assessing the person's interest. No necessary changes were also found during the translation process and pilot study of instrument. Most words and sentences in "Activity Scale" were easily translated in Indonesian language because those words and sentences were familiar in Indonesian language. This suggest that the translations of 66 items "Activity Scale" were consistent since the translation checks resulted in no necessary substantive changes.

Comparisons of the patterns of correlation coefficients between the interest type: Realistic; Investigative; Artistic; Social; Enterprise; and Conventional type between instruments developed for this study with Indonesian population and the original English version of SDS studied by Furnham & Walsh's (1990) with the U.S. norms revealed no important differences. Only one out of fifteen correlation coefficients was significantly different. However, differences in the correlation coefficients of interest type

were found between this study and Vondracec's study (1987) in which 6 out of 15 correlation coefficients were significantly different. This suggested that there may be differences in the population being studied.

Some concerns which were considered were that Universitas Terbuka's population which was used for this study tended to have homogeneous pattern of interest which was dominated by the social type of interest (the mean of social type was greater than the other sub scales), however the internal consistency of the other sub scale; Realistic, Investigative, Artistic, Enterprise and Conventional tended to be similar to the Social sub-scale so that the effects of the homogeneous patterns of interests can be eliminated.

Based on the similar patterns of internal consistency, correlation coefficients of interest type and back-translated version to those of the original English version, it can be said that Self Directed Search "Activity Scale" was successfully translated into Bahasa Indonesia.

Job Involvement Scale

The Alpha reliability coefficient of Indonesian translation of the twelve items of Lodahl and Kejner's Job Involvement Scale was .64. Compared to the replication studies of original twenty-item instrument which had reliability coefficients ranged from .56 to .80, the

Indonesian translation seemed to have similar patterns of internal consistency for measuring job involvement.

Mean differences between the original Lodahl & Kejner's study and the Indonesian version scales were found ($t = 21.6$, $p < .001$). This result suggested that there were different levels of job involvement between the population of both studies. The population which assessed by Indonesian translation version had greater job involvement than did the population of the original Lodahl & Kejner's study. Some reasons may explain these differences. According to Blau (1987) job involvement was work attitude which consisted of multidimentional variables. The differences in job involvement might be influenced by the individual differences, work situation differences and interaction between individual and work situation (Hall, 1976 and Blau, 1987) so that the mean differences between original Lodahl & Kejner's studies and the Indonesian translation version of Job Involvement Scale may be caused by differences in the population and work situational characteristics.

There were no differences in the comparisons of the correlation coefficients with demographic variables: gender, age, education and experience between this study with Indonesian population and the previous studies: Schwyhart & Smith (1972); Hall & Mansfield (1975); and Robert Knoop (1986) with the U.S. population.

Although some differences were found on the directions of the correlation coefficients with the demographic variables, the correlation coefficients were very low (below .10). For example, in this study the correlation between job involvement and length of experience was - .06 whereas in the replication studies of Hall and Mansfield (1975) were .08 and .14. In this study, the length of experience variable correlated negatively (-.06) with the job involvement. This result might be influenced by the effects of the organizational climate; work stress, role clarity and leader behavior (Furnham & Walsh, 1990).

The other differences in the direction of correlation coefficients were on the level of education. In this study, the correlation between job involvement and level of education was .06 whereas in the Knoop's study (1986) was -.05.

The correlation coefficients between job involvement with the other demographic variables: age and gender on this study and U.S. results (Schwyhart & Smith (1972); Hall & Mansfield (1975); and Robert Knoop (1986)) produced similar patterns and directions of correlations. These suggested that in terms of age and gender, the original English version and the Indonesian translation version measured similar patterns of job involvement.

Results suggested that there were generally similar patterns of internal consistency and correlation

coefficients between the Indonesian translation version and the English language version of Job Involvement Scale. Those differences that were found could be attributed to the differences in population being used.

Some concern might be considered in the results of back translation process (refer to page 44). Due to the differences in grammatical structure and the impression of some sentences, the translations were based on the interpretations of whole meanings of the sentences and the way words were used (Ethnographic translation: Brislin, 1980). However, the evaluators suggested that there were no substantive differences in the meanings between the original English version and back translated version.

In summary, based on the results of back translation process, pilot study, and comparisons of internal consistency reliabilities and correlation coefficients, there were few differences. However, generally, the Indonesian translation of Self Directed Search Inventory "Activity Scale" and Job Involvement Scale and the English language versions were essentially similar. The differences that were found were likely due to differences in population being used. These results suggested that the Self Directed Search Inventory "Activity Scale" and 12-item Job Involvement Scale were considered successfully translated into Indonesian language (Bahasa Indonesia).

The work environment type in Universitas Terbuka

The Environmental Assessment Technique (EAT) revealed that generally, most Universitas Terbuka work sites were characterized by a social type of work environment. Fifteen out of eighteen work sites studied were classified as a social type of work environment.

Five regional offices which were included in the study were characterized by a social type of work environment. The work environments in the regional offices were more dominated by interpersonal relationships, human relations, verbal and educational competencies rather than realistic work environment which encouraged employee in having technical competencies and achievements and in lacking ability in human relation (Holland, 1985). Holland (1985) suggested that he social type of work environment encouraged employees as liking to help others, understanding of others, cooperative and sociable. This social type of work environment is one of the characteristics of the most educational institutions (Strong & Campbell, 1976; Kuder, 1977; and Holland, 1985). The social type of work environment demands the activities to inform, train, develop, cure, or enlighten others. These findings were appropriate with the actual tasks of regional offices to provide student's services either academic or administrative.

The type of work environment of work sites in the central office seemed varied to some extent. However, a social type of work environment was considered to be present in ten out of thirteen work sites. These results suggested that the work environment of the central office was dominated by social competencies as well, such as: cooperative, sociable, understanding others and liking to help others as opposed to realistic, investigative, artistic, enterprise or conventional type of work environment (Holland, 1985). According to Holland (1985) the social type of work environment generally demands the activities to inform, train, develop, cure, or enlighten others which were the main activities in the most educational institutions. This kind of work environment was relevant to be present in Universitas Terbuka as educational institution which should provide proficient services to students and society as well.

There were some work sites or divisions within the central office which were characterized by different types of work environment. Warehouse work site was classified as conventional type work environment which was dominated by attaching the explicit, ordered and systematic manipulation of data (Holland, 1985). Audio/Video work site was characterized by investigative work environment which encourages employees to see the world in complex, abstract, independent and original ways. Whereas Type Setting work

site was classified as artistic work environment which was characterized by the expressive, original, intuitive, artistic and independent activities.

The conventional work environment of Warehouse seemed to be appropriate with the actual task of Warehouse. The work environment encouraged employees as being conventional, stereotyped, constricted and simple. The main task of the warehouse was keeping and organizing records of the modules and delivering modules (learning materials) to students which demanded the conventional competencies: such as orderly, practical, persistent and conforming.

The Audio/Video was classified as investigative work environment which encouraged employees to see the world in complex, abstract, independent and original ways. The investigative work environment may not be fit with the main task of Audio/Video work site. Ideally, the artistic work environment may fit better in Audio/Video work site because the main task of the Audio and Video division was to provide the audio/visual learning materials which demands the artistic, expressive, intuitive and original activities. However, Holland (1985) suggested that there was some overlap in the characteristics of the artistic and investigative work environment in which both type of work environments stimulated people to think and express their intuition, and feeling. Since both work environments shared similar characteristics, the investigative work environment

type in Audio/Video work site may not restrain employees in exercising their skills and abilities.

Type Setting work site was classified as artistic type of work environment. The artistic work environment seemed to fit in Type Setting work sites because the main task of the Type Setting division was to set and lay out the presentation of module (learning materials) which demands imaginative, intuitive, and creative skills (Holland, 1985)

In summary, generally the work environmental type in Universitas Terbuka either central office or regional offices was classified as social type of work environment which seemed suitable for the main tasks of UT. These results supported the general type of educational institution work environment which encouraged employees to like to help others, understand of others and be proficient in verbal and interpersonal skills. Although there were different types of work environments in three work sites within central office: Audio/Video was investigative work environment; Type Setting was artistic work environment; and Warehouse was conventional work environment, these work environmental types seemed to fit with their actual tasks. It can be suggested that the appropriate work environment types were present in Universitas Terbuka.

Descriptions of congruency, job involvement, and individual characteristic variables.

The analysis revealed that the differences in the degree of congruency and in the job involvement were found on two variables: levels of age; and levels of knowledge of UT. However, occupation produced differences in degree of congruency. Differences in job involvement was also found in the levels of congruency. There were no differences in the either degree of congruency or job involvement on variables: gender, levels of experience and levels of education.

The level of age

By using median split, age was classified into two levels: senior and junior employee. There were significant differences between junior and senior employees in the degree of congruency ($t = 6.89$, $p < .01$). The differences in the degree of congruency between senior and junior employee may be directly effected by the vocational maturity. Senior employee may be considered being more congruent with work environment because they might have been working longer and establishing the relationships with his/her colleagues which advance his/her perceptions of his belongingness to the work environment and colleagues. Whereas, the junior employees were in the process of selection, adjustment and adaptation to either his/her colleagues or works.

The differences in the level of age also produced differences in the degree of job involvement

($t = 4.37$. $p<.01$). Senior employees established more involvement to their job than did junior employees. This result might be because older employees tended to see their job as more important to their self image (Lodahl and Kejner, 1965 and Blau, 1987) and they might also be more psychologically identified to their job (Lodahl and Kejner, 1965) than junior employees.

Another potential factor in these differences may be differences in their developmental stages. The senior employees may tend to establish more responsible and reintegrative behavior, whereas, the junior employees tend to be involved more on the achieving stage (Schaie 1978). According to Schaie (1978), in the middle and late adulthood stage, employees may more concern about the larger social system which drove them being more congruence with their environment and more involvement to the job. Whereas, in the early adulthood stage, employees may be more concerned about goal-directed activities which drove them being more self-centered.

Assuming more established relationships with their colleagues in terms of responsible and reintegrative behaviors, senior employees instituted more congruent interest-work environment and more involvement with their job. The differences in the degree of congruency and job involvement in the level of age, seemed to be a part of the person's vocational maturity.

The level of knowledge of UT

The level of knowledge was the other individual characteristic which produced differences in both degree of congruency ($F = 2.37$, $p < .01$) and job involvement ($F = 8.18$, $p < .01$). Higher levels of employee knowledge of UT were related to more congruence with work environment and greater involvement to the job. These results suggested that employee awareness of the system which was established in UT provided more congruence with work environment because employees knew what were the main tasks of UT and knew how to achieve them, and had greater involvement because they perceived the job being more important to the self image.

Predigger (1982) suggested that the similarity of individual's ability, tastes, talents and values support the closeness of the individual with his/her environment. It can be seen that the more aware of UT an employee is, the closer he perceived himself to be with his environment and colleagues. Then, the congruency might be explained as the perceptions of the closeness of the employees with the main tasks of UT.

Differences in job involvement between different levels of knowledge of UT may be a result of different reinforcements. The expert employees may be treated with more appropriate reinforcement than the novice employees so that they perceived that their job was more important to

their self image (Blau, 1987). Another explanation is that the expert employees may perceive clearer roles and tasks than the novice employees because the expert employees were more aware of the UT's tasks.

Job involvement and congruency differed by employee levels of knowledge of UT. The higher level of employee knowledge of UT, the more congruent with work environment and the greater involvement he/she was on the job.

The occupational type

The differences in the degree of congruency between academic and administrative employees ($t = 6.07$, $p < .05$) suggested that the academic employees worked in more congruent environment with their interest than did the administrative employees. It may be that most academic employees worked in the environment which matched their educational background. They had a better fit psychologically with their environment. Whereas administrative employees may work in any place which was available for them so that the work environment might not fit with their interest, and they may be in a process of adjustment with their work environment. Another possible explanation was that the academic employees had more possibilities to choose the variety of tasks which they preferred than did administrative employees. The academic employees can be posted in either academic or administrative

tasks but the administrative employees can not be posted in academic tasks.

However, there was no difference in the degree of job involvement between academic and administrative employees ($t = .87$, $p > .05$). The academic employees who had more congruent work environment did not produce differences in job involvement. This suggested that the perceptions of congruent or fit with work environment between academic and administrative employees did not have an effect on the importance of the job to their selves image.

The Levels of Congruency

By using quartile split, the congruency was categorized into three levels: High, Moderate, and Low Congruency. Job involvement differed by levels of congruency. High congruence or fit of employees with work environment was associated with high involvement. These results suggested that the higher the employees' perception of fit or congruence, the greater involvement they had with the job. These results supported the Blau (1987), and Furnham & Walsh (1990) findings that the person-environment fit produced greater involvement on his/her job. Holland (1985) suggested that the outcome of person's behaviors can be predicted from the interactions of person and work environment. These findings persisted the universality of the construct in which the person congruence or fit with work environment

produced greater perceptions of psychological identification with job which drive person to see job being more important to his/her self image.

Gender differences, the length of experience and the levels of education

Three individual characteristic variables; gender, experience and education did not produce differences in either degree of congruency or job involvement. These results might be influenced by either similarity of groups or statistical error.

No differences in either degree of congruency or job involvement were found between males and females. These findings were similar to Rabinowitz (1975) in which the perceptions of the importance of the job to the self image did not differ between male and female. These findings also suggested that neither male nor female differed in the perceptions of closeness with work environment. These results suggested that there were similar perceptions between male and female in term of either the importance of job to the self image or the closeness with the work environment and colleagues.

Differences in the levels of education also did not produce significant differences in either degree of congruency or job involvement. Different levels of employee education did not effect the differences in their perceptions of the importance of the job. This finding was

consistent with Jones et al. (1975) and Ruh & White (1976) findings. Further, differences in the employee level of education did not produce differences in the employee closeness with his/her work environment and colleagues. These findings suggested that the employee perceptions of the important of job to the self image and of closeness with work environment did not differ by his/her levels of education.

No differences in either degree of congruency or job involvement were found in the length of experience. The employee length of service in UT did not effect differences in their perceptions of the importance of job. This finding was similar to Rabinowitz & Hall (1981). Degree of congruency did not significantly differ by differences in employee experience. These findings suggested that the longer services of employee in UT did not change the extent of employee perceptions about the important of job or the closeness with work environment or colleagues. These may be because the employees might experience negative reinforcement during their socialization with their tasks or work environment which may produce anxiety, boredom or dissatisfaction. Another possible explanation was that the socialization to UT's tasks may not be successfully achieved. This might restrain employees being more closeness to their work environment or more psychological identification with their job.

The associations between individual characteristics, degree of congruency and job involvement

Increasing age, increasing level of education and the increasing employee knowledge of UT were correlated with increasing degree of congruency. However, age and employee knowledge of the UT were the only variables significantly predicting degree of congruency in the multivariate analysis. These results suggested that the increasing age and the increasing employee awareness of UT may directly effect the increasing degree of congruency. The increasing degree of congruency also could be predicted by increasing age and increasing employee knowledge of UT. These results sharpened the earlier findings in comparative analysis in that the employee perception of fit or congruence with work environment may be a result of vocational maturity and increasing employee perceptions of their awareness of the UT's tasks.

According to Holland (1985) the congruent interactions between interest and the work environment were a result of the similarity of aptitude, values, talent and ability. Similar aptitude, values, talent and ability forced a person to perceive himself as a member of a work environment. The awareness of UT might cause employees to be more congruent or fit with work environment because they perceived themselves being a member of work environment and colleagues as well.

The degree of congruency might be summarized as a result of the vocational maturity and the extent of the employee perceptions of their knowledge of UT tasks.

Increasing age and increasing employee knowledge of UT were the only individual characteristics significantly correlated to job involvement but the effect of age on job involvement was decreased in multivariate analysis. Only the knowledge of UT and degree of congruency (independent variable) were significant in predicting job involvement. These results suggested that increasing employee involvement was associated with increasing employee knowledge of UT and increasing degree of congruency. These results also sharpened the previous findings in the comparative analysis in that the higher expertise of employee knowledge of UT and the higher degree of congruency produced greater employee involvement.

According to Lodahl & Kejner (1965) and Blau (1985) job involvement is the extent to which the person identifies psychologically with his/her job which drive him/her to see the job being more important. These results suggested that the psychological identification of the employee to their job was a result of employee perceptions about their belongingness to work environment and employee awareness of the main tasks of UT. Another possible explanation was that employees had greater involvement in their job because they already perceived themselves as a member of the work

environment which was indicated by their knowledge of UT's tasks.

In summary, there were two main factors which may be useful in motivating UT's employees to be more involved on their job: first, increasing employee perceptions of closeness with work environment and colleagues; and second, increasing employee awareness of the main tasks of UT. The employee knowledge of UT's tasks produced the fit or congruent relationships with work environment or colleagues and, in turn, produced greater job involvement.

The effects of the individual characteristics on the relationships between the degree of congruency and job involvement.

Further analysis was conducted to estimate the effects of employe knowledge of UT and age variables to the relationships between degree of congruency and job involvement. Hierarchical regression was need to investigate the shared variance between individual characteristics: the knowledge of UT, and increasing age, and the degree of congruency accounted for job involvement. The shared variance described the effect of the individual characteristics on the relationships between the degree of congruency and job involvement.

Employee knowledge of UT was the only individual characteristics to greatly effect the relationships between the degree of congruency and job involvement

(sr^2 = .068, $p<.001$). These results suggested that the increasing employee involvement which was a result of increasing employee fit or congruence with work environment was influenced by the increasing employee knowledge of UT. It may also be suggested that the increasing employee knowledge of UT made significant changes on the effect of increasing degree of congruency to increasing job involvement. The employee awareness of UT strengthened the employee perception of his/her belongingness to the work environment or colleagues, indeed, employee identified him/herself better to the job.

The other individual characteristic variable, increasing age, also significantly effected the relationships between congruency and job involvement, however, it had very low proportions. There was only 2 % shared variance of age and congruency accounted for job involvement. It may be because of the large number of sample (N = 240). This finding suggested that the increasing job involvement which was a results of increasing congruency may be slightly influenced by increasing age of employee.

From regression analysis, the associations between the degree of congruency (independent variable), job involvement (dependent variable) and Individual characteristics can be summarized into the following Figure.

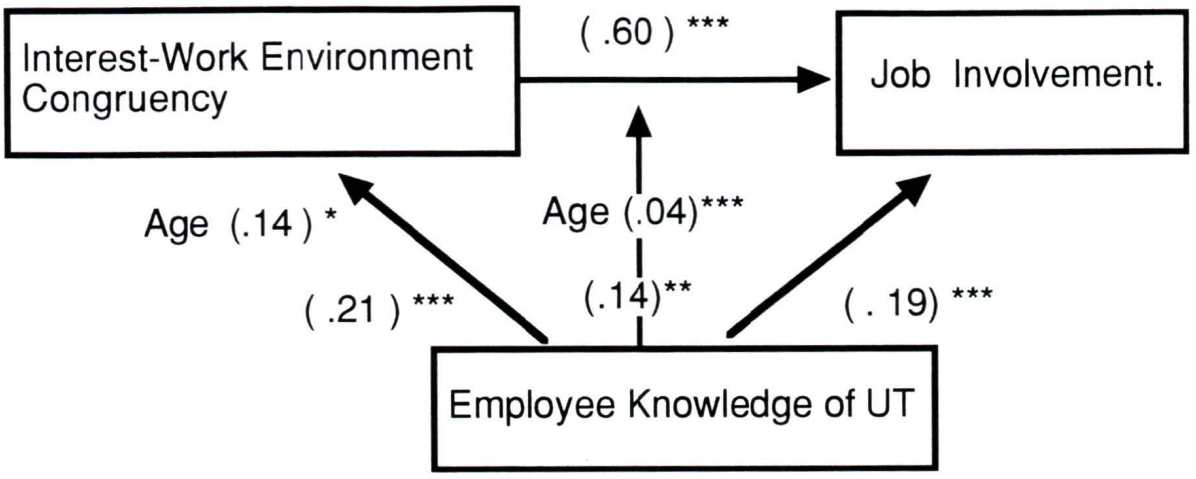

Figure 5 : The Summary of Association between Individual Characteristics, Congruency and Job Involvement

Note :
- The standardized regression coefficient are presented in parentheses.
*) significant at p < .05
***) significant at p < .001

Figure 5 showed that the knowledge of UT seemed to be the essential variables on those relationships. However the increasing employee age also influenced increasing congruency and changed the effects of congruency to job involvement.

Importantly, the level of employee awareness of UT may increase the congruence of employee with work environment which in turn, produced greater involvement to the job. This suggested that the greater involvement of employee to the job which was influenced by congruency was also influenced by the extent of employee understanding of the UT tasks.

Summary

Most of the Universitas Terbuka work sites, both central office and regional offices, were generally characterized by the social type of work environment which was dominated by the social competencies such as, cooperation, sociability, understanding others and liking to help others. This work environment seemed appropriate with the main task of Universitas Terbuka as an educational institution and UT was also fulfilled by the appropriate type of employees who preferred social activities and demanded social competencies.

Job involvement and degree of congruency differed by employee knowledge about UT and by levels of age. The employee perceptions of fit or congruence with work environment and colleagues, and the importance of job to employee self image were different between levels of age and between levels of employee knowledge of UT. The more expert employee of UT tasks or the older employee, the higher congruence with work environment and the greater involvement they were on the job. However the levels of experience did not differ in either congruency or job involvement. This suggested that the employees may experience inappropriate reinforcements during the socialization process of either their tasks or colleagues and work environment which restrained employees being more closed with their work and colleagues and more involved to their job.

Correlation and regression analysis sharpened the previous results in comparative analysis. Employee's knowledge of UT seemed to be the most essential individual characteristic variable in predicting both degree of congruency and job involvement. However, degree of congruency served as a best predictor to job involvement. The more congruent employees with the work environment, the greater involvement they were on job.

Further analysis revealed that the interactions between degree of congruency and job involvement were also influenced by the employee knowledge of UT and increasing age. It could be suggested that employee awareness of the main tasks of UT strengthened perceptions of congruence with work environment and increased involvement to the job. However, increasing employee age seemed also increased his/her congruence with work environment which produced greater job involvement.

These results suggested that the employee knowledge of UT seemed to be the most important individual characteristic variables in creating the more congruent relationships between employees and work environment and in performing the greater involvement on their job.

CHAPTER VII

CONCLUSION

This study focused on developing the Indonesian versions of Holland's Self Directed Search Inventory "Activity Scale" for measuring employee fit or congruence with work environment and Lodahl & Kejner's Job Involvement Scale for measuring employee involvement to the job. By using the Indonesian translation of these instruments, this study extended to examine the relationships between Congruency, Job Involvement and Individual characteristics in a sample of 400 employees working in 18 major work sites of Universitas Terbuka.

Data which were aggregated across all work sites revealed the importance of employee fit or congruence with work environment in predicting job involvement. However, some individual characteristics: increasing age, different occupational status: academic and administrative, and employee knowledge of UT was also significantly correlated with either congruency or job involvement so that the existence of these individual characteristics also influenced the employee fit or congruence with work environment and job involvement.

The detailed conclusions are presented in seven sections in accordance with seven research questions.

1. A major task in this study was the development of Indonesian translation versions of instruments to

measure person fit or congruency and job involvement. The results suggested that the instruments were successfully translated into Indonesian language (Bahasa Indonesia).

Similar patterns of the reliability coefficients, and correlation coefficients between the English version of Holland's Self Directed Search (1985) and Lodahl and Kejner's Job Involvement Scale (1965) and the Indonesian translation versions suggested that the Indonesian translation of Self Directed Search "Activity Scale" and reduced twelve items "Job Involvement Scale" were comparable with the original English versions and reliable for using in Indonesia.

Although, there were mean differences in Job Involvement between the original Lodahl & Kejner's study and this study, there were no differences in the patterns of the correlation coefficients. The mean differences may be influenced by the individual differences, work situational differences and the interaction between individual and work situation and the population being used.

Neither were the Indonesian translation of Self Directed Search Inventory nor the reduced twelve items Indonesian Job Involvement Scale different from the original English versions in terms of internal

consistency and correlation coefficients and during the translation process and pilot study.

2. The assessment of work environmental type in each work site (18 work sites studied) in UT was the other task of this study in order to determine the interactions between employee, tasks and work environment. Generally, the social type of people was dominated in most work sites (15 out of 18 work sites) which constituted social type of work environment. This supported the general type of educational institution work environment which dealt with social tasks and demanded social competencies.

   The existing work environment in UT was appropriate with the actual tasks. UT work environment was dominated by social type of people. The dominant feature of the social competencies was relevant in UT as an educational institution which stimulated employees to become helpful, sociable and to present more verbal and interpersonal competencies. Therefore, the work environment in UT was characterized by appropriate type of work environment, Social Type of Work Environment.

3. This study found that employee congruence with work environment was influenced by individual characteristic variables. Congruency differed by occupational status: academic and administrative; levels of age: senior and

junior; and levels of employee's knowledge of UT: expert, moderate and novice. These suggested that employee fit or congruence with work environment differed by occupational status, level of age and level of knowledge of UT. An employee who was senior, who was posted in an academic tasks, or who was expert in UT tasks was more congruent with work environment.

The differences in congruency between academic and administrative employees, in that academic employees had higher congruency than did administrative employees, may be due to different tasks in which academic employees may have more variety of tasks than did administrative employees. Other evidence was that most academic employees were posted in work which related with their educational backgrounds, for example: employees who had a social science background were posted in Faculty of Social Sciences, whereas, employees who had a natural science background were posted in Faculty of Mathematics and Natural Sciences.

Degree of congruency also differed by levels of age. This suggested that senior employees may have established more relationships with their colleagues, more understanding of their tasks, and more responsible behavior which may furnished more congruence than did junior employees.

Other differences in congruency occurred between levels of employee knowledge of UT. The expert employees had higher congruency than did moderate or novice employees. This suggested that congruency was influenced by the extent of employee abilities, skills and talents about UT tasks.

There were no differences in employee fit of congruence with work environment between male and female, levels of education or length of experience. These results suggested that employee's perceptions of congruence or fit with work environment were similar between his/her years of experience, his/her levels of education or gender.

4. Job involvement differed by level of age, knowledge of UT and congruency. The senior, the expert or the higher level of knowledge about UT of employee associated with greater involvement. These suggested that senior or expert employees of UT had greater involvement to the job than did junior or novice employees of UT and the more congruence employee with work environment, the greater involvement he/she were on the job. Therefore, the extent of employee involvement on the job, which was characterized by the importance of job to the self image, differed by either individual characteristic variables or the interactions between person and work environment.

5. Both congruency and job involvement positively correlated with some individual characteristics: age, level of education, or knowledge of UT. Congruency also greatly correlated with job involvement. These supported the earlier findings in comparative analysis.
Higher congruency seemed associated with greater involvement to the job and increasing age, higher level of education, and increasing employee knowledge of UT also correlated positively with either congruency or job involvement.

Increased degree of congruency was positively correlated with the increased employee's knowledge of UT, increased age and increased levels of education. These results supported the earlier findings (the comparative analysis) in which increased degree of congruency was associated with higher level of age and increased employee's knowledge of UT. Although there were no differences in the levels of education on the degree of congruency in earlier findings (comparative analysis), the increased level of education was correlated positively with the degree of congruency, however, it was very low. The greatest correlation coefficient between individual characteristics and congruency was made by the increased employee's knowledge of UT.

Increased age and the increased knowledge of UT were the only individual characteristics correlated positively with job involvement. This suggested that the older employees or the more expert employees of UT tasks had greater involvement they were on job. Congruency was the other variable which correlated positively with job involvement. The more congruence or fit employees with work environment, the greater they were on the job.

These results supported the earlier findings in comparative analysis. The interactions between employee and work environment importantly correlated with job involvement. However, some individual characteristic variables: increased age, increased knowledge of UT and different occupational status also correlated with either congruency or job involvement.

6. Generally, regression analysis sharpened the earlier findings in correlational analysis. The importance of some individual characteristics such as age and knowledge of UT were still exist in influencing either congruency or job involvement. Congruency also served as a best predictor to job involvement among other variables.

Increased age and increased employee knowledge of UT resulted in increased degree of congruency. The effects of occupational status: academic and

administrative, and the levels of education to the degree of congruency on the correlational and comparative analysis were decreased after controlled by all individual characteristics in multivariate analysis. Increasing age and increasing employee knowledge of UT were the only individual characteristics to significantly predict the employee perceptions of congruence or fit with colleagues and work environment. The older employees and the more aware employee of UT tasks, the higher congruence or fit they were with work environment or colleagues.

Congruency and employee knowledge of UT significantly predicted job involvement. The effect of increasing age to job involvement on comparative and correlational analysis was decreased in multivariate analysis. This suggested that increasing age may indirectly effect job involvement. Increasing age may strengthen the effect of congruency to job involvement. Employee knowledge of UT and degree of congruency were still significant in predicting job involvement. These findings also sharpened the earlier findings. Increased employee knowledge of UT and congruence or fit of employee with work and colleagues may cause an employee to perceive their job being more important.

7. Further analysis in examining the effects of individual characteristics on the relationships between congruency

and job involvement showed that employee knowledge of UT and increasing age influenced the relationships between congruency and job involvement. This suggested that greater job involvement as a result of higher congruency was also influenced by either increasing employee knowledge of UT or increasing age of employee. In summary, congruency was a powerful predictor to job involvement, and the employee knowledge of UT was the most important individual characteristic variable which influenced both degree of congruency and job involvement. The employee's knowledge of UT also produced a significant effect on the relationships between degree of congruency and job involvement. The employee awareness of the main tasks of UT strengthened their perceptions of congruency, indeed, increased their involvement to the job. However, the existence of some individual characteristics should be considered, such as: increasing age indirectly influenced to job involvement, it strengthened the effects of degree of congruency to job involvement; and different occupational status showed differences in degree of congruency.

The evidence was that employee perceptions of congruence or fit with work environment increased his/her involvement to the job. Increasing employee perceptions of congruence or fit, therefore, may be useful for increasing UT productivity as well as employee involvement to the job. In addition to greater congruence or fit of employee with

work environment, he/she may also be expected to perform better and to be remain on the job.

However the existence of individual differences in age, occupational status, and employee awareness of tasks should also be considered because they strengthened either employee congruence or fit with work environment or job involvement.

Implications and Recommendations

The implications for Universitas Terbuka and recommendations for future research were presented in this section.

Implications

Based on the results and the discussion of this study, a number of implications can be described. Concerning the importance of the employee congruence with work environment in predicting job involvement, the implications focus on increasing employee perceptions of fit or congruence with work environment which is expected to increase his/her involvement and performance as well as UT productivity.

1. The evidence was that academic employees who were able to work in different kinds of tasks presented higher congruency so that providing a variety of tasks which provides employee working in many tasks would likely to enhance his/her perceptions of congruence with work environment and colleagues which enhance employees to perform better and to be remain on the job. This

activity provides a chance for employee to make adjustment with different kinds of tasks.

2. Increasing employee awareness of UT tasks is the other important aspect in order to enhance employee perceptions of congruence with work environment which produce greater involvement to the job. Employee training is an activity which should be provided. Employee training should be regular based on knowledge of trainee abilities and values, and on the skill requirements and rewards system of the job. Increased employee knowledge of tasks is a powerful tool to enhance his/her perceptions of congruence and his/her involvement to the job. Employee training is useful not only for increasing employee knowledge of UT tasks but also for building his/her closeness with colleagues which keep employees on staff and involved with the job.

In addition to employee training, the development of an adequate Human Resource Development and of detailed job analysis are necessary in order to achieve effective personnel administration. Job analysis should provide information basic for employee selection, placement, transfer and promotion, and for performance evaluation and compensation. Job analysis should also include information important to the understanding and predictions of employee satisfaction,

and to the understanding of the continuing process of employee adjustment to work.

3. Increased employee perceptions of congruence may also be strengthened by providing a chance for sharing knowledge and experience. A regular meeting for employees for sharing their knowledge and experience may be worthwhile to strengthen their closeness and to build esprit de corps among employees.
4. Providing an appropriate information system from management to employees and vice versa is the other efforts which may increase employee awareness of UT which enhance employee perception of congruence. This information should be regularly delivered through use of either printed materials: bulletin, reports, and acknowledgement or electronic devices (computer).
5. Providing an appropriate reinforcements may be helpful to keep employee more involved and to perform better on the job. Appropriate reinforcements should be designed in accordance to the hierarchy of needs, task difficulties, status/carrier, incentives, and different kinds of acknowledgments or rewards.

In summary, the efforts of increasing employee perception of congruence or fit with work environment or colleagues is essential in producing greater involvement of employee to the job. The continuous activities to adjust employee with work environment are important to achieve the employee

effectiveness to work. The more congruence and the greater involvement of employees will result in employees that perform better and remain on the job.

Recommendations for Future Research

Some recommendations were suggested for future research. Firstly, in order to obtain generalizability of the results, the enlargement of the sample size is suggested. Secondly, using the other scales of Holland's Self Directed Search Inventory (1985)- Competency and Occupation Scale - is proposed to extend its reliability in different cultural setting. Thirdly, employing different statistical methods may furnish different perspectives in examining the effects of the individual characteristics on the relationships between the interest-work environment congruency and job involvement. Finally, due to the importances of the employee's knowledge of UT to both degree of congruency and job involvement, more detailed items of employee's knowledge of UT were recommended to obtain more specific results.

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APPENDICES

APPENDIX A

The Cronbah's Alpha Items Reliability of Instruments

I. SELF DIRECTED SEARCH (ACTIVITY SCALE)

REALISTIC SUB-SCALE

OF CASES = 244.0

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	ALPHA IF ITEM DELETED	
R1	3.9139	.7976	
R2	3.9754	.7863	RELIABILITY COEFFICIENTS
R3	3.9303	.7795	11 ITEMS
R4	3.9426	.7988	ALPHA = .8072
R5	3.9098	.7950	STAND. ALPHA = .8081
R6	3.9016	.7922	
R7	3.9590	.7999	
R8	3.9221	.7972	
R9	3.9672	.7907	
R10	4.0451	.7779	
R11	4.0164	.7948	

INVESTIGATIVE SUB-SCALE

OF CASES = 244.0

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	ALPHA IF ITEM DELETED	
I1	5.6270	.7693	RELIABILITY COEFFICIENTS
I2	5.6189	.7586	11 ITEMS
I3	5.5984	.7506	
I4	5.6230	.7734	ALPHA = .7841
I5	5.6311	.7783	STANDARDIZED ITEM ALPHA = .7843
I6	5.6762	.7702	
I7	5.6475	.7798	
I8	5.6230	.7714	
I9	5.6434	.7524	
I10	5.6885	.7596	
I11	5.7541	.7760	

ARTISTIC SUB-SCALE

OF CASES = 244.0

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	ALPHA IF ITEM DELETED	
A1	4.0820	.8638	RELIABILITY COEFFICIENTS
A2	4.0820	.8519	11 ITEMS
A3	4.1189	.8527	
A4	4.0738	.8604	ALPHA = .8691
A5	4.1066	.8543	STANDARDIZED ITEM ALPHA = .8691
A6	4.0902	.8549	
A7	4.0656	.8639	
A8	4.1025	.8606	
A9	4.1025	.8549	
A10	4.0861	.8549	
A11	4.1311	.8631	

SOCIAL SUB-SCALE

OF CASES = 244.0

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	ALPHA IF ITEM DELETED	
S1	6.7680	.8430	
S2	6.7474	.8349	RELIABILITY COEFFICIENTS
S3	6.7165	.8381	N OF ITEMS = 11
S4	6.7835	.8381	
S5	6.7680	.8414	ALPHA = .8529
S6	6.7577	.8430	
S7	6.7938	.8425	
S8	6.7990	.8404	
S9	6.7680	.8347	
S10	6.8041	.8399	
S11	6.9330	.8497	

ENTERPRISE SUB-SCALE

OF CASES = 244.0

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	ALPHA IF ITEM DELETED
E1	5.1844	.7642
E2	5.1885	.7518
E3	5.2500	.7536
E4	5.3361	.7592
E5	5.2951	.7570
E6	5.3156	.7633
E7	5.3197	.7506
E8	5.3320	.7535
E9	5.2910	.7468
E10	5.2910	.7527
E11	5.3525	.7662

RELIABILITY COEFFICIENTS
11 ITEMS

ALPHA = .7735
STANDARDIZED ITEM ALPHA = .7735

CONVENTIONAL SUB-SCALE

OF CASES = 244.0

ITEM-TOTAL STATISTICS

	SCALE MEAN IF ITEM DELETED	ALPHA IF ITEM DELETED
C1	5.3934	.8365
C2	5.3811	.8286
C3	5.3811	.8262
C4	5.4590	.8286
C5	5.4467	.8248
C6	5.5123	.8309
C7	5.5205	.8255
C8	5.5041	.8251
C9	5.4631	.8210
C10	5.4836	.8262
C11	5.5369	.8359

RELIABILITY COEFFICIENTS
11 ITEMS

ALPHA = .8413
STANDARDIZED ITEM ALPHA = .8413

II. JOB INVOLVEMENT SCALE

ITEM-TOTAL STATISTICS

	ALPHA IF ITEM DELETED
I1	.6413
I2	.6091
I3	.6004
I4	.5865
I5	.6136
I6	.6262
I7	.6448
I8	.5995
I9	.6289
I10	.6354
I11	.6409
I12	.6223

RELIABILITY COEFFICIENTS 12 ITEMS
ALPHA = .6416
STAND. ITEM ALPHA = .6484

III. THE KNOWLEDGE ABOUT UT

ITEM-TOTAL STATISTICS

KNOWLEDGE OF IOLU	ALPHA IF ITEM DELETED
1. REGISTRATION PROCESS	.8496
2. ACADEMIC SUPPORT	.8491
3. ADMINISTRATIVE SUPPORT	.8194
4. EXAMINATION PROCESS3	.8778

ALPHA = .8827
STAND.ITEM ALPHA=.884

RELIABILITY COEFFICIENTS 4 ITEMS

APPENDIX B

Steam and Leaf and Box Plot of Job Involvement Variable

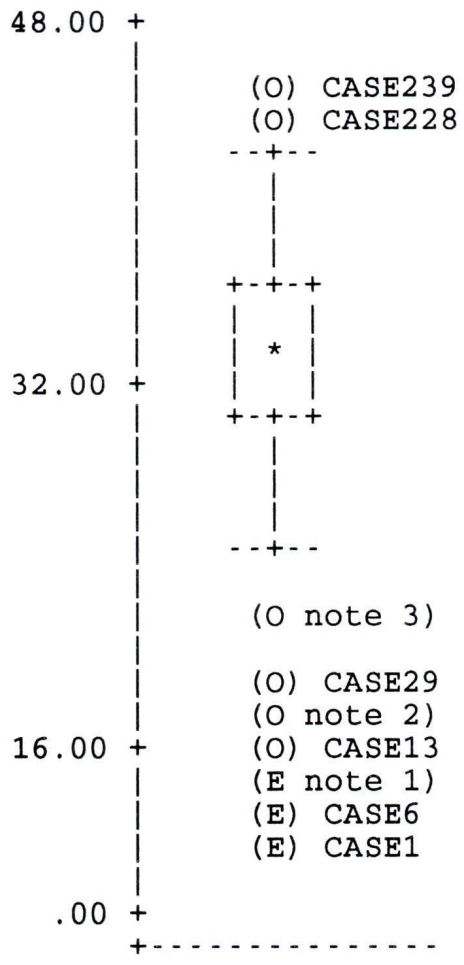
Valid cases: 244.0 Missing cases: 0 Percent missing: 0

Mean	33.1270	Std Err	.3381	Min	8.00
Median	34.0000	Variance	27.897	Max	45.00
5% Trim	33.5437	Std Dev	5.2818	Range	37.00
				IQR	5.00

Skewness	-1.4565		
S E Skew	.1559		
Kurtosis	4.1503		
S E Kurt	.3105		

Frequency	Stem &	Leaf
9.00	Extremes	(8.0),(12.0),(14.0),(15.0),(16.0),(18.0)
3.00	Extremes	(19.0), (22.0)
3.00	24	. 000
2.00	25	. 00
.00	26	.
3.00	27	. 000
6.00	28	. 000000
12.00	29	. 000000000000
13.00	30	. 0000000000000
23.00	31	. 00000000000000000000000
20.00	32	. 00000000000000000000
22.00	33	. 0000000000000000000000
30.00	34	. 000000000000000000000000000000
23.00	35	. 00000000000000000000000
15.00	36	. 000000000000000
20.00	37	. 00000000000000000000
13.00	38	. 0000000000000
8.00	39	. 00000000
9.00	40	. 000000000
5.00	41	. 00000
3.00	42	. 000
2.00	Extremes	(44.0), (45.0)

Stem width: 1.00
Each leaf: 1 case(s)



Variables INVOLVE

N of Cases 244.00

Symbol Key: * - Median (O) - Outlier (E) - Extreme

Boxplot footnotes denote the following:

1) CASE11, CASE3

2) CASE143, CASE17, CASE2

3) CASE19, CASE214, CASE39

APPENDIX C

Descriptive Statistics
(N = 240)

Number of Valid Observations (Listwise) = 240.00

Variable JOB INVOLVEMENT

Mean	33.475	S.E. Mean	.295
Std Dev	4.564	Variance	20.828
Kurtosis	1.995	S.E. Kurt	.313
Skewness	-.829	S.E. Skew	.157
Range	29.000	Minimum	16.00
Maximum	45.00	Sum	8034.000

Valid Observations - 240 Missing Observations - 0

Number of Valid Observations (Listwise) = 240.00

Variable CONGRUENCY

Mean	5.094	S.E. Mean	.142
Std Dev	2.197	Variance	4.828
Kurtosis	-.885	S.E. Kurt	.313
Skewness	.126	S.E. Skew	.157
Range	8.387	Minimum	1.02
Maximum	9.41	Sum	1222.597

Valid Observations - 240 Missing Observations - 0

Variable KNOWLEDGE OF UT

Mean	12.083	S.E. Mean	.207
Std Dev	3.203	Variance	10.261
Kurtosis	.374	S.E. Kurt	.313
Skewness	.657	S.E. Skew	.157
Range	15.000	Minimum	5.00
Maximum	20.00	Sum	2900.000

Valid Observations - 240 Missing Observations - 0

Variable EXPERIENCE

Mean	7.011	S.E. Mean	.171
Std Dev	2.653	Variance	7.038
Kurtosis	-1.034	S.E. Kurt	.313
Skewness	-.600	S.E. Skew	.157
Range	9.000	Minimum	1.00
Maximum	10.00	Sum	1682.700

Valid Observations - 240 Missing Observations - 0

Variable OCCUPATION

Mean	.525	S.E. Mean	.032
Std Dev	.500	Variance	.250
Kurtosis	-2.007	S.E. Kurt	.313
Skewness	-.101	S.E. Skew	.157
Range	1.000	Minimum	.00
Maximum	1.00	Sum	126.000

Valid Observations - 240 Missing Observations - 0

Variable AGE

Mean	3.229	S.E. Mean	.071
Std Dev	1.102	Variance	1.215
Kurtosis	.545	S.E. Kurt	.313
Skewness	.858	S.E. Skew	.157
Range	5.000	Minimum	1.00
Maximum	6.00	Sum	775.000

Valid Observations - 240 Missing Observations - 0

Variable GENDER

Mean	.404	S.E. Mean	.032
Std Dev	.492	Variance	.242
Kurtosis	-1.861	S.E. Kurt	.313
Skewness	.393	S.E. Skew	.157
Range	1.000	Minimum	.00
Maximum	1.00	Sum	97.000

Valid Observations - 240 Missing Observations - 0

Variable EDUCATION

Mean	4.467	S.E. Mean	.127
Std Dev	1.964	Variance	3.857
Kurtosis	-1.648	S.E. Kurt	.313
Skewness	-.339	S.E. Skew	.157
Range	6.000	Minimum	1.00
Maximum	7.00	Sum	1072.000

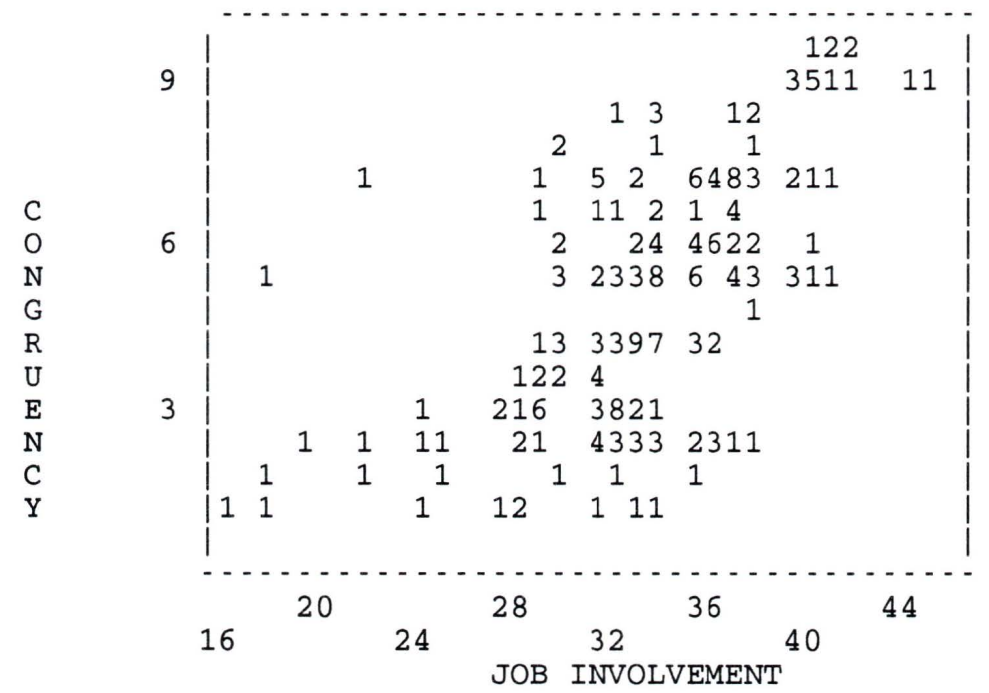
Valid Observations - 240 Missing Observations - 0

APPENDIX D

Scatter Plots and Correlation Coefficients

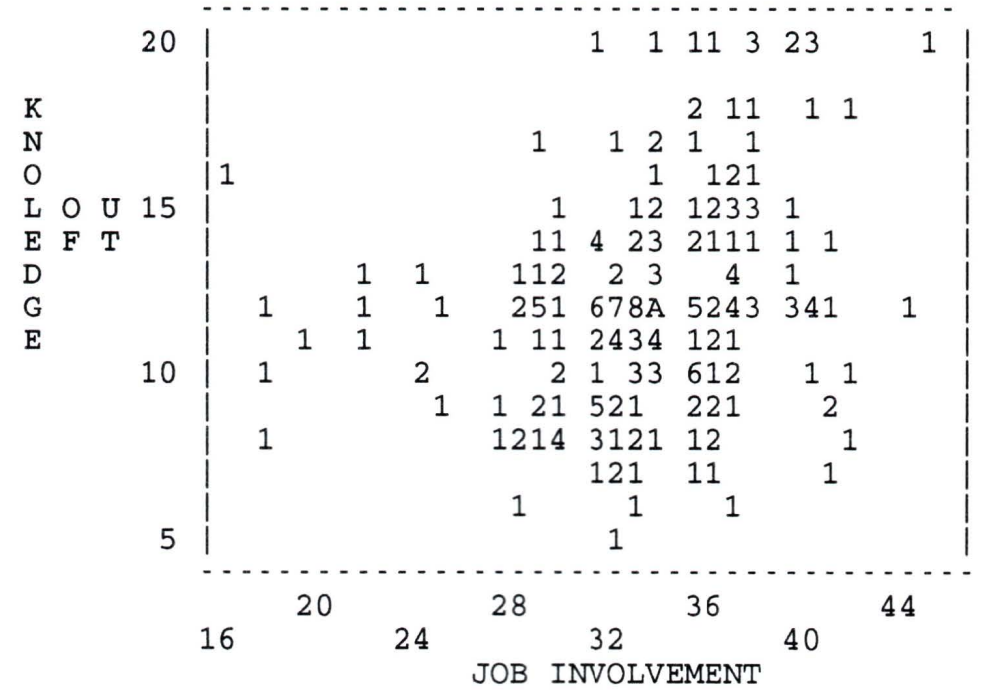
240 cases ploted

PLOT OF DEGREE OF CONGRUENCY WITH INVOLVEMENT



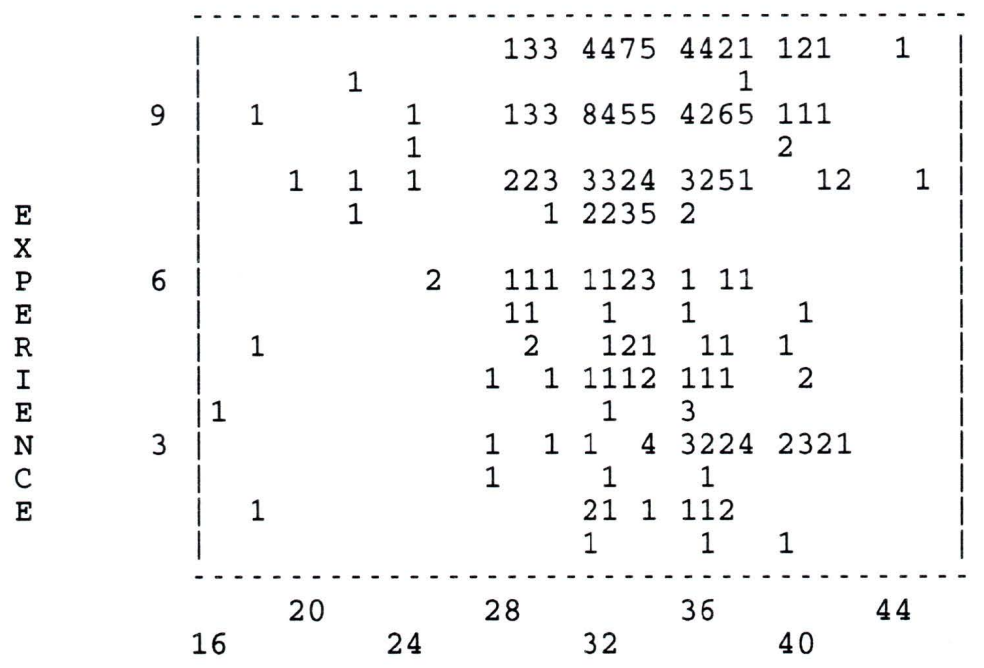
PLOT OF KNOWLEDGE OF UT WITH JOB INVOLVEMENT

240 cases plotted.



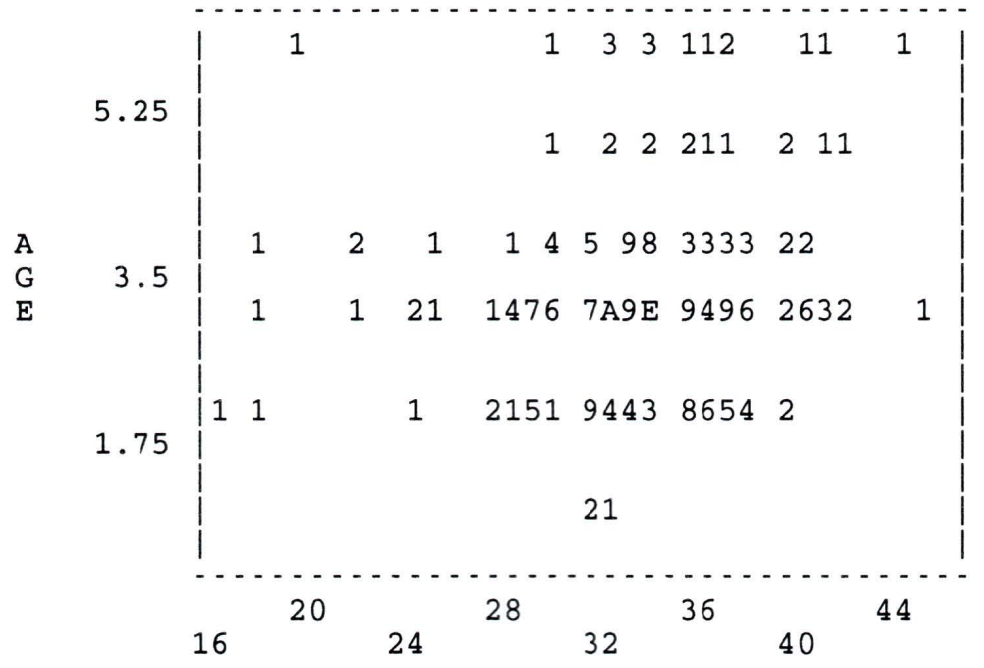
240 cases plotted.

PLOT OF EXPERIENCE WITH JOB INVOLVEMENT

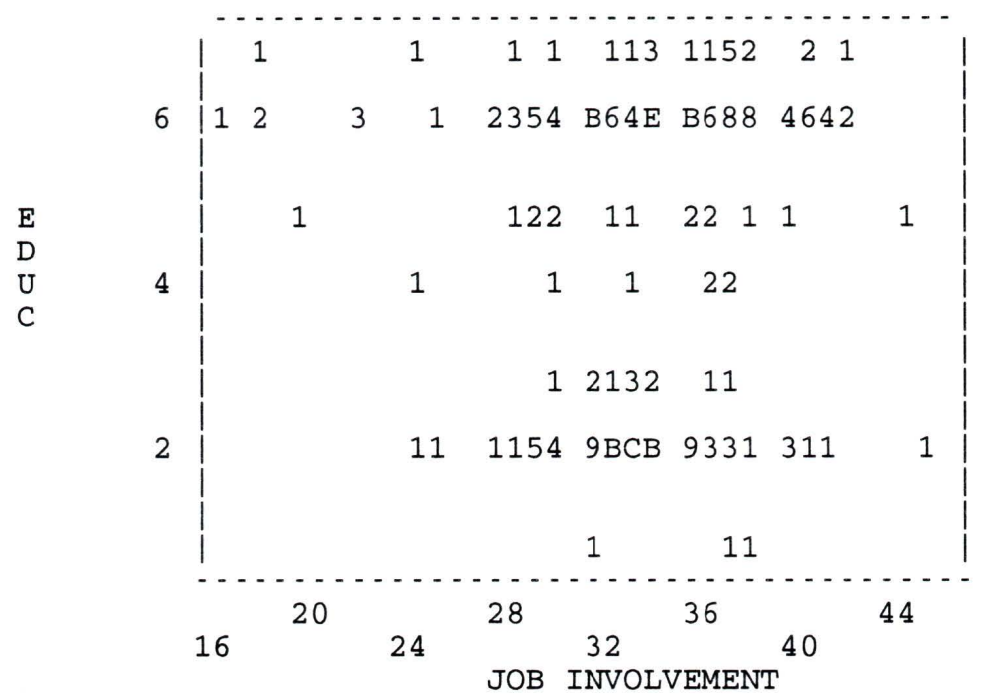


240 cases plotted.

PLOT OF AGE WITH JOB INVOLVEMENT



PLOT OF EDUCATION WITH JOB INVOLVEMENT



Correlation Coefficients, Number of Cases and 1-tailed Significance

Correlations:	JOB INVOLVEMENT	CONGRUENCY
AGE	.1180 (240) P= .034	.1446 (240) P= .013
GENDER	-.0747 (240) P= .124	.0655 (240) P= .156
EDUCATION	.0555 (240) P= .196	.1596 (240) P= .007
EXPERIENCE	-.0575 (240) P= .188	-.0891 (240) P= .085
OCCUPATIONAL STATUS	-.0565 (240) P= .192	-.1578 (240) P= .007
KNOWLEDGE OF UT	.2866 (240) P= .000	.2121 (240) P= .000

APPENDIX E

Residual statitics of multivariate outliers

N of Cases = 240

Equation Number 1 Dependent Variable.. JOB INVOLVEMENT

Multiple R	.64532		
R Square	.41643	R Square Change	.01716
Adjusted R Square	.39883	F Change	1.70534
Standard Error	3.53852	Signif F Change	.1496

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	7	2072.94493	296.13499
Residual	232	2904.90507	12.52114

F = 23.65080 Signif F = .0000

Equation Number 1 Dependent Variable.. INVOLVE

---------- Variables in the Equation ----------

Variable	B	SE B	Beta	Correl
CONG	1.213165	.109113	.584064	.611045
KNOW	.237378	.073449	.166613	.286642
EXPR	-.100737	.097443	-.058558	-.057465
SEX	-.992088	.477672	-.106900	-.074714
AGE	.170647	.222413	.041217	.118002
STATUS	.391924	.716264	.042975	-.056520
EDUC	-.083829	.182544	-.036072	.055462
(Constant)	25.151521	1.594160		

Equation Number 1 Dependent Variable.. INVOLVE

---------- in ----------

Variable	Part Cor	Partial	F	Sig F
CONG	.557626	.589590	123.619	.0000
KNOW	.162090	.207562	10.445	.0014
EXPR	-.051849	-.067716	1.069	.3023
SEX	-.104165	-.135106	4.314	.0389
AGE	.038480	.050309	.589	.4437
STATUS	.027443	.035901	.299	.5848
EDUC	-.023032	-.030136	.211	.6465
(Constant)			248.923	.0000

End Block Number 4 All requested variables entered.

Residuals Statistics:

	Min	Max	Mean	Std Dev	N
*PRED	27.0497	41.0866	33.4750	2.9451	240
*RESID	-14.3235	8.3864	.0000	3.4863	240
*ZPRED	-2.1817	2.5845	.0000	1.0000	240
*ZRESID	-4.0479	2.3700	.0000	.9852	240

Total Cases = 240

Outliers - Standardized Residual

Case #	*ZRESID
8	-4.04787
3	-3.94578
1	-3.66345
2	-3.02000
5	-3.00760
4	-2.68993
209	2.37003
7	-2.26961
28	-2.06531
234	2.03434

Histogram - Standardized Residual

```
 N Exp N      (* = 1 Cases,     . : = Normal Curve)
 0   .19   Out
 0   .37  3.00
 0   .94  2.67 .
 1  2.14  2.33 *.
 3  4.38  2.00 ***.
 6  8.02  1.67 ****** .
 9 13.17  1.33 *********   .
25 19.36  1.00 ******************:******
20 25.49   .67 ********************    .
46 30.07   .33 ********************************:***************
50 31.77   .00 ********************************:*************
26 30.07  -.33 *************************   .
16 25.49  -.67 ****************        .
11 19.36 -1.00 ***********       .
10 13.17 -1.33 **********  .
 7  8.02 -1.67 *******.
 3  4.38 -2.00 ***.
 1  2.14 -2.33 *.
 1   .94 -2.67 :
 2   .37 -3.00 **
 3   .19   Out ***
```

APPENDIX F

The Anova and T-tests Result of Individual Characteristics, The Degree of congruency and Job involvement.

The Following Results are for: OCCUPATION

TOTAL OBSERVATIONS: 240

	ACADEMIC		ADMINISTRATIVE	
	CONG	INVOLVE	CONG	INVOLVE
N OF CASES	114	114	126	126
MINIMUM	1.020	16.000	1.121	19.000
MAXIMUM	9.407	42.000	9.279	45.000
RANGE	8.387	26.000	8.159	26.000
MEAN	5.458	33.746	4.765	33.230
VARIANCE	5.188	28.457	4.311	13.971
STANDARD DEV	2.278	5.334	2.076	3.738
STD. ERROR	0.213	0.500	0.185	0.333
SKEWNESS(G1)	-0.035	-1.134	0.227	-0.098
KURTOSIS(G2)	-0.971	1.515	-0.760	1.859
SUM	622.189	3847.000	600.408	4187.000
C.V.	0.417	0.158	0.436	0.112
MEDIAN	5.354	34.000	4.303	33.000

SUMMARY STATISTICS FOR CONGRUENCY

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 1.014 DF= 1 PROBABILITY = 0.314

OVERALL MEAN = 5.094 STANDARD DEVIATION = 2.197
POOLED WITHIN GROUPS STANDARD DEVIATION = 2.174
T STATISTIC = -2.465 PROBABILITY = 0.014

SUMMARY STATISTICS FOR JOB INVOLVEMENT

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 14.824 DF= 1 PROBABILITY = 0.000

OVERALL MEAN = 33.475 STANDARD DEVIATION = 4.564
POOLED WITHIN GROUPS STANDARD DEVIATION = 4.566
T STATISTIC = -0.873 PROBABILITY = 0.383

The Following Results are for : GENDER

TOTAL OBSERVATIONS: 240

	MALE		FEMALE	
	CONG	INVOLVE	CONG	INVOLVE
N OF CASES	143	143	97	97
MINIMUM	1.121	22.000	1.020	16.000
MAXIMUM	9.407	45.000	9.334	44.000
RANGE	8.287	23.000	8.314	28.000
MEAN	4.976	33.755	5.269	33.062
VARIANCE	4.283	12.933	5.631	32.434
STANDARD DEV	2.070	3.596	2.373	5.695
STD. ERROR	0.173	0.301	0.241	0.578
SKEWNESS(G1)	0.107	-0.222	0.090	-0.845
KURTOSIS(G2)	-0.809	1.288	-1.054	0.809
SUM	711.547	4827.000	511.050	3207.000
C.V.	0.416	0.107	0.450	0.172
MEDIAN	5.201	34.000	5.290	34.000

SUMMARY STATISTICS FOR CONGRUENCY

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 2.165 DF= 1 PROBABILITY = 0.141

OVERALL MEAN = 5.094 STANDARD DEVIATION = 2.197
POOLED WITHIN GROUPS STANDARD DEVIATION = 2.197
T STATISTIC = -1.013 PROBABILITY = 0.312

SUMMARY STATISTICS FOR JOB INVOLVEMENT

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 24.706 DF= 1 PROBABILITY = 0.000

OVERALL MEAN = 33.475 STANDARD DEVIATION = 4.564
POOLED WITHIN GROUPS STANDARD DEVIATION = 4.561
T STATISTIC = -1.156 PROBABILITY = 0.249

The Following Results are for: THE KNOWLEDGE OF UT

TOTAL OBSERVATIONS: 240

	EXPERTISE		MEDIUM		NOVICE	
	CONG	INVOLVE	CONG	INVOLVE	CONG	INVOLVE
N OF CASES	60	60	120	120	60	60
MINIMUM	1.159	16.000	1.020	18.000	1.121	18.000
MAXIMUM	9.407	45.000	9.237	44.000	9.334	42.000
RANGE	8.249	29.000	8.217	26.000	8.213	24.000
MEAN	5.808	35.467	4.960	32.917	4.648	32.600
VARIANCE	5.161	17.643	4.248	20.800	5.069	19.329
STANDARD DEV	2.272	4.200	2.061	4.561	2.252	4.396
STD. ERROR	0.293	0.542	0.188	0.416	0.291	0.568
SKEWNESS(G1)	-0.191	-1.560	0.106	-0.925	0.407	-0.203
KURTOSIS(G2)	-0.834	6.132	-0.817	1.781	-0.814	1.216
SUM	348.490	2128.000	595.204	3950.000	278.903	1956.000
C.V.	0.391	0.118	0.416	0.139	0.484	0.135
MEDIAN	5.727	36.000	5.172	33.500	4.144	32.000

SUMMARY STATISTICS FOR CONGRUENCY

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 1.020 DF= 2 PROBABILITY = 0.600

ANALYSIS OF VARIANCE

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB.
BETWEEN GROUPS	44.671	2	22.336	4.773	0.009
WITHIN GROUPS	1109.107	237	4.680		

MATRIX OF PAIRWISE ABSOLUTE MEAN DIFFERENCES

	1	2	3
1	0.000		
2	0.848	0.000	
3	1.160	0.312	0.000

TUKEY HSD MULTIPLE COMPARISONS
MATRIX OF PAIRWISE COMPARISON PROBABILITIES

	1	2	3
1	1.000		
2	0.035	1.000	
3	0.009	0.633	1.000

SUMMARY STATISTICS FOR JOB INVOLVEMENT

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 0.531 DF= 2 PROBABILITY = 0.767

ANALYSIS OF VARIANCE

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB.
BETWEEN GROUPS	321.350	2	160.675	8.178	0.000
WITHIN GROUPS	4656.500	237	19.648		

MATRIX OF PAIRWISE ABSOLUTE MEAN DIFFERENCES

	1	2	3
1	0.000		
2	2.550	0.000	
3	2.867	0.317	0.000

TUKEY HSD MULTIPLE COMPARISONS
MATRIX OF PAIRWISE COMPARISON PROBABILITIES

	1	2	3
1	1.000		
2	0.001	1.000	
3	0.001	0.894	1.000

The Following Results are for: EXPERIENCE

TOTAL OBSERVATIONS: 240

	LATE CAREER		MID CAREER		EARLY CAREER	
	CONG	INVOLVE	CONG	INVOLVE	CONG	INVOLVE
N OF CASES	60	60	120	120	60	60
MINIMUM	1.159	16.000	1.020	18.000	1.121	22.000
MAXIMUM	9.407	42.000	9.334	45.000	9.254	44.000
RANGE	8.249	26.000	8.314	27.000	8.133	22.000
MEAN	5.593	34.500	4.900	33.100	4.982	33.200
VARIANCE	4.530	23.136	4.574	22.158	5.457	15.112
STANDARD DEV	2.128	4.810	2.139	4.707	2.336	3.887
STD. ERROR	0.275	0.621	0.195	0.430	0.302	0.502
SKEWNESS(G1)	-0.218	-1.568	0.216	-0.745	0.277	0.054
KURTOSIS(G2)	-0.371	3.951	-0.935	1.464	-1.004	0.873
SUM	335.595	2070.000	588.058	3972.000	298.943	1992.000
C.V.	0.381	0.139	0.436	0.142	0.469	0.117
MEDIAN	6.064	35.000	5.116	33.500	4.655	33.000

SUMMARY STATISTICS FOR CONGRUENCY

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 0.734 DF= 2 PROBABILITY = 0.693

ANALYSIS OF VARIANCE

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB.
BETWEEN GROUPS	20.196	2	10.098	2.111	0.123
WITHIN GROUPS	1133.582	237	4.783		

MATRIX OF PAIRWISE ABSOLUTE MEAN DIFFERENCES

	1	2	3
1	0.000		
2	0.693	0.000	
3	0.611	0.082	0.000

TUKEY HSD MULTIPLE COMPARISONS
MATRIX OF PAIRWISE COMPARISON PROBABILITIES

	1	2	3
1	1.000		
2	0.111	1.000	
3	0.277	0.970	1.000

SUMMARY STATISTICS FOR JOB INVOLVEMENT

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 3.276 DF= 2 PROBABILITY = 0.194

ANALYSIS OF VARIANCE

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB.
BETWEEN GROUPS	84.450	2	42.225	2.045	0.132
WITHIN GROUPS	4893.400	237	20.647		

MATRIX OF PAIRWISE ABSOLUTE MEAN DIFFERENCES

	1	2	3
1	0.000		
2	1.400	0.000	
3	1.300	0.100	0.000

TUKEY HSD MULTIPLE COMPARISONS
MATRIX OF PAIRWISE COMPARISON PROBABILITIES

	1	2	3
1	1.000		
2	0.125	1.000	
3	0.260	0.989	1.000

The Following Results are for: THE LEVEL OF AGE

TOTAL OBSERVATIONS: 240

	SENIOR CONG	SENIOR INVOLVE	JUNIOR CONG	JUNIOR INVOLVE
N OF CASES	120	120	120	120
MINIMUM	1.020	18.000	1.121	16.000
MAXIMUM	9.407	45.000	9.195	41.000
RANGE	8.387	27.000	8.074	25.000
MEAN	5.988	34.717	4.200	32.233
VARIANCE	4.299	19.885	3.785	18.836
STANDARD DEV	2.073	4.459	1.946	4.340
STD. ERROR	0.189	0.407	0.178	0.396
SKEWNESS(G1)	-0.240	-0.911	0.465	-0.989
KURTOSIS(G2)	-0.547	2.386	-0.672	2.118
SUM	718.553	4166.000	504.043	3868.000
C.V.	0.346	0.128	0.463	0.135
MEDIAN	6.211	35.000	4.047	32.000

SUMMARY STATISTICS FOR CONGRUENCY

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 0.481 DF= 1 PROBABILITY = 0.488

OVERALL MEAN = 5.094 STANDARD DEVIATION = 2.197
POOLED WITHIN GROUPS STANDARD DEVIATION = 2.011
T STATISTIC = -6.887 PROBABILITY = 0.000

SUMMARY STATISTICS FOR JOB INVOLVEMENT

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 0.087 DF= 1 PROBABILITY = 0.768

OVERALL MEAN = 33.475 STANDARD DEVIATION = 4.564
POOLED WITHIN GROUPS STANDARD DEVIATION = 4.400
T STATISTIC = -4.372 PROBABILITY = 0.000

The Following Results are for: THE LEVEL OF EDUCATION

TOTAL OBSERVATIONS: 240

	SECONDARY		COLLEGE	
	CONG	INVOLVE	CONG	INVOLVE
N OF CASES	81	81	33	33
MINIMUM	1.147	24.000	1.223	19.000
MAXIMUM	9.279	45.000	9.095	44.000
RANGE	8.132	21.000	7.872	25.000
MEAN	4.632	33.222	4.935	33.030
VARIANCE	4.413	11.525	3.790	20.780
STANDARD DEV	2.101	3.395	1.947	4.559
STD. ERROR	0.233	0.377	0.339	0.794
SKEWNESS(G1)	0.519	0.381	-0.121	-0.635
KURTOSIS(G2)	-0.600	1.461	-0.795	1.811
SUM	375.166	2691.000	162.841	1090.000
C.V.	0.454	0.102	0.395	0.138
MEDIAN	4.158	33.000	5.290	33.000

	UNDERGRADUATE		GRADUATE	
	CONG	INVOLVE	CONG	INVOLVE
N OF CASES	105	105	21	21
MINIMUM	1.020	16.000	2.175	18.000
MAXIMUM	9.407	42.000	9.301	42.000
RANGE	8.387	26.000	7.126	24.000
MEAN	5.391	33.638	5.647	34.333
VARIANCE	5.094	26.272	5.798	31.433
STANDARD DEV	2.257	5.126	2.408	5.607
STD. ERROR	0.220	0.500	0.525	1.223
SKEWNESS(G1)	-0.122	-1.044	-0.024	-1.395
KURTOSIS(G2)	-0.846	1.590	-1.173	1.820
SUM	566.003	3532.000	118.587	721.000
C.V.	0.419	0.152	0.426	0.163
MEDIAN	5.342	34.000	5.347	36.000

SUMMARY STATISTICS FOR CONGRUENCY

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 1.637 DF= 3 PROBABILITY = 0.651

ANALYSIS OF VARIANCE

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB.
BETWEEN GROUPS	33.804	3	11.268	2.374	0.071
WITHIN GROUPS	1119.974	236	4.746		

MATRIX OF PAIRWISE ABSOLUTE MEAN DIFFERENCES

	1	2	3	4
1	0.000			
2	0.303	0.000		
3	0.759	0.456	0.000	
4	1.015	0.712	0.256	0.000

TUKEY HSD MULTIPLE COMPARISONS
MATRIX OF PAIRWISE COMPARISON PROBABILITIES

	1	2	3	4
1	1.000			
2	0.907	1.000		
3	0.086	0.721	1.000	
4	0.227	0.645	0.961	1.000

SUMMARY STATISTICS FOR JOB INVOLVEMENT

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 16.410 DF= 3 PROBABILITY = 0.001

ANALYSIS OF VARIANCE

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB.
BETWEEN GROUPS	29.966	3	9.989	0.476	0.699
WITHIN GROUPS	4947.884	236	20.966		

MATRIX OF PAIRWISE ABSOLUTE MEAN DIFFERENCES

	1	2	3	4
1	0.000			
2	0.192	0.000		
3	0.416	0.608	0.000	
4	1.111	1.303	0.695	0.000

TUKEY HSD MULTIPLE COMPARISONS
MATRIX OF PAIRWISE COMPARISON PROBABILITIES

	1	2	3	4
1	1.000			
2	0.997	1.000		
3	0.928	0.910	1.000	
4	0.755	0.738	0.921	1.000

The Following Results are for: LEVELS OF CONGRUENCY IN JOB INVOLVEMENT

LOW CONGRUENCY

Valid cases: 60.0 Missing cases: 0 Percent missing: 0

Mean	30.3667	Std Err	.5518	Min	16.00	Skewness	-1.3882
Median	31.0000	Variance	18.2701	Max	38.00	S E Skew	.3087
5% Trim	30.7222	Std Dev	.2743	Range	22.00	Kurtosis	2.8649
				IQR	4.000	S E Kurt	.6085

MODERATE CONGRUENCY

Valid cases: 120.0 Missing cases: .0 Percent missing: .0

Mean	33.70	Std Err	.3630	Min	18.00	Skewness	-1.1970
Median	34.00	Variance	15.8084	Max	42.00	S E Skew	.2209
5% Trim	33.97	Std Dev	3.9760	Range	24.00	Kurtosis	3.1369

HIGH CONGRUENCY

Valid cases: 60.0 Missing cases: .0 Percent missing: .0

Mean	36.13	Std Err	.5339	Min	22.00	Skewness	-.5667
Median	36.50	Variance	17.1006	Max	45.00	S E Skew	.3087
5% Trim	36.24	Std Dev	4.1353	Range	23.00	Kurtosis	1.1361
				IQR	5.00	S E Kurt	.6085

Variable JOB INVOLVEMENT
By Variable the LEVEL of CONGRUENCY

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	1009.7833	504.8917	30.1556	.0000
Within Groups	237	3968.0667	16.7429		
Total	239	4977.8500			

Tests for Homogeneity of Variances

Cochrans C = Max. Variance/Sum(Variances) = .3570, P = .863 (Approx.)
Bartlett-Box F = .217 , P = .805
Maximum Variance / Minimum Variance 1.156

Tukey-B Procedure
Ranges for the .050 level -

3.08 3.34

The ranges above are table ranges.
The value actually compared with Mean(J)-Mean(I) is..
2.8933 * Range * Sqrt(1/N(I) + 1/N(J))

(*) Denotes pairs of groups significantly different at the .050 level

Mean	Group	Grp 1	Grp 2	Grp 3
30.3667	Grp 1			
33.7000	Grp 2	*		
36.1333	Grp 3	*	*	

APPENDIX G

Indonesian Translations of Instruments

(Indonesian Langguage)

I. IDENTITAS PRPIBADI ANDA (Personal Information)
Pernyataan-pernyataan ini berkaitan dengan informasi tentang diri Anda.

1. Umur :
2. Jenis kelamin :
3. Pendidikan terakhir :
4. Berapa lama Anda telah bekerja di UT :
5. Status kepegawaian Anda :
6. Di bagian atau unit manakah Anda sekarang bekerja :

II. PENGETAHUAN ANDA TENTANG UNIVERSITAS TERBUKA (Employee's Knowledge of UT)

Pernyataan-pernyataan dibawah ini berkaitan dengan pengetahuan Anda tentang Universitas Terbuka. Perlu diketahui bahwa tidak ada jawaban yang baik atau buruk dan betul atau salah, sehingga jawablah sesuai dengan apa yang Anda ketahui.

Petunjuk Menjawab : Berilah tanda " V " dibawah angka :
(1) apabila Anda **tidak mengetahui sama sekali.**
(2) apabila Anda **sedikit mengetahui.**
(3) apabila Anda **cukup mengetahui.**
(4) apabila Anda **sangat mengetahui.**
(5) apabila anda **betul-betul mengetahui.**

	(1)	(2)	(3)	(4)	(5)
1. Seberapa jauh Anda mengetahui tentang proses registrasi mahasiswa.	O	O	O	O	O
2. Seberapa jauh Anda mengetahui tentang pelayanan akademik mahasiswa.	O	O	O	O	O
3. Seberapa jauh Anda mengetahui tentang pelayanan administrasi mahasiswa.	O	O	O	O	O
4. Seberapa jauh Anda mengetahui tentang pelaksanaan ujian mahasiswa	O	O	O	O	O

III. PERSEPSI ANDA TENTANG PEKERJAAN (12-items Lodahl & Kejner's Job Involvement Scale)

Petunjuk menjawab : Berilah tanda " V " dibawah angka :
(1) apabila Anda **sangat tidak setuju** terhadap pernyataan tersebut.
(2) apabila Anda **tidak setuju** terhadap pernyataan tersebut.
(3) apabila Anda **setuju** terhadap pernyataan tersebut.
(4) apabila Anda **sangat setuju** terhadap pernyataan tersebut.
(5) apabila Anda **tidak memiliki pendapat** terhadap pernyataan tersebut.

	(1)	(2)	(3)	(4)	(5)
1. Saya akan melakukan lembur untuk menyelesaikan pekerjaan, meskipun saya tidak dibayar untuk pekerjaan tersebut.	O	O	O	O	O
2. Kadang-kadang saya menyesal terhadap kesalahan yang saya buat dalam bekerja.	O	O	O	O	O
3. Saya dapat menilai seseorang dari kualitas orang tersebut dalam bekerja.	O	O	O	O	O
4. Saya berhubungan secara pribadi dengan pekerjaan saya.	O	O	O	O	O
5. Saya sangat menginginkan berhasil dalam pekerjaan saya.	O	O	O	O	O
6. Kadang-kadang saya memikirkan pekerjaan yang akan datang sebelumnya.	O	O	O	O	O
7. Pekerjaan saya merupakan bagian kecil dari diri saya.	O	O	O	O	O
8. Bagi saya, waktu dikantor seperti berlalu begitu cepat.	O	O	O	O	O
9. Saya merasa tertekan (stress) apabila saya gagal dalam melakukan tugas-tugas yang berkaitan dengan pekerjaan saya.	O	O	O	O	O
10. Saya lebih bersemangat dalam bekerja sebelumnya, dibandingkan sekarang.	O	O	O	O	O
11. Sering kali, saya merasa ingin tinggal dirumah dari pada masuk kantor.	O	O	O	O	O
12. Saya biasa datang ke kantor lebih awal untuk mempersiapkan segala tugas-tugas saya.	O	O	O	O	O

IV. KEGIATAN ANDA (Holland's Self Directed Search Inventory "Activity Scale")

Pernyataan-pernyataan dibawah ini berkaitan dengan berbagai kegiatan yang dilakukan oleh manusia dalam kehidupan sehari-hari.
Petunjuk Menjawab:

1. Berikanlah tanda "v" dibawah kata "Suka" apabila Anda menyukai kegiatan tersebut. dan
2. Berikanlah tanda "v" dibawah kata "Tidak Suka" apabila Anda tidak menyukai kegiatan tersebut.

	Suka	Tidak Suka
1. Memperbaiki alat-alat listrik.	O	O
2. Memperbaiki mobil.	O	O
3. Memperbaiki mesin-mesin.	O	O
4. Membuat barang-barang dari kayu.	O	O
5. Memelihara ternak.	O	O
6. Menggunakan alat-alat dari besi atau peralatan mesin.	O	O
7. Menjadi pemandu untuk kegiatan berburu atau memancing.	O	O
8. Mengikuti mata pelajaran kerajinan/keterampilan	O	O
9. Mengikuti mata pelajaran menggambar desain mesin.	O	O
10. Mengikuti mata pelajaran pertukangan.	O	O
11. Mengikuti mata pelajaran service mobil.	O	O
12. Membaca buku-buku atau majalah ilmiah / ilmu pengetahuan	O	O
13. Bekerja di laboratorium.	O	O
14. Bekerja di proyek ilmiah / ilmu pengetahuan.	O	O
15. Belajar tentang teori-teori ilmiah / ilmu pengetahuan.	O	O
16. Bekerja dengan peralatan praktikum kimia.	O	O
17. Membaca topik-topik khusus atas kemauan sendiri.	O	O
18. Menerapkan matematika dalam kehidupan sehari-hari.	O	O
19. Mengikuti mata pelajaran fisika.	O	O
20. Mengikuti mata pelajaran kimia.	O	O
21. Mengikuti mata pelajaran matematika.	O	O
22. Mengikuti mata pelajaran biologi.	O	O
23. Menggambar atau melukis atau membuat gambaran sementara (sketch).	O	O
24. Berperan dalam pertunjukan sandiwara.	O	O
25. Merancang desain furniture, pakaian dan poster.	O	O
26. Bermain band atau orkestra.	O	O
27. Berlatih memainkan alat musik.	O	O
28. Menulis untuk majalah atau koran.	O	O
29. Fotografi.	O	O
30. Menulis cerita (novel) atau naskah sandiwara.	O	O
31. Membaca atau menulis puisi.	O	O
32. Mengambil mata pelajaran seni.	O	O
33. Mengaransir musik atau membuat lirik lagu.	O	O
34. Menjumpai ahli pendidikan atau ahli terapi	O	O
35. Membaca artikel atau buku tentang sosiologi.	O	O
36. Bekerja untuk palang merah.	O	O

	Suka	Tidak Suka
37. Membantu memecahkan persoalan pribadi orang lain.	O	O
38. Merawat atau mendidik anak.	O	O
39. Mempelajari masalah kenakalan remaja.	O	O
40. Mengajar di suatu perguruan tinggi.	O	O
41. Membaca buku-buku psikologi.	O	O
42. Membantu orang-orang cacat.	O	O
43. Mengikuti mata pelajaran hubungan manusia.	O	O
44. Mengajar di Sekolah Menengah Tingkat Atas (SMTA).	O	O
45. Mempengaruhi orang lain.	O	O
46. Menjual barang.	O	O
47. Mempelajari teknik-teknik "berusaha" yang berhasil.	O	O
48. Menjalankan usaha pelayanan (service) atau bisnis kepunyaan pribadi.	O	O
49. Menghadiri seminar tentang penjualan.	O	O
50. Mengikuti kursus singkat tentang administrasi dan kepemimpinan.	O	O
51. Berperan sebagai "pengawas" dalam suatu kelompok.	O	O
52. Mengawasi pekerjaan orang lain.	O	O
53. Menjumpai seorang eksekutif atau pemimpin yang penting.	O	O
54. Memimpin suatu kelompok untuk mencapai suatu tujuan tertentu.	O	O
55. Berpartisipasi dalam kampanye politik.	O	O
56. Mengisi formulir pajak penghasilan.	O	O
57. Mengetik surat-surat atau karya tulis baik untuk diri sendiri atau orang lain.	O	O
58. Menjumlah, mengurangi, mengalikan dan membagi angka dalam kegiatan bisnis.	O	O
59. Menjalankan mesin-mesin atau alat-alat perkantoran.	O	O
60. Melakukan pencatatan pembelanjaan secara akurat.	O	O
61. Membuat suatu sistem pencatatan atau pendokumentasian.	O	O
62. Mengikuti mata pelajaran bisnis (administrasi niaga).	O	O
63. Mengikuti mata pelajaran tata buku (pembukuan).	O	O
64. Mengikuti mata pelajaran matematika ekonomi.	O	O
65. Mengoperasikan komputer.	O	O
66. Melakukan pencatatan terhadap persediaan atau hasil produksi.	O	O

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Title of Thesis: The Effects of Individual Characteristics on the Relationships between Person Interest-Work Environment Congruency and Job Involvement in Universitas Terbuka (The Indonesian Open Learning University)

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