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# Domestic violence: Service providers' perceptions of factors affecting women's decision to leave abusive relationships

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# DOMESTIC VIOLENCE: SERVICE PROVIDERS' PERCEPTIONS OF

# FACTORS AFFECTING WOMEN'S DECISIONS TO LEAVE

# ABUSIVE RELATIONSHIPS.

## BY

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# USE OF THESIS


The Use of Thesis statement is not included in this version of the thesis.

Abstract

Review of research conducted into woman abuse indicates there was an

emphasis on questions looking at why women stayed in abusive relationships.

Little or no research was specifically designed to answer questions about how

women leave abusive relationships or determine the salient factors involved.

The literature review also highlighted the importance of services and service

providers because women who had experienced abuse would seek help and

Knight and Hatty (1992) found that the quality of help received determined

their future responses. Kurz and Stark (1988) found that workers' perceptions

about woman abuse influenced how workers responded to the women seeking

help. Hoff (1990) indicated that workers' negative responses may cause their

services to be inaccessible to women who have experienced abuse. A theory

emphasising an individual's subjective experiences and how these perceptions

influence their actions is Kelly's (1955) personal construct theory. The

exploratory study was designed to elicit and examine the construct systems

employed by service providers, within the domestic violence domain in the

Perth metropolitan area, concerning factors affecting women's decisions to

leave abusive relationships. Twelve participants (1 male and 11 females),

ages ranging from 25 - 50 years (mean age = 35 years), with 2 to 15 years

(mean = 5.8 years) experience volunteered for the study. They completed

repertory grids, using the triadic method and 5-point rating scale, consisting

of eight supplied elements selected to be representative of abusive and non-

abusive relationships. Analysis of the individual and group grids was

performed by REPGRID 2 and SOCIO (Shaw, 1989) using principal

components analysis. Results indicated that the participants' perceptions of

woman abuse focused on individual characteristics which may have negative

consequences for their service delivery practices as found by Hoff (1990). An

inference was drawn that the factors employment status (NiCarthy, 1987),

education level (Gelles & Cornell, 1990) and the presence of physical

violence (Knight & Hatty, 1992) are critical factors involved in a woman's

decision to leave and abusive relationship. Repertory grid technique was

thought to be useful in the area of woman abuse and service providers found

the technique of benefit.

## Declaration

"I certify that this thesis does not incorporate, without

acknowledgment, any material previously submitted for a degree or diploma

in any institution of higher education and that, to the best of my knowledge

and belief, it does not contain any material previously published or written by

another person except where due reference is made in the text".

Signature

Date.30.5.95.

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I would finally like to give special thanks to each of the participants working with women who experience abuse, who willingly volunteered and gave up their valuable time to participate in the study and share their thoughts and feelings so freely and honestly, for without them this study would not have been possible.

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CHAPTER 1

Introduction

<u>Background</u>

Myths and controversy have surrounded the topic of woman abuse or domestic violence even though woman abuse has existed for generations. A review of the literature revealed that research into the area had been conducted from anthropological, sociological and psychological perspectives. Traditionally, tension existed between sociological and psychological disciplines and a lot of criticism had been directed by one discipline towards the other particularly with respect to the research methods used by each. Criticism from psychological perspectives had primarily been directed to the lack of quantitative analyses, the use of selective samples or the research design including methods of data collection (Rosenbaum, 1988). Criticisms from sociological perspectives were directed toward over-reliance on survey data, misleading results based on data collected from a widely used instrument called the Conflict Tactics Scale (CTS) (Straus, Gelles & Steinmetz, 1980) (see Dobash & Dobash, 1992 and Pagelow, 1992 for an extensive critique on the CTS) and the lack of qualitative information available. The use of diverse methodologies by each of the different perspectives to answer similar questions had also restricted comparison between studies.

The sociologist's world view emphasised the role of society and social structures whereas the psychologist's world view predominantly focused on

the role of the individual (Coakes, 1992; Maynard, 1988; Willis, 1993).

Sociologists therefore have located the problem in the social context whereas

psychologists have located the problem within the individual. These different

problem definitions have in turn influenced the research questions. Whilst

debating the location of the problem, researchers gained a broader

comprehension of the complex issues surrounding woman abuse or domestic

violence, but nothing really happened to address the issue and the fact still

remains that as many as one in five women were abused physically within an

intimate relationship (Burstow, 1992; Dobash & Dobash, 1992; Okun, 1986).

It has been argued by women's activists and feminist researchers that

research needed not only to understand the problem but to also point the way

to a solution while actively involving all concerned (Dobash & Dobash, 1992;

Martin, 1989); NiCarthy, 1987; Okun, 1986; Pagelow, 1992; Tierney, 1982).

Research undertaken from a specific ideological perspective would have

difficulty finding answers to such a complex issue (Burstow, 1992; NiCarthy,

1987; Okun, 1986; Pagelow, 1992; Yllo & Bograd, 1988). As Dobash and

Dobash (1992) have pointed out a more eclectic theoretical formulation is

now being favoured by sociologists to allow researchers to embrace

quantitative methods. Psychologists are also looking towards a combination

of qualitative and quantitative methods and away from the expectation of

finding one theory as sole explanation for some social phenomenon (Syme &

Bishop, 1992; Wicker, 1989). An approach that enables the combination of

perspectives and one that would address the issues raised by the women's

activists and feminist researchers (as previously discussed) is offered by community psychology.

Community psychology is an integration of sociology, anthropology and psychology and a basic tenet of community psychology is the explicit articulation of values and biases and the importance of acknowledging their effects (Syme & Bishop, 1992). Another significant principle of community psychology is that of empowerment (Rappaport, 1981) or the idea of increasing the possibilities for people to control their own lives. The eclectic dimension or broader focus of community psychology facilitates interdisciplinary communication because of its' unique understanding of a variety of issues. Community psychology also seeks to actively involve all members of a community or substantive domain and to ensure that a partnership relationship is established between researcher and community whereby both have a contribution to make (Heller, Price, Reinharz, Riger & Wandersman, 1984; Syme & Bishop, 1992).

The review of the literature on woman abuse revealed that there was an emphasis on questions looking at why women stayed in abusive relationships. When the principles of community psychology including Rappaport's (1981) value of empowerment were applied when reviewing the problem of woman abuse, it appeared more germane to look at how women were able to leave abusive relationships and to attempt to answer the questions about the salient factors involved. Little or no research had been specifically designed to answer this particular question, although researchers had

attempted to answer it incidentally from general information gathered from research for other purposes, for example, studies by Hoff (1990), Okun (1986), NiCarthy (1987), Straus, Gelles and Steinmetz (1980) and Strube (1988) whereby the available data often generated the research hypotheses and information about whether residents left their abusive relationships or not was obtained through answers to current marital status questions.

The literature review also highlighted the importance of services and service providers within the domain of woman abuse because usually women who had experienced abuse would generally seek some sort of assistance and the kind of help they received determined their future responses (Hoff, 1990; Knight & Hatty, 1992; Kurz & Stark, 1988; National Committee on Violence Against Women, 1993). How workers perceived issues or their subjectiveexperiences associated with domestic violence was relevant because it influenced their response to the women seeking assistance (Burstow, 1992; Dobash & Dobash, 1992; Kelly, 1955; Kurz & Stark, 1988). The National Committee on Violence Against Women (1993) found that the difficulty in obtaining comprehensive data on woman abuse was most likely because "... women have sought help and that useful assistance has not been forthcoming" and that "reporting and disclosure rates are affected by a number of factors, including: attitudes towards victims .... access to information .... satisfaction with interventions and .... the likelihood of positive outcomes" (p. 2). Kurz and Stark (1988) found in their study that explored the medical response to battering that only 11% of their sample made a positive response (despite 90%

achieving a positive score on an attitude measure) to battered women and that

this behaviour was linked to their true beliefs about battering and battered

women. A further 40% of the sample did not respond well and this behaviour

was again linked to their beliefs about battered women. In a study that

examined values and networks Hoff (1990) found that values associated with

victim-blaming were often upheld by public and social institutions which in

turn led to insufficient support or help by those publicly and professionally

charged to deliver it. The results on institutional responses to battered women

found "a concerted effort should be made to correct attitudes among human

service professionals that express society's most negative values toward

battered women, attitudes that might make an otherwise adequate service

inaccessible to such women" (p. 114). However, little or no research had been

specifically designed to examine how workers within the domestic violence

field perceived the issues surrounding woman abuse.

From the available literature on women's experiences of abuse, it was

possible to glean several factors that may have been relevant to women's

decisions to leave abusive relationships. To determine whether or not

workers' perceptions reflected the general experience of abused women

obtained from the research literature in the area of interest, an exploratory

study was planned that would examine in greater depth workers' perceptions

of the factors that influenced women's decisions to leave abusive relationships.

One theory that emphasised an individual's subjective experience of

the world and how these perceptions influenced their actions was George

Kelly's (1955) personal construct theory. The theory stated that people

functioned successfully by the anticipation and interpretation of events in the

world through their own personal constructs. The repertory grid technique

(Kelly, 1955) was devised as a means to measure those constructs. The

repertory grid technique was chosen to collect the data in the study for it can

be an effective tool when needing to explore relationships or commonalities

between many possible variables. Repertory grid technique also decreased the

chance for participants to use socially acceptable constructs because of the

time involved and the construct rating scale. Fransella and Bannister (1977)

showed that research had demonstrated that constructs elicited from the same

elements were stable over time, with consistency scores of between 0.6 and

0.8. The exploratory study sought to examine workers' perceptions and the

reperto.y grid enabled individuals to access their construct systems associated

within the domain of interest (as defined by the elements chosen by the

researcher). The repertory grid's semi-structured interview technique actively

involved the researcher and participants while combining the rated grids'

results into a format that could then be qualitatively and quantitatively

analysed.

While statistical analysis remains the preferred method within the

behavioural sciences, according to Shaw (1981) the researcher's interpretation

of the repertory grid's analysis needs to maintain links with each grid's raw

data as much as possible, so as not to lose sight of the fact that each grid was

merely a representation of each individual's perception of their own reality and

not a statistical standard. Repertory grid technique itself has not evolved without criticism, predominantly about the range of uses of the grid without being tied to its' theoretical base (although the grid itself is related to the theory and reflects the essential underlying processes of construing) and the methods of analysis (Bell, 1988, 1990; Easterby-Smith, 1981; Fransella & Bannister, Shaw, 1981). The purpose of the exploratory study was to examine workers' perceptions or construction systems therefore the use of the repertory grid was clearly linked to personal construct theory. Computer analysis for the exploratory study was performed by REPGRID 2 (Shaw, 1989) which used principal components analysis techniques. Tabachnick and Fidell (1989) have stated that principal components analysis is a useful statistical technique in exploratory research as it can reveal patterns of correlations among variables that are believed to represent underlying processes. The REPGRID 2 (Shaw, 1989) analysis was used to seek an understanding of the relationships between the elements and constructs and Bell (1988) has argued that principal components analysis is an appropriate method when examining the relationships between elements and constructs. Moreover this type of analysis for this representation has been shown by Bell (1988, 1990) to relate to Kelly's (1955) personal construct theory construction corollary, "A person anticipates events by construing their replications" (p. 26) and the fundamental postulate, "A person's processes are psychologically channelized by the ways in which he/she anticipates events" (p. 26) and as a result "relates to the theory by reflecting the essential underlying process of construing" (p. 26).

## Definitions

Woman abuse research has established that it is predominantly men who perpetrate violence against women. For the purpose of the exploratory study the terms woman abuse, woman-battering, domestic violence or violence against women were used interchangeably and were defined as "Behaviour by the man, adopted to control his victim, which results in physical, sexual and/or psychological damage, forced social isolation, or economic deprivation, or behaviour which leaves a woman living in fear." (National Committee on Violence Against Women, 1993, p. 45).

The service provider role has been defined by the National Committee on Violence Against Women (1993) as being "one which empowers through the provision of ideas, information, knowledge, access to services, is based on a belief that women have the resources to make their own choices and decisions, and is based on egalitarian values of women's entitlement to safety, respect and freedom" (p. 12). The terms service providers or workers were used interchangeably and refer to the people who participated in the exploratory study. In order to complete a repertory grid designed around the domain of interest each participant required extensive knowledge of women who had been involved in various types of abusive relationships as well as knowledge of women who had been involved in various types of non-abusive relationships. The participants all had experience working within the field of domestic violence. The extent of their experience working in this field ranged from two years to fifteen years. Their qualifications varied and included

welfare students, social workers and or/students, child care workers, nurses, psychologists and/or survivors.

Review of research in repertory grid technique has indicated that there have been few generally accepted definitions of a repertory grid. For the purpose of the exploratory study Bell's (1990) definition stating that a grid was "a set of representations of the relationships between the set of things a person construes (the elements) and the set of ways that person construes them (the constructs)" (p. 26) was adopted.

CHAPTER 2

Review of the Literature

History

In order to begin to appreciate the complex issues surrounding

violence against women it was necessary to explore briefly an historical

perspective. Throughout Western culture woman-battering was made

legitimate through the laws of chastisement dating back to the reign of

Romulus of Rome in 753 B.C. Husbands had the right to discipline their

wives physically for various crimes that were often unspecified. No reciprocal

rights were accorded to the wives and what were "crimes" for women were

often acceptable behaviours if carried out by men. These chastisement rights

were incorporated into English common law and came to be known as the

"rule-of-thumb" because men could beat their wives with a rod or switch, as

long as its circumference was no bigger than the base of the man's right thumb

(Dobash & Dobash, 1992; Gelles & Cornell, 1990; Okun, 1986). Although

some laws became less punitive towards women after the Punic Wars in 202

B.C., it is not known if women were in fact able to have the new rights

enforced (Dobash & Dobash, 1992; Okun, 1986). Even though the teachings

of Jesus Christ Mat. 5: 3-48 (New International Version) were against any

form of oppression, including that of women, early Church fathers (still

influenced with patriarchal dominance traditions) ensured the church

teachings would enforce male authority. While individuals both within the

church and outside it have fought against violence against women, societies in

general have continued to permit or encourage it in various degrees until the

latter half of the nineteenth century when legislation outlawing wife beating

began to appear both in England and America (Dobash & Dobash, 1992;

Okun, 1886). Enforcement of the new laws did not follow, consequently it

was not until the 1970's, largely due to the rise of the women's movement, that

woman-battering came back into public focus (Dobash & Dobash, 1992;

Gelles & Cornell, 1990; Okun, 1986; Pagelow, 1992; Yllo & Bograd, 1988).

It was essential to bear the rule-of-thumb thinking in mind when reviewing

literature in this field as this traditional thinking has not entirely disappeared.

Evidence for that is demonstrated in programmes or policies that exhibit an

underlying tendency either to blame victims, especially female ones, for

crimes committed against them or to see them as suffering from an illness or

syndrome.

Most of the literature on the subject of woman abuse has therefore

emerged since the 1970's (Dobash & Dobash, 1992; Pagelow, 1992; Okun,

1986). According to Okun (1986) only four works in psychology strictly

addressed marital violence prior to 1970, although there were others that

appeared between 1878 to 1970 under such topics as morbid jealousy, sado-

masochistic couples or homicide. Woman abuse has existed for at least 2700

years (Dobash & Dobash, 1992; Okun, 1986) and many reasons have been

cited for the neglect in research of this area including under-reporting by

victims, prevailing attitudes that battering was a private conjugal matter

(Dobash & Dobash, 1992), social attitudes that blamed the victim, professional labelling conventions (Pagelow, 1992), difficulties in obtaining subjects, especially for controlled or random populations, use of clinical populations, lack of data concerning perpetrators and various ethical considerations (Okun, 1986).

## General Research Trends

Research since the 1970's abounds on the issue of woman abuse and as previously stated has been conducted from sociological, anthropological and to a lesser extent psychological perspectives. Much of the emphasis of these studies has been on elements related to intra-individual factors such as personality traits or behavioural deficits; interpersonal components like marital or familial dynamics; environmental stressors such as unemployment and cultural contexts of law enforcement or judicial responses (Okun, 1986; Pagelow, 1992; Viano, 1992; Yllo & Bograd, 1988). Other research has taken the form of programme evaluations for either perpetrators or women exposed to violence (Pence & Shepard, 1988; Pagelow, 1992). A common thread to the research has been to find answers either to why men batter their female partners or why women stay in abusive relationships.

## Australian Perspective

The review of the literature on research in Australia has suggested that issues in relation to woman abuse in Australia parallels those of overseas (Domestic Violence Coordinating Committee 1990; Knight & Hatty, 1988). Similarly, the incidence of woman abuse is as difficult to determine here as

elsewhere. Reasons for this include factors previously stated such as a high

incidence of under-reporting, particularly because of negative attitudes

towards women who have experienced abuse (National Committee on

Violence Against Women, 1993); the fact that data collection on violence has

often not been gender specific (Okun, 1988; Pagelow, 1992) and because of

the inconsistencies in methods of recording information (Dobash & Dobash,

1992). Researchers agree however that the extent of woman abuse may be

that one in five women are abused physically within an intimate relationship.

Research in the Domain of Interest

Whilst many studies have attempted to answer why women stay in

abusive relationships very few have attempted to ascertain why women leave

their abusers. Of those that have attempted to address this question, most

were not specifically designed with only this question in mind. Very few

studies have been designed to explore service providers' attitudes or values in

respect to woman abuse.

When looking at several hypotheses that includedfactors affecting

decisions to leave or stay in abusive relationships, Okun's (1986) study of two

subject samples, 300 female refuge residents and 119 males (assessed as

unilateral woman abusers) involved in a domestic violence perpetrators'

counselling programme found several factors that contributed to the

termination of abusive relationships. The criterion for considering

cohabitation terminated was one year without resuming cohabitation. This

criterion failed to exclude a few relationships where cohabitation resumed

after separations of one year or longer and also excluded some relationships that eventually terminated after one period of resumed cohabitation. Okun (1986) stated that despite these difficulties the statistical relationships between outcomes remained valuable and statistically representative of the actual experiences of the refuge sample members. The statistically significant factors that contributed to the termination of abusive relationships were when women had the same or greater income than the perpetrator, where there had been more separations from the perpetrator prior to the final termination and where separations were for longer periods especially just prior to final termination, and where the woman had further to travel to safety.

Another study that sought to document the experiences of abuse of women who had left abusive relationships was by NiCarthy (1987) who interviewed a non random sample of 33 women across seven states in North America. The criteria was that these women had successfully left an abusive ·relationship and had been living independently for at least one year. Each subject was asked the same open-ended questions and their narrations were qualitatively analysed through theme analysis. Common themes that emerged pertaining to a decision to leave an abusive relationship were a new awareness or new perspective about their situation often expressed as a shift in the balance between hope and fear, hope for a better life without the abuser or a belief in their own ability to cope and survive alone often through multiple separations as found by Okun (1986), their employment status, positive external interventions (although most had experienced negative intervention

due to the negative attitudes of the service providers) and events outside the women's control such as an abuser's suicide.

A comparative study by Gelles and Cornell (1990) between battered women who stayed with violent partners to women who sought assistance, either by contacting police, divorcing or attending a mental health agency, that had been supported in other studies by Pagelow (1981) and Strube (1988) indicated that occupational skills as found by both Okun (1986) and NiCarthy (1987) and educational level were relevant to a decision to leave an abusive relationship.

Very little research had looked specifically at workers' perceptions relevant to woman abuse and/or factors affecting decisions to leave abusive relationships, however Hoff (1990) was involved in a naturalistic study with nine battered women and 131 social network members that focused on their interaction with their mates and social network members. Qualitative data were obtained through participant observation, in-depth interviews and personal journals. Salient factors that emerged concerning decisions to terminate an abusive relationship included a strong or traditional value of motherhood and a re-definition of the situation. Significantly the study also highlighted the importance of a service provider's need to have positive values and attitudes towards women-battering.

In an Australian study Knight and Hatty (1992) examined the main features of intersexual violence with specific emphasis on factors implicated in the termination of abusive relationships. A subject sample of 120 females

were interviewed over the telephone. Three models derived from the literature base (attitudinal, behavioural and sociodemographic) were fitted using logistic regression analysis. Factors that emerged as critical were the occurrence of physical violence, marital status, no strong adherence to rigid feminine stereotype role and the active seeking of intervention from legal or medical agencies, especially in regard to the degree to which they sought support and the response which they received. This study again pointed to the importance of the quality of help received by women who had experienced domestic abuse "because the role of the intervention agencies appears to be pivotal" (p. 262).

Finally, Kurz and Stark (1988) found in their study conducted in both New Haven and Philadelphia that the medical response to woman abuse "alternates between a narrow clinical focus on physical injuries outside of the social context that makes them intelligible and an approach that stigmatises abused women so that they appear responsible for the violence" (p. 254). Their New Haven results concluded that the medical response to the women were likely to "promote the evolution of battering" and helped to create "family situations in which ongoing violence is virtually inevitable" (p. 254). Their Philadelphia results demonstrated that in only 11% of cases a positive response was made. This was clearly linked to the staff attitudes toward battering. The 40% who showed a negative response did so because of stigmatising beliefs.

The literature review suggested that there may be several factors

affecting a female partner's decision to leave an abusive relationship. These can be divided into internal and external factors. Internal factors included a strong or traditional value of motherhood, the re-definition of their situation (Hoff, 1990) and a new awareness or new perspective of their situation (NiCarthy, 1987). External factors included the success of victims' previous help-seeking behaviour, marital status, the presence of physical violence (Knight & Hatty, 1992), hope for a better life without the abuser or a belief in their own ability to cope and survive alone, events outside her control, employment status, positive external interventions (NiCarthy, 1987), education level and occupational skills (Gelles & Cornell, 1990), the same or greater income, more separations and longer duration or further distance to safety (Okun, 1986). Most of the research indicated that at some stage abused women would seek help and Knight and Hatty (1992) found that the quality of help received determined their future responses. Kurz and Stark (1988) showed that workers' perceptions about the issues surrounding woman abuse greatly influenced how the workers responded to the women seeking help and Hoff (1990) further elaborated that workers who exhibited negative responses may cause their service to be inaccessible to women who have experienced abuse and in effect expose these women to further abuse via these institutions.

Major Research Questions

Focusing on service providers working in the area of domestic violence within the Perth metropolitan area -

1.    What are the workers' perceptions (construct systems) of woman abuse?

2.    What are the workers' perceptions (construct systems) of the factors affecting a woman's decision to leave an abusive relationship?

3.    Are the workers' perceptions of factors affecting women's decisions to leave abusive relationships similar to or different from the factors that were identified in the literature?

4.    Is the repertory grid technique useful for exploring the perceptions (construct systems) associated with the complex issue of woman abuse?

CHAPTER 3

Method

<u>Participants</u>

Literature reviewed concerning the use of repertory grid technique

failed to provide a definitive or ideal number of participants required for such

studies. No comment or methodological criticism could be found concerning

the numbers of participants used in studies. Various exploratory studies that

used repertory grid technique involved between one to twenty eight

participants with an average number of eight participants (Diamond, 1993;

Fransella & Bannister, 1977; Lester, 1993; Neimeyer & Neimeyer, 1990;

Shaw, 1980).

Participants for the study were recruited from women's refuges and

community organisations in the metropolitan area which employed workers

who had experience in the domestic violence field. The only male refuge

employee in the state and eleven female service providers (10 from four

women's refuges and one from a non-government counselling organisation)

volunteered and their ages ranged from 25 - 50 years (mean age = 35 years).

The majority of participants were Australian born however two females were

born in England, one in Asia, one in Italy and one in South Africa. The

number of years they had been working within the domestic violence field

ranged from two years to fifteen years (mean years = 5.8). Some of the

workers were academically qualified as psychologists, social workers, nurses,

and child care workers and their original training was no different from that of any others. Others were social work students, welfare workers or students and many were survivors. The only difference between workers within this field and similarly trained workers in any other field was the length of time working with domestic violence.

<u>Apparatus</u>

The completed repertory grids contained three components: elements, elicited constructs and the linking mechanism (rating scale). According to Kelly's (1955) personal construct theory's range corollary , "A construct is convenient for the anticipation of a finite range of events only" (p. 68) therefore, it was necessary to construct the elements for the grids in such a way as to cover that finite range or provide representative coverage of the domain of interest. However, it was also necessary to achieve this by the use of the least amount of role descriptions so that the length of time required to fill in the grids was kept within a manageable time span. Reviews of recent repertory grid research revealed many studies were using eight to ten elements (Easterby-Smith, 1981; Krauthauser, Bassler & Potratz, 1994; Lester, 1993). Eight white cards, measuring 12.5 cm and 7.5 cm, each contained a role description about a relationship between two adults (the element) with a re-useable strip along the bottom edge and were used as stimuli to elicit the constructs (see Appendix A for an example of the white card). The eight situation descriptions contained on the cards were: 1) a woman living in an abusive relationship of less than five years (that is, short term); 2) a woman

who has just terminated an abusive relationship; 3) a woman who has lived in an abusive relationship for more than five years (that is, long term); 4) the "ideal" woman in an abusive relationship; 5) a woman living in an abusive relationship with children; 6) a woman living in a relationship falling within the "usual" category; 7) a woman living in an "ideal" relationship; and 8) the "ideal" woman who has terminated an abusive relationship. The "ideal" categories were included because the personal construct theory states that each individual is in constant psychological motion (that is, not static), therefore these categories enabled each individual to indicate the direction in which the person was moving and if the person was moving towards a desired direction (Kelly, 1955; Shaw, 1981).

According to Shaw (1981) over seventy percent of repertory grid studies have used five point rating scales therefore, once the constructs were elicited participants were asked to rate each element on a five point scale defined by the two construct poles for each of the elicited constructs. Rating scales also provided the opportunity to ensure that the elements were within the range of convenience and therefore determined that the grids had been constructed correctly (Easterby-Smith, 1981). In other words, because participants were able to rate each element on each pole of their constructs, the elements were in the range of convenience and the grids were therefore constructed correctly.

The issue of reliability is problematic with repertory grid techniques due to the great variety of grids possible. Studies have indicated that elicited

constructs (via the triadic method using rating grids) from a subject are likely

to be representative and stable over time for that individual (Fransella &

Bannister, 1977). However estimation of the grid is more meaningful if

looked at in terms of its individual value as an effective instrument to collect

subjective data.

Validity cannot be determined in respect to the grid itself as it is not a

test and has no definite content. Fransella & Bannister (1977) state that it is

more meaningful to question an individual grid's ability to reveal patterns and

relationships in certain types of data. If designed adequately (ie. the

categories are appropriate in order to elicit desired constructs) the validity of

the grid in terms of elaborating constructs by definition can be determined if

results show a limiting or more precise, exact description of the research area.

Procedure

During semi-structured interviews lasting from 30 minutes to two

hours, each of the twelve participants completed a repertory grid (see

Appendix B for an example of the blank grid format). Constructs were

elicited from the participants using the method of triads (Fransella &

Bannister, 1977), the order of presentation determined by the researcher. The

order sought to maximise the diversity of the elements and eensured that no

two elements occurred too often in successive triads (as may have happened in

random ordering).

Before eliciting constructs each participant was instructed to examine

the situation descriptions and to think of clients that would "fit" as an

exemplar for each category. The participants were told that the person they chose to be stereotypical of the role description needed to be well known to them. Participants did not have to name the person but needed to code them or use initials and record them on each card on the re-useable surface so that their chosen subject for each element was remembered. They were also encouraged to use a different person for each category. The researcher then explained that after the participant assigned exemplars to each of the element cards, three cards would be shown to them and they would be asked in what way two of them were alike but different from the third. Participants were asked to use terms useful for comparison rather than merely descriptive personal terms (that is, employed full time versus unemployed as opposed to tall versus short) and to avoid repeating constructs. Participants were allowed as much time as necessary to familiarise themselves with the procedure. Participants were all able to respond to the construct elicitation technique, however individual proficiency varied. Most participants immediately generated constructs from the first triad presentation, while others needed initial examples or further clarification.

When ready, participants were presented with the first triad and given as much time as needed to decide on the construct that distinguished in what way two of the people were alike but different from the third. The elements chosen for each triad were noted by placing small circles on the repertory grid under the elements chosen in the triad and crosses were then placed in the centre of the circles of the two chosen as similar. The construct was then

recorded on the left hand side of the repertory grid form as the emergent pole and the opposite of the construct was recorded on the right side of the form as the implicit pole. Triads were passed if participants were unable to think of a construct. This procedure was then repeated for successive constructs until there were no new constructs, evidenced when participants were unable to respond to two or three successive triad presentations (Fransella & Bannister, 1977). When all the constructs had been elicited participants then rated each of the eight elements on each construct, using a five point rating scale. Participants were reassured that they could stop the interview at any stage if they no longer wanted to proceed.

CHAPTER 4

Results

The completed Repertory Grids (grids) obtained from the twelve semi-structured interviews were available for analysis. A mean number of 24 (range 18-31) constructs were generated from the eight elements and there was no missing data.

Each rated grid formed a data matrix that could be quantitatively analysed (Kelly, 1955; Shaw, 1980; Slater, 1964). The purpose of the numbers (or ratings) on the grids was to assign each element to one or the other pole of a construct, therefore each construct could be viewed as being represented by a point in a multidimensional space whose dimension was determined by the elements involved (Mancuso & Shaw, 1988). In order to detect how each individual perceived events relevant to or affecting their subjects' relationships (that is, the constructs associated with the relationship categories described) it was necessary to look at the distance between constructs (and their relation to the elements) within the space (principal components analysis technique).

In order to maintain the anonymity of the respondents the rep grids were referred to by number (Grid 1, 2, 3 etc.), however the numbers do not reflect the order in which each grid was developed during the course of the research; nor should the numbers in any way diminish the importance of the characteristics or individuality associated with each one. While statistical

analysis is a preferred method within the behavioural sciences, the researcher's interpretation of the REPGRID 2 (Shaw, 1989) analysis maintained links with each grid's raw data as much as possible so as not to lose sight of the fact that each grid was merely a representation of each individual's perception of their own reality at that time and not a statistical standard (see Appendix C for raw grid data).

A computer analysis of each grid was performed by REPGRID 2 (Shaw, 1989) using principal components analysis. The principal components analysis output consisted of i) a map of constructs and elements plotted along two dimensions from the principal components analysis (Slater, 1964); ii) correlation matrices of constructs and iii) construct and element loadings (Slater, 1964).

The principal components analysis involved correlating each pair of scale ratings (rows) and plotting the constructs and elements (the map output of the constructs and elements) along the first two major components from the principal components analysis (Slater, 1964) in terms of their loadings (greatest variance). According to Easterby-Smith (1981) these major components can be assumed to indicate the main dimensions by which participants differentiate between the elements (that is, the greatest variance is explained by the first two components). Inter-construct correlations and other measures (the output of the correlation matrices of constructs and the construct and element loadings) were also provided. The REPGRID 2 analysis was replicated for each of the twelve grids (see Appendix D for the

analysis output including loadings).

Bell (1990) stated that principal components analysis was an appropriate method for examining the relationships between elements and constructs and that it was related to Kelly's (1955) construction corollary and the fundamental postulate as elaborated earlier (see chapter one). For the exploratory study principal components analysis was, therefore, the most appropriate analysis for the grid data and the interpretation of the results was based on the principal components analysis.

Analysis of the group of grids was possible because they shared common elements (Easterby-Smith, 1981; Fransella & Bannister, 1977; Mancuso & Shaw, 1988; Shaw, 1980). This is in line with Kelly's (1955) Commonality Corollary which states "to the extent that one person employs a construction of experience which is similar to that employed by another, his processes are psychologically similar to those of the other person" (p. 90). Examination of the twelve grids was done in order to extract common factors (constructs) the group perceived to be associated with the eight relationship categories. The computer analysis of the group of twelve grids was carried out by SOCIO (Shaw, 1989; similar to SOCIOGRIDS by Shaw, 1980). The analysis output from the programme consisted of a socionet and list of mode constructs. Mildred Shaw's (1980) SOCIOGRIDS programme compared every pair of grids using a FOCUS algorithm and produced a final socionet that indicated the subgroups exhibiting links of similar construing from the group (see figure 1). Grid 10 had the most links or developed as a "star" and

Construct Links (at least 90% over 80.0)
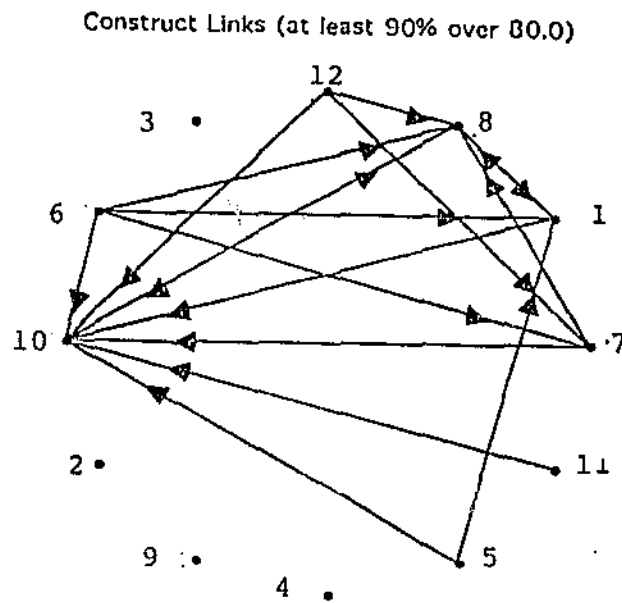


Figure 1. Socionet indicating subgroups that exhibit similar construing from the group.

grids 2, 3, 4 and 9 were "isolates. A temptation may have been to regard

"stars" as typical and "isolates" as atypical of the subgroups, however

Easterby-Smith (1981) and Shaw (1980) both warn that interpretation of

"stars" and "isolates" as typical or atypical is not useful as often "isolates" turn

out to be merely more creative thinkers in their construct systems and "stars"

merely muddled compromisers. Grids 2, 4, and 9 were the only grids that did

not contribute to the mode grid.

Mode constructs of the group were then extracted by the SOCIO

programme from the maximum values obtained in the pairs algorithm (that is,

total of the maximum match values of each construct considered with every

other construct and scaled over the number of constructs with which it was matched). All constructs were then listed in order of the descending average match values. A mode grid was compiled from that list by the selection of construct clusters matched at the 95 percentage point or above. This cut-off point was consistent with current psychological statistical practice (Tabachnick & Fidell, 1989). The mode constructs were those constructs most often used by all members of the group and therefore readily understood by the majority of the group. Each construct in the mode grid was obtained from one individual in the group and was in no way changed when used in the mode grid. As Shaw (1980) pointed out the mode grid is powerfully "... weighted towards the commonality or intersection of the group" (p. 92) and ".... can be used as a common referent for the group with which each individual grid may be compared." (p. 92). The eleven construct clusters that formed the mode grid and the grid number each construct was obtained from are listed in table 1.

Table 1

<u>Mode Grid Construct Clusters at 96 Percent.</u>

| Constructs No | Grid Number |
|---|---|
| **Mode Construct 1:** | |
| 1 Leave(C)*-Stay(C) | 12 |
| 2 Employed-Unemployed | 12 |
| 3 Equal(R)* -Unequal(R) | 1 |
| 4 Tertiary ed-Not tertiary ed | 7 |
| **Mode Construct 2:** | |
| 5 Good parent-Bad parent | 12 |
| 6 Determined-Directionless | 1 |
| 7 Inner strength-No strength | 10 |
| **Mode Construct 3:** | |
| 8 Negative-Positive | 7 |
| 9 Partner alcohol-No alcohol | 5 |
| **Mode Construct 4:** | |
| 10 Understanding-Self centred | 7 |
| 11 Not trusting-Trusting | 10 |
| 12 No respect-Mutual respect | 10 |
| **Mode Construct 5:** | |
| 13 Abuse hist-No abuse history | 12 |
| 14 Long term ab-Short term ab | 5 |
| **Mode Construct 6:** | |
| 15 Relates easily-Uncomfortable | 8 |
| 16 Practical-Impractical | 10 |
| **Mode Construct 7:** | |
| 17 Self aware-Unaware | 1 |
| 18 Not confident-Confident | 6 |
| **Mode Construct 8:** | |
| 19 Violence unacceptable-Helpless | 1 |
| 20 Satisfied-Dissatisfied | 7 |
| **Mode Construct 9:** | |
| 21 Meet needs-Neglect needs | 11 |
| 22 Takes responsibility-No responsibility | 10 |
| **Mode Construct 10:** | |
| 23 More aware-Stayed(C) | 5 |
| **Mode Construct 11:** | |
| 24 Not Australian born-Australian born | 10 |
| 25 Sole partner-Multiple partners | 3 |

*(C) with young children
*(R) within the relationship

The results from the principal components analysis of the elements and constructs from the mode grid were then visually examined to determine how the present sample made distinctions between the different relationship categories and at the constructs that were associated with those categories. The map of the mode grid showed that the group separated the abusive relationship elements from the non-abusive relationship elements except for the element "Terminated abusive relationship" which was placed on the same side of the plane as the abusive relationship elements (see figure 2). Grids 1 and 7 also separated the abusive relationship elements from the non-abusive relationship elements in the same way (see figures 3 and 4). An unusual linking by the present sample was observed between Element 6 "'Usual' relationship" and Element 7 "'Ideal' relationship" on the mode grid. This linkage reflected the overall pattern from the individual analyses as grids 3, 5, 6, 7, 8, 9, 11, and 12 all displayed this close link between Elements 6 and 7.
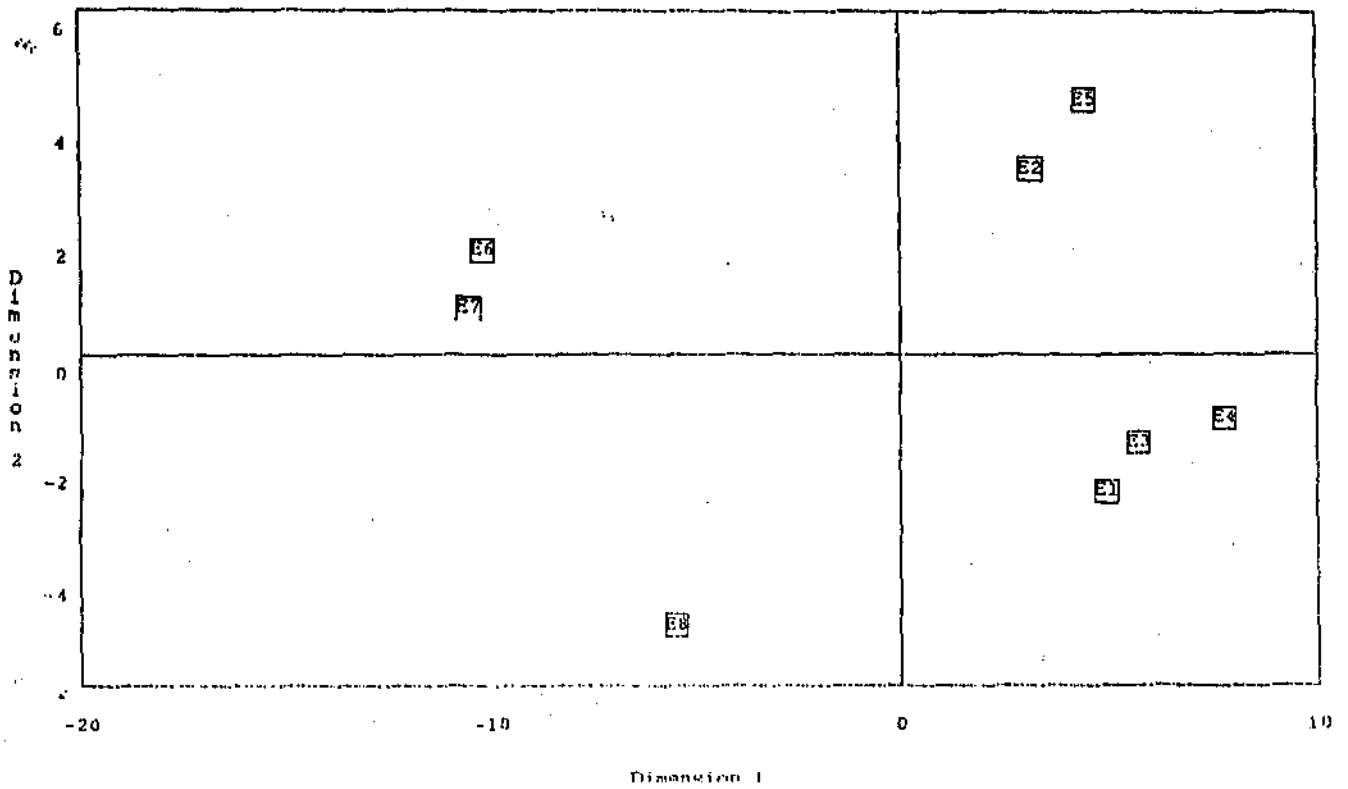
Figure 2. Principal components map of mode elements plotted along the two major dimensions from the analysis.

Legend:

Elements
E1  Short term abusive relationship
E2  Terminated abusive relationship☐
E3  Long term abusive relationship
E4  "Ideal" woman in an abusive relationship
E5  With children in an abusive relationship☐
E6  "Usual" relationship
E7  "Ideal" relationship
E8  "Ideal" woman terminated abusive relationship
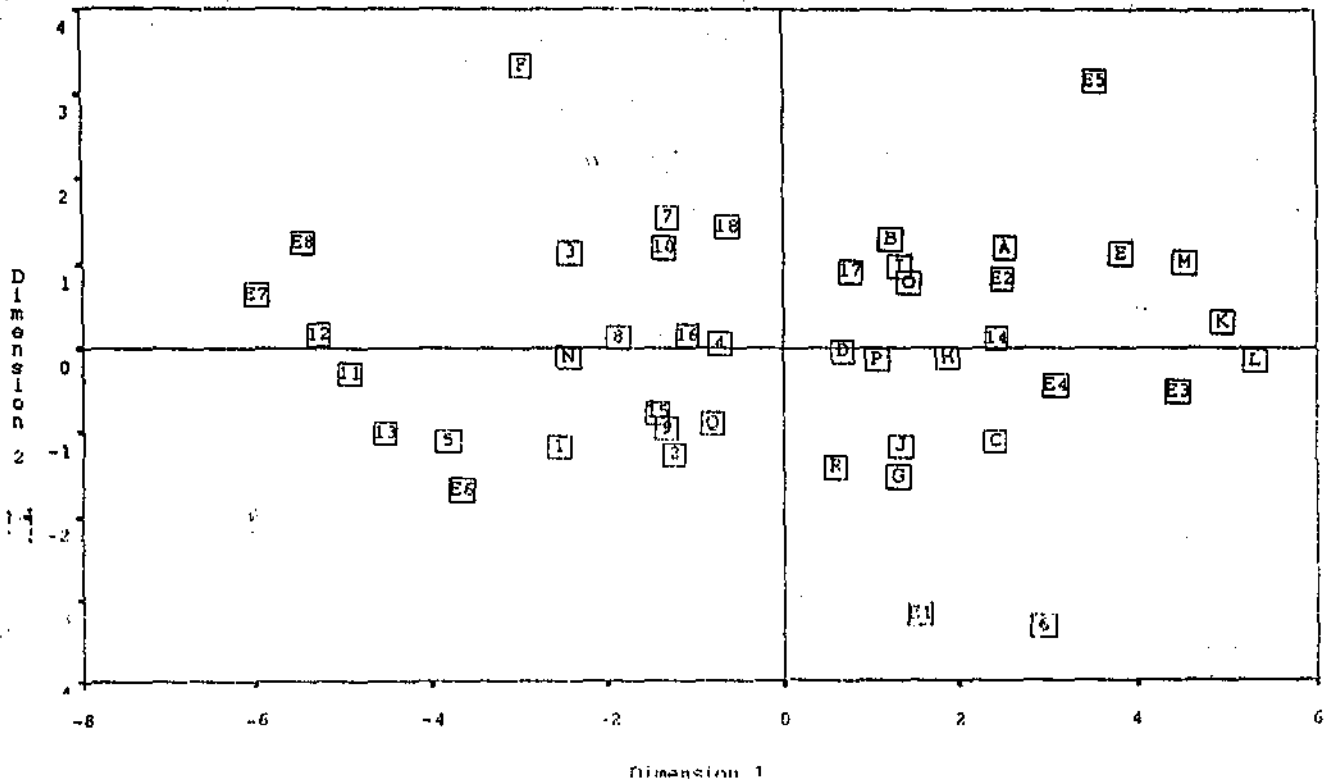
Figure 3. Principal components map of elements and constructs plotted along the two major dimensions from the analysis for Grid 1.

**Legend:**

**Constructs**

| | |
|---|---|
| 1 Emot strong | A Weak |
| 2 Negates slf | B Nurtures slf |
| 3 Independent | C Dependent |
| 4 Good mother | D Suffocating |
| 5 Support | E Isolated |
| 6 Cultural ex | F No cult exp |
| 7 Articulate | G Not articualte |
| 8 Self aware | H Not self aware |
| 9 Nurturing | I Cold |
| 10 Assertive | J Non assertive |
| 11 Viol unaccep | K Helpless (V) |
| 12 Equal (R) | L Unequal (R) |
| 13 Inhibited | M Freedom |
| 14 Powerless | N Powerful |
| 15 Determined | O Directionless |
| 16 Political | P Non political |
| 17 Resourceful | Q not resourceful |
| 18 Negotiates | R Avoids confrontation |

**Elements**

E1 Short term AR
E2 Terminated AR
E3 Long term AR
E4 "Ideal" woman AR
E5 With children AR
E6 "Usual" Rel
E7 "Ideal" Rel
E8 "Ideal" term AR
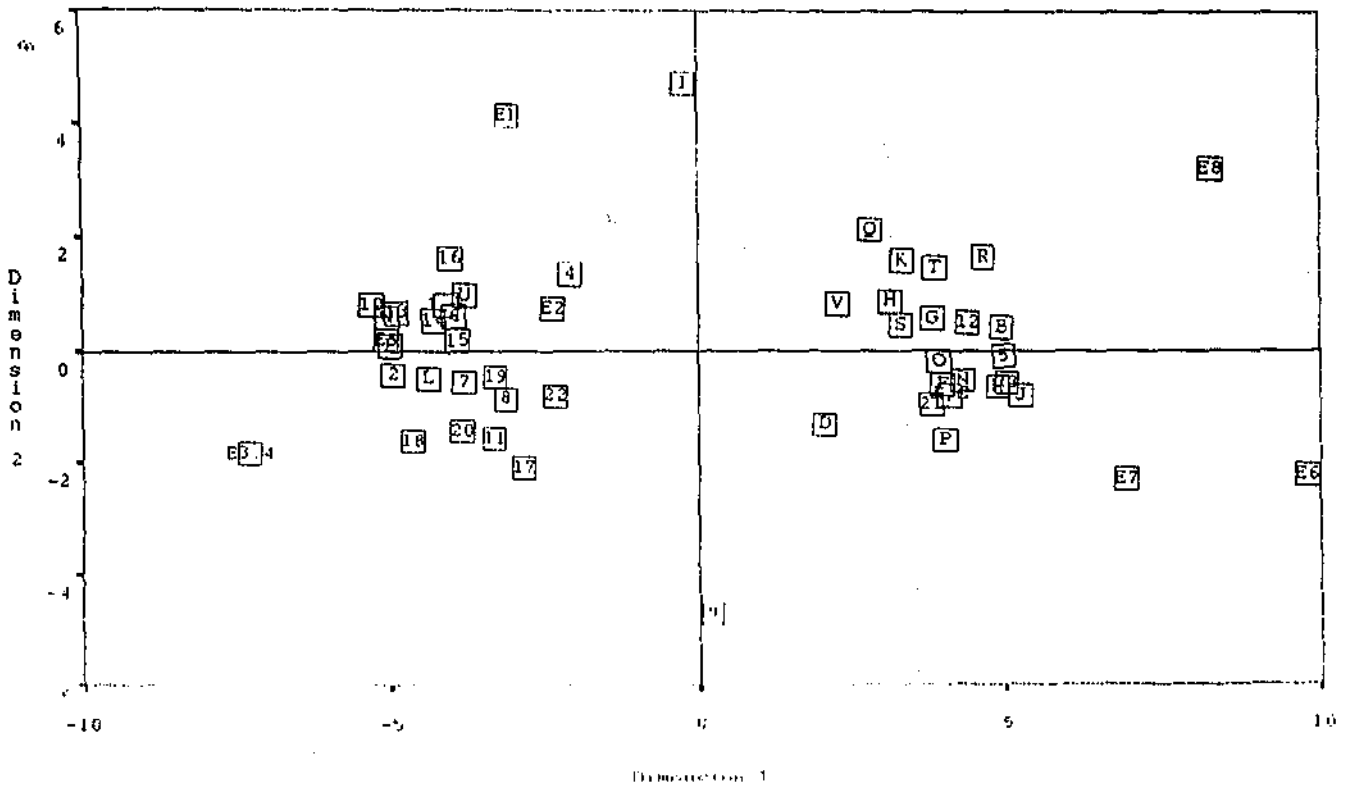
Figure 4. Principal components map of constructs and elements plotted along the two major dimensions from the analysis for Grid 7.

**Legend:**

**Constructs**

| 1 Low SE | A High SE |
|---|---|
| 2 Unemployed | B Employed |
| 3 Timid | C Dynamic |
| 4 Abuse hist | D No ab hist |
| 5 Satisfied | E Dissatisfied |
| 6 Moody | F Balanced |
| 7 Have childn | G No childn |
| 8 Older | H Young |
| 9 Asian | I Western |
| 10 Not tert ed | J Tert ed |
| 11 Resouceless | K Resourceful |
| 12 Direction | L Unmotivated |
| 13 Negative | M Positive |
| 14 Blame slf | N No blame |
| 15 Unselfish | O Selfish |
| 16 Understand | P Self-centred |
| 17 No support | Q Support |
| 18 No transport | R Transport |
| 19 No soc skl | S Social Skills |
| 20 Isolated | T Not isolated |
| 21 Christian | U Not religious |
| 22 Mature | V Immature |
| 23 Sets limits | W No limits |

**Elements**

E1 Short term AR
E2 Terminated AR
E3 Long term AR
E4 "Ideal" wo AR
E5 With childn AR
E6 "Usual" R
E7 "Ideal" R
E8 "Ideal wo Ter AR

Constructs are bi-polar and the two ends of each appear on opposite

sides of the origin on the maps of the principal components analyses.

According to Easterby-Smith (1981) and Shaw (1980) the construct upon

which the elements have been given more extreme ratings appear nearer the

outside of the map. These are assumed to be important constructs in the

person's map. Figure 5 shows the map of the mode grid construct clusters and

figure 6 shows the mode construct clusters and the elements together (one

point from each cluster was mapped for ease of viewing). For the mode grid

the constructs *Australian born/multiple partners-not Australian born/sole*

*partner* appeared on the extreme edges (top and bottom) of the map which

possibly represented key construct clusters for the group. The difference

between "'Usual' relationship" and "'Ideal' relationship" or "Short term abusive

relationship", "Long term abusive relationship" and "'Ideal' woman in an

abusive relationship" could be seen along the cluster dimension *self*

*centred/trusting/mutual respect-understanding (empathic)/not trusting/no*

*respect* and to a lesser degree along the dimensions *negative/partner alcohol*

*inv-positive/partner no alcohol inv* and *phys abuse hist/longer term abuse-no*

*phys abuse hist/short term abuse.* The element "'Ideal' woman in a terminated

abusive relationship" was at right angles to these dimensions. The elements

"With children in an abusive relationship" and "Terminated abusive

relationship" were also at right angles to the previously mentioned

dimensions.
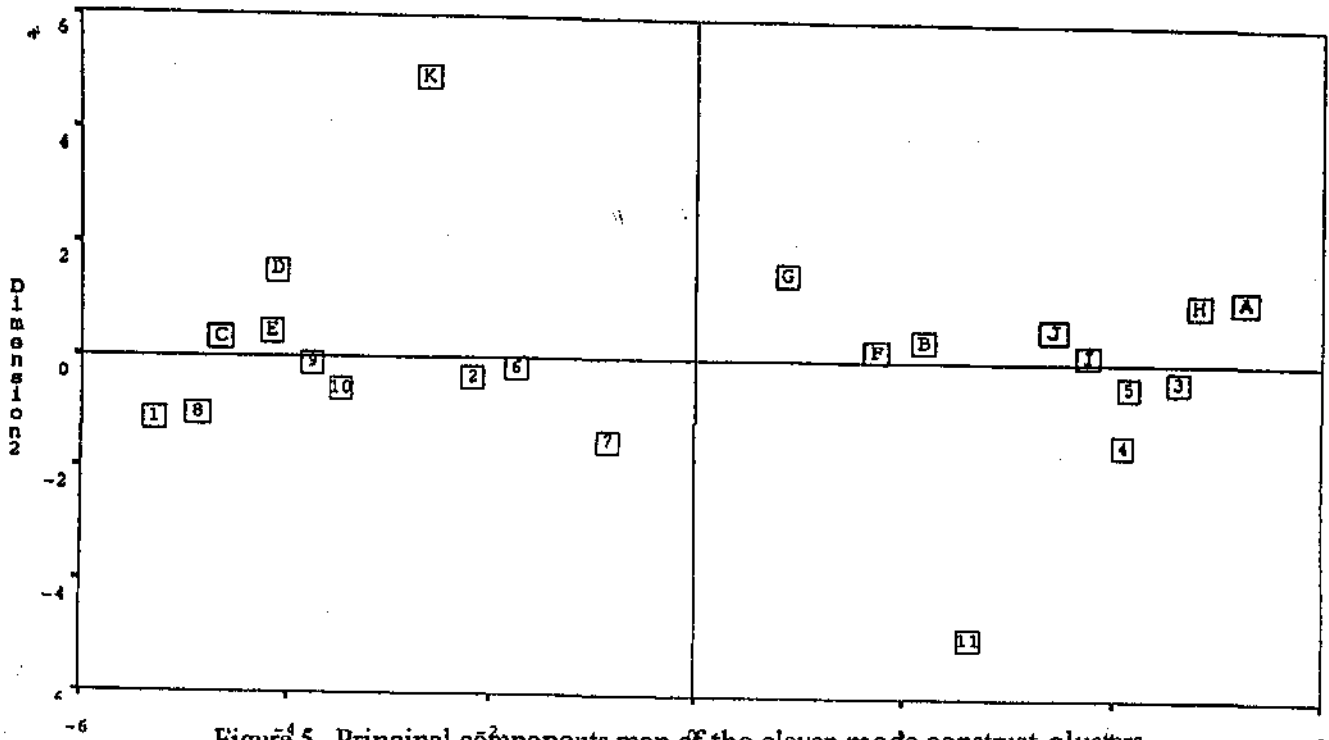
Figure 5. Principal components map of the eleven mode construct clusters plotted along the two major dimensions from the analysis.

Legend:

**Mode Construct Clusters**

| | | | |
|---|---|---|---|
| 1 | Leave (C) | A | Stay (C) |
| | Employed | | Unemployed |
| | Equal (R) | | Unequal (R) |
| | Tertiary ed | | Not tert ed |
| 2 | Good Mo | B | Not as good |
| | Determined | | Directionless |
| | Inner strength | | No strength |
| 3 | Negative | C | Positive |
| | Alcohol inv | | No alcohol involv |
| 4 | Understand | D | Self centred |
| | Not trust | | Trusting |
| | No respect | | Mutual respect |
| 5 | Abuse hist | E | No abuse history |
| | Long term ab | | Short term abuse |
| 6 | Relates eas | F | Uncomfortable |
| | Practical | | Impractical |
| 7 | Self aware | G | Unaware |
| | Not confident | | Confident |
| 8 | Viol unaccep | H | Helpless |
| | Satisfied | | Dissatisfied |
| 9 | Meet needs | I | Neglect needs |
| | Take Respons | | No responsibility |
| 10 | More aware | J | Stayed (C) |
| 11 | Not Aust bn | K | Australian born |
| | Sole partner | | Multiple partners |
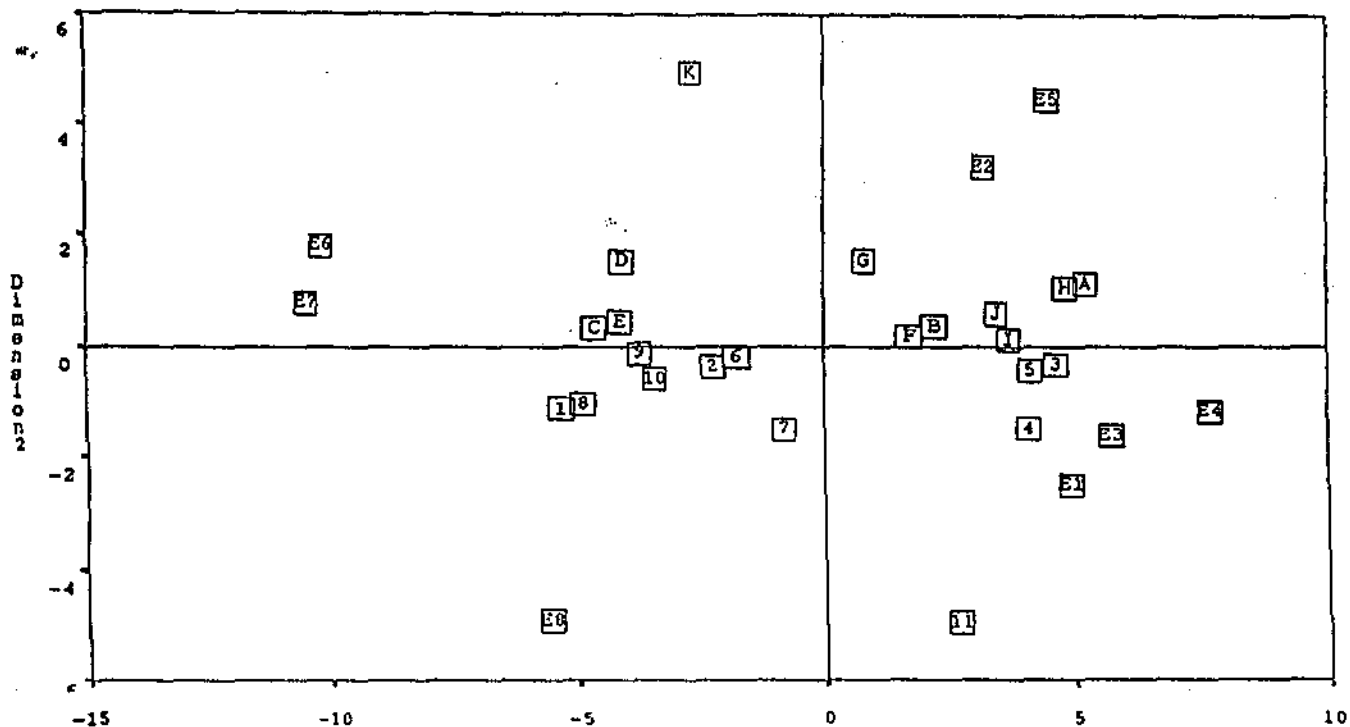
Figure 6. Principal components map of the mode elements and the eleven construct clusters plotted along the two major dimensions from the analysis.

Legend:

Mode Construct Clusters

1 Leav. (C)
   Employed
   Equal (R)
   Tertiary ed
2 Good Mo
   Determined
   Inner strength
3 Negative
   Alcohol inv
4 Understand
   Not trust
   No respect
5 Abuse hist
   Long term ab
6 Relates eas
   Practical
7 Self aware
   Not confident
8 Viol unaccep
   Satisfied
9 Meet needs
   Take Respons
10 More aware
11 Not Aus! bn
   Sole partner

A Stay (C)
   Unemployed
   Unequal (R)
   Not tert ed
B Not as good
   Directionless
   No strength
C Positive
   No alcohol involv
D Self centred
   Trusting
   Mutual respect
E No abuse history
   Short term abuse
F Uncomfortable
   Impractical
G Unaware
   Confident
H Helpless
   Dissatisfied
I Neglect needs
   No responsibility
J Stayed (C)
K Australian born
   Multiple partners

Elements
E1 Short term AR
E2 Terminated AR
E3 Long term AR
E4 "Ideal" wom AR
E5 With childn AR
E6 "Usual" Rel
E7 "Ideal" Rel
E8 "Ideal" wo ter AR

Principal components analysis of the elements and constructs from each individual grid were then examined for any unexpected or remarkable results. For Grid 1 the construct *cultural(affected by cultural expectations) - culture free(not affected by cultural expectations)* emerged as most important (see figure 3). An unusual link between the element "'Ideal' woman in an abusive relationship" to the element "'Usual' relationship" was found in Grid 2 (see figure 7). Grid 4 grouped "'Ideal' woman in an abusive relationship" together in the same quadrant with "'Ideal' woman in a terminated abusive relationship" (see figure 8). Grids 6, 10 and 11 were the only ones that clearly separated the elements that described abusive relationships from elements that described non-abusive relationships and placed them on opposite planes on the maps as shown in figures 9, 10 and 11. In Grid 5 the construct *committed to relationship-not committed to relationship* appeared to be an important dimension (see figure 12) and movement from "'Ideal' woman in an abusive relationship" and "Abusive relationship with children" to "'Ideal' terminated abusive relationship", "Terminated abusive relationship" or "Short term abusive relationship" was along the dimension *committed to relationship-not committed to relationship(not seeing chance for relationship to survive)*. On the map for Grid 6 the construct *older children-younger children* appeared to be the dimension that separated non-abusive relationships from abusive relationships (see figure 9). The map from Grid 7 indicated that the construct *Western-Asian* was the most important (see figure 4).
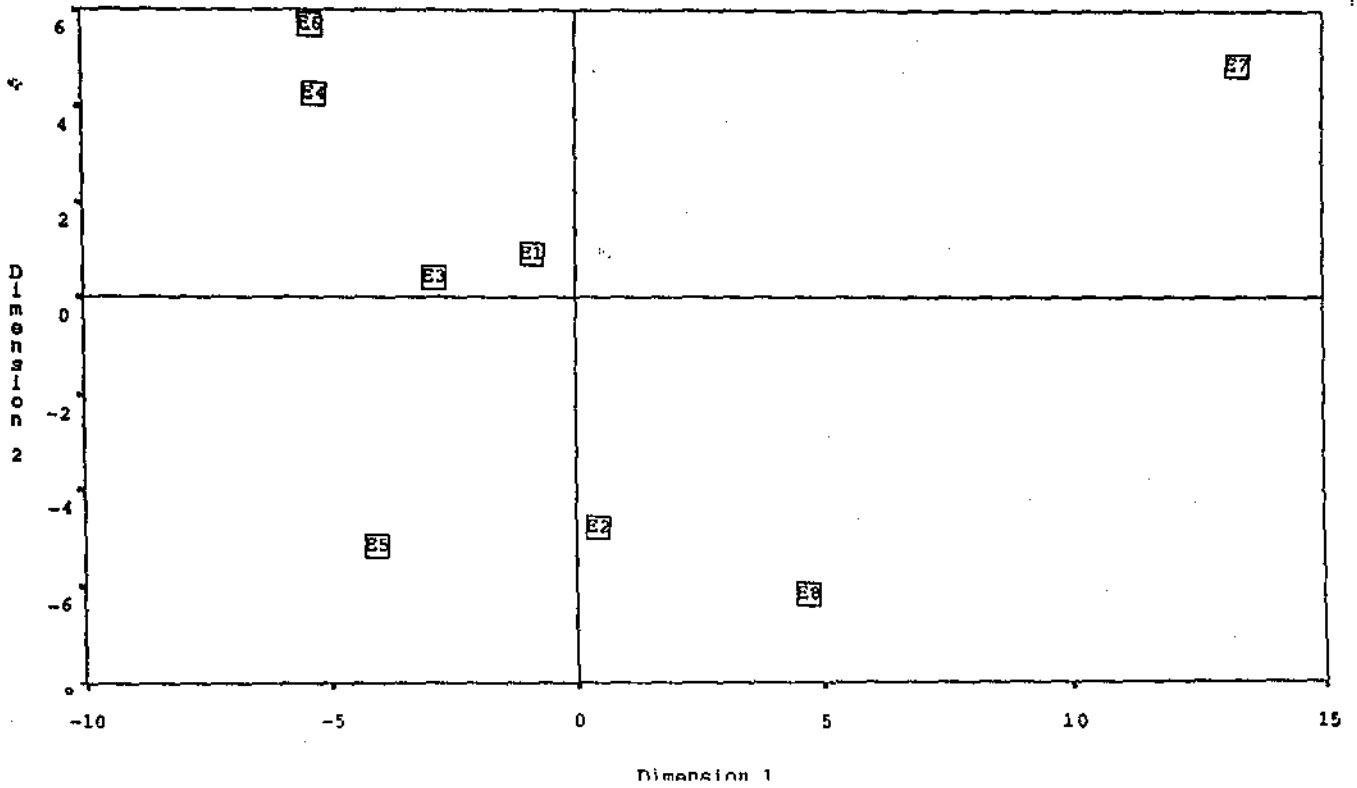
**Figure 7.** Principal components map of elements plotted along the two major dimensions from the analysis for Grid 2.

**Legend:**

E1 Short term abusive relationship
E2 Terminated abusive relationship
E3 Long term abusive relationship
E4 "Ideal" woman in an abusive relationship
E5 With children in an abusive relationship
E6 "Usual" relationship
E7 "Ideal" relationship
E8 "Ideal" woman terminated abusive relationship
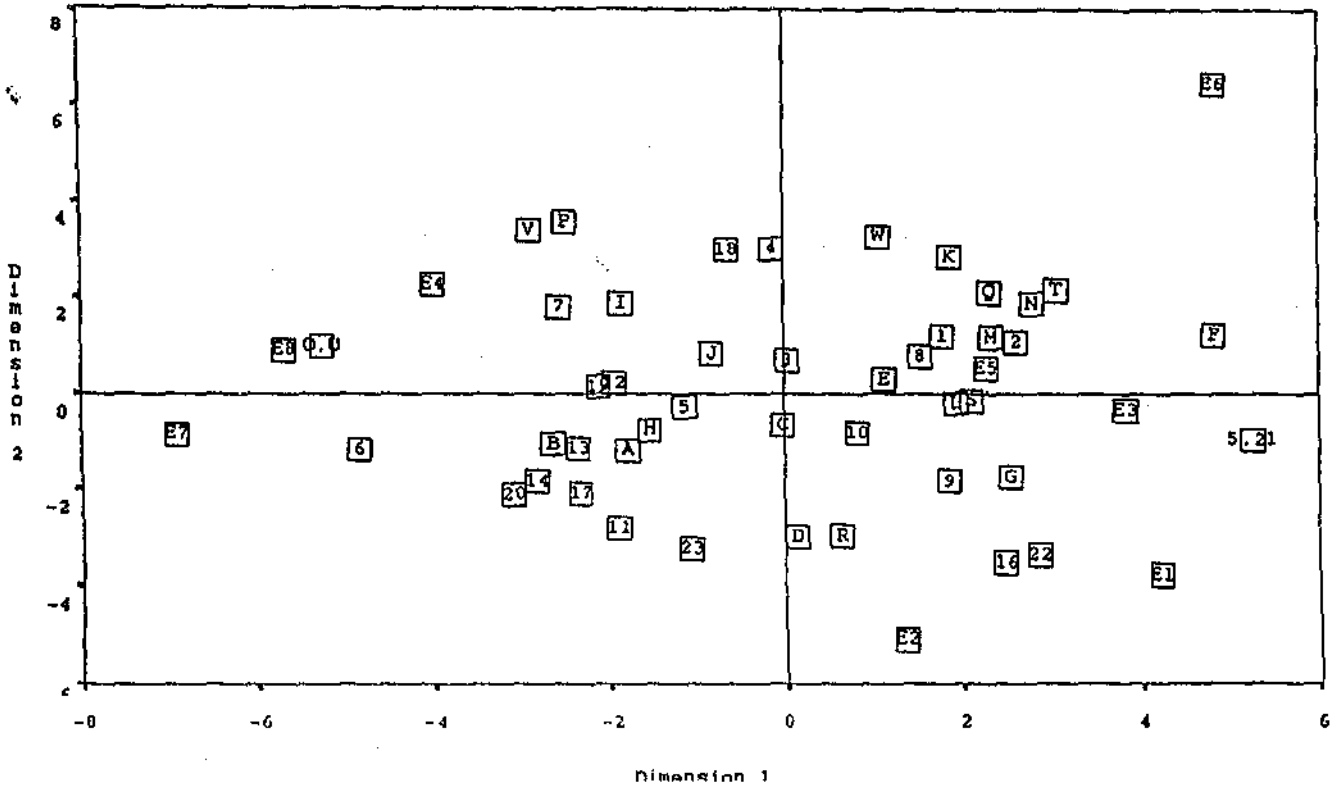
Figure 8. Principal components map of elements and constructs plotted along the major dimensions from the analysis for Grid 4.

Legend:

**Constructs**

| | | Elements |
|---|---|---|
| 1 Compliant | A Assertive | E1 Short term AR |
| 2 Cultural | B Culture free | E2 Terminated AR |
| 3 Negate Need | C Meet needs | E3 Long term AR |
| 4 Dependent(R) | D Independent (R) | E4 "Ideal" wo AR |
| 5 Nurturer | E Cold | E5 With childn AR |
| 6 Employed | F Unemployed | E6 "Usual" rel |
| 7 Aust born | G Non aust born | E7 "Ideal" rel |
| 8 Abuse hist | H No abuse hist | E8 "Ideal" term AR |
| 9 Expressive | I Non expressive | |
| 10 Creative | J Not creative | |
| 11 Communicator | K Non communicator | |
| 12 Relate well | L Not relate | |
| 13 Competent | M IncompetentS | |
| 14 Tertiary ed | N Not tertiary ed | |
| 15 Young childn | O Older children | |
| 16 Live alone | P Live with others | |
| 17 Life skills | Q Lack skills | |
| 18 Dependent | R Independent | |
| 19 Considerate | S Inconsiderate | |
| 20 Equal (R) | T Unequal (R) | |
| 21 Mult seps | U No separations | |
| 22 Religious | V Not religious | |
| 23 Two parent | W Single parent | |
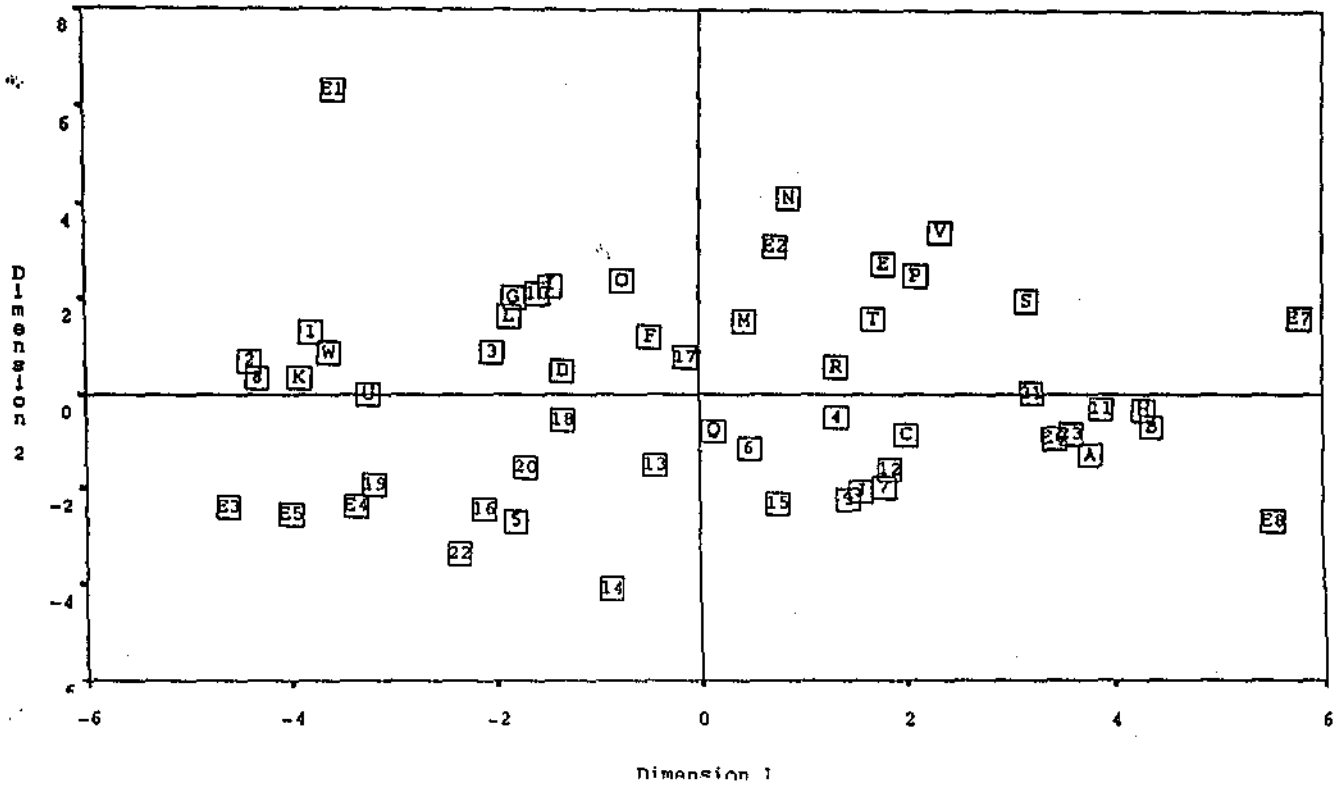
Figure 9. Principal components map of constructs and elements plotted along the two major dimensions from the analysis for Grid 6.

Legend:

| Constructs | | Elements |
|---|---|---|
| 1 Home duties | A Stud/career | E1 Short term AR |
| 2 Settled | B Changing | E2 Terminated AR |
| 3 Direction | C Directionless | E3 Long term AR |
| 4 Outgoing | D Negativistic | E4 "Ideal" woman AR |
| 5 Support | E No support | E5 With childn AR |
| 6 Assertive | F Aggressive | E6 "Usual" rel |
| 7 Soc active | G Shy | E7 "Ideal" rel |
| 8 Confl res | H Avoid conflict | E8 "Ideal" wo term AR |
| 9 Non western | I Western | |
| 10 Aware parent | J Unaware parent | |
| 11 Dependent | K Independent | |
| 12 High SE | L Low SE | |
| 13 Resourceful | M No resource | |
| 14 Younger (C) | N Older (C) | |
| 15 Nurturing | O Cold | |
| 16 Home inter | P Outside interests□ | |
| 17 Satisfied | Q Dissatisfied | |
| 18 Confident | R Not confident | |
| 19 Open | S Guarded | |
| 20 Long term AR | T Short term AR | |
| 21 Financ sec | U Financial difficulties | |
| 22 Related | V Unrelated | |
| 23 Higher ed | W Lower ed | |

Figure 10. Principal components map of the elements plotted along the two major dimensions from the analysis for Grid 10.
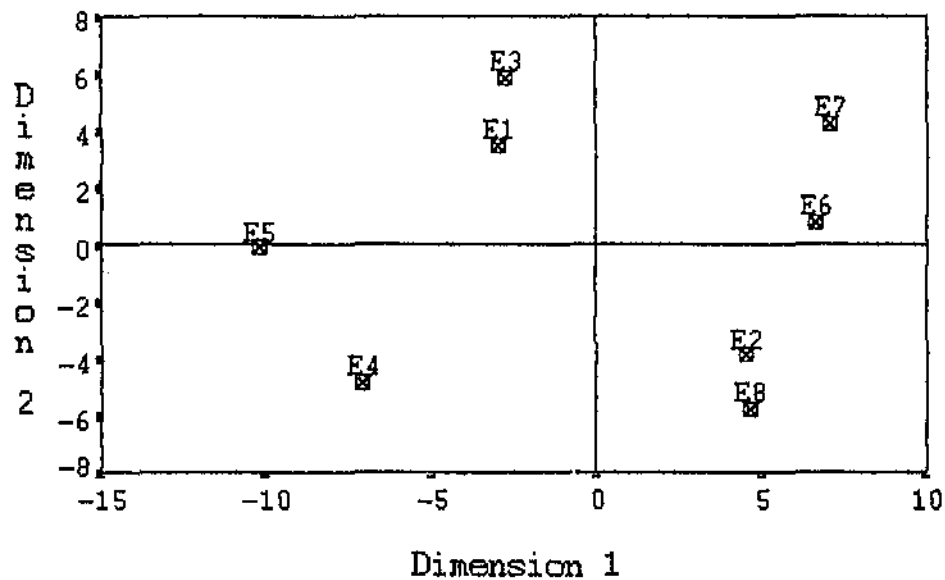


Figure 11. Principal components map of elements plotted along the two major dimension from the analysis for Grid 11.

**Legend:**

**Elements**

| | | |
|---|---|---|
| E1 Short term AR | E2 Terminated AR | E3 Long term AR |
| E4 "Ideal" wo AR | E5 With childn AR | E6 "Usual" rel |
| E7 "Ideal" rel | E8 "Ideal" wo AR | |
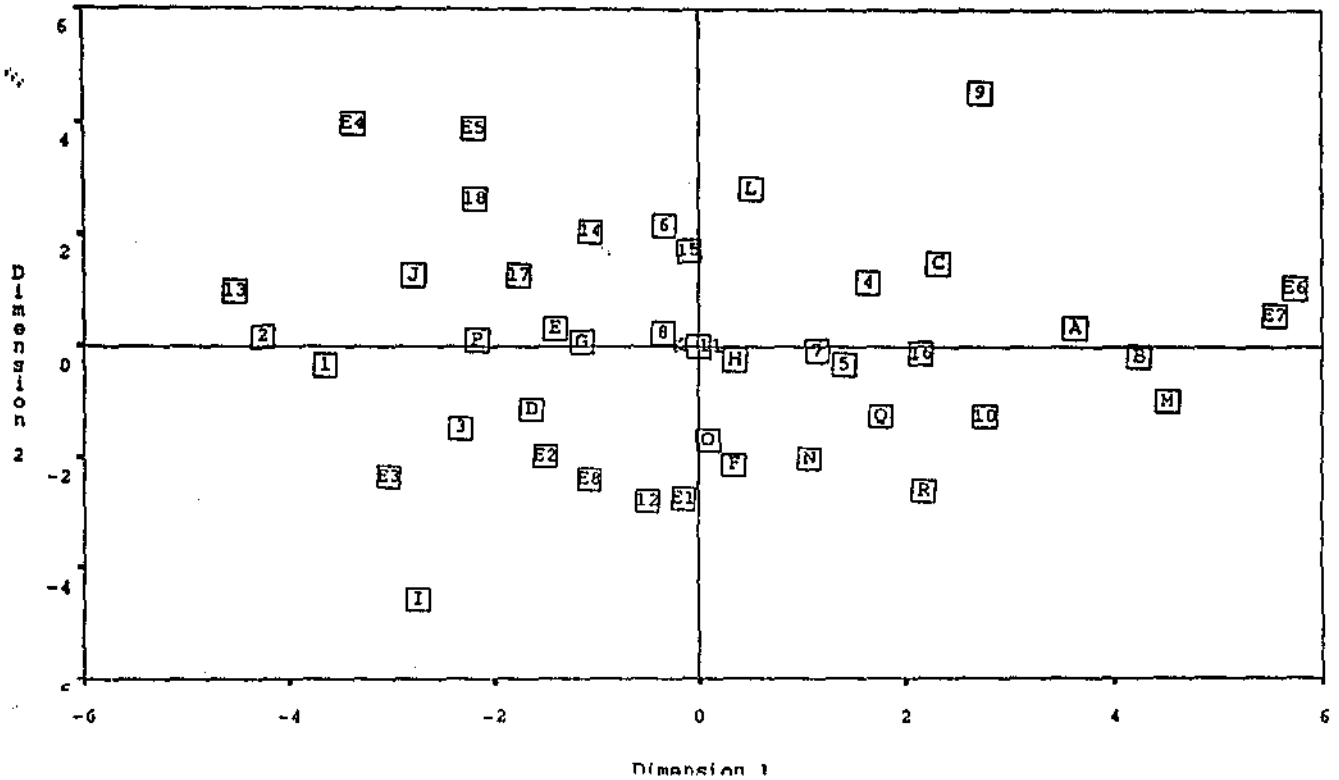
Figure 12. Principal components map of elements and constructs plotted along the two major dimensions from the analysis for Grid 5.

**Legend:**

**Constructs**

1 Partner alcohol
2 Long term ab
3 Quick witted
4 Open commun
5 Inner resourc
6 Excuse partner
7 Nurturing
8 Competent
9 Committed (R)
10 Sense humour
11 Determined
12 Similar prof
13 Stayed (C)
14 Idealistic (R)
15 Modern role
16 Open
17 Minimize ab
18 Accept ab

A No alcohol
B Short ter ab
C Placid
D Negative
E Depleted
F Assertive
G Cold
H Helpless
I Not comm (R)
J No humour
K Gives up
L Dissimilar prof
M More aware
N Realistic (R)
O Traditional role
P Withdrawn
Q Recognize ab
R Not accept ab

**Elements**

E1 Short term AR
E2 Terminated AR
E3 Long term AR
E4 "Ideal" wo AR
E5 With childn AR
E6 "Usual" rel
E7 "Ideal" rel
E8 "Ideal" term AR

The map for Grid 8 indicated that the constructs opportunity-no opportunity

and educated-uneducated were important constructs (see figure 13) and

finally, the construct aboriginal-non aboriginal appeared to be a key

dimension for Grid 12 (see figure 14).
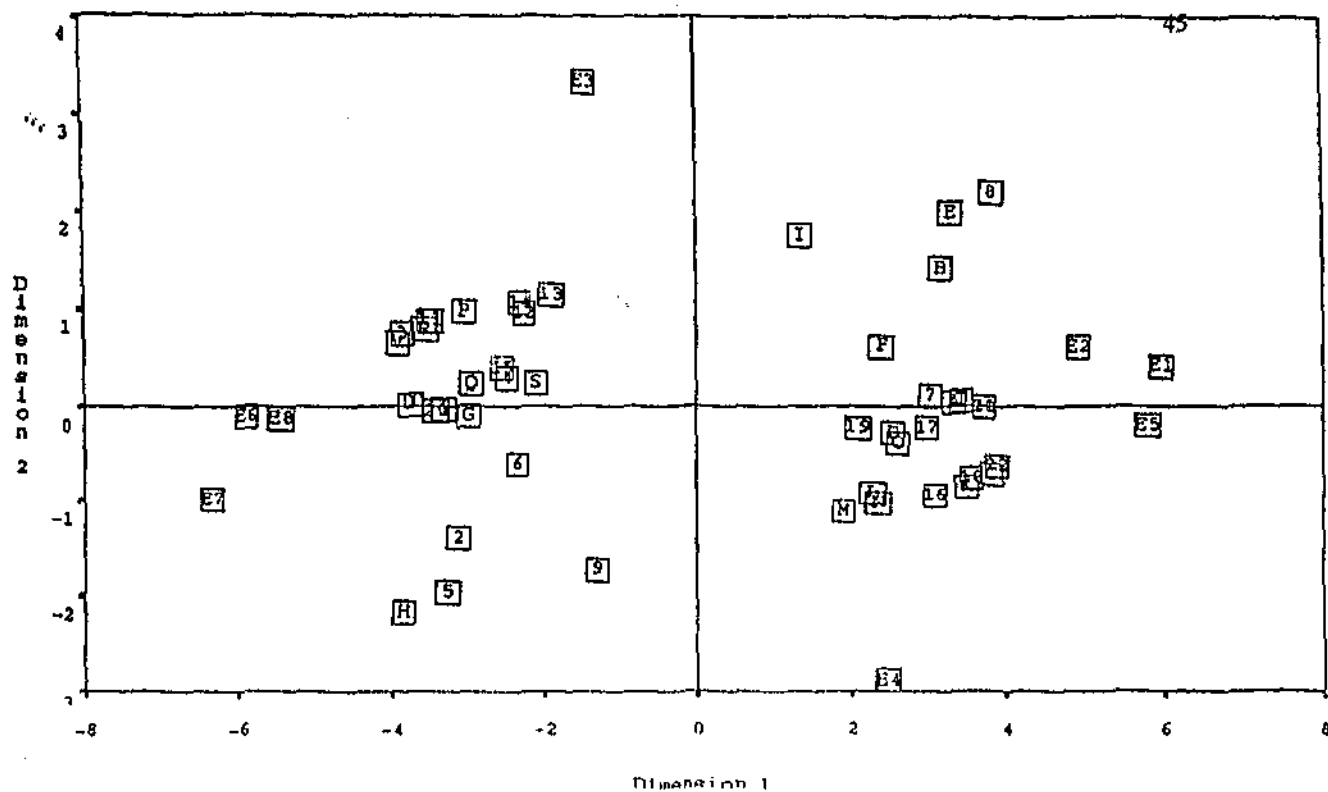
Figure 13. Principal components map of elements and constructs plotted along the two major dimensions from the analysis for Grid 8.

Legend:

| Constructs | | Elements |
|---|---|---|
| 1 Mature | A Immature | E1 Short term AR |
| 2 Self aware | B Unaware | E2 Terminated AR |
| 3 Independent | C Dependent | E3 Long term AR |
| 4 Resourceful | D Resourceless | E4 "Ideal" woman AR |
| 5 Educated | E Uneducated | E5 With childn AR |
| 6 Nurturing | F Selfish | E6 "Usual" rel |
| 7 Isolated | G Support | E7 "Ideal" rel |
| 8 No opport | H Opportunity | E8 "Ideal" term AR |
| 9 Patient | I Impatient | |
| 10 Negates slf | J Meets own needs | |
| 11 Self rel | K Reliant others | |
| 12 Fun loving | L Reserved | |
| 13 Warm | M Distant | |
| 14 Relate eas | N Uncomfortable | |
| 15 High achiev | O Average achiever | |
| 16 Passive | P Assertive | |
| 17 Low SE | Q High SE | |
| 18 Need appr | R Self confident | |
| 19 Indecisive | S Decisive | |
| 20 Questioning | T Accepting | |
| 21 Unrealistic | U Realistic | |
| 22 False per(R) | V True perception (R) | |
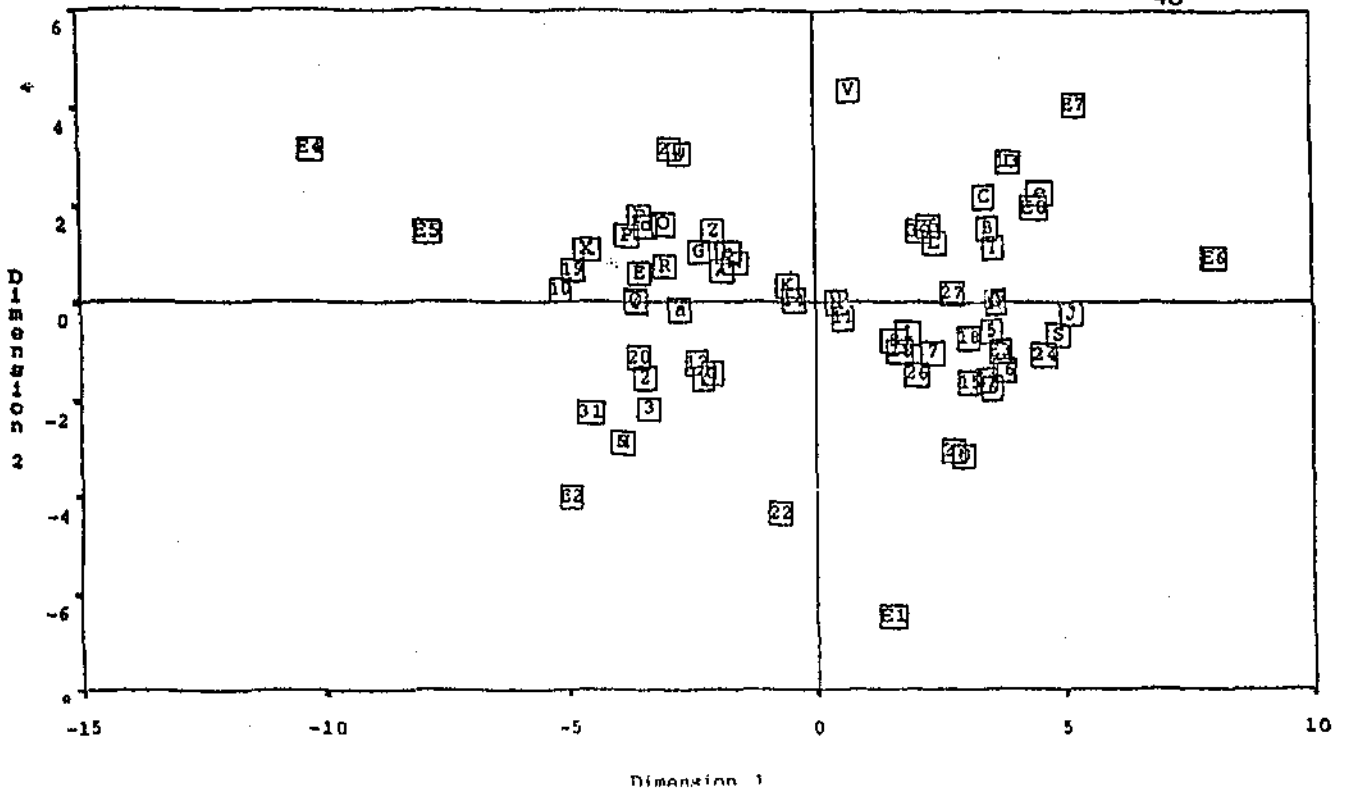
Figure 14. Principal components map of elements and constructs plotted along the two major dimensions from the analysis for Grid 12.

Legend:

Constructs

| | | |
|---|---|---|
| 1 Good parent | A Not as good | Elements |
| 2 Timid | B Outgoing | E1 Short term AR |
| 3 Abuse hist | C No abuse hist | E2 Terminated AR |
| 4 Low SE | D High SE | E3 Long tem AR |
| 5 Life skills | E Lack skills | E4 "Ideal" wo AR |
| 6 Support | F No support | E5 With childn AR□ |
| 7 Friendships | G No Friendships | E6 "Usual" rel |
| 8 Family | H No family | E7 "Ideal" rel |
| 9 Stay (C) | I Leave (C) | E8 "Ideal" term AR |
| 10 No responsib | J Take respons | |
| 11 Nurturing | K Not nurturing | |
| 12 Passive | L Aggressive | |
| 13 Employed | M Unemployed | |
| 14 Committed ® | N Not commit(R) | |
| 15 Organizedm | O Disorganized | |
| 16 Direction | P Directionless | |
| 17 Goals | Q No goals | |
| 18 Expressive | R Not expressive | |
| 19 Childn cont | S Mother control | |
| 20 Manip sp | T Not manip spouse | |
| 21 Move freq | U Not move | |
| 22 Aboriginal | V Non aborigin | |
| 23 Inflexible | W Flexible | |
| 24 Decisive | X Indecisive | |
| 25 Phys disab | Y No phys disab | |
| 26 Well present | Z Dishevelled | |
| 27 Approachable | a Not approachable | |
| 28 Not defensive | b Defensive | |
| 29 Materialistic | c Not materialistic | |
| 30 Parent dec | d Parents alive | |
| 31 Multiple sep | e No separations | |

CHAPTER 5

Discussion

The study was designed to explore service providers' perceptions of factors affecting women's decisions to leave abusive relationships because the way workers perceived issues associated with woman abuse influenced their response to the women seeking their assistance (Kelly, 1955; Kurz & Stark, 1988). Results from the REPGRID 2 analysis indicate that the individuals who work within the domain of domestic violence in the Perth metropolitan area do appear to share some constructs (perceptions) in common concerning woman abuse and factors affecting a woman's decision to leave an abusive relationship and these appear to have significant implications for provision of services.

Workers' Perceptions of Woman Abuse

Easterby-Smith (1981), Fransella and Bannister (1977) and Shaw (1980) state that a great deal of information is available from repertory grids and that visual inspection of the relationships between the elements and constructs enables inferences to be drawn, especially when a researcher is able to relate to the meanings attached to the grid by the participants.

Visual comparison of the individual grids indicatethat the perceptions or construct systems associated with women who had been subjected to abuse, consistently used by over 50 percent of the sample, focus on such individual characteristics as being emotionally weak, dependent, unaware of resources,

not good communicators or uncommunicative and passive or aggressive. They were also construed as having a low self esteem and an unrealistic attitude about their relationship. Social constructs included not having strong social support networks, being isolated from friends and family and having no access to their own transport.

The principal components analysis of the mode grid indicates that the group construes women subjected to abuse as feeling helpless to control the violence within the relationship which leads to dissatisfaction, negativity, loss of direction or inner strength, unwillingness to take responsibility or meet their own needs (expecting others to change their life) and diminished mothering abilities. The women were also perceived as being empathic but less trusting than women in non-abusive relationships.

If, as stated by Shaw (1980) and discussed earlier each grid is a representation of each individual's perception of their own reality, it follows that these perceptions are in part accurate reflections of the workers' subjective experiences concerning woman abuse. According to Kelly's (1955) personal construct theory referred to earlier (see chapter one), these perceptions or subjective experiences influence an individual's actions and although speculative, this focus on individual characteristics by the workers instead of a focus on social contexts may reflect that values associated with victim-blaming are inadvertently being upheld by these workers or their organisations. This would support Hoff (1990) who found this led to the delivery of insufficient support or help by those charged publicly and

professionally to deliver it.

Furthermore, perceptions such as being emotionally weak, dependent, passive with an unwillingness to take responsibility or meet their own needs (expecting others to change their life) may not be consistent with the definition by the National Committee on Violence Against Women (1993) of a service providers' role as being "...based on the belief that women have the resources to make their own choices and decisions..." (p. 12).

It may be relevant for organisations delivering services to women who have experienced abuse to adopt the principles of community psychology as proposed earlier that encourage service providers to articulate their values and biases while acknowledging their effects, so that there would be less likelihood for these attitudes "...to make an otherwise adequate service inaccessible..." (p. 114) as found by Hoff (1990).

Workers' Perceptions of Factors Affecting a Woman's Decision to Leave an Abusive Relationship

Shaw (1980) maintained that close links should be preserved between the analysis output and the original grid data in order to interpret the data accurately, therefore the original grids including those contributing to the mode grid were visually examined to maintain a clear picture of the original meaning conveyed by the participants. Easterby-Smith (1981) advised concentrating on the "...more concrete features of the map, the positions of constructs and elements..." (p. 25) rather than using the mathematical significance of the components when interpreting the maps from the principal

components analysis.

Considering the group as a whole, constructs that are important to decisions to terminate abusive relationships can be determined by seeing in what direction elements associated with abusive relationships move towards non-abusive relationship elements and at the constructs associated with these elements that move in the same direction (that is, moving in a parallel direction) (Easterby-Smith, 1981; Fransella & Bannister, 1977). If a line were to be drawn from "Terminated abusive relationship" to "'Ideal' woman in a terminated abusive relationship" on the mode grid the placement would then indicate the direction of movement from the existing state towards the "ideal", in line with Kelly's (1955) theory of psychological movement. This movement as shown on the mode grid indicates that the group perceives such factors as being a good mother, determined and practical as well as having a strong sense of self, employment as found by Gelles and Cornell (1990), NiCarthy (1987) and Okun (1986), tertiary education as found by Gelles and Cornell (1990), not staying in a relationship for the sake of the children, and believing in equality within relationships as important in decisions to remain out of an abusive relationship.

The unexpected placement by the group of the element "Terminated abusive relationship" on the same side of the plane as the other abusive relationship elements, may be because the women used as "exemplars" by the participants for this category had not been out of an abusive relationship for very long and were perceived in a similar manner to women currently in

abusive relationships.

Grids 6, 10 and 11 may have chosen women who were very stereotypical as their "exemplars" which would account for the fact that the abusive relationships are on opposite planes to the non-abusive relationships as expected.

The unexpectedly close proximity on the mode grid map of the elements "'Ideal' relationship" and "'Usual' relationship" indicates that the present sample sees these two relationship categories as being similar to each other, rather than the expected interpretation of one being the "normal" state whilst the other was the "ideal" state towards which relationships were moving, as proposed by Kelly (1955). This could indicate that participants from the present study have unrealistic expectations about relationships in general or it may suggest that the individual women in the relationships used as "exemplars" for the "Ideal" and "Usual" categories by the participants were very similar and perhaps not as stereotypical as they could have been. It may simply be that the participants did not know of any women in, what was to them, really "ideal" types of relationships.

The key construct cluster that emerged from the mode grid indicates that the group apparently perceives women in their first or only relationships as more likely not to be Australian born but less likely to terminate an abusive relationship. This may influence their behaviour towards women seeking help. For example, if clients are not Australian born and still in their first or only relationship the workers may assume that irrespective of any service

provided by them the women would be unlikely to terminate the abusive relationship. Therefore the service providers may not give adequate support or information to these women in the "false" belief that they will not act on it anyway, which would support the findings from the studies by both Kurz and Stark (1988) and Hoff (1990).

If another line was drawn from the abusive relationship elements to the non-abusive relationship elements on the mode grid, this movement indicates that members of the group perceive factors such as the presence of physical abuse (as opposed to psychological abuse alone) as found by Knight and Hatty (1992) and longer term abuse to be important in decisions to leave abusive relationships.

Turning now to the individual grids, aspects noted in the results that contrast with the mode grid are discussed in light of their implications for the provision of services as found by Hoff (1990), Knight and Hatty (1992), Kurz and Stark (1988) and NiCarthy (1987).

The key constructs affected by culture (Grid 1), committed to relationship (Grid 5), younger children (Grid 6), Asian (Grid 7), opportunity (Grid 8) and aboriginality (Grid 12) were influential perceptions for these participants. This could result in these participants offering insufficient support or information to their clients depending on the way these constructs are perceived to relate to the clients as found by both Hoff (1990) and Kurz and Stark (1988). This may further affect their clients' future responses as found by Knight and Hatty (1992) or increase the likelihood of clients

experiencing abuse as found by Hoff (1990).

The unusual proximity of elements for Grid 2 ('Ideal' and 'Usual') indicates this participant's "exemplars" were very similar or they view most 'Usual' relationships as somewhat abusive to women. Similarly for Grid 4 ('Ideal' terminated and 'Ideal' abusive) either the "exemplars" were similar or the participant is indicating that the "Ideal" is not to be in an abusive relationship. These perceptions may also influence the workers responses to their clients causing their services to be unavailable to the very clients they were designed for as found by Hoff (1990).

The constructs that emerged from the study perceived as being relevant to women's decisions to terminate abusive relationships, readily understood by over 95 percent of the sample, were having good mothering skills, strong sense of self and belief in an equal status within relationships. Being determined, practical, employed, tertiary educated, and able to leave even if children were younger were also perceived to be relevant. The presence of physical abuse and long term abuse also emerged as important constructs in decisions to terminate abusive relationships.

The Comparison of Workers' Perceptions of Factors Affecting Decisions to Leave Abusive Relationships to the Factors Identified in the Literature Review

The Service provider's perceptions of factors affecting women's decisions to terminate abusive relationships revealed by the analysis indicates similarities to and differences from factors identified in the literature review.

An important construct that emerged from the analysis of the mode

grid is *employed-unemployed* which supports NiCarthy's (1987) factor of employment status and reinforces Okun's (1986) statistically significant factor of women with the same or greater income being more likely to terminate an abusive relationship. The construct *employed-unemployed* implies that workers from the study perceive employed women as possessing occupational skills, giving credence to Gelles and Cornell's (1990) factor of the importance of occupational skills. Being employed or possessing the skills to gain employment appears to be a contributing factor to a woman's decision to leave an abusive relationship. Women possibly feel more empowered to make decisions when they are either financially independent or have the potential to become financially independent from their abusive partners.

The construct *tertiary education-no tertiary education* is also regarded as a contributory factor by the group and reinforces Gelles and Cornell's (1990) assertion that educational level was relevant to a decision to leave an abusive relationship.

The presence of physical abuse emerged as an important construct in the study which substantiates the finding by Knight and Hatty (1992) that a critical factor was the occurrence of physical violence. This appears to indicate that women exposed to psychological abuse without a physical component are likely to remain in the relationships unless or until they are physically hurt. It could be argued that being exposed to psychological abuse erodes a woman's ability to feel empowered within a relationship and make decisions (Burstow, 1992). At the same time this form of abuse is more

difficult to detect by the woman herself, family, friends or service providers, thereby increasing the likelihood of remaining in the relationship. Social programmes designed to educate the public about the different forms of abuse (that is, psychological and physical) may be an effective way of addressing the issue of prevention in the case of physical abuse (Pence & Shepard, 1988).

It is possible that the constructs *self aware-unaware, strong sense of self-not confident, leave(C)-stay(C)* and *determined-directionless* are similar to factors identified by Hoff (1990) as a re-definition of their situation and to factors identified by NiCarthy (1987) as a new awareness or new perspective of their situation and a belief in their own ability to cope and survive alone. Each attempts to convey a sense of inner change within a woman that appears to be necessary in making a decision to terminate an abusive relationship (Dobash & Dobash, 1992).

Okun's (1986) significant factor of more separations is not reflected by the mode grid, however the construct *multiple separations-no separations* emerges as an important factor for Grids 4 and 12 in accordance with Okun (1986).

The construct *good mothering skills-not as good* found by the study to be an important factor may reflect a meaning similar to that found by Hoff (1990) as a strong or traditional value of motherhood.

Okun's (1986) significant findings that separations of longer duration or further distance to travel to safety were not upheld by this study nor was marital status as found by Knight and Hatty (1992) with the exception of Grid

3 who identified the construct *married-de facto* as an important factor.

Constructs elicited as important from the study that were not supported by the literature were *equal(R)-not equal(R), practical-impractical* and *long term abuse-short term abuse.*

The factor hope for a better life without the abuser by NiCarthy (1987) was not reinforced by the study. Of note the three factors identified in the literature that pertained to either external interventions or events outside a woman's control were not endorsed by the present study. This could be because the service providers are not aware their interventi ns can actively affect a woman's decision to terminate an abusive relationship or it may add support to the earlier speculation that the sample's focus on individual characteristics may be evidence of values associated with victim-blaming being inadvertently upheld by either these workers or their organisations.

The factors, common to this study and previous studies, of employment, educational level and the presence of physical abuse may be inferred to be critical factors involved in a woman's decision to leave an abusive relationship.

The Usefulness of Repertory Grid Technique in Exploring the Perceptions Associated with the Complex Issue of Woman Abuse

Repertory grid technique is a useful technique for exploring perceptions in the area of woman abuse because initially it allows each individual's perceptions to be extracted and then compares these perceptions so that an indication of the common construct systems emerge (providing they

share elements as in the case of the study). All participants were able to supply constructs readily concerning woman abuse when completing the grids and the analysed results show a more precise description of the area, which supports Fransella and Bannister's (1977) tenet that if designed adequately grids can be a valid tool for revealing patterns and relationships.

Many participants commented on how useful thetechnique was in enabling them to articulate their perceptions, including construct systems they stated they were not aware of. Many participants expressed how, by completing a grid, they were able to realise fully in what manner they were construing events and felt that these systems could have been inadvertently influencing their responses to clients in undesirable ways. Many expressed that the technique should be compulsory for all workers in the field of domestic violence so that the service providers would be able to determine clearly what their attitudes and beliefs were, in order to decrease the possibility of negative attitudes influencing their responses to their clients in the future. This supports somewhat the notion that repertory grid technique may be more effective at reflecting beliefs more accurately than other attitude measures as found in the study by Kurz and Stark (1988), when even though 90 percent of the sample were found to have positive attitudes towards woman abuse (positive score on an attitude measure), only 11 percent made positive responses and this was linked to the true beliefs about woman abuse held by their sample. This also supports Kelly's assertion that how we construe events determines to some extent our actions.

Results in Hoff's (1990) study highlighted that efforts needed to be made to correct attitudes held by service providers expressing negative values towards battered women, so it follows that an effective way of addressing this may be to encourage service providers to complete repertory grids so that they can determine what their construct systems surrounding woman abuse are and become more aware of how these constructs can influence their actions.

Criticism of research in the area of domestic violence (see chapter one) highlighted a lack of either qualitative or quantitative analyses by psychologists or sociologists and that a more eclectic theoretical formulation is now being favoured, with psychologists looking towards a combination of both qualitative and quantitative methods which is provided to some extent by repertory grid technique. Comparison between studies had also been restricted by use of diverse methodologies by the different perspectives, however in speculation repertory grid may be able to provide a bridge between qualitative and quantitative methods and between the different perspectives as encouraged by the principles of community psychology.

Repertory grid can be a useful technique to use in the area of woman abuse and may provide workers with useful feedback that can help them deliver a better service to battered women.

Conclusions of the Present Study

The exploratory study found that participants shared common constructs associated with woman abuse and specifically factors affecting decisions to terminate an abusive relationship.

Service providers' perceptions concerning woman abuse were found to focus primarily on individual characteristics and it was speculated that this might reflect values associated with victim-blaming being upheld by the workers or their organisations, which could lead to the delivery of insufficient support or help by those charged to deliver it as found in studies by Kurz and Stark (1988) and Hoff (1990). An inference was made that organisations could benefit from adopting community psychology principles encouraging articulation of values and biases while acknowledging their effects and that repertory grid technique may be a useful way of achieving this.

Constructs from the present study perceived to be influential to a woman's decision to terminate an abusive relationship that had also been found in other studies included employment, tertiary education and the presence of physical violence. It was speculated that other constructs, attempting to convey a sense of inner change were similar to factors identified by Hoff (1990) and NiCarthy (1987) and that the construct good mothering skills may reflect a similar meaning to the factor strong or traditional value of motherhood as found by Hoff (1990). An inference was drawn that the factors employment, tertiary education and the presence of physical abuse are critical factors affecting a woman's decision to leave an abusive relationship.

The present study failed to elicit constructs similar to factors identified in the literature as associated with events outside a woman's control or from the influence of interventions and it was speculated that this may support the earlier inference that the sample's focus on individual characteristics was

reflective of victim-blaming values.

Repertory grid technique was found to be a useful technique for exploring workers' perceptions associated with the complex area of woman abuse. Participants indicated that the technique itself provided them with important feedback about their construct systems they were unaware of and which may be affecting their actions towards their clients which was in accordance with Kurz and Stark (1988).

Research involving participants, as is achieved when using repertory grid technique, can be a rewarding experience for both the researcher and the participants, while at the same time resulting in workers being empowered to make their own improvements to their performance or service delivery.

Limitations of the Study

The present study has several limitations. The participants for this study needed to have experience working in the area of domestic violence in order to complete the repertory grids in a meaningful way. This would appear to make the sample a nonprobability purposive one, however the researcher was also reliant on the availability and willingness of the workers in this specialised area for selection, which would then indicate an accidental sample and therefore a biased one (Shaughnessy & Zechmeister, 1990). Few of the main organisations employing people with experience working in the area of domestic violence were prepared to make themselves available to the researcher and it is estimated that the present sample was drawn from a possible fifty people with the necessary experience working in the area of

domestic violence. Of those fifty it is estimated that no more than six would

be male (and the only male worker in a woman's refuge was a participant).

Therefore the present sample of eleven females and one male may be

considered representative of the workers involved in the area of domestic

violence for gender.

The extraction of two major components involved in principal

components analysis does not mean that there are no other additional

components that could be extracted from the grid matrix. According to

Easterby-Smith (1981) these other components usually only account for a

"...minor part of a person's thoughts in a given area" (p. 25). However he goes

on to acknowledge that some grids indicate a "...particularly sophisticated

construct system (high cognitive complexity)... " whereby the "...additional

components may account for up to 30 percent of a person's thoughts and

consequently, the two components that can be represented on a two

dimensional map will be explaining less than the total picture" (p.25). For the

present study there was a range of 8 - 40% of variance explained by the two

major components for the individual grids, with the mean percent of variance

explained being 25 percent. The two major components accounted for 84.1

percent of the variance explained for the mode grid. Therefore the principal

components analysis of the mode grid may not be reflecting the total

representation, although as stated previously Easterby-Smith (1981) states it is

more important to concentrate on the positions on the map of the elements and

constructs for the interpretation.

The researcher acknowledges inexperience with repertory grid technique. Interpretation, according to Easterby-Smith (1981) is "...an art and not a technology. In grid terms the investigator must develop a personal construct system which allows him (sic) to relate to the grid that has been produced, and the purpose for which it was designed" (p. 17). He goes on to state that this is achieved with experience when finding that the meaning attributed by the investigator is as intended by the participant. As much as possible the researcher sought to determine with the participants that the interpretation of the meaning was what they were conveying. Raw grids were also constantly referred back to in order to facilitate this process as stated earlier in the discussion. Anecdotal evidence from experienced grid users indicates that the researcher's approach to the interpretation was sound.

Directions for Future Research

The exploratory study has indicated that factors such as educational level, employment and the presence of physical abuse may be critical factors affecting a woman's decision to terminate an abusive relationship. Future research using more empirically based methodology could determine with more accuracy the exact nature and effect of these variables so that services to battered women can be designed more specifically to their needs. The study also pointed to the fact that the service providers were unaware that their actions may influence their clients' future responses or inadvertently increase their risk of abuse. Interventions aimed at increasing the workers' awareness of these aspects of service delivery to abused women may be a direction for

the future programme planners.

Service providers indicated that repertory grid technique was an effective tool to enable them to access their perceptions, thereby empowering them to alter their behaviour in order to improve their service delivery. Future research using repertory grid technique in the area of woman abuse may enable services to articulate their biases and values, acknowledge their effects and improve the provision of services to abused women.

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Appendix A

Example of a White Card With an Element Description

⑤

REPERTORY GRID
ROLE DESCRIPTION

A woman who has lived in an
abusive relationship for more than
6 years (i.e. long term)

Appendix B

Blank Repertory Grid Form

NAME: _____

| EMERGENT (1) | Sort No | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | IMPLICIT |
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Appendix C

Raw Grid Data

Socio Construct Analysis of 12 grids

Mode Constructs at 96.0

Mode Construct 1: 4 constructs in 3 grids at 96.0
  G1A9:     Leave(C) - Stay(C)
  G1A13:    Employed - Unemployed
  G3A12:   Equal (R) - Unequal (R)
  G4A10: Tertiary ed - Not tertiary ed

Mode Construct 2: 3 constructs in 3 grids at 96.0
  G1A1:     Good parent - Bad parent
  G3A15:    Determined - Directionless
  G10A25: Inner strength - No strength

Mode Construct 3: 3 constructs in 3 grids at 96.0
  G4A13:        Negative - Positive
  G6A1: Partner alcohol - No alcohol
  G10A29:   Inequality(R) - Equality(R)

Mode Construct 4: 3 constructs in 2 grids at 96.0
  G4A16:    Understanding - Self centred
  G10A28: Not trusting(R) - Trusting(R)
  G10A30:       No respect - Mutual respect

Mode Construct 5: 2 constructs in 2 grids at 96.0
  G1A3:      Abuse hist - No abuse hist
  G6A2: Long term ab(R) - Short term ab(R)

Mode Construct 6: 2 constructs in 2 grids at 96.0
  G2A14: Relates easily - Uncomfortable
  G10A24:      Practical - Impractical

Mode Construct 7: 2 constructs in 2 grids at 96.0
  G3A8:     Self aware - Unaware
  G11A18: Not confident - Confident

Mode Construct 8: 2 constructs in 2 grids at 96.0
  G3A11: Violence unacceptable - Helpless (V)
  G4A5:             Satisfied - Dissatisfied

Mode Construct 9: 2 constructs in 2 grids at 96.0
  G5A10:         Meet needs - Neglect needs
  G10A21: Takes responsibility - No responsibility

Mode Construct 10: 2 constructs in 2 grids at 96.0
  G5A14:    Employed - Unemployed
  G6A13: More aware - Stayed(C)

Mode Construct 11: 2 constructs in 2 grids at 96.0
  G10A13: Not aust born - Aust born
  G12A7: Sole partner - Multiple partners

|  | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Emotionally strong | 1 | 1 | 2 | 4 | 3 | 4 | 2 | 1 | 1 | 1 | Emotionally weak |
| Negates self | 2 | 2 | 3 | 1 | 3 | 4 | 2 | 1 | 2 | 2 | Nurtures self |
| Independent | 3 | 3 | 3 | 4 | 3 | 2 | 2 | 1 | 1 | 3 | Dependent |
| Good mother | 4 | 3 | 2 | 2 | 1 | 3 | 2 | 1 | 2 | 4 | Suffocating |
| Support | 5 | 2 | 4 | 5 | 3 | 4 | 1 | 1 | 1 | 5 | Isolated |
| Cultural | 6 | 1 | 3 | 1 | 1 | 4 | 2 | 5 | 5 | 6 | Culture free |
| Articulate | 7 | 3 | 3 | 2 | 3 | 1 | 2 | 1 | 1 | 7 | Non articulate |
| Self aware | 8 | 2 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 8 | Unaware |
| Nurturing | 9 | 2 | 3 | 4 | 2 | 4 | 3 | 1 | 3 | 9 | Cold |
| Assertive | 10 | 2 | 2 | 3 | 3 | 1 | 2 | 1 | 1 | 10 | Non assertive |
| Violence unacceptable | 11 | 4 | 4 | 5 | 5 | 5 | 1 | 1 | 1 | 11 | Helpless (V) |
| Equal (R) | 12 | 5 | 5 | 5 | 5 | 5 | 1 | 1 | 1 | 12 | Unequal (R) |
| Inhibited (A) | 13 | 3 | 4 | 5 | 4 | 5 | 1 | 1 | 1 | 13 | Freedom |
| Powerless | 14 | 2 | 3 | 4 | 4 | 2 | 5 | 5 | 5 | 14 | Powerful |
| Determined | 15 | 1 | 2 | 2 | 3 | 3 | 2 | 1 | 1 | 15 | Directionless |
| Politically aware | 16 | 3 | 4 | 2 | 2 | 3 | 3 | 1 | 2 | 16 | Non political |
| Resourceful | 17 | 3 | 2 | 2 | 1 | 3 | 5 | 2 | 2 | 17 | Not resourceful |
| Negotiation skills | 18 | 5 | 1 | 3 | 1 | 3 | 2 | 2 | 2 | 18 | Avoids confrontation |

1 2 3 4 5 6 7 8

8 "Ideal" terminated (AR)
7 "Ideal" (R)
6 "Usual" (R)
5 With Children (AR)
4 "Ideal" woman (AR)
3 Long term (AR)
2 Terminated (AR)
1 Short term (AR)

Grid 1

|  | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Doormat | 1 | 3 | 4 | 2 | 1 | 4 | 1 | 5 | 4 | 1 | Not doormat |
| Resent role | 2 | 5 | 5 | 3 | 1 | 1 | 1 | 5 | 1 | 2 | Accept role |
| Dependent partner | 3 | 2 | 5 | 3 | 1 | 1 | 1 | 5 | 2 | 3 | Separate |
| Older | 4 | 3 | 2 | 2 | 1 | 4 | 1 | 5 | 5 | 4 | Younger |
| Stayed(C) | 5 | 3 | 2 | 3 | 1 | 1 | 1 | 5 | 5 | 5 | Left(C) |
| Homemaker | 6 | 1 | 4 | 1 | 1 | 3 | 1 | 5 | 5 | 6 | Employed |
| Dependent(F) | 7 | 3 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 7 | Independent(F) |
| Concerned(OP) | 8 | 3 | 2 | 1 | 1 | 1 | 1 | 5 | 4 | 8 | Unconcerned(OP) |
| Unequal(R) | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 9 | Equal(R) |
| Min Education | 10 | 1 | 5 | 2 | 2 | 5 | 1 | 5 | 5 | 10 | Tertiary Ed |
| Conformist | 11 | 2 | 2 | 1 | 1 | 1 | 1 | 5 | 5 | 11 | Independent thinker |
| Child orientated | 12 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 4 | 12 | Not CO |
| Manipulated | 13 | 3 | 1 | 1 | 3 | 1 | 1 | 5 | 3 | 13 | Not manipulated |
| Abuse Hist | 14 | 1 | 5 | 5 | 1 | 1 | 3 | 5 | 1 | 14 | No abuse hist |
| Inter-cultural(R) | 15 | 1 | 1 | 1 | 4 | 1 | 5 | 5 | 1 | 15 | Same culture(R) |
| Inter-faith(R) | 16 | 3 | 1 | 4 | 4 | 1 | 5 | 5 | 1 | 16 | Same faith(R) |
| Unrealistic(R) | 17 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 3 | 17 | Realistic(R) |
| Lower ed(R) | 18 | 4 | 2 | 3 | 3 | 1 | 4 | 5 | 1 | 18 | Same ed(R) |
| Poverty affected | 19 | 1 | 3 | 1 | 1 | 1 | 1 | 5 | 1 | 19 | Unaffected |
| Low SE | 20 | 3 | 3 | 2 | 2 | 1 | 1 | 5 | 4 | 20 | High SE |
| Sense "duty" | 21 | 4 | 2 | 1 | 1 | 1 | 1 | 5 | 4 | 21 | Not stereotyped |
| Dissatisfied | 22 | 1 | 2 | 2 | 1 | 1 | 2 | 5 | 3 | 22 | Satisfied |
| Inflexible | 23 | 3 | 5 | 4 | 1 | 3 | 1 | 5 | 5 | 23 | Changing |
| Emotionally tied(R) | 24 | 1 | 3 | 3 | 1 | 1 | 1 | 5 | 2 | 24 | Not tied |
| Protect partner | 25 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 3 | 25 | Not protective |
| Ab increased | 26 | 4 | 1 | 1 | 4 | 1 | 4 | 5 | 1 | 26 | Less/no ab |
| Controlling partner | 27 | 2 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 27 | Not controlling |
| Objects(R) | 28 | 2 | 1 | 2 | 2 | 1 | 3 | 5 | 1 | 28 | Individuals(R) |
| Access | 29 | 5 | 1 | 3 | 5 | 1 | 5 | 5 | 1 | 29 | No access |
| Left - babies | 30 | 1 | 1 | 4 | 5 | 1 | 5 | 5 | 1 | 30 | Older child |

Column legend (1–8):

1 Short term (AR)
2 Terminated (AR)
3 Long term (AR)
4 "Ideal" woman (AR)
5 With Children (AR)
6 "Usual" (R)
7 "Ideal" (R)
8 "Ideal" terminated (AR)

Grid 2

|                        |    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |    |                        |
|------------------------|----|---|---|---|---|---|---|---|---|----|------------------------|
| Psych abuse            | 1  | 2 | 1 | 3 | 1 | 5 | 5 | 5 | 3 | 1  | No abuse               |
| Alcabuse(P)            | 2  | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 2 | 2  | No alc abuse           |
| Married                | 3  | 1 | 5 | 1 | 1 | 5 | 5 | 1 | 1 | 3  | De-facto               |
| Question decision      | 4  | 1 | 3 | 1 | 2 | 2 | 3 | 3 | 2 | 4  | Happy decision         |
| Inner strength         | 5  | 3 | 4 | 4 | 2 | 2 | 1 | 1 | 2 | 5  | Doubts self            |
| Children frprev rel    | 6  | 5 | 2 | 5 | 5 | 3 | 2 | 1 | 5 | 6  | Only rel               |
| Sole partner           | 7  | 1 | 5 | 1 | 1 | 5 | 5 | 5 | 1 | 7  | Multiple partners      |
| Long term (R)          | 8  | 3 | 1 | 1 | 1 | 5 | 1 | 1 | 1 | 8  | Short term (R)         |
| Partners new (R)       | 9  | 5 | 1 | 1 | 5 | 5 | 2 | 2 | 1 | 9  | Partner no(R)          |
| Parenting role eroded  | 10 | 1 | 5 | 1 | 1 | 1 | 5 | 5 | 1 | 10 | Ab partner not father  |
| Independent            | 11 | 5 | 3 | 1 | 1 | 1 | 1 | 1 | 2 | 11 | Dependent              |
| Employed               | 12 | 5 | 4 | 1 | 1 | 1 | 1 | 1 | 3 | 12 | Unemployed             |
| Olderchildren          | 13 | 5 | 2 | 5 | 1 | 2 | 1 | 1 | 1 | 13 | Younger children       |
| Satisfied              | 14 | 1 | 3 | 4 | 1 | 1 | 1 | 1 | 2 | 14 | Not satisfied          |
| High SE                | 15 | 4 | 4 | 4 | 2 | 1 | 1 | 1 | 2 | 15 | Low SE                 |
| Materialistic          | 16 | 1 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 16 | Non materialistic      |
| Financial resources    | 17 | 2 | 4 | 2 | 3 | 2 | 2 | 2 | 2 | 17 | Poor resources         |
| Children access        | 18 | 1 | 1 | 1 | 5 | 2 | 5 | 5 | 3 | 18 | Adult children         |
| Creative               | 19 | 2 | 4 | 2 | 3 | 3 | 3 | 3 | 2 | 19 | Not creative           |
| Long support           | 20 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 1 | 20 | Short support          |
| Decisive               | 21 | 4 | 4 | 4 | 3 | 2 | 2 | 2 | 3 | 21 | Not decisive           |
| More mature            | 22 | 3 | 1 | 3 | 1 | 1 | 1 | 1 | 3 | 22 | Less mature            |
| Partner finance        | 23 | 1 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 23 | Access to finance      |

```
         1   2   3   4   5   6   7   8
         :   :   :   :   :   :   :   :
         :   :   :   :   :   :   :  Ideal_terminated (AR)
         :   :   :   :   :   :  _Ideal_ relationship _
         :   :   :   :   :  Usual_ relationship
         :   :   :   :  AR with children _
         :   :   :  Ideal_ woman (AR)
         :   :  Long term (AR)_
         :  Terminated (AR)
       Short term (AR)
```

Grid 3

| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Compliant | 1 | 2 | 3 | 3 | 2 | 3 | 1 | 4 | 4 | 1 | Assertive |
| Cultural | 2 | 1 | 4 | 2 | 3 | 3 | 1 | 4 | 4 | 2 | Culture free |
| Negate needs | 3 | 3 | 4 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | Meet needs |
| Dependent(R) | 4 | 5 | 4 | 3 | 2 | 2 | 1 | 3 | 3 | 4 | Independent(R) |
| Nurturer | 5 | 2 | 5 | 3 | 4 | 4 | 4 | 2 | 2 | 5 | Cold |
| Employed | 6 | 5 | 1 | 5 | 1 | 5 | 5 | 1 | 1 | 6 | Unemployed |
| Aust. born | 7 | 5 | 1 | 5 | 1 | 1 | 1 | 1 | 1 | 7 | Non Aust born |
| Abuse hist | 8 | 3 | 1 | 3 | 3 | 1 | 1 | 5 | 1 | 8 | No abuse hist |
| Expressive(V) | 9 | 1 | 1 | 1 | 3 | 1 | 3 | 3 | 3 | 9 | Non expressive(V) |
| Creative | 10 | 3 | 1 | 3 | 4 | 3 | 2 | 2 | 4 | 10 | Not creative |
| Communicators | 11 | 2 | 1 | 4 | 3 | 2 | 5 | 1 | 2 | 11 | Non communicators |
| Relate well | 12 | 2 | 5 | 3 | 2 | 2 | 4 | 1 | 2 | 12 | Not relate |
| Competent | 13 | 2 | 4 | 3 | 3 | 2 | 5 | 1 | 1 | 13 | Incompetent |
| Tertiary ed | 14 | 3 | 1 | 3 | 1 | 1 | 5 | 1 | 1 | 14 | Not tertiary ed |
| Young children | 15 | 1 | 1 | 1 | 5 | 1 | 1 | 5 | 5 | 15 | Older children |
| Live alone | 16 | 1 | 1 | 5 | 5 | 1 | 5 | 5 | 5 | 16 | Live others |
| Life skills | 17 | 2 | 2 | 2 | 2 | 3 | 5 | 1 | 1 | 17 | Lack skills |
| Dependent | 18 | 4 | 5 | 3 | 2 | 3 | 1 | 2 | 3 | 18 | Independent |
| Considerate | 19 | 2 | 5 | 3 | 2 | 3 | 4 | 1 | 2 | 19 | Inconsiderate |
| Equal (R) | 20 | 5 | 1 | 4 | 5 | 4 | 5 | 1 | 1 | 20 | Unequal (R) |
| Multiple separations | 21 | 1 | 1 | 1 | 5 | 1 | 1 | 5 | 5 | 21 | No separations |
| Religious | 22 | 1 | 2 | 1 | 5 | 5 | 5 | 5 | 5 | 22 | Not religious |
| Two Parent | 23 | 1 | 1 | 3 | 1 | 5 | 5 | 1 | 5 | 23 | Single parent |

1 2 3 4 5 6 7 8

"Ideal" terminated (AR)
"Ideal" (R)
"Usual" (R)
With Children (AR)
"Ideal" woman (AR)
Long term (AR)
Terminated (AR)
Short term (AR)

Grid 4

| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Partner alcohol | 1 | 1 | 2 | 1 | 1 | 3 | 5 | 5 | 5 | 1 | No alcohol |
| Long term ab(R) | 2 | 2 | 1 | 2 | 1 | 1 | 5 | 5 | 2 | 2 | Short term ab(R) |
| Quick witted | 3 | 4 | 4 | 1 | 2 | 5 | 4 | 5 | 1 | 3 | Placid |
| Open communication | 4 | 2 | 3 | 3 | 1 | 3 | 1 | 1 | 3 | 4 | Negative |
| Inner resources | 5 | 2 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 5 | Depleted |
| Excuse partner | 6 | 3 | 5 | 5 | 1 | 3 | 3 | 4 | 3 | 6 | Assertive |
| Nurturing | 7 | 2 | 2 | 3 | 2 | 3 | 1 | 2 | 2 | 7 | Cold |
| Competent | 8 | 2 | 2 | 2 | 3 | 1 | 2 | 3 | 3 | 8 | Helpless |
| Committed(R) | 9 | 5 | 5 | 5 | 2 | 1 | 1 | 1 | 5 | 9 | Not committed(R) |
| Sense humour | 10 | 3 | 3 | 4 | 4 | 5 | 1 | 2 | 2 | 10 | No humour |
| Determined | 11 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 11 | Gives up |
| Nurse | 12 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 12 | Dissimilar prof |
| Stayed(C) | 13 | 5 | 1 | 1 | 1 | 1 | 5 | 5 | 2 | 13 | More aware |
| Idealistic(R) | 14 | 4 | 5 | 5 | 2 | 3 | 5 | 4 | 4 | 14 | Realistic(R) |
| Modern role | 15 | 3 | 4 | 4 | 2 | 2 | 2 | 4 | 3 | 15 | Traditional role |
| Open | 16 | 3 | 2 | 4 | 3 | 4 | 1 | 2 | 3 | 16 | Withdrawn |
| Minimize ab | 17 | 3 | 5 | 5 | 2 | 3 | 5 | 5 | 3 | 17 | Recognize ab |
| Accept ab | 18 | 5 | 4 | 4 | 1 | 2 | 4 | 5 | 3 | 18 | Not accept ab |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |

8 "Ideal" terminated (AR)

7 "Ideal" (R)

6 "Usual" (R)

5 With Children (AR)

4 "Ideal" woman (AR)

3 Long term (AR)

2 Terminated (AR)

1 Short term (AR)

Grid 5

| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Home duties | 1 | 1 | 2 | 2 | 2 | 2 | 4 | 5 | 5 | 1 | Study/career |
| Settled | 2 | 1 | 3 | 1 | 2 | 1 | 5 | 4 | 5 | 2 | Changing |
| Direction | 3 | 2 | 4 | 3 | 4 | 3 | 3 | 5 | 5 | 3 | Directionless |
| Outgoing | 4 | 4 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 4 | Negativistic |
| Support | 5 | 4 | 4 | 1 | 1 | 1 | 3 | 3 | 3 | 5 | No support |
| Assertive | 6 | 4 | 4 | 3 | 4 | 2 | 2 | 3 | 3 | 6 | Aggressive |
| Socially active | 7 | 5 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 7 | Shy |
| Conflict resolution | 8 | 1 | 4 | 1 | 2 | 2 | 4 | 5 | 5 | 8 | Avoids conflict |
| Non western | 9 | 4 | 4 | 2 | 2 | 2 | 2 | 1 | 1 | 9 | Western cult |
| Aware parent | 10 | 1 | 4 | 3 | 3 | 4 | 4 | 3 | 5 | 10 | Unaware parent |
| Dependent | 11 | 4 | 3 | 4 | 3 | 5 | 1 | 1 | 1 | 11 | Independent |
| High SE | 12 | 4 | 3 | 2 | 2 | 3 | 2 | 1 | 1 | 12 | Low SE |
| Resourceful | 13 | 4 | 1 | 2 | 2 | 2 | 4 | 4 | 1 | 13 | No resource |
| Younger(C) | 14 | 5 | 5 | 1 | 2 | 2 | 1 | 5 | 2 | 14 | Older(C) |
| Nurturing | 15 | 4 | 4 | 2 | 3 | 2 | 2 | 3 | 1 | 15 | Cold |
| Home interests | 16 | 5 | 4 | 2 | 2 | 2 | 2 | 5 | 5 | 16 | Outside interests |
| Satisfied | 17 | 3 | 4 | 5 | 4 | 3 | 2 | 4 | 5 | 17 | Dissatisfied |
| Confident | 18 | 4 | 3 | 3 | 3 | 3 | 2 | 5 | 5 | 18 | Not confident |
| Open | 19 | 4 | 3 | 1 | 1 | 1 | 3 | 4 | 5 | 19 | Guarded |
| Long term(AR) | 20 | 3 | 3 | 1 | 2 | 3 | 5 | 5 | 1 | 20 | Short term(AR) |
| Financially secure | 21 | 5 | 3 | 5 | 5 | 5 | 1 | 3 | 3 | 21 | Financial difficulties |
| Sisters | 22 | 5 | 5 | 3 | 1 | 1 | 5 | 5 | 3 | 22 | Unrelated |
| Higher ed | 23 | 5 | 3 | 5 | 4 | 3 | 3 | 1 | 1 | 23 | Lower ed |

1　2　3　4　5　6　7　8

8 "Ideal" terminated (AR)
7 "Ideal" (R)
6 "Usual" (R)
5 With Children (AR)
4 "Ideal" woman (AR)
3 Long term (AR)
2 Terminated (AR)
1 Short term (AR)

Grid 6

|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Low SE | 1 | 1 | 2 | 1 | 1 | 2 | 5 | 4 | 4 | 1 | High SE |
| Unemployed | 2 | 3 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 2 | Employed |
| Timid | 3 | 1 | 2 | 1 | 1 | 2 | 5 | 4 | 4 | 3 | Dynamic |
| Abuse Hist | 4 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 1 | 4 | No abuse hist |
| Satisfied | 5 | 4 | 4 | 5 | 5 | 5 | 1 | 1 | 1 | 5 | Dissatisfied |
| Moody/unbalanced | 6 | 2 | 2 | 2 | 2 | 2 | 5 | 5 | 5 | 6 | Balanced |
| Have children | 7 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | 5 | 7 | No children |
| Older | 8 | 3 | 3 | 1 | 1 | 2 | 4 | 4 | 4 | 8 | Young |
| Asian | 9 | 5 | 3 | 1 | 1 | 5 | 1 | 1 | 5 | 9 | Western |
| Not tertiary ed | 10 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 10 | Tertiary ed |
| Unaware resources | 11 | 3 | 2 | 1 | 1 | 2 | 4 | 3 | 5 | 11 | Resourceful |
| Direction | 12 | 4 | 2 | 5 | 5 | 5 | 1 | 2 | 1 | 12 | Unmotivated |
| Negative | 13 | 1 | 2 | 1 | 1 | 2 | 5 | 5 | 5 | 13 | Positive |
| Blame selves | 14 | 2 | 2 | 1 | 1 | 2 | 5 | 5 | 4 | 14 | No blame |
| Unselfish | 15 | 2 | 2 | 1 | 1 | 2 | 5 | 4 | 4 | 15 | Selfish |
| Understanding | 16 | 1 | 2 | 1 | 1 | 2 | 5 | 5 | 3 | 16 | Self centred |
| No support | 17 | 3 | 4 | 1 | 1 | 1 | 3 | 3 | 5 | 17 | Support |
| No transport | 18 | 5 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 18 | Own transport |
| No social skill | 19 | 3 | 3 | 2 | 2 | 2 | 5 | 4 | 5 | 19 | Social Skill |
| Isolated | 20 | 3 | 4 | 1 | 1 | 1 | 5 | 3 | 5 | 20 | Not isolated |
| Committed Christian | 21 | 5 | 3 | 5 | 5 | 2 | 1 | 1 | 2 | 21 | Not religious |
| Mature outlook | 22 | 5 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 22 | Immature outlook |
| Sets limits | 23 | 5 | 3 | 5 | 5 | 5 | 1 | 1 | 1 | 23 | No limits |

1 2 3 4 5 6 7 8

"Ideal" terminated (AR)

"Ideal" (R)

"Usual" (R)

With Children (AR)

"Ideal" woman (AR)

Long term (AR)

Terminated (AR)

Short term (AR)

Grid 7

|  | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mature(E) | 1 | 4 | 4 | 2 | 3 | 3 | 1 | 1 | 1 | 1 | Immature(E) |
| Self aware | 2 | 4 | 4 | 4 | 3 | 4 | 1 | 1 | 2 | 2 | Unaware |
| Independent | 3 | 4 | 4 | 1 | 3 | 4 | 1 | 1 | 1 | 3 | Dependent |
| Resourceful | 4 | 3 | 3 | 1 | 2 | 3 | 1 | 1 | 1 | 4 | Resourceless |
| Educated | 5 | 4 | 4 | 3 | 1 | 4 | 1 | 1 | 1 | 5 | Uneducated |
| Nurturing | 6 | 4 | 4 | 2 | 2 | 3 | 2 | 1 | 2 | 6 | Selfish |
| Isolated | 7 | 1 | 1 | 2 | 1 | 2 | 4 | 4 | 3 | 7 | Support |
| No opportunity | 8 | 1 | 2 | 1 | 3 | 1 | 4 | 5 | 5 | 8 | Opportunity |
| Patient | 9 | 3 | 3 | 3 | 1 | 3 | 2 | 1 | 2 | 9 | Impatient |
| Negates self | 10 | 2 | 2 | 4 | 3 | 2 | 5 | 5 | 5 | 10 | Realistic |
| Self reliant | 11 | 4 | 3 | 1 | 3 | 4 | 1 | 1 | 1 | 11 | Reliant others |
| Fun loving | 12 | 3 | 3 | 1 | 3 | 3 | 2 | 1 | 1 | 12 | Reserved |
| Warm | 13 | 2 | 2 | 1 | 3 | 3 | 1 | 1 | 1 | 13 | Distant |
| Relates easily | 14 | 3 | 2 | 1 | 3 | 3 | 1 | 1 | 1 | 14 | Uncomfortable |
| High achiever | 15 | 4 | 3 | 2 | 3 | 4 | 1 | 2 | 2 | 15 | Average achiever |
| Passive | 16 | 3 | 3 | 5 | 3 | 2 | 5 | 5 | 5 | 16 | Assertive |
| Low SE | 17 | 3 | 3 | 4 | 3 | 2 | 5 | 5 | 5 | 17 | High SE |
| Need approval | 18 | 2 | 3 | 4 | 2 | 2 | 5 | 5 | 5 | 18 | Self confident |
| Indecisive | 19 | 2 | 2 | 4 | 3 | 3 | 4 | 4 | 4 | 19 | Decisive |
| Questioning | 20 | 4 | 4 | 3 | 4 | 4 | 1 | 1 | 2 | 20 | Accepting |
| Unrealistic | 21 | 2 | 2 | 4 | 3 | 2 | 5 | 5 | 5 | 21 | Realistic |
| False Perception(R) | 22 | 2 | 2 | 4 | 2 | 2 | 5 | 5 | 5 | 22 | True perception(R) |
|  | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |

"Ideal" terminated (AR)
"Ideal" (R)
"Usual" (R)
With Children (AR)
"Ideal" woman (AR)
Long term (AR)
Terminated (AR)
Short term (AR)

Grid 8

|  | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Committed(R) | 1 | 5 | 3 | 1 | 1 | 2 | 1 | 4 | 5 | 1 | Not committed(R) |
| Emotionally strong | 2 | 1 | 5 | 5 | 3 | 5 | 4 | 3 | 2 | 2 | Emotionally dependent |
| Decisive | 3 | 2 | 5 | 5 | 3 | 5 | 3 | 2 | 3 | 3 | Indecisive |
| Independent | 4 | 1 | 5 | 5 | 3 | 5 | 5 | 2 | 3 | 4 | Dependent |
| Need(R) | 5 | 4 | 1 | 1 | 3 | 1 | 1 | 2 | 4 | 5 | Not need(R) |
| Employed | 6 | 1 | 3 | 5 | 2 | 5 | 1 | 2 | 2 | 6 | Unemployed |
| Love partner | 7 | 1 | 4 | 2 | 2 | 2 | 1 | 1 | 4 | 7 | Not attached |
| Psychiatric help | 8 | 5 | 4 | 3 | 3 | 1 | 5 | 5 | 2 | 8 | No psych help |
| Migrant | 9 | 1 | 5 | 5 | 1 | 5 | 5 | 1 | 1 | 9 | Aust born |
| Middle aged | 10 | 1 | 5 | 4 | 3 | 5 | 1 | 5 | 1 | 10 | Younger |
| Settled(R) | 11 | 1 | 5 | 5 | 3 | 4 | 1 | 1 | 5 | 11 | Not settled(R) |
| Older mother | 12 | 5 | 5 | 5 | 3 | 5 | 5 | 2 | 1 | 12 | Younger mother |
| Confident | 13 | 1 | 4 | 5 | 3 | 5 | 1 | 1 | 2 | 13 | Not confident |
| Outside interests | 14 | 2 | 4 | 5 | 4 | 5 | 1 | 1 | 3 | 14 | Home interests |
| Verbally communicative | 15 | 1 | 1 | 5 | 2 | 5 | 1 | 1 | 1 | 15 | Not communicative |
| Not defensive | 16 | 2 | 2 | 5 | 2 | 4 | 2 | 2 | 2 | 16 | Defensive |
| Tertiary ed | 17 | 1 | 3 | 5 | 4 | 5 | 2 | 3 | 1 | 17 | No tertiary ed |
| Unemployed family | 18 | 5 | 4 | 1 | 4 | 1 | 5 | 3 | 5 | 18 | employed family |

1 2 3 4 5 6 7 8

"Ideal" terminated (AR)
"Ideal" (R)
"Usual" (R)
With Children (AR)
"Ideal" woman (AR)
Long term (AR)
Terminated (AR)
Short term (AR)

Grid 9

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Not confident 1 | 1 | 4 | 3 | 2 | 2 | 5 | 5 | 5 | 1 | Confident |
| Servile 2 | 2 | 2 | 2 | 1 | 3 | 4 | 4 | 4 | 2 | Please self |
| Neglect needs 3 | 1 | 4 | 3 | 2 | 3 | 5 | 5 | 4 | 3 | Meet needs |
| Communicative 4 | 4 | 3 | 3 | 1 | 3 | 5 | 5 | 4 | 4 | Not communicative |
| Independent thinking 5 | 4 | 1 | 3 | 4 | 4 | 1 | 1 | 1 | 5 | Dependent |
| High SE 6 | 4 | 1 | 2 | 4 | 3 | 1 | 1 | 1 | 6 | Low SE |
| Expressive 7 | 5 | 4 | 2 | 4 | 3 | 1 | 1 | 1 | 7 | Questioning |
| Focus(C) 8 | 3 | 2 | 2 | 4 | 3 | 1 | 1 | 1 | 8 | Not focused(C) |
| Aware parent 9 | 4 | 1 | 3 | 4 | 3 | 1 | 1 | 1 | 9 | Unaware parent |
| Middle age 10 | 4 | 2 | 1 | 3 | 2 | 2 | 1 | 1 | 10 | Young |
| Long term(R) 11 | 5 | 3 | 1 | 2 | 1 | 4 | 5 | 5 | 11 | Short term(R) |
| Older children 12 | 5 | 3 | 1 | 4 | 3 | 4 | 1 | 1 | 12 | Young children |
| Not aust born 13 | 1 | 5 | 1 | 1 | 5 | 5 | 5 | 1 | 13 | Aust born |
| Educated 14 | 5 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 14 | Not educated |
| Flexible 15 | 4 | 2 | 2 | 4 | 3 | 1 | 1 | 1 | 15 | Inflexible |
| Related 16 | 5 | 5 | 5 | 5 | 5 | 1 | 1 | 5 | 16 | Unrelated |
| Decisive 17 | 3 | 2 | 4 | 4 | 3 | 1 | 1 | 1 | 17 | Indecisive |
| Learn exp 18 | 2 | 2 | 2 | 4 | 4 | 1 | 1 | 1 | 18 | Not learn exp |
| Positive 19 | 4 | 2 | 2 | 4 | 5 | 1 | 1 | 1 | 19 | Negative |
| Insight 20 | 5 | 2 | 3 | 5 | 4 | 1 | 1 | 1 | 20 | No insight |
| Takes responsibility 21 | 4 | 2 | 3 | 5 | 4 | 1 | 1 | 1 | 21 | No responsibility |
| Competent 22 | 4 | 2 | 4 | 5 | 4 | 1 | 1 | 1 | 22 | Incompetent |
| Realistic attitude 23 | 3 | 1 | 2 | 4 | 3 | 1 | 1 | 1 | 23 | Unrealistic attitude |
| Practical 24 | 3 | 1 | 1 | 3 | 3 | 1 | 1 | 1 | 24 | Impractical |
| Inner strength 25 | 1 | 2 | 2 | 3 | 3 | 1 | 1 | 1 | 25 | No strength |
| Acceptance 26 | 4 | 1 | 2 | 3 | 3 | 1 | 1 | 1 | 26 | Struggling |
| Communicate(R) 27 | 4 | 2 | 2 | 3 | 4 | 1 | 1 | 1 | 27 | Not communicate(R) |
| Trusting(R) 28 | 5 | 4 | 4 | 5 | 4 | 1 | 1 | 3 | 28 | Not trusting(R) |
| Equality(R) 29 | 5 | 4 | 5 | 5 | 3 | 1 | 1 | 2 | 29 | Inequality(R) |
| Mutual respect 30 | 5 | 4 | 5 | 5 | 3 | 1 | 1 | 3 | 30 | No respect |

```
        1    2    3    4    5    6    7    8
        :    :    :    :    :    :    :    :
        :    :    :    :    :    :    :  "Ideal" terminated (AR)
        :    :    :    :    :    :  "Ideal" (R)
        :    :    :    :    :  "Usual" (R)
        :    :    :    :  With Children (AR)
        :    :    :  "Ideal" woman (AR)
        :    :  Long term (AR)
        :  Terminated (AR)
     Short term (AR)
```

Grid 10

|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Low SE | 1 | 2 | 4 | 2 | 2 | 1 | 4 | 4 | 4 | 1 | High SE |
| Happy nature | 2 | 3 | 1 | 3 | 1 | 5 | 1 | 1 | 1 | 2 | Unhappy |
| Not Aust born | 3 | 1 | 1 | 5 | 1 | 1 | 1 | 5 | 1 | 3 | Aust born |
| Abuse hist | 4 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 4 | No abuse hist |
| Traditional role | 5 | 1 | 4 | 1 | 1 | 3 | 5 | 5 | 4 | 5 | Modern role |
| High ed | 6 | 1 | 2 | 2 | 1 | 5 | 1 | 1 | 1 | 6 | Low ed |
| Committed(R) | 7 | 1 | 1 | 1 | 5 | 1 | 1 | 1 | 5 | 7 | Not committed(R) |
| Home interests | 8 | 1 | 3 | 1 | 1 | 1 | 3 | 4 | 4 | 8 | Outside interests |
| Goal orientated | 9 | 4 | 5 | 3 | 2 | 1 | 4 | 5 | 5 | 9 | No goals |
| Meet needs | 10 | 4 | 2 | 3 | 5 | 5 | 1 | 1 | 1 | 10 | Neglect needs |
| Confident | 11 | 3 | 2 | 3 | 5 | 5 | 2 | 2 | 2 | 11 | Not confident |
| Dependent(C) | 12 | 4 | 1 | 5 | 1 | 1 | 5 | 4 | 1 | 12 | Independent(C) |
| Life threat(ab) | 13 | 5 | 1 | 5 | 1 | 5 | 5 | 5 | 1 | 13 | No life threat(ab) |
| Employed | 14 | 1 | 5 | 5 | 5 | 5 | 1 | 1 | 5 | 14 | Unemployed |
| Independent | 15 | 3 | 1 | 4 | 5 | 5 | 1 | 1 | 1 | 15 | Dependent |
| Sense humour | 16 | 4 | 2 | 3 | 4 | 5 | 1 | 2 | 2 | 16 | Stressed |
| Communicative | 17 | 2 | 2 | 1 | 1 | 5 | 1 | 1 | 1 | 17 | Not communicative |
| Life skills | 18 | 1 | 1 | 3 | 1 | 5 | 1 | 1 | 1 | 18 | Lack life skills |
| Aware | 19 | 3 | 1 | 3 | 3 | 5 | 1 | 1 | 1 | 19 | Unaware |
| Vulnerable | 20 | 1 | 4 | 3 | 1 | 1 | 5 | 5 | 4 | 20 | Stronger |
| Denial(R) | 21 | 1 | 5 | 5 | 1 | 1 | 5 | 5 | 5 | 21 | Realistic(R) |
| Powerless | 22 | 3 | 5 | 1 | 1 | 1 | 5 | 5 | 5 | 22 | Powerful |
| No resources | 23 | 3 | 4 | 3 | 1 | 1 | 5 | 5 | 4 | 23 | Resourceful |
| Know options | 24 | 3 | 5 | 1 | 1 | 1 | 5 | 5 | 5 | 24 | Not know op |
| No family | 25 | 2 | 5 | 5 | 1 | 1 | 5 | 5 | 2 | 25 | Family |
| Friends | 26 | 1 | 5 | 1 | 5 | 5 | 5 | 1 | 5 | 26 | Not know |
| Abuse hist | 27 | 5 | 1 | 5 | 1 | 3 | 1 | 5 | 1 | 27 | No abuse hist |
| High motivation | 28 | 3 | 5 | 3 | 1 | 1 | 5 | 5 | 5 | 28 | Low motivation |
| Religious hist | 29 | 1 | 1 | 1 | 3 | 3 | 5 | 5 | 3 | 29 | Not religious hist |
| Father Non dominant | 30 | 1 | 1 | 5 | 3 | 3 | 5 | 1 | 1 | 30 | Father dominant |

|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |

"Ideal" terminated (AR)
"Ideal" (R)
"Usual" (R)
With Children (AR)
"Ideal" woman (AR)
Long term (AR)
Terminated (AR)
Short term (AR)

Grid 11

|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Good parent | 1 | 1 | 2 | 2 | 3 | 3 | 1 | 1 | 2 | 1 | Bad parent |
| Timid | 2 | 2 | 2 | 4 | 1 | 2 | 4 | 5 | 5 | 2 | Outgoing |
| Abuse hist | 3 | 1 | 1 | 2 | 1 | 1 | 5 | 5 | 2 | 3 | No abuse hist |
| Low SE | 4 | 3 | 3 | 5 | 1 | 2 | 5 | 4 | 5 | 4 | High SE |
| Life skills | 5 | 1 | 3 | 1 | 4 | 4 | 1 | 1 | 1 | 5 | Lack life skills |
| Support | 6 | 1 | 1 | 1 | 5 | 4 | 1 | 1 | 1 | 6 | No support |
| Friendships | 7 | 1 | 2 | 3 | 5 | 2 | 1 | 1 | 2 | 7 | No friendships |
| Family | 8 | 1 | 1 | 1 | 3 | 2 | 1 | 1 | 1 | 8 | No family |
| Stay(C) | 9 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 9 | Leave(C) |
| No responsibility | 10 | 5 | 1 | 5 | 1 | 1 | 5 | 5 | 5 | 10 | Takes responsibility |
| Nurturing | 11 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 11 | Not nurturing |
| Passive | 12 | 1 | 1 | 3 | 1 | 1 | 3 | 3 | 3 | 12 | Aggressive |
| Employed | 13 | 5 | 5 | 5 | 5 | 5 | 1 | 1 | 1 | 13 | Unemployed |
| Committed(R) | 14 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 5 | 14 | Not committed(R) |
| Organized | 15 | 1 | 5 | 1 | 5 | 3 | 1 | 5 | 1 | 15 | Disorganized |
| Direction | 16 | 1 | 5 | 2 | 5 | 5 | 1 | 3 | 3 | 16 | Directionless |
| Goals | 17 | 3 | 5 | 2 | 5 | 5 | 1 | 3 | 3 | 17 | No goals |
| Expressive | 18 | 2 | 4 | 1 | 5 | 3 | 1 | 3 | 2 | 18 | Not expressive |
| Children control | 19 | 5 | 2 | 5 | 1 | 1 | 5 | 5 | 5 | 19 | Mother control |
| Manipulative spouse | 20 | 3 | 1 | 1 | 1 | 1 | 5 | 5 | 3 | 20 | Not manipulative spou |
| Move frequently | 21 | 5 | 5 | 5 | 1 | 1 | 5 | 3 | 3 | 21 | Not move |
| Aboriginal | 22 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 22 | Non aboriginal |
| Inflexible | 23 | 1 | 1 | 2 | 5 | 5 | 1 | 3 | 3 | 23 | Flexible |
| Decisive | 24 | 1 | 3 | 1 | 5 | 5 | 1 | 1 | 1 | 24 | Indecisive |
| Phys disability | 25 | 5 | 5 | 2 | 5 | 5 | 5 | 2 | 2 | 25 | No phys disability |
| Well presented | 26 | 1 | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 26 | dishevelled |
| Approachable | 27 | 2 | 4 | 2 | 5 | 2 | 1 | 1 | 3 | 27 | Not approachable |
| Not defensive | 28 | 1 | 3 | 2 | 4 | 2 | 1 | 2 | 3 | 28 | Defensive |
| Materialistic | 29 | 1 | 1 | 1 | 4 | 5 | 1 | 1 | 1 | 29 | Not materialistic |
| Parent died early | 30 | 5 | 5 | 1 | 3 | 5 | 1 | 3 | 5 | 30 | Both parents |
| Multiple separations | 31 | 1 | 1 | 5 | 1 | 1 | 5 | 5 | 4 | 31 | No separations |

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |

"Ideal" terminated (AR)
"Ideal" (R)
"Usual" (R)
With Children (AR)
"Ideal" woman (AR)
Long term (AR)
Terminated (AR)
Short term (AR)

Grid 12

Appendix D

Principal Components Analysis Including Loadings

Construct Correlations

|  | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 | A13 | A14 | A15 |
|  | A16 | A17 | A18 | A19 | A20 | A21 | A22 | A23 | A24 | A25 | A26 | A27 |  |  |  |

•••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••
•••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••••

```
A1 *  1.00  1.00  1.00  1.00  0.54  0.54  0.89 -0.98 -0.93 -0.91 -0.90 -0.89 -0.84 -0.83 -0.80
      0.73  0.60  0.64  0.39  0.98  0.98  0.83  0.84  0.47  0.57 -0.26 -0.26
A2 *  1.00  1.00  1.00  1.00  0.54  0.54  0.89 -0.98 -0.93 -0.91 -0.90 -0.89 -0.84 -0.83 -0.80
      0.73  0.60  0.64  0.39  0.98  0.98  0.83  0.84  0.47  0.57 -0.26 -0.26
A3 *  1.00  1.00  1.00  1.00  0.54  0.54  0.89 -0.98 -0.93 -0.91 -0.90 -0.89 -0.84 -0.83 -0.80
      0.73  0.60  0.64  0.39  0.98  0.98  0.83  0.84  0.47  0.57 -0.26 -0.26
A4 *  1.00  1.00  1.00  1.00  0.54  0.54  0.89 -0.98 -0.93 -0.91 -0.90 -0.89 -0.84 -0.83 -0.80
      0.73  0.60  0.64  0.39  0.98  0.98  0.83  0.84  0.47  0.57 -0.26 -0.26
A5 *  0.54  0.54  0.54  0.54  1.00  0.79  0.55 -0.47 -0.37 -0.42 -0.56 -0.58 -0.44 -0.66 -0.77
      0.50  0.45  0.44  0.24  0.65  0.65  0.66  0.60  0.87  0.89 -0.16 -0.16
A6 *  0.54  0.54  0.54  0.54  0.79  1.00  0.55 -0.47 -0.37 -0.32 -0.35 -0.36 -0.24 -0.37 -0.47
      0.50  0.45  0.82  0.72  0.65  0.65  0.66  0.60  0.54  0.63  0.16  0.16
A7 *  0.89  0.89  0.89  0.89  0.55  0.55  1.00 -0.89 -0.82 -0.79 -0.82 -0.87 -0.73 -0.79 -0.73
      0.93  0.89  0.51  0.29  0.89  0.89  0.97  0.97  0.38  0.39 -0.29 -0.29
A8 * -0.98 -0.98 -0.98 -0.98 -0.47 -0.47 -0.89  1.00  0.98  0.96  0.93  0.90  0.90  0.79  0.74
     -0.70 -0.61 -0.59 -0.35 -0.96 -0.96 -0.83 -0.88 -0.40 -0.50  0.42  0.42
A9 * -0.93 -0.93 -0.93 -0.93 -0.37 -0.37 -0.82  0.98  1.00  0.98  0.92  0.88  0.93  0.75  0.69
     -0.62 -0.53 -0.55 -0.32 -0.90 -0.90 -0.75 -0.82 -0.35 -0.44  0.50  0.50
A10 * -0.91 -0.91 -0.91 -0.91 -0.42 -0.32 -0.79  0.96  0.98  1.00  0.96  0.93  0.98  0.81  0.76
      -0.60 -0.51 -0.47 -0.23 -0.88 -0.72 -0.86 -0.43 -0.50  0.61  0.61
A11 * -0.90 -0.90 -0.90 -0.90 -0.56 -0.35 -0.82  0.93  0.92  0.96  1.00  0.98  0.98  0.92  0.88
      -0.64 -0.57 -0.42 -0.16 -0.89 -0.89 -0.77 -0.82 -0.57 -0.61  0.63  0.63
A12 * -0.89 -0.89 -0.89 -0.89 -0.58 -0.36 -0.87  0.90  0.88  0.93  0.98  1.00  0.95  0.96  0.91
      -0.76 -0.67 -0.38 -0.13 -0.85 -0.85 -0.80 -0.85 -0.54 -0.58  0.59  0.59
A13 * -0.84 -0.84 -0.84 -0.84 -0.44 -0.24 -0.73  0.90  0.93  0.98  0.98  0.95  1.00  0.86  0.81
      -0.55 -0.47 -0.36 -0.12 -0.81 -0.81 -0.67 -0.75 -0.51 -0.55  0.71  0.71
A14 * -0.83 -0.83 -0.83 -0.83 -0.66 -0.37 -0.79  0.79  0.75  0.81  0.92  0.96  0.86  1.00  0.98
      -0.72 -0.59 -0.33 -0.08 -0.79 -0.79 -0.72 -0.73 -0.67 -0.68  0.46  0.46
A15 * -0.80 -0.80 -0.80 -0.80 -0.77 -0.47 -0.73  0.74  0.69  0.76  0.88  0.91  0.81  0.98  1.00
      -0.65 -0.51 -0.38 -0.12 -0.79 -0.79 -0.69 -0.68 -0.80 -0.81  0.40  0.40
A16 *  0.73  0.73  0.73  0.73  0.50  0.50  0.93 -0.70 -0.62 -0.60 -0.64 -0.76 -0.55 -0.72 -0.65
       1.00  0.94  0.37  0.20  0.70  0.70  0.88  0.87  0.17  0.24 -0.13 -0.13
A17 *  0.60  0.60  0.60  0.60  0.45  0.45  0.89 -0.61 -0.53 -0.51 -0.57 -0.67 -0.47 -0.59 -0.51
       0.94  1.00  0.26  0.13  0.61  0.61  0.91  0.89  0.07  0.12 -0.26 -0.26
A18 *  0.64  0.64  0.64  0.64  0.44  0.82  0.51 -0.59 -0.55 -0.47 -0.42 -0.38 -0.36 -0.33 -0.38
       0.37  0.26  1.00  0.95  0.67  0.67  0.50  0.34  0.46  0.51  0.15  0.15
A19 *  0.39  0.39  0.39  0.39  0.24  0.72  0.29 -0.35 -0.32 -0.23 -0.16 -0.13 -0.12 -0.08 -0.12
       0.20  0.13  0.95  1.00  0.42  0.42  0.30  0.29  0.13  0.23  0.25  0.25
A20 *  0.98  0.98  0.98  0.98  0.65  0.65  0.89 -0.96 -0.90 -0.88 -0.89 -0.85 -0.81 -0.79 -0.79
       0.70  0.61  0.67  0.42  1.00  1.00  0.88  0.88  0.54  0.65 -0.28 -0.28
A21 *  0.98  0.98  0.98  0.98  0.65  0.65  0.89 -0.96 -0.90 -0.88 -0.89 -0.85 -0.81 -0.79 -0.79
       0.70  0.61  0.67  0.42  1.00  1.00  0.88  0.88  0.54  0.65 -0.28 -0.28
A22 *  0.83  0.83  0.83  0.83  0.66  0.66  0.97 -0.83 -0.75 -0.72 -0.77 -0.80 -0.67 -0.72 -0.69
       0.88  0.91  0.51  0.30  0.88  0.88  1.00  0.98  0.35  0.44 -0.30 -0.30
A23 *  0.84  0.84  0.84  0.84  0.60  0.60  0.97 -0.88 -0.82 -0.86 -0.82 -0.85 -0.75 -0.73 -0.68
       0.87  0.89  0.50  0.29  0.88  0.88  0.98  1.00  0.32  0.41 -0.42 -0.42
A24 *  0.47  0.47  0.47  0.47  0.87  0.54  0.30 -0.40 -0.35 -0.43 -0.57 -0.54 -0.51 -0.67 -0.80
       0.17  0.07  0.34  0.13  0.54  0.54  0.35  0.32  1.00  0.99 -0.26 -0.26
A25 *  0.57  0.57  0.57  0.57  0.89  0.63  0.39 -0.50 -0.44 -0.50 -0.61 -0.58 -0.55 -0.68 -0.81
       0.24  0.12  0.46  0.23  0.65  0.65  0.44  0.41  0.99  1.00 -0.20 -0.20
A26 * -0.26 -0.26 -0.26 -0.26 -0.16  0.16 -0.29  0.42  0.50  0.61  0.63  0.59  0.71  0.46  0.40
      -0.13 -0.26  0.15  0.25 -0.28 -0.28 -0.30 -0.42 -0.26 -0.20  1.00  1.00
A27 * -0.26 -0.26 -0.26 -0.26 -0.16  0.16 -0.29  0.42  0.50  0.61  0.63  0.59  0.71  0.46  0.40
      -0.13 -0.26  0.15  0.25 -0.28 -0.28 -0.30 -0.42 -0.26 -0.20  1.00  1.00
```

Percentage of Variance for each Component

|  | C1 | C2 | C3 | C4 | C5 | C6 | C7 |

MODE GRID

```
1 *  71.62  12.48   8.99   3.42   2.39   0.98   0.20
```

Construct Loadings on each Component

| | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|---|---|---|---|---|---|---|
| A1 * | 5.284 | 1.135 | 0.596 | 0.536 | -0.353 | -0.091 | 0.099 |
| A2 * | 5.284 | 1.135 | 0.596 | 0.536 | -0.353 | -0.091 | 0.099 |
| A3 * | 5.284 | 1.135 | 0.596 | 0.536 | -0.353 | -0.091 | 0.099 |
| A4 * | 5.284 | 1.135 | 0.596 | 0.536 | -0.353 | -0.091 | 0.099 |
| A5 * | 1.412 | 0.394 | -1.310 | -0.862 | 0.459 | -0.153 | -0.184 |
| A6 * | 1.176 | 1.199 | -0.558 | -0.541 | 1.163 | 0.207 | -0.233 |
| A7 * | 2.191 | 0.373 | 0.665 | -0.782 | -0.069 | 0.050 | 0.023 |
| A8 * | -4.896 | -0.205 | -1.028 | -0.594 | -0.154 | 0.226 | 0.041 |
| A9 * | -4.669 | 0.333 | -1.195 | -1.114 | -0.177 | 0.094 | 0.506 |
| A10 * | -4.391 | 0.924 | -0.645 | -0.900 | 0.050 | -0.070 | 0.358 |
| A11 * | -4.341 | 0.976 | 0.074 | -0.166 | 0.299 | -0.103 | -0.256 |
| A12 * | -4.051 | 0.779 | -0.029 | 0.421 | 0.674 | -0.465 | 0.096 |
| A13 * | -4.114 | 1.515 | -0.094 | -0.687 | 0.276 | -0.235 | 0.210 |
| A14 * | -4.162 | 0.439 | 0.953 | 0.691 | 1.407 | -0.765 | -0.191 |
| A15 * | -3.911 | 0.134 | 1.665 | 0.625 | 1.030 | -0.581 | -0.014 |
| A16 * | 1.900 | 0.570 | 0.768 | -1.369 | -0.444 | 0.413 | -0.329 |
| A17 * | 1.740 | 0.178 | 1.032 | -1.832 | 0.039 | 0.146 | -0.003 |
| A18 * | 1.364 | 1.303 | -0.012 | 0.550 | 1.157 | 0.820 | 0.070 |
| A19 * | 0.851 | 1.517 | 0.188 | 0.657 | 1.635 | 1.344 | 0.109 |
| A20 * | 4.873 | 1.049 | 0.148 | 0.140 | 0.508 | -0.542 | 0.247 |
| A21 * | 4.873 | 1.049 | 0.148 | 0.140 | 0.508 | -0.542 | 0.247 |
| A22 * | 3.970 | 0.659 | 0.882 | -1.960 | 0.723 | -0.350 | 0.194 |
| A23 * | 3.743 | 0.121 | 1.049 | -1.439 | 0.746 | -0.218 | -0.271 |
| A24 * | 3.172 | -0.004 | -4.455 | -0.051 | 0.251 | -0.168 | -0.019 |
| A25 * | 3.450 | 0.586 | -3.904 | 0.163 | 0.477 | -0.333 | -0.167 |
| A26 * | -2.622 | 4.949 | -0.119 | 0.089 | -0.769 | -0.027 | -0.134 |
| A27 * | -2.622 | 4.949 | -0.119 | 0.089 | -0.769 | -0.027 | -0.134 |

Element Loadings on each Component

| | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|---|---|---|---|---|---|---|
| E1 * | 4.963 | -2.527 | 4.994 | -0.289 | -1.362 | 0.408 | 0.187 |
| E2 * | 3.183 | 3.241 | -1.851 | 2.003 | -1.747 | 0.593 | -0.343 |
| E3 * | 5.753 | -1.630 | -0.722 | 2.538 | 1.358 | -0.886 | 0.371 |
| E4 * | 7.753 | -1.186 | -0.199 | -1.421 | 1.516 | 0.048 | -0.079 |
| E5 * | 4.503 | 4.448 | -1.176 | -2.251 | -0.083 | -0.293 | 0.490 |
| E6 * | -10.168 | 1.773 | 1.408 | 0.465 | 1.727 | 1.165 | 0.104 |
| E7 * | -10.495 | 0.702 | 1.410 | -0.121 | -0.592 | -1.480 | -0.286 |
| E8 * | -5.491 | -4.582 | -3.864 | -0.924 | -0.817 | 0.305 | 0.156 |

MODE GRID

Construct Correlations
```
   *    A1    A2    A3    A4    A5    A6    A7    A8    A9   A10   A11   A12   A13   A14
 A16   A17   A18
```

```
**********************************************************************************************
********************
A1  *  1.00  0.38  0.55  0.15  0.82 -0.35  0.00  0.76  0.70  0.43  0.73  0.59  0.82 -0.30  0
 0.12 -0.09 -0.06
A2  *  0.38  1.00  0.03  0.37  0.32  0.04  0.15  0.49  0.33 -0.12  0.47  0.47  0.47 -0.59  0
 0.60  0.00 -0.19
A3  *  0.55  0.03  1.00  0.18  0.77 -0.86  0.73  0.72  0.36  0.87  0.79  0.81  0.76 -0.45  0
 0.36 -0.17  0.19
A4  *  0.15  0.37  0.18  1.00  0.24 -0.11  0.00  0.21  0.55 -0.23  0.30  0.37  0.32 -0.74  0
 0.61  0.47  0.73
A5  *  0.82  0.32  0.77  0.24  1.00 -0.40  0.29  0.70  0.63  0.50  0.88  0.84  0.96 -0.54  0
 0.34 -0.34  0.01
A6  * -0.35  0.04 -0.86 -0.11 -0.40  1.00 -0.79 -0.65 -0.12 -0.90 -0.58 -0.59 -0.46  0.29 -0
-0.26 -0.07 -0.27
A7  *  0.00  0.15  0.73  0.00  0.29 -0.79  1.00  0.51 -0.15  0.74  0.49  0.60  0.35 -0.36  0
 0.50 -0.13  0.00
A8  *  0.76  0.49  0.72  0.21  0.70 -0.65  0.51  1.00  0.56  0.63  0.67  0.64  0.70 -0.40  0
 0.59  0.20 -0.13
A9  *  0.70  0.33  0.36  0.55  0.63 -0.12 -0.15  0.56  1.00  0.12  0.40  0.33  0.54 -0.27  0
 0.45  0.23  0.08
A10 *  0.43 -0.12  0.87 -0.23  0.50 -0.90  0.74  0.63  0.12  1.00  0.56  0.54  0.48 -0.03  0
 0.09 -0.21 -0.08
A11 *  0.73  0.47  0.79  0.30  0.88 -0.58  0.49  0.67  0.40  0.56  1.00  0.98  0.97 -0.73  0.
 0.32 -0.38  0.19
A12 *  0.59  0.47  0.81  0.37  0.84 -0.59  0.60  0.64  0.33  0.54  0.98  1.00  0.93 -0.81  0.
 0.45 -0.35  0.24
A13 *  0.82  0.47  0.76  0.32  0.96 -0.46  0.35  0.70  0.54  0.48  0.97  0.93  1.00 -0.69  0.
 0.35 -0.34  0.12
A14 * -0.30 -0.59 -0.45 -0.74 -0.54  0.29 -0.36 -0.40 -0.27 -0.03 -0.73 -0.81 -0.69  1.00 -0.
-0.60  0.00 -0.53
A15 *  0.83  0.70  0.38  0.00  0.60 -0.32  0.18  0.82  0.45  0.38  0.65  0.54  0.68 -0.30  1.
 0.28 -0.07 -0.35
A16 *  0.12  0.60  0.36  0.61  0.34 -0.26  0.50  0.59  0.45  0.09  0.32  0.45  0.35 -0.60  0.
 1.00  0.39  0.06
A17 * -0.09  0.00 -0.17  0.47 -0.34 -0.07 -0.13  0.20  0.23 -0.21 -0.38 -0.35 -0.34  0.00 -0.
 0.39  1.00  0.32
A18 * -0.06 -0.19  0.19  0.73  0.01 -0.27  0.00 -0.13  0.08 -0.08  0.19  0.24  0.12 -0.53 -0.
 0.06  0.32  1.00
```

Percentage of Variance for each Component
```
   *    C1     C2     C3     C4     C5     C6     C7
 ****************************************************
 1  *  60.36  12.04  10.58   7.91   5.70   2.56   0.86
```

Construct Loadings on each Component
```
   *    C1     C2     C3     C4     C5     C6     C7
 *****************************************************
A1  *  2.542  1.187  0.622  1.302  1.008 -0.722  0.094
A2  *  1.245  1.281 -0.774  0.425 -1.691 -0.680 -0.459
A3  *  2.414 -1.133  0.536  0.173  0.314  0.585  0.071
A4  *  0.700 -0.044 -1.792  0.297  0.196  0.226 -0.343
A5  *  3.834  1.112  0.513  0.182  0.770  0.948  0.392
A6  * -2.971  3.328 -0.820 -0.800 -0.047  0.453  0.287
A7  *  1.321 -1.542  0.440 -0.217 -1.209  0.417 -0.005
A8  *  1.873 -0.120  0.287  1.397 -0.461 -0.096  0.311
A9  *  1.343  0.970 -0.569  1.589  0.827  0.746 -0.816
A10 *  1.356 -1.183  1.221  0.319  0.091  0.060 -0.178
A11 *  4.957  0.302  0.099 -0.725  0.054 -0.528 -0.129
A12 *  5.314 -0.161 -0.394 -1.145 -0.510  0.097  0.046
```

```
A13 *   4.551   1.016   0.066  -0.192   0.436   0.026   0.166
A14 *  -2.442  -0.107   2.105   0.782   0.625   0.138  -0.270
A15 *   1.449   0.779   0.526   0.913  -0.515  -0.890   0.017
A16 *   1.088  -0.145  -1.120   0.891  -1.335   0.983   0.003
A17 *  -0.795  -0.912  -1.725   2.271   0.009  -0.215   0.594
A18 *   0.619  -1.428  -2.500  -0.736   1.569  -0.436  -0.097
```

Element Loadings on each Component
```
        *      C1      C2      C3      C4      C5      C6      C7
        *****************************************************************
E1 *   1.555  -3.181  -2.647  -1.624  -0.114  -0.125  -0.079
E2 *   2.518   0.818   0.290  -0.113  -1.863   1.594   0.318
E3 *   4.469  -0.532   1.378   0.478   2.587   0.629   0.004
E4 *   3.091  -0.458   2.805  -0.580  -1.229  -1.178  -0.323
E5 *   3.545   3.148  -2.296   0.655   0.172  -0.864   0.096
E6 *  -3.699  -1.693  -0.167   3.261  -0.419  -0.232   0.156
E7 *  -5.989   0.652   0.824  -1.618   0.601  -0.343   0.806
E8 *  -5.489   1.246  -0.185  -0.459   0.265   0.517  -0.979
```

Construct Correlations

| * | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 | A13 | A14 |
| A16 | A17 | A18 | A19 | A20 | A21 | A22 | A23 | A24 | A25 | A26 | A27 | A28 | A29 | A30 |

```
*********************************************************************************
*********************************************************************************
A1 *   1.00  0.48  0.61  0.86  0.62  0.87  0.62  0.72  0.53  0.84  0.70  0.63  0.38  0.19 -0
     -0.48  0.64 -0.19  0.64  0.67  0.67  0.56  0.84  0.58  0.64 -0.21  0.54  0.07 -0.48 -0.51
A2 *   0.48  1.00  0.81  0.16  0.40  0.20  0.26  0.48  0.46  0.09  0.27  0.16  0.31  0.56 -0
      0.08  0.27  0.48  0.65  0.58  0.55  0.33  0.55  0.61  0.27  0.21  0.58  0.33  0.16 -0.15
A3 *   0.61  0.81  1.00  0.28  0.53  0.57  0.32  0.53  0.60  0.49  0.48  0.44  0.28  0.81 -0
      0.00  0.51  0.26  0.85  0.69  0.48  0.65  0.78  0.90  0.51 -0.02  0.57  0.34 -0.13 -0.02
A4 *   0.86  0.16  0.28  1.00  0.76  0.78  0.82  0.78  0.52  0.70  0.81  0.79  0.54 -0.10 -0
     -0.34  0.75 -0.19  0.39  0.66  0.74  0.59  0.69  0.43  0.75 -0.12  0.53  0.14 -0.34 -0.39
A5 *   0.62  0.40  0.53  0.76  1.00  0.64  0.91  0.90  0.57  0.39  0.91  0.86  0.67  0.22 -0.
      0.00  0.81  0.15  0.47  0.90  0.86  0.77  0.76  0.66  0.81  0.04  0.59  0.34 -0.05 -0.10
A6 *   0.87  0.20  0.57  0.78  0.64  1.00  0.66  0.72  0.52  0.92  0.83  0.78  0.40  0.20 -0.
     -0.44  0.74 -0.29  0.64  0.71  0.60  0.71  0.79  0.60  0.74 -0.22  0.43  0.08 -0.52 -0.32
A7 *   0.62  0.26  0.32  0.82  0.91  0.66  1.00  0.96  0.61  0.39  0.96  0.91  0.81 -0.06  0.
      0.00  0.86  0.17  0.45  0.87  0.94  0.73  0.57  0.47  0.86  0.25  0.65  0.39  0.06 -0.11
A8 *   0.72  0.48  0.53  0.78  0.90  0.72  0.96  1.00  0.70  0.45  0.95  0.89  0.82  0.11  0.
      0.00  0.88  0.26  0.64  0.95  0.98  0.78  0.66  0.60  0.88  0.29  0.75  0.45  0.07 -0.12
A9 *   0.53  0.46  0.60  0.52  0.57  0.52  0.61  0.70  1.00  0.37  0.63  0.77  0.75  0.46  0.
      0.46  0.88  0.59  0.88  0.68  0.63  0.86  0.39  0.80  0.88  0.54  0.97  0.86  0.36  0.42
A10 *  0.84  0.09  0.49  0.70  0.39  0.92  0.39  0.45  0.37  1.00  0.58  0.56  0.18  0.17 -0.
     -0.59  0.53 -0.50  0.53  0.47  0.32  0.48  0.72  0.50  0.53 -0.43  0.25 -0.12 -0.70 -0.40
A11 *  0.70  0.27  0.48  0.81  0.91  0.83  0.96  0.95  0.63  0.58  1.00  0.96  0.74  0.10  0.
     -0.09  0.90  0.07  0.58  0.91  0.88  0.83  0.69  0.60  0.90  0.13  0.62  0.35 -0.10 -0.11
A12 *  0.63  0.16  0.44  0.79  0.86  0.78  0.91  0.89  0.77  0.56  0.96  1.00  0.77  0.16  0.
      0.10  0.98  0.17  0.63  0.84  0.79  0.91  0.59  0.66  0.98  0.23  0.72  0.52  0.01  0.12
A13 *  0.38  0.31  0.28  0.54  0.67  0.40  0.81  0.82  0.75  0.18  0.74  0.77  1.00 -0.07  0.
      0.32  0.81  0.48  0.55  0.80  0.81  0.62  0.24  0.44  0.81  0.64  0.80  0.62  0.46  0.25
A14 *  0.19  0.56  0.81 -0.10  0.22  0.20 -0.06  0.11  0.46  0.17  0.10  0.16 -0.07  1.00  0.
      0.33  0.27  0.38  0.65  0.27  0.03  0.54  0.46  0.80  0.27 -0.03  0.37  0.44  0.02  0.35
A15 * -0.29 -0.12 -0.02 -0.21 -0.08 -0.08  0.09  0.11  0.55 -0.22  0.10  0.29  0.41  0.18  1.0
      0.80  0.39  0.68  0.39  0.06  0.04  0.42  0.18  0.39  0.80  0.48  0.80  0.72  0.86
A16 * -0.48  0.08  0.00 -0.34  0.00 -0.44  0.00  0.00  0.46 -0.59 -0.09  0.10  0.32  0.33  0.
      1.00  0.22  0.88  0.22  0.00  0.00  0.30 -0.43  0.22  0.22  0.77  0.46  0.83  0.89  0.91
A17 *  0.64  0.27  0.51  0.75  0.81  0.74  0.86  0.88  0.88  0.53  0.90  0.98  0.81  0.27  0.
      0.22  1.00  0.31  0.74  0.84  0.78  0.94  0.56  0.74  1.00  0.34  0.84  0.65  0.12  0.22
A18 * -0.19  0.48  0.26 -0.19  0.15 -0.29  0.17  0.26  0.59 -0.50  0.07  0.17  0.48  0.38  0.
      0.88  0.31  1.00  0.44  0.25  0.31  0.37 -0.21  0.34  0.31  0.87  0.67  0.88  0.90  0.67
A19 *  0.64  0.65  0.85  0.39  0.47  0.64  0.45  0.64  0.88  0.53  0.58  0.63  0.55  0.65  0.
      0.22  0.74  0.44  1.00  0.70  0.56  0.80  0.56  0.87  0.74  0.34  0.84  0.65  0.12  0.22
A20 *  0.67  0.58  0.69  0.66  0.90  0.71  0.87  0.95  0.68  0.47  0.91  0.84  0.80  0.27  0.
      0.00  0.84  0.25  0.70  1.00  0.91  0.78  0.73  0.72  0.84  0.22  0.71  0.40  0.04 -0.07
A21 *  0.67  0.55  0.48  0.74  0.86  0.60  0.94  0.93  0.63  0.32  0.88  0.79  0.81  0.03  0.
      0.00  0.78  0.31  0.56  0.91  1.00  0.66  0.60  0.50  0.78  0.34  0.73  0.41  0.14 -0.19
A22 *  0.56  0.33  0.65  0.59  0.77  0.71  0.73  0.78  0.86  0.48  0.83  0.91  0.62  0.54  0.
      0.30  0.94  0.37  0.80  0.78  0.66  1.00  0.60  0.86  0.94  0.26  0.78  0.69  0.09  0.32
A23 *  0.84  0.55  0.78  0.69  0.76  0.79  0.57  0.66  0.39  0.72  0.69  0.59  0.24  0.46 -0.
     -0.43  0.56 -0.21  0.56  0.73  0.60  0.60  1.00  0.73  0.56 -0.43  0.37 -0.02 -0.55 -0.44
A24 *  0.58  0.61  0.90  0.43  0.66  0.60  0.47  0.60  0.80  0.50  0.60  0.66  0.44  0.80  0.
      0.22  0.74  0.34  0.87  0.72  0.50  0.86  0.73  1.00  0.74  0.08  0.72  0.57 -0.01  0.25
A25 *  0.64  0.27  0.51  0.75  0.81  0.74  0.86  0.88  0.88  0.53  0.90  0.98  0.81  0.27  0.3
      0.22  1.00  0.31  0.74  0.84  0.78  0.94  0.56  0.74  1.00  0.34  0.84  0.65  0.12  0.22
A26 * -0.21  0.21 -0.02 -0.12  0.04 -0.22  0.25  0.29  0.54 -0.43  0.13  0.23  0.64 -0.03  0.8
      0.77  0.34  0.87  0.34  0.22  0.34  0.26 -0.43  0.08  0.34  1.00  0.62  0.80  0.93  0.62
A27 *  0.54  0.58  0.57  0.53  0.59  0.43  0.65  0.75  0.97  0.25  0.62  0.72  0.80  0.37  0.4
      0.46  0.84  0.67  0.84  0.71  0.73  0.78  0.37  0.72  0.84  0.62  1.00  0.85  0.45  0.33
A28 *  0.07  0.33  0.34  0.14  0.34  0.08  0.39  0.45  0.86 -0.12  0.35  0.52  0.62  0.44  0.8
      0.83  0.65  0.88  0.65  0.40  0.41  0.69 -0.02  0.57  0.65  0.80  0.85  1.00  0.73  0.73
A29 * -0.48  0.16 -0.13 -0.34 -0.05 -0.52  0.06  0.07  0.36 -0.70 -0.10  0.01  0.46  0.02  0.7
      0.89  0.12  0.90  0.12  0.34  0.14  0.09 -0.55 -0.01  0.12  0.93  0.45  0.73  1.00  0.72
```

Percentage of Variance for each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|---|---|---|---|---|---|---|
| 1 * | 48.02 | 27.89 | 11.46 | 7.09 | 3.30 | 1.43 | 0.80 |

Construct Loadings on each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|---|---|---|---|---|---|---|
| A1 * | 3.088 | -2.095 | 0.303 | 0.181 | -1.169 | 0.740 | -0.194 |
| A2 * | 2.731 | 0.366 | 2.905 | 3.287 | -0.806 | -0.099 | 0.062 |
| A3 * | 3.162 | -0.327 | 3.025 | 0.471 | -0.081 | -0.681 | 0.221 |
| A4 * | 3.316 | -1.827 | -1.492 | -0.103 | -0.234 | 1.494 | -0.115 |
| A5 * | 3.873 | -0.578 | -0.674 | 0.719 | 1.877 | 0.164 | 0.124 |
| A6 * | 3.882 | -2.342 | -0.100 | -1.471 | -0.727 | -0.697 | -0.364 |
| A7 * | 4.190 | -0.265 | -2.177 | 0.646 | 0.793 | -0.105 | -0.283 |
| A8 * | 3.936 | -0.158 | -1.016 | 0.860 | 0.108 | -0.351 | -3.278 |
| A9 * | 3.175 | 1.522 | 0.366 | -0.560 | -0.754 | 0.730 | 0.234 |
| A10 * | 2.935 | -3.165 | 0.473 | -2.102 | -1.422 | -0.041 | 0.452 |
| A11 * | 4.266 | -0.710 | -1.327 | -0.174 | 0.639 | -0.720 | -0.283 |
| A12 * | 4.012 | 0.076 | -1.217 | -0.991 | 0.551 | -0.057 | -0.030 |
| A13 * | 3.001 | 1.367 | -1.603 | 0.624 | -0.377 | -0.321 | 1.193 |
| A14 * | 1.956 | 1.041 | 4.542 | -0.773 | 1.043 | 0.031 | -0.523 |
| A15 * | 0.955 | 4.313 | -0.547 | -2.025 | -0.948 | -0.821 | -0.624 |
| A16 * | 0.341 | 4.546 | 0.325 | -0.240 | 0.861 | 0.557 | -0.053 |
| A17 * | 3.733 | 0.558 | -0.690 | -0.848 | 0.116 | 0.206 | 0.058 |
| A18 * | 1.120 | 3.430 | 0.596 | 1.125 | -0.067 | 0.248 | -0.412 |
| A19 * | 3.225 | 0.773 | 1.633 | -0.410 | -1.254 | -0.286 | 0.067 |
| A20 * | 3.475 | -0.168 | -0.188 | 0.777 | 0.375 | -0.841 | 0.534 |
| A21 * | 3.885 | -0.087 | -1.232 | 1.751 | 0.011 | -0.244 | -0.360 |
| A22 * | 3.269 | 0.661 | 0.331 | -1.026 | 0.597 | -0.024 | -0.482 |
| A23 * | 3.293 | -2.484 | 1.406 | 0.384 | 0.832 | 0.174 | 0.124 |
| A24 * | 3.163 | 0.352 | 1.974 | -0.560 | 0.515 | 0.228 | 0.469 |
| A25 * | 3.733 | 0.558 | -0.690 | -0.848 | 0.116 | 0.206 | 0.058 |
| A26 * | 1.121 | 4.077 | -1.147 | 0.897 | -1.301 | -0.391 | -0.169 |
| A27 * | 3.124 | 1.593 | 0.150 | 0.331 | -0.851 | 0.837 | 0.151 |
| A28 * | 2.001 | 2.852 | 0.248 | -0.323 | -0.206 | 0.635 | -0.357 |
| A29 * | 0.095 | 4.990 | -0.782 | 1.380 | -0.149 | 0.012 | 0.187 |
| A30 * | 0.127 | 4.739 | 0.516 | -2.176 | 0.904 | -0.026 | 0.761 |

Element Loadings on each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|---|---|---|---|---|---|---|
| E1 * | -0.850 | 0.899 | -1.769 | 5.740 | -0.424 | 0.309 | -0.178 |
| E2 * | 0.423 | -4.789 | 5.191 | 0.454 | -1.098 | -1.471 | -0.180 |
| E3 * | -2.865 | 0.393 | 3.560 | 0.008 | 2.931 | 1.124 | 0.531 |
| E4 * | -5.291 | 4.269 | -1.972 | -0.998 | -0.658 | -1.072 | 1.408 |
| E5 * | -4.068 | -5.191 | -1.045 | -1.764 | -2.115 | 1.659 | 0.004 |
| E6 * | -5.340 | 5.715 | -0.390 | -1.612 | 0.281 | ).319 | -1.521 |
| E7 * | 13.310 | 4.864 | 0.749 | -0.902 | -0.828 | 0.528 | 0.127 |
| E8 * | 4.680 | -6.160 | -4.323 | -0.927 | 1.911 | -0.759 | -0.190 |

Construct Correlations
```
     *    A1    A2    A3    A4    A5    A6    A7    A8    A9   A10   A11   A12   A13   A14
   A15   A16   A17   A18   A19   A20   A21   A22   A23

******************************************************************************************
****************************************************

A1  *  1.00 -0.24  0.26  0.28 -0.65 -0.51  0.54  0.29 -0.08  0.26 -0.50 -0.56 -0.25 -0.34
   -0.73 -0.13 -0.71  0.36 -0.09  0.70 -0.80 -0.22  0.37
A2  * -0.24  1.00 -0.03 -0.20  0.39 -0.11  0.11  0.30  0.43 -0.03  0.11 -0.03  0.43  0.08
    0.33 -0.32  0.30 -0.30  0.30  0.11  0.26 -0.26 -0.49
A3  *  0.26 -0.03  1.00  0.54 -0.03 -0.57  0.77  0.32 -0.04  0.47 -0.12 -0.06 -0.28 -0.06
   -0.22 -0.15  0.32 -0.09  0.68  0.26 -0.30 -0.60  0.03
A4  *  0.28 -0.20  0.54  1.00 -0.49 -0.86  0.80 -0.32 -0.34  0.87 -0.34 -0.22 -0.81 -0.26
   -0.53  0.46  0.37  0.56  0.79  0.16 -0.55 -0.79  0.34
A5  * -0.65  0.39 -0.03 -0.49  1.00  0.39 -0.34 -0.02 -0.20 -0.26  0.44  0.49  0.70  0.80
    0.93 -0.06  0.46 -0.87 -0.04 -0.56  0.91  0.44 -0.39
A6  * -0.51 -0.11 -0.57 -0.86  0.39  1.00 -0.95  0.06  0.27 -0.90  0.26  0.23  0.48  0.22
    0.45 -0.18 -0.17 -0.34 -0.72 -0.47  0.55  0.73 -0.11
A7  *  0.54  0.11  0.77  0.80 -0.34 -0.95  1.00  0.18 -0.14  0.77 -0.28 -0.24 -0.46 -0.23
   -0.47  0.00  0.18  0.21  0.76  0.50 -0.58 -0.77  0.11
A8  *  0.29  0.30  0.32 -0.32 -0.02  0.06  0.18  1.00  0.68 -0.42  0.18  0.07  0.25 -0.37
   -0.15 -0.93 -0.29 -0.37 -0.07  0.54 -0.21 -0.05 -0.30
A9  * -0.08  0.43 -0.04 -0.34 -0.20  0.27 -0.14  0.68  1.00 -0.47  0.19  0.01  0.11 -0.67
   -0.17 -0.73 -0.13  0.07 -0.05  0.42 -0.16 -0.18 -0.43
A10 *  0.26 -0.03  0.47  0.87 -0.26 -0.90  0.77 -0.42 -0.47  1.00 -0.12 -0.06 -0.43 -0.06
   -0.22  0.45  0.32  0.35  0.68  0.26 -0.30 -0.60  0.03
A11 * -0.50  0.11 -0.12 -0.34  0.44  0.26 -0.28  0.18  0.19 -0.12  1.00  0.96  0.52 -0.02
    0.65 -0.48  0.18 -0.58 -0.17  0.09  0.64  0.45 -0.86
A12 * -0.56 -0.03 -0.06 -0.22  0.49  0.23 -0.24  0.07  0.01 -0.06  0.96  1.00  0.38  0.09
    0.66 -0.33  0.31 -0.59 -0.09 -0.08  0.66  0.44 -0.70
A13 * -0.25  0.43 -0.28 -0.81  0.70  0.48 -0.46  0.25  0.11 -0.43  0.52  0.38  1.00  0.45
    0.77 -0.44 -0.19 -0.77 -0.52  0.00  0.70  0.67 -0.63
A14 * -0.34  0.08 -0.06 -0.26  0.80  0.22 -0.23 -0.37 -0.67 -0.06 -0.02  0.09  0.45  1.00
    0.68  0.40  0.29 -0.60 -0.09 -0.69  0.66  0.41  0.13
A15 * -0.73  0.33 -0.22 -0.53  0.93  0.45 -0.47 -0.15 -0.17 -0.22  0.65  0.66  0.77  0.68
    1.00 -0.05  0.39 -0.79 -0.18 -0.47  0.99  0.56 -0.59
A16 * -0.13 -0.32 -0.15  0.46 -0.06 -0.18  0.00 -0.93 -0.73  0.45 -0.48 -0.33 -0.44  0.40
   -0.05  1.00  0.31  0.45  0.22 -0.58  0.00 -0.15  0.58
A17 * -0.71  0.30  0.32  0.37  0.46 -0.17  0.18 -0.29 -0.13  0.32  0.18  0.31 -0.19  0.29
    0.39  0.31  1.00 -0.17  0.75 -0.54  0.41 -0.42 -0.14
A18 *  0.36 -0.30 -0.09  0.56 -0.87 -0.34  0.21 -0.37  0.07  0.3⁻ -0.58 -0.59 -0.77 -0.60
   -0.79  0.45 -0.17  1.00  0.19  0.21 -0.74 -0.53  0.49
A19 * -0.09  0.30  0.68  0.79 -0.04 -0.72  0.76 -0.07 -0.05  0.68 -0.17 -0.09 -0.52 -0.09
   -0.18  0.22  0.75  0.19  1.00  0.00 -0.22 -0.88  0.04
A20 *  0.70  0.11  0.26  0.16 -0.56 -0.47  0.50  0.54  0.42  0.26  0.09 -0.08  0.00 -0.69
   -0.47 -0.58 -0.54  0.21  0.00  1.00 -0.58 -0.26 -0.34
A21 * -0.80  0.26 -0.30 -0.55  0.91  0.55 -0.58 -0.21 -0.16 -0.30  0.64  0.66  0.70  0.66
    0.99  0.00  0.41 -0.74 -0.22 -0.58  1.00  0.60 -0.52
A22 * -0.22 -0.26 -0.60 -0.79  0.44  0.73 -0.77 -0.05 -0.18 -0.60  0.45  0.44  0.67  0.41
    0.56 -0.15 -0.42 -0.53 -0.88 -0.26  0.60  1.00 -0.20
A23 *  0.37 -0.49  0.03  0.34 -0.39 -0.11  0.11 -0.30 -0.43  0.03 -0.86 -0.70 -0.63  0.13
   -0.59  0.58 -0.14  0.49  0.04 -0.34 -0.52 -0.20  1.00
```

Percentage of Variance for each Component
```
   *    C1    C2    C3    C4    C5    C6    C7
   ************************************************************
1  * 40.81 19.34 17.33  8.76  6.83  5.26  1.66
```

Construct Loadings on each Component
```
     *    C1     C2     C3     C4     C5     C6     C7
   ************************************************************
A1  *  2.969 -1.050  1.322  2.244 -2.047  0.035 -0.011
A2  * -0.559  0.964  1.119 -0.171  0.835  2.523  0.536
A3  *  3.035  3.145  1.464  1.095  1.799 -1.622 -1.299
A4  *  1.954  0.537 -0.540 -0.604  0.146 -0.212  0.212
A5  * -2.203  1.788 -0.652  0.725  0.835  0.406  0.093
A6  * -3.854 -1.881 -0.018  0.197  0.726 -0.819 -0.608
A7  *  4.813  2.657  1.076  0.510  0.026  0.280  0.530
```

```
A8  *   0.316   0.309   3.656   1.039   0.326  -0.510   0.703
A9  *  -0.869  -1.351   4.258  -1.674   1.196   0.671  -0.327
A10 *   4.013   2.699  -1.689  -1.221  -1.183   0.814  -0.456
A11 *  -2.291   1.949   0.857  -1.686  -1.270  -0.796   0.071
A12 *  -2.397   2.410   0.221  -1.813  -1.102  -1.572   0.545
A13 *  -3.555   1.327   0.875   1.453   1.137   1.459  -0.893
A14 *  -1.237   1.135  -1.907   1.631   0.495   0.364   0.084
A15 *  -2.961   1.974  -0.897  -0.053   0.092   0.552  -0.295
A16 *   0.716  -0.330  -2.273  -0.174   0.279   0.242  -0.210
A17 *  -0.002   1.101  -0.615  -0.822   1.248   0.081   0.208
A18 *   3.321  -3.015  -0.697  -1.888  -0.131   0.430  -0.711
A19 *   1.153   0.978  -0.058  -0.520   0.928   0.221   0.178
A20 *   1.195   0.103   2.005  -0.088  -1.524   0.304  -0.344
A21 *  -2.058   1.049  -0.727  -0.178   0.206   0.206  -0.132
A22 *  -2.210  -0.380  -0.460   0.691  -1.201  -0.581  -0.030
A23 *   1.472  -1.641  -1.396   1.258   0.838  -0.674   0.572


Element Loadings on each Component
     *    C1      C2      C3      C4      C5      C6      C7
     ************************************************************
E1  *  -6.638   1.435   3.453  -1.906  -2.148   0.053  -0.340
E2  *   0.569   6.453  -2.234  -0.962   1.592  -0.298   0.392
E3  *  -4.673  -0.310  -2.538   3.552  -0.001   1.722  -0.443
E4  *  -1.166  -3.885  -0.300  -2.606   2.891   0.942  -0.283
E5  *   2.379  -0.085   5.358   2.385   1.471  -0.571   0.592
E6  *   6.078   0.072  -0.288   0.086  -0.873  -0.864  -1.764
E7  *   5.287  -0.999  -0.752  -0.807  -2.158   2.030   1.098
E8  *  -1.837  -2.680  -2.699   0.257  -0.773  -3.016   0.747
```

Construct Correlations
```
   *     A1     A2     A3     A4     A5     A6     A7     A8     A9    A10    A11    A12    A13    A14
  A16    A17    A18    A19    A20    A21    A22    A23

 **********************************************************************************************
 *****************************************************

A1  *   1.00   0.81   0.48   0.30  -0.41  -0.52  -0.15   0.23   0.00   0.07  -0.68  -0.40  -0.76  -0.73   0
    0.07  -0.81   0.30  -0.38  -0.83   0.47   0.09  -0.03
A2  *   0.81   1.00   0.39   0.07   0.05  -0.83  -0.60   0.04   0.21  -0.05  -0.71  -0.15  -0.46  -0.88   0
    0.05  -0.65   0.25  -0.13  -0.85   0.59   0.36  -0.14
A3  *   0.48   0.39   1.00   0.38  -0.05  -0.21  -0.12  -0.49  -0.21  -0.38  -0.39   0.41  -0.10  -0.15  -0
   -0.27  -0.22   0.56   0.39  -0.73  -0.16  -0.19   0.25
A4  *   0.30   0.07   0.38   1.00  -0.37  -0.11   0.56   0.25  -0.54  -0.14  -0.61  -0.03  -0.36  -0.23  -0
   -0.53  -0.60   0.82  -0.11  -0.29  -0.14  -0.74  -0.59
A5  *  -0.41   0.05  -0.05  -0.37   1.00   0.00  -0.40  -0.54  -0.73  -0.41   0.17   0.73   0.76   0.00  -0
   -0.30   0.53   0.12   0.81   0.16  -0.41   0.05   0.03
A6  *  -0.52  -0.83  -0.21  -0.11   0.00   1.00   0.58  -0.18  -0.50   0.00   0.57   0.10   0.28   0.71  -0
   -0.26   0.63  -0.11   0.21   0.70  -0.77  -0.35   0.40
A7  *  -0.15  -0.60  -0.12   0.56  -0.40   0.58   1.00   0.31  -0.58   0.15   0.22  -0.06  -0.05   0.41  -0.
   -0.15  -0.12   0.31  -0.12   0.40  -0.45  -0.84  -0.23
A8  *   0.23   0.04  -0.49   0.25  -0.54  -0.18   0.31   1.00   0.18   0.05  -0.20  -0.61  -0.43  -0.13   0.
    0.32  -0.49  -0.21  -0.71  -0.03   0.42  -0.11  -0.65
A9  *   0.00   0.21  -0.21  -0.54  -0.23  -0.50  -0.58   0.18   1.00   0.26   0.19  -0.31  -0.09   0.00   0.
    0.77   0.00  -0.75  -0.42  -0.14   0.77   0.76   0.13
A10 *   0.07  -0.05  -0.38  -0.14  -0.41   0.00   0.15   0.05   0.26   1.00   0.20  -0.61  -0.47  -0.18   0.
    0.33  -0.27  -0.25  -0.59   0.33   0.47   0.23   0.24
A11 *  -0.68  -0.71  -0.39  -0.61   0.17   0.57   0.22  -0.20   0.19   0.20   1.00   0.27   0.61   0.80  -0.
    0.49   0.71  -0.61   0.24   0.69  -0.29   0.03   0.46
A12 *  -0.40  -0.15   0.41  -0.03   0.73   0.10  -0.06  -0.61  -0.31  -0.61   0.27   1.00   0.85   0.36  -0.
   -0.24   0.49   0.32   0.96  -0.01  -0.61  -0.35   0.07
A13 *  -0.76  -0.46  -0.10  -0.36   0.76   0.28  -0.05  -0.43  -0.09  -0.47   0.61   0.85   1.00   0.60  -0.
   -0.02   0.77  -0.11   0.81   0.41  -0.56  -0.16   0.06
A14 *  -0.73  -0.88  -0.15  -0.23   0.00   0.71   0.41  -0.13   0.00  -0.18   0.80   0.36   0.60   1.00  -0.
    0.18   0.74  -0.38   0.29   0.59  -0.55  -0.25   0.29
A15 *   0.47   0.59  -0.16  -0.14  -0.41  -0.77  -0.45   0.42   0.77   0.47  -0.29  -0.61  -0.56  -0.55   1.
    0.60  -0.59  -0.36  -0.70  -0.40   1.00   0.59  -0.17
A16 *   0.07   0.05  -0.27  -0.53  -0.30  -0.26  -0.15   0.32   0.77   0.33   0.49  -0.24  -0.02   0.18   0.
    1.00  -0.05  -0.75  -0.38  -0.04   0.60   0.41   0.17
A17 *  -0.81  -0.65  -0.22  -0.60   0.53   0.63  -0.12  -0.49   0.00  -0.27   0.71   0.49   0.77   0.74  -0.
   -0.05   1.00  -0.42   0.57   0.61  -0.59   0.16   0.48
A18 *   0.30   0.25   0.56   0.82   0.12  -0.11   0.31  -0.21  -0.75  -0.25  -0.61   0.32  -0.11  -0.38  -0.
   -0.75  -0.42   1.00   0.34  -0.35  -0.36  -0.68  -0.36
A19 *  -0.38  -0.13   0.39  -0.11   0.81   0.21  -0.12  -0.71  -0.42  -0.59   0.24   0.96   0.81   0.29  -0.
   -0.38   0.57   0.34   1.00   0.03  -0.70  -0.28   0.20
A20 *  -0.83  -0.85  -0.73  -0.29   0.16   0.70   0.40  -0.03  -0.14   0.33   0.69  -0.01   0.41   0.59  -0.
   -0.04   0.61  -0.35   0.03   1.00  -0.40  -0.13   0.09
A21 *   0.47   0.59  -0.16  -0.14  -0.41  -0.77  -0.45   0.42   0.77   0.47  -0.29  -0.61  -0.56  -0.55   1.(
    0.60  -0.59  -0.36  -0.70  -0.40   1.00   0.59  -0.17
A22 *   0.09   0.36  -0.19  -0.74   0.05  -0.35  -0.84  -0.11   0.76   0.23   0.03  -0.35  -0.16  -0.25   0.
    0.41   0.16  -0.68  -0.28  -0.13   0.59   1.00   0.42
A23 *  -0.03  -0.14   0.25  -0.59   0.03   0.40  -0.23  -0.65   0.13   0.24   0.46   0.07   0.06   0.29  -0.
    0.17   0.48  -0.36   0.20   0.09  -0.17   0.42   1.00
```

Percentage of Variance for each Component
```
   *     C1     C2     C3     C4     C5     C6     C7
 ************************************************************
 1 *   41.09  22.91  16.38   8.62   5.94   3.17   1.89
```

Construct Loadings on each Component
```
   *     C1      C2      C3      C4      C5      C6      C7
 ************************************************************
A1  *  -1.788  -1.199   0.226   1.122  -0.941   0.335  -0.747
A2  *  -2.637  -1.062   1.606   0.251  -0.267  -0.034  -0.840
A3  *  -0.029  -0.683   0.920   0.497  -1.025   0.082   0.507
```

```
A4  *   0.143  -3.004  -0.848   0.058  -0.346  -0.211   0.970
A5  *   1.127   0.291   2.170  -1.229   0.850  -0.514  -0.969
A6  *   4.827   1.194  -1.706   1.880   0.251   0.767  -0.422
A7  *   2.563  -1.763  -3.536   0.207  -1.153  -0.634  -0.215
A8  *  -1.538  -0.770  -2.849  -1.131   0.372   1.560  -0.758
A9  *  -1.858   1.853  -0.080  -0.614  -0.157   0.207   0.815
A10 *  -0.816   0.823  -1.294   1.065   0.354  -1.793  -0.079
A11 *   1.888   2.842  -0.825  -0.718  -0.804  -0.647  -0.315
A12 *'  1.941  -0.205   2.105  -1.533  -1.041  -0.414   0.164
A13 *   2.354   1.162   1.364  -2.247  -0.130  -0.233  -0.029
A14 *   2.819   1.854  -1.055  -0.765  -1.031   0.736   1.148
A15 *  -5.254   0.970  -0.873  -0.360   0.141  -0.639   0.373
A16 *  -2.497   3.547  -1.683  -1.422  -2.412  -0.098  -0.708
A17 *   2.333   2.102   0.884  -0.365   0.572   0.541   0.324
A18 *   0.643  -2.998   0.774   0.302  -0.211  -0.842   0.169
A19 *   2.122  -0.149   2.305  -0.898  -0.577  -0.327  -0.202
A20 *   3.080   2.129  -2.200  -0.462   2.245  -1.174  -0.108
A21 *  -5.254   0.970  -0.873  -0.360   0.141  -0.639   0.373
A22 *  -2.883   3.387   1.602   0.933   1.447   0.730   0.179
A23 *   1.070   3.261   1.574   3.328  -1.420  -0.380  -0.034
```

Element Loadings on each Component
```
    *     C1      C2      C3      C4      C5      C6      C7
    **********************************************************
E1  *   4.240  -3.781  -4.008   0.578   1.135  -0.107   1.435
E2  *   1.347  -5.100   5.137  -2.197  -0.470  -0.112   0.033
E3  *   3.847  -0.374  -3.037  -0.279  -2.519  -0.448  -1.580
E4  *  -3.978   2.241  -1.187  -2.537   2.321  -1.736  -0.430
E5  *   2.294   0.524   2.225   3.674   2.230   0.305  -0.989
E6  *   4.851   6.444   1.421  -1.255  -0.545   0.922   0.849
E7  *  -6.909  -0.857  -1.560  -0.515  -0.022   2.513  -0.225
E8  *  -5.692   0.902   1.008   2.532  -2.130  -1.337   0.907
```

Construct Correlations
```
  *    A1     A2     A3     A4     A5     A6     A7     A8     A9    A10    A11    A12    A13    A14
 A16    A17    A18
```

```
******************************************************************************************************
******************
A1  *  1.00   0.69   0.24  -0.22  -0.49   0.02  -0.46   0.24  -0.44  -0.69   0.00  -0.04   0.44   0.21  -€
   -0.53   0.30   0.19
A2  *  0.69   1.00   0.32  -0.63  -0.88   0.12  -0.58   0.27  -0.47  -0.78   0.00   0.14   0.81   0.40   €
   -0.68   0.57   0.57
A3  *  0.24   0.32   1.00  -0.28  -0.10   0.08  -0.17  -0.42  -0.56  -0.07   0.00   0.28   0.46   0.00  -€
   -0.37   0.22   0.30
A4  * -0.22  -0.63  -0.28   1.00   0.70   0.51   0.65  -0.46   0.63   0.44   0.00  -0.23  -0.62   0.27   0
    0.59   0.01  -0.05
A5  * -0.49  -0.88  -0.10   0.70   1.00  -0.11   0.74  -0.55   0.23   0.85   0.00  -0.12  -0.71  -€.42  -0
    0.81  -0.56  -0.55
A6  *  0.02   0.12   0.08   0.51  -0.11   1.00   0.28  -0.27   0.41  -0.08   0.00   0.18  -0.05   0.82   0
   -0.03   0.82   0.66
A7  * -0.46  -0.58  -0.17   0.65   0.74   0.28   1.00  -0.39   0.21   0.85   0.00   0.12  -0.63  -0.21   0
    0.92  -0.16  -0.24
A8  *  0.24   0.27  -0.42  -0.46  -0.55  -0.27  -0.39   1.00   0.07  -0.46   0.00  -0.22   0.18  -0.19   0
   -0.29  -0.12   0.00
A9  * -0.44  -0.47  -0.56   0.63   0.23   0.41   0.21   0.07   1.00   0.05   0.00  -0.57  -0.27   0.39   0
    0.29   0.01   0.27
A10 * -0.69  -0.78  -0.07   0.44   0.85  -0.08   0.85  -0.46   0.05   1.00   0.00   0.24  -0.71  -0.51  -0
    0.84  -0.44  -0.54
A11 *  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0
    0.00   0.00   0.00
A12 * -0.04   0.14   0.28  -0.23  -0.12   0.18   0.12  -0.22  -0.57   0.24   0.00   1.00  -0.27   0.00   0
   -0.15   0.43  -0.22
A13 *  0.44   0.81   0.46  -0.62  -0.71  -0.05  -0.63   0.18  -0.27  -0.71   0.00  -0.27   1.00   0.27   0
   -0.61   0.27   0.68
A14 *  0.21   0.40   0.00   0.27  -0.42   0.82  -0.21  -0.19   0.39  -0.51   0.00   0.00   0.27   1.00   0.
   -0.39   0.86   0.76
A15 * -0.08   0.09  -0.09   0.31  -0.24   0.83   0.24   0.22   0.53  -0.12   0.00   0.00   0.00   0.58   1.
    0.00   0.62   0.65
A16 * -0.53  -0.68  -0.37   0.59   0.81  -0.03   0.92  -0.29   0.29   0.84   0.00  -0.15  -0.61  -0.39   0.
    1.00  -0.47  -0.39
A17 *  0.30   0.57   0.22   0.01  -0.56   0.82  -0.16  -0.12   0.01  -0.44   0.00   0.43   0.27   0.86   0.
   -0.47   1.00   0.69
A18 *  0.19   0.57   0.30  -0.05  -0.55   0.66  -0.24   0.00   0.27  -0.54   0.00  -0.22   0.68   0.76   0.
   -0.39   0.69   1.00
```

Percentage of Variance for each Component
```
  *     C1     C2     C3     C4     C5     C6     C7
 *****************************************************
1  *  39.99  23.74  16.03   9.14   6.27   3.00   1.83
```

Construct Loadings on each Component
```
  *     C1     C2     C3     C4     C5     C6     C7
 *******************************************************
A1  *   3.641   0.335  -0.717  -2.375  -2.293   0.094   0.286
A2  *   4.258  -0.165   0.096  -0.583   0.611   0.956  -0.277
A3  *   2.323   1.462   1.121   2.708  -1.512  -0.895   0.542
A4  *  -1.634  -1.124   0.697  -0.248  -1.509   0.016  -0.341
A5  *  -1.403   0.312   0.009   0.369  -0.793   0.045  -0.207
A6  *   0.337  -2.141   2.577  -0.051  -0.665   0.263   0.143
A7  *  -1.139   0.070   0.613   0.237  -0.494   0.910   0.109
A8  *   0.345  -0.242  -0.809  -0.849   0.811   0.145   1.127
A9  *  -2.736  -4.560  -0.343  -0.017   0.286  -0.620   0.141
A10 *  -2.781   1.245   0.856   1.073  -0.343   0.844   0.020
A11 *   0.000   0.000   0.000   0.000   0.000   0.000   0.000
A12 *   0.506   2.806   3.738  -0.682   1.182  -0.177   0.014
```

```
A13 *   4.526 -0.969 -1.586  1.810  0.579  0.488 -0.296
A14 *   1.055 -2.030  1.331 -0.361 -0.093 -0.362 -0.851
A15 *   0.089 -1.696  1.223 -0.038  0.152  0.453  1.178
A16 *  -2.158  9.112 -6.008  0.354 -0.571  1.533 -0.171
A17 *   1.759 -1.254  2.423 -0.486  0.199 -0.031 -0.240
A18 *   2.180 -2.628  0.822  1.208  0.079  0.423  0.156
```

Element Loadings on each Component

```
     *    C1     C2     C3     C4     C5     C6     C7
 ****************************************************
E1 *  -0.149 -2.769 -2.511  3.398  0.342  0.046 -0.213
E2 *  -1.502 -1.895  2.895  0.125 -0.284 -1.819  0.567
E3 *  -3.018 -2.346  2.715 -0.812  1.150  1.370 -0.599
E4 *  -3.364  3.971 -1.757  0.465  2.126 -0.301  0.448
E5 *  -2.198  3.890  0.949  1.032 -2.442  0.376 -0.418
E6 *   5.742  1.025 -0.071 -0.872  0.590 -0.730 -1.241
E7 *   5.558  0.555  0.962  0.208 -0.014  0.987  1.249
E8 *  -1.069 -2.431 -3.182 -2.614 -1.467  0.071  0.205
```

Construct Correlations
```
   *      A1     A2     A3     A4     A5     A6     A7     A8     A9    A10    A11    A12    A13    A14
  A16    A17    A18    A19    A20    A21    A22    A23

**************************************************************************************************
*****************************************************
A1 *    1.00   0.88   0.75  -0.68   0.18  -0.43  -0.86   0.87  -0.77   0.57  -0.89  -0.87   0.11  -0.11  -0
  0.33   0.16   0.47   0.57   0.29  -0.70   0.23  -0.88
A2 *    0.88   1.00   0.63  -0.63   0.44  -0.27  -0.69   0.92  -0.45   0.60  -0.95  -0.67   0.06  -0.06  -0
  0.31  -0.04   0.23   0.64   0.35  -0.90   0.41  -0.77
A3 *    0.75   0.63   1.00  -0.90   0.05   0.06  -0.63   0.80  -0.61   0.58  -0.66  -0.81  -0.36   0.12  -0
  0.37   0.55   0.57   0.36  -0.03  -0.34  -0.04  -0.83
A4 *   -0.68  -0.63  -0.90   1.00  -0.15   0.06   0.57  -0.84   0.43  -0.72   0.57   0.68   0.46  -0.14   0
 -0.30  -0.49  -0.38  -0.32  -0.03   0.42  -0.11   0.81
A5 *    0.18   0.44   0.05  -0.15   1.00   0.33   0.31   0.45   0.47  -0.14  -0.41   0.21   0.25   0.69   0
  0.76  -0.21   0.31   0.83   0.39  -0.51   0.86  -0.25
A6 *   -0.43  -0.27   0.06   0.06   0.33   1.00   0.64  -0.20   0.55  -0.49   0.14   0.29  -0.20   0.58   0
  0.41   0.37   0.24   0.14  -0.32   0.37   0.14   0.32
A7 *   -0.86  -0.69  -0.63   0.57   0.31   0.64   1.00  -0.63   0.92  -0.68   0.68   0.90   0.00   0.52   0
  0.18  -0.13  -0.12  -0.08  -0.17   0.54   0.15   0.69
A8 *    0.87   0.92   0.80  -0.84   0.45  -0.20  -0.63   1.00  -0.44   0.64  -0.86  -0.65  -0.06   0.19  -0
  0.45   0.08   0.40   0.64   0.38  -0.80   0.38  -0.93
A9 *   -0.77  -0.45  -0.61   0.43   0.47   0.55   0.92  -0.44   1.00  -0.49   0.50   0.89   0.00   0.49   0
  0.10  -0.30  -0.34  -0.04   0.02   0.21   0.35   0.61
A10 *   0.57   0.60   0.58  -0.72  -0.14  -0.49  -0.68   0.64  -0.49   1.00  -0.40  -0.55  -0.60  -0.44  -0
 -0.17   0.20  -0.06   0.06  -0.13  -0.51  -0.24  -0.65
A11 *  -0.89  -0.95  -0.66   0.57  -0.41   0.14   0.68  -0.86   0.50  -0.40   1.00   0.74  -0.21  -0.01   0
 -0.37  -0.04  -0.34  -0.66  -0.36   0.82  -0.46   0.71
A12 *  -0.87  -0.67  -0.81   0.68   0.21   0.29   0.90  -0.65   0.89  -0.55   0.74   1.00   0.11   0.32   0
 -0.07  -0.47  -0.39  -0.22   0.02   0.42   0.08   0.69
A13 *   0.11   0.06  -0.36   0.46   0.25  -0.20   0.00  -0.06   0.00  -0.60  -0.21   0.11   1.00   0.21   0.
  0.11  -0.63   0.00   0.21   0.74  -0.22   0.49   0.11
A14 *  -0.11  -0.06   0.12  -0.14   0.69   0.58   0.52   0.19   0.49  -0.44  -0.01   0.32   0.21   1.00   0.
  0.75  -0.02   0.48   0.49   0.35   0.04   0.56  -0.15
A15 *  -0.55  -0.37  -0.27   0.24   0.46   0.71   0.76  -0.24   0.78  -0.67   0.28   0.62   0.26   0.79   1.
  0.28  -0.23  -0.06   0.02   0.31   0.20   0.42   0.38
A16 *   0.33   0.31   0.37  -0.30   0.76   0.41   0.18   0.45   0.10  -0.17  -0.37  -0.07   0.11   0.75   0.
  1.00   0.25   0.84   0.88   0.08  -0.14   0.56  -0.45
A17 *   0.16  -0.04   0.55  -0.49  -0.21   0.37  -0.13   0.08  -0.30   0.20  -0.04  -0.47  -0.63  -0.02  -0.
  0.25   1.00   0.52   0.04  -0.73   0.32  -0.73  -0.16
A18 *   0.47   0.23   0.57  -0.38   0.31   0.24  -0.12   0.40  -0.34  -0.06  -0.34  -0.39   0.00   0.48  -0.
  0.84   0.52   1.00   0.68  -0.13   0.09   0.15  -0.56
A19 *   0.57   0.64   0.36  -0.32   0.14  -0.08   0.64  -0.04   0.06  -0.66  -0.22   0.21   0.49   0.
  0.88   0.04   0.68   1.00   0.22  -0.52   0.66  -0.57
A20 *   0.29   0.35  -0.03  -0.03   0.39  -0.32  -0.17   0.38   0.02  -0.13  -0.36   0.02   0.74   0.35   0.
  0.08  -0.73  -0.13   0.22   1.00  -0.57   0.54  -0.29
A21 *  -0.70  -0.90  -0.34   0.48  -0.51   0.37   0.54  -0.80   0.21  -0.51   0.82   0.42  -0.22   0.04   0.
 -0.14   0.32   0.09  -0.52   0.57   1.00  -0.60   0.57
A22 *   0.23   0.41  -0.04  -0.11   0.86   0.14   0.15   0.38   0.35  -0.24  -0.46   0.08   0.49   0.56   0.
  0.56  -0.23   0.15   0.66   0.54  -0.60   1.00  -0.13
A23 *  -0.88  -0.77  -0.83   0.81  -0.25   0.32   0.69  -0.93   0.61  -0.65   0.71   0.69   0.11  -0.15   0.
 -0.45  -0.16  -0.56  -0.57  -0.29   0.57  -0.13   1.00
```

Percentage of Variance for each Component
```
   *     C1     C2     C3     C4     C5     C6     C7
 *********************************************************
 1 *   45.51  26.03  13.24   5.98   4.91   2.82   1.49
```

Construct Loadings on each Component
```
   *     C1     C2     C3     C4     C5     C6     C7
 **********************************************************
A1 *   3.786 -1.308  0.007  0.813 -0.318  0.005 -0.252
A2 *   4.382 -0.689  0.708 -0.856 -0.360 -0.151  0.661
A3 *   2.012 -0.890 -1.346  0.189  0.796 -0.724  0.173
```

```
A4  *  -1.331   0.493   0.    .   0.373  -0.743   0.348   0.435
A5  *   1.798   2.721  -'  346  -1.025  -0.366   0.405   0.123
A6  *  -0.478   1.18     .187  -0.380  -0.024  -1.039   0.776
A7  *  -1.802   2.01    .495  -0.609  -0.014   0.223   0.210
A8  *   4.305  -0.3    i.264  -0.514   1.008   0.039   0.025
A9  *  -1.446   2.     0.173  -1.486   0.264   0.085   0.152
A10 *   1.565  -2.092  -0.224  -1.380   0.758   0.658  -0.298
A11 *  -3.895   0.334  -0.482  -0.026   0.716   0.975  -0.723
A12 *  -1.849   1.616   0.408  -0.640   0.251   0.897   0.162
A13 *   0.434   1.538   2.177   2.041  -0.714  -0.119   0.131
A14 *   0.861   4.109  -1.507   0.599   1.603  -0.206  -0.102
A15 *  -0.743   2.345  -0.015  -0.108  -0.385
A16 *   2.113   2.459  -2.107   0.515  -0.569   0.577  -0.005
A17 *   0.136  -0.792  -2.271  -0.124  -0.459  -0.997  -0.689
A18 *   1.335   0.567  -1.987   1.284  -0.424   0.338  -0.083
A19 *   3.172   1.938  -0.958  -0.070  -1.317   0.955   0.338
A20 *   1.702   1.57    2.791   1.161   1.530   0.090  -0.062
A21 *  -3.231  -0.016  -1.873   1.240   0.038   0.093   0.091
A22 *   2.347   3.390   1.210  -0.707  -0.924  -0.715  -1.292
A23 *  -3.608   0.871   0.860  -0.536  -1.181  -0.822   0.064
```

Element Loadings on each Component
```
    *      C1      C2      C3      C4      CS      C6      C7
***********************************************************
E1  *  -3.552   6.334  -0.198   0.682  -1.497   0.707   0.403
E2  *   0.738   3.086  -1.033  -2.861   1.792  -0.492  -0.334
E3  *  -4.602  -2.403  -0.354  -0.081  -1.519  -1.082  -1.256
E4  *  -3.346  -2.391  -0.567   0.434   0.631  -1.282   1.473
E5  *  -3.994  -2.555   0.453   0.736   1.740   1.880  -0.313
E6  *   3.439  -0.945   5.254  -0.865  -0.719   0.086   0.211
E7  *   5.790   1.606  -0.311   2.712   1.016  -0.748  -0.490
E8  *   5.527  -2.731  -3.243  -0.756  -1.444   0.931   0.306
```

GRID 6

Construct Correlations

| * | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 | A13 | A14 | A15 | A16 | A17 | A18 | A19 | A20 | A21 | A22 | A23 |
|---|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A1 * | 1.00 | 0.85 | 1.00 | 0.63 | -0.93 | 0.95 | 0.77 | 0.83 | -0.13 | 0.95 | 0.79 | -0.86 | 0.98 | 0.96 | 0. | 0.95 | 0.56 | 0.67 | 0.90 | 0.75 | -0.90 | 0.67 | -0.94 |
| A2 * | 0.85 | 1.00 | 0.85 | 0.46 | -0.96 | 0.94 | 0.70 | 0.87 | -0.02 | 0.94 | 0.88 | -0.79 | 0.89 | 0.93 | 0. | 0.81 | 0.63 | 0.94 | 0.93 | 0.74 | -0.65 | 0.94 | -0.85 |
| A3 * | 1.00 | 0.85 | 1.00 | 0.63 | -0.93 | 0.95 | 0.77 | 0.83 | -0.13 | 0.95 | 0.79 | -0.86 | 0.98 | 0.96 | 0. | 0.95 | 0.56 | 0.67 | 0.90 | 0.75 | -0.90 | 0.67 | -0.94 |
| A4 * | 0.63 | 0.46 | 0.63 | 1.00 | -0.48 | 0.49 | 0.65 | 0.39 | -0.36 | 0.49 | 0.39 | -0.47 | 0.48 | 0.54 | 0. | 0.60 | 0.10 | 0.38 | 0.55 | 0.50 | -0.46 | 0.38 | -0.46 |
| A5 * | -0.93 | -0.96 | -0.93 | -0.48 | 1.00 | -0.98 | -0.73 | -0.91 | 0.09 | -0.98 | -0.86 | 0.90 | -0.96 | -0.96 | -0. | -0.89 | -0.71 | -0.84 | -0.96 | -0.81 | 0.76 | -0.84 | 0.96 |
| A6 * | 0.95 | 0.94 | 0.95 | 0.49 | -0.98 | 1.00 | 0.75 | 0.81 | -0.17 | 1.00 | 0.81 | -0.82 | 0.98 | 0.95 | 0. | 0.90 | 0.57 | 0.77 | 0.92 | 0.70 | -0.78 | 0.77 | -0.94 |
| A7 * | 0.77 | 0.70 | 0.77 | 0.65 | -0.73 | 0.75 | 1.00 | 0.60 | 0.08 | 0.75 | 0.82 | -0.73 | 0.73 | 0.65 | 0. | 0.55 | 0.56 | 0.58 | 0.84 | 0.76 | -0.52 | 0.58 | -0.70 |
| A8 * | 0.83 | 0.87 | 0.83 | 0.39 | -0.91 | 0.81 | 0.60 | 1.00 | 0.20 | 0.81 | 0.89 | -0.91 | 0.85 | 0.90 | 0. | 0.79 | 0.83 | 0.83 | 0.91 | 0.89 | -0.75 | 0.83 | -0.87 |
| A9 * | -0.13 | -0.02 | -0.13 | -0.36 | 0.09 | -0.17 | 0.08 | 0.20 | 1.00 | -0.17 | 0.37 | 0.01 | -0.09 | -0.11 | -0. | -0.30 | 0.35 | 0.13 | 0.03 | 0.16 | 0.00 | 0.13 | 0.16 |
| A10 * | 0.95 | 0.94 | 0.95 | 0.49 | -0.98 | 1.00 | 0.75 | 0.81 | -0.17 | 1.00 | 0.81 | -0.82 | 0.98 | 0.95 | 0. | 0.90 | 0.57 | 0.77 | 0.92 | 0.70 | -0.78 | 0.77 | -0.94 |
| A11 * | 0.79 | 0.88 | 0.79 | 0.39 | -0.86 | 0.81 | 0.82 | 0.89 | 0.37 | 0.81 | 1.00 | -0.82 | 0.81 | 0.81 | 0. | 0.63 | 0.80 | 0.85 | 0.93 | 0.86 | -0.63 | 0.85 | -0.78 |
| A12 * | -0.86 | -0.79 | -0.86 | -0.47 | 0.90 | -0.82 | -0.73 | -0.91 | 0.01 | -0.82 | -0.82 | 1.00 | -0.86 | -0.84 | -0. | -0.77 | -0.87 | -0.67 | -0.94 | -0.96 | 0.71 | -0.67 | 0.95 |
| A13 * | 0.98 | 0.89 | 0.98 | 0.48 | -0.96 | 0.98 | 0.73 | 0.85 | -0.09 | 0.98 | 0.81 | -0.86 | 1.00 | 0.96 | 0. | 0.93 | 0.61 | 0.70 | 0.91 | 0.73 | -0.89 | 0.70 | -0.96 |
| A14 * | 0.96 | 0.93 | 0.96 | 0.54 | -0.96 | 0.95 | 0.65 | 0.90 | -0.11 | 0.95 | 0.81 | -0.84 | 0.96 | 1.00 | 0. | 0.96 | 0.58 | 0.80 | 0.90 | 0.73 | -0.87 | 0.80 | -0.93 |
| A15 * | 0.98 | 0.92 | 0.98 | 0.64 | -0.96 | 0.94 | 0.77 | 0.91 | -0.04 | 0.94 | 0.87 | -0.87 | 0.96 | 0.98 | 1.' | 0.93 | 0.62 | 0.80 | 0.94 | 0.80 | -0.86 | 0.80 | -0.92 |
| A16 * | 0.95 | 0.81 | 0.95 | 0.60 | -0.89 | 0.90 | 0.55 | 0.79 | -0.30 | 0.90 | 0.63 | -0.77 | 0.93 | 0.96 | 0. | 1.00 | 0.42 | 0.63 | 0.79 | 0.61 | -0.91 | 0.63 | -0.90 |
| A17 * | 0.56 | 0.63 | 0.56 | 0.10 | -0.71 | 0.57 | 0.56 | 0.83 | 0.35 | 0.57 | 0.80 | -0.87 | 0.61 | 0.58 | 0. | 0.42 | 1.00 | 0.62 | 0.80 | 0.91 | -0.43 | 0.62 | -0.73 |
| A18 * | 0.67 | 0.94 | 0.67 | 0.38 | -0.84 | 0.77 | 0.58 | 0.83 | 0.13 | 0.77 | 0.85 | -0.67 | 0.70 | 0.80 | 0. | 0.63 | 0.62 | 1.00 | 0.83 | 0.70 | -0.45 | 1.00 | -0.67 |
| A19 * | 0.90 | 0.90 | 0.90 | 0.55 | -0.96 | 0.92 | 0.84 | 0.91 | 0.03 | 0.92 | 0.93 | -0.94 | 0.91 | 0.90 | 0.' | 0.79 | 0.80 | 0.83 | 1.00 | 0.92 | -0.69 | 0.83 | -0.93 |
| A20 * | 0.75 | 0.74 | 0.75 | 0.50 | -0.81 | 0.70 | 0.76 | 0.89 | 0.16 | 0.70 | 0.86 | -0.96 | 0.73 | 0.73 | 0.. | 0.61 | 0.91 | 0.70 | 0.92 | 1.00 | -0.56 | 0.70 | -0.82 |
| A21 * | -0.90 | -0.65 | -0.90 | -0.46 | 0.76 | -0.78 | -0.52 | -0.75 | 0.00 | -0.78 | -0.63 | 0.71 | -0.89 | -0.87 | -0. | -0.91 | -0.43 | -0.45 | -0.69 | -0.56 | 1.00 | -0.45 | 0.81 |
| A22 * | 0.67 | 0.94 | 0.67 | 0.38 | -0.84 | 0.77 | 0.58 | 0.83 | 0.13 | 0.77 | 0.85 | -0.67 | 0.70 | 0.80 | 0.' | 0.63 | 0.62 | 1.00 | 0.83 | 0.70 | -0.45 | 1.00 | -0.67 |
| A23 * | -0.94 | -0.85 | -0.94 | -0.46 | 0.96 | -0.94 | -0.70 | -0.87 | 0.16 | -0.94 | -0.78 | 0.95 | -0.96 | -0.93 | -0.' | -0.90 | -0.73 | -0.67 | -0.93 | -0.82 | 0.81 | -0.67 | 1.00 |

Percentage of Variance for each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 |
|---|----|----|----|----|----|----|
| 1 * | 76.80 | 9.61 | 4.60 | 3.93 | 3.22 | 1.84 |

Construct Loadings on each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 |
|---|----|----|----|----|----|----|
| A1 * | 4.089 | -0.800 | -0.625 | -0.187 | -0.467 | -0.000 |
| A2 * | 4.956 | 0.414 | 1.637 | -0.187 | -0.122 | -0.205 |

```
A3  *    4.089 -0.800 -0.625 -0.187 -0.467 -0.000
A4  o    2.067 -1.333 -0.152  1.854 -1.570  1.423
A5  *   -4.995  0.086 -0.464  0.114 -0.479  0.288
A6  *    3.961 -0.609  0.405 -0.233 -0.054 -0.768
A7  *    3.819  0.576 -0.746  2.090 -1.649 -1.199
A8  *    3.122  0.871 -0.114 -0.391  0.452  0.790
A9  *   -0.213  4.700 -1.119 -1.455 -1.412  0.013
A10 *    5.282 -0.811  0.540 -0.311 -0.073 -1.024
A11 *'   3.318  1.582  0.040  0.133 -0.538 -0.236
A12 *   -4.382 -0.487  1.106 -0.758 -1.237 -0.322
A13 *    4.892 -0.670 -0.452 -0.728 -0.093 -0.612
A14 *    4.291 -0.534  0.245 -0.725 -0.098  0.453
A15 *    3.925 -0.187 -0.076 -0.125 -0.492  0.409
A16 *    4.016 -1.624 -0.155 -0.846 -0.053  0.699
A17 *    2.820  2.113 -0.803  0.493  1.603 -0.023
A18 *    4.629  1.639  2.734 -0.063 -0.172  0.614
A19 *    3.309  0.464  0.008  0.564  0.103 -0.075
A20 *    3.854  1.446 -0.879  1.420  0.818  0.688
A21 *   -3.798  0.976  1.663  1.757  0.689 -0.541
A22 *    2.315  0.819  1.367 -0.031 -0.086  0.307
A23 *   -5.035  0.585  0.709  0.040 -1.080  0.371
```

Element Loadings on each Component

```
      *     C1     C2     C3     C4     C5     C6
   ****************************************************
E1 *  -3.094  4.110  2.544  0.267 -0.097  1.203
E2 *  -2.343  0.759 -2.896  0.581  2.238  0.960
E3 *  -7.278 -1.850  0.715  0.928  0.122 -0.831
E4 *  -7.278 -1.850  0.715  0.928  0.122 -0.831
E5 *  -5.048  0.193 -1.705 -2.370 -2.316  0.251
E6 *   9.802 -2.236 -0.176  1.988 -1.524  1.045
E7 *   6.935 -2.327  1.491 -2.575  1.530  0.128
E8 *   8.305  3.202 -0.690  0.253 -0.077 -1.925
```

Construct Correlations

| * | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 | A13 | A14 |
|---|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|
|   | A15 | A16 | A17 | A18 | A19 | A20 | A21 | A22 | | | | | | |

```
*************************************************************************
*************************************************
A1 *  1.00  0.84  0.94  0.93  0.79  0.87 -0.92 -0.77  0.53 -0.97  0.89  0.84  0.71  0.82
   0.84 -0.85 -0.87 -0.89 -0.96  0.92 -0.97 -0.96
A2 *  0.84  1.00  0.73  0.73  0.87  0.74 -0.88 -0.92  0.74 -0.86  0.70  0.54  0.56  0.62
   0.76 -0.69 -0.84 -0.78 -0.68  0.92 -0.86 -0.81
A3 *  0.94  0.73  1.00  0.99  0.75  0.84 -0.80 -0.66  0.45 -0.97  0.97  0.92  0.83  0.90
   0.91 -0.96 -0.92 -0.91 -0.94  0.87 -0.97 -0.95
A4 *  0.93  0.73  0.99  1.00  0.80  0.88 -0.76 -0.68  0.53 -0.97  0.96  0.89  0.77  0.85
   0.90 -0.94 -0.90 -0.87 -0.94  0.84 -0.97 -0.92
A5 *  0.79  0.87  0.75  0.80  1.00  0.84 -0.65 -0.88  0.88 -0.84  0.70  0.54  0.40  0.51
   0.73 -0.66 -0.75 -0.64 -0.72  0.73 -0.84 -0.70
A6 *  0.87  0.74  0.84  0.88  0.84  1.00 -0.73 -0.69  0.75 -0.85  0.77  0.74  0.45  0.61
   0.69 -0.70 -0.69 -0.66 -0.90  0.74 -0.85 -0.75
A7 * -0.92 -0.88 -0.80 -0.76 -0.65 -0.73  1.00  0.73 -0.44  0.87 -0.76 -0.70 -0.69 -0.76
  -0.76  0.74  0.81  0.87  0.82 -0.97  0.87  0.91
A8 * -0.77 -0.92 -0.66 -0.68 -0.88 -0.69  0.73  1.00 -0.78  0.81 -0.68 -0.56 -0.51 -0.60
  -0.67  0.64  0.80  0.75  0.60 -0.80  0.81  0.74
A9 *  0.53  0.74  0.45  0.53  0.88  0.75 -0.44 -0.78  1.00 -0.57  0.41  0.28  0.09  0.20
   0.42 -0.36 -0.48 -0.34 -0.45  0.51 -0.57 -0.40
A10 * -0.97 -0.86 -0.97 -0.97 -0.84 -0.85  0.87  0.81 -0.57  1.00 -0.95 -0.87 -0.80 -0.87
  -0.90  0.93  0.95  0.93  0.91 -0.93  1.00  0.97
A11 *  0.89  0.70  0.97  0.96  0.70  0.77 -0.76 -0.68  0.41 -0.95  1.00  0.91  0.87  0.96
   0.95 -0.97 -0.93 -0.95 -0.87  0.85 -0.95 -0.94
A12 *  0.84  0.54  0.92  0.89  0.54  0.74 -0.70 -0.56  0.28 -0.87  0.91  1.00  0.85  0.89
   0.73 -0.91 -0.84 -0.87 -0.85  0.76 -0.87 -0.90
A13 *  0.71  0.56  0.83  0.77  0.40  0.45 -0.69 -0.51  0.09 -0.80  0.87  0.85  1.00  0.94
   0.80 -0.94 -0.90 -0.91 -0.64  0.80 -0.80 -0.88
A14 *  0.82  0.62  0.90  0.85  0.51  0.61 -0.76 -0.60  0.20 -0.87  0.96  0.89  0.94  1.00
   0.90 -0.94 -0.90 -0.97 -0.77  0.84 -0.87 -0.92
A15 *  0.84  0.76  0.91  0.90  0.73  0.69 -0.76 -0.67  0.42 -0.90  0.95 -0.73  0.80  0.90
   1.00 -0.90 -0.90 -0.90 -0.80  0.86 -0.90 -0.88
A16 * -0.85 -0.69 -0.96 -0.94 -0.66 -0.70  0.74  0.64 -0.36  0.93 -0.97 -0.91 -0.94 -0.94
  -0.90  1.00  0.96  0.93  0.81 -0.86  0.93  0.94
A17 * -0.87 -0.84 -0.92 -0.90 -0.75 -0.69  0.81  0.80 -0.48  0.95 -0.93 -0.84 -0.90 -0.90
  -0.90  0.96  1.00  0.95  0.76 -0.93  0.95  0.96
A18 * -0.89 -0.78 -0.91 -0.87 -0.64 -0.66  0.87  0.75 -0.34  0.93 -0.95 -0.87 -0.91 -0.97
  -0.90  0.93  0.95  1.00  0.80 -0.93  0.93  0.97
A19 * -0.96 -0.68 -0.94 -0.94 -0.72 -0.90  0.82  0.60 -0.45  0.91 -0.87 -0.85 -0.64 -0.77
  -0.80  0.81  0.76  0.80  1.00 -0.80  0.91  0.88
A20 *  0.92  0.92  0.87  0.84  0.73  0.74 -0.97 -0.80  0.51 -0.93  0.85  0.76  0.80  0.84
   0.86 -0.86 -0.93 -0.93 -0.80  1.00 -0.93 -0.95
A21 * -0.97 -0.86 -0.97 -0.97 -0.84 -0.85  0.87  0.81 -0.57  1.00 -0.95 -0.87 -0.80 -0.87
  -0.90  0.93  0.95  0.93  0.91 -0.93  1.00  0.97
A22 * -0.96 -0.81 -0.95 -0.92 -0.70 -0.75  0.91  0.74 -0.40  0.97 -0.94 -0.90 -0.88 -0.92
  -0.88  0.94  0.96  0.97  0.88 -0.95  0.97  1.00
```

Percentage of Variance for each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|----|----|----|----|----|----|----|
| 1 * | 83.51 | 8.47 | 3.57 | 2.32 | 1.03 | 0.63 | 0.47 |

Construct Loadings on each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|----|----|----|----|----|----|----|
| A1 * | 3.322 | 0.035 | 0.233 | 0.771 | -0.189 | 0.224 | -0.322 |
| A2 * | 3.143 | 1.412 | -0.822 | 0.307 | 0.416 | -0.225 | 0.100 |
| A3 * | 3.828 | -0.737 | 0.808 | 0.009 | 0.069 | -0.112 | -0.086 |
| A4 * | 2.496 | -0.281 | 0.737 | -0.074 | 0.111 | -0.066 | -0.050 |
| A5 * | 3.286 | 1.976 | 0.871 | -0.451 | 0.335 | -0.012 | -0.312 |
| A6 * | 2.366 | 0.612 | 1.166 | 0.614 | -0.202 | -0.016 | 0.499 |
| A7 * | -3.010 | -0.102 | 0.867 | -1.288 | -0.086 | -0.037 | -0.111 |

```
A8  * -3.834 -2.184  0.897  0.763  0.722 -0.348  0.065
A9  *  1.336  1.747  0.547 -0.209 -0.024 -0.257  0.504
A10 * -3.726  0.011 -0.247 -0.021 -0.008  0.088  0.219
A11 *  3.486 -0.869  0.399 -3.474  0.106  0.349  0.269
A12 *  2.256 -0.937  0.429 -0.010 -0.820 -0.170  0.144
A13 *  1.905 -1.133 -0.507 -0.424 -0.038 -0.383  0.047
A14 *  2.323 -1.044 -0.265 -3.316 -0.047  0.370  0.284
A15 *  2.562 -0.388  0.042 -0.380  0.884  0.473  0.090
A16 * -3.069  0.958 -0.158  0.582 -0.114  0.403 -0.032
A17 * -2.967  0.232  0.404  0.571 -0.053  0.379  0.101
A18 * -3.553  0.774  0.755  0.220  0.149 -0.348 -0.115
A19 * -2.092  0.235 -0.723 -0.676  0.087 -0.245  0.153
A20 *  3.414  0.055 -0.853  0.538  0.283 -0.275  0.213
A21 * -3.726  0.011 -0.247 -0.021 -0.008  0.088  0.219
A22 * -3.895  0.642  0.346 -0.264  0.186  0.113  0.239
```

Element Loadings on each Component

```
    *    C1     C2     C3     C4     C5     C6     C7
*********************************************************
E1 *  6.003  0.408  0.718  0.259 -0.013  0.939  0.256
E2 *  4.906  0.603  1.215  1.158 -0.058 -0.575 -0.384
E3 * -1.406  3.320 -1.669  0.028 -0.097  0.031 -0.145
E4 *  2.425 -2.884 -1.761  0.580 -0.309 -0.032 -0.022
E5 *  5.805 -0.212  0.042 -1.797  0.314 -0.389  0.111
E6 * -5.864 -0.116  0.848 -0.426 -1.173 -0.098  0.232
E7 * -6.367 -0.989  0.443 -0.431  0.493  0.357 -0.684
E8 * -5.443 -0.130  0.164  0.628  0.843 -0.233  0.635
```

PrinCom Calculation  24-Oct-94  13:28:59
PrinCom Output        24-Oct-94  13:29:01

Construct Correlations
```
     *    A1     A2    A3     A4     A5     A6     A7     A8     A9    A10    A11    A12    A13    A14
    A16   A17    A18
```
**************************************************************************************************
*****************
```
A1  *   1.00  -0.70  -0.50  -0.70   0.68  -0.40   0.21   0.16  -0.61  -0.25  -0.12  -0.46  -0.49  -0.38  -0
   -0.46  -0.71   0.43
A2  *  -0.70   1.00   0.87   0.92  -0.94   0.74   0.19  -0.31   0.88   0.68   0.48   0.49   0.75   0.55   0
    0.60   0.77  -0.67
A3  *  -0.50   0.87   1.00   0.85  -0.68   0.85   0.48  -0.58   0.82   0.55   0.78   0.50   0.93   0.83   0
    0.69   0.68  -0.65
A4  *  -0.70   0.92   0.85   1.00  -0.83   0.61   0.31  -0.38   0.92   0.35   0.54   0.47   0.68   0.51   0
    0.52   0.56  -0.45
A5  *   0.68  -0.94  -0.68  -0.83   1.00  -0.57   0.07   0.03  -0.89  -0.62  -0.17  -0.57  -0.53  -0.26  -0
   -0.50  -0.66   0.59
A6  *  -0.40   0.74   0.85   0.61  -0.57   1.00   0.24  -0.68   0.59   0.68   0.68   0.31   0.93   0.84   0.
    0.89   0.84  -0.93
A7  *   0.21   0.19   0.48   0.31   0.07   0.24   1.00  -0.49   0.11   0.11   0.84  -0.27   0.41   0.48  -0.
   -0.06  -0.07   0.10
A8  *   0.16  -0.31  -0.58  -0.38   0.03  -0.68  -0.49   1.00  -0.18  -0.23  -0.73   0.14  -0.70  -0.78  -0.
   -0.52  -0.47   0.50
A9  *  -0.61   0.88   0.82   0.92  -0.89   0.59   0.11  -0.18   1.00   0.35   0.35   0.73   0.61   0.41   0.
    0.56   0.50  -0.47
A10 *  -0.25   0.68   0.55   0.35  -0.62   0.68   0.11  -0.23   0.35   1.00   0.32   0.14   0.62   0.46   0.
    0.41   0.76  -0.74
A11 *  -0.12   0.48   0.78   0.54  -0.17   0.68   0.84  -0.73   0.35   0.32   1.00  -0.04   0.79   0.82   0.
    0.47   0.38  -0.38
A12 *  -0.46   0.49   0.50   0.47  -0.57   0.31  -0.27   0.14   0.73   0.14  -0.04   1.00   0.38   0.27   0..
    0.41   0.33  -0.28
A13 *  -0.49   0.75   0.93   0.68  -0.53   0.93   0.41  -0.70   0.61   0.62   0.79   0.38   1.00   0.96   0.:
    0.77   0.81  -0.77
A14 *  -0.38   0.55   0.83   0.51  -0.26   0.84   0.48  -0.78   0.41   0.46   0.82   0.27   0.96   1.00   0.;
    0.69   0.71  -0.64
A15 *  -0.53   0.60   0.69   0.51  -0.47   0.91  -0.07  -0.65   0.52   0.46   0.46   0.39   0.82   0.76   1.(
    0.96   0.84  -0.91
A16 *  -0.46   0.60   0.69   0.52  -0.50   0.89  -0.06  -0.52   0.56   0.41   0.47   0.41   0.77   0.69   0.!
    1.00   0.75  -0.89
A17 *  -0.71   0.77   0.68   0.56  -0.66   0.84  -0.07  -0.47   0.50   0.76   0.38   0.33   0.81   0.71   0.8
    0.75   1.00  -0.90
A18 *   0.43  -0.67  -0.65  -0.45   0.59  -0.93   0.10   0.50  -0.47  -0.74  -0.38  -0.28  -0.77  -0.64  -0.!
   -0.89  -0.90   1.00
```

Percentage of Variance for each Component
```
    *     C1     C2     C3     C4     C5     C6     C7
   ****************************************************
 1  *  59.80  15.84  10.17   6.36   4.17   2.61   1.04
```

Construct Loadings on each Component
```
    *     C1      C2      C3      C4      C5      C6      C7
   *************************************************************
A1  *  -2.934   2.175  -0.095  -0.999   2.511  -0.877  -0.279
A2  *   3.591  -1.190  -0.590  -1.034  -0.464  -0.229  -0.011
A3  *   3.261   0.228  -1.054  -0.150   0.384   0.174  -0.033
A4  *   3.429  -1.167  -1.893  -0.136  -0.833  -0.662  -0.154
A5  *  -2.679   2.053   0.217   1.069   0.181   0.507  -0.005
A6  *   3.968   0.975   0.753  -0.005   0.575  -0.504   0.160
A7  *   0.773   2.112  -2.212  -0.939  -0.015   0.189   0.076
A8  *  -2.365  -2.576   0.166  -0.972   0.670   0.673   1.378
A9  *   4.385  -2.716  -2.052   0.024   0.748  -0.769  -0.177
A10 *   3.269   0.145   1.828  -3.202   0.366   0.578  -0.323
A11 *   3.247   3.052  -2.079  -0.260  -0.011   0.081   0.787
A12 *   2.074  -2.688  -0.518   1.214   1.951   1.304  -0.317
```

```
A13 *   4.399   1.190  -0.162   0.175   0.261   0.777  -0.023
A14 *   3.579   1.957  -0.218   0.782   0.128   1.245  -0.088
A15 *   4.101   0.472   1.634   1.669   0.231  -0.568  -0.003
A16 *   2.601   0.155   0.868   1.026   0.503  -0.684   0.747
A17 *   3.703  -0.175   1.734  -0.228  -0.909   0.612  -0.003
A18 *  -3.762  -0.262  -2.241   0.132  -0.386   0.735  -0.223
```

Element Loadings on each Component

```
     *     C1      C2      C3      C4      C5      C6      C7
     ****************************************************
E1  *  -6.811  -0.373   0.873   1.762   2.363   0.820  -0.041
E2  *   3.029  -0.246  -3.105  -2.656   0.990   1.140   0.015
E3  *   7.406  -0.007   0.838   1.211   0.265  -0.265   1.325
E4  *  -0.821   1.170   1.078   0.650  -2.371   1.840  -0.152
E5  *   7.350   0.577   1.284   0.558   0.544  -0.616  -1.288
E6  *  -2.217  -5.283  -2.019   0.915  -1.098   0.829  -0.134
E7  *  -3.917  -0.646   3.329  -2.840  -0.205  -0.817   0.205
E8  *  -4.009   4.808  -2.277   0.401  -0.488  -1.273   0.071
```

Construct Correlations

```
   *    A1     A2     A3     A4     A5     A6     A7     A8     A9    A10    A11    A12    A13    A14    /
  A16   A17    A18    A19    A20    A21    A22    A23    A24    A25    A26    A27    A28    A29    A30

**************************************************************************************************
**************************************************************************************
A1  *  1.00   0.75   0.94,  0.58  -0.96  -0.95  -0.83  -0.90  -0.95  -0.75   0.42  -0.58   0.42  -0.76  -0.
  -0.63  -0.83  -0.74  -0.92  -0.98  -0.94  -0.92  -0.90  -0.89  -0.53  -0.97  -0.96  -0.85  -0.80  -0.75
A2  *  0.75   1.00   0.76   0.84  -0.67  -0.70  -0.82  -0.84  -0.75  -0.57   0.52  -0.43   0.46  -0.35  -0.
  -0.66  -0.87  -0.66  -0.61  -0.80  -0.82  -0.84  -0.72  -0.53  -0.62  -0.62  -0.62  -0.86  -0.94  -0.89
A3  *  0.94   0.76   1.00   0.58  -0.88  -0.93  -0.82  -0.84  -0.93  -0.76   0.25  -0.53   0.66  -0.72  -0.
  -0.71  -0.79  -0.60  -0.79  -0.94  -0.88  -0.87  -0.85  -0.37  -0.81  -0.93  -0.85  -0.90  -0.85  -0.85
A4  *  0.58   0.84   0.58   1.00  -0.62  -0.60  -0.58  -0.82  -0.63  -0.31   0.68  -0.21   0.41   0.00  -0.
  -0.71  -0.80  -0.83  -0.61  -0.68  -0.79  -0.78  -0.73  -0.53  -0.86  -0.46  -0.51  -0.79  -0.75  -0.74
A5  * -0.96  -0.67  -0.88  -0.62   1.00   0.95   0.66   0.90   0.97   0.62  -0.53   0.46  -0.44   0.60   0.
   0.56   0.86   0.81   0.92   0.96   0.96   0.95   0.95   0.89   0.62   0.95   0.91   0.76   0.72   0.67
A6  * -0.95  -0.70  -0.93  -0.60   0.95   1.00   0.75   0.92   0.97   0.79  -0.32   0.62  -0.49   0.60   0.
   0.51   0.78   0.75   0.89   0.98   0.95   0.90   0.97   0.94   0.51   0.97   0.88   0.77   0.71   0.66
A7  * -0.83  -0.82  -0.82  -0.58   0.66   0.75   1.00   0.82   0.69   0.84  -0.22   0.69  -0.25   0.70   0.
   0.63   0.63   0.60   0.75   0.83   0.78   0.71   0.67   0.71   0.43   0.75   0.82   0.85   0.80   0.75
A8  * -0.90  -0.84  -0.84  -0.82   0.90   0.92   0.82   1.00   0.89   0.71  -0.52   0.58  -0.36   0.45   0.
   0.62   0.84   0.90   0.91   0.96   0.98   0.96   0.89   0.93   0.85   0.87   0.84   0.78   0.72
A9  * -0.95  -0.75  -0.93  -0.63   0.97   0.97   0.69   0.89   1.00   0.67  -0.44   0.49  -0.58   0.58   0.
   0.56   0.89   0.72   0.83   0.97   0.95   0.96   0.95   0.84   0.52   0.95   0.84   0.79   0.79   0.75
A10 * -0.75  -0.57  -0.76  -0.31   0.62   0.79   0.84   0.71   0.67   1.00   0.08   0.93  -0.25   0.66   0.
   0.29   0.41   0.43   0.67   0.76   0.67   0.56   0.67   0.77   0.15   0.78   0.73   0.59   0.53   0.48
A11 *  0.42   0.52   0.25   0.68  -0.53  -0.32  -0.22  -0.52  -0.44   0.08   1.00   0.03   0.00   0.00  -0.
  -0.44  -0.74  -0.74  -0.51  -0.44  -0.57  -0.66  -0.48  -0.28  -0.87  -0.27  -0.41  -0.45  -0.49  -0.42
A12 * -0.58  -0.43  -0.53  -0.21   0.46   0.62   0.69   0.58   0.49   0.93   0.03   1.00   0.00   0.51   0.
   0.10   0.26   0.38   0.56   0.59   0.52   0.41   0.53   0.65   0.15   0.60   0.60   0.38   0.34   0.25
A13 *  0.42   0.46   0.66   0.41  -0.44  -0.49  -0.25  -0.36  -0.58  -0.25   0.00   0.00   1.00  -0.19  -0.
  -0.58  -0.51  -0.11  -0.17  -0.46  -0.42  -0.48  -0.45   0.00  -0.45  -0.21  -0.59  -0.61  -0.71
A14 * -0.76  -0.35  -0.72   0.00   0.60   0.60   0.70   0.45   0.58   0.66   0.00   0.51  -0.19   1.00   0.
   0.44   0.39   0.24   0.63   0.63   0.51   0.48   0.42   0.59   0.00   0.76   0.79   0.57   0.52   0.48
A15 * -0.96  -0.81  -0.93  -0.68   0.91   0.97   0.89   0.97   0.92   0.83  -0.35   0.67  -0.42   0.63   1.
   0.60   0.79   0.78   0.90   0.99   0.96   0.90   0.93   0.92   0.57   0.93   0.91   0.85   0.79   0.74
A16 * -0.63  -0.66  -0.71  -0.71   0.56   0.51   0.63   0.62   0.56   0.29  -0.44   0.10  -0.58   0.44   0.
   1.00   0.65   0.56   0.58   0.62   0.63   0.65   0.52   0.45   0.52   0.52   0.60   0.92   0.79   0.87
A17 * -0.83  -0.87  -0.79  -0.80   0.86   0.78   0.63   0.84   0.89   0.41  -0.74   0.26  -0.51   0.39   0.
   0.65   1.00   0.76   0.72   0.86   0.90   0.97   0.83   0.61   0.71   0.73   0.71   0.82   0.89   0.84
A18 * -0.74  -0.66  -0.60  -0.83   0.81   0.75   0.60   0.90   0.72   0.43  -0.74   0.38  -0.11   0.24   0.
   0.56   0.76   1.00   0.89   0.80   0.84   0.86   0.80   0.94   0.67   0.78   0.69   0.57   0.52
A19 * -0.92  -0.61  -0.79  -0.61   0.92   0.89   0.75   0.91   0.83   0.67  -0.51   0.56  -0.17   0.63   0.
   0.58   0.72   0.89   1.00   0.91   0.92   0.85   0.89   0.95   0.70   0.89   0.97   0.75   0.61   0.56
A20 * -0.98  -0.80  -0.94  -0.68   0.96   0.98   0.83   0.96   0.97   0.76  -0.44   0.59  -0.46   0.63   0.
   0.62   0.86   0.80   0.91   1.00   0.98   0.95   0.95   0.91   0.60   0.95   0.92   0.85   0.81   0.76
A21 * -0.94  -0.82  -0.79   0.88  -0.79   0.96   0.95   0.78   0.98   0.95   0.67  -0.57   0.52  -0.42   0.51   0.
   0.63   0.90   0.89   0.92   0.98   1.00   0.98   0.97   0.89   0.73   0.90   0.89   0.85   0.80   0.75
A22 * -0.92  -0.84  -0.87  -0.73  ..95   0.90   0.71   0.93   0.96   0.56  -0.66   0.41  -0.48   0.48   0.
   0.65   0.97   0.84   0.85   0.95   0.98   1.00   0.93   0.79   0.72   0.86   0.83   0.84   0.85   0.80
A23 * -0.90  -0.72  -0.85  -0.73   0.95   0.97   0.67   0.96   0.95   0.67  -0.48   0.53  -0.45   0.42   0.
   0.52   0.83   0.86   0.89   0.95   0.97   1.00   0.92   0.67   0.90   0.84   0.75   0.68   0.64
A24 * -0.89  -0.53  -0.81  -0.53   0.89   0.94   0.71   0.89   0.84   0.77  -0.28   0.65  -0.26   0.59   0.
   0.45   0.61   0.80   0.95   0.91   0.89   0.79   0.92   1.00   0.54   0.92   0.92   0.67   0.51   0.47
A25 * -0.53  -0.62  -0.37  -0.86   0.62   0.51   0.43   0.75   0.52   0.15  -0.87   0.15   0.00   0.00   0.
   0.52   0.71   0.94   0.70   0.60   0.73   0.72   0.67   0.54   1.00   0.40   0.57   0.58   0.51   0.45
A26 * -0.97  -0.62  -0.93  -0.46   0.95   0.97   0.75   0.85   0.95   0.78  -0.27   0.60  -0.45   0.76   0.
   0.52   0.73   0.67   0.89   0.95   0.90   0.86   0.90   0.92   0.40   1.00   0.93   0.75   0.68   0.64
A27 * -0.96  -0.62  -0.85  -0.51   0.91   0.88   0.82   0.87   0.84   0.73  -0.41   0.60  -0.21   0.79   0.
   0.60   0.71   0.78   0.97   0.92   0.89   0.83   0.84   0.92   0.57   0.93   1.00   0.78   0.67   0.61
A28 * -0.85  -0.86  -0.90  -0.79   0.76   0.77   0.85   0.84   0.79   0.59  -0.45   0.38  -0.59   0.57   0.
   0.92   0.82   0.69   0.75   0.85   0.85   0.84   0.75   0.67   0.58   0.75   0.78   1.00   0.93   0.95
A29 * -0.80  -0.94  -0.85  -0.75   0.72   0.71   0.80   0.78   0.79   0.53  -0.49   0.34  -0.61   0.52   0.
   0.79   0.89   0.57   0.61   0.81   0.80   0.85   0.68   0.51   0.51   0.68   0.67   0.93   1.00   0.98
```

A30 * -0.75 -0.89 -0.85 -0.74 0.67 0.66 0.75 0.72 0.75 0.48 -0.42 0.25 -0.71 0.48 0.
0.87 0.84 0.52 0.56 0.76 0.75 0.80 0.64 0.47 0.45 9.64 0.61 0.95 0.98 1.00

Percentage of Variance for each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|----|----|----|----|----|----|----|
| 1 * | 70.51 | 10.47 | 8.72 | 4.41 | 3.02 | 2.04 | 0.83 |

Construct Loadings on each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|-----|-----|-----|-----|-----|-----|-----|
| A1 * | 4.089 | -0.761 | -0.311 | 0.125 | -0.588 | -0.342 | 0.064 |
| A2 * | 2.641 | 0.672 | 0.246 | -0.690 | 1.021 | -0.588 | 0.388 |
| A3 * | 3.531 | 0.095 | -1.145 | 0.192 | -0.223 | 0.003 | 0.012 |
| A4 * | 2.625 | 1.145 | 1.384 | -0.235 | 1.131 | 0.721 | 0.168 |
| A5 * | -3.731 | 0.554 | -0.295 | -1.075 | 0.606 | 0.158 | 0.094 |
| A6 * | -3.353 | 0.764 | 0.412 | -0.891 | -0.175 | -0.183 | -0.136 |
| A7 * | -3.557 | 0.803 | 0.757 | 1.842 | -0.565 | 0.042 | -0.543 |
| A8 * | -2.842 | 0.389 | -0.455 | -0.058 | -0.527 | -0.327 | -0.226 |
| A9 * | -3.480 | 0.170 | 0.228 | -1.054 | 0.062 | 0.434 | -0.040 |
| A10 * | -1.990 | 1.355 | 1.177 | 0.341 | -0.800 | -0.019 | 0.250 |
| A11 * | 2.345 | 0.917 | 3.659 | -0.052 | -0.427 | -0.904 | -0.879 |
| A12 * | -2.204 | 2.593 | 1.068 | 0.719 | -1.591 | 0.119 | 1.308 |
| A13 * | 2.914 | 3.478 | -2.698 | 1.921 | 0.336 | 0.348 | -0.461 |
| A14 * | -2.289 | 1.253 | 1.585 | 0.922 | 1.807 | 0.741 | 0.104 |
| A15 * | -3.276 | 0.680 | 0.281 | 0.000 | -0.360 | -0.163 | -0.260 |
| A16 * | -3.610 | -2.278 | 0.082 | 1.562 | 1.099 | -1.372 | 0.497 |
| A17 * | -3.096 | -0.797 | -0.823 | -0.385 | -0.054 | 0.908 | -0.034 |
| A18 * | -2.659 | 0.482 | -1.715 | -0.138 | -0.150 | -0.767 | -0.059 |
| A19 * | -3.778 | 1.447 | -0.765 | -0.041 | 0.728 | -0.715 | 0.007 |
| A20 * | -4.562 | 0.667 | 0.122 | -0.412 | -0.079 | 0.096 | -0.197 |
| A21 * | -4.128 | 0.376 | -0.615 | -0.471 | -0.246 | -0.068 | -0.163 |
| A22 * | -4.255 | -0.217 | -0.799 | -0.635 | -0.009 | 0.549 | -0.067 |
| A23 * | -2.919 | 0.473 | -0.325 | -0.950 | -0.342 | -0.347 | -0.102 |
| A24 * | -2.318 | 1.160 | 0.048 | -0.499 | 0.088 | -0.718 | -0.065 |
| A25 * | -1.499 | -0.098 | -1.739 | 0.111 | -0.194 | -0.408 | -0.026 |
| A26 * | -2.880 | 0.858 | 0.601 | -0.603 | 0.492 | 0.063 | -0.003 |
| A27 * | -3.054 | 1.158 | -0.053 | 0.267 | 0.851 | -0.193 | 0.006 |
| A28 * | -3.922 | -1.039 | 0.298 | 1.031 | 0.145 | -0.489 | 0.021 |
| A29 * | -4.105 | -1.543 | 0.327 | 0.976 | -0.342 | 1.026 | -0.202 |
| A30 * | -3.798 | -2.016 | 0.638 | 0.888 | -0.163 | 0.404 | -0.016 |

Element Loadings on each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|-----|-----|-----|-----|-----|-----|-----|
| E1 * | -7.772 | 2.005 | 4.635 | 0.263 | 0.618 | 0.499 | -0.066 |
| E2 * | 1.380 | -0.578 | -0.821 | 3.989 | -0.687 | 0.062 | -0.242 |
| E3 * | -2.271 | -4.091 | -1.158 | -0.731 | 0.877 | 1.882 | 0.187 |
| E4 * | -8.479 | -0.650 | -1.189 | -1.287 | -2.469 | -0.751 | -0.257 |
| E5 * | -4.491 | 2.647 | -3.293 | -0.093 | 2.015 | -0.842 | 0.259 |
| E6 * | 7.768 | 2.559 | -0.007 | -0.589 | -1.204 | 0.726 | 1.180 |
| E7 * | 8.380 | 1.368 | -0.122 | -1.159 | 0.187 | 0.318 | -1.421 |
| E8 * | 5.485 | -3.260 | 1.956 | -0.394 | 0.664 | -1.895 | 0.360 |

Construct Correlations

```
  *   A1    A2    A3    A4    A5    A6    A7    A8    A9    A10   A11   A12   A13   A14
A16   A17   A18   A19   A20   A21   A22   A23   A24   A25   A26   A27   A28   A29   A30

***************************************************************************************
***************************************************************************************

A1  *  1.00 -0.83  0.06 -0.61  0.78 -0.60  0.06  0.93  0.88 -0.93 -0.88  0.11 -0.30 -0.30
   -0.94 -0.60 -0.71 -0.98  0.91  0.80  0.94  0.89  0.94  0.62  0.14 -0.36  0.94  0.39 -0.29
A2  * -0.83  1.00  0.00  0.80 -0.43  0.82 -0.41 -0.68 -0.69  0.65  0.58  0.00  0.55  0.18
    0.77  0.82  0.89  0.89 -0.64 -0.55 -0.67 -0.60 -0.67 -0.40 -0.18  0.48 -0.64 -0.34  0.21
A3  *  0.06  0.00  1.00 -0.22  0.00 -0.11 -0.33  0.11  0.15 -0.26 -0.24  6.57  0.45 -0.15
   -0.17 -0.33  0.10 -0.10  0.35  0.45 -0.08  0.29 -0.08  0.57 -0.75  0.70  0.17  0.09  0.17
A4  * -0.61  0.80 -0.22  1.00  0.00  0.95 -0.22 -0.36 -0.70  0.52  0.62 -0.37  0.29  0.29
    0.63  0.95  0.88  0.75 -0.46 -0.49 -0.46 -0.57 -0.46 -0.48  0.29  0.05 -0.57  0.06  0.11
A5  *  0.78 -0.43  0.00  0.00  1.00 -0.06 -0.17  0.87  0.54 -0.78 -0.62  0.00  0.00 -0.31
   -0.71 -0.06 -0.22 -0.65  0.82  0.62  0.81  0.71  0.81  0.46  0.31 -0.33  0.73  0.68 -0.18
A6  * -0.60  0.82 -0.11  0.95 -0.06  1.00 -0.33 -0.41 -0.67  0.50  0.55 -0.35  0.25  0.45
    0.59  0.93  0.93  0.73 -0.41 -0.35 -0.49 -0.55 -0.49 -0.30  0.25  0.08 -0.52 -0.15  0.17
A7  *  0.06 -0.41 -0.33 -0.22 -0.17 -0.33  1.00  0.11 -0.05  0.09  0.24 -0.57 -0.75  0.45
    0.06 -0.33 -0.31 -0.10 -0.17 -0.15 -0.08 -0.29 -0.08 -0.57  0.45 -0.54 -0.17  0.09 -0.17
A8  *  0.93 -0.68  0.11 -0.36  0.87 -0.41  0.11  1.00  0.80 -0.91 -0.79 -0.03 -0.25 -0.25
   -0.82 -0.41 -0.52 -0.86  0.87  0.75  0.91  0.31  0.91  0.46  0.15 -0.29  0.87  0.52 -0.41
A9  *  0.88 -0.69  0.15 -0.70  0.54 -0.67 -0.05  0.80  1.00 -0.85 -0.94  0.21 -0.21 -0.39
   -0.80 -0.60 -0.75 -0.91  0.75  0.71  0.90  0.88  0.90  0.58 -0.21 -0.04  0.94  0.07 -0.51
A10 * -0.93  0.65 -0.26  0.52 -0.78  0.50  0.09 -0.91 -0.85  1.00  0.93 -0.32  0.04  0.35
    0.95  0.56  0.52  0.90 -0.97 -0.91 -0.88 -0.95 -0.88 -0.70  0.04  0.14 -0.97 -0.42  0.14
A11 * -0.88  0.58 -0.24  0.62 -0.62  0.55  0.24 -0.79 -0.94  0.93  1.00 -0.40  0.00  0.42
    0.88  0.55  0.59  0.88 -0.86 -0.84 -0.88 -0.97 -0.88 -0.74  0.21  0.00 -0.98 -0.13  0.25
A12 *  0.11  0.00  0.57 -0.37  0.00 -0.35 -0.57 -0.03  0.21 -0.32 -0.40  1.00  0.76 -0.69
   -0.34 -0.40 -0.13 -0.18  0.34  0.33  0.09  0.50  0.09  0.61 -0.69  0.59  0.30  0.16  0.46
A13 * -0.30  0.55  0.45  0.29  0.00  0.25 -0.75 -0.25 -0.21  0.04  0.00  0.76  1.00 -0.60
    0.13  0.25  0.42  0.32  0.00 -0.07 -0.17  0.13 -0.17  0.25 -0.60  0.73 -0.08  0.21  0.39
A14 * -0.30  0.18 -0.15  0.29 -0.31  0.45  0.45 -0.25 -0.39  0.35  0.42 -0.69 -0.60  1.00
    0.33  0.25  0.42  0.32 -0.31 -0.07 -0.45 -0.57 -0.45 -0.33  0.47 -0.38 -0.39 -0.45  0.08
A15 * -0.95  0.67 -0.04  0.52 -0.78  0.52  0.13 -0.93 -0.93  0.94  0.95 -0.19 -0.13  0.43
    0.89  0.46  0.64  0.92 -0.87 -0.77 -0.99 -0.94 -0.99 -0.62 -0.02  0.20 -0.98 -0.31  0.37
A16 * -0.94  0.77 -0.17  0.63 -0.71  0.59  0.06 -0.82 -0.80  0.95  0.88 -0.34  0.13  0.33
    1.00  0.66  0.62  0.94 -0.95 -0.89 -0.84 -0.92 -0.84 -0.76 -0.08  0.31 -0.92 -0.39 -0.03
A17 * -0.60  0.82 -0.33  0.95 -0.06  0.93 -0.33 -0.41 -0.60  0.56  0.55 -0.40  0.25  0.25
    0.66  1.00  0.79  0.73 -0.52 -0.55 -0.39 -0.55 -0.39 -0.46  0.25  0.08 -0.52 -0.15 -0.06
A18 * -0.71  0.89  0.10  0.88 -0.22  0.93 -0.31 -0.52 -0.75  0.52  0.59 -0.13  0.42  0.42
    0.62  0.79  1.00  0.81 -0.43 -0.32 -0.65 -0.58 -0.65 -0.28  0.05  0.27 -0.60 -0.14  0.38
A19 * -0.98  0.89 -0.10  0.75 -0.65  0.73 -0.10 -0.86 -0.91  0.90  0.88 -0.18  0.32  0.32
    0.94  0.73  0.81  1.00 -0.87 -0.79 -0.90 -0.88 -0.90 -0.63 -0.05  0.31 -0.92 -0.32  0.27
A20 *  0.91 -0.64  0.35 -0.46  0.82 -0.41 -0.17  0.87  0.75 -0.97 -0.86  0.34  0.00 -0.31
   -0.95 -0.52 -0.43 -0.87  1.00  0.93  0.81  0.92  0.81  0.80  0.00 -0.15  0.91  0.48  0.00
A21 *  0.80 -0.55  0.45 -0.49  0.62 -0.35 -0.15  0.75  0.71 -0.91 -0.84  0.33 -0.07 -0.07
   -0.89 -0.55 -0.32 -0.79  0.93  1.00  0.66  0.83  0.66  0.83 -0.07 -0.10  0.86  0.21  0.08
A22 *  0.94 -0.67 -0.08 -0.46  0.81 -0.49 -0.08  0.91  0.90 -0.88 -0.88  0.09 -0.17 -0.45
   -0.84 -0.39 -0.65 -0.90  0.81  0.66  1.00  0.89  1.00  0.51  0.10 -0.27  0.94  0.37 -0.45
A23 *  0.89 -0.60  0.29 -0.57  0.71 -0.55 -0.29  0.81  0.88 -0.95 -0.97  0.50  0.13 -0.57
   -0.92 -0.55 -0.58 -0.88  0.92  0.83  0.89  1.00  0.89  0.78 -0.22  0.02  0.97  0.35 -0.15
A24 *  0.94 -0.67 -0.08 -0.46  0.81 -0.49 -0.08  0.91  0.90 -0.88 -0.88  0.09 -0.17 -0.45
   -0.84 -0.39 -0.65 -0.90  0.81  0.66  1.00  0.89  1.00  0.51  0.10 -0.27  0.94  0.37 -0.45
A25 *  0.62 -0.40  0.57 -0.48  0.46 -0.30 -0.57  0.46  0.58 -0.70 -0.74  0.61  0.25 -0.33
   -0.76 -0.46 -0.28 -0.63  0.80  0.83  0.51  0.78  0.51  1.00 -0.33  0.17  0.72  0.11  0.21
A26 *  0.14 -0.18 -0.75  0.29  0.31  0.25  0.45  0.15 -0.21  0.04  0.21 -0.69 -0.60  0.47
   -0.08  0.25  0.05 -0.05  0.00 -0.07  0.10 -0.22  0.10 -0.33  1.00 -0.94 -0.08  0.21  0.08
A27 * -0.36  0.48  0.70  0.05 -0.33  0.08 -0.54 -0.29 -0.04  0.14  0.00  0.59  0.73 -0.38
    0.31  0.08  0.27  0.31 -0.16 -0.10 -0.27  0.02 -0.27  0.17 -0.94  1.00 -0.12 -0.19 -0.04
A28 *  0.94 -0.64  0.17 -0.57  0.73 -0.52 -0.17  0.87  0.94 -0.97 -0.98  0.30 -0.08 -0.39
   -0.92 -0.52 -0.60 -0.92  0.91  0.86  0.94  0.97  0.94  0.72 -0.08 -0.12  1.00  0.24 -0.27
A29 *  0.39 -0.34  0.09  0.06  0.68 -0.15  0.09  0.52  0.07 -0.42 -0.13  0.16  0.21 -0.45
   -0.39 -0.15 -0.14 -0.32  0.48  0.21  0.37  0.35  0.37  0.11  0.21 -0.19  0.24  1.00  0.14
A30 * -0.29  0.21  0.17  0.11 -0.18  0.17 -0.17 -0.41 -0.51  0.14  0.25  0.46  0.39  0.08
```

-0.03 -0.06 0.38 J.27 0.00 0.08 -0.45 -0.15 -0.45 0.21 0.08 -0.04 -0.27 0.14 1.00

Percentage of Variance for each Component

| | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|---|---|---|---|---|---|---|
| 1 * | 50.17 | 22.20 | 8.89 | 7.64 | 6.09 | 3.69 | 1.32 |

Construct Loadings on each Component

| | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|---|---|---|---|---|---|---|
| A1 * | 3.202 | -0.761 | -0.017 | -0.070 | 0.013 | 0.079 | -0.186 |
| A2 * | -2.976 | 1.576 | 1.476 | 0.542 | -1.104 | -0.217 | 0.960 |
| A3 * | 1.000 | 3.476 | -0.821 | -2.055 | -0.847 | 2.208 | -0.657 |
| A4 * | -1.161 | -0.013 | 1.330 | 0.348 | -0.357 | 0.352 | 0.100 |
| A5 * | 3.556 | -0.727 | 2.678 | 0.664 | -0.003 | 1.032 | -0.379 |
| A6 * | -2.221 | 0.148 | 2.561 | -0.097 | -1.394 | 0.173 | -0.073 |
| A7 * | -0.548 | -3.611 | -2.067 | -0.685 | 1.195 | 1.728 | 1.227 |
| A8 * | 3.293 | -0.893 | 0.491 | 0.277 | -0.378 | 1.168 | 0.177 |
| A9 * | 3.635 | -0.117 | -1.123 | 0.572 | -0.961 | -0.288 | 0.234 |
| A10 * | -4.501 | -0.098 | -0.469 | 0.492 | 0.156 | -0.408 | -0.761 |
| A11 * | -3.278 | -0.451 | 0.212 | -0.002 | 0.610 | 0.539 | -0.556 |
| A12 * | 1.603 | 4.289 | -0.403 | -0.497 | 1.714 | -0.916 | 0.592 |
| A13 * | -0.484 | 4.928 | 1.794 | 1.026 | 0.905 | 0.052 | 0.626 |
| A14 * | -2.464 | -2.943 | 0.197 | -3.163 | -2.241 | 0.308 | 0.336 |
| A15 * | -4.745 | 0.436 | -0.280 | -0.763 | 0.565 | 0.325 | -0.297 |
| A16 * | -3.425 | 0.187 | -0.230 | 0.814 | -0.514 | 0.347 | -0.086 |
| A17 * | -2.235 | -0.057 | 2.303 | 1.243 | -1.278 | -0.115 | -0.074 |
| A18 * | -2.635 | 0.980 | 2.326 | -0.720 | -1.024 | 0.532 | 0.581 |
| A19 * | -3.782 | 0.755 | 0.682 | 0.244 | -0.192 | 0.097 | 0.236 |
| A20 * | 4.405 | 0.292 | 1.014 | -1.101 | 0.042 | 0.508 | -0.097 |
| A21 * | 4.617 | 0.476 | 0.628 | -2.625 | -0.952 | 0.166 | 0.490 |
| A22 * | 4.901 | -0.938 | 0.447 | 1.471 | -0.409 | -0.239 | 0.106 |
| A23 * | 4.064 | 0.888 | 0.164 | 0.162 | -0.038 | -0.241 | 0.282 |
| A24 * | 4.901 | -0.938 | 0.447 | 1.471 | -0.409 | -0.239 | 0.106 |
| A25 * | 3.648 | 2.250 | 0.062 | -1.928 | -0.520 | -1.033 | -1.326 |
| A26 * | -0.319 | -4.669 | 2.521 | -0.471 | 1.007 | -0.709 | -0.101 |
| A27 * | -0.043 | 4.656 | -1.191 | 0.819 | -1.363 | 1.061 | 0.200 |
| A28 * | 4.588 | 0.067 | 0.113 | 0.055 | -0.721 | -0.411 | 0.488 |
| A29 * | 1.710 | -0.069 | 1.800 | 0.643 | 2.642 | 2.407 | -0.381 |
| A30 * | -1.072 | 1.461 | 1.522 | -2.926 | 2.558 | -1.040 | 0.465 |

Element Loadings on each Component

| | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|---|---|---|---|---|---|---|
| E1 * | -2.992 | 3.483 | -3.141 | 4.324 | -0.244 | -1.785 | 0.541 |
| E2 * | 4.528 | -3.844 | 0.504 | -0.584 | -3.213 | -2.120 | -1.321 |
| E3 * | -2.743 | 5.870 | -1.236 | -4.853 | -0.953 | -0.410 | 0.544 |
| E4 * | -7.078 | -4.797 | -2.934 | -1.022 | 2.792 | 0.749 | -1.032 |
| E5 * | -10.195 | -0.075 | 4.915 | 1.193 | -1.091 | 0.839 | 0.142 |
| E6 * | 6.673 | 0.831 | 3.058 | -0.243 | 4.015 | -1.622 | 0.233 |
| E7 * | 7.134 | 4.277 | -0.281 | 1.334 | -0.343 | 3.040 | -1.013 |
| E8 * | 4.673 | -5.746 | -0.884 | -0.150 | -0.964 | 1.310 | 1.907 |

Construct Correlations

| * | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 | A13 | A14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A16 | A17 | A18 | A19 | A20 | A21 | A22 | A23 | A24 | A25 | A26 | A27 | A28 | A29 | A30 |

```
*********************************************************************************
*********************************************************************************
A1 *  1.00 -0.54 -0.66 -0.62  0.85  0.82  0.77  0.78 -0.54 -0.79  0.54 -0.48  0.54  0.09
   0.81  0.72  0.56 -0.83 -0.82 -0.72  0.28  0.77  0.86  0.21  0.59  0.67  0.70  0.82  0.24 -
A2 * -0.54  1.00  0.72  0.88 -0.78 -0.67 -0.48 -0.66  0.82  0.78 -0.55  0.95 -0.82  0.32 -
  -0.49 -0.69 -0.63  0.78  0.65  0.29  0.45 -0.25 -0.77 -0.82 -0.32 -0.62 -0.29 -0.61 -0.34
A3 * -0.66  0.72  1.00  0.59 -0.58 -0.43 -0.50 -0.41  0.83  0.59 -0.29  0.76 -0.83 -0.19 -
  -0.48 -0.69 -0.42  0.58  0.87  0.23  0.44 -0.25 -0.56 -0.35 -0.25 -0.69 -0.43 -0.43 -0.60
A4 * -0.62  0.88  0.59  1.00 -0.87 -0.83 -0.52 -0.83  0.64  0.82 -0.67  0.88 -0.64  0.32 -
  -0.68 -0.85 -0.84  0.86  0.53  0.64  0.20 -0.59 -0.88 -0.64 -0.51 -0.60 -0.46 -0.78 -0.43
A5 *  0.85 -0.78 -0.58 -0.87  1.00  0.86  0.60  0.81 -0.59 -0.98  0.57 -0.76  0.59 -0.14  (
   0.88  0.87  0.79 -1.00 -0.68 -0.68  0.00  0.66  0.99  0.59  0.54  0.64  0.59  0.86  0.34 -
A6 *  0.82 -0.67 -0.43 -0.83  0.86  1.00  0.71  0.98 -0.44 -0.74  0.77 -0.57  0.44 -0.31  :
   0.66  0.66  0.66 -0.83 -0.52 -0.86  0.33  0.86  0.91  0.44  0.56  0.52  0.53  0.95  0.12 -
A7 *  0.77 -0.48 -0.50 -0.52  0.60  0.71  1.00  0.80 -0.48 -0.53  0.86 -0.30  0.48 -0.05  e
   0.54  0.46  0.55 -0.58 -0.68 -0.51  0.28  0.59  0.62  0.08  0.34  0.78  0.79  0.52 -0.15 -
A8 *  0.78 -0.66 -0.41 -0.83  0.81  0.98  0.80  1.00 -0.42 -0.70  0.88 -0.54  0.42 -0.29  0
   0.63  0.62  0.70 -0.79 -0.49 -0.81  0.31  0.81  0.86  0.42  0.66  0.61  0.60  0.86  0.05 -
A9 * -0.54  0.82  0.83  0.64 -0.59 -0.44 -0.48 -0.42  1.00  0.60 -0.29  0.77 -1.00  0.32 -
  -0.38 -0.57 -0.37  0.59  0.86  0.08  0.45 -0.14 -0.56 -0.47 -0.32 -0.49 -0.20 -0.44 -0.23
A10 * -0.79  0.78  0.59  0.82 -0.98 -0.74 -0.53 -0.70  0.60  1.00 -0.49  0.77 -0.60  0.05 -
  -0.90 -0.89 -0.81  0.99  0.70  0.54  0.15 -0.51 -0.94 -0.60 -0.53 -0.68 -0.60 -0.74 -0.39
A11 *  0.54 -0.55 -0.29 -0.67  0.57  0.77  0.86  0.88 -0.29 -0.49  1.00 -0.38  0.29 -0.20  0
   0.44  0.44  0.68 -0.55 -0.34 -0.57  0.22  0.57  0.61  0.29  0.77  0.71  0.68  0.52 -0.11 -
A12 * -0.48  0.95  0.76  0.88 -0.76 -0.57 -0.30 -0.54  0.77  0.77 -0.38  1.00 -0.77  0.18 -
  -0.54 -0.80 -0.66  0.76  0.60  0.30  0.58 -0.24 -0.73 -0.77 -0.20 -0.57 -0.26 -0.57 -0.60
A13 *  0.54 -0.82 -0.83 -0.64  0.59  0.44  0.48  0.42 -1.00 -0.60  0.29 -0.77  1.00 -0.32  0.
   0.38  0.57  0.37 -0.59 -0.86 -0.08 -0.45  0.14  0.56  0.47  0.32  0.49  0.20  0.44  0.23 -0
A14 *  0.09  0.32 -0.19  0.32 -0.14 -0.31 -0.05 -0.29  0.32  0.05 -0.20  0.18 -0.32  1.00 -0.
   0.18  0.11  0.02  0.11 -0.05  0.05 -0.10 -0.10 -0.18 -0.32 -0.07  0.34  0.42 -0.31  0.49  0.
A15 *  0.32 -0.36 -0.06 -0.62  0.61  0.43  0.33  0.46 -0.17 -0.66  0.46 -0.40  0.17 -0.12  1.
   0.76  0.71  0.88 -0.63 -0.20 -0.45 -0.08  0.40  0.57  0.17  0.72  0.46  0.59  0.34  0.20 -0.
A16 *  0.81 -0.49 -0.48 -0.68  0.88  0.66  0.54  0.63 -0.38 -0.90  0.44 -0.54  0.38  0.18  0.
   1.00  0.91  0.84 -0.89 -0.63 -0.68  0.04  0.66  0.85  0.22  0.66  0.67  0.78  0.66  0.44 -0.
A17 *  0.72 -0.69 -0.69 -0.85  0.87  0.66  0.46  0.62 -0.57 -0.89  0.44 -0.80  0.57  0.11  0.
   0.91  1.00  0.88 -0.88 -0.67 -0.62 -0.26  0.57  0.84  0.39  0.54  0.70  0.66  0.66  0.67 -0.
A18 *  0.56 -0.63 -0.42 -0.84  0.79  0.66  0.55  0.70 -0.37 -0.81  0.68 -0.66  0.37  0.02  0.
   0.84  0.88  1.00 -0.80 -0.43 -0.60 -0.16  0.53  0.76  0.37  0.74  0.75  0.76  0.53  0.43 -0.
A19 * -0.83  0.78  0.58  0.86 -1.00 -0.83 -0.58 -0.79  0.59  0.99 -0.55  0.76 -0.59  0.11 -0.
  -0.89 -0.88 -0.80  1.00  0.69  0.65  0.04 -0.62 -0.98 -0.59 -0.54 -0.66 -0.59 -0.83 -0.36  0
A20 * -0.82  0.65  0.87  0.53 -0.68 -0.52 -0.68 -0.49  0.86  0.70 -0.34  0.60 -0.86 -0.05 -0.
  -0.63 -0.67 -0.43  0.69  1.00  0.27  0.17 -0.36 -0.66 -0.23 -0.49 -0.68 -0.54 -0.52 -0.27  0
A21 * -0.72  0.29  0.23  0.64 -0.68 -0.86 -0.51 -0.81  0.08  0.54 -0.57  0.30 -0.08  0.05 -0.
  -0.68 -0.62 -0.60  0.65  0.27  1.00 -0.52 -0.98 -0.75 -0.08 -0.49 -0.34 -0.54 -0.86 -0.27  0
A22 *  0.28  0.45  0.44  0.20  0.00  0.33  0.28  0.31  0.45  0.15  0.22  0.58 -0.45 -0.10 -0.(
   0.04 -0.26 -0.16  0.04  0.17 -0.52  1.00  0.60  0.08 -0.45  0.24 -0.22  0.15  0.33 -0.52  0.!
A23 *  0.77 -0.25 -0.25 -0.59  0.66  0.86  0.59  0.81 -0.14 -0.51  0.57 -0.24  0.14 -0.10  0.4
   0.66  0.57  0.53 -0.62 -0.36 -0.98  0.60  1.00  0.73 -0.02  0.55  0.33  0.55  0.86  0.17 -0.:
A24 *  0.86 -0.77 -0.56 -0.88  0.99  0.91  0.62  0.86 -0.56 -0.94  0.61 -0.73  0.56 -0.18  0.5
   0.85  0.84  0.76 -0.93 -0.66 -0.75  0.08  0.73  1.00  0.56  0.54  0.61  0.56  0.91  0.31 -0.7
A25 *  0.21 -0.82 -0.35 -0.64  0.59  0.44  0.08  0.42 -0.47 -0.60  0.29 -0.77  0.47 -0.32  0.1
   0.22  0.39  0.37 -0.59 -0.23 -0.08 -0.45 -0.02  0.56  1.00 -0.11  0.29 -0.07  0.44  0.23 -0.7
A26 *  0.59 -0.32 -0.25 -0.51  0.54  0.56  0.34  0.66 -0.32 -0.53  0.77 -0.20  0.32 -0.07  0.7
   0.66  0.54  0.74 -0.54 -0.49 -0.49  0.24  0.55  0.54 -0.11  1.00  0.69  0.84  0.37 -0.12 -0.1
A27 *  0.67 -0.62 -0.69 -0.60  0.64  0.52  0.78  0.61 -0.49 -0.68  0.71 -0.57  0.49  0.34  0.4
   0.67  0.70  0.75 -0.66 -0.68 -0.34 -0.22  0.33  0.61  0.29  0.69  1.00  0.88  0.34  0.34 -0.6
A28 *  0.70 -0.25 -0.43 -0.46  0.59  0.53  0.79  0.60 -0.20 -0.60  0.68 -0.26  0.20  0.42  0.5
   0.78  0.66  0.76 -0.59 -0.54 -0.54  0.15  0.55  0.56 -0.07  0.84  0.88  1.00  0.36  0.23 -0.3
A29 *  0.82 -0.61 -0.43 -0.78  0.86  0.95  0.52  0.86 -0.44 -0.74  0.52 -0.57  0.44 -0.31  0.3·
   0.66  0.66  0.53 -0.83 -0.52 -0.86  0.33  0.86  0.91  0.44  0.37  0.34  0.36  1.00  0.22 -0.5
```

```
A30 *   0.24  -0.34 -0.60 -0.43  0.34  0.12 -0.15  0.05 -0.23 -0.39 -0.11 -0.60  0.23  0.49  0.
    0.44  .0.67  0.43 -0.36 -0.27 -0.27 -0.52  0.17  0.31  0.23 -0.12  0.34  0.23  0.22  1.00 -0.
A31 *  -0.52  0.91  0.81  0.86 -0.75 -0.56 -0.30 -0.53  0.73  0.76 -0.37  0.99 -0.73  0.04 -0.
   -0.57 -0.82 -0.67  0.75  0.61  0.34  0.57 -0.27 -0.72 -0.73 -0.19 -0.62 -0.32 -0.56 -0.69  1
```

Percentage of Variance for each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|----|----|----|----|----|----|----|
| 1 * | 57.16 | 16.59 | 8.62 | 6.86 | 5.73 | 2.63 | 2.41 |

Construct Loadings on each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|----|----|----|----|----|----|----|
| A1 * | -1.842 | 0.634 | -0.367 | 0.740 | -0.474 | -0.256 | -0.330 |
| A2 ` | 3.523 | 1.532 | 0.705 | 0.901 | -0.287 | 0.498 | -0.689 |
| A3 * | 3.430 | 2.169 | 0.135 | -1.736 | 1.351 | -0.143 | -0.392 |
| A4 ' | 3.696 | 0.006 | 0.039 | 1.110 | -0.146 | -0.478 | -0.926 |
| A5 * | -3.593 | 0.593 | -0.041 | -0.432 | -0.001 | -0.463 | -0.579 |
| A6 * | -3.610 | 1.758 | -1.228 | -0.574 | -0.562 | -0.242 | 0.735 |
| A7 * | -2.336 | 1.033 | -1.115 | 1.741 | 0.746 | -0.656 | 1.043 |
| A8 * | -1.585 | 0.804 | -0.522 | -0.146 | -0.022 | -0.212 | 0.614 |
| A9 * | 3.966 | 2.884 | 2.011 | -0.874 | -0.485 | -0.905 | 0.306 |
| A10 * | 5.161 | -0.233 | -0.625 | 0.435 | -0.538 | 0.896 | 1.278 |
| A11 * | -0.573 | 0.327 | -0.169 | 0.068 | 0.248 | -0.197 | 0.554 |
| A12 * | 2.406 | 1.233 | -0.187 | 0.726 | 0.168 | -0.097 | -0.302 |
| A13 * | -3.966 | -2.884 | -2.011 | 0.874 | 0.485 | 0.905 | -0.306 |
| A14 * | 0.441 | -0.024 | 2.726 | 2.135 | -1.365 | -1.197 | -0.133 |
| A15 * | -3.100 | 1.626 | 2.180 | -0.822 | 2.920 | 1.108 | -0.252 |
| A16 * | -3.860 | 1.381 | 1.475 | 0.632 | 0.329 | 0.077 | -1.172 |
| A17 * | -3.686 | 0.032 | 1.349 | 0.124 | -0.108 | 0.622 | -0.231 |
| A18 * | -3.077 | 0.727 | 1.442 | -0.224 | 1.080 | 0.211 | 0.735 |
| A19 * | 4.883 | -0.652 | -0.115 | 0.541 | -0.133 | 0.687 | 0.898 |
| A20 * | 3.642 | 1.128 | 1.032 | -2.345 | 0.165 | 0.030 | 0.934 |
| A21 * | 2.961 | -3.160 | -0.034 | 0.371 | 1.495 | -0.736 | -0.576 |
| A22 * | 0.762 | 4.373 | -1.786 | 0.595 | -0.744 | -0.254 | -0.362 |
| A23 * | -2.749 | 3.056 | -0.563 | 0.211 | -1.290 | 0.914 | 0.348 |
| A24 * | -4.606 | 1.070 | -0.394 | -0.646 | -0.272 | -0.477 | -0.518 |
| A25 * | -2.269 | -1.566 | -0.381 | -2.474 | 0.005 | -1.725 | 0.182 |
| A26 * | -2.023 | 1.461 | -0.013 | 1.370 | 1.824 | 0.319 | 0.683 |
| A27 * | -2.767 | -0.171 | 0.864 | 1.597 | 0.588 | -1.174 | 1.137 |
| A28 * | -1.708 | 1.019 | 0.882 | 1.439 | 0.490 | -0.448 | 0.503 |
| A29 * | -3.477 | 1.581 | -1.244 | -0.925 | -1.329 | 0.139 | -0.312 |
| A30 * | -2.079 | -1.460 | 3.011 | -0.140 | -2.335 | 0.996 | 0.144 |
| A31 * | 4.563 | 2.262 | -0.800 | 0.971 | 0.880 | -0.000 | -0.761 |

Element Loadings on each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|----|----|----|----|----|----|----|
| E1 * | 1.560 | -6.496 | -0.436 | -1.573 | -1.237 | 1.046 | 1.728 |
| E2 * | -4.966 | -4.030 | 3.534 | 0.652 | 2.290 | -0.802 | -1.395 |
| E3 * | 3.782 | -1.006 | -4.137 | 3.600 | 1.163 | 0.680 | -0.835 |
| E4 * | -10.236 | 3.147 | -1.170 | 0.424 | 1.404 | -0.757 | 2.032 |
| E5 * | -7.858 | 1.444 | -1.281 | -1.750 | -2.934 | 0.701 | -1.810 |
| E6 * | 7.985 | 0.910 | -1.529 | -2.858 | 0.486 | -2.393 | -0.332 |
| E7 * | 5.279 | 4.074 | 2.057 | -1.474 | 1.904 | 2.272 | 0.037 |
| E8 * | 4.454 | 1.957 | 2.961 | 2.978 | -3.076 | -0.747 | 0.575 |

Construct Correlations

```
  •       A1    A2    A3    A4    A5    A6    A7    A8    A9    A10   A11   A12   A13   A14
  A16  A17   A18   A19   A20   A21   A22   A23   A24   A25   A26   A27   A28   A29   A30

****************************************************************************************
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A1 *   1.00 -0.54 -0.66 -0.62  0.85  0.82  0.77  0.78 -0.54 -0.79  0.54 -0.48  0.54  0.09
  0.81  0.72  0.56 -0.83 -0.82 -0.72  0.28  0.77  0.86  0.21  0.59  0.67  0.70  0.82  0.24 -
A2 *  -0.54  1.00  0.72  0.88 -0.78 -0.67 -0.48 -0.66  0.82  0.78 -0.55  0.95 -0.82  0.32 -
 -0.49 -0.69 -0.63  0.78  0.65  0.29  0.45 -0.25 -0.77 -0.82 -0.32 -0.62 -0.29 -0.61 -0.34
A3 *  -0.66  0.72  1.00  0.59 -0.58 -0.43 -0.50 -0.41  0.83  0.59 -0.29  0.76 -0.83 -0.19 -
 -0.48 -0.69 -0.42  0.58  0.87  0.23  0.44 -0.25 -0.56 -0.35 -0.25 -0.69 -0.43 -0.43 -0.60
A4 *  -0.62  0.88  0.59  1.00 -0.87 -0.83 -0.52 -0.83  0.64  0.82 -0.67  0.88 -0.64  0.32 -(
 -0.68 -0.85 -0.84  0.86  0.53  0.64  0.20 -0.59 -0.88 -0.64 -0.51 -0.60 -0.46 -0.78 -0.43
A5 *   0.85 -0.78 -0.58 -0.87  1.00  0.86  0.60  0.81 -0.59 -0.98  0.57 -0.76  0.59 -0.14  (
  0.88  0.87  0.79 -1.00 -0.68 -0.68  0.00  0.66  0.99  0.59  0.54  0.64  0.59  0.86  0.34 -(
A6 *   0.82 -0.67 -0.43 -0.83  0.86  1.00  0.71  0.98 -0.44 -0.74  0.77 -0.57  0.44 -0.31  :
  0.66  0.66  0.66 -0.83 -0.52 -0.86  0.33  0.86  0.91  0.44  0.56  0.52  0.53  0.95  0.12 -(
A7 *   0.77 -0.48 -0.50 -0.52  0.60  0.71  1.00  0.80 -0.48 -0.53  0.86 -0.30  0.48 -0.05  e
  0.54  0.46  0.55 -0.58 -0.68 -0.51  0.28  0.59  0.62  0.08  0.34  0.78  0.79  0.52 -0.15 -(
A8 *   0.78 -0.66 -0.41 -0.83  0.81  0.98  0.80  1.00 -0.42 -0.70  0.88 -0.54  0.42 -0.29  0
  0.63  0.62  0.70 -0.79 -0.49 -0.81  0.31  0.81  0.86  0.42  0.66  0.61  0.60  0.86  0.05 -e
A9 *  -0.54  0.82  0.83  0.64 -0.59 -0.44 -0.48 -0.42  1.00  0.60 -0.29  0.77 -1.00  0.32 -0
 -0.38 -0.57 -0.37  0.59  0.86  0.08  0.45 -0.14 -0.56 -0.47 -0.32 -0.49 -0.20 -0.44 -0.23
A10 * -0.79  0.78  0.59  0.82 -0.98 -0.74 -0.53 -0.70  0.60  1.00 -0.49  0.77 -0.60  0.05 -0
 -0.90 -0.89 -0.81  0.99  0.70  0.54  0.15 -0.51 -0.94 -0.60 -0.53 -0.68 -0.60 -0.74 -0.39
A11 *  0.54 -0.55 -0.29 -0.67  0.57  0.77  0.86  0.88 -0.29 -0.49  1.00 -0.38  0.29 -0.20  0
  0.44  0.44  0.68 -0.55 -0.34 -0.57  0.22  0.57  0.61  0.29  0.77  0.71  0.68  0.52 -0.11 -0
A12 * -0.48  0.95  0.76  0.88 -0.76 -0.57 -0.30 -0.54  0.77  0.77 -0.38  1.00 -0.77  0.18 -0
 -0.54 -0.80 -0.66  0.76  0.60  0.30  0.58 -0.24 -0.73 -0.77 -0.20 -0.57 -0.26 -0.57 -0.60  (
A13 *  0.54 -0.82 -0.83 -0.64  0.59  0.44  0.48  0.42 -1.00 -0.60  0.29 -0.77  1.00 -0.32  0.
  0.38  0.57  0.37 -0.59 -0.86 -0.08 -0.45  0.14  0.56  0.47  0.32  0.49  0.20  0.44  0.23 -0.
A14 *  0.09  0.32 -0.19  0.32 -0.14 -0.31 -0.05 -0.29  0.32  0.05 -0.20  0.18 -0.32  1.00 -0.
  0.18  0.11  0.02  0.11 -0.05  0.05 -0.10 -0.10 -0.18 -0.32 -0.07  0.34  0.42 -0.31  0.49  0.
A15 *  0.32 -0.36 -0.06 -0.62  0.61  0.43  0.33  0.46 -0.17 -0.66  0.46 -0.40  0.17 -0.12  1.
  0.76  0.71  0.88 -0.63 -0.20 -0.45 -0.08  0.40  0.57  0.17  0.72  0.46  0.59  0.34  0.20 -0.
A16 *  0.81 -0.49 -0.48 -0.68  0.88  0.66  0.54  0.63 -0.38 -0.90  0.44 -0.54  0.38  0.18  0.
  1.00  0.91  0.84 -0.89 -0.63 -0.68  0.04  0.66  0.85  0.22  0.66  0.67  0.78  0.66  0.44 -0.
A17 *  0.72 -0.69 -0.69 -0.85  0.87  0.66  0.46  0.62 -0.57 -0.89  0.44 -0.80  0.57  0.11  0.
  0.91  1.00  0.88 -0.88 -0.67 -0.62 -0.26  0.57  0.84  0.39  0.54  0.70  0.66  0.66  0.67 -0.
A18 *  0.56 -0.63 -0.42 -0.84  0.79  0.66  0.55  0.70 -0.37 -0.81  0.68 -0.66  0.37  0.02  0.
  0.84  0.88  1.00 -0.80 -0.43 -0.60 -0.16  0.53  0.76  0.37  0.74  0.75  0.76  0.53  0.43 -0.
A19 * -0.83  0.78  0.58  0.86 -1.00 -0.83 -0.58 -0.79  0.59  0.99 -0.55  0.76 -0.59  0.11 -0.
 -0.89 -0.88 -0.80  1.00  0.69  0.65  0.04 -0.62 -0.98 -0.59 -0.54 -0.66 -0.59 -0.83 -0.36  0
A20 * -0.82  0.65  0.87  0.53 -0.68 -0.52 -0.68 -0.49  0.86  0.70 -0.34  0.60 -0.86 -0.05 -0.
 -0.63 -0.67 -0.43  0.69  1.00  0.27  0.17 -0.36 -0.66 -0.23 -0.49 -0.68 -0.54 -0.52 -0.27  0
A21 * -0.72  0.29  0.23  0.64 -0.68 -0.86 -0.51 -0.81  0.08  0.54 -0.57  0.30 -0.08  0.05 -0.
 -0.68 -0.62 -0.60  0.65  0.27  1.00 -0.52 -0.98 -0.75 -0.08 -0.49 -0.34 -0.54 -0.86 -0.27  0
A22 *  0.28  0.45  0.44  0.20  0.00  0.33  0.28  0.31  0.45  0.15  0.22  0.58 -0.45 -0.10 -0.(
  0.04 -0.26 -0.16  0.04  0.17 -0.52  1.00  0.60  0.08 -0.45  0.24 -0.22  0.15  0.33 -0.52  0.
A23 *  0.77 -0.25 -0.25 -0.59  0.66  0.86  0.59  0.81 -0.14 -0.51  0.57 -0.24  0.14 -0.10  0.4
  0.66  0.57  0.53 -0.62 -0.36 -0.98  0.60  1.00  0.73 -0.02  0.55  0.33  0.55  0.86  0.17 -0.
A24 *  0.86 -0.77 -0.56 -0.88  0.99  0.91  0.62  0.86 -0.56 -0.94  0.61 -0.73  0.56 -0.18  0.5
  0.85  0.84  0.76 -0.93 -0.66 -0.75  0.08  0.73  1.00  0.56  0.54  0.61  0.56  0.91  0.31 -0.
A25 *  0.21 -0.82 -0.35 -0.64  0.59  0.44  0.08  0.42 -0.47 -0.60  0.29 -0.77  0.47 -0.32  0.1
  0.22  0.39  0.37 -0.59 -0.23 -0.08 -0.45 -0.02  0.56  1.00 -0.11  0.29 -0.07  0.44  0.23 -0.7
A26 *  0.59 -0.32 -0.25 -0.51  0.54  0.56  0.34  0.66 -0.32 -0.53  0.77 -0.20  0.32 -0.07  0.7
  0.66  0.54  0.74 -0.54 -0.49 -0.49  0.24  0.55  0.54 -0.11  1.00  0.69  0.84  0.37 -0.12 -0.1
A27 *  0.67 -0.62 -0.69 -0.60  0.64  0.52  0.78  0.61 -0.49 -0.68  0.71 -0.57  0.49  0.34  0.4
  0.67  0.70  0.75 -0.66 -0.68 -0.34 -0.22  0.33  0.61  0.29  0.69  1.00  0.88  0.34  0.34 -0.6
A28 *  0.70 -0.25 -0.43 -0.46  0.59  0.53  0.79  0.60 -0.20 -0.60  0.68 -0.26  0.20  0.42  0.5
  0.78  0.66  0.76 -0.59 -0.54 -0.54  0.15  0.55  0.56 -0.07  0.84  0.88  1.00  0.36  0.23 -0.3
A29 *  0.82 -0.61 -0.43 -0.78  0.86  0.95  0.52  0.86 -0.44 -0.74  0.52 -0.57  0.44 -0.31  0.3
  0.66  0.66  0.53 -0.83 -0.52 -0.86  0.33  0.86  0.91  0.44  0.37  0.34  0.36  1.00  0.22 -0.5
```

```
A30 *   0.24 -0.34 -0.60 -0.43   0.34   0.12 -0.15   0.05 -0.23 -0.39 -0.11 -0.60   0.23   0.49   0.
        0.44  0.67  0.43 -0.36 -0.27 -0.27 -0.52   0.17   0.31   0.23 -0.12   0.34   0.23   0.22   1.00 -0.
A31 *  -0.52  0.91  0.81  0.06 -0.75 -0.56 -0.30 -0.53   0.73   0.76 -0.37   0.99 -0.73   0.04 -0.
       -0.57 -0.82 -0.67  0.75  0.61  0.34  0.57 -0.27 -0.72 -0.73 -0.19 -0.62 -0.32 -0.56 -0.69   1
```

## Percentage of Variance for each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|-----|-----|-----|-----|-----|-----|-----|
| 1 * | 57.16 | 16.59 | 8.62 | 6.86 | 5.73 | 2.63 | 2.41 |

## Construct Loadings on each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|-----|-----|-----|-----|-----|-----|-----|
| A1 * | -1.842 | 0.634 | -0.367 | 0.740 | -0.474 | -0.256 | -0.330 |
| A2 * | 3.523 | 1.532 | 0.705 | 0.901 | -0.287 | 0.498 | -0.689 |
| A3 * | 3.430 | 2.169 | 0.135 | -1.736 | 1.351 | -0.143 | -0.392 |
| A4 * | 3.696 | 0.006 | 0.039 | 1.110 | -0.146 | -0.478 | -0.926 |
| A5 * | -3.593 | 0.593 | -0.041 | -0.432 | -0.001 | -0.463 | -0.579 |
| A6 * | -3.610 | 1.758 | -1.228 | -0.574 | -0.562 | -0.242 | 0.735 |
| A7 * | -2.336 | 1.033 | -1.115 | 1.741 | 0.746 | -0.656 | 1.043 |
| A8 * | -1.585 | 0.804 | -0.522 | -0.146 | -0.022 | -0.212 | 0.614 |
| A9 * | 3.966 | 2.884 | 2.011 | -0.874 | -0.485 | -0.905 | 0.306 |
| A10 * | 5.161 | -0.233 | -0.625 | 0.435 | -0.538 | 0.896 | 1.278 |
| A11 * | -0.573 | 0.327 | -0.169 | 0.068 | 0.248 | -0.197 | 0.554 |
| A12 * | 2.406 | 1.233 | -0.187 | 0.726 | 0.168 | -0.097 | -0.302 |
| A13 * | -3.966 | -2.884 | -2.011 | 0.874 | 0.485 | 0.905 | -0.306 |
| A14 * | 0.441 | -0.024 | 2.726 | 2.135 | -1.365 | -1.197 | -0.133 |
| A15 * | -3.100 | 1.626 | 2.180 | -0.822 | 2.920 | 1.108 | -0.252 |
| A16 * | -3.860 | 1.381 | 1.475 | 0.632 | 0.329 | 0.077 | -1.172 |
| A17 * | -3.686 | 0.032 | 1.349 | 0.124 | -0.108 | 0.622 | -0.231 |
| A18 * | -3.077 | 0.727 | 1.442 | -0.224 | 1.080 | 0.211 | 0.735 |
| A19 * | 4.883 | -0.652 | -0.115 | 0.541 | -0.133 | 0.687 | 0.898 |
| A20 * | 3.642 | 1.128 | 1.032 | -2.345 | 0.165 | 0.030 | 0.934 |
| A21 * | 2.961 | -3.160 | -0.034 | 0.371 | 1.495 | -0.736 | -0.576 |
| A22 * | 0.762 | 4.373 | -1.786 | 0.595 | -9.744 | -0.254 | -0.362 |
| A23 * | -2.749 | 3.056 | -0.563 | 0.211 | -1.290 | 0.914 | 0.348 |
| A24 * | -4.606 | 1.070 | -0.394 | -0.646 | -0.272 | -0.477 | -0.518 |
| A25 * | -2.269 | -1.566 | -0.381 | -2.474 | 0.005 | -1.725 | 0.182 |
| A26 * | -2.023 | 1.461 | -0.013 | 1.370 | 1.824 | 0.319 | 0.683 |
| A27 * | -2.767 | -0.171 | 0.864 | 1.597 | 0.588 | -1.174 | 1.137 |
| A28 * | -1.708 | 1.019 | 0.882 | 1.439 | 0.490 | -0.448 | 0.503 |
| A29 * | -3.477 | 1.581 | -1.244 | -0.925 | -1.329 | 0.139 | -0.312 |
| A30 * | -2.079 | -1.460 | 3.011 | -0.140 | -2.335 | 0.996 | 0.144 |
| A31 * | 4.563 | 2.262 | -0.800 | 0.971 | 0.880 | -0.000 | -0.761 |

## Element Loadings on each Component

| * | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
|---|-----|-----|-----|-----|-----|-----|-----|
| E1 * | 1.560 | -6.406 | -0.436 | -1.573 | -1.237 | 1.046 | 1.728 |
| E2 * | -4.966 | -4.030 | 3.534 | 0.652 | 2.290 | -0.802 | -1.395 |
| E3 * | 3.782 | -1.006 | -4.137 | 3.600 | 1.163 | 0.680 | -0.835 |
| E4 * | -10.236 | 3.147 | -1.170 | 0.424 | 1.404 | -0.757 | 2.032 |
| E5 * | -7.858 | 1.444 | -1.281 | -1.750 | -2.934 | 0.701 | -1.810 |
| E6 * | 7.985 | 0.910 | -1.529 | -2.858 | 0.486 | -2.393 | -0.332 |
| E7 * | 5.279 | 4.074 | 2.057 | -1.474 | 1.904 | 2.272 | 0.037 |
| E8 * | 4.454 | 1.957 | 2.961 | 2.978 | -3.076 | -0.747 | 0.575 |