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AN EXPLORATORY INVESTIGATION OF THE RELATIONSHIP BETWEEN THE
INFORMATION GAP AND ROLE CONFLICT AND AMBIGUITY IN
ORGANISATIONS

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for the degree of Master of Business Studies in Human
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ABSTRACT

The research on the information gap in organisations is very limited. This is partially due to the difficulties surrounding the theoretical definition and measurement of the construct.

The aim of the current research was to explore the multi-dimensional nature of the information gap, and to investigate the relationship between the information gap and role conflict and ambiguity in an organisational setting. The dimensions that were considered were the size of the gap, and the position of information levels within that gap.

Ten research questions provided a framework for the analysis of results. These objectives focussed on two areas. Firstly, the present and preferred use of various topics and sources of information, and the discrepancies resulting from this. This provided a replication of research done by Sligo (1986). The second focus of the research was an investigation of the relationship between the information gap and role conflict and ambiguity. In order to do this the methodology used by Sligo was refined to allow the position of information levels within the gap to be analysed.

The results of the research suggest that participants perceived the largest information gap on topics which gave them feedback about their performance. They preferred to receive information from formal interpersonal sources. Generally interpersonal sources were preferred over print sources. Investigation of the information gap and role stressors found clear associations between the size and position of levels of information within the gap, and the levels of role ambiguity and conflict found. As the size of the gap increased, higher levels of role conflict and ambiguity were found. Where the information gap was small, lower levels of conflict and ambiguity were found. The implications of these relationships for management intervention was discussed.

On the basis of the findings suggestions for future research were made. These included further investigation of the multi-dimensional nature of the information gap, and the need to look at other outcome variables for which the level of information gap may be an antecedent. It was also suggested that consideration be given to factors which may moderate the relationship between the gap and future outcome variables.

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CHAPTER ONE

INTRODUCTION

"Those of us who experience life largely within organisations - business, government, education - are living through a revolution. This revolution is unlike any we have experienced, unlike any we have heard about or read about before. This revolution has no political rhetoric, no impassioned oratory, no martyrs, no leadership in the conventional sense. This is a quiet revolution, a subtle revolution, an unconscious revolution. So quiet, so subtle, so unconscious, that most of us don't even know the revolution is in progress, let alone fully grasp our own roles within it" (Goldhaber et al, 1979, p. 3).

The end result of this revolution promises to be a dramatic shift in organisational power from one organisational constituency to another. Goldhaber and his colleagues go on to predict a move away from the traditional power base where the decision making and management of resources fall to those in line positions. They suggest that the distinction between line and staff functions has become so blurred over the past decade, that their initial meaning has been lost. It has been replaced by a distinction between those responsible for diagnosing the organisational environment (formerly staff alone) and those responsible for producing the product or service (formerly line alone).

Those who ascend to power in the future will be those who can diagnose contingencies in both the internal and external environment by establishing networks of organisational

intelligence. The right to make decisions is gravitating from traditional decision makers (the line organisation) to traditional knowledge workers (the staff organisation).

Organisational intelligence is considered by Goldhaber et al as

"...the chief control mechanism of the organisation - a systematically developed network of information sources, channels, receivers, and feedback loops - linked together within a conceptual grasp of organisation-specific internal and external contingencies" (p.11).

More and more members of contemporary organisations, regardless of hierarchical level, have greater access to internally and externally generated information than ever before. Those who can best sift through these increasing amounts of data, drawing from it information with which to make decisions, will obtain organisational power. More and more, information and organisational power are becoming synonymous. Bennis (1976) states:

"...information itself is the chief lever of power...Organisations are really information-processing systems, and the men who get power are the ones who learn how to filter the incredible flow of information into a meaningful pattern."

In his book "The Coming of Post-Industrial Society" (1976) Bell suggests that we are moving towards an era where the "economics of information", and the emergence of a "knowledge society" will be paramount. Our industrial society is becoming an information society. It is estimated that one out of every two workers is now employed in some

aspect of information processing. The move towards an increase in information processing can be readily seen. The development of new innovations for the storage and transmission of information is occurring exponentially. Knowledge itself is becoming a key commodity, and the power and rewards of having it are increasing.

As these changes occur, they bring with them changes in the whole meaning and nature of work. The increasing efficiency which results with the development of new technologies for information processing is clearly to be seen as an advantage from the management perspective. However, it is also important to recognise the problems for employees that result from this knowledge explosion. Wilensky (1969) suggests that

"The knowledge explosion intensifies an old problem: how to draw good intelligence from a highly compartmentalized body of knowledge and get it into a room where decisions are made. Sources of failure are legion: even if the initial message is accurate, clear, timely, and relevant, it may be translated, condensed, or completely blocked by personnel standing between the sender and the intended receiver; it may go through in distorted form. If the receiver is in a position to use the message, he may screen it out because it does not fit his preconceptions; because it has come through a suspicious or poorly-regarded channel, because it is embedded in piles of inaccurate or useless messages (excessive noise in the channel), or simply, because too many messages are transmitted to him (information overload) (p.41)."

This passage, although long, introduces many of the problems that exist within organisational communication systems. Increasing the complexity of the system increases the likelihood that these problems will occur.

It is sadly true that information and communication in organisations remain poorly understood subjects. Most organisations continue to be plagued by communication problems. Use of information by the organisation is the means by which organisational and individual needs are met. The goal of information usage is accuracy. This is accomplished by ensuring that information reaches the appropriate individuals in a manner that will be understood. Achieving accuracy often requires sending more than one message, by introducing 'redundancy' (as it is called) into the communication system. This increases the probability that the message will be received and understood. It also increases the likelihood of information overload.

To minimise the risk of overload steps may be taken to keep messages brief and communicate only variances from the standard. And yet these very actions increase the probability that accuracy and completeness will be lost, that misunderstandings will occur (Goldhaber et al, 1979, p.80). In short, it increases the likelihood that there will be a 'discrepancy' or 'information gap' between the information received to perform organisational tasks and the information perceived to be needed.

In summary, information problems may occur in the organisation as a result of at least two factors;

- a) The changes produced as we move towards an increasingly complex, information or 'knowledge' based society; and
- b) The complexities involved in the dissemination of information internally, in order to meet organisational and individual goals.

As the internal and external environments of many organisations continue to change at an increasing pace, a number of problems become evident. One of these is the increase in stress levels of organisational members. Although stress may take many forms two of the more heavily researched relate to role stress. They are, role conflict and ambiguity.

Intuitively it seems obvious that problems within the communication or information system of an organisation will significantly affect role conflict and ambiguity. Nevertheless very little effort has been made to consider the effect that an information or "knowledge" gap (as it is sometimes called) may have as an antecedent to these role stressors. The extent to which individuals perceive that appropriate levels of work related information are received has implications for their ability (and perhaps willingness) to perform their organisational tasks.

The intention of the current research is to explore the relationship between the information gap and role conflict and ambiguity.

The concepts, role conflict and ambiguity, are under

constant review. Comparatively little has been done on the measurement and use of the information gap in organisational settings. In 1986 Sligo completed a major review of the information requirements of knowledge workers in New Zealand. In addition to providing a substantial New Zealand database the findings of the research provide suggestions on the measurement of the information gap which have not been previously researched.

The general aims of this study are to:

1. Provide a partial replication of the work done by Sligo (1986) on the measurement of the information gap. The intention is to use the earlier research as a basis for suggesting further refinements of the methodology used to explore the information gap in organisations; and to
2. Use these refinements to propose a method of relating the theoretical concept of an information gap to two outcome variables, role conflict and ambiguity; and finally to
3. Explore the relationships that may exist between the information gap and these role stressors.

Specific objectives and a theoretical model will be developed following a review of the literature, and a detailed explanation of the methodology used.

It is hoped that this research will provide further New Zealand data to add to a growing database in the organisational communication area.

CHAPTER TWO

LITERATURE REVIEW

In Chapter One the broad intentions of the research were discussed, and the relevant variables introduced. The purpose of this chapter is to provide an overview of the relevant literature surrounding each of these variables.

Very little academic research appears to have been done on the relationship between communication (or lack of it) and job stress. Where this relationship has been discussed it has been in a largely descriptive, anecdotal manner, aimed at the practitioner rather than at academic researchers (for example, Schuler 1979). This lack of research is surprising as job related stress must be recognised as an increasingly likely outcome in today's complex organisations.

Communication research tends to fall into two main groups;

1. Studies that investigate the relationship between communication processes and general organisational outcomes, such as organisational climate (Muchinsky, 1977), and effectiveness (O'Reilly and Roberts, 1977); and
2. Studies that examine the relationship between organisational communication characteristics and independent measures of performance at the **individual** level of analysis (O'Reilly, 1977; Synder and Morris, 1984)

There is however, very little research that considers the relationship between **individual** communication variables, and **individual** outcome variables.

The individual communication variable this research focuses on is the perceived 'information gap'. The outcome variables of interest are role conflict and ambiguity. A literature search found no previous research which looked at the relationship between an individual's perceived information gap for various topics and sources of information, and the perceived levels of role conflict and ambiguity which may be associated with different these levels of the information gap.

Of the two, role stressors have been more widely researched. The focus of much of the research on these role stressors in this area has been on defining and measuring the theoretical constructs, and less effort has been spent on exploring potential organisational antecedents of them.

Similarly, the limited research on the information gap has focused on the problems associated with defining and measuring it. Very little attempt has been made to transcend these difficulties and explore the relationship between different levels of the information gap and outcome variables.

The intention of the current research is twofold. Firstly,

to explore which 'characteristics' of the gap are essential to its use in an organisational context, and secondly to explore its association with the outcome variables role conflict and ambiguity. Neither of these issues have been addressed in previous research.

In order to develop an appropriate theoretical model and design a series of specific research objectives a review of the literature surrounding the information gap and role conflict and ambiguity is necessary.

2.1 THE INFORMATION GAP

For the purposes of this research an information gap (also known as a "communication" or "knowledge" gap) can be viewed as the area of uncertainty between that information or knowledge which is known, and that which is unknown, in an organisational communication context.

A major weakness in the majority of studies done in the area of information processing is that they have been done under controlled, laboratory conditions, and may not reflect the circumstances under which information is used in actual organisations. O'Reilly (1982) noted that;

"... in actual organisations, unlike typical laboratory simulations, information may be contradictory or vague, available from sources of varying credibility, applicable to a number of tasks being performed, and available at social as well as economic costs. Actual decision makers, unlike those in laboratory experiments, may also be distracted, under time

pressures, and pursuing multiple objectives." (p 756)

Most research done in this area has been done in either laboratory settings as mentioned earlier, or has been done from a "mass communication" perspective. That is, by investigating the information gap at a sociological level, often by analysing the causes and consequences of gaps as a result of different types of media use. Examples of media used include television, radio and print media.

Childers and Post (1975), for example, found that variables associated with information gaps included lack of education, failure to use expert information sources, lack of informed interpersonal contacts, lack of exposure to high information content print media, lack of awareness of information sources, an absence of organisational ties and a lack of information processing skills. Like most research done on the information gap his focus was from a mass communication perspective. Despite this most of the variables he mentions may be transposed to an organisational setting.

The key point to be made here is that very little research has investigated the implications of an information gap in an organisational setting. This gap in organisational communication research indicates a failure to recognise the importance of the information gap as a likely outcome of an inefficient or ineffective communication system. It also provides a clear indication of the limited theoretical and

methodological development that has occurred in this area.

The limited research which is available on the information or communication gap in the organisation tends to link it closely with two concepts. These are 'communication load' and 'uncertainty'. As we will see, each of these variables has some conceptual overlap with the information gap but at times it appeared that the terms (particularly uncertainty) were being used interchangeably with the concept of an information gap.

2.1.1 Communication Load

Communication load, or information load as it is also referred to, is measured by the rate and complexity of communication inputs to an individual. Rate is usually expressed as the number of communication demands that are received, operated on, and resolved in a period of time. Complexity refers to the number of judgements or factors that must be taken into account while dealing with, or processing, communication. (Farace, et al 1977, p. 100)

The word 'load' is also used in this connection with the idea of 'overload' or 'underload'. Using Farace's definition we see overload as indicating

"situations where the flow of messages exceeds the system's processing capacity." (p. 101)

Communication underload occurs in situations where less information is received than is needed, or wanted. Both overload and underload can be measured by the difference between levels of information presently available and levels preferred Farrace (1977). Farrace suggests that inappropriate levels of communication load result in stress within the organisational context.

Communication overload or underload should be distinguished at this point from **role** overload or underload. Role load reflects the individual's qualitative perceptions about the appropriateness of levels of tasks or task related activities assigned to them. For some, role overload may result as the organisational responsibilities assigned to them become too difficult, complex or great in number. Others, as the nature of work and attitudes towards it change, perceive their organisational roles as becoming increasingly boring and non-stimulating, resulting in a feeling of role underload. Both are becoming increasingly common. In this research we will focus on communication load, rather than role load, although both role conflict and ambiguity relate to role load.

The effects of role overload and underload have been extensively researched by those interested in causes and consequences of organisational stress. However

little research has been done on the relationship between information overload or underload and job stress.

2.1.2 Uncertainty

The second concept relevant to information gaps is that of uncertainty. Considerable research has been done on the methodological problems associated with the definition and measurement of uncertainty (Brown, 1978; Connolly, 1977). Organisational applications of uncertainty theory tend to draw heavily on the idea of information gaps, hence the feeling that at times the terms appear to be used interchangeably.

The controversy within the research on both information load, and uncertainty concerns the problem of measurement and definition. On the one hand there is a strong preference for "objective", quantitatively-based measures of gaps or uncertainty levels, and on the opposing side is the argument which suggests that absolute objectivity in this context cannot exist. The latter school of thought argues that subjective personal perceptions of a particular phenomenon are valid and appropriate. In summary the argument rests on whether uncertainty should be considered an "objective property of the environment", or "an entity perceived by the individual" (Connolly, 1977).

It is interesting to note that arguments for the objective measure come mainly from controlled laboratory situations, which of course often bear little relevance to organisational settings. In his review of this area Sligo (1986) finds intuitive support for the definitions adopted by researchers involved in the development of communication audits (for example, Wiio, 1977; Goldhaber and Rogers, 1979). For example Goldhaber suggests that :

"Uncertainty is operationally defined as the difference between the amount of information received versus the amount of information needed on a particular topic or...from a given source. The greater the difference between information received...and information needed...the greater the probability of uncertainty" (from Sligo, p. 421)

Although there are problems in the measurement of subjective levels of uncertainty, or information gap, if these constraints are acknowledged, use of this form of definition it is no less defensible than any methodology which uses subjective attitudinal scales to measure an operationally defined concept. Different constraints appear if more objective measures are used. This ideological split reflects a common research dilemma.

2.1.3 The positioning of the information gap

One of the major problems encountered in analysing the information gap, and one which Sligo also touches on

briefly, occurs when analysing different levels or positions of information within the gap. It is usual in organisational research on the information gap to require respondents to fill in two scales for each topic or source that is under investigation (see Appendix A for an example).

The first scale normally asks for an indication of the current levels with which information is received, perhaps on a scale of 1 (never) to 5 (very often), as in the current research. The second side of the scale asks for an indication of information preferred, on the same 1 to 5 scale. If information preferred is greater than information now, the result is referred to as a positive discrepancy. Where information received now is perceived as being higher than that wanted a negative discrepancy results.

The problem arises when responses of 1-3 and 3-5 (for example) are compared. Sligo suggests that this becomes a problem when comparing different sources of information. However it is also a problem when comparing different individual's reactions to the same source. For example, one participant may rate 1 (never) on the now received scale and 3 (sometimes) on the preferred scale. A second participant may respond to the same question with 3 (sometimes) on the now received and 5 (very often) on the preferred scale.

Both respondents are shown as having a positive discrepancy of '2' on the item, even though the pattern of their responses is entirely different.

How can these gaps be compared? Unless a measure allows differences in response patterns to be seen it has limited usefulness. For example, is a discrepancy score of 1-3 (see above) likely to have the same attitudinal and behavioural effect as a score of 3-5, which has the same discrepancy gap but a higher level of information received now. Unless the current level of information received is known, and the individual's satisfaction with that level of information is also known it is difficult to test responses to the information gap. Satisfaction levels can be assumed by comparing levels received with levels preferred. The larger the gap, the greater the dissatisfaction.

McClure (1980) and Paisley (1980) discuss the idea of an "information environment". McClure describes it as the totality of information sources normally available to a person.

Sligo (1986 p. 14) in a discussion of Paisley's comments highlights a useful observation, that people who receive relatively little information want relatively more. The implications of this for the current research are important. Consideration of not

only the size of the information gap, but also the positioning of levels of information received within the gap may have a significant effect on the levels of role conflict and ambiguity perceived by individuals in work settings.

This point will be reinforced at later points in the discussion as it is considered an essential focus of the current research.

Sligo rightly points out that no previous research appears to have addressed this issue, and he takes the first steps towards doing so. The current research intends to use the steps taken by Sligo (1986) as a foundation for further investigation of this problem.

A second methodological problem highlighted by Sligo deals with the measurement and definition of what he describes as a "normal discrepancy". A discrepancy is the difference between levels of information now and levels preferred for each topic or source under investigation. He suggests that a discrepancy of around 0.4 could be considered a "normal discrepancy".

While this figure may be accepted as a nominal cut-off point it has not been tested empirically and therefore if used the results must be treated with some caution.

It is now appropriate to consider the literature which may influence the existence of an information gap in the organisational setting. This includes the topics on which work related information is received, and the sources from which these topics may come.

2.1.4 Topics of information

The types of information that are received by organisational members varies widely. Sligo (1984) investigated the information gap within two organisations, using a set of nine questions relating to information received. The nine questions fall into three categories.

1. The individual's performance
2. The relationship between the individual and the organisation
3. The organisation as a whole

He considered the nine questions on the basis of the frequency with which various topics of information were currently received, the frequency preferred, and the discrepancy between these two items.

He found that information regarding "my work duties" had the highest amount of information currently received. "How my work performance is assessed" had the lowest amount of information currently received. Topics of information preferred varied from

"opportunities for promotion and advancement" and "how my work performance is assessed" (both given a high ranking) to "the problems being experienced by my organisation", given the lowest ranking. An analysis of the information gap revealed that staff would prefer to receive more information about their relationship with the organisation than was presently the case.

In terms of research which considers the information gap in organisations, the work done in New Zealand in recent years (by Sligo) makes a very useful contribution and opens further avenues for research. No other research was found on the relationship between topics of information and the information gap.

2.1.5 Sources of information

The role of information sources in organisational communication settings has been more extensively covered in the literature. Two aspects of information source research are particularly relevant to the current study;

1. Which sources of information are most preferred; and
2. What factors affect the choice of information source.

By considering the sources of information received and preferred it is possible to begin to get an idea of the factors that may affect levels of information received.

It is clearly useful for management to be aware of those sources (and topics) from which their employees prefer to receive information. As we will see the availability of information does not automatically imply that it will be used.

A considerable amount has been written about the importance of sources of information in both upward and downward, and to a lesser extent, horizontal communication patterns.

Most consistent is the finding that personal sources of information are both used more frequently, and preferred, to impersonal sources. Mintzberg (1978) describes interpersonal contacts as crucial in organisations. Several studies do show that particularly under conditions of high uncertainty, individuals are more likely to prefer verbal as opposed to written channel (Randolph, 1968; Tushman and Nadler, 1978).

Porter and Roberts (1976) suggest that one's immediate superior may potentially be the most important source of information. Despite this, Bacharach and Aiken (1977) in their research into communication within administrative bureaucracies suggest that in reality the barriers preventing effective upward information flow may mean that employees are kept "information

poor". Superiors are more likely to use subordinates as information sources than subordinates are to use superiors.

This desire to communicate with subordinates is especially strong in situations where the subordinate is perceived by his or her superior to have comparatively more information on a matter relevant to current decision-making. Bacharach and Aiken (1977) found that most of the contact initiated by subordinates was lateral, rather than upward. Lack of upward feedback may produce a cyclical effect which ultimately results in management becoming a less effective source of information for those further down the organisation.

When formal channels of communication are blocked in some way, informal channels will be used. Newstrom et al (1974) surveyed a range of managerial and white collar employees and concluded that although the majority of respondents had negative feelings about the grapevine, two out of five perceived it as being a useful source of information in their organisation.

Mintzberg (1978) found that individuals in top management positions frequently felt a greater degree of information overload using print, rather than interpersonal sources of information. They tended to

prefer very current interpersonal (oral) sources. Managers perceived these sources as more likely to provide the very up-to-date information necessary for effective management.

Level (1972) suggested that a combination of oral followed by written sources was appropriate where immediate action and follow-up and/or documentation is desired, and communication information is of a general nature. He goes on to suggest that single methods, (that is, either written or oral sources) are most effective for specific situations. Written sources are recommended where no personal contact is necessary, and the message relates to future action or provides general information. Oral sources are recommended where interpersonal contact and immediate feedback are desirable and when the purpose of the communication is behavioural change.

Sligo (1986) found that internal sources are preferred to external sources. Use of internal versus external sources was also researched by Fischer (1979). It was found that the newer the task, the greater the reliance on external sources. Internal sources were more commonly consulted when the task was of a routine nature.

The second area to be considered in an overview of

information sources is an investigation of the reasons for the selection of one particular source over other available alternatives.

These reasons may include accessibility (Gerstberger and Allen, 1968; Ference, 1970; Pfeffer and Salancik, 1977; O'Reilly, 1982;), perceived quality of the source (Gerstberger and Allen, 1968; O'Reilly, 1982;), task uncertainty or complexity (Gifford et al, 1979; Randolph and Finch, 1977; Randolph, 1978; Tushman and Nadler, 1978), trust and credibility, (Giffin, 1967) and individual differences (Taylor and Dunnette, 1974).

The quality versus accessibility question has been widely debated in the literature. Gerstberger and Allen (1968) suggest that accessibility is the single most important determinant of the extent to which a particular source will be used.

Pfeffer and Salancik, (1977) also found that accessibility was more important to the decision of source choice than was quality of information. In organisations with complex hierarchical structures the cost of obtaining information from quality sources may be great. Cost can be measured in terms of psychological factors, or in time and effort. As a result a more accessible source may be used in preference.

This finding was reinforced in later research by O'Reilly (1982). It seems that once a source is perceived as inaccessible, and the costs of obtaining information from it are too great, or not possible, it is less likely to be sought as a potential source of information, particularly for routine communication. Both Pfeffer and Salancik, and O'Reilly argue that:

"... due to the ambiguity inherent in much information available to decision makers and to the pressures on decision makers to produce results, accessibility of information may dominate quality as a determinant of preference for information sources."

(O'Reilly, p757)

Earlier research (FERENCE, 1970) suggested that information from frequently used sources is more likely to be defined as required than that from infrequently used sources, regardless of the quality of the source. The debate continues.

Source credibility and interpersonal trust have also been suggested as reasons which influence source choice (Giffin, 1967). Particularly in situations where ambiguity is present in the information flow (but even when it is not), the perception of the receiver about the trustworthiness of the potential source may well influence the decision about whether or not to use the source. This assumes that the choice is available.

Interpersonal trust is a factor which has been researched very frequently in the area of subordinate-superior communication patterns, and is seen as a major cause of information distortion.

Finally, it must be acknowledged that individual differences almost certainly affect one's decision about source choice. Factors such as education levels, experience, age, motivation, status, and job tenure, to name a few, may all moderate the relationship between source availability and choice.

2.1.6 Measurement of the information gap

It is clear that some disagreement exists about the most important reason for source choice. One thing which does not seem to have been recognised in the research is the extent to which the situation may affect the type of source that is appropriate. Similarly, when we consider the information gap it is important to recognise that there will be occasions when the existence of an information gap is perceived as important to an individual, and occasions (or situations) where it is seen as less important.

Take for example the situation where the information discrepancy between levels of information received now and levels preferred is quite high. In this case it seems likely that the absolute level of information

currently received would affect the importance to the individual of the information discrepancy. If the gap **is** perceived to be important behavioural and attitudinal changes may occur as the recipient attempts to find appropriate coping mechanisms. These changes may include increased levels of role conflict and ambiguity.

If an information user perceives difficulties with the sources of information they receive research suggests that the source will be avoided. In many situations the sender may be unaware that a problem exists, and will make the assumption that the information in question is both available, and used. The psychological costs to the receiver of acknowledging that an information gap exists may be high. If it is sufficiently high the loss in information received may be carried by the receiver. This creates a degree of stress which superiors may be unaware of.

Many of the methodological problems surrounding the measurement of the information gap result from a lack of understanding of the perceptual processes involved. This is commonly used as an argument for the use of more objective operational definitions. It seems to the author that to resort to objective measurements would result in problems similar to those found when measuring job satisfaction (for example) by looking at

objective levels of performance. In that area of research it is now recognised that no direct relationship may exist, particularly if individual differences are taken into account. Similarly, it seems appropriate to focus on perceptual measurements of the information gap in order to investigate the complexities that are becoming apparent.

Like the measurement of the information gap, measurement of role conflict and ambiguity is also done in this "subjective" way, and as discussed in Chapter Three the validity of the scales used is widely accepted. While some controversy still remains on the issue of what role conflict and ambiguity scales actually measure (for example, Tracy and Johnson, 1981) our focus is not on the validation of either the scales or the conceptual definitions of these variables. This is accepted as an on-going process. The intention of this research is to make an exploratory analysis of the links between the information gap and role stressors. It therefore, for our purposes, seems both valid and appropriate to measure both types of variables using the perceptions of respondents.

The use of perceptual data is further justified when we consider that the availability of information does not necessarily lead to its use (Spitzer and Denzin, 1965), and exposure to information does not necessarily imply

understanding. Based on these assumptions, and given the complexity of the information gap, it seems intuitively obvious that unless the levels of information received and the levels preferred are measured on a perceptual level, it is unlikely that an accurate measure of the individual's information gap can be gained. Objective measures run the risk of ignoring the fact that data is not information until some meaning has been attributed to it.

In this section we have reviewed the literature pertaining to the information gap. In doing so the areas where research is lacking have been highlighted. Research which reviews areas that may affect or lead to an information gap have been briefly discussed, and the ideological split that surrounds measurement of the information gap has been acknowledged.

2.2 ROLE CONFLICT AND AMBIGUITY

Work plays a significant role in contributing to an individual's psychological and social well being. The level of stress an employee perceives as being present either at work, or as a result of work, will directly affect the well being of the individual. Job stress appears to have serious health consequences. The evidence supporting this seems overwhelming. Levinson (1978) suggests that stress now effects workers in "epidemic proportions and is probably the source of more sickness and death than any other single

disease."

"The potential for stress in the work place exists when an individual perceives an environmental situation as presenting demands which threaten to exceed the individual's capabilities and resources for meeting it".

(Stout and Posner, 1984, p.747)

Role conflict and ambiguity are the two most commonly researched work role stressors. Role conflict is the degree of incongruity or incompatibility of expectations communicated to a focal person by his-her role senders (Miles and Perreault, 1979). Role ambiguity exists when information available to an organisational member is vague or inadequate (Abdel-Halm, 1982).

An underlying assumption of the current research is that as the level of uncertainty within the individual's information base increases (as measured by the information gap), the level of role conflict and ambiguity perceived will also increase. Uncertainty can be seen as the link between the information gap and role stress.

The intention of this research is to explore the role of the information gap as an antecedent for role conflict and ambiguity. Until the causes, of role stressors are more thoroughly researched it will remain difficult to predict effective coping mechanisms.

Most research on role conflict and ambiguity has focused on

either;

- (a) The examination of the relationship between role stressors and such role responses as job satisfaction, performance, anxiety and propensity to leave the organisation (Hamner and Tosi, 1974; House and Rizzo, 1972; Keller, 1975; Rizzo, House and Lirtzman, 1970; Rogers and Molner, 1976; Tosi and Tosi, 1970; Tosi, 1971) or;
- (b) The testing of personality characteristics as moderator variables in a role stress model (Brief and Alderg, 1976; Ivancevich and Donnelly, 1974; Johnson and Stinson, 1975; Lyons, 1971; Miles and Petty, 1975; Organ and Greene, 1974; Sales, 1970).

Situational characteristics as moderators or antecedents of the role stress-response relationship have received little attention. Notable exceptions are Schuler (1975,1977), Beehr, (1976), and Abdel-Halim (1978) who have treated these two concepts as dependent variables, and suggested various antecedents as independant variables.

Schuler (1977) suggests that perceived levels of role conflict and ambiguity may be dependent on the employee's task (Miles, 1976), the organisation's structure (House and Rizzo, 1972), and/or technology. Both task structure, particularly in terms of job enrichment characteristics, and the technology-structure fit have been a popular topic of research concern in recent years (for example, Abdel-Halim 1978, and Schuler, 1977).

Burns and Stalker (1961) characterise organisational structure as either mechanistic and organic. Organic organisations are characterised by implicit goals and

directions, openness in communication, intergroup cooperation, low formalization, and task feedback systems.

Mechanistic organisations have explicit policies and procedures, clearly defined job descriptions, specific goals, high formalization, top down communication, and departmentalization. House and Rizzo (1972) reported less role conflict and ambiguity associated with mechanistic organisational practices. The present author concedes that it is not unreasonable to expect that a highly structured work environment, where responsibilities and expectations are clear, will reduce the conflict and ambiguity individuals perceived, providing the formal communication channels also encourage feedback through effective upward communication. Kahn et al (1964) in their much earlier work had suggested that the restricted communication in a mechanistic organisation may cause role ambiguity.

This was among the earliest research that linked communication and role stress together, albeit through consideration of the appropriateness of the particular types of organisational structure.

Kahn et al found that top down communication may preclude effective two-way communication and lead to ambiguity. No support for this was reported by Miles (1976). This inconsistency in research results is common in studies of stress. A clear theoretical understanding of the

relationship between role stress and its antecedents and consequences has remained elusive because results across studies have been inconsistent (Vansell et al 1981). This may be partially due to the fact that stress seems to be related to a large number of conditions, making a systematic focus difficult (Beehr and Newman, 1978).

In an attempt to provide a focus for future research Fisher and Gitelson (1983) conducted a meta-analysis of forty-three studies of role conflict and ambiguity. Of eighteen potential antecedents or consequences found, seven were consistently related to role conflict and eight were more strongly related to role ambiguity.

Role conflict positively related to boundary spanning activity and negatively related to: organisational commitment; job involvement; satisfaction with pay, co-workers and supervisor; and participation in decision making.

Role ambiguity positively related to education and negatively related to: organisational communication; job involvement; satisfaction with co-workers and promotions, boundary spanning activity, tenure, age.

It is reasonably common for anecdotal discussions on the relationship between communication and stress to appear in journals or magazines aimed at practitioners. After all it

is intuitively obvious that a link of some sort exists between information individuals receive to perform their jobs, and a range of psychological outcomes that may result if communication processes are ineffective in some way.

A small number of academic studies have also considered the relationship between communication and role stress. A review by Van Sell et al (1981), suggested that communication frequency between role sender and focal person influence the focal person's perceptions of role conflict and ambiguity.

Rizzo et al (1972) found moderate associations between "adequacy of communication" and role ambiguity. However this relationship was not what they had set out to test. It was a result of data found rather than a result of theoretical development.

2.3 CONCLUSION

An obvious deficiency exists in the literature surrounding both information gaps, and role stressors. An attempt to explore the potential relationships between these two variables provides the rationale for the current research.

In closing this section two points must be made in order to clarify the directions of the current research;

1. In order to analyse the complexities inherent in the information gap the following two characteristics must be taken into account:

- a) The size of the gap
- b) The position of information levels within the gap.

The first of these has been measured in a limited number of ways, and with varying levels of effectiveness. The second has been explored briefly, almost as an after thought, by Sligo (1986), but a literature review found no other reference to it.

2. On the basis of the above, what effect does the size and positioning of information within the gap have on role conflict and ambiguity? By analysing the associations between what are considered essential characteristics of the information gap, and outcome variables, the validity of the characteristics can be assessed.

3. It should also be noted here that the importance to the individual of the size of the gap, and the position of information levels within the gap may also influence levels of role conflict and ambiguity perceived.

Chapter One provided an introduction to the current research and briefly described the general aims of this study. In

this chapter a review of the literature has found little empirical research in the area. It has, however, provided a brief background on aspects of communication and role stressors which are relevant to our focus. In Chapter Three the methodological framework which provides the basis for the research will be discussed.

CHAPTER THREE

METHODOLOGY

3.1 THE SAMPLE

The survey instrument used was a questionnaire. It was administered to 207 individuals. The common link between the 207 respondents in the sample was their involvement in an extramural course within the Business Faculty at Massey University. The questionnaire was distributed to students attending the 14.221 Administrative and Behavioural Processes vacation course in August 1985.

Of the 207 completed questionnaires 132 (63.8%) were from men, and 145 (70%) of all respondents were between the ages of twenty-five and forty-four.

The paper the subjects were enrolled in is a compulsory paper within the Business degree core of ten papers. Although no precise figures are available for the 1985 academic year, the majority of students studying for this degree extramurally are in full time employment. They came from a wide range of organisations including the public service (46%), private manufacturing (26%), private service (22%), and other unspecified sectors (6%).

Ninety-five (46%) consider themselves to be in top or middle

management positions, and 190 (92%) indicated that they had held their current position for five years or less. Although the impression of upward mobility is gained, a reasonable degree of employment stability was indicated with over 33% having been employed in their current organisation for at least six years, and 86% indicating that they had worked in no more than two different organisations during the past ten years.

3.2 THE QUESTIONNAIRE

The questionnaire was divided into the following sections (see Appendix One for the complete questionnaire):

Divisions within the Questionnaire

<u>Section</u>	<u>Number of Questions</u>
Topics of Information Received	9
*Topics of Information Sent	4
Sources of Information:	
Interpersonal Sources	9
Written or Print Sources	10
Role Conflict and Ambiguity	20
*Overall Job Satisfaction	1
Demographic Information	7

Note * These sections were not analysed in the current research.

Earlier use of sections within the questionnaire by other researchers (Sligo 1986, Dewe 1984) indicated high internal consistency and reliability. On the basis of these earlier results no pilot study was carried out. Careful consideration was however given to the order of each section within the total questionnaire.

It is appropriate at this point to consider each section in more detail.

3.2.1 Topics of Information Received

All communication questions were taken from Sligo (1986), and were originally adapted from several communication audits, most notably the International Communication Association (ICA) audit (Goldhaber and Rogers, 1979) and the Organisational Communication Development (OCD) audit developed by Wiio et al (1977). Modifications from the original audits were made in order to provide a balance in emphasis between interpersonal and written sources of communication. The ICA audit tends to be very interpersonal in its orientation.

The first section looks at topics of information received. It consists of nine questions which fall into three distinct categories: (see Sligo, 1984, p. 16)

1. The individual's performance
 - My work duties
 - How well I am doing in my work
 - How my work performance is assessed
2. The relationship between the individual and the organisation
 - How organisational decisions are made that affect my job

- Opportunities for promotion and advancement in the organisation
 - How my job relates to the total operation of the organisation
3. The organisation as a whole
- How well my organisation is achieving its goals and objectives
 - The problems being experienced by my organisation
 - Major new developments in the organisation

Respondents were asked to indicate on two separate Likert scales with ranges from 1 ('very little') through to 5 ('very much'), the amount of information received now, and the amount of information that respondents felt they should receive on each of the nine work related items.

For example, a question relating to 'my work duties' required one response indicating the amount of information now received on work duties, and one response indicating the amount that should be received on the topic 'my work duties'. The difference between the two responses provides an operational measure of the information gap for that particular topic.

3.2.2 Sources of Information

The second section of the questionnaire investigates various sources of information. This section was divided into two parts. Firstly, nine questions

focused on sources of information from other people, not in written or print form. These may also be described as interpersonal sources. Examples of this type of source include subordinates, co-workers, the immediate superior, department meetings, and the grapevine.

The second part of this section investigated ten written or print sources of information. It should be acknowledged that some written or print sources may also be considered interpersonal (most notably the memo). To clarify this distinction the terms 'interpersonal' and 'written' were used in preference to a distinction such as 'personal-impersonal', which is open to a more subjective interpretation.

Other examples of written or print sources include letters or reports from outside the organisation, in-house newsletters, organisational records and computer-based information retrieval systems.

As in the previous section, this one also required a subjective assessment of the frequency with which information is now received from the particular source, and the frequency with which the respondent would felt they should receive information from the source. Two five point Likert scales with ranges from 1 ('never') through to 5 ('very often') were used to record the

differences between the present and the preferred level of information received from each of the sources.

There was provision for other sources of both interpersonal or written information to be specified by the respondent. From the sample of 207 completed questionnaires, less than 3% added sources not previously mentioned. The most common of those suggested by respondents was information from the union or union delegate.

3.2.3 Role Conflict and Ambiguity

Twenty items relating to role conflict and ambiguity were taken from previous research by Dewe 1984, modified from an original scale by House, Rizzo and Lirtzman (1970). These items have been extensively used and their psychometric properties fully examined. Research indicates high internal consistency and their continued use.

Levels of role conflict and ambiguity were measured on a five point scale ranging from 1 ('never') to 5 ('frequently').

Examples of role conflict questions include:

- Being responsible for tasks over which you have too little authority

- Receiving incompatible requests from two or more people
- Having to refer matters upward when you could really deal with them adequately yourself.

Examples of role ambiguity questions include:

- not knowing what your responsibilities are
- not knowing how well you are doing in your job
- not having a clear idea about how your performance is judged

3.2.4 Demographic Information

The fourth and final page of the questionnaire provided background demographic details about each respondent.

The questions dealt with:

- 1) Sex of the respondent
- 2) Age of the respondent
- 3) Length of time in the present organisation
- 4) Length of time in the present position
- 5) Present status or position
- 6) Type of organisation worked in
- 7) Number of other organisations employed in full-time during the past ten years.

All questions were presented as either four or five point forced choice categories apart from question two relating to 'age'. Question two provided a blank space to allow respondents to enter their age. The questionnaire was completed on a voluntary and anonymous basis, and as this and the purpose of the research was carefully explained to respondents at the

time it was administered no evidence of superficial responding was found.

Questions five and six (as shown above) included space for respondents to specify other more appropriate answers if desired. Those who did so in question five 'What is your position in this organisation', tended to mention their involvement in some form of work group or 'quality control circle' for which equal responsibility was taken among group members for decision making, and leadership processes. This appears to be an increasingly common form of structure within complex organisations in New Zealand, as it is overseas.

'Other' responses to question six 'What type of organisation do you work for?' tended to elicit responses which could be re-classified into one of the other forced choice categories already listed.

3.3 PREPARATION OF THE DATA FOR ANALYSIS

3.3.1 The Communication Data

The communication data was analysed in two ways;

- a) Individual questions were used to look at:
 - the levels of information received on a variety of work related topics and from a range of interpersonal and written sources
 - the levels of information preferred from

these same topics and sources

- the information gap or 'discrepancy' between the levels of information received and the levels preferred for work related topics, and interpersonal and written sources of information
- b) Individual scores on each of these groupings were then combined to derive six composite scores:
 - a) Topics of information received now (nine questions)
 - b) Topics of information preferred (nine questions)
 - c) Frequency now received from interpersonal sources (nine questions)
 - d) Frequency preferred from interpersonal sources (nine questions)
 - e) Frequency now received from print sources (ten questions)
 - f) Frequency preferred from print sources (ten questions)

These composite scores were used to consider:

- correlations - between each of the composite scores and role conflict and ambiguity
- crosstabulations - which were used to plot the relationships between the composite scores and role conflict and ambiguity

3.3.2 Role Conflict and Ambiguity

In order to get a better understanding of role conflict and ambiguity for this sample the twenty items were subjected to a Principal Components Analysis with Varimax rotation. In order to avoid any misspecification the component loadings were considered relevant if they achieved + or - .40.

Two components explaining 29.5% and 9.4% of the variance were established. They clustered into two logical groupings, one suggesting role conflict items and the other role ambiguity items. Only two items were dropped from use as they did not produce a significant loading with either of the two new component groupings.

The Principal Components analysis tended to support the role conflict and ambiguity items used as valid measures. Items contained under the component which we will now call 'conflict' included:

- Being responsible for tasks over which you have too little authority
- Receiving incompatible requests from two or more people
- Having to refer matters upwards when you could really deal with them adequately yourself
- Having to do things one way when you believe they could be better done another way
- Being given insufficient authority to do your job properly
- Having to work under policies and guidelines which conflict with each other
- Having to get the job done without sufficient or satisfactory help
- Other people not involved in work pressure putting pressure on you
- Having to bend a rule or policy to get the job done

Items which loaded under the component which we will now call 'ambiguity' included:

- Not knowing what your responsibilities are
- Not being clear about the priorities within your job
- Not having a clear idea about how much authority you have
- Not knowing how well you are doing in your job
- Not having a clear idea about how your performance is judged
- Having insufficient guidelines to help with important aspects of your work
- Working on unnecessary things
- Not receiving a clear explanation of what has to be done
- Having to 'feel' your way in performing your duties

The 'conflict' and 'ambiguity' components each comprise nine questions. For each question a response of '1' to '5' is possible. Therefore a potential range of scores for each component is from nine (all items answered '1') through to forty-five (all items answered '5').

Comparison of these stressors with the information gap requires some distinction to be made between high and low levels of the role conflict and ambiguity components. The range of scores mentioned in the previous paragraph formed the basis on which four levels of stress were derived. The means and standard deviations of the two components (see Appendix Two) suggested a division into four levels, using the same splits for both components. They were divided as

follows:

<u>Level of Stressor</u>	<u>Range of Score</u>
Very Low	9 - 18
Low	19 - 25
High	26 - 32
Very High	33 - 45

Crosstabulations were used to plot or highlight the relationship between these four levels of stress and the information gap. Steps in deriving the information gap for this and other forms of analysis will now be discussed.

3.3.3 Deriving the Information Gap

For each communication question two responses were required. The first to measure current levels of frequency with which a particular topic was received or a source used. The second response measured preferred levels of use or frequency. Topics were measured on a five point scale ranging from 1 (very little) to 5 (very much). Sources were measured on a scale of 1 (never) to 5 (very often). The statements were:

"This is the frequency with which I now receive information about (or from) ..." and

"This is the frequency with which I would like to receive information about (or from) ..."

The difference between these responses constitutes an "information gap". This gap is operationalised in two

ways;

- a) By the use of discrepancy scores. These are calculated on a question by question basis. Two means for each question are obtained. That is, information now and information preferred. By subtracting the mean score for information received now from that of information preferred a 'discrepancy' score is obtained. This discrepancy provides a measure of the size of the information gap for each question. Discrepancy scores were then ranked from largest to smallest according to the size of the gap. Limitations in the use of this methodology for the purpose of this research are discussed later in this chapter. As a result of these limitations for the present research an additional technique for analysing discrepancies is used.

- b) That is, use of the actual response scores. As each respondent indicates the level of information they now receive, and the level of information they would prefer to receive (on a particular topic, or from a particular source), a maximum of twenty-five responses is possible. The responses may range from 1-1 through to 5-5. Each of the responses falls at a particular information gap. Gap sizes range from zero through to four

page 51). Within these gaps a response may fall at several positions along the gap. For example responses with an information gap of '3' may occur at positions of 1-4 or 2-5.

The discrepancy position may be in either a positive or negative direction. A positive direction occurs where the preferred level of a particular topic or source is greater than the level currently received. For example, if 'little' (2) information is received but 'much' (4) is preferred the result is a discrepancy of +2. If 'much' information is received but only 'little' wanted, the gap is represented as -2. A positive direction was far more common in this research than a negative score. It is very unusual for people to receive more work related information than they require. Response scores allow the position of information levels within the gap to be seen through analysis of the actual response scores.

Both discrepancy scores and responses scores can be used to investigate the topics or sources which are associated with the largest information gaps. The problem that this research wishes to address becomes clear when we attempt to relate the information gap to outcome variables. In this case role conflict and

ambiguity.

Take as an example a discrepancy of +2. This may represent any one of three possible responses (1-3,2-4,3-5). It is likely that the subjective reaction of the respondent to this gap will vary for each of the three positions. Does receiving 'very little' information when 'some' is required elicit the same behavioural or attitudinal response as would occur if 'some' information was received but 'very much' was desired? Both situations show a positive discrepancy of +2.

Attempts to analyse the relationship between the information gap and role stressors using discrepancy scores and correlational analysis would hide these potential differences in response.

In recognition of the complexities involved in measuring the information gap it seems appropriate to use analysis which takes into account the following two characteristics:

1. The size of the information gap; and
2. The position of information levels within the gap.

The relationship between the size of the gap and the position of the scores within it is shown below:

<u>Size of Information Gap</u>	<u>Position of Response Scores</u>
0	1-1, 2-2, 3-3, 4-4, 5-5
+1 -1	1-2, 2-3, 3-4, 4-5 2-1, 3-2, 4-3, 5-4
+2 -2	1-3, 2-4, 3-5 3-1, 4-2, 5-3
+3 -3	1-4, 2-5 4-1, 5-2
+4 -4	1-5 5-1

In order to get more than a superficial view of the information gap it is important to consider both the size and the position of the actual response scores.

3.4 STAGES IN THE ANALYSIS

In this section we will look in some detail at the steps used to analyse the data. Briefly they were:

1. Ranking of Topics and Sources - This shows respondent's actual and preferred levels of information for each of the following types of communication data;
 - a) Topics of information
 - b) Interpersonal Sources of information
 - c) Written or print sources of information
2. Analysis of the information gap - This is done by ranking the discrepancy scores for each of the individual communication variables. As explained

earlier the discrepancy score is the difference between the means of actual and preferred levels of information, taken from the rankings above.

3. The relationship between the information gap and role conflict and ambiguity - The first step in this analysis involved correlations between the six composite communication variables previously discussed and the two role stressors. The next stage of analysis involved the use of crosstabulations to plot the associations between each of the response scores and varying levels of role conflict and ambiguity.

In order to clarify the methodological steps used, it is appropriate to consider each of the five steps outlined above in more detail. This will provide a framework for discussing the specific objectives of the research.

3.4.1 Ranking of Topics and Sources

This very simple procedure ranks the means of each individual communication question as grouped into the six composite scores discussed earlier. That is, information received now and information preferred, for topics, interpersonal, and written sources of information. The means are ranked from highest to lowest score. The purpose of this is to provide a measure of which topics or sources are currently used most frequently, and which topics or sources

respondents would prefer to use. It is useful to compare the preference that respondents had for either interpersonal or written sources, therefore both types of sources were combined for the purposes of ranking. Ranking tables were thus prepared for the following:

- a) Topics of information currently received
- b) Topics of information that should be received
- c) Sources of information currently received
- d) Sources of information that should be received

This form of analysis, although very simple can provide a very relevant information source for use by management. It forms the basis for analysis of the information gap that is created by the difference between a) and b), and c) and d), above.

3.4.2 Analysis of the Information Gap

The discrepancy score is an operational definition of the information gap. It is the difference between the mean level of information received and the mean level which the sample perceived that information should be received, for each question.

For our purposes analysis of the information gap is done very simply by ranking the discrepancy scores. Ranking these scores is the next logical step to ranking the individual means which was done above. Once again, topics of information and both

interpersonal and print sources are considered. The ranking is done in the same way as before, with the largest gaps being presented at the top, descending down to the smaller gaps at the bottom.

Discrepancy analysis provides a clear indication of the areas where information gaps are occurring, and where problem areas may exist as a result of this deficit. Discrepancy analysis in this form relies on the mean score as a basic statistical tool. The use of the mean limits the interpretations that can be made of the data.

However, the purposes of using these ranking procedures are:

1. To provide a replication of research done by Sligo (1984, 1985, 1986). The intention being to add further information to an increasing New Zealand database in this area of organisational communication.
2. To provide the basis for further refinement of the methodological approaches which have been traditionally used.

In the current study the intention is to explore the relationship between the discrepancy or

information gap and role conflict and ambiguity. An analysis of this relationship using mean scores would hide a great deal of information. For example, neither the size of individual gaps nor positioning of information levels within that gap can be examined. That is, were the responses from a +2 gap a result of 1-3, 2-4 or 3-5 responses? Testing the relationship between the outcome variables and a discrepancy score may provide an indication of direction of the relationship but it is not particularly information "rich" beyond this point.

Having said that it is important to reiterate that further development of the methodology used by Sligo does not negate the usefulness of discrepancy scores in allowing overall trends to be seen. The information drawn from analysing the actual responses may be used to complement knowledge found by use of discrepancy scores.

This research is intended as a first step in investigating methods of highlighting and measuring the complexities known to exist within the information gap. Isolating these complexities is particularly important if the construct is to be usefully related to outcome variables (such as role stressors).

Having clarified the steps needed to maximise the usefulness of the information gap data, it is now appropriate to discuss the way in which the complexities outlined (size and position of the information gap) can be related to role conflict and ambiguity.

3.4.3 The relationship between the information gap and role conflict and ambiguity

Following a grouping of the communication variables into six distinct areas (as previously discussed) a Pearson's Product Moment correlation was used to correlate each of the six composite scores with role conflict and ambiguity. As no clear view was held on the direction of the relationship, and in order to ensure rigorous results, a two-tailed test was used.

In order to usefully consider the relationship between the information gap and role conflict and ambiguity it is important to have an awareness of both the size of the gap, and the positioning of information within the gap.

It was felt that the use of crosstabulations was an appropriate means of plotting the various relationships between the size and position of the information gap,

and differing levels of the role stressors. Crosstabulations were used in this descriptive manner, rather than as a means for further statistical analysis as they are traditionally used.

In order to highlight the actual size and positioning of the gap all twenty five responses (ranging from 1-1 through to 5-5) were plotted against four different levels of conflict and ambiguity.

Crosstabulations were used to plot response scores and role stressor levels for the following three sets of communication variables;

- a) Topics of information
- b) Sources of interpersonal information
- c) Sources of written or print information

Using this crosstabulation method to plot the associations between the relevant variables allows the following questions to be answered;

1. How does the actual size of the information gap appear to be related to high or low levels of role conflict or ambiguity.
2. How does the positioning of the discrepancy responses (given the same size of information gap) appear to relate to expressed levels of role

conflict and ambiguity. For example, does a response of 1-3 have a similar relationship with either role conflict or ambiguity, as a response of 3-5? Both show an absolute discrepancy of +2. The positioning of the scores provides information on the level of information now received, which the author suspects is a key to the relationship between the level of the gap and the effect this has on individual perceptions of role stress.

Both these questions relate directly to the specific objectives of the research introduced at the end of this chapter.

3.5 DEFINITION OF MAJOR TERMS USED

Before discussing the theoretical model and objectives of the research it is appropriate to recap on the main definitions central to the methodology used in the research. It is not intended to repeat definitions of the independent and dependent variables.

Communication Composite Scores - Topics, interpersonal sources and written sources were grouped into separate categories. Each of the three groupings were then divided into 'information received now' and 'information preferred'. This resulted in six composite scores, allowing comparisons to be made between levels of information now and preferred, and between topics and different types of sources.

Discrepancy Scores - The discrepancy score is found by subtracting the mean score for 'information received now' from the mean score for 'information preferred'. For example, the difference between the composite score (the mean) for topics of information received now and the composite score for topics of information preferred, gives a discrepancy score for topics of information.

Response Scores - Response scores are the actual 'now' and 'preferred' responses that occurred over the sample. (For example, 1-3, 3-5). Frequencies of each response score were plotted against levels of role conflict and ambiguity.

Size of the Information gap - This is measured in two ways in the current research. It is important to distinguish between each measurement. In the first section of the research the size of the gap is measured by the discrepancy score. This provides a numerical measurement of the difference between the means. For example, a gap may be '0.8'. This implies that the discrepancy between information now and information preferred is 0.8.

The second section of the research which looks at the relationship between the information gap and outcome variables, uses actual response scores as a measure of the size of the gap. For example, the response score may be '1-3', producing an information gap of +2.

3.6 THEORETICAL MODEL

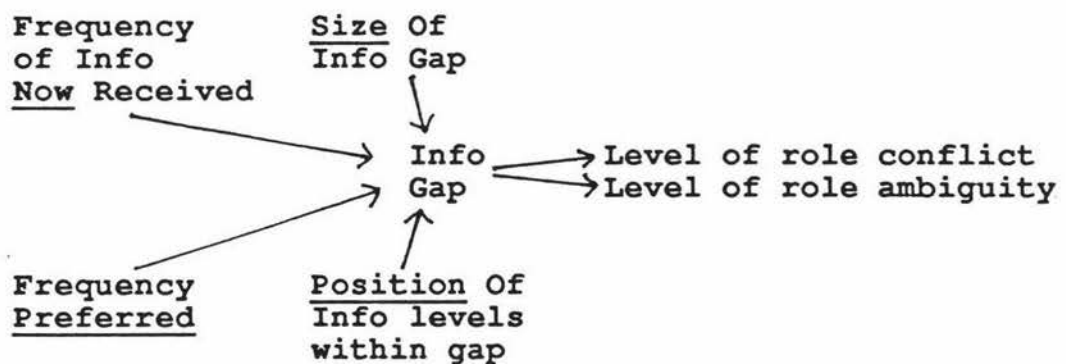
In this chapter we have explained in some detail the methodological steps that were undertaken in the research. It is now appropriate on the basis of this and the Literature Review in Chapter Two to suggest a theoretical model which is intended to clarify the assumptions made in investigating the information gap.

Briefly, this model is intended to suggest the following.

In addition to knowledge of the existence of an information gap, at least two other characteristics of the gap must be known if it is to be related usefully to outcome variables:

- a) The size of the gap
- b) The positioning of information levels within the gap.

Both these have been elaborated on elsewhere in this chapter. The purpose of introducing them here is to reinforce the need to consider the complexity of the information gap when using it in organisational settings. The following model is a reflection of the relationships this research intends to explore.



3.7 THE RESEARCH OBJECTIVES

As the intention of the research was to make a descriptive analysis of the data it is not appropriate to use formalised hypotheses, but rather, a series of specific research questions. The answers to these will form the basis of further research in this area, which is at present in very early stages of exploration, both within New Zealand and overseas.

The specific questions investigated in this research are:

1. Which topics of work related information are currently received most frequently?
2. On which topics of work related information did respondents feel they should receive most information?
3. From which sources was information currently received most frequently?
4. From which sources did respondents feel they should receive most information?
5. Which topics of work related information have the largest information gaps?
6. Which sources have the largest information gaps?
7. Is there a relationship between the levels of information currently received and role conflict and ambiguity?
8. Is there a relationship between the levels of information preferred and role conflict and ambiguity?
9. Looking at topics and sources of information, how do differences in the size of the information gap relate to perceived levels of role conflict and ambiguity?
10. Looking at topics and sources of information, how do differences in the positioning of information levels within the gap relate to perceived levels of role conflict and ambiguity?

CHAPTER FOUR

RESULTS

In this chapter the intention is to use each of the specific objectives outlined in the previous chapter as a focus for an analysis of the results. This is done for two reasons:

- 1) To ensure clarity. The research process involved a series of steps, which although not complex in themselves tend to be difficult to follow if not done in a logical sequence. Each section builds upon the previous one.
- 2) Linking the research objectives and analysis in this way allows the reader to see the practical usefulness of each form of analysis to a practitioner, and to also see its relevance to the research objectives.

4.1 RANKING OF TOPICS AND SOURCES

4.1.1 TOPICS OF INFORMATION RECEIVED NOW

Objective 1: Which topics of work related information are currently received most frequently?

Table 1 lists, in descending order, the topics on which staff consider they presently receive information

relating to their jobs.

TABLE 1
TOPICS ON WHICH INFORMATION IS PRESENTLY
RECEIVED, RANKED BY QUANTITY OF INFORMATION

<u>RANKING</u>		<u>MEAN SCORE</u>
1	How my job relates to the total operation of the organisation	3.22
2	My work duties	3.20
3	The problems being experienced by my organisation	3.05
4	Major new developments in the organisation	3.01
5	How well my organisation is achieving its goals and objectives	2.80
6	Opportunities for promotion and advancement in the organisation	2.79
7	How well I am doing in my work	2.74
8	How my work performance is assessed	2.37
9	How organisational decisions are made that affect my job	2.34
	(1) Very Little (2) Little (3) Some (4) Much (5) Very Much	

Looking at Table 1 the following trends are clear;

1. The range of mean scores is from 3.22 (slightly more than 'some') through to 2.34 (slightly more than 'little').
2. Respondents felt that they received most information about 'How my job relates to the total operation of the organisation'. This was followed closely by information about 'work duties'. This

second statement was the only one in the top five which related directly to the individual's relationship with their job. The other four questions relate either to the organisation, or the individual's relationship with the organisation.

3. Less information was received on topics which provided feedback on current performance, assessment, and opportunities for promotion and advancement. It was felt that more than 'little' (but less than 'some'), information was currently received on these issues.
4. At the bottom of the overall ranking was 'How organisational decisions are made that affect my job'. Participants perceived that they received little information about decision making processes in their organisation.

These trends represent information that is currently received. It does not necessarily reflect the topics of information that respondents would prefer to receive. In order to fully discuss the implications of these trends it is necessary to now consider how they differ from the levels of information that respondents felt that they would prefer to receive.

4.1.2 Topics of Information Preferred

Objective 2: On which topics of work related information did respondents feel they should receive most information?

TABLE 2

TOPICS ON WHICH INFORMATION SHOULD BE RECEIVED, RANKED IN ORDER OF PRIORITY

<u>RANKING</u>		<u>MEAN SCORE</u>
1	How well my organisation is achieving its goals and objectives	4.21
2	Major new developments in the organisation	4.13
3	How well I am doing in my work	4.05
4	How my work performance is assessed	4.04
5	Opportunities for promotion and advancement in the organisation	4.01
6	How my job relates to the total operation of the organisation	3.98
7	My work duties	3.96
8	How organisational decisions are made that affect my job	3.92
9	The problems being experienced by my organisation	3.66
	(1) Very Little (2) Little (3) Some (4) Much (5) Very Much	

Table 2 shows a range of mean scores from 4.21 through to 3.66. Clearly, it was felt that although 'some' information on work related activities was currently received, 'much' was desired.

Other relevant trends indicated by Table 2 include;

1. Without exception, all topics showed a higher amount of information desired than was actually received. In the previous section information received now tended to cluster around the 'some' response, whereas Table 2 suggests that overall 'much' information was needed.
2. The ranking order has changed significantly. Several topics which relate directly to the individual and the job, and which were previously ranked in the bottom four topics of information received now, have moved up to be included in the top five. Of the questions previously placed in the top five, only two of them remain there when we look at the information that should be received.
3. Topics relating to the organisation ('How well my organisation is achieving its goals and objectives' and 'Major new developments in the organisation') were ranked first and second respectively. Respondents collectively felt that information on these topics was of a higher priority than information pertaining to those topics which related to more personalised aspects of their jobs.

4. Topics relating to the individual's performance ('how well I am doing in my work' and 'how my work performance is assessed') have moved from seventh and eighth position to third and fourth place respectively.
5. Information relating to 'my work duties' has dropped from second to seventh place in the priority ranking.

In this section we have looked at the rankings of topics of information which respondents are currently receiving about work-related matters, and the topics which they would prefer to receive.

The next section will continue in a similar vein, to analyse the rankings of interpersonal and written sources of information which are most frequently used, and those that are preferred.

4.1.3 Sources of Information Received Now

Objective 3: From which sources was information currently received most frequently?

The questionnaire (Appendix 1) shows a distinction between information from other people, not in print form (which we will refer to as interpersonal sources), and information in written or print form.

TABLE 3

SOURCES OF INFORMATION RECEIVED NOW, RANKED FROM
HIGHEST TO LOWEST FREQUENCY

<u>Ranking</u>		<u>Mean Score</u>
1	The grapevine	3.57
2	Co-workers in my own unit or department	3.44
3	Subordinates	3.43
4	My immediate superior	3.41
5	Memos or reports from inside the organisation	3.27
6	In-house newsletters or circulars	2.98
7	Organisational Records	2.97
8	People from other units or departments	2.83
9	Computer Based retrieval systems	2.82
10	Department or unit meetings	2.79
11	News Media	2.74
12	Letters or reports from outside organisations	2.70
13	Personal contacts outside organisation	2.64
14	Government Documents	2.60
15	Books, notes, files	2.59
16	Seminars, courses, workshops	2.53
17	Organised library facilities	2.48
18	Magazines, journals	2.47
19	Top Management	2.46

(1) (2) (3) (4) (5)
Never Rarely Sometimes Often Very Often

From Table 3 we can see that:

1. The range of mean scores are from 3.57 to 2.46. All mean scores rate less than 'often'. This implies that respondents are not overloaded with work-related information, from any source.

2. The most commonly used source of information was the 'grapevine'. This indicates a strong reliance on the informal communication structure of the organisation. The effectiveness of the grapevine

as a channel for organisational communication will be discussed in the following chapter.

3. Four of the top five mean scores are from interpersonal sources. The highest print source was 'memos or reports from inside the organisation'.
4. It was interesting to note that 'top management' ranked lowest out of nineteen possible sources of information currently received. The apparent lack of information from this source may account for the informal communication channel (the grapevine) having such a high profile.
5. Although the difference in the mean scores was so small as to be insignificant, 'co-workers' were perceived to be a greater source of work related information than were 'immediate superiors'. This provides a further example of informal channels presently being relied on more than formal channels.
6. Information from 'subordinates' was received marginally more frequently than information from 'superiors'.

4.1.4 Sources of Information Preferred

Objective 4: Which sources of information were preferred?

Table 4

SOURCES OF INFORMATION PREFERRED, RANKED
IN ORDER OF PRIORITY

<u>Ranking</u>		<u>Mean Score</u>
1	My immediate Superior	4.27
2	Co-workers in my own unit or department	3.98
3	Subordinates	3.88
4	Department or unit meetings	3.68
5	Memo's or reports from inside the organisation	3.66
6	Computer-based information retrieval systems	3.63
7	People from other units or departments	3.61
8	Top Management	3.51
9	Organisational Records	3.50
10	In-house newsletters	3.42
11	Seminars, courses or workshops	3.34
12	Letters or reports from outside the organisation	3.27
13	Government Documents	3.13
14	Organised library facilities	3.11
15	News, Media	3.08
16	The grapevine	2.99
17	Magazines, journals, serials	2.99
18	Books, notes, files	2.94
19	Talking with personal contacts outside the organisation	2.73

(1)	(2)	(3)	(4)	(5)
Never	Rarely	Sometimes	Often	Very Often

Table 4 differs from Table 3 in several significant ways;

1. The frequency with which information is desired from a particular source has risen in all but one case.
2. The mean scores on Sources of Information Received Now ranged from 3.57 to 2.46; the mean scores on

Sources of Information Preferred range from 4.27 to 2.73.

3. The positions of several of the more formal sources have risen significantly;
 - **'My immediate superior'** rose from fourth to first preference
 - **'Department or unit meetings'** rose from tenth to fourth preference
 - **'Top management'** rose from nineteenth to eighth preference

4. The position of the grapevine (seen as the most informal source of information) has fallen from a mean score of 3.57 to a mean score of 2.99. This is the only item which showed a higher frequency of contact received than was desired. On all other sources respondents felt they received less information than was desired.

5. Respondents felt that most information should come from 'immediate superiors', 'co-workers', and 'subordinates' in that order. 'Department meetings' and 'memos' were the fourth and fifth preferred sources.

6. 'Memos' were the first written source of information to be preferred. This finding is consistent with other research which generally

supports the view that if given a choice most people prefer interpersonal sources of contact, rather than more impersonal written or print sources. Memo's are seen as the most personal of the written sources, and their appearance as the fifth most preferred source is not surprising.

In this section we have focused on the rankings of two aspects of communication data. We have differentiated between information received now, and information preferred, for the following communication variables;

- i) Work-related topics
- ii) Interpersonal and written sources

It is now appropriate to begin to analyse the information gaps or discrepancies that the previous rankings have provided.

In the next section we look at the discrepancies between the amount of information received now and the amount of information wanted, for each of the above communication variables.

4.2 ANALYSIS OF THE INFORMATION GAP

4.2.1 Discrepancy rankings: Topics of information
Objective 5: Which topics of work related information have the largest information gaps?

TABLE 5

TOPICS OF INFORMATION DISCREPANCIES, RANKED
FROM GREATEST TO LEAST DISCREPANCY

<u>RANKING</u>		<u>DISCREPANCY</u>
1	How my work performance is assessed	1.67
2	How organisational decisions are made that affect my job	1.58
3	How well my organisation is achieving its goals and objectives	1.41
4	How well I am doing in my work	1.31
5	Opportunities for promotion and advancement in the organisation	1.22
6	Major new developments in the organisation	1.12
7=	My work duties	0.76
7=	How my job relates to the total operation of the organisation	0.76
8	The problems being experienced by my organisation	0.61

Note: the symbol '=' indicates those questions which ranked equally.

From Table 5 we can see that;

1. The topic which showed the largest discrepancy in this sample was 'how my work performance is assessed', with a discrepancy of 1.67. Respondents collectively felt that more feedback was required on their work performance.
2. Six of the nine topics showed a discrepancy of

greater than 1.0. Included in these six are three of the four questions relating to the individual ("how my performance is assessed", "how well I'm doing in my work", and "opportunities for promotion").

3. The lowest discrepancies were found on 'my work duties' (0.76), 'how my job relates to the total operation of the organisation' (0.76) and 'the problems being experienced by my organisation' (0.61). The amount of information initially received on each of these three topics was comparatively high. This may account for the low discrepancy.
4. From these six items there is a considerable gap to the bottom three. It is interesting to note that the three bottom scores on Table 5 are also the three top scores on Table 1. The inference from this is that for these three topics of information the difference between the levels of information received and the levels required is comparatively small.

In the next section we will be looking at the information gaps for interpersonal and written sources of work-related information.

To allow comparisons to be made in the preferences between interpersonal and written sources both are considered together. These discrepancies will provide an indication of how satisfied respondents are with the level of information they receive from a variety of sources.

4.2.2 Discrepancy rankings: Sources of information
Objective 6: Which sources have the largest information gaps?

Table 6 (page 76) shows for each source in descending rank order, the discrepancies between information received now and information preferred.

Table 6 shows for each source in descending rank order, the discrepancies between information received now and information preferred. The higher the discrepancy the greater the likelihood that there will be dissatisfaction with the frequency of contact with the particular source.

1. The three largest discrepancies - ('management', 'meetings', and the 'immediate superior') are interpersonal sources of information. They are also formal channels of communication.

2. Other personal sources (such as 'co-workers', 'subordinates', 'memos' and the 'grapevine') appear to have a smaller discrepancy for the individuals in this sample. The likely reasons for these trends (which tend to support other research) will be discussed in more detail in the following chapter.
3. As suggested earlier, most people seemed to receive more 'grapevine' information than they wanted, hence it has a negative score.
4. Overall it appears that with the exceptions of several formal channels of communication (notably 'top management') the amount of information received from any particular source is not too dissimilar to that preferred. This is particularly true with the more informal sources such as 'Books, notes, files, not in an organised library', 'news media', and 'personal contacts'.
5. One further point is the relatively high gap associated with 'computer retrieval systems' and 'seminars' (0.81 in both cases). This finding may be accounted for in part by the type of sample employed in the current research. That is, all respondents were involved in extramural university study. It is understandable that they would feel

that receiving more job related skills was important.

Table 6

SOURCES OF INFORMATION, DISCREPANCIES, RANKED
FROM GREATEST TO LEAST DISCREPANCY

<u>Ranking</u>		<u>Discrepancy</u>
1	Top management	1.05
2	Department or unit meetings	0.89
3	My immediate superior	0.86
4 =	Seminars courses workshops	0.81
4 =	Computer based retrieval systems	0.81
6	People from other units or departments within my organisation	0.78
7	Organised library facilities	0.63
8	Letters or reports from outside the organisation	0.57
9	Co-workers in my own department	0.54
10 =	Original records	0.53
10 =	Government documents	0.53
12	Magazines, journals, etc	0.52
13	Subordinates	0.45
14	In-house newsletters	0.44
15	Memos or reports from inside the organisation	0.39
16	Books, notes, files <u>not</u> in an organised library	0.35
17	News media	0.34
18	Talking with personal contacts outside the organisation	0.09
19	Grapevine	-0.58

Note: the symbol '=' indicates those questions which ranked equally.

The above sections provide an analysis of the discrepancy scores for questions relating to topics of information required, and the sources of that information. This information is useful in highlighting areas where improvements in communication need to occur.

In the next section we look at the relationship between the information gap (as measured by response scores) and the outcome variables role conflict and ambiguity.

4.3 THE RELATIONSHIP BETWEEN THE INFORMATION GAP AND ROLE CONFLICT AND AMBIGUITY

4.3.1 Introduction

Crosstabulations were used as a means of plotting the relationship between the individual's perceived information gap and perceived levels of role conflict and ambiguity. In order to analyse the complexities inherent in the information gap we now move away from looking at the discrepancy scores to focus on the frequencies of the actual discrepancy responses. For each question relating to either a topic or source, two responses were produced. That is, a measure of now and preferred levels of information. As described in more detail in the previous chapter, from these responses twenty five discrepancy responses were possible, ranging from 1-1 through to 5-5.

The final step in the research required discrepancy positions for each of the following composite communication variables to be plotted;

1. Topics of information
2. Interpersonal sources of information
3. Written or print sources of information

Each of these three variables were cross-tabulated with role conflict and ambiguity. To make analysis meaningful the two stress variables had been divided into the following sub-sections;

1. Very low stress
2. Low stress
3. High stress
4. Very high stress

The breakdown of both the communication and role stress variables for use in this analysis has been discussed in some detail in Chapter Three.

The results of the crosstabulation can be presented using graphs. This form of presentation allows very complex data to be shown visually and clearly. Six graphs resulting. They plotted response scores for:

- 1) Topics of Information - Role Ambiguity
- 2) Topics of Information - Role Conflict
- 3) Interpersonal Sources - Role Ambiguity
- 4) Interpersonal Sources - Role Conflict
- 5) Written Sources - Role Ambiguity
- 6) Written Sources - Role Conflict

It is unnecessary at this point to discuss in depth all six of the resulting graphs. However, one of them, Figure 1(a), 'Response Scores for Topics of Information

and Role Ambiguity' will be used as a basis for presenting the results. This will highlight the range of information that may be drawn from this form of analysis. The remaining five figures are presented in Appendix Three. The trends found in Figure 1(a), (page 81) were similar in many ways to those of the remaining five. Relevant differences which did occur between the six figures are discussed more fully in Chapter Five.

Looking at the X axis, the 'Frequency of Responses' indicates the total number of occasions where a particular discrepancy response was cited. Each respondent answered nine questions on topics of information. Therefore the total number of responses (spread over the twenty-five discrepancy responses) is nine (questions) X 207 (respondents in the sample).

Looking along the Y axis, the first number of each pair represents the level of information 'received now', the second represents the information level 'preferred'. As we move from left to right along the graph increasingly larger amounts of information are received now.

The four graphed lines represents each of the four levels of the stressor, as shown on the Key.

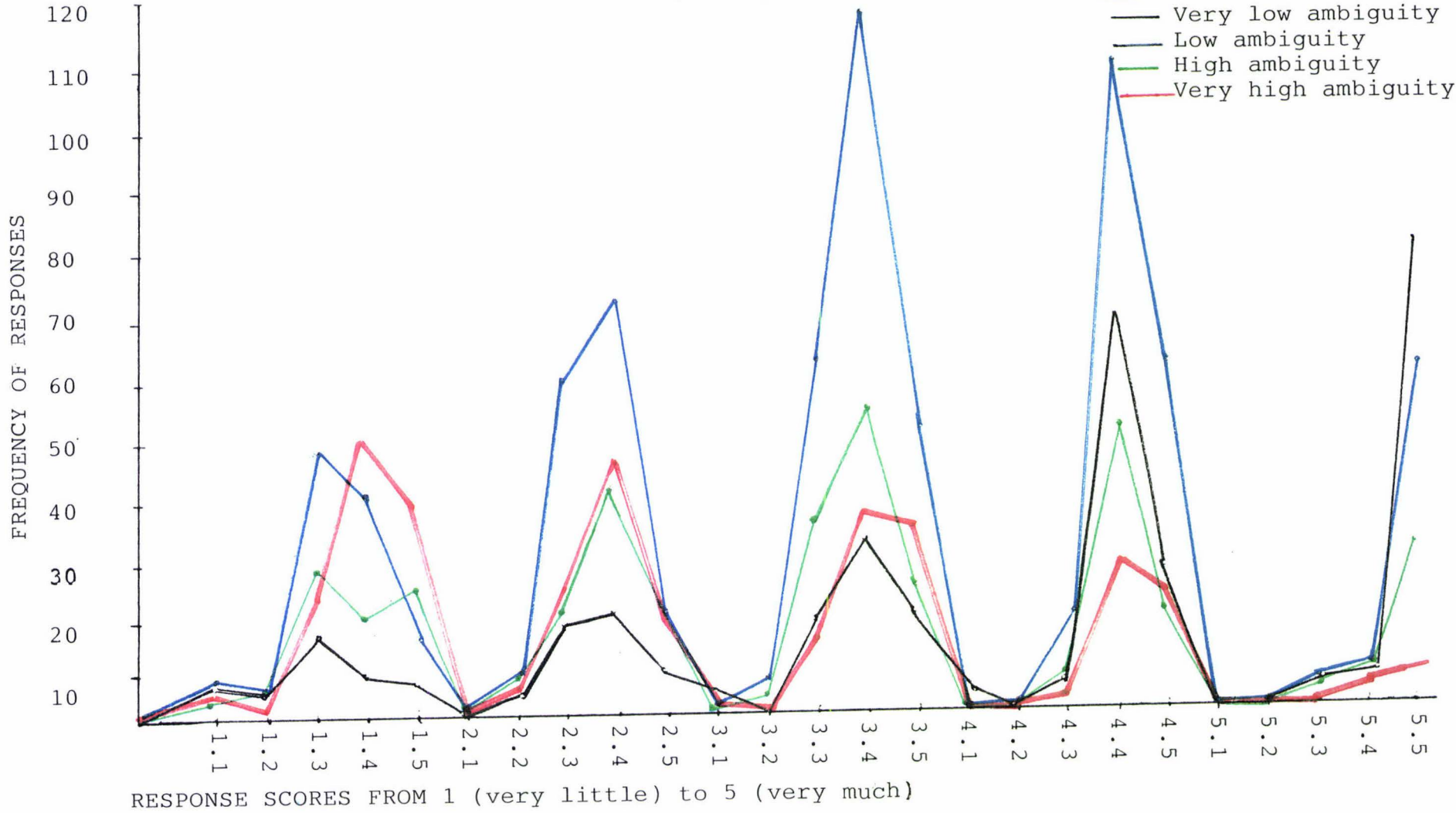
Figure 1(a)

RESPONSE SCORES FOR TOPICS OF INFORMATION AND AMBIGUITY

(n=207)

KEY

- Very low ambiguity
- Low ambiguity
- High ambiguity
- Very high ambiguity



4.3.2 Levels of information received now and preferred

Objective 7: Is there a relationship between the levels of information currently received and role conflict and ambiguity?

Objective 8: Is there a relationship between the levels of information preferred and role conflict and ambiguity?

Figure 1(a) provides a visual description of the associations plotted between the composite communication variable 'Topics of Information' and the role stressor 'ambiguity'.

The following trends can be seen;

1. As we move along the Y axis the discrepancy responses represent increasing levels of 'information received now.' This graph (and the five shown in Appendix Three) clearly shows that as the level of information received now increases (regardless of the levels of information preferred) the frequency with which either 'very low' or 'low' levels of role stress were found also increases.
2. Similarly, the frequency that either 'high' and

'very high' perceptions of stressors were cited decreases as the amount of information received now increased.

3. 'Low' role ambiguity consistently showed the highest frequency of responses over all six charts. In other words, most people felt they had low rather than very low or high levels of either role conflict or ambiguity.
4. Response scores which were negative (that is, the amount of information received was greater than the amount preferred) were cited very infrequently. This produced the troughs seen in the graph.
5. A further insight into the data can be gained by considering where the highest peaks for each of the extreme stress levels occur. For example, 'very low' ambiguity shows crosstabulated with greatest frequency at the score '5-5'. This is a response score where two characteristics are present:
 - a. The level of information currently received is very high; and
 - b. The information gap is zero.

The level where 'very high' ambiguity occurs most

frequently is at the score '1-4'. The important characteristics of this gap are:

- a. The level of information currently received is very low: and
- b. The information gap is very high (+3)

From these trends we can conclude that:

1. Where levels of information received now are high, low levels of role conflict and ambiguity can be expected.
2. Where levels of information received now are low, high levels of role ambiguity and conflict can be expected.

Correlations were used to test Objectives 7 and 8. As explained in Chapter Three each set of communication questions was combined on an a priori basis to form one composite variables. This allowed each of the resulting six variable to be tested using a Pearson's Product Moment Correlation. The results are shown over the page.

Table 7

Correlation Coefficients For Composite Communication
Variables and Stressors

	<u>Ambiguity</u>	<u>Conflict</u>
<u>Topics of Information:</u>		
Received Now	-.4453 p=0.000 **	-.3190 p=0.000 **
Preferred	.0348 p=0.314	.0338 p=0.320
<u>Interpersonal Sources:</u>		
Received Now	-.2829 p=0.000 **	-.1840 p=0.017 *
Preferred	0.0830 p=0.168	.0520 p=0.275
<u>Written Sources:</u>		
Received Now	-.1816 p=0.006 **	-.0461 p=0.263
Preferred	.0541 p=0.227	.2024 p=0.002 **

Note: * p<0.05
** p<0.01

Looking at the correlations above, the direction of the correlation implies different things for information received now and information preferred.

For information received now a negative correlation implies that as the level of information received increases the level of role conflict or ambiguity decreases. No positive correlations occurred for information received now.

For information preferred a positive correlation implies that as the individual perceives that they

require more information any topic, or from any interpersonal or written source, they also experience greater levels of role conflict and ambiguity.

1. Relationships were much stronger for levels of information received now than they were for preferred levels of information. The only correlation which was significant at the $p < 0.01$ level or greater for preferred levels was between role conflict and written sources.
2. Looking at individual items, Topics of Information received now produced the strongest correlation with both role conflict and ambiguity ($-.3190$ and $-.4453$ respectively). Interpersonal sources of information received now also showed a very significant correlation with ambiguity ($-.2829$).
3. Comparing the results between role ambiguity and role conflict, the strongest correlations occurred between the composite scores and role ambiguity. Although correlations with role conflict were weaker overall they were still significant.
4. The correlations clearly support both Objective 7 and Objective 8. There are significant relationships between levels of role conflict and ambiguity and the levels of information that

respondents received now on particular topics or from a particular source.

The purpose of this section has been to;

- 1) Provide an overview of the results of the crosstabulations; and to
- 2) Explore the possibility that the level of communication currently received may be an antecedent for role conflict and ambiguity.

Figure 1(a) has allowed very general conclusions to be made of the results from the crosstabulation. These have then been supported by the use of correlations which provide a more quantitative statistical analysis.

In Chapter Three it was recognised that in order to understand the complexity of the information gap we need to take into account the size of the individual gaps, and the positioning of information levels within the gap. The next stage of analysis provides a framework for considering both of these characteristics of the information gap construct.

4.3.3 The size of the information gap

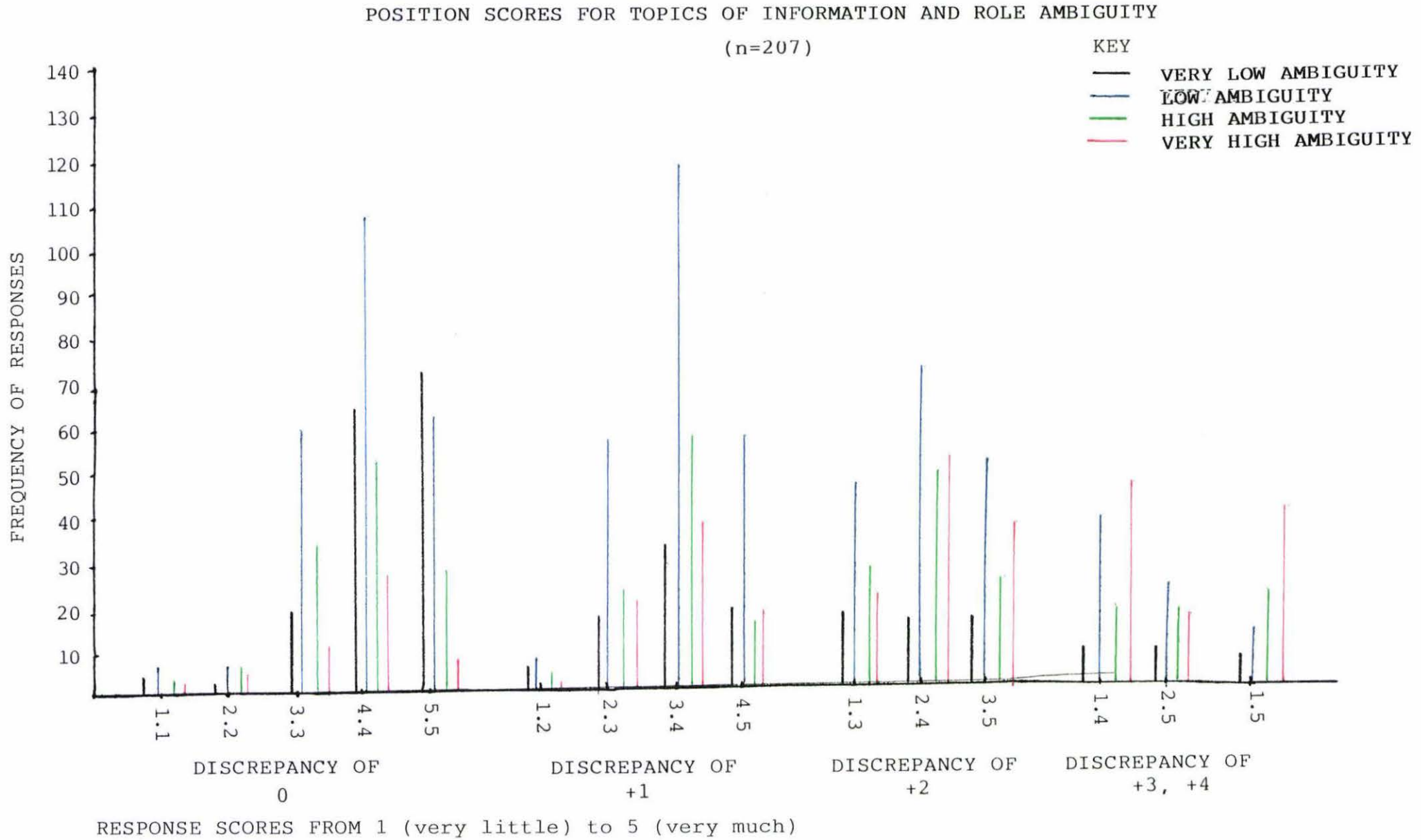
Objective 9: Looking at topics and sources of information, how do differences in the size of the information gap relate to perceived levels of role conflict and ambiguity?

Figure 2(a), (page 89) allows both the size and the positioning of response scores to be seen clearly. This is done by repositioning key data from figure 1(a). Each response score is grouped according to the size of the information gap. This produces five different sizes of gap. That is, gaps of zero to four. These gaps may be either positive or negative in direction. Negative gaps as previously explained, occur where the level of information received is greater than the level preferred. Negative gaps are not analysed as the frequency with which they occur was small.

Figure 2(a) looks at the 'Position Scores for Topics of Information and Levels of Role Ambiguity'. The position of scores within each gap are charted with the four levels of ambiguity.

In this figure the responses have been rearranged to group them within each of the four levels of information gap (0,1,2,3,4). Within each gap, the position of the score is arranged in a similar manner to that of Figure 1(a). That is, as we move from left to right within each gap, the level of information received now increases. In other words, we progress from a response of 1-1 through to a response of 5-5.

Figure 2(a)



The four levels of stress associated with each response are presented in histogram fashion. This allows an easy comparison of the levels of the stress, both within the same gap and between gaps.

As before only one figure is shown here. The remainder are in Appendix Four. The intention is to introduce this technique as a useful way of presenting data on the information gap. It allows the characteristics that we are focusing on (size of the gap, and positioning of information) to be plotted. They can then be visually related to levels of the role stressor.

At this point it is appropriate to consider the relationship between the size of the information gap and the way that this relates to high and low levels of stress.

1. As the size of the gap increases the frequency of responses decreases. The gap with the greatest number of responses was zero. As the gap widens to +3, and +4 fewer respondents indicated that they experienced information gaps of this size.
2. In figure 1(a) we saw that as the level of information received now increased (that is, as we moved from left to right along the graph) this was

accompanied by increases in the frequency of 'low' stress, and decreases in the frequency of 'high' stress reported.

At that stage no attempt was made to isolate or measure the size of the information gap. Figure 2(a) allows gaps of the same size to be compared and we find the same pattern emerging. That is, as the size of the gap increases, the relative amounts of 'high' stress found also increases. For example, where the gap is '0' or '1', 'low' and 'very low' frequency of stress is comparatively higher than 'high' and 'very high' stress. For a discrepancy of '4' however, the situation has reversed, and higher levels of the stressor are reported.

3. In summary, 'Low' and 'very low' levels of stress consistently showed different patterns of frequency to 'high' and 'very high' levels of stress.
4. Role conflict and ambiguity were sufficiently different over various levels of information gap to warrant further discussion in the following chapter.

In the next section we look at the difference that the

positioning of information levels within the gap has on role conflict and ambiguity.

That is, we look at the patterns occurring when, for example, each of the five zero discrepancies (1-1, 2-2, 3-3, 4-4, 5-5) are grouped. This allows comparison of information gaps of similar sizes with each of the four levels of stress. Controlling the size of the gap in this way allows the position of information within it to be analysed.

4.3.4 The position of the gap

Objective 9: Looking at topics and sources of information, how do differences in the positioning of information levels within the gap relate to role conflict and ambiguity?

Looking at the position of the information gap we see that;

1. There are easily recognisable differences in the levels of stress perceived at various positions along the same level of gap. Taking as an example an information gap of zero, figure 2(a) shows that:

- a) There are differences in the frequency of responses for each of the five discrepancy

scores within this zero gap; and

- b) There are clear differences in the levels of stress found in each information gap.
 - c) These differences fall into distinct patterns.
2. For information gaps of zero, the frequency of responses at the 1-1, and 2-2 gaps are small. Gaps of 3-3 and 4-4 attracted a higher frequency of responses, but at a gap of 5-5 the levels of 'very low' ambiguity in particular are much higher.
 3. There were clear differences between the levels of high and low stress found at different positions along the same gap. 'Very low' stress increases as we move from left to right along the gap, showing the highest frequency at the 5-5 level. Each of the other three levels of stress peak at the gap 4-4. Although no causal relationships can be established using these results some relationship does seem likely.
 4. Looking at larger gaps the differences between high and low levels of stress are even clearer, as a visual analysis shows. 'Very high' stress is greatest for positions where less information is presently received.

Looking at the size and positioning of the information gap the following conclusions can be drawn;

1. There were distinct patterns between the size of the information gap and the level of role conflict and ambiguity perceived by respondents.
2. There were distinct patterns between the positioning of information levels within the gap and the level of role conflict and ambiguity perceived by respondents.

CHAPTER FIVE

DISCUSSION OF RESULTS

In Chapter Four we used each of the specific objectives of the study as a focus for discussion of the results. In this chapter the intention is to move away from this format and discuss the results found in Chapter Four in two stages;

- a) Present and preferred levels of information, and analysis of the information gap; and
- b) The relationship between the information gap and role conflict and ambiguity.

5.1 PRESENT AND PREFERRED LEVELS OF INFORMATION, AND THE INFORMATION GAP

5.1.1 Topics of Information

On the basis of the rankings and discrepancy scores analysed in the previous chapter the following conclusions can be drawn:

1. Topics that are most commonly received tend to be those which provide information about the organisation and work duties.
2. Participants receive least information on topics which provide them with feedback on their performance and their role in the organisation.

3. Participants would prefer to receive most information on topics which relate to the long term security of the organisation and which provide them with feedback on their performance.
4. The largest information gap suggests a lack of feedback on assessment of performance.

The topics on which participants felt they currently received the most work related information tended to be relatively impersonal in nature. That is, they reflect the type of information that the organisation **wishes** the individual to have. Information about work duties, role expectations, and the problems the organisation is experiencing can be seen as primarily enhancing the goals of the organisation.

While it is reassuring to find that information on work duties is plentiful this finding is consistent with previous research (Sligo 1984, 1986). It is in the interests of the organisation to ensure that this topic receives at least an adequate degree of coverage, to ensure the long-term functioning of the organisation. It is difficult to rationalise retaining employees in the organisation who do not possess at least a minimum knowledge of their roles and responsibilities. Of course above this minimum level a wide range of

experiences exist.

Topics which have a more personal meaning to respondents occur near the bottom of the rankings. That is, questions which relate to the individual's performance or likely advancement in the organisation. Given the comparatively low ranking of these questions it can be argued that they are clearly seen as being of a lower priority by management. Respondents on the other hand felt that insufficient information was received on these topics.

It was also felt that more information should be received on the long term effectiveness and development of the organisation. Perhaps in times of uncertainty and rapid change it is important for employees to feel that they belong to a successful organisation. This was reinforced by the fact that there was less desire to be informed about organisational problems. These were gladly perceived by our sample as "someone else's problem".

In summary the type of information received at present tends to benefit organisational goals rather than individual goals. Analysis of the information gaps suggested that employees have a need for knowledge that relates to the long term security of both the organisation and their own positions. At present

inadequate information is received on these topics (hence the information gap).

The responsibilities of management in the career planning and personal development of its employees have not yet been widely recognised in New Zealand. As the future of work changes and the idea of having more than one career during a working life becomes more acceptable (and perhaps necessary), the pressures on the organisation to take a greater share of the responsibility for this will increase.

The implications for motivation (in particular expectancy theory) of these results should not be overlooked. If management can pinpoint areas where gaps in information occur, and where possible work towards rectifying them, the result could be development of an effective motivational tool.

Take as one example effective career management. Responsibility for this lies with both the individual and the organisation. Traditionally, the responsibility accepted by management has been minimal. Improvements in information flow on career related matters can produce a motivational effect. Expectancy theory suggests that employees will perceive a link between effort, performance and a desired outcome or result. The usefulness of analysing the information

gap is in highlighting the problem areas. Intervention by management is then necessary to clarify the steps needed for employees to achieve these desired goals. If employees are **aware** of the steps involved in obtaining desired goals (in this case promotion) motivation or drive towards these goals will occur. In the process of achieving individual goals, organisational goals would also be achieved.

This is just one example among many, highlighting the application of effective management of information processes to motivation theory.

It is surprising how closely the results of the current research on topics of information support those found by Sligo (1984). On that occasion he surveyed individuals working in two different areas; one a government department and one a professional practice. Discrepancy scores showed the same four topics as having the highest discrepancies for each of the two departments, although the rank order of the four was different.

Three of these four topics:- 'how my work performance is assessed', 'how organisational decisions are made that affect my job', and 'how well my organisation is achieving its goals and objectives', also ranked as the top three for the current research. Sligo's fourth

highest discrepancy 'opportunities for promotion and advancement' was ranked fifth in the current research.

Clearly, employees do have a preference for particular types of work related information. The second aspect of communication information that the present research considered was the various sources of information that were currently received, and the levels that respondents would prefer to receive information from each of these sources.

5.1.2 Sources of Information

On the basis of the rankings and the discrepancy scores found in the previous chapter the following conclusions can be drawn:

1. Information is most frequently received from informal sources which are in close proximity
2. Information is preferred from formal sources that are in close proximity.
3. If formal sources are perceived as inaccessible informal sources will be used.
4. Close interpersonal sources are preferred to close written or print sources.
5. Close written sources are preferred to distant interpersonal sources.
6. Internal sources were preferred to external sources.
7. Information from the grapevine was received more frequently than desired.

Sources currently received tended to be ranked in

order of proximity or accessibility. The 'grapevine' was followed by 'co-workers', 'subordinates', and 'immediate superior'. The network of sources expands outward. Certainly this research finds support for the literature which suggests that accessibility is an important determinant of source use (Allen, 1977; O'Reilly, 1982; Sligo, 1986).

It is not always possible to obtain information from 'quality' sources, and an employee may have to accept sources of a lower quality, but which are more accessible. Source quality is normally linked with accessibility. The quality of the sources received was not tested in this research. This may be an avenue for further investigation.

Interpersonal sources can be considered information 'rich'. If they are also close sources Mintzberg (1978) describes them as 'hot' information sources. The top four sources of information received now are close, interpersonal sources. This is consistent with research which suggests that interpersonal sources are preferred over written sources (Keegan, 1974, Mintzberg, 1978). In addition to being normally easily accessible interpersonal sources offer the immediacy and timeliness that it is difficult to find in most written sources. The exception is the memo, which although a written source may also be considered as

more 'personal' than other sources of written information.

Respondents felt the greatest amount of information should come from their immediate superior. If, as research suggests (Gerstberger and Allen, 1968; O'Reilly, 1982) perceived quality of information is a strong reason for source choice, then preference for information from a superior or from top management would be a logical expectation.

The only source from which more information was received than was desired was the grapevine. Many people, although acknowledging the usefulness of this source, tend to feel guilty about using it (Newstrom et al, 1974; Sligo, 1986). Research suggests that if formal sources are restricted or inaccessible informal sources such as the grapevine will be used. This appears to be the case for this sample.

The implications of this for management are important, particularly in organisations where a high degree of uncertainty exists. Failure by the formal communication system to channel timely, accurate information to employees, particularly in times of rapid change, will lead to dissemination of information through informal channels. Although the accuracy of the grapevine is surprisingly high it is a difficult

channel for management to control.

The largest information gap came from formal, interpersonal sources. These sources are traditionally perceived as highly credible. This may account for respondents desire to receive more rather than less information from these sources. The other relevant feature of these formal sources is that they are generally less accessible, although one's immediate superior is presumed to be more accessible than top management. Sligo (1986) also found that the highest discrepancies came from similarly inaccessible sources.

The sources which showed the lowest information gaps fell into two categories;

- a) Sources perceived as important but from which respondents presently received high levels of information. Examples of this include subordinates, memos, and the grapevine.
- b) Sources which many individuals did not find useful or relevant to their current work situation. Examples include books and notes not in an organised library, and personal contacts outside the organisation.

A central objective of the study was to compare the information gaps produced by the discrepancy between information received now and information preferred. The key to the size of the information gap lies not only in the levels of information currently received,

but also in the individual's perception of what levels of information should be received.

For example, in this study magazines and journals, and top management, ranked at the bottom of nineteen sources when 'information received now' was analysed. The mean for each over the sample was 2.47 and 2.46 respectively. In other words respondents received information from them more than 'rarely', but less than 'sometimes'. Further analysis produced a discrepancy score for top management of 1.05, compared to a score of 0.52 for magazines and journals. The difference is explained by the fact that for many people magazines and journals are not perceived as a necessary source of work related information and therefore the sample collectively did not feel that they needed more input from this source. Most people did however indicate that they would prefer more information from top management, a source which appears to be fairly inaccessible for many New Zealanders.

The discussion up to the present time has focussed on a results replicating the work done by Sligo (1986). Use of this method provides a very rudimentary analysis of the data. Exact replication of the technique was done to allow results to be compared to previous New Zealand data. The results produced in the current research reinforced many of the findings of both Sligo and other

researchers, as discussed above.

The second part of the research involved looking at the relationship between the information gap and role conflict and ambiguity. In order to do this, a new way of analysing the discrepancy scores was introduced.

5.2 THE RELATIONSHIP BETWEEN THE INFORMATION GAP AND ROLE CONFLICT AND AMBIGUITY

Based on the earlier analysis the following conclusions can be drawn:

1. Significant (negative) relationships exist between levels of information received now and both role conflict and ambiguity.
2. Only one significant (positive) relationship was found between information levels preferred and role conflict and ambiguity.
3. Distinct patterns relating the size of the information gap to levels of role conflict and ambiguity were found.
4. Distinct patterns relating the positioning of information levels within the gap to levels of role conflict and ambiguity were found.

Both the correlations and the crosstabulations used to plot the relationships between the variables found reasonable grounds to assume that some form of relationship exists between the information gap and role stressors.

It is however appropriate to focus in some detail on the findings which relate to the size and positioning of the

information gap, as these characteristics were the central focus of the research.

The size of the information gap has been measured in several ways in the current research. Firstly, by the use of discrepancy scores, and secondly by the use of response scores. The problems inherent in the use of discrepancy scores were overcome by the use of discrepancy responses. These problems result from the use of the 'mean'. Use of the mean allows superficial analysis of the gap to be made but for the purpose of this research it was important to identify certain characteristics associated with the gap. This required that actual response scores be discussed.

As expected the results did suggest that for larger information gaps a higher frequency of high levels of stress rather than low levels of stress were associated with the particular gap.

Conflict and ambiguity was more clearly associated with those gaps which had a discrepancy of '0' or '1'.

Patterns of association were much clearer for role ambiguity than they were for role conflict. This was true for all three types of communication variables discussed. This finding is consistent with the theory behind role stressors. Ensuring work related information is available from preferred sources will reduce role ambiguity more readily

than role conflict. The existence of role conflict is a result of conflicts in the structure of the organisation. That is, lines of authority, responsibility and accountability. Role ambiguity on the other hand is often present when information from these formal sources, such as the immediate superior, is unclear or unavailable.

This distinction between role conflict and ambiguity can be seen by comparing the two stressors on information received on 'topics of information'. Clearer relationships were found for ambiguity than conflict (in the directions previously discussed) on the various gaps relating to topics of information. This suggests that problems or gaps associated with the types (or topics) of information that individuals receive will have more influence on their perceived levels of role ambiguity than role conflict.

Results from both the rankings and the analysis of the information gap and role stressors suggest quite strongly that people do prefer more information to less. This is particularly true if the information is on a topic or from a source that is seen as being personally useful, whether in the short term (to clarify role expectations) or in the long term (to provide information for career planning). Sligo (1986) also found that more information was preferred to less.

In summary, we have seen that at the very least, tentative

relationships do exist between the communication and role stressors investigated. Further quantitative analysis would be needed before any further conclusions can be drawn.

A primary aim of academic research in the management area should be the development of techniques or theories which will be useful for the management of human and other resources. In order for the results discussed in this study to be useful to either management or the consultant this type of information would need to be available on individual topics or sources. Questions such as the following must be able to be addressed, and answered:

"Which specific topics of information are most likely to reduce role ambiguity?"

"Which specific source of information is most strongly associated with role conflict, and what are the characteristics of the source that are influencing this relationship (distance, accessibility, formal versus informal)?"

"How does the level of information that employees are presently receiving on a particular topic or from a particular source, influence the level of role conflict or ambiguity perceived?"

The answers to all these questions (and more) can be found by using the approach suggested in this research. The multidimensional nature of the information gap must be taken into consideration when it is investigated. This form of analysis and presentation provides the flexibility to focus on organisational communication processes at either an individual or an organisational level. The use of charts to present the results can be modified for use in

organisations, and more focus can then be given to interpreting the results than has been appropriate for an exploratory study such as this.

In conclusion, it appears very likely that significant relationships do exist between these variables and that further research is appropriate. In the next chapter the general findings, and implications of this research for intervention strategies will be discussed.

CHAPTER SIX

CONCLUSIONS

This study has taken exploratory steps towards a critical evaluation and measurement of the information gap in organisational settings. In conclusion the following points are appropriate:

1. Previous research on the 'information gap' has treated it as a unidimensional construct. This has resulted in many difficulties in defining and measuring it, particularly in organisational contexts. The results of the current research suggest that the construct has at least two dimensions, which should be taken into account if useful results are to be found:

- the size of the gap
- the positioning of information within the gap

The results of this research suggest that both these aspects produce different outcomes when the construct is related to outcome variables. Although it was not measured in the current study a third characteristic which may also be significant is the **importance** of the information gap to the individual.

2. An exploratory study of the relationship between the information gap and role conflict and ambiguity found the following results:

- Individuals tend to receive information on topics which relate to the organisation as a whole. They would prefer to receive information on their work performance and opportunities for personal advancement.
- Individuals receive most information from informal, interpersonal sources. They prefer formal, interpersonal sources over written sources.
- As the size of the information gap increases it is associated with increasing levels of high role conflict and ambiguity.
- Where the size of the information gap is held constant, the positioning of the discrepancy responses affects the distribution of high and low levels of role conflict and ambiguity.
- The level of information received now is the key to the effect that positioning has on role conflict and ambiguity. The greater the level of information received now, the higher the perception of low role conflict and ambiguity. Similarly, where very little information is received now, perceptions of high stress were greater than perception of low stress.

In order to make specific conclusions on the relationship between the gap and the two outcome variables it was necessary to analyse the individual response scores, rather than the numerical measure of the information gap provided by discrepancy scores.

3. The implications of these results for management are important. In analysing the type of information that participants now receive and prefer to receive, we may

be able to draw conclusions on the types of information that may be motivational in nature. For example, information about performance and career prospects appeared to be areas where respondents were dissatisfied with current levels received. Recognition of areas of information which are important to the employee is the first step. Often management are not aware of the communication needs of employees. Once the areas where there are gaps have been noted, the introduction of the information previously lacking may serve a motivational function.

If, for example, employees now receive feedback on their performance or have clear guidelines on their prospects for promotion (and how to achieve them), their behaviour becomes goal directed. If properly managed this will have a positive effect on organisational goals. In summary, if the link between performance and outcome can be clarified (through effective communication) both individual and organisational needs will be met.

One point should be clear. Deficiencies in the type of communication employees receive, and the receipt of information from what are perceived to be inappropriate sources, does have a detrimental effect on employee responses. In this study we have focused on the effects of information gaps on role stressors.

4. The discussion would not be complete without highlighting the strategies that may be used to minimize the incidence of communication deficiencies which lead to the presence of role stressors. The following four suggestions are preventive in nature but require a commitment from management to improve formal communication processes. The following suggestions should be seen as a starting point in improving this process:

- 1) Select the most appropriate communication channel.
Those in formal positions of control must develop a sensitivity to the best means of effectively communication with subordinates. An awareness of the appropriate channel for communication requires among other things a sensitivity to situational contingencies. For example, in times of rapid change or uncertainty the use of both formal and accurate informal channels may be appropriate, for some organisations, in some situations. It is important that both organisational and individual differences are taken into account when designing an effective communication policy.

- 2) Build appropriate levels of 'redundancy' into the formal communication process. This may be done by transmitting messages clearly through more than one channel, or by using summaries to reinforce the key points in the message. This will help reduce levels of role ambiguity.

- 3) Check subordinate understanding of tasks. The clear communication of task related instructions is an essential component in the process of effective organisational communication. All too often superiors assume that because they have explained task functions, that this information has been understood. How often does the phrase "I told him three times..." precede statements which place the responsibility for ineffective communication with the receiver. Communication should be considered a process, rather than a static interaction. Responsibility for its level of effectiveness is with both parties involved in the interaction.

Reduction of role conflict and ambiguity is in the interests of both employee and employer. Further, both parties intuitively understand that clear instructions are essential to this. The problem lies in the lack of effective feedback that accompanies the explanation of task

responsibilities both at the initial meeting and at later stages. If levels of trust are insufficient the costs of asking for clarification will be too high, and role conflict and ambiguity will continue.

- 4) Formalize policies of authority and responsibility. Role conflict exists in situations where the rules for following directions from more than one superior are left to the judgement, intuition or discretion of the subordinate (Kramer, 1986). This normally only becomes a problem where overload occurs. Clarification of the formal lines of authority may reduce the problem.

The key to reducing ambiguities and conflicts about task and organisational responsibilities lies in the use of effective feedback. In order to make changes within the organisation to reduce role stressors it is necessary to conduct a communication audit. This is then used to establish:

- 1) Current problem areas - in both communication and outcome variables.
- 2) Reasons for the occurrence of these dysfunctional processes.
- 3) The most appropriate methods of improving the communication processes within the organisation.

The rankings and discrepancy scores used in the current research are presently used as one component of a communication audit. Refinement of the second section of the research (which uses actual response scores to investigate the relationship between the information gap and an outcome variable) may also prove to be a useful technique within an audit.

5. On the basis of the previous five chapters the following suggestions for future investigation seem appropriate:

- 1) To continue to explore the multi-dimensional nature of the information gap. On the basis of the findings of this study it does seem that analysis of individual measures of the gap is appropriate. This is intended to provide results which will complement the more general results found with discrepancy analysis. Dimensions which should be investigated in future research include the **importance** of the information gap to individuals over varying levels. At what point (in terms of size of the gap and position of responses) does the existence of the gap become a perceived problem? What are the variables that may **moderate** the relationship between importance and outcome variables?

- 2) A further direction of research which may be appropriate is an exploration of other outcome variables for which the size of the information gap may be an antecedent.

- 3) Investigation of methods for statistically quantifying the findings of the current research are now appropriate. Use of correlational techniques to analyse discrepancies is comparatively straightforward, however problems arise in interpreting the validity of the results. Analysis of the characteristics of the actual responses does produce interesting and useful results, but until methods of statistically quantifying levels of significance are found the results must be considered exploratory.

This research has provided guidelines for the critical evaluation of two aspects of the communication gap. That is, the size and position of the information gap. It has also established links between these aspects and role conflict and ambiguity. At this stage the findings are very exploratory and it is hoped that this research may provide a starting point for further developments and refinements in the directions suggested.

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APPENDIX ONE

THE QUESTIONNAIRE

QUESTIONNAIRE SURVEY

Thank you for taking the time to answer the following questions.

Please answer all questions. If you find any questions unclear or ambiguous, please ask the person administering the questionnaire about them. Please answer questions with the first answer that comes into your head. It is important that you do not spend too much time thinking about each response.

Confidentiality

You are asked NOT to put your name on this questionnaire. Your answers will be completely anonymous.

Purpose

The purpose of this survey is to assess the effect that the information you receive to do your job has on the way that you feel about your job. If you work in more than one organisation answer for the one that you spend most time in.

INFORMATION WHICH I RECEIVE

<u>Example</u>	This is the amount of information I receive now					This is the amount of information I think I should receive				
	Very little	Little	Some	Much	Very much	Very little	Little	Some	Much	Very much
Planning carried out in the organisation.	1	2	3	④	5	1	2	3	④	5

In this case your answer could be that you do receive much information now about the planning carried out in the organisation, and that you think you need to receive much.

	This is the amount of information I receive now					This is the amount of information I think I should receive				
	Very little	Little	Some	Much	Very much	Very little	Little	Some	Much	Very much
My work duties	1	2	3	4	5	1	2	3	4	5
How well I am doing in my work	1	2	3	4	5	1	2	3	4	5
The problems being experienced by my organisation	1	2	3	4	5	1	2	3	4	5
How organisational decisions are made that affect my job	1	2	3	4	5	1	2	3	4	5
Opportunities for promotion and advancement in the organisation	1	2	3	4	5	1	2	3	4	5
Major new developments in the organisation	1	2	3	4	5	1	2	3	4	5
How my job relates to the total operation of the organisation	1	2	3	4	5	1	2	3	4	5
How my work performance is assessed	1	2	3	4	5	1	2	3	4	5
How well my organisation is achieving its goals and objectives	1	2	3	4	5	1	2	3	4	5

INFORMATION WHICH I SEND

	This is the amount of information I send now					This is the amount of information I think I should send				
Reporting what I am doing in my work	1	2	3	4	5	1	2	3	4	5
Reporting problems I meet in my work	1	2	3	4	5	1	2	3	4	5
Complaining about my work or working conditions	1	2	3	4	5	1	2	3	4	5
Requesting information I need to do my job	1	2	3	4	5	1	2	3	4	5

(1) VERY LITTLE (2) LITTLE (3) SOME (4) MUCH (5) VERY MUCH

SOURCES OF INFORMATION : FREQUENCY OF CONTACT

I RECEIVE WORK-RELATED INFORMATION FROM THESE SOURCES :

	This is the frequency with which I now receive information					This is the frequency with which I would like receive information				
	Never	Rarely	Sometimes	Often	Very Often	Never	Rarely	Sometimes	Often	Very Often
<u>INFORMATION FROM OTHER PEOPLE, NOT IN WRITTEN OR PRINT FORM</u>										
Subordinates (if applicable)	1	2	3	4	5	1	2	3	4	5
Co-workers in my own unit or department	1	2	3	4	5	1	2	3	4	5
People from other units or departments in my organisation	1	2	3	4	5	1	2	3	4	5
My immediate superior	1	2	3	4	5	1	2	3	4	5
Department or unit meetings	1	2	3	4	5	1	2	3	4	5
Top management	1	2	3	4	5	1	2	3	4	5
"The grapevine" (informal word of mouth communication inside the organisation)	1	2	3	4	5	1	2	3	4	5
Talking with personal contacts outside the organisation	1	2	3	4	5	1	2	3	4	5
Seminars, courses or workshops	1	2	3	4	5	1	2	3	4	5
Other(s) (specify).....	1	2	3	4	5	1	2	3	4	5
.....	1	2	3	4	5	1	2	3	4	5
<u>WRITTEN OR PRINT INFORMATION</u>										
Memoranda or reports from inside the organisation	1	2	3	4	5	1	2	3	4	5
Letters or reports from outside the organisation	1	2	3	4	5	1	2	3	4	5
In-house newsletters or circulars	1	2	3	4	5	1	2	3	4	5
Organisational records	1	2	3	4	5	1	2	3	4	5
Books, notes or files <u>not</u> held in an organised library	1	2	3	4	5	1	2	3	4	5
Magazines, journals or serials <u>not</u> held in an organised library	1	2	3	4	5	1	2	3	4	5
Organised library facilities	1	2	3	4	5	1	2	3	4	5
Government documents (e.g. statutes, white papers etc)	1	2	3	4	5	1	2	3	4	5
Computer-based information retrieval systems	1	2	3	4	5	1	2	3	4	5
News media (T.V., radio, newspapers)	1	2	3	4	5	1	2	3	4	5
Other(s) (specify).....	1	2	3	4	5	1	2	3	4	5
.....	1	2	3	4	5	1	2	3	4	5

(1)
NEVER

(2)
RARELY

(3)
SOMETIMES

(4)
OFTEN

(5)
VERY OFTEN

PERSONAL EVALUATION OF YOUR
PRESENT JOB

The statements which follow are all concerned with the problems you have in trying to carry out your job effectively. I would like you to think about the **occurrence** of the following items over the last full year. For each item I am interested to know how often it occurred. Please indicate this by rating each item out of 5 on a frequency scale.

For example, if an item did not occur at all circle 1 on the frequency scale.

	Never		Frequently		
	1	2	3	4	5
Being responsible for tasks over which you have too little authority	1	2	3	4	5
Receiving incompatible requests from two or more people	1	2	3	4	5
Having to refer matters upward when you could really deal with them adequately yourself	1	2	3	4	5
Having to do things one way when you believe they could be better done another way	1	2	3	4	5
Being given insufficient authority to do your job properly	1	2	3	4	5
Having to work under policies and guidelines which conflict with each other	1	2	3	4	5
Having to get the job done without sufficient or satisfactory help	1	2	3	4	5
Other people not involved in work pressure putting pressure on you	1	2	3	4	5
Having aspects of the job for which you are personally responsible and where you have to depend too much on others for information	1	2	3	4	5
Having insufficient guidelines to help you with important aspects of your work	1	2	3	4	5
Working on unnecessary things	1	2	3	4	5
Not receiving a clear explanation of what has to be done	1	2	3	4	5
Having to do things which are apt to be accepted by one person and not accepted by others	1	2	3	4	5
Having to bend a rule or policy to get the job done	1	2	3	4	5
Having to "feel your way" in performing your duties	1	2	3	4	5
Not knowing what your responsibilities are	1	2	3	4	5
Not being clear about the priorities within your job	1	2	3	4	5
Not having a clear idea about how much authority you have	1	2	3	4	5
Not knowing how well you are doing in your job	1	2	3	4	5
Not having a clear idea about how your performance is judged	1	2	3	4	5

Overall, how satisfied are you with your job? (Circle the response that is closest to how you feel)

Very Dissatisfied Dissatisfied Neutral Satisfied Very Satisfied

BACKGROUND INFORMATION

This section is for statistical purposes only. It will be used to study how different groups of people view your organisation. If you work in more than one organisation at the present time answer for the one that you spend most time in.

Item No.

1. Sex Male _____ Female _____
2. Age _____
3. How long have you worked in your present organisation?
 - 1) Less than 1 year
 - 2) 1 to 5 years
 - 3) 6 to 10
 - 4) 11 to 15
 - 5) More than 15 years
4. How long have you held your present position?
 - 1) Less than 1 year
 - 2) 1 to 5 years
 - 3) 6 to 10
 - 4) 11 to 15
 - 5) More than 15 years
5. What is your position in this organisation?
 - 1) I don't supervise anybody?
 - 2) First-line supervisor
 - 3) Middle management
 - 4) Top management
 - 5) Other: (please specify _____)
6. What type of organisation do you work for?
 - 1) Government or Public Service
 - 2) Private manufacturing industry
 - 3) Private service industry
 - 4) Other: (please specify _____)
7. During the past ten years, in how many other organisations have you been employed fulltime?
 - 1) No other organisations
 - 2) One other organisation
 - 3) Two other organisations
 - 4) Three other organisations
 - 5) More than three others.

Thank you for your assistance

APPENDIX TWO

STANDARD DEVIATIONS

STANDARD DEVIATIONS

	<u>Now</u>	<u>Preferred</u>
<u>Topics of Information</u>		
1. Work Duties	1.081	0.823
2. How well I am doing	1.103	0.788
3. Organisational problems	1.237	0.964
4. Organisational decisions affect my job	1.265	0.846
5. Opportunities for promotion	1.250	0.854
6. Major organisational developments	1.281	0.795
7. How my job fits in	1.213	0.836
8. Assessment of my work	1.229	0.842
 <u>Interpersonal Sources</u>		
1. Subordinates	1.048	1.053
2. Co-workers	0.905	0.845
3. People in other units	0.988	0.974
4. Superior	1.124	0.777
5. Department meetings	1.228	0.934
6. Top management	1.171	0.897
7. Grapevine	0.958	1.156
8. From outside organisations	1.173	1.266
9. Seminars	1.071	0.912
 <u>Written or Print Sources</u>		
1. Memo	1.173	0.859
2. Letters from outside	1.176	1.032
3. In-house newsletters	1.231	0.952
4. Organisational records	1.316	1.067
5. Books not in organised library	1.201	1.124
6. Journals not in organised library	1.159	1.109
7. Library facilities	1.301	1.214
8. Government documents	1.324	1.213
9. Information retrieval systems	1.460	1.177
10. News media	1.251	1.204
 <u>Role Conflict and Ambiguity</u>		
	<u>Mean</u>	<u>Deviation</u>
1. Being responsible for tasks over which you have too little authority	2.860	1.213
2. Receiving incompatible requests from two or more people	2.786	1.110
3. Having to refer matters upward when you could really deal with them adequately yourself	2.783	1.225

4.	Having to do things one way when you believe they could be better done another way	3.087	1.053
5.	Being given insufficient authority to do your job properly	2.739	1.311
6.	Having to work under policies and guidelines which conflict with each other	2.507	1.114
7.	Having to get the job done without sufficient or satisfactory help	3.121	1.052
8.	Other people not involved in work pressure putting pressure on you	2.854	1.197
9.	Having aspects of the job for which you are personally responsible and where you have to depend too much on others for information	2.961	1.051
10.	Having insufficient guidelines to help you with important aspects of your work	2.763	1.096
11.	Working on unnecessary things	2.812	1.186
12.	Not receiving a clear explanation of what has to be done	2.942	1.143
13.	Having to do things which are apt to be accepted by one person and not accepted by others	2.831	1.027
14.	Having to bend a rule or policy to get the job done	2.957	1.150
15.	Having to "feel your way" in performing your duties	2.986	1.086
16.	Not knowing what your responsibilities are	2.338	1.150
17.	Not being clear about the priorities	2.531	1.169
18.	Not having a clear idea about how much authority you have	2.435	1.264
19.	Not knowing how well you are doing in your job	3.145	1.202
20.	Not having a clear idea about how your performance is judged	3.159	1.226

APPENDIX THREE

TABLES OF RESPONSE SCORES

Figure 1(b)

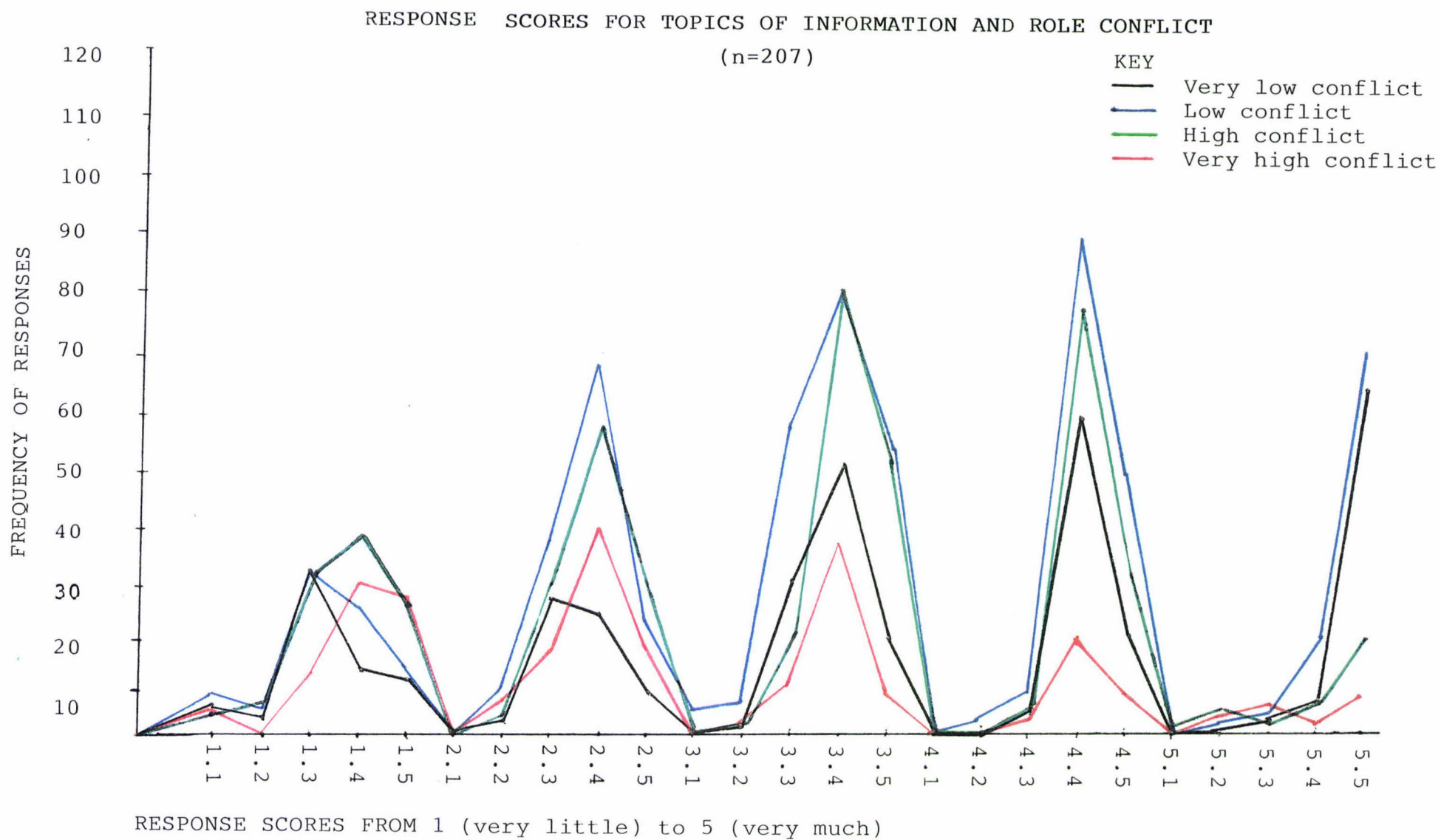


Figure 1(c)

RESPONSE SCORES FOR INTERPERSONAL SOURCES AND ROLE AMBIGUITY

(n=207)

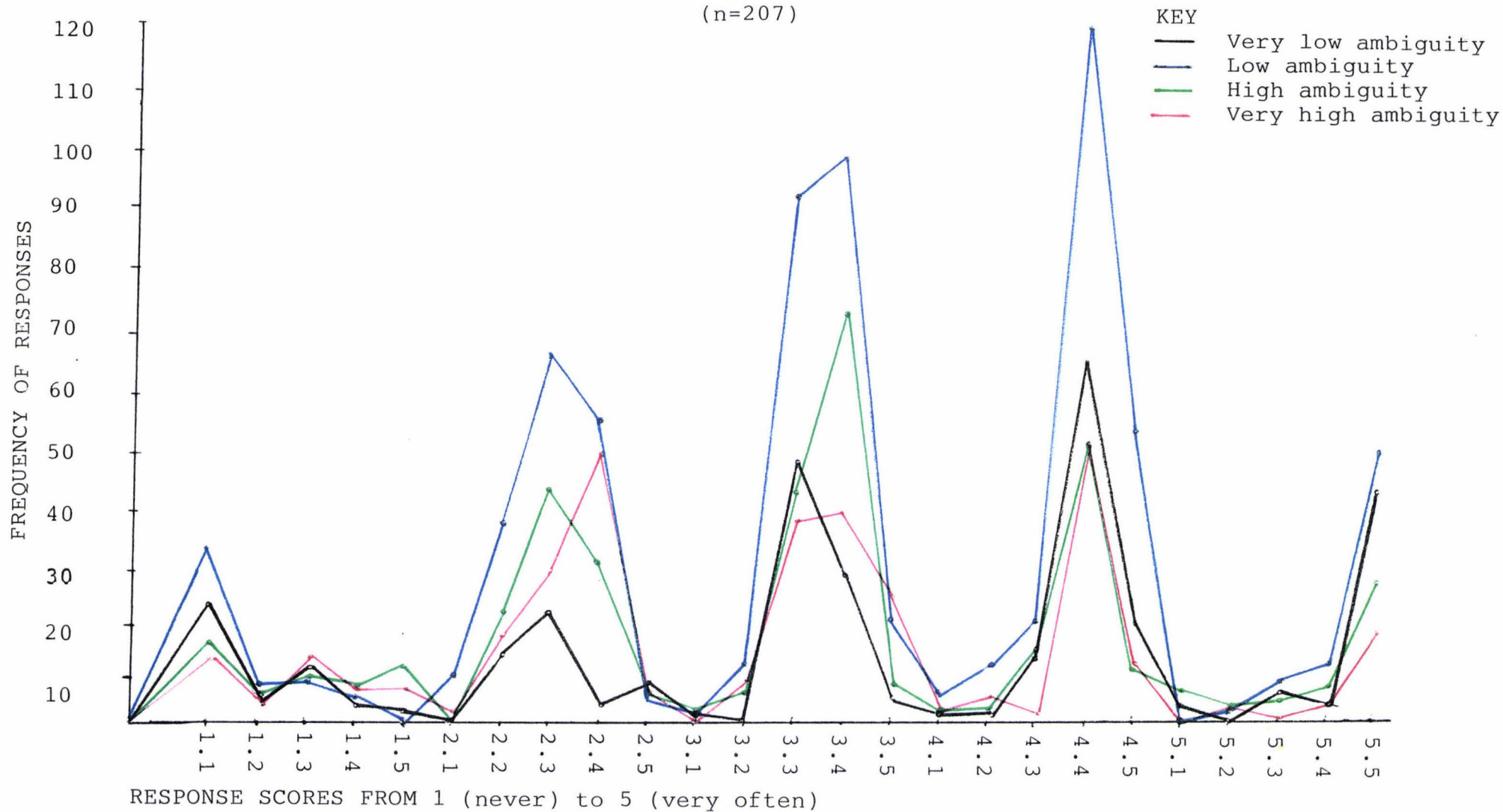


Figure 1(d)

RESPONSE SCORES FOR INTERPERSONAL SOURCES AND ROLE CONFLICT

(n=207)

KEY
— Very low conflict
— Low conflict
— High conflict
— Very high conflict

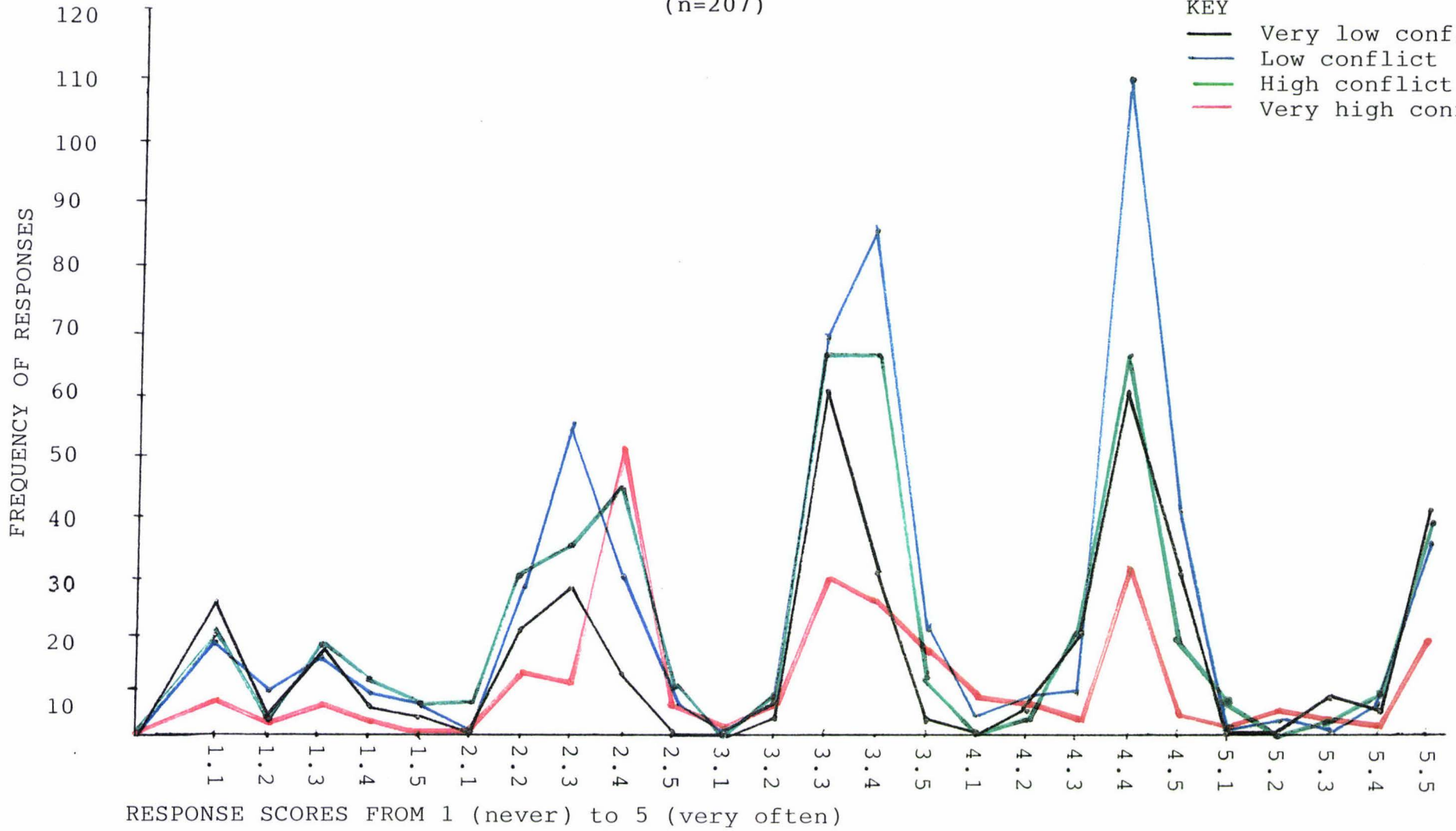


Figure 1(e)

RESPONSE SCORES FOR WRITTEN SOURCES AND ROLE AMBIGUITY

(n=207)

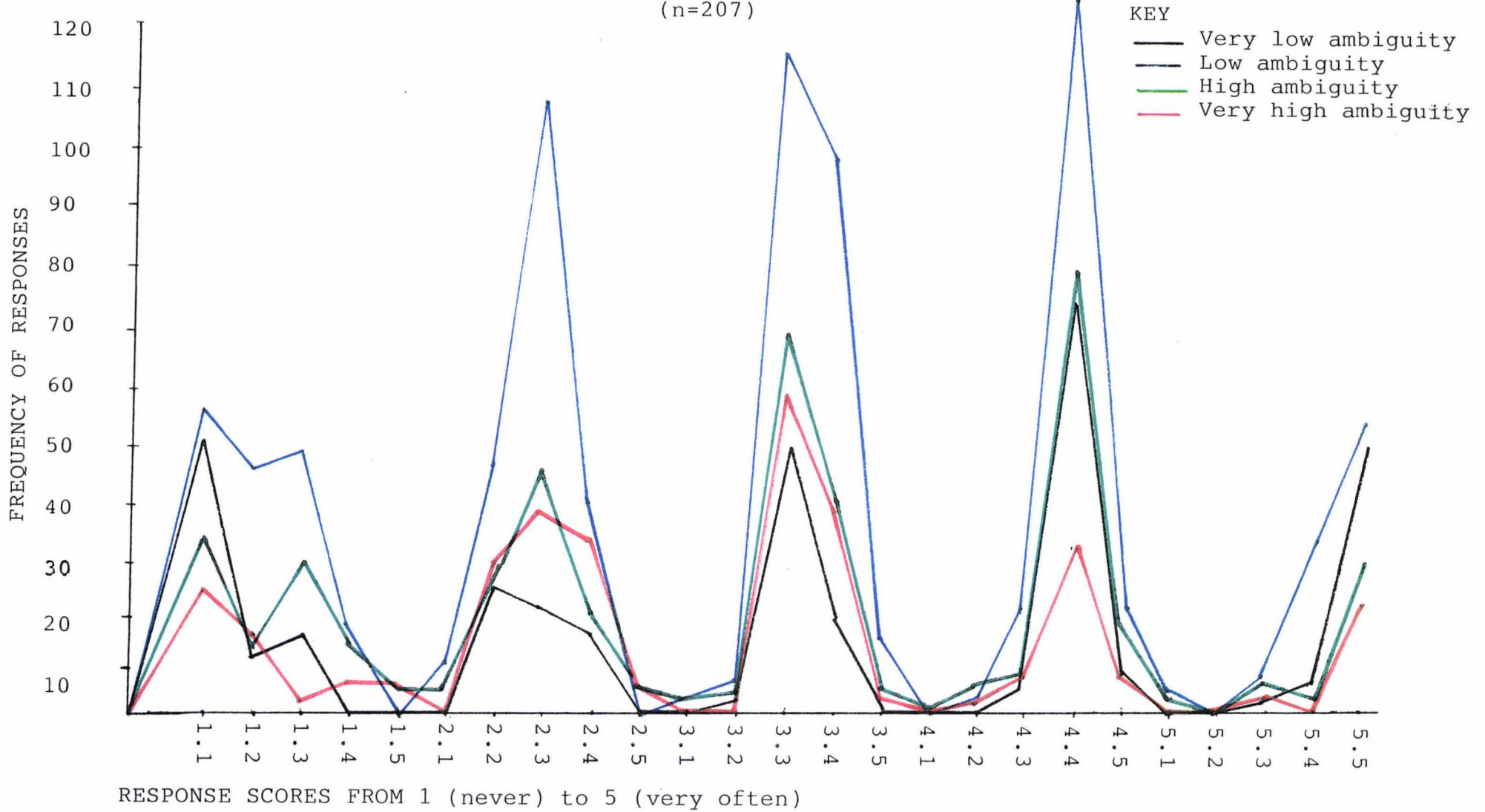
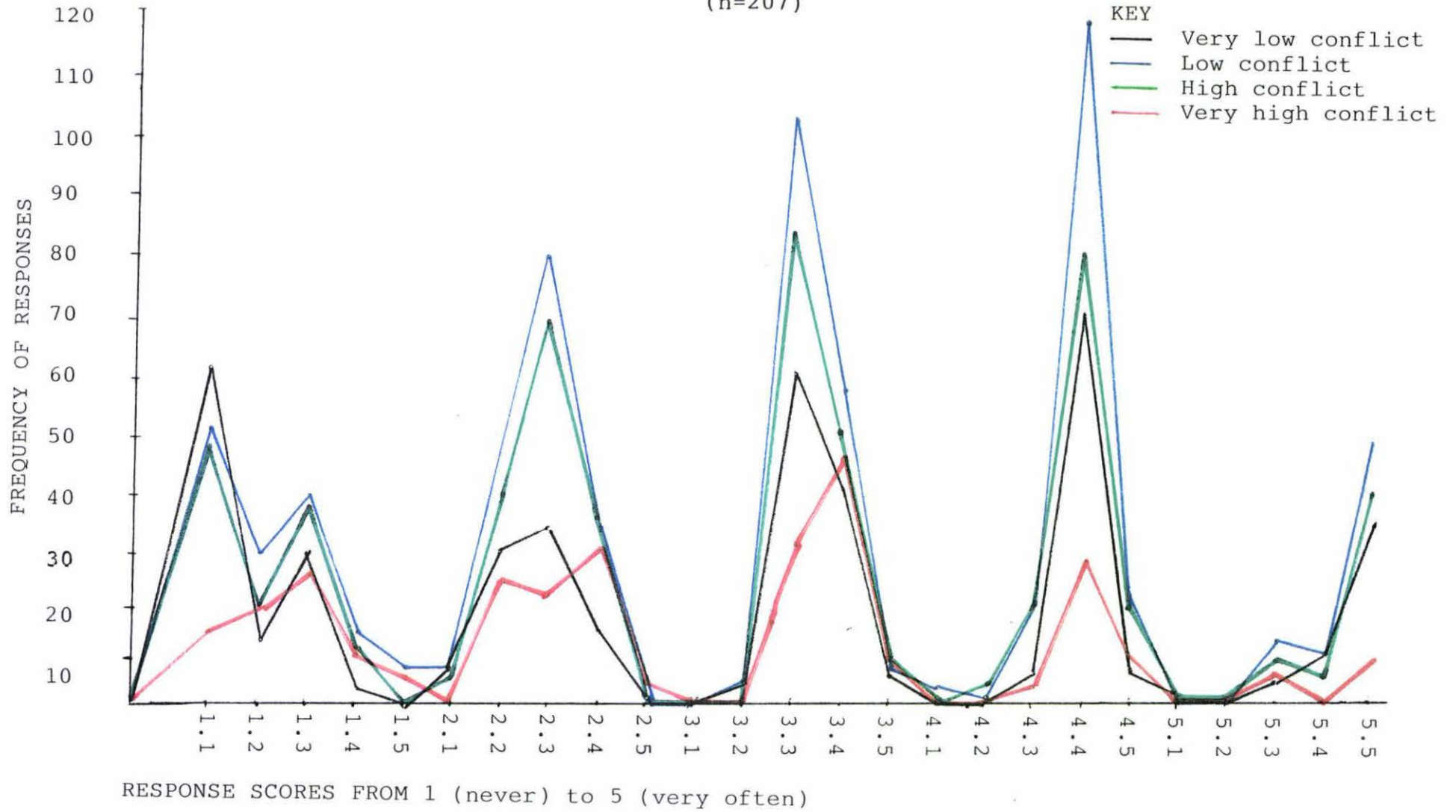


Figure 1(f)

RESPONSE SCORES FOR WRITTEN SOURCES AND ROLE CONFLICT

(n=207)



APPENDIX FOUR

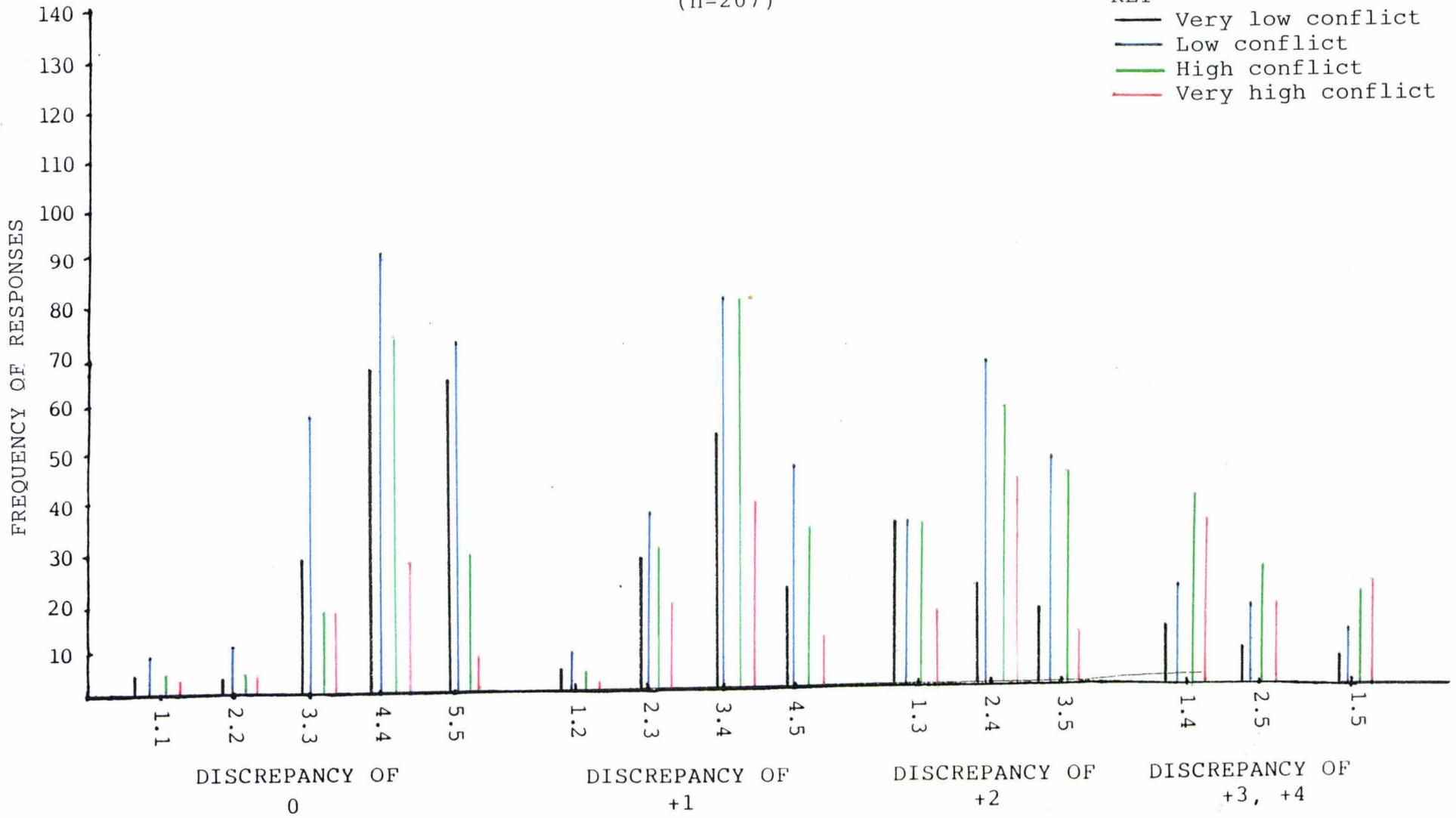
TABLES OF POSITION SCORES

Figure 2(b)

POSITION SCORES FOR TOPICS OF INFORMATION AND ROLE CONFLICT

(n=207)

KEY
— Very low conflict
— Low conflict
— High conflict
— Very high conflict



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RESPONSE SCORES FROM 1 (very little) to 5 (very much)

Figure 2(c)

POSITION SCORES FOR INTERPERSONAL SOURCES AND ROLE AMBIGUITY

(n=207)

KEY
— Very low ambiguity
— Low ambiguity
— High ambiguity
— Very high ambiguity

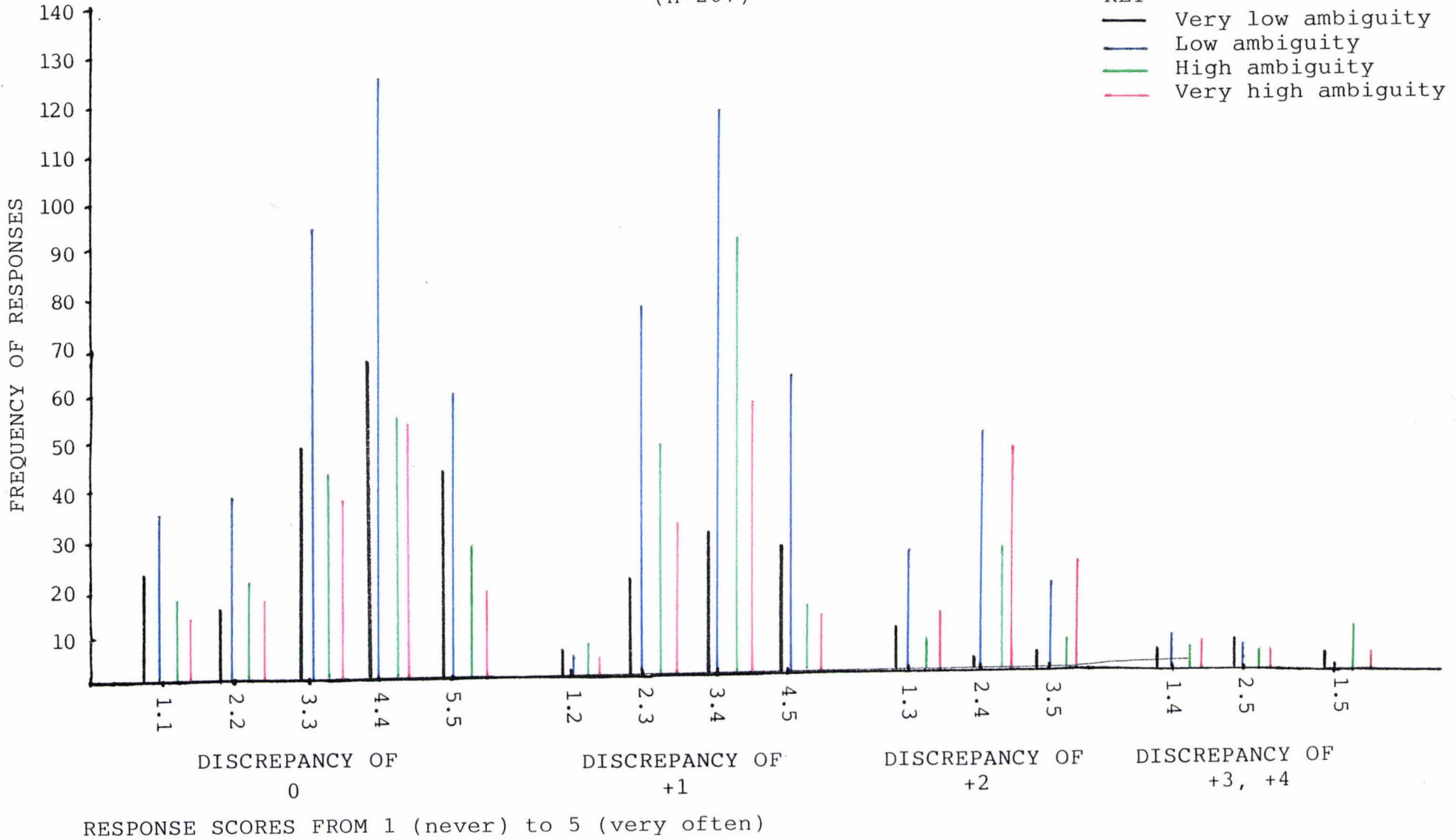


Figure 2(d)

POSITION SCORES FOR INTERPERSONAL SOURCES AND ROLE CONFLICT

(n=207)

KEY

- Very low conflict
- Low conflict
- High conflict
- Very high conflict

149

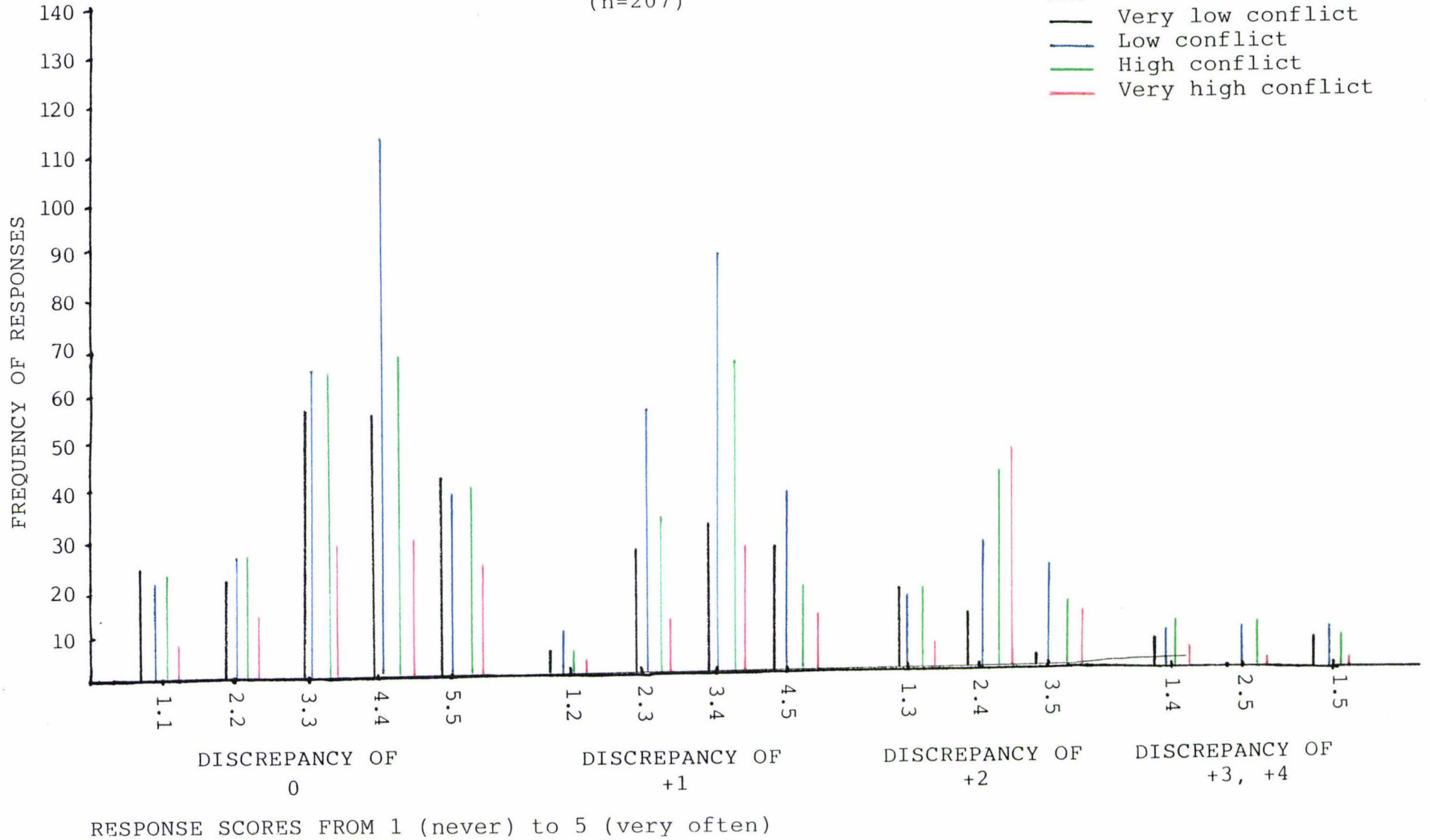


Figure 2(e)

POSITION SCORES FOR WRITTEN SOURCES AND ROLE AMBIGUITY

(n=207)

- KEY
- Very low ambiguity
 - Low ambiguity
 - High ambiguity
 - Very high ambiguity

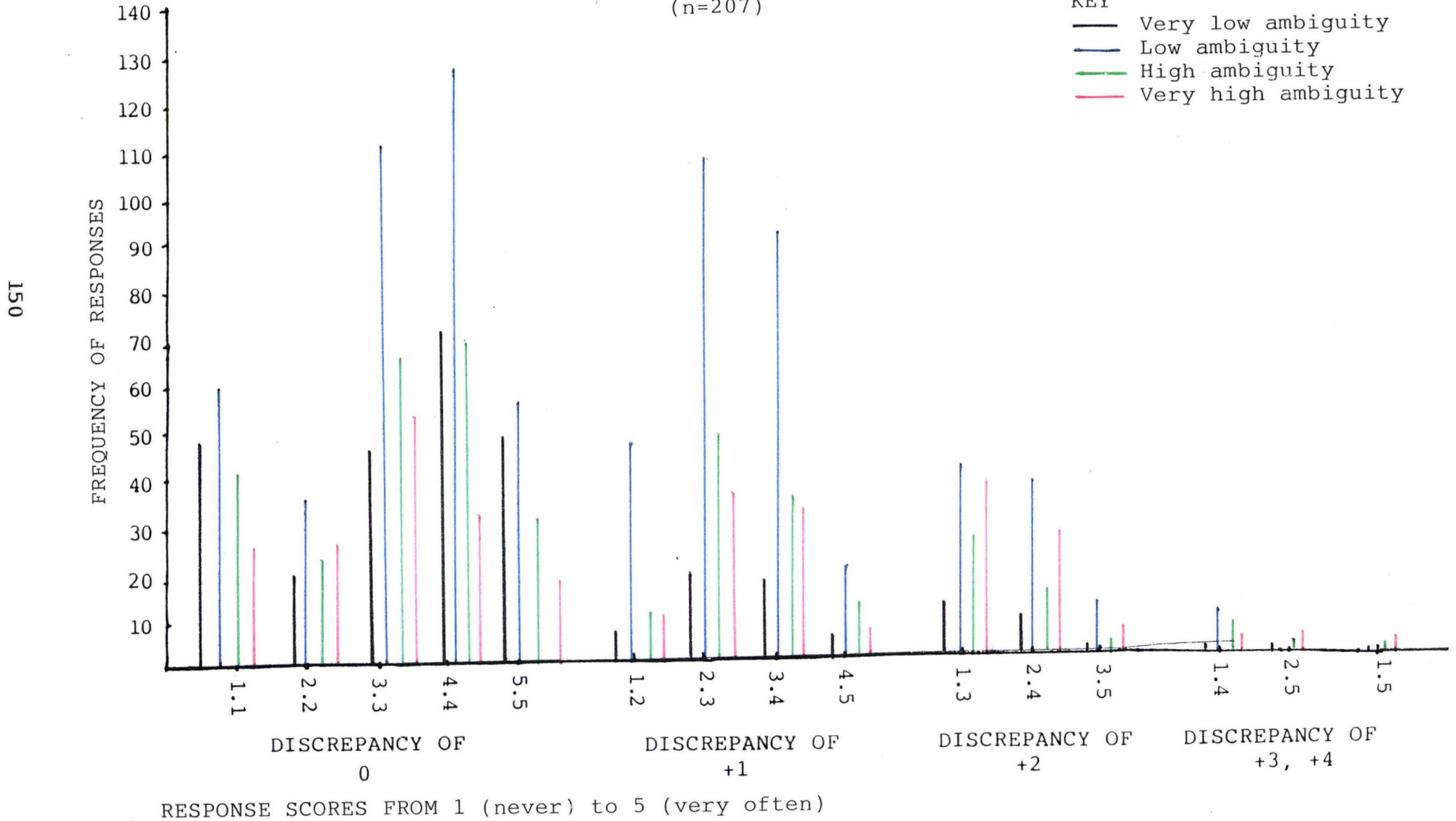


Figure 2 (f)

POSITION SCORES FOR WRITTEN SOURCES AND ROLE CONFLICT

(n=207)

KEY
Very low conflict
Low conflict
High conflict
Very high conflict

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