

**INTERNAL COMMUNICATION MEDIA SELECTION IN THE UNIVERSITY
OF PRETORIA WITH THE EMPHASIS ON COMPUTER-MEDIATED
COMMUNICATION MEDIA**

BY

Leonore Leatishia Truter Jordaan

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VERKLARING

Ek verklaar dat die verhandeling wat hierby vir die graad MA Bestuurskommunikasie aan die Universiteit van Pretoria deur my ingedien word, my selfstandige werk is en nie voorheen deur my vir 'n graad aan 'n ander universiteit/fakulteit ingedien is nie.

A handwritten signature in black ink, consisting of a stylized 'L' and 'J'.

LLT JORDAAN

Oktober 2000

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SUMMARY

INTERNAL COMMUNICATION MEDIA SELECTION IN THE UNIVERSITY OF PRETORIA WITH THE EMPHASIS ON COMPUTER-MEDIATED- COMMUNICATION MEDIA

The selection of one medium of communication above another may appear to be a matter of personal choice, and of little research consequence. Yet, insight into media preference when it comes to receiving internal communication messages may mean the difference between effective communication and lack of communication within an organisation.

A number of theoretical perspectives have been advanced to explain communication media choice decisions. For the purpose of this study, the Media Richness Theory (MRT) and the Symbolic Interactionism Theory (SIT) were used to explore media selection at the University of Pretoria (UP). The MRT is concerned with identifying the most appropriate medium in terms of “medium richness” for communication situations characterised by equivocality and uncertainty. The SIT concurs with the MRT, but goes further and predicts that situational determinants such as distance and time and the symbolic cues provided by a medium, also influence media choice.

The hypotheses were tested with data obtained from 174 employees (academic and non-academic) based on the main campus of the UP. A mail questionnaire was used to gather data. The questionnaire was developed to test MRT and SIT predictions with regard to media selection.

The gathered data were analysed to reach general findings from the descriptive statistics and to test the hypotheses by using inferential statistics such as (a) *chi-square tests*, (b) *analysis of variance (ANOVA)* and (c) *factor analysis*.

Research findings indicate that employees at UP tend to select face-to-face media for highly equivocal messages and written media for clear, objective

messages. The results also indicate that where situational constraints such as distance and time pressure are present, people tend to choose “leaner” media, such as telephone and computer-mediated communication media, irrespective of the contents of the message. When symbolic meaning is intended, however, such as a desire for teamwork and trust, a “rich” medium is preferred. These findings are in support of MRT and SIT predictions.

The results from the factor analysis indicate that organisational culture in UP plays a more significant role than the communicator or recipient where media selection is concerned.

Based on this research, it can be accepted (at a 95% confidence level) that:

- media selection is determined by message equivocality, message uncertainty, situational constraints and symbolic meaning;
- there is no significant dependence between years service and media selection;
- there is a tendency to use computer-mediated communication media as much as or more than conventional media where messages of a non-personal nature are concerned; this is, however not true for messages of a personal nature.

In conclusion, although the findings of this study are only of an exploratory nature and based on a small section of the employees at UP, the results indicate the existence of a significant relationship between message contents, situational factors and media selection. Thus, effective internal communication may mean selecting the right medium to fit message contents and the situation in order to achieve mutual understanding and success.

OPSOMMING

INTERNE KOMMUNIKASIEMEDIASELEKSIE BY DIE UNIVERSITEIT VAN PRETORIA MET DIE KLEM OP REKENAARBEMIDDELDEKOMMUNIKASIE MEDIA

Die keuse van een medium van kommunikasie bo 'n ander mag blyk asof dit persoonlike keuse is, en van min navorsingkonsekwensie. Nietemin, insig in mediavorkeur wanneer dit kom by die ontvangs van interne kommunikasieboodskappe, mag die verskil beteken tussen effektiewe kommunikasie en 'n gebrek aan kommunikasie binne 'n organisasie.

'n Aantal teoretiese perspektiewe word aangevoer om kommunikasiemedia-keuse besluite te verduidelik. Vir die doel van hierdie studie is die Mediarykheidteorie (MRT) en Simboliese Interaksionisme Teorie (SIT) gebruik om mediaseleksie by die Universiteit van Pretoria (UP) te ondersoek. Die MRT is gemoeid met die identifisering van die mees gepaste medium in terme van media rykheid vir kommunikasiesituasies wat gekenmerk word deur dubbelsinnigheid en onsekerheid. Die SIT stem ooreen met die MRT, maar gaan verder en voorspel dat mediakeuse ook beïnvloed sal word deur situasionele bepalers soos afstand en tyd, en die simboliese leidrade wat deur 'n medium oorgedra word.

Die hipoteses is getoets met data wat verkry is van 174 werknemers (akademies en nie-akademies) op die UP se hoofkampus. 'n Posvraelys is gebruik om die data in te samel. Die vraelys is ontwikkel om MRT- en SIT-voorspellings ten opsigte van mediakeuse te toets.

Die data is ontleed om algemene bevindings van die beskrywende statistieke te bekom en om die hipoteses te toets deur gebruik te maak van statistiese metodes soos (a) *chi-kwadraat toetse*, (b) analise van variansie (ANOVA), en (c) faktorontleding.

Die bevindings van die navorsing dui aan dat werknemers by UP neig om aangesig-tot-aangesig media te kies vir hoogs dubbelsinnige boodskappe en

geskrewe media vir duidelike, objektiewe boodskappe. Die resultate dui ook aan dat waar situasionele beperkinge soos afstand en tyddruk ter sprake is, mense geneig is om “kouer” kommunikasiemedie soos die telefoon en rekenaarbemiddelde-kommunikasiemedie te kies, ongeag die inhoud van die boodskap. Waar die bedoeling egter simboliese betekenis het, soos ‘n begeerte na spanwerk en vertroue, word ‘n “ryk” medium verkies. Hierdie bevindinge ondersteun die voorspellings van die MRT en SIT.

Die resultate van die faktorontleding dui aan dat organisasiekultuur in UP ‘n betekenisvoller rol speel wat mediakeuse betref, as die kommunikeerder of ontvanger.

Op grond van die navorsing, kan aanvaar word (op ‘n 95% sekerheidsvlak) dat:

- media keuse tot ‘n groot mate bepaal word deur boodskapdubbelsinnigheid, boodskaponsekerheid, situasionele beperkinge en simboliese betekenis;
- daar geen betekenisvolle afhanklikheid tussen jare diens en media keuse bestaan nie;
- daar ‘n tendens is om rekenaarbemiddelde kommunikasiemedie ewe veel of self meer te gebruik as konvensionele media waar boodskappe van ‘n nie-persoonlike aard betrokke is; dit is egter nie waar vir boodskappe van ‘n persoonlike aard nie.

Ten slotte, alhoewel die bevindinge van hierdie studie slegs van ‘n ondersoekende aard is, en gebaseer is op ‘n klein persentasie van die werknemers van UP, dui die resultate aan dat daar ‘n betekenisvolle verhouding bestaan tussen die inhoud van die boodskap, situasionele faktore en mediakeuse.

Dus mag effektiewe interne kommunikasie afhang van die regte medium wat pas by die inhoud van die boodskap en die situasie sodat wedersydse begrip en suksesvolle kommunikasie bereik kan word.

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CHAPTER 1

INTRODUCTION, RESEARCH PROBLEM AND OBJECTIVES

1.1 INTRODUCTION

Managers and organisational theorists have long recognised the central role that communication plays in all the activities and functions of the management of an organisation (Mintzberg 1973; McCathrin 1989; Puth 1990; Smith 1991). According to Andrews et al. (1996: 10) communication cannot be viewed simply as an important organisational component, but should “rather be viewed as every organisation’s lifeblood”.

The complexity of the environment in which organisations operate today has significantly increased over the past two decades. In turn, managerial decision-making processes and the speed of decision-making employed in organisations today have become embedded in higher levels of ambiguity and uncertainty. These changes brought about a critical need for more effective communication within the organisation (King et al. 1994; Puth 1994; Smith 1991; Thomson et al. 1997). Thus, more information must now be processed efficiently and effectively at all levels, responding to these rapidly changing internal and external conditions which in some instances might result in anxiety, anger, fear, uncertainty, resentment and mistrust among employees.

The increasing competitive pressures have clearly placed a new emphasis on employees as the organisations’ primary source to achieve leaner, more efficient organisations. In this context, winning and retaining the loyalty and commitment

of employees have become the greatest survival challenge facing corporate communicators today (Smith 1991: 3).

In the past, the process of creating and exchanging messages (communication) in organisations, was conducted primarily through verbal exchanges, handwritten or typed correspondence. Research in recent years regarding organisational communication, found that one-on-one conversations, meetings and personal visits were preferred to deal with most matters (McLeod 1987; Mintzberg 1989; Jones et al. 1988-89; Panko 1992).

Since these research studies, technological innovation has offered an increasing number of media through which a person may choose to communicate. In addition to the traditional letters, telephone calls and face-to-face discussions, new communication technologies are increasingly available. Electronic mail allows communicators to instantly send messages to partners geographically dispersed without the frustration of telephone tag. Teleconferencing offers the possibility of group meetings without the need for long-distance travel to meet face to face. Internet on the other hand provides online interactive communication. These new media seem destined to reshape organisational communication (Lengel et al. 1988).

1.2 DEFINITION OF THE RESEARCH PROBLEM

Given the importance of effective communication and the widening array of communication media available within organisations, it is very important to choose the correct medium to help shape the effectiveness and efficiency of an organisation (Reinsch et al. 1990: 801). Trevino et al. (1990: 71) indicated that "media choice is not the simple, intuitively obvious process it may appear to be at first glance". A medium can enhance or distort the intended message, and the

explosion in electronic technology is making media selection an even more critical issue.

From the above discussion it is clear that organisations are today faced by obstacles like uncertainty, economic and time emergencies, geographic dispersed offices, and so forth. This might force the managers and employees to choose an alternative medium, or a second best, which could be disastrous for the organisation. To prevent such mistakes Smeltzer et al. (1994: 436-37) recommended that managers must become sensitive to the correct type of communication medium. They should have a clear understanding of how sensitive, negative, complex or time critical the message is and be able to match that information to the most appropriate medium before conveying the message.

1.3 PURPOSE OF THE STUDY

The main purpose of this study is to investigate why managers and employees at the University of Pretoria (UP) choose one communication medium over another, when there are a wide spectrum of media to choose from against the predictions of the MRT and the SIT. The choice of communication medium may seem like common sense and of little research consequence. However, sources of recent research suggest that appropriate media choice may mean the difference between effective communication and failure.

Effective communication depends on the selection of a medium that has the capacity to engage both the sender and receiver in mutual understanding of the message at hand. Thus, media selection can affect communication patterns, organisation structure and in turn the nature of organisational decision-making processes. It is therefore necessary that managers and employees understand media selection processes and their relation to communication effectiveness.

Although this study is basically exploratory, the findings can provide some basic insight to managers and employees alike in order to improve their ability to make decisions about when to travel, pick up the phone, send a memo or electronic message, managers need to understand media selection processes and their relation to communication effectiveness.

The research for this study relied on the Media Richness (MRT) and the Symbolic Interactionism Theories (SIT) which have provided substantial groundwork for identifying factors that shape managers' selection of communication media. The findings can help answer the question of how managers and employees, thus the entire organisation, can use media effectively.

MRT is concerned with determining the most appropriate communication medium for dealing with uncertainty and equivocality (Daft & Lengel 1986; Huber & Daft 1987). This theory suggests that communication media can be ranked on a richness continuum based on their ability to handle equivocality and uncertainty. Rich media (face-to-face and telephone) are proposed to be suitable for resolving equivocal situations while lean media (written documents) are proposed to be more suitable for reducing uncertainty.

The Symbolic Interactionism Theory (SIT), a more socially-oriented theory, on the other hand, agrees with the MRT on the relationship between media choice and message equivocality. It suggests though that media differ in the extent to which they cover situational constraints - such as distance and time pressure - and the way in which they convey symbolic cues.

A brief mention of the SMCR-model (Clampitt 1991; Clampitt et al. 1995) is provided to offer a framework of communication components being used in this study.

1.4 WHERE DOES THIS STUDY FIT INTO THE COMMUNICATION FIELD?

This study examines communication processes within the organisation. It therefore deals with internal organisational communications, with the emphasis on internal communication media.

Communication occurs both inside (internally) and outside (externally) an organisation. Organisations use both types of communication to fulfil their goals and to maintain themselves. The means for people to work together and co-operate with each other is provided mainly by internal (intraorganisational) communication, while external communication enables people to interpret social changes which influence ever-changing organisational needs and activities (Rensburg 1996: 103).

This study deals only with those internal communication messages that are shared among members of UP and are mostly concerned with work-related matters. These messages are conveyed through communication media.

Media are the methods used for exchanging messages and information in organisations. The media sanctioned by the organisation are labelled formal and are related to the functional aspects of communication, such as giving and receiving information. These media channels are downward, upward or horizontal. Grapevines are the informal communication media in organisations.

In human communication the media used to send messages are either verbal or nonverbal, and nowadays, computer-mediated. The organisational structure, culture and climate determine internal communication with employees.

This study concentrates on why managers and employees choose one communication medium over another, when there is a variety of media available within an organisation. From the above discussion the following research question culminates.

1.5 RESEARCH QUESTION

The research question that culminates from the orientation discussion is to examine organisational media selection within UP to see if the findings support the media selection predictions made by the Media Richness Theory (MRT) and the Symbolic Interactionism Theory (SIT). The MRT predicts that people will select media for certain messages according to their “richness” when communicating. The SIT also indicates that media selection are made on the richness of media, but goes further and indicates that distance, time constraints and symbolic meaning will also influence the choice of media when communicating.

In order to address the research question several research objectives are stated, which will be discussed next.

1.6 RESEARCH OBJECTIVES

- 1.6.1. To determine whether (a) message equivocality and (b) message uncertainty influence media selection.
- 1.6.2 To determine the influence of (a) situational factors such as time pressure, distance and (b) symbolic meaning on media selection.
- 1.6.3 To determine if the variables, communicator, recipient and organisational culture have an influence on media selection.
- 1.6.4 To determine if demographic variables such as years service in UP have an influence on media selection.

- 1.6.5 To determine whether employees in UP show a tendency to use computer-mediated communication media as much as or more than conventional media - regardless of message contents - when communicating.

1.7 CONCEPTUALISATION OF KEY CONCEPTS

1.7.1 *Organisational communication*

Organisational communication is an umbrella term for all the communication processes that occur in the organisation. Organisational communication is that process wherein mutually interdependent human beings create and exchange messages, and interpret and negotiate meanings, while striving to articulate and realise mutually held visions, purposes, and goals (Andrews et al. 1996: 1).

1.7.2 *Organisational communication media*

Organisational communication media are the methods or channels used in the communication process to send and receive information in organisations. Communication acts as the lifeblood of an organisation and the media function as the veins that connect and carry the various messages (Harris 1993:167).

Every time a member of an organisation communicates, he or she chooses a particular medium, such as a memorandum, a telephone call, or a face-to-face meeting. Identifying the correct medium is very important in the effectiveness of the communication process. These decisions help shape the effectiveness, efficiency and ambience of an organisation (Reinsch & Beswick 1990:801).

1.7.3 *Conventional media*

Conventional media are the everyday communication processes that take place in the organisation to deal with conflict and co-operation between organisational members, planning, morale, decision-making, leadership and authority, as well as

the creation and maintenance of relationships such as face-to-face conversations, meetings, telephone conversations and written documents such as memoranda, letters and reports (Jones et al. 1988-89: 75; Puth 1994: 276).

These media can be categorised as follows:

- *Personal, verbal media* such as face-to-face conversations, group meetings and telephones.
- *Written addressed media* such as memoranda and short letters.
- *Written unaddressed media* such as formal reports and publications.
- *Computer-mediated communication media* are lately also included as conventional media.

1.7.4 Computer-mediated communication media

Computer-mediated communication media are communication messaging systems that use computer text-processing and communication tools to provide a high-speed information exchange service (Sproull & Kiesler 1990: 93).

1.7.5 Unconventional media

Unconventional media are media such as industrial theatre, oramedia/ folkmedia, which are used with great success in the bigger South African illiterate context because of their interactive and participatory possibilities. Messages are conveyed through live performances by combining elements of drama and storytelling and these are rich in symbolism (Rensburg et al. 1995; Faure In: Rensburg 1996).

1.8 BASIC HYPOTHESES OF THIS STUDY

Four hypotheses and one proposition were identified from the theoretical frameworks, which will be discussed in more detail in Chapter 4. The first

hypothesis (H1) relates to the views of the Media Richness Theory that there is a dependence between message equivocality and choice of medium when communicating. Hypothesis two (H2) relates to the Symbolic Interactionism Theory, which suggests that situational constraints such as time pressure, distance and symbolic cues will have an influence on media choice. Hypothesis three (H3) addresses the question whether position or the number of years service in UP, has an influence on media choice, while hypothesis four (H4) examines whether UP personnel tend to use computer-mediated communication media as much as or more than conventional media, regardless of the message contents when communicating.

A proposition instead of a hypothesis about the relation among variables within the communication process was stated, because the variables were known. The aim with the proposition was only to establish whether employees of UP recognise these variables in the communication process, thus it was not necessary to test it statistically.

Hypothesis 1:

There is a significant dependence between (a) *message equivocality*; (b) *message uncertainty* and media selection.

Hypothesis 2:

There is a significant dependence between (a) *situational constraints*; (b) *symbolic meaning* and media selection.

Hypothesis 3:

There is a significant dependence between (a) the demographic variables; (b) *years service* and media selection.

Hypothesis 4:

Respondents at UP show a *tendency to use computer-mediated communication media as much as or more than conventional media, regardless of the message contents when communicating.*

Research proposition

There is a significant dependence between the communicator, recipient and organisational culture and media choice.

1.9 METHODOLOGY OF THIS STUDY

The research methodology is discussed in more detail in Chapter 4. This study consists of a literature study (theoretical) as well as an empirical study.

The purpose with social research may be organised into three groups based on what the researcher wants to accomplish – to **explore** a new topic, **describe** a social phenomenon, or **explain** why something occurs. This study includes elements of all three. **Exploration** is used to develop an understanding of media choice within UP. **Description** occurs in the precise measurement and reporting of the quantitative study, while **explanatory research** is used to determine whether media choice at UP supports or refutes the MRT and SIT predictions of why people choose specific media.

The theoretical study provides insight into the research problem as well as the necessary background to guide the empirical section of the study. Existing literature on theoretical perspectives on media choice in organisations were studied critically and were taken into account in the planning of the empirical part of this study.

The empirical study consists of a self-administered questionnaire, which was mailed to the research sample by internal mail. The sample consisted of academic as well as non-academic personnel situated on the main campus of UP. From the 600 questionnaires (400 academic and 200 non-academic) distributed, a total of 174 respondents returned their questionnaires, which amounts to a 29% response rate.

The data from the questionnaires were encapsulated into a statistical software package and statistically analysed. Frequency tables, factor analysis, ANOVA- and Chi-square tests were used.

1.10 LIMITATIONS OF THIS STUDY

The limitations of this research must be recognised in interpreting the findings and in pursuing further inquiry into these and related issues:

- (1) This study was conducted in a single, large academic organisation. The respondents consisted of academic and non-academic personnel, situated on the main campus of UP, which can be described as a unique population with a particular organisational culture. This might influence the results. Consequently, one cannot generalise the specific patterns of media use observed in this study to other organisations.
- (2) This study is at best an introductory and exploratory study into the preferences for certain communication media in relation to types of messages within UP. More empirical research needs to be done to establish the communication patterns/ preferences with regard to certain media, when planning to communicate certain messages.

- (3) Most of the literature feature studies conducted in either America or Europe and do not apply directly to the South African environment. In most of the studies taken into consideration, media choice was based on traditional media and did not include computer-mediated communication media. Otherwise it compared specific types of computer-mediated communication media with each other such as e-mail and voice mail. Although, some of the available literature is dated, it was still relevant for this study because South Africa is only on the brink of exploring computer-mediated communication media and its role within South African organisations.
- (4) While communication plays a central role in theories of organisational communication, the nature of the communication media has received insufficient attention. Most of the studies conducted, examined at dichotomies between interpersonal and mass media, superior and subordinate flows, or formal and informal content. Although several studies have been conducted on internal communications within the South African context, they investigated matters other than the dependence of choice of media and type of message within organisations.
- (5) Sampling was only done on the main campus. Thus, for an accurate and valid view of media use and choice within UP, samples within the faculties of Dentistry, Medicine, and Veterinary sciences are necessary. As it is, the results can only be generalised to the employees at the main campus – which does not provide a full picture on the choice of media for the whole of UP. The results are not generalisable.
- (6) From the 600 employees only 174 responded, which leaves a low response rate of 29%.

1.11 OUTLINE OF THE CHAPTERS

In chapter 2 some theoretical frameworks are provided against which to investigate how and why organisational members prefer one medium to another when they have access to a variety of communication media, including computer-mediated communication media. The variables in this study derived from the Media Richness and the Symbolic Interactionism Theories, which are explained in detail in Chapter 2. Reasons for choosing these theories as background for the study are motivated, and an explanation is provided on how the hypotheses were concluded from these theories.

In Chapter 3 the focus is on different aspects of organisational communication such as the levels of communication in an organisation and the flow of communication. The last part of the chapter explores internal communication media and their specific characteristics with special emphasis on the formal communication media as utilised in UP. These are explored against the theoretical perspectives as provided in Chapter 2.

In Chapter 4 the research methodology and research procedure are discussed in detail. The choice and development of the research instrument, the development and execution of the research procedure, and the statistical methods used to analyse the collected data are also discussed in this chapter.

The results of the survey are described in Chapter 5. The last section of Chapter 5 discussed the hypotheses and whether they are accepted or not accepted according to the statistical analysis. The interpretation of the results as well as recommendations for future research are addressed in Chapter 6.

CHAPTER 2

THEORETICAL APPROACHES TO MEDIA SELECTION

As gathered from the introduction in chapter one, this chapter focuses on the choice of communication media within organisations to communicate messages to employees. The purpose of this chapter is to provide some theoretical framework against which to investigate why organisational members prefer one medium to another when they have access to a wide variety of communication media in their organisation.

2.1 INTRODUCTION

Communication in organisations has occupied many a researcher since the early 1900s. A brief review is provided on communication media research in general, before focusing on the media choice research theories, which underlie this study.

2.1.1 Earlier research on communication media

The information used in this review has been adapted from Putnam and Cheney (1985: 71- 79).

Some of the earliest research on media in organisations was already done in 1924, when public speaking was studied as a medium. This research laid the foundation for further research on different media use in organisations. Academics in the 1950s focused on written communication, particularly employee handbooks, company newsletters and memoranda to understand what information should be transmitted to whom in what media. In the early 1950s research compared the effectiveness of and preferences for particular types of

media. Although management preferred written communiqués, employees opted for supervisor conferences and group meetings. In 1961 it was found that a combination of written and oral media constituted the most effective means of communication, especially when message content and media use were adapted to particular audiences.

Research on communication media in organisations adopted a very narrow and often mechanical view of communication during those years. With an eagerness to improve routine practices, organisational researchers treated communications as a one-way, downward-directed channel for transmitting messages. Eilon took a distinctly “media” focus; message and media were treated as synonymous. According to Redding organisational communication consisted of “speech” media, often cast in simplistic, prescriptive principles that were devoid of any basic understanding of the complexities of communication.

A major breakthrough in this preoccupation with media came through the application of communication theory to organisational behaviour. The focus of organisational communication shifted to message distortion, namely perceptual or semantic distortion and blockage of information flow. This led to studies of upward communication.

The interest in the downward flow of information led to four research “traditions” namely: research on communication channels, communication climate, network analysis and superior-subordinate communication.

2.1.1.1. *Communication channels*

Channel research addressed the flow of information as it relates to organisational structure; that is, upward, downward and horizontal. In the 1940s one-way, downward communication was still stressed but already in 1949 the two-way nature of flow between lower and upper levels was initiated. In the 1950s and 1960s a number of studies revealed that lower-level employees tended to distort

messages they sent upward. In the 1970s it was found that trust, job satisfaction, job performance and positive feedback from one's superior reduced upward distortion. Other studies found that in effective organisations, informal and formal communication showed a positive relationship. Message overload and information adequacy were also linked to frequency of message flow across different channels. Several researchers extended work on communication channels in the 1970s by suggesting a link between perceived information adequacy and such organisational outcomes as communication satisfaction, job performance and organisational effectiveness. Putnam et al. (1985: 75) pointed out that the research on information flow-channel studies has emphasised the way of "getting information across", rather than a way of interpreting and giving feedback on the meaning of the message.

2.1.1.2. *Communication climate*

In the 1960s channel research was applied to the study of communication climate. Thus, climate research incorporated communication channels into a framework of organisational relationships. Communication climate became associated with such concepts as trust and openness and some even characterised it as a product of shared meanings among organisational members. During the 1970s, many researchers adopted an interest in communication climate, linking it to job satisfaction. In 1980 Poole and McPhee treated climate on the inter-subjective level, based on members' beliefs, attitudes, values, and interpretations. Thus, examining the way climate is produced through values and beliefs, rather than through atmospheric elements external to individuals.

Climate research was one attempt to characterise and understand communication patterns in the organisation. The other was network analysis.

2.1.1.3. **Network analysis**

The origins of network analysis can be traced to (1) socio-metric studies of Moreno in 1953; (2) small-group studies by Bavelas, Leavitt and Shaw in the 1950-60s; (3) information diffusion by Rogers in 1962; and (4) the mass-communication work by Lazarsfeld, Berelson and Gaudet in 1948. Network analysis use data about communication flow to analyse interpersonal linkages and to identify the communication structure of a larger system. The earliest network studies were the 1950s small-group laboratory experiments that contrasted different network structures. In the 1970s organisational network research employed a systems model by treating linkages among all organisational members as “nodes” in a larger set of dyadic relationships. Rogers et al. found in 1976 that organisations were composed of a number of interrelated and often overlapping networks.

In the 1980s, as organisations became reliant on advanced technology, researchers began to examine the impact of computers on communication networks.

2.1.1.4. **Superior-subordinate communication**

Similar to channel and climate research, the “tradition” known as the superior-subordinate communication centred on information flow between subordinates and supervisors. Redding in 1972 and Jablin in 1979, grouped research on this “tradition” in the following categories: perceptions of the amount, frequency, and mode of interaction; upward distortion; upward influence; openness; feedback; communication style and effectiveness of superior-subordinate relationships.

The research priorities of the first four decades on organisational communication are coloured by (1) the human relations approach, which was quite popular until recently; (2) a related preoccupation with effective management; (3) treatment of

communication either in terms of the visible, easily measured aspects of information flow or in terms of simple perceptions; and (4) an accompanying bias toward positivistic research methodologies.

Since then, a variety of theoretical and methodological approaches appeared, studying organisational communication.

2.2 NEW DIRECTIONS IN ORGANISATIONAL COMMUNICATION RESEARCH

In recent years, managers and employees have witnessed a startling increase in the communication media available to them. This has lead to a new field of interest among organisational scientists namely, the need to understand media choice within organisations when a variety of media are available.

A number of theoretical perspectives tried to explain communication media choice decisions. Of the several media choice theories available the most influential and widely used are: the general theory of diffusion and innovations (Rogers 1988; Williams et al. 1988); Markus' critical mass theory of media adoption (1987), the social influence theory of media use (Fulk, Steinfield, Schmitz & Power 1987) and the rational choice theory (Daft & Lengel 1984; 1986).

2.2.1 Rogers' general theory of diffusion of innovations

The general theory of diffusion addresses the communication and adoption of innovations (ideas, practices, or objects "perceived as new by an individual or other unit of adoption"), such as new computer-mediated communication media, over time, and across members of an organisation. The perceptions organisational members have of the innovation will affect the rate of adoption. The five attributes of an innovation upon which perceptions will be based are

relative advantage, compatibility, complexity, trainability, and observability. Earliest adopters are those who receive great benefit from the technology, and diffusion succeeds or fails on the basis of how use is communicated and whether or not secondary adopters follow suit (Rogers 1988; Williams, Rice & Rogers 1988).

This theory is relevant and of importance where a new innovation such as first-time implementation of a specific computer-mediated communication system is considered. However, in this study the emphasis is on organisations that have access to multiple communication media, including new computer-mediated-communication systems and where these media already have been widely adopted and well in use for quite a period of time. Thus, the aim is to be able to test the actual preference for such media in comparison to traditional media.

2.2.2 The Critical Mass Theory

The critical mass theory proposes a “critical mass” explanation for the diffusion and adoption of interactive media, such as voice messaging and teleconferencing, within communities. According to Markus (1987: 491) interactive media differ from other innovations in two respects. First, general usage creates universal access, which everyone can enjoy even if one has not contributed to it. Universal access is important to the community because if medium use spreads only to some community members and stops there, the community would risk disintegration into two groups, namely medium users and others, with a communication gap between the two groups. Second, use of interactive media entails mutual interdependence, where earlier users are influenced by later users and vice versa.

The main idea behind the critical mass theory is that potential users of a communications medium will not use the medium until a sufficient number of key communication partners also use it. Thus, a critical mass of adopters must exist before interactive media can hope to succeed. When a new communication

medium is introduced into a community and a “critical mass” is absent, it can be expected that the use thereof is unlikely to spread, and that it will be extinguished altogether (Markus 1987; 1990).

Again, as in the general theory of diffusion and innovations, the critical mass theory is important and necessary for explaining the achievement or failure in the introduction and universal acceptance of “new” computer-mediated communication systems. For this study, however, it is presupposed that a critical mass does exist in the applicable organisation, and that the computer-mediated communication systems have already been adopted and that they are not only used throughout the organisation, but globally.

2.2.3 The Social Influence Theory

The Social Influence Theory was originally developed in response to the Media Richness Theory. This theory essentially states that media choice and use were not purely rational but appeared to be influenced by contextual factors (Fulk, Steinfield, Schmitz & Power 1987). The theory observed that computer-mediated communication was linked to the occurrence of phenomena such as high levels of interpersonal involvement, emergence of emotional relationships and other issues. Social-influence scholars argue that perceptions of media and of their usefulness, as well as their relations to actual choice and use, is partially a social construction (Fulk 1993; Fulk, Schmitz & Steinfield 1990; Fulk et al. 1987; Schmitz & Fulk 1991). Such social perceptions are proposed to result from four processes:

- socially determined rationality;
- co-worker influences;
- media norms; and
- vicarious learning (Fulk et al. 1990: 121, 122).

Fulk et al. (1991) state that social definitions of rationality and group norms about media use will also influence each manager's choices. The theory predicts that there will be considerable variation in the perceptions and use of communication technologies and that this variation will be linked to the social processes in play within the organisation. In addition, because work groups are important sources of social support and regular interaction, there will be similar patterns of media use within groups (regardless of task ambiguity) and different patterns of media use across groups (Fulk et al. 1991: 412).

This theory proposes that social factors, more than pure rational choice behaviour, shape human action. In the Social Influence Theory, factors such as the beliefs of peers and the social need to exchange in symbols are held to materially determine managerial media selection (Fulk et al. 1987).

All the theories as mentioned in the above discussion play a role in media choice, but for the purpose of this study it was decided to make use of the Media Richness Theory because it focuses on the medium itself, by classifying media according to certain characteristics. This will be explained in detail later in this chapter. The Symbolic Interactionism Theory, a more social perspective, is mentioned because it best describes the characteristics of the new media (computer-mediated communication media) according to their characteristics.

From a communication viewpoint, the role of social influences in the communication process is definitely recognised. It is agreed upon that social influences do play a major role in the use and choice of different media, but because the sole purpose of this study is to establish choice of media according to underlying characteristics of the medium itself, this study is a media study and therefore the Social Influence Theory as such will not be used. As Trevino et al. (1990) stated: the medium is the message. Here we deal with the medium and its characteristics. This study is based on the medium, whereas the Social

Influence Theory emphasises the sender and receiver, thus, the communicators and social factors that influence them to choose certain media.

Organisations have changed over the years because of globalisation, competitiveness, economic pressure to downsize, and so forth. Computer-mediated communication systems made it easy to connect geographically dispersed offices with one another, overcome the limitations of time and space, provide broad access to information, bridge cultural differences, help to tap skilled “worker knowledge” from all over the globe, and enable people to be connected to the office from home. By cutting out official office structures, they therefore allow for telecommuting. It is assumed that the organisation which is used in this study has access to different computer-mediated communication systems, and that because of the fact that more and more organisations adopt to leaner and flatter structures, the individual rational choice of medium with regard to choice of medium will suit this study better than the three theories as mentioned above. The Symbolic Interactionism Theory, which is a more socially oriented theory, will be used to cover aspects such as distance and time pressures.

In the previous paragraphs we looked at several other theoretical perspectives and pointed out why these theories are not acceptable for this study. This brings us to the main theories on which our study is based, namely the *Media Richness (MRT)* and *Symbolic Interactionism (SIT) Theories*.

2.3 THEORETICAL BACKGROUND OF THIS STUDY

2.3.1 Media Richness Theory

A prominent theory of communication media preferences and thus choice of medium and usage in organisational settings is the *Media Richness Theory (MRT)* (Daft & Lengel 1984; 1986; Trevino 1987; 1990).

2.3.1.1. Origins and development

Organisations face many confusing, complicated and ill-defined complex problems, about which they have little or unclear information (Daft et al. 1984: 192). In response to the confusion arising from the environment and internal differences, organisations must create an acceptable level of order and certainty. How do organisations go about to accomplish this challenge? According to Daft et al. (1984: 192) organisations can only confront these uncertain, disorderly events through information processing.

Research on organisational theory and organisational communication suggests that there are two factors that influence information processing, namely uncertainty and equivocality (Daft et al. 1984).

Daft et al. (1987: 357) developed their theory of media richness from the information processing model of organisations, which suggests that organisational communication is influenced by uncertainty and equivocality. They started from the premise that organisational success is based on the organisation's ability to process information of appropriate richness to reduce uncertainty and clarify ambiguity (Daft et al. 1984: 194). The Media Richness Theory is thus concerned with determining the most appropriate communication medium in response to the two factors, namely uncertainty and equivocality.

Uncertainty

Based on earlier work by Miller and Frick 1949; Shannon and Weaver 1949; and Garner 1962 (In: Daft et al. 1984; 1986) uncertainty has come to mean the absence of information. Galbraith 1977; (In: Daft et al. 1986: 556) defined uncertainty as "the difference between the amount of information required to perform a task and the amount of information already possessed by the organisation".

To reduce uncertainty, communication media need to bridge the gap between the amount of information already possessed and that required to perform the task. As the amount of information processed increases, the level of uncertainty decreases. Therefore, the need to reduce uncertainty leads to the acquisition of information to answer specific questions. Organisations respond to uncertainty by acquiring information and analysing data. In a situation of high uncertainty, organisational employees are able to ask a large number of questions, thus, acquiring the exchange of a large amount of accurate and objective information to learn the answers (Daft et al. 1986).

Equivocality

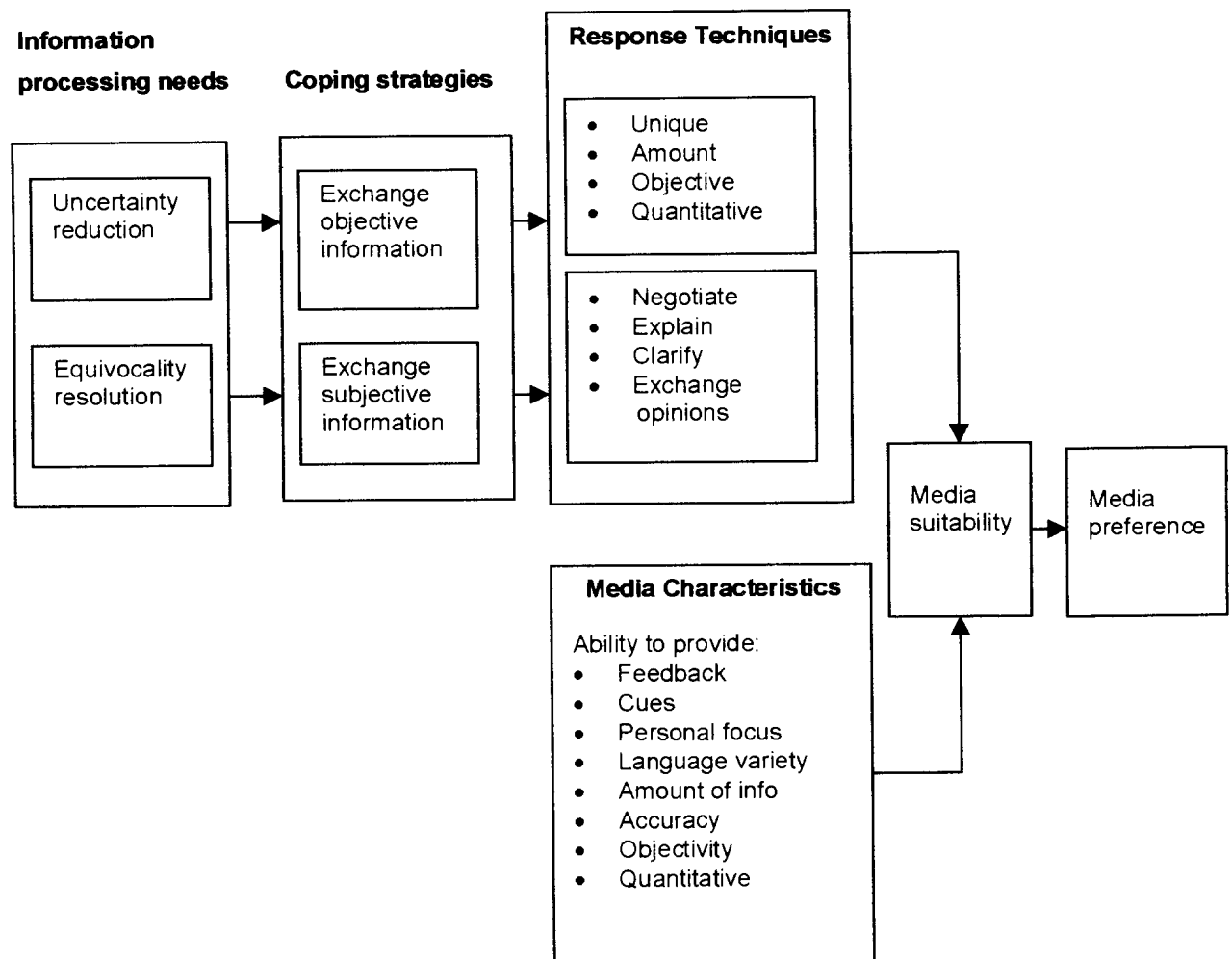
Equivocality on the other hand, means ambiguity and the existence of multiple, conflicting interpretations about organisational situations (Daft et al. 1987). High equivocality means confusion, disagreement and lack of understanding. In situations of equivocality it is not evident what questions need to be asked and, if questions are asked, no clear answers are likely to be available (Daft, Lengel & Trevino 1987).

According to Daft et al. (1987: 357) equivocality will be high when organisational members' frames of reference differ. An equivocal problem may be perceived differently by members from different functional departments. Emotion-laden messages often are personal and subjective, and therefore open to misinterpretation. In these cases a common perspective does not exist and shared meaning must be established before mutual understanding can occur.

A major difference between uncertainty and equivocality is in the information processing response. Uncertainty leads to the achievement of data while equivocality leads to the exchange of subjective views among members to define the problem and resolve disagreements. The organisational response is to enact a solution rather than to find a solution in external data (Daft et al. 1986). Accordingly, the organisation reduces equivocality by pooling opinions and

overcoming disagreement. This leads to a shared understanding and social agreement about the correct response. The response to equivocality comes from within the members group in the form of defining what events mean and enacting a solution. See figure 2.1 on Media preferences and usage in uncertainty and equivocality situations as adapted from El-Shinnawy et al. 1992: 93).

Figure 2.1 Media Preference and Usage in Uncertain and Equivocal Situations



(El-Shinnawy et al. 1992: 93).

Daft et al. (1987: 357) propose that equivocality is the barrier confronting the “new” media (computer-mediated communication). Equivocal situations are novel and nonrecurring. Equivocal situations require hunches, discussions and social support. Conventional information systems are based on what we have defined as uncertainty - a belief that problems can be defined, decomposed and solved through objective analysis, while equivocality, as an information problem, is difficult to resolve with technology. The issue here is that communication media appropriate for equivocality reduction need to promote the ability to clarify or explain, rather than simply provide large amounts of data.

Daft et al. (1984; 1986) offered an explanation to reduce uncertainty and to deal with equivocality in their suggestion that communication media channels have certain characteristics that enable them to transmit cues that enable mutual understanding. See figure 2.2 on Message equivocality/ media richness matching framework for communication effectiveness.

Figure 2.2 **Message equivocality/ media richness**

MESSAGE		
Media richness	Unequivocal	Equivocal
Rich  Lean	<i>Communication Failure</i> Rich media's excess cues cause confusion and surplus meaning	<i>Effective Communication</i> Rich media match equivocal message
	<i>Effective Communication</i> Media low in richness match unequivocal routine messages	<i>Communication Failure</i> Lean media used for equivocal messages provide too few cues to capture message complexity

(Adapted from Trevino, Daft & Lengel 1990: 81)

2.3.1.2. Communication media channels

Communication media differ in their ability to facilitate understanding and to handle equivocality (Daft et al. 1987: 358). Media can be characterised as high or low in “richness” based on their capacity to facilitate shared meaning (Daft et al. 1984: 191). A rich medium facilitates insight and rapid understanding.

Information richness is defined as the ability of information to change understanding within a time interval. Communication media that can overcome different frames of reference or clarify ambiguous issues to change understanding in a timely manner are considered rich. However, communications that require a long time to enable understanding or that cannot overcome different perspectives are lower in richness (Daft et al. 1986: 560).

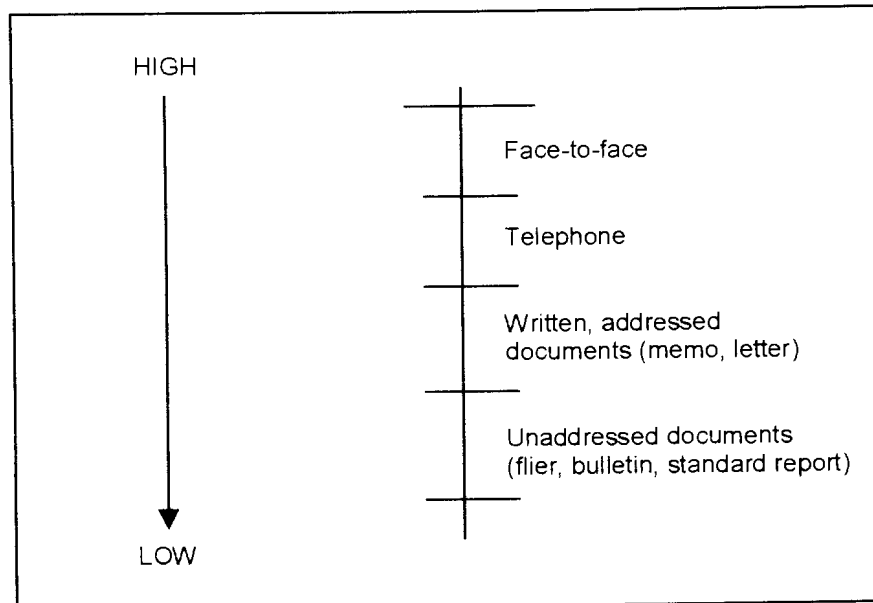
Richness is thus defined as the potential information-carrying capacity of data. The richness of each medium is based upon a blend of four criteria:

- (1) The availability of instant feedback allows for questions to be asked and corrections to be made, allowing for interpretation and understanding;
- (2) the capacity of the medium to transmit multiple cues such as body language, voice tone, and inflection, to convey interpretations;
- (3) the use of natural language, rather than numbers, to convey subtleties; and
- (4) the personal focus of the medium, such as emotions. (Daft et al. 1984; 1986; 1987; Huber et al. 1987; Jablin et al. 1987; Trevino et al. 1990).

The Media Richness Theory suggests that communication media can be ranked on a one-dimensional richness continuum that includes, in order of decreasing richness: (1) face-to-face, considered to be the richest communication medium, followed by (2) telephone calls, (3) electronic mail; (4) personal written documents such as letters, notes and memos, and (5) impersonal written documents such as fliers, bulletins and reports (Steinfeld & Fulk 1986; Trevino et al. 1987, 1990; Trevino, Lengel, Bodensteiner, Gerloff & Muir 1990).

The explanation for the hierarchy of media richness is contained in Figure 2.3.

Figure 2.3 Hierarchy of media richness



(Daft, Lengel & Trevino 1987: 358).

The theory initially only dealt with non-computer-mediated communication by ranking traditional media on the continuum as in Figure 2.3 (Daft et al. 1987), but was later expanded to include electronic media with regard to their capacity to convey rich information to resolve equivocality and/or reduce uncertainty. (Trevino, Lengel & Daft 1987, 1990; Trevino, Lengel, Bodensteiner, Gerloff, & Muir 1990; Valacich, Paranka, George & Nunamaker 1993). Limitations, such as a lack of nonverbal cues, can be addressed to enrich the medium (Sullivan 1995).

From the ranking on the richness continuum, it is clear that communication media differ in their ability to facilitate understanding. Media can thus be characterised as high or low in richness based on their capacity to process rich information and to facilitate shared meaning. A rich medium facilitates insight and rapid understanding. According to Lengel et al. (1988: 227) "effective communication

is a matching process - the richness of the medium should be selected to fit the nature of the message". Fann & Smeltzer (1989:309) also emphasise the above with their statement: "more effective communication should occur when the richness of the media is matched with the level of message ambiguity".

In Daft & Lengel's theory (1984: 1986), the equivocality of the task shapes the richness of media a manager selects. Task equivocality is in turn shaped by the analysability and variety of the task. Thus, hard to analyse tasks or rather non-routine tasks have greater potential for misunderstanding, and are often characterised by time pressure, ambiguity and surprise, and need rich information. Routine communications, by contrast, are simple, straightforward and do not require such rich information to achieve mutual understanding between sender and receiver (Daft and Lengel 1984, 1986). In general, it is believed that oral media are preferred for communication situations high in equivocality, while written media are preferred for communication situations low in equivocality (Daft et al. 1987; 1990). Thus, according to the MRT (Daft & Lengel 1984; 1986; Daft et al. 1987; Trevino et al. 1987; 1990), rich oral media facilitate equivocality reduction by enabling individuals to process subjective messages, create shared meaning, and resolve ambiguity stemming from multiple, conflicting interpretations of a situation. For effective communication to occur, the richness of the medium has to match the equivocality of the message.

Daft et al. (1986) found that equivocality urged managers to rely on rich media such as face-to-face communication. In another study, Russ et al. (1990) found support for the presumption that managers select rich media to send equivocal messages and lean media to send messages lower in equivocality. On the other hand, a lean medium such as electronic mail can, however, be used to avoid management responsibilities or unpleasant tasks (Sullivan 1995).

Media richness research also reportedly shows a relationship between effective managers and choice of medium. Effective managers are reported to use a rich

medium such as face-to-face to convey highly ambiguous information, and to choose a lean medium such as a memo for routine, non-ambiguous tasks (Russ et al. 1990).

Several studies proposed ranking communication media according to the degree of social presence or media richness ascribed to them. Short et al. (1976) proposed a hierarchy of media based on ratings given each medium in terms of psychological closeness perceived by the respondent. Their rankings run: face-to-face, videos, telephone, audio conferencing, and business letters. Rice (1993) also presents a ranking of communication media, based on media appropriateness. He ranks the media as follows: face-to-face, telephone, meetings, videos, hard copy text, and electronic mail.

In all the abovementioned rankings the richest media are those that provide visual and auditory stimuli (face-to-face and telephone) and the leanest media are those that provide only written stimuli (letters and electronic mail). While Trevino et al. (1987; 1990) ranked electronic mail midway between the rich, spoken media and the lean, written media, Rice (1993) concludes that electronic mail is the least appropriate medium of all the communication media considered. According to the Media Richness Theory, when media are compared, the “richer” media such as face-to-face and telephone will be preferred to the “leaner” media of electronic mail and paper text.

A study by Sullivan (1995) does not wholly support these preference expectations. When preference scores are averaged and ranked across media, electronic mail is preferred over the telephone by the same difference that face-to-face is preferred over electronic mail. This finding indicates that electronic mail is either a richer medium than previous studies have reported or preference for electronic mail is related to other characteristics such as its degree of interactivity, asynchronicity, and reliability (1995: 52). More recent research has suggested that new media like electronic mail are being used to send equivocal messages

and that it is made richer by using sound clips, emoticons and images, despite their relatively low place in the richness hierarchy (Lee 1994; Markus 1994).

For communication to be effective, mutual understanding is of utmost importance. Although a wide variety of traditional and computer-mediated media is discussed in detail in Chapter 3 of this study, it is, however, necessary to view each medium with regard to the degree of mutual understanding it allows in the context of the Media Richness Theory.

According to the Media Richness Theory, face-to-face is the richest medium because it allows for immediate feedback, has the capacity to provide multiple cues and communicates in natural language, and can be highly personal. Thus, it is clear that under such circumstances, face-to-face allows for excellent mutual understanding. Telephone conversations provide rapid feedback and allow voice inflection, but lack the element of being personally there and cut out cues such as eye contact, gaze, blush, and other body language. Although there is feedback, which helps mutual understanding, misunderstandings and misinterpretations do occur.

Electronic mail uses natural language. However, lacks cues such as voice inflection and tone, and is therefore seen as an impersonal medium. It allows for rapid feedback, although it may not always be immediate. It also has the capacity to reach a large, geographically dispersed audience. Messages can be stored and referred to at a later stage. Mutual understanding may vary, but because the message is visual, and it allows for feedback and future referrals, this medium may allow for a high degree of mutual understanding.

Written addressed media, such as memos and notes can be personally focused but they convey limited cues and are slow in feedback. Again, apart from the slowness, which might be a problem in critical situations, the medium allows for feedback and the written form can also help to provide for mutual understanding.

Formal written media such as fliers and bulletins are the leanest, providing no personal focus on a single receiver. These allow limited information cues, and feedback is slow (Culnan et al. 1987; Jablin et al. 1987).

So, media high in richness - such as face-to-face interaction and telephone conversations - enable negotiation, clarification, explanation and exchange of subjective views. On the other hand, media low in richness - such as written media - although not appropriate for resolving equivocal issues, are effective for processing large amounts of standard, accurate, objective, and quantitative data (Daft et al. 1984, 1986; Daft, Lengel & Trevino 1987; El-Shinnawy et al. 1992, 1997; Donabedian et al. 1997; Boczowski 1997).

Figure 2.4 Characteristics of media that determine richness of information

Information richness	Medium	Feedback	Cues	Source	Language
High  Low	Face-to-face	Immediate	Visual, audio	Personal	Body, natural
	Tele-phone	Fast	audio	Personal	Natural
	Electronic mail	Immediate or slow	Visual	Impersonal	Natural
	Written, personal	Slow	Limited visual	Personal	Natural
	Written, formal	Very slow	Limited visual	Impersonal	Natural
	Numeric	Very slow	Limited visual	Impersonal	Numeric

(Adapted from Trevino, Daft & Lengel 1990: 76).

2.3.1.3. Comparison between traditional and electronic media with regard to the MRT

The characteristics of computer-mediated communication media agree to some degree with the characteristics of the more traditional media, but there are several differences which might have important implications for communications.

Daft et al. (1984) developed a system for assessing the “media richness” of media systems by conceptualising richness as the “potential information-carrying capacity of data” (1984: 196). Four constructs were used to determine richness: (1) the feedback capability, (2) multiple cues, (3) language variety and (4) personal focus of the medium.

For effective communication to occur, the richness of the medium has to match the equivocality of the message. The essential underlying principle of the MRT is that a good match between the characteristics of a medium and one’s communication activities will lead to better and effective communication (Rice & Shook 1990). Media high in richness - such as face-to-face interaction and telephone calls - enable negotiation, clarification, explanation and exchange of subjective views. On the other hand, media low in richness - such as written media - although not appropriate for resolving equivocal issues, are effective for processing large amounts of standard, accurate, objective and quantitative data (Daft & Lengel 1984,1986; Daft et al. 1987; El-Shinnawy & Markus 1992:92; El-Shinnawy & Markus 1997:447).

According to the MRT, face-to-face is the richest medium, because it allows for immediate feedback, has the capacity to provide multiple cues, communicates in natural language, and can be highly personal. A message can be adjusted, clarified, and reinforced instantly (Trevino et al. 1990: 75).

Telephone conversations are seen as less rich. Although they allow for rapid feedback, are personal, and use natural language, they provide fewer cues than face-to-face. For example, eye contact and body language are missing from telephone communications (Trevino 1990: 76).

Written documents are the leanest communication medium. They may use natural language, but provide limited cues and are particularly slow to generate feedback (Trevino 1990: 75).

Electronic mail with regard to the MRT has many characteristics similar to the telephone because it allows for rapid feedback - although not always immediate - and can quickly reach a large, geographically dispersed audience (Steinfeld & Fulk 1987). Although electronic mail uses natural language, it however lacks cues such as eye contact, voice and body language (Steinfeld et al. 1987;

Trevino et al. 1990). Electronic mail can combat information overload, enabling employees to respond at any time. Electronic mail is considered inappropriate for exchanging confidential information, resolving disagreements, getting to know someone or negotiating (Rice et al. 1983; Steinfeld 1985) and is mostly considered appropriate for the routine exchange of unequivocal information.

Markus on the other hand, disagreed with the latter and demonstrated that even lean media, such as text-based electronic mail, can be used for complex communication and that richer media such as face-to-face meetings are not necessarily preferable or more effective than leaner electronic media (1994: 502). Face-to-face communication tends to be considered more appropriate for bargaining, negotiating, persuading, and getting to know someone. Rice et al. (1987) has also found evidence that highly personal interactions such as negotiation and conflict resolution occurred frequently and regularly on lean media, such as electronic mail networks.

Research on the use and perceived outcomes of electronic messaging in organisations suggests that electronic mail be chosen for various reasons. For example, individuals may use electronic mail to communicate less equivocal messages (Trevino, Daft & Lengel 1987; 1990), or complete routine tasks (Short et al. 1976). Recent studies have provided evidence that people adapt to “lean” channels (such as electronic mail) in ways that allow rich, socioemotional interaction, which was considered inappropriate and problematic by the MRT (Rice & Love 1987; Walther & Burgoon 1992; Markus 1994; O’Sullivan 1996, 1997). Steinfield (1985; 1986) found that electronic mail has been used in an organisational setting for taking a break from work, keeping in touch with others and organising social activities. Electronic mail may even encourage uninhibited communication such as swearing, flaming and sexual harassment (Sproull & Kiesler 1986).

Voice mail is a computer-based, asynchronous and quick system. It is, however, not interactive. Yates et al. (1990) however, regarded it as a rich medium, due to the vocal information it is able to convey. Trevino, Webster and Shoemaker (1990) support Yates on the richness of voice mail with their statement that voice mail provides verbal cues that reflect a person’s tone of voice, inflections, and emotions while electronic mail only conveys static casual cues in text.

Videoconferencing is somewhat less rich than face-to-face, but has greater information capacity than the telephone. Videoconferencing has full video and audio capabilities, and feedback is fast. Some cues such as body language and nonverbal messages are restricted. According to Strickland et al. the important regulating features of mutual gaze are filtered out (In: Daft et al. 1987: 363).

Teleconferencing - like the telephone - allows for voice cues and immediate feedback, and visual images such as graphs and charts can be displayed for all to see and discuss. However, this visual image of people on a television screen can not be compared to the exchange that occurs when individuals are physically

present together in a room. The informality of the face-to-face medium is lost when communicators see themselves as being on television. It is also less emotional in tone than face-to-face communications. Teleconferencing is appropriate for the presentation and discussion of relatively unequivocal issues among a number of people in several locations. It is, however, an inappropriate medium for the resolution of highly emotional issues or for the discussion of issues about which there is much disagreement (Williams 1987).

Phillips (In: Ku 1996) described emotional dimensions of computerconferencing by focusing on aspects such as humour, expressions of disagreement, spontaneity of comments and the use of anonymous comments. Other research also suggests that computerconferencing may not be as satisfactory as face-to-face for bargaining and resolving conflicts. However, it may be selected for very embarrassing or conflicting situations to minimise interpersonal interaction (Culnan et al. 1987; Rice 1980).

Studies showed that users of an electronic mail system might adapt to its usual lack of nonverbal cues and gradually develop more positive attitudes toward using the system for socioemotional purposes. Hiltz et al. (In: Ku 1996: 300) found that media experience and familiarity with a system contributed to positive attitudes toward socioemotional content in the system. They reasoned that electronic messages are better thought out and better organised, and experienced users develop an ability to express missing nonverbal cues in written form.

Culnan et al. (1987: 431) emphasise that electronic media differ qualitatively from traditional communication methods in several ways, such as (1) ways of addressing communication, (2) memory, storage and retrieval, and (3) control over access to and participation in communication.

Addressing communication

In general most forms of communication in organisations require the sender to specify the identity and physical location of the intended recipient. Some forms of electronic media, such as computer conferencing and the bulletin board features of many electronic messaging systems, allow a sender to address a communication to a “communication space” that can be read by any interested or authorised person. This feature also allows people to “meet” other like-minded people, whom they might not have met otherwise, because of different locations or position in an organisation.

Memory, storage and retrieval

The complete written transcript of proceedings that is automatically maintained by some computer conferencing systems is another feature of electronic mail that has no analogue in face-to-face or telephonic communication. Minutes or summaries of meetings kept by individuals are more likely to represent a single person’s understanding of the consensus than does a transcript, which records each participant’s observations as they occur.

The ability of these systems to maintain accurate transcripts and other records of communications conducted via an electronic medium has important data collection implications (Sproull 1986). According to Rice (1984; Rice et al. 1984) computer-based monitoring can provide objective, longitudinal data on the user population, amount and frequency of use, and communication patterns within a network. The use of computer-monitored data also raises issues of individual privacy and close monitoring of employee work behaviour.

Control over access and participation

For electronic messaging, matters of organisational policy can include such issues as: who has access to electronic mailboxes; who can send, read, delete, or alter messages; whether and how message traffic and content is monitored.

Rice & Williams (1984) offered a general list of constructs, which may vary across media systems:

Stimulus-conveying restrictions refer to the channel limitations imposed by a media system (e.g. audio only).

Channel redundancy is a combination of channel limitations and content. In order to have the potential to carry the same content over two or more sensory channels, a media system must carry information over two or more channels (e.g. sight and sound). Further, to have channel redundancy, the same content must be offered over both channels.

Potential for interactivity is defined as the potential for immediate, two-way interpersonal exchange over a media system. This exchange requires a technical configuration of a media system that allows for interpersonal communication and allows it to occur immediately.

Social presence refers to how users of a media system would fill in such semantic differentials as sociable-unsociable, sensitive-intensive, warm-cold and personal-impersonal.

Privacy is a user's "consciousness of whether 'outside' individuals may monitor and exchange". Greater perceived privacy is presumed to enhance the potential of a media system to become "personalised".

Familiarity is measured by subjective ratings of different media that, according to Rice, “may be as much a consequence of our restricted use of the medium as of the physical restrictions a given technology may impose”.

2.3.1.4. Support for the MRT

Empirical support for the Media Richness Theory and its application to electronic mail has been growing (Steinfeld et al. 1986; Jones et al. 1988 – 89; Rice et al. 1990; Russ et al. 1990; Trevino et al. 1987; 1990; Schmitz et al. 1991; Donabedian 1997).

The majority of recent media choice research has been based upon the Media Richness Theory (MRT). Some studies have examined MRT conceptually (Zmud et al. 1990), and others have used it empirically. Some empirical research has examined choice either among traditional media or between one new medium and a combination of traditional media (Bordia 1997; Golden, Beaclair & Sussman 1992; Markus 1994). The ranking of media in terms of media richness has been extended to new electronic communication media (Steinfeld & Fulk 1986; Huber & Daft 1987; Fulk, Schmitz, Ryu & Steinfeld 1989; Trevino et al. 1990; Zmud, Lind & Young 1990). One of the most widely adopted and used new media is electronic mail, which uses “computer text-processing” to provide a high speed asynchronous information exchange service (Sproull et al. 1986: 1493).

Other empirical research has compared and contrasted different new media (Adams, Todd, & Nelson 1993; Markus, Bikson, El-Shinnawy & Soe 1993; Rice 1992; Soe & Markus 1993). Markus et al. (1993) and Soe et al. (1993) were the only ones who examined alternative electronic media (voice mail, electronic mail and fax) in the same organisational settings.

MRT argues that choices between media (e.g. e-mail and v-mail) will vary with the degree of uncertainty or equivocality in the communication task. As mentioned

earlier, media ranking higher on the richness scale are believed better equipped to handle equivocality than media lower on the scale. E-mail has been ranked low on the richness scale by virtue of its written nature (Markus 1994). By contrast, voice mail is regarded a rich medium due to the vocal information it is able to convey (Yates & Orlikowski 1992; Adams et al. 1993; El-Shinnawy & Markus 1997).

Donabedian et al. (1997) conducted a recent study on managers in various functional areas, their real-world tasks and media choices (including electronic mail and facsimile machine) and found strong support for the Media Richness Theory: "...all the managers have chosen richer or leaner media in response to task characteristics, as predicted by the Media Richness Theory" (1997: 2).

Some studies have found empirical support for the ability of MRT to account for differences in the way individuals choose among traditional media and between traditional and new media (Daft et al. 1987; Trevino et al. 1987; 1990). However, the ability of MRT to account for differences in the way individuals choose among and use the new media is as yet undetermined (Trevino, Webster & Shoemaker 1990).

2.3.1.5. Criticism against the Media Richness Theory

El-Shinnawy et al. (1997: 445) conducted a study to test the ability of the MRT to account for choice among the new media for resolving equivocality or reducing uncertainty. The authors found that MRT did not adequately explain individuals' choices between two new electronic media, namely electronic and voice mail (1997: 465). According to El-Shinnawy et al. (1992: 99) the MRT predicted that individuals will prefer to communicate on voice mail rather than electronic mail to resolve equivocal situations. This hypothesis was not supported. In fact, the survey results confirm the contrary: electronic mail was preferred for dealing with equivocality. Interview data suggest that electronic mail was preferred over voice

mail in equivocal situations. This is due to electronic mail's ability to handle ongoing and prolonged communication as opposed to one-way drops of information, the absence of verbal cues that can introduce distortions, and the functionality it offers in the form of documentation and multiple addressing capabilities.

Fulk et al. (1990) criticised the Media Richness Theory on two of its core premises – that information is an inherent, physical property of media and that a person's use of one medium rather than another is the result of a choice that the person makes in an objectively rational process. In the social influence model that Fulk et al. (1990) proposes, the properties of any medium vary from one individual to another and from one social situation to another. Also, a person's use of one medium rather than another is subject to not only (if at all) influence of that person's own rationality, but the influence of group norms, the influence of other individuals, and the influence of other external factors.

Some studies contradicted the MRT by observing that electronic media were used effectively in ways that the MRT associates with rich, and not lean characteristics (Markus 1994; O'Sullivan 1996). Markus summarises that "their actual media use behaviour was inconsistent with the Media Richness Theory. In particular, managers, especially senior managers, used the electronic mail medium more intensively than the theory predicts and in a manner that the theory regards as ineffective and hence unlikely" (1994: 518). Fulk and Ryu (1990) found in their research that electronic mail was ranked much lower on the richness continuum (well below formal written documents), and contradicted the findings by Markus (1994) as described in the abovementioned study.

The contrasting findings with regard to the richness of electronic mail as well as the criticism from various other social scholars, like Fulk et al. make it necessary to regard social and situational factors not part of the initial theoretical framework.

As a result of the different criticism against the Media Richness Theory, the theory has been revised and elaborated in various ways. Researchers working with the Media Richness Theory expanded it beyond its original core concerns with information processing requirements (equivocality and uncertainty reduction) to include other categories of reasoning for selecting media, such as *situational constraints* (time and place); *symbolic considerations* (desire to convey authority, trust), and *cognitive variables*. The resulting theory was called a “symbolic interactionist perspective” (Jones et al. 1988; Russ et al. 1990; Trevino et al. 1987; 1990).

Notwithstanding some theorists’ belief that the information richness theory has become entirely subsumed in, or displaced by, “symbolic interactionism” (Jones et al. 1988; Saunders & Jones 1990; Russ et al. 1990; Boczkowski 1997); Markus (1994:505) is of the opinion that although communication tasks requirements include situational factors and symbolic expressions, the core of the information richness theory still concerns the information processing requirements of tasks and capacities of media, thus, “remaining an individual-level rational choice explanation of behaviour” (1994: 502).

For the purposes of this study it is necessary to include the symbolic interactionist perspective in order to account for the greater degree of complexity that researchers observed in computer-mediated communications, such as distance and time pressure. As mentioned earlier in this study the Media Richness Theory in its initial theoretical framework does not make provision for such constraints.

2.3.2 Symbolic Interactionism Theory

The Symbolic Interactionism Theory can be applied to communication behaviour in organisations. The organisation is conceptualised as a dynamic web of interaction and communication. The basis for interaction among organisational members is a shared system of meaning (Trevino et al. 1987: 555).

The Symbolic Interactionism Theory proposes that over time, symbols evolve inside organisations and take on meaning. Organisations use these symbols to define their environment, understand events and make decisions. For example: an open-door policy of a company CEO symbolises accessibility to his employees. A newcomer, without the knowledge of the organisation's shared meaning with regard to the open-door "symbol", might interpret it as a way for the CEO to check on his people.

Therefore, for shared meaning to be created, negotiation and feedback are required. Through the negotiations and feedback the organisational members decrease equivocality and create symbols that establish new organisational meanings. Once that meaning is established, organisational members can act from a basis of mutual understanding. As soon as consensus exists, negotiation is no longer necessary. These symbols that have already been created and agreed upon simply need to be transmitted. They are automatically understood. An example is a well-defined organisational occurrence such as a regularly scheduled meeting. Shared meaning regarding the meeting means that the individuals involved know what it means. A communication to announce the meeting is routine and can be transmitted in a straightforward manner without negotiation (Trevino et al. 1987; 1990).

The Symbolic Interactionism Theory can provide a broader basis for understanding media choices. Based upon the symbolic interactionism framework, three variables can be expected to influence managerial choices:

- the equivocality of the message, which this perspective shares with the media richness theory;
- contextual determinants, and
- the symbolic cues conveyed by the medium itself above and beyond the literal message (Trevino et al. 1990: 74). These three variables on media choice are discussed in more detail below.

2.3.2.1. Message equivocality and media choice

As the equivocality of a message was already discussed in detail in paragraph 3 when disputing the subject of the Media Richness Theory, it will not be covered in depth again. It is, however, necessary at this stage to just point out that the Media Richness Theory is built upon the assumption that “since uncertainty and equivocality are two key determinants of social systems organisational success is based on the organisation’s ability to process information of appropriate richness to reduce uncertainty and clarify ambiguity” (Daft et al. 1987: 194). The recitation of the media richness assumption at this point is essential in terms of the changes that were invented to create the Symbolic Interactionism Theory.

Although the Symbolic Interactionism Theory agrees with the Media Richness Theory that the equivocality of a message plays an important role when selecting the communication medium that is most appropriate for delivering a full and complete message (Daft et al. 1987; Trevino et al. 1990), it is a broader theoretical perspective which explores the process of creating common understandings. It is thus, based on the foundation that interaction among organisational members is a shared system of meaning (Trevino et al. 1990: 74).

Trevino et al. (1990: 75) pointed out that equivocality as seen by the symbolic interactionism perspective can be reduced by pooling opinions, discussing interpretations and overcoming disagreement. Organisational members exchange subjective views to define the problem and resolve equivocal issues. This leads to a shared understanding and social agreement about the definition of the problem and the correct response. However, with unequivocal messages, consensus about the meaning has already been established. These pre-existing meanings can guide behaviour. Little negotiation or feedback is required. Established symbols can be simply communicated among organisation members. Information whose meaning is clear can be transmitted without concern about misunderstanding and confusion.

To summarise: equivocality is expected to influence media selection as follows – when meaning is equivocal, face-to-face communication will increase. However, in unequivocal situations, media such as memos or electronic mail are sufficient to carry the message. This relationship is based on the original Media Richness Theory (Daft & Lengel 1984; 1986), that communication media have varying capacities for resolving equivocality, meeting interpretation needs and transmitting data. Thus, communication media can be characterised as “rich” or “lean” based upon the (a) availability of feedback, (b) utilisation of multiple cues, (c) use of natural language and (d) personal focus of the medium.

Another key change to the original model was the level of analysis for task ambiguity. The Media Richness Theory initially centred on an individual’s job as a whole and was measured at that level. The revised model or symbolic interactionism perspective focuses on the individual communication interchange as the unit of matching rather than the whole task. This change achieved a conceptual consonance with early communication research that argued that people match media choices to communication requirements for a specific interchange based on “social presence” of the medium and the complexity of the communication task. Social presence is seen as the psychological closeness achievable between partners using the medium (Fulk & Boyd 1991: 410).

A further change that has implications for the revised model is the finding that high-performing managers were more media sensitive than low-performing managers. High-performing managers were more sensitive to the match between message ambiguity and media than low-performing managers. High-performing managers were more likely to match media richness to communication task ambiguity (Fulk & Boyd 1991: 410).

2.3.2.2. Contextual determinants and media choice

Within the framework of the symbolic interactionism, it becomes clear that message equivocality is not the only factor influencing media choices in organisations. Media choice behaviour can be viewed as determined at times by contextual influences that either constrain or enable specific media choices. Individual behaviour in organisations is often constrained by contextual factors, such as distance, expediency, structure, role expectations, time pressure or simply the accessibility of a particular communication technology.

Distance and time pressure

In organisations which are geographically dispersed, thus making it difficult to use face-to-face communication, distances seem to vanish as managers and employees communicate across continents by electronic mail and teleconferencing. Where time pressure was at stake the telephone was used, regardless of the ambiguity in the task situation. People who are geographically distant from their communication partners showed an increased tendency to use electronic mail, again despite the equivocality in the situation (Steinfeld & Fulk 1986; Trevino et al. 1990).

Accessibility of media

In addition to the distance and time pressure, access to the medium that is going to be used is an important determinant when choosing a specific medium, especially with all the mediated communication technologies at hand.

Steinfeld et al. (1986) conducted a study and found that access to an electronic mail system was an important determinant of media choice. Without access to the system, the manager's ability to choose electronic mail was out of the question. A user cannot achieve the efficiency benefits of new interactive media independently – the communication partners must also have access to the

system. This last statement actually emphasises what Markus (1987) proposes, namely the existence of a critical mass of users.

Trevino, Lengel & Daft (1987) conducted interviews with different managers and found that they chose face-to-face when the receiver was close by, such as in the next office. But they chose the telephone for long distances and to accomplish communications quickly and efficiently. Electronic mail was chosen for its ability to reach many receivers at once.

Steinfeld & Fulk (1990) concluded from their research that contextual determinants may influence media choice before other factors. This is because factors such as distance and accessibility to certain media, place a definite constrain in the sense that it lessens the possibilities. Thus, the communicators are denied the luxury to use the theoretically best medium.

2.3.2.3. Symbolic meaning and media choice

Trevino et al. (1987; 1990) pointed out that in the past the medium of communication has been conceptualised as a simple pipeline - a carrier of messages - thus, stipulating that this pipeline is selected for convenience, availability, or capacity to transmit a certain kind of message (i.e. equivocal message). The authors (1990: 84) are of the opinion that the communication medium may be selected for symbolic meaning that transcends the explicit message. Accordingly, the medium itself becomes the message.

According to the Symbolic Interactionism, anything can be considered a symbol and a carrier of meaning. Therefore, it is possible that the media choice itself can carry symbolic cues beyond the literal message content (Trevino et al. 1990: 85). Symbolic cues have nothing to do with the objective characteristics or capabilities of the medium to handle a particular kind of message. They are interpretations based upon the subjective norms in the situation. Norms for media use and the

meaning of media choice are developed over time. For example, a formal bureaucratic organisational culture may define written memos as appropriate for most communications. Managers may request that even a decision made in a brief informal hallway exchange be put in writing. On the other hand, an informal culture may find written memos to be justified only when a record of the exchange is absolutely necessary. In the latter organisation, a new member who uses memos will be chided for being too formal and discouraged from future memo writing.

Comprehensive studies by Trevino et al. (1987; 1990) on managers and their communication media use, indicated that medium choice was highly *symbolic*. Managers interviewed in these studies indicated that they choose face-to-face media to signal a desire for teamwork, to build trust or goodwill, to convey concern and caring. Both face-to-face and telephone communication symbolised urgency, showed personal concern, and signalled deference to the receiver who preferred the medium. By contrast, written media were thought to show authority, make a strong impression and be legitimate and official. A hand-written note or special card would symbolise more personal warmth, but mostly written media were used to get attention and to comply with protocol.

The author's (Trevino et al. 1987) findings further indicated that face-to-face was selected primarily for content and symbolic reasons, while telephone and electronic mail were typically chosen because of situational constraints.

Within the context of this study, perceptions of specific media as symbols will be tested as an intervening variable.

Apart from the MRT, and its expanded version, the Symbolic Interactionism Theory, which emphasise the media preference and usage, a need arose to theoretically conceptualise the communication process. The Sender-Message-

Channel-Receiver (SMCR) model is used in this study to place the choice and uses of different media into perspective.

Lengel & Daft (1988) found that effective communicators are sensitive to the impact of a medium when they select the appropriate channel for their messages. The question how they do it, can be answered by using the abovementioned SMCR model, which is based on the simple model of communication.

2.3.3 SMCR model

According to the SMCR model, the objective when selecting the appropriate channels in the communication process should be to align the following four elements:

- the needs of the senders;
- the attributes of the message;
- the attributes of the channel;
- the needs of the receivers (Clampitt et al. 1995: 4).

Accordingly, the model suggests five tests for a given communicative situation:

- S ↔ M test: Are the sender's needs compatible with the attributes of the message?
- M ↔ C test: Are the messages compatible with the channel?
- S ↔ C test: Are the sender's needs compatible with the channel?
- M ↔ R test: Are the messages compatible with the receiver's needs?
- C ↔ R test: Are the channels compatible with the receiver's needs? (Clampitt et al. 1995).

A successful internal communication process should pass all five tests. For example, a manager who seeks to persuade employees by communicating

exclusively via the in-house newsletter lacks the rapid feedback quality necessary for persuasion (Clampitt 1991; Clampitt & Meyer 1995:4).

This study will, in relation to the MRT and the symbolic interactionism perspective focus on the $M \leftrightarrow C$, the $S \leftrightarrow C$, and the $C \leftrightarrow R$ tests in order to determine the choice and use of communication media, and more specifically the choice and uses of computer-mediated communication media.

In order to explain the three tests a short summary of each is provided.

Are the messages compatible with the channels utilised?

Every channel has limitations that filter out parts of the message. Channels that are non-dynamic, such as memos or bulletin boards, are not effective in communicating extremely complex messages. On the other hand, bulletin boards can be useful and efficient when communicating fairly simple messages, such as the company softball schedule (Clampitt 1991: 138). According to the MRT complex, sensitive, persuasive and negative messages should rather be conveyed by a rich medium. Thus, the conveying of simple messages, like the softball schedule by bulletin board, is consistent with the MRT.

Are the sender's needs compatible with the type of channels utilised?

Since communication media have certain attributes, senders must assure that their intentions are congruent with the dynamics of the channel. If a sender seeks to relay a confidential message, then voice mail is better than fax. If a sender intends to stimulate creativity, but is afraid that status differences might inhibit a free exchange of ideas, then computer conferencing might be the best (Clampitt 1991:138). This test is consistent with the equivocality-resolving requirement as predicted in the MRT and the symbolic interactionism perspective.

Are the channels utilised compatible with the receiver's needs?

In order to be effective, the channels used must be suited to the needs of the receiver. Voice mail would be useful for employees who need to communicate across time zones, where a channel such as the fax would be best for sending complex diagrams (Clampitt 1991: 140). Again this test is consistent with the MRT in terms of using a fax to relay complex messages. The fax provides visual cues to explain a complex diagram – thus making it easier to understand than when somebody would try to explain it over a phone. It also allows for feedback by phone, face to face or fax, once the diagram has been studied. With regard to the communication across time zones, as well as the sensitivity with regard to the receiver's needs, this test would also prove consistent with the symbolic interactionism perspective.

There is no one best communication medium. It is therefore necessary, for communication to be effective, that a degree of compatibility exists between senders, messages, channels, and receivers (Clampitt 1991: 142).

2.4 CONCLUSION

The purpose of the preceding chapter was to provide a theoretical framework, with regard to organisational media selection, against which this study could be conducted. A brief discussion of some of the existing theoretical frameworks was provided, as well as the reasons why they were not suitable for this specific study. The rest of the chapter focused on the Media Richness Theory and the symbolic interactionism perspective, which form the basis of this study. The SMCR-model was also brought in to conceptualise the communication process and to place the choice and uses of different media into perspective. In the following chapter the different communication media - with the emphasis on formal internal communication media and their characteristics - are examined in depth according to the theoretical background provided in this chapter.

CHAPTER 3

FORMAL INTERNAL COMMUNICATION MEDIA

In the previous chapter some theoretical perspectives were provided to explain the choice and uses of communication media within organisations. In this chapter the focus will be on different aspects of organisational communication. In the first part of the chapter the levels of communication and the flow of communication in organisations are briefly discussed. In the last part of the chapter existing communication media available in organisations, with special emphasis on the formal communication media as utilised in the University of Pretoria (UP) are described.

3.1. INTRODUCTION

According to Katz & Kahn (Zmud et al. 1990: 440) the act of organising occurs through communication whereby information is exchanged and meaning fabricated. As such, organisations can be viewed as communication systems, in which networks of nodes (individuals, groups, departments and so forth) are linked with one another in a variety of ways and linked with elements in their external environment. Such a perspective is consistently supported through empirical studies, which show that those managers spend much of their time in inter and intraorganisational communication (Mintzberg 1973; Jones & McLeod 1986; Lewis 1987; Picot et al. 1982; Puth 1994; Smith 1991).

To understand how communication works in an organisation, it is necessary to take a brief look at the structure of communication in an organisation.

The structure is concerned with the patterns of interaction among organisational members. Thus, an organisation's structure dictates who can or must

communicate with whom. The structure of organisational communication is usually described in terms of the levels, hierarchies and communication networks in the organisation (Harris 1993:167; Rensburg 1996: 101).

In the next section the different levels of communication in organisations are discussed.

3.1.1 Levels of communication in the organisation

Almost all organisations are, to a lesser or greater extent, hierarchies: including both superiors (managers) and subordinates (employees). Communication within an organisation occurs on different levels. Communication may occur at any or all of these levels simultaneously. One level is not more important than another one. These levels include the individual (intrapersonal), the dyad (interpersonal), the group (small-group) and the organisation as a whole (intraorganisational and interorganisational) (Rensburg 1996: 102; Smeltzer 1994: 30).

The first level is *intrapersonal*. Intrapersonal communication is communication with one's self. It is a cognitive process during which one develops the attitudes, beliefs, preferences and abilities everyone brings into the organisation.

The second level involves *interpersonal communication*, thus referring to that communication between two people, such as face-to-face encounters. A variety of interpersonal relationships develop in organisations between managers and subordinates, and among peers.

The third level, *small-group communication*, may be either formal or informal. This level involves three or more people in face-to-face interaction who actively work together towards a common goal. Small groups fulfil a variety of organisational needs and include work groups, decision-making groups and training groups.

The fourth level involves *intraorganisational communication*, which occurs internally; and *interorganisational communication*, which occurs externally. Organisations use both types of communication to fulfil their goals and thereby maintain themselves (Rensburg 1996:102-103; Smeltzer et al. 1994: 30-32).

Smeltzer et al. (1994: 30) refer to a fifth level, the *intercultural communication* level, which concerns interactions among people of different cultures.

For the purpose of this study the focus is on intraorganisational, thus, internal communication only.

3.1.2 The flow of information in the organisation

The flow of information refers to the direction in which messages travel in the organisation. In organisational communication the flow of the communication proceeds formally in vertical (downward and upward) and lateral (horizontal) directions, and informally along the grapevine (Harris 1993: 203 – 217; Puth 1994: 53; Rensburg 1996: 104 – 107).

3.1.2.1. Downward communication

Downward communication is the messages sent from superiors to subordinates, thus, flows from the top to the bottom in an organisational hierarchy. Downward messages are usually work-related, thus more prescriptive in nature (giving job instructions; providing job rationale; explaining procedures, policies and practices; providing feedback; and transmitting information on the mission, vision and goals of the organisation) and are disseminated through formal communication channels. Downward communication is often filtered by employees' mistrust of their managers or by the fact that such messages may have been tailored more to motivate the employees than to provide them with full information (Irwin and More 1994: 35 – 36; Puth 1994: 53; Rensburg 1996: 104 – 107).

3.1.2.2. Upward communication

Upward communication flows from subordinates to superiors and usually takes place via the same channels as downward communication. This communication usually involves information messages on what subordinates are doing, unsolved work problems, suggestions for improvement and how subordinates feel about their job. The effectiveness of upward communication may suffer from employees' unwillingness to say anything other than what they think the manager wants to hear (Irwin and More 1994: 35 – 36; Puth 1994: 53; Rensburg 1996: 104 – 107).

3.1.2.3. Lateral or horizontal communication

This communication consists of messages between employees at the same hierarchical level within departments, between employees of equal rank or between units in an organisation. The flow of messages across functional areas at a specific level in an organisation is horizontal communication. These communication messages usually involve co-ordination tasks, problem solving, sharing information, conflict resolution and building rapport. Lateral communication can become distorted by rivalry between employees of equal status and by conflict between groups whose specialisation and goals differ (Irwin and More 1994: 35 – 36; Puth 1994: 53; Rensburg 1996: 104 – 107).

3.1.2.4. Grapevine

The grapevine is the informal channel of information and its flow follows an unpredictable course both vertically (up and down) and laterally. It is used to spread rumours as well as to convey important information such as news on promotions, personnel changes, annual salary adjustments and organisational policy changes. This information are mostly speculation on employees' side and should be countered by correct and timely information. The only stable function of

the grapevine is to utter concerns on personnel side, which is a good measuring instrument of their grievances, attitudes and feelings towards the organisation (Irwin and More 1994: 35 – 36).

3.1.2.5 Networks

Apart from vertical and lateral communication media channels, communication may also take place through communication networks in the organisation. According to Harris (1993: 169) a network is a web of free-standing participants linked or connected by one or more shared values. These values may be a task or social orientation, or both.

3.1.3 Formal and informal media of information

The media channel is the method used to convey meaning among people. Media in the organisation are commonly described by distinguishing between the *formal* and *informal* flow of information.

Formal media are the official channels through which communication is exchanged. Formal channels may be written or oral and include personal instructions, interviews, training programmes, letters, memoranda and annual reports.

Informal media or the grapevine is the means individuals frequently use to communicate without using the formal channels (Harris 1993: 167; Rensburg 1996: 103-107).

See table 3.1 for a summary of formal and informal communication media as utilised within organisations.

Table 3.1. Formal and informal media in organisations

	INFORMAL	FORMAL
ORAL	Personal contacts Interviews and counselling Telecommunication Employee plant/office tours	Staff meetings Public address system Conferences Order giving and instructions Briefings
WRITTEN	Bulletin boards Daily news digests	Company policies Management newsletters Company magazines Company reports
BOTH ORAL & WRITTEN	Face-to-face contact between superiors and subordinates where written information is exchanged	Company meetings where reports and data are presented
VISUAL	Sound-action exhibits Closed-circuit TV	Motion pictures Slides Chart talks

(Adapted from Smeltzer et al. 1994: 70)

In the modern organisation the flow of communication is not just downward, but upwards and between departments. Messages are written, verbal and visual.

Now that the communication levels, the flow of information in the organisation and the clarification of formal and informal media channels have been briefly discussed, it is necessary to briefly look at the role of organisational culture in determining communication in organisations. Organisational culture may change the structure and flow of communication within organisations.

3.1.4 Organisational culture

Andrews et al. (Rensburg 1996: 115) defines organisational culture as: "...a system of shared values and beliefs that interact with a company's people, organisational structures and control systems to produce behavioural norms". According to this perspective the organisation can be viewed as a culture and organisational communication as a performance of this culture.

An organisation as a culture means that this culture provides a framework that enables people to learn about the organisation and to know how to perform their roles more efficiently and productively within that framework. Every organisation has its own cultural identity because it has a particular way of doing things and its own way of communicating with one another.

An organisation's culture is communicated in many ways of which the organisation's informal interpersonal networks are the most important. It is through communication with long-time employees of an organisation that new employees experience and learn what is expected of them. Culture is transmitted formally to employees by means of advertising, slogans, newsletters, annual reports, meetings, group gatherings and public presentations. The culture may also be communicated externally to outside publics, where advertisements in the mass media reveal the organisation's values and beliefs (Rensburg 1996).

It is very important that internal communication in any organisation should make employees aware of the culture in an organisation. Organisational efficiency can be increased by bridging cultural gaps. This can be achieved by emphasising organisational culture, thus creating common and shared values and beliefs and ensuring that everyone is committed to the organisation's goals and not their own (Rensburg 1996).

From the above it is clear that the media use in organisations will differ from organisation to organisation depending on the organisation's culture.

In the next section a closer look is taken at communication media in organisations.

A general view on communication media use in organisations

Communication within the organisation may take the form of written or spoken words, gestures, or visual symbols. It can convey messages by action, touch or sound. These different methods of transferring information make communication a dynamic, continual and complex process. It involves sending and receiving information. As discussed in the previous section of this chapter, messages are related through different communication media between senders and receivers (Lewis 1987).

The choice a manager or employee must make regarding how to convey thoughts is often a basic one between oral and written communications. Which method of communication the person selects, however, may be a critical decision concerning who needs to know, what they need to know, and when they need to know. The methods available for communicating in organisations are the telephone, face-to-face contacts, meetings or conferences, memorandums and formal reports. Each of these has their advantages and disadvantages (Lewis 1987; Smeltzer et al. 1994).

Employees and managers alike must become acquainted with the characteristics, advantages and disadvantages of all the possible communication media available to assist them in their day-to-day work. The responsibility lies with the communicator to identify which medium should be used for what message. Communication media can only be used successfully as a tool, when all the information on the characteristics, shortcomings and functions of the medium is fully understood. As one has seen in chapter 2, media selection may depend on a variety of factors, namely the complexity of the task at hand, the contents of the message, situational factors, the medium's potential for feedback, cost, speed, accessibility and so forth.

In South Africa, selection of media is even more vital because certain media are inaccessible, different levels of sophistication exist between different internal publics of the organisation, many cultures and multilinguality is present (Daft et al. 1986; Lewis 1987; Rensburg 1996).

Before we can start to describe the existing formal media as utilised in internal communications within organisations, a short definition of a communication medium seems inevitable.

3.2. WHAT IS A COMMUNICATION MEDIUM?

The word *medium* (*media*) might be defined as the means of transmitting a message. Sitkin et al. (1992: 564) defined the communication medium as a “conduit through which data and meaning are conveyed and manifested”, thus, one can describe communication media as the methods used in the communication process to send and receive information in organisations.

According to Harris (1993:167) communication acts as the lifeblood of an organisation and the media function as the veins that connect and carry the various messages.

In human communication the media used to send messages are either verbal or nonverbal. Verbal messages are sent either by written or oral media, while nonverbal messages are transmitted by body language and other nonverbal means (e.g. signs and symbols) (Verwey 1994: 64).

Every time a member of an organisation communicates, a particular medium, such as a memorandum, a telephone call, a face-to-face or an electronic meeting must be chosen (Reinsch & Beswick 1990: 801). While organisational communication exchanges have traditionally involved the use of verbal and written media, technological developments and improvements over the last

decade have introduced a number of computer-mediated communication media, which offer new ways to convey messages that were not possible in the past. Thus, the role of today's manager and employee involve more than speaking or writing. A decision must be made about the best way to communicate each message. The media or channel chosen may mean the difference between achieving success or failing to meet an objective (Lewis 1987; Picot 1982; Trevino et al. 1992, Zmud 1990).

With a wide array of media available, how do employees decide on which medium to use when communicating messages in an organisation?

Many scholars concerned themselves with this question and although they offer different solutions, it all boils down to the fact that communication media differ in their ability to facilitate understanding. Lengel et al. (1988: 225) pointed out that each medium of communication – be it written, telephone, face-to-face or electronic – has characteristics that make it appropriate in some situations and not in others.

With the latter statement in mind, the different internal communication media are described according to the Media Richness Theory (chapter 2) which places media on a continuum of richness according to the following media characteristics: the ability of a medium to provide instant feedback, transmit multiple cues (verbal and nonverbal), use natural language, and convey personal feelings and emotions.

Refer to Figure 2.4 in Chapter 2, page 32 of this study for the explanation of the hierarchy of media richness.

3.3 EXISTING INTERNAL COMMUNICATION MEDIA

This section briefly glances at existing communication media that can be used by organisations to communicate with their internal publics. These media are utilised

internally in organisations to communicate with the organisation's internal publics; thus all staff, including management and employees, union representatives and plant committees. Rensburg (Lubbe & Puth 1994) pointed out that these media are not limited to internal publics and can also be used externally.

In this study only formal internal communication media are researched. For the purpose of this study internal communication is viewed as communication between personnel, and between personnel and management in an organisation. This communication involves two-way communication, either verbally and direct or by means of printed/written or electronic means.

Firstly, a broad overview is provided on the categories and types of existing internal media as utilised in organisations in general. The last section of this chapter emphasises the types and nature of the specific internal media as used in UP.

3.3.1 Conventional communication media

The conventional formal communication media can be classified into two broad categories, namely verbal and written media (Daft & Lengel 1984:196 – 7; Jones et al. 1988-89:75; McLeod & Jones 1986:30; Webster 1995:1544; Williams 1987:110; Zmud, Lind & Young 1990: 442).

Category one contains **verbal media**, such as (1) *face-to-face meetings*, which can either be scheduled or unscheduled; (2) *face-to-face other* such as travel, discussion forums, social activity, business meals; and (3) *telephone conversations*.

The second category contains **written media**: (1) *addressed written media* such as letters, memos and (2) *unaddressed written media* such as reports, personnel newsletters, numeric documents and graphs.

A third category developed in the past couple of years, namely **computer-mediated communication media** such as electronic mail (Culnan et al. 1987; Kiesler et al. 1984; Rice 1984; Sproull et al. 1986; Steinfield 1986).

The categories of conventional media are discussed in more detail in the following paragraphs.

3.3.1.1 Verbal communication media

Face-to-face communication, either in a one-to-one or in a group context, is the most fundamental, most desirable and the most used communication medium in organisations. Several studies found that people in general spent 70 percent of their working hours in some kind of verbal communication (Lewis 1987: 4; Panko 1992),

Research conducted by the International Association of Business Communicators (IABC) in the UK, Canada and the USA found a definite preference among employees for a two-way communication process and a face-to-face delivery system. See figure 3.1 on results on how employees in the abovementioned study want their information (Larkin et al. 1994: 90).

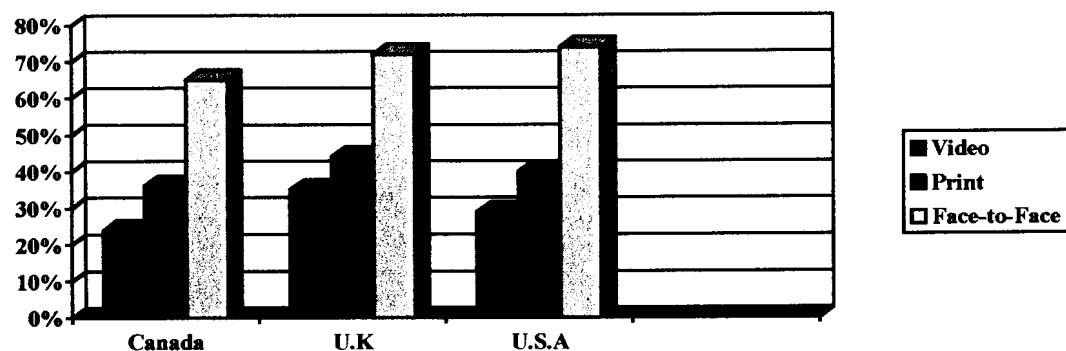


Figure 3.1 How employees want information

Face-to-face interchange represents the most desirable medium because of the degree to which it facilitates understanding - questions could be asked and answers provided immediately. It may occur individually between two people or in groups, such as in conferences, meetings, presentations, discussion forums and speeches.

Martin (1995: 41) indicates that management must discuss issues with personnel and not only convey information to them. Personnel must be allowed time to question or query matters. Management should encourage personnel to discuss their problems and concerns on a one-to-one basis with management, because it provides a much better platform for solving problems than work-group meetings, where individuals might feel inhibited.

Face-to-face sessions are relevant when personal or emotional messages are relayed, or when negotiations or discussion of a sensitive matter is necessary. According to Smith (1991) and McCatherin (1989) regular and continuous face-to-face communication will lead to higher productivity; personnel would know what is expected of them, and how performance translates into meaningful work; security and advancement. Without this direct communication from management most employees will simply not be willing, or know how, to modify established attitudes and work behaviour required to make change successful and personally rewarding. The big challenge to organisations today, especially in these uncertain and ever changing times, is to implement and foster an effective two-way communication system.

Thus, the advantages of face-to-face communication are that it is visual, uses natural language, provides personal contact, shows and explains, sets the mood, it is two-way and allows for immediate feedback so that understanding can be checked and interpretations corrected. Rumours could be dealt with immediately. The disadvantages are that timing may be inconvenient, it requires spontaneous thinking, it may not always be easy to terminate, one person may feel subject to

pressure by power or status, and conversations may be overheard by others (Jablin et al. 1987; Lewis 1987; McCathrin 1989; Puth 1994; Smith 1991).

According to a study conducted in 1988, some 66 percent of all top management in the USA know that their employees prefer personal, more informal communication, while almost 44 percent of them realise that their personnel has a need for participative management. Irrespective of all these research findings on how employees prefer to communicate or receive information, a Conference Board survey found that 90 percent of managers use newsletters or magazines to improve employee morale, while only 75 percent use meetings for the same purpose. More than 50 percent of the respondents use meetings to inform their personnel on internal changes, improve productivity and to communicate benefits and salary adjustments. It is clear that there is a difference between how personnel prefer to receive information and the way it happens.

In a recent study to establish which medium has the biggest influence on employees' work achievements, the employees rated the media as follows: face-to-face communication with their line managers; conversations with co-workers; meetings; memos; and corporate information (Larkin et al. 1994: 13).

Other means in which one-to-one communication can occur are:

Workgroup or team meetings are mostly used to discuss work-related matters within organisations. These meetings involve face-to-face two-way communication, where explanations, feedback, questions and answers regarding work-related matters are at stake. Regular meetings of this nature should form part of the internal communication plan to address specific needs (Larkin et al. 1994: 107).

Information meetings differ from workgroup or team meetings, because they consist of bigger and more diverse groups of personnel, where specific subjects

or matters are addressed and not daily work-related matters. Personnel are only recipients of information, without providing any input.

Cascade briefings mean that a message from the senior manager is relayed to the next level of management, who conveys that to the next level till it reaches the personnel. This might result in a watered down and incorrect message. According to Irwin et al. (1994: 60) personnel sometimes only receive 50 percent of the real message and facts might be totally wrong.

Executive visits or management wandering around to various divisions of an organisation provide a high-potential communication medium that seems to have been largely ignored by most organisations. Such personal visits by top executives, and the scheduling of informal talks with employees and local managers while on location, can do much to dispel the negative impressions created by a management which is perceived to be invisible and inaccessible to the majority of employees (Panko 1992; Puth 1994).

Communication forums should be used to mainly discuss work and work-related problems, although more general issues of concern could also be handled. These forums should take place regularly to address problems on a continuous basis and personnel should be encouraged to take part and to offer suggestions where necessary (Martin 1995: 90).

Telephones are less rich than face-to-face, because visual cues are screened out. Feedback is fast, so individuals may be able to resolve equivocality. The medium is personal and utilises natural language, but relies on language content and audio cues rather than visual to reach understanding. It is a simple, quick way of sending and receiving messages and no travel is involved. A disadvantage is that it can easily be misunderstood because of the nonverbal cues (Lewis 1987; Jablin et al. 1987). Lewis (1987: 94) warns that although the telephone continues to be important to business functioning, new technologies are almost certain to supplement and partially replace it.

3.3.1.2 Written communication media

Written addressed communications include those written documents that convey organisational messages (e.g. letters, memos). These means are widely used in most organisations because they can be personalised, are easy to use and serve a documentary function. These communication media are typically lower in richness than oral communications. These media are characterised by slow feedback compared to face-to-face and telephone media. Visual cues are limited to those on paper (Clampitt 1991; Jones & McLeod 1986; Panko 1992).

Management or line managers sometimes find it easier to put something on paper than to personally discuss the matter with the employee. There is no substitute for face-to-face communication, but Martin (1994: 104) did find that personnel indicated a change in attitude when the memos or letters are handwritten and personally addressed. For them it indicates that the manager is concerned or cares enough to write it personally and let it be typed by the secretary.

Written unaddressed communications are the lowest in richness. Examples are formal reports and personnel publications. These documents are impersonal, are not amenable to feedback, and visual cues are limited to those in standard format. However, these documents are precise, leave records, are easily duplicated, can be pre-thought, are complete, and can be widely disseminated. Disadvantages of these media are that they take time to assemble, are one-way, expensive and sometimes uncontrollable, and do not require instant response. Because the medium is impersonal, there is no guarantee that the receiver fully understands the message, thus that shared meaning will occur. Overall, if documentation, distribution and volume are important considerations, written media should be used (Jablin et al. 1987; Lewis 1987).

Martin (1995:96–103) indicated that in most studies done on internal communication use, almost 70 percent of all respondents indicated that they do read the organisation's personnel newsletters, but that it has no or very little

influence on their daily tasks. This is in accordance to an internal dipstick survey done at UP to establish how personnel experienced the UP personnel newsletter. Martin sees (1995) the personnel newsletter as support and supplementary to the communication process in organisations. McCathrin (1989: 16) agrees that mass media and publications can be used as supplements, but not substitutes for dialogue and the chance for employees to give feedback.

Other means of internal communication

Audio-visual communication

Over the last decade, an increasing number of organisations have resorted to using films and videos in conjunction with the more traditional forms of employee communication. Audio-visual employee communication media are particularly useful in big organisations with multiple geographical operations, or a head office and regional office structure. These media are also used because of the powerfulness of visual information. Most organisations using this kind of employee communication produce video tapes which are designed for both employees and management viewing and which feature company news, production and financial goals and results, executive interviews and personnel matters. The most often used audio-visual communication media in organisations are flip charts, transparencies and overhead projectors, slide shows, film strips, corporate films, video tapes, multimedia exhibits and displays (Clampitt 1991; Puth 1994; Rensburg 1994).

Audio-visual communication is generally considered complementary to print. At least half of the companies taking part in the Conference Board Survey in 1988 use audio-visual communication to lift employee morale and promote goodwill, supply information about company products, encourage employees to be productive and quality oriented, and to inform them about salary and benefits (Troy 1989: 31).

Satellite television

Today, more and more organisations use television to transmit the same type of information which is usually printed, such as personnel achievements, changes in organisational structure and announcements. Television is quick, visual and can reach dispersed offices. A further advantage is where the two-way sound system is present, it allows for personnel to ask questions and get answers. The automobile company, Ford, uses this medium with the aim to improve two-way communication (Larkin & Larkin 1994: 104).

According to Larkin et al. (1994: 103) organisations communicate with their employees to change attitudes and behaviour and television is not the most appropriate medium for that. He provided results on a survey done in Jerusalem, where 21 percent of the respondents could not recall any of the news bulletins one hour after the stories were broadcasted. It could be used with success if stories could be followed up through other means of communication such as face-to-face or in a printed format.

Employee suggestion schemes

One of the most frustrating factors in any organisation is a lack of free, spontaneous, upward communication flow. The result is a total block of creativity and innovation. One measure to stimulate free communication is through the use of an effective employee suggestion scheme.

Although many organisations believe the existence of suggestion schemes is an admission of weakness in the employee communication scheme, the majority experience it as an excellent medium for the upward communication of ideas on improving the total functioning of the organisation. This also provides a excellent way for employees to contribute more to the organisation's progress and development, and to be recognised and rewarded for their effort (Puth 1994).

Research in the USA indicated that in organisations that use suggestion schemes, only three percent of the suggestions by employees are accepted and implemented, while only one percent of employee suggestions are accepted in the UK. Over the last ten years, almost none of the respondents taking part in internal communication research in the USA, indicated suggestion schemes as an appropriate communication medium (Larkin & Larkin 1994: 130).

Bulletin boards

A bulletin board is one of the more conventional and traditional media of communicating with employees. Work schedules, new job postings and for-sale announcements are among the items usually posted on the boards (Clampitt 1991). Martin (1995: 105) on the other hand, indicated that because this medium only offers one-way communication, it cannot promote commitment, unity and effective communication in organisations.

3.3.1.3. **Computer-mediated communication media**

Computer-mediated communication media are communication messaging systems that “use computer text-processing and communication tools to provide a high speed information exchange service” (Sproull et al. 1986: 1493).

Many of the computer-mediated media systems resemble familiar technologies such as the telephone and the typewriter. However, the convergence of digital with analogue technology has endowed the electronic media with significantly different capabilities, for example computerconferencing. In this communication medium, people may participate in a “meeting” at any time of the day or night from any place in which they have access to a computer terminal (Culnan et al. 1987). Other examples of electronic media within today’s organisations include voice messaging, electronic mail, computer-, video- and teleconferencing, Internet, intranets, “extranets” and databases (Clampitt 1991:128 – 134; Culnan et al. 1987; Thomson et al. 1977:172).

Computer-mediated communication media provide significant advances over traditional media in terms of storage, processing and transmission capabilities, such as speed of transmission, group collaboration and accessibility of information (Culnan & Markus 1987; Huber 1990; Rice 1984; Rice *et al.* 1990; Short, Williams & Christie 1979; Steinfield 1986).

Andrews *et al.* (1996:19) stated further: "...technology provides new and dynamic channels for group collaboration across the dimensions of time and place. It allows us to create networks for communication and channels for co-operation that give business teams faster and broader access to information. The new team-based organisation consists of "small, cross-organisational, time-driven, task-focused, cohesive work groups. Business teams are part of the evolving organisation of the future that includes flatter hierarchies, network style and international flavour (Johansen 1992: 5).

New technology has increased the access of information once available only to top-level or middle managers. Information has become more accessible and widely shared across all levels meaning that many decisions once made only at the upper levels of organisations can now be made by those closer to the immediate situation. (Harris 1993: 469; Andrews *et al.* 1996:1). According to Drucker (1991: 31-2) the information-based organisation needs far fewer levels of management than the traditional command-and-control model.

At the same time, on the negative side, information overload has occurred (Rogers, 1986:21); a disparity between information-rich and information-poor parties has evolved; there has been a decrease in face-to-face communication (Kay & Byrne 1986), alterations in the organisational structure have occurred (Allen & Hauptman 1987); some portions of the work force have become obsolete; a technological elite has evolved and desktop computers and other technologies serve as status symbols (Rice & Case 1983).

Different types of computer-mediated media in the work place

Electronic mail is asynchronous, which means that senders and receivers do not need to attend to the same communication at the same time. It is quick and text based, allowing written messages to be composed and edited on a computer terminal and then sent to one or more persons on the system. Received messages can be stored and retrieved later, printed or discarded. Electronic media are interactive, computer-mediated technologies that facilitate two-way interpersonal communication among several individuals or groups (Culnan et al. 1987; Kiesler et al. 1984:1123; Rice 1984:191; Sproull et al. 1986:1493; Steinfield 1986:168).

E-mail combines locational flexibility with rapid transmission to multiple others across time and space, which makes it an attractive tool for organisations that are geographically dispersed, and work collaboratively (Culnan et al. 1987: 432 – 4; Garton et al. 1995: 436; Holmes 1995: 455; Naude 1995: 10 – 12; Rice et al. 1990: 28; Sproull et al. 1986: 1494; Sproull 1991: 182; Williams et al. 1988: 12).

Message transmission is very fast, almost immediate. The messages are asynchronous, which means they do not have to be received at the same time they are sent because they can be stored until the receiver is prepared to read them. Being screen-based, messages may be composed, edited, sent, received, stored, and filed at a terminal with a keyboard. With no intermediaries (such as secretaries, receptionists and couriers), mail is scanned by the receiver, protecting confidentiality and eliminating delays. Finally, there is a broad audience reach, because the message can be routed to any number of receivers in the network.

The major advantages are speed, lower costs, and increased access to other employees. Picot et al. (1982: 687) in their study found that managers felt that e-mail "could replace 4% of business trips, 9% of face-to-face contacts, nearly 20%

of telephone contacts, and up to 60% of mail contacts". With regard to Picot's prediction in 1982, a survey of employee communicators at Fortune 100 corporations found that almost nine out of 10 (87 percent) are currently using electronic mail for person-to-person communication. (Lauer 1995: 29).

According to Clampitt (1991:129) e-mail is seen as best for communicating brief, non-complex, but time-sensitive information. Other research on the use and perceived outcomes of electronic messaging in organisations suggest that electronic mail can successfully be chosen for various reasons. For example, individuals may use e-mail to communicate less equivocal messages (Trevino et al. 1987; 1990), or to complete routine tasks (Short et al. 1976). Recent studies have provided evidence that people adapt to "lean" media (such as e-mail) in ways that allow rich, socio-emotional interaction, which was considered inappropriate and problematic by the MRT as discussed in Chapter 2 of this study. (Rice et al. 1987; Walther et al. 1992; Markus 1994; O'Sullivan 1996; 1997).

Smeltzer et al. (1994: 432) are of the opinion that these technologies will simply be used more and that it will become part of the everyday organisation, just as the telephone is part of life today. The authors further stated that quick access of information will enable organisations to remain competitive, but those who do not have the information will soon lose their competitive edge and will have little chance of survival (Smeltzer 1994: 433).

Electronic mail is now embedded as one of the most frequently used media for internal communication, superseding one-to-one meetings with supervisors. However, face-to-face meetings with peers or supervisors are still a more effective method of communication than e-mail. See figures 3.2 for most frequently used media and 3.3 for the most effective media according to a survey examining the state of employee communications in the Autumn of 1988 (Stewart 1999: 24).

Figure 3.2 Most frequently used media

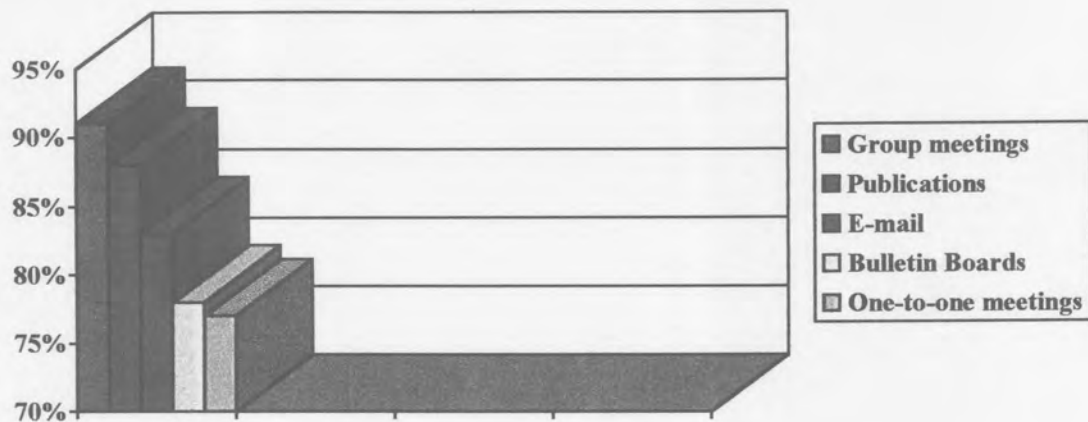
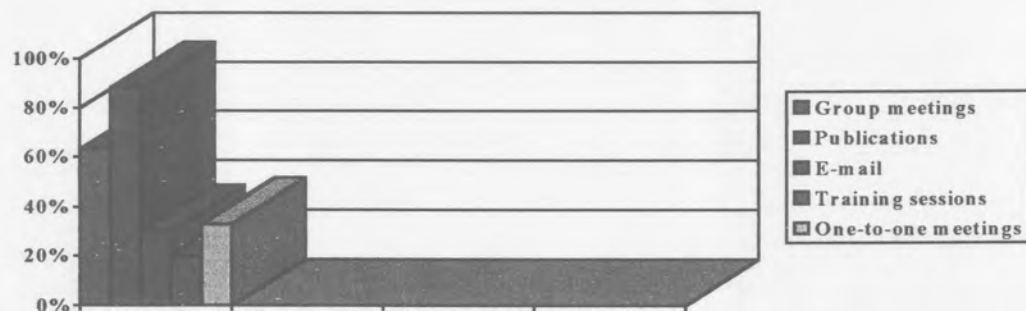


Figure 3.3 Most effective media



Electronic publications

The employee communicators at Fortune 100 corporations surveyed in 1995 predicted that in 1998 these companies would be using electronic and print media equally for internal communication. This study indicated that two-thirds (67 percent) were using electronic mail for publication dissemination and from those who did not, 41 percent aimed to publish their own internal electronic newsletter by 1998. The results on why electronic publications were preferred: nearly all respondents (96 percent) said technology shortens the communication cycle time.

Nearly two-thirds (64 percent) said it reduces communication cost, while more than half (53 percent) said it had increased distribution (Laure 1995: 29).

More organisations are using electronic publications to keep their internal publics informed. Employees are able to access the information at their own convenience. Electronic publications are gaining in popularity because they enable organisations to communicate important information timeously and inexpensively (Rensburg 1994).

Intranet

An intranet is an electronic information repository - a kind of a corporate encyclopaedia. It is stored on computer (or computers) that all employees can access using "browsers", software first design to let people travel on the Web. An intranet is a simple, easy, effective way of communicating common information amongst all employees, to co-operate and collaborate. Quick and easy updates are possible by publishing material electronically, organisations can ensure their information is always up to date. Intranets, unlike regular internet sites, are not open to the public. It is designed strictly for internal use and can be accessed only by employees. Intranets are secured behind firewalls: hardware and software that keep infiltrators or unauthorised people out. Passwords ensure that only certain people can access the intranet. Areas can be restricted to a particular group of employees, people working together on a project or on a "need-to-know" basis (McCune 1996: 23 – 24).

Extranet

The extranet goes one step further than the intranet by connecting staff not only with each other but also with outside stakeholders like customers, suppliers and other business partners. These technological developments are changing the dynamics of communication – whether the focus is on "pushing" information or enabling it to be "pulled" by the demand of the user. The dimensions of

communications are also being revolutionised, as channels of communication change from one-way or top-down to two- and three-way channels and beyond (Thomson & Arganbright 1997).

Teleconferencing

Teleconferencing is a term for any combination of electronically mediated audio, video, or computer interaction that connects two or more people at different locations. Teleconferencing can be either “synchronic” live interaction or “asynchronic” interaction in which each party involved can receive and send messages at their convenience; there is no real-time interaction. The best way to discuss teleconferencing is to break it down into three main modes: (1) two-way videoconferencing, (2) two-way audioconferencing, and (3) two-way synchronic computer conferencing. Videoconferencing is somewhat less rich than face-to-face communication. It has full audio and video capacities, but some cues are restricted, regulating features of mutual gaze are filtered out, and communications are less emotional in tone than face-to-face communications (Williams 1987). Teleconferences have many communication advantages over business travel. Travel expenses are reduced; the stress of travel is avoided, including the time away from family and work. The participants speak from home turf - secure and confident - and all models, charts and other visual supports that could not fit on the plane are available at hand. As organisations grow, many are becoming increasingly decentralised. Teleconferencing can serve as a viable communication link in these organisations.

According to Clampitt (1991: 132), Schneider Communications holds a teleconference every Friday morning with up to 100 employees in five different locations to keep them informed of upcoming events. According to the author this medium proves to be best suited to meet informational needs of participants, but is not very effective for negotiations.

Despite the widespread availability of teleconferencing, it has not replaced travel because of the lack of cues available to the participants. Videoconferencing allows for many of the rules to be visually perceived, audioconferencing only allows for vocal intonations, while computerconferencing relies solely on message content (Clampitt 1991).

The videoconference medium provides a telecommunication alternative for face-to-face and group-communication mediums. A videoconference transmits audio and video images to employees, often via a satellite hook-up. Some are one-way mediums like the traditional use of television, while others are interactive, allowing parties at various sites to simultaneously communicate with each other. Video conferences have been shown to be effective for a wide variety of tasks, ranging from training sessions, distance learning and sales meetings, to conducting promotion reviews and selection interviews (Andrews et al. 1996; Clampitt 1991; Sigband et al. 1989; Yuhas Beyers 1997; Smeltzer et al. 1994).

Voice mail

According to Clampitt (1991: 131) the next evolutionary step beyond the answering machine is voice mail.

This system uses touch-tone phones as input device. A computer then digitises the caller's voice and deposits the message in an individual's voice mailbox. Although anyone can call and leave a message, the employee is the only one who can get access to the messages via a special code number. Most voice mail systems are used as a replacement for short memos and phone calls that require no response. Voice messaging also proves to be particularly useful for employees who are on the road, like salespeople. It provides 24-hour access to employees, and secretaries are not burdened with taking messages. A problem though is the lack of ability to easily scan through messages. Voice messaging seems to be most effective when communicating fairly short and unambiguous messages.

For the system to be effective, users must regularly check their voice mailboxes for messages (Clampitt 1991: 132).

Influence of computer-mediated communication on organisational communication

According to an article in the IABC Communication World, technology is changing the way organisations communicate with their employees, according to a survey of employee communicators at Fortune 100 corporations. The effect of these technologies on communication has resulted in a significant reduction in the time it takes to get information to and from employees, and a reduction in the cost providing this communication. Almost nine out of 10 organisations (87 percent) are currently using electronic mail for person-to-person communication. About two-thirds (67 percent) are using electronic mail for publication dissemination and more than half (54 percent) are using electronic mail online bulletin boards. Among other technologies, 53 percent are using videoconferencing, 51 percent are using audioconferencing and 50 percent are using broadcast voice mail (Lauer 1995: 29).

E-mail use in organisations is revolutionising the way information flows within an organisation, because it is not tied to time, place or hierarchies. It is believed that information distributed electronically will become the norm. This will also have an impact on communication effectiveness and will fundamentally alter the culture of organisations, enabling employees to become aware of, to understand and to act on the many changes and strategic initiatives taking place within their organisations (Lauer 1995).

3.3.2 Unconventional communication media

Unconventional media are important within the South African circumstances, mainly because of their interactive and participatory possibilities. Some of these media which could be used by organisations are discussed below:

Industrial theatre

Industrial theatre encourages audience involvement through live performance by combining the elements of drama and storytelling with the organisational message. Instead of making use of text, photography, video or film, industrial theatre encourages audience involvement through live performance. It allows for communicating with people in their working environment, which has obvious benefits for the relevancy of the communication. This is particularly the case when the production includes situations that are identifiable within the organisation (Rensburg et al. 1995).

In the South African context illiteracy among employees in organisations is high and a diversity of mother tongue exist. Industrial theatre employs multilingual dialogue that has significant benefits.

Typical industrial theatre deals with different themes such as increased productivity, improving sales or customer services. It may deal with the problems and fears experienced by members of an organisation as they try to come to grips with an affirmative action programme. Although industrial theatre is a communication tool in its own right, its impact may be increased when workshops, focus groups or other formal techniques follow it up. Sometimes industrial theatre may include various multimedia techniques such as laser lighting, large-screen video back projection and sophisticated, moving set pieces (Rensburg et al. 1995).

Other unconventional media such as community radio and folk or oramedia are based on the community in general and are not really used in organisations. A brief look into these media is, however, provided to enlighten unconventional media use.

Community radios

Community radios are defined as non-profit, participatory radio that broadcasts to a defined community. That community can be geographic, or a community of interests. Community radio stations empower communities by providing people with the freedom of expression and the right to participate in local issues and public affairs. Through these stations the ordinary people, women, the youth and the working class can have a voice. Community radio can provide a platform for cost-efficient advertising and marketing efforts of smaller business. Community radio is uniquely able to provide sustainable knowledge to underdeveloped communities economically, broadly and quickly (Rensburg et al. 1995).

Oramedia (also called folk or traditional media)

These media are based on indigenous culture produced and consumed by members of a group. Unlike mass-communication media, which reach many people at a time but only have cognitive influence (knowledge, awareness and interest), oramedia can only reach a few people at a time, but can be an effective relay chain to the mass-communication media. They take many forms and are rich in symbolism. Oramedia must be seen as interpersonal media speaking to common people in their language, in their idiom, and dealing with problems of direct relevance to their situation. There is a wide variety of these media such as puppet shows, village theatre, improvisation theatre, gossip, oratory, poetry and music, market places, festivals and weddings, funerals and political rallies (Rensburg In: Puth & Lubbe 1994: 155; Faure In: Rensburg 1996: 187 – 189; Rensburg et al. 1995).

Table 3.2 Communication media within organisations

METHOD	ADVANTAGES	DISADVANTAGES
Face-to-face	Visual, personal contact Can "show" and "explain" Permits questions & answers Sets the mood; Immediate feedback	Timing may be inconvenient Requires spontaneous thinking May not be easy to terminate Power or status of person may cause pressure
Meetings	Visual, personal contact Can "show" and "explain" Involves several minds at once Two-way flow	Time-consuming Time may be inconvenient One person may dominate the group
Telephone	Verbal; Permits questions & answers Convenient - distance or time pressure are present Two-way-flow Immediate feedback	Less personal No record of conversation Message may be misunderstood Timing may be inconvenient May be impossible to terminate
Addressed written media, e.g. memo	Brief; Provides a record Can pre-think the message Can disseminate widely	Less personal One-way flow Delayed feedback
Unaddressed formal written, e.g. formal report	Complete, comprehensive Can organise material at communicator's leisure Can disseminate widely	Impersonal; Expensive; One-way flow May require considerable time to read Language may not be understandable Delayed feedback
Teleconference	Saves time to travel; Visual Lessens impact of power/status Makes users better prepared Feedback	Misses interpersonal contact Not good for initial brainstorming sessions Expensive
Video tape	Combines colour, sound & motion Accurate, consistent, energetic delivery of message Any size of audience Speaker support not required	Equipment not standardised, may not be readily available Expertise required to produce Relatively expensive to change Time-consuming to produce
Flip charts	Easy; inexpensive to prepare Easy to change design/ numerical order; Cut-outs, build-ups & overlays readily created. Projection equipment not required	Limited legibility Storage and handling bulk Requires speaker support Not suitable for larger audiences
Computer-mediated communication media	Visual Reaches one-to-one or one-to-many Rapid transmission across time and space Provides a record Asynchronous – sending and receiving at individual's convenience	Feedback depends on recipient's convenience Personal focus is low Cues are single and static

(Adapted partially from Lewis 1987: 9; Rensburg 1994: 148-149).

3.4 CHANGING INTERNAL COMMUNICATION NEEDS AND EXPECTATIONS

For many decades, employee publications have been regarded as the solution to the problem of internal organisational communication. The in-house publication was seen as the "people's forum". Here views could be aired and policies and procedures conveyed and institutionalised in an informal medium which enjoyed the shared "ownership" of all levels of employees in the organisation. Very often, this medium was no more than an unidirectional channel in the hands of the executive (Puth et al. 1994: 275).

A growing body of evidence suggests that too much reliance may have been placed on internal publications. Many organisations are still under-utilising other, more personal communication methods – methods which, paradoxically, both employees and top management agree are essential, and more effective, than publications alone (McCathrin 1989: 14).

McCathrin (1989: 16) surveyed the communication needs and expectations of employees, and found the following:

- Employees prefer personal communication from their immediate supervisors, senior executives, and small-group meetings, in that order.
- There is a preference for one-on-one communication in all key areas, including the conveying of expectations for performance, rules and regulations, strategies and goals, safety and productivity advice, and benefits information.

The dramatic forces that are affecting organisations today - such as global competition, geographically dispersed employees, restructuring and mergers – have a huge impact on effective internal communications. The use of electronic communication is transforming the workplace and will continue to alter methods of

internal communication. Electronic media enables employees at all levels to communicate with speed, frequency and flexibility with anyone in or outside the organisation. Thus, communication is faster, easier to access and hierarchies are disappearing through the use of electronic communications.

In this chapter we have briefly glanced at existing communication media available to managers and employees to communicate with each other. In the next part of this chapter the different formal internal communication media channels as utilised within UP with specific emphasis on the media used in this study are discussed.

3.5 INTERNAL COMMUNICATION MEDIA WITHIN UP

The following media are used internally and externally in UP to communicate with all employees and external publics:

Written communication

- ***Tukkievaria:*** An internal personnel newsletter used to communicate strategic issues and organisational matters. See addendum 8.3.
- ***Campus calendar:*** A publication on all happenings at UP. Annually updated.
- ***Tukkie:*** Alumni publication, with the aim to retain and further relationships with ex-UP students.
- ***From the Office of the principal:*** Letter from the Principal to all personnel concerning work-related and personnel issues. See addendum 8.2.
- ***Personal letters from administration:*** Letters from the Department of Personnel Affairs concerning personal issues, appointments, salary advices etc.
- ***Memoranda:*** Informal written message to note, record or remind employees
- ***Minutes of meetings:*** Record of proceedings of meetings in terms of decisions and actions
- ***Pamphlets:*** Projectbound

- ***The Principal's opening address:*** Welcoming of academic and support personnel at the beginning of the year to provide personnel with the strategic vision for the year.
- ***Annual report:*** Corporate overview, specifically aimed at stakeholders and donors with regard to UP's achievements
- ***UP profile:*** Corporate overview, specifically aimed at foreign corporations and international stakeholders.
- ***Flyers:*** Projectbound.
- ***Posters on campus:*** Projectbound.
- ***Community service brochures:*** Address community issues.
- ***Bulletins (UP, OKP etc):*** Newsletters used in specific projects, communicating with a highly specified target market.
- ***Admission requirements:*** Information aimed at informing prospective students of what is expected of them when studying at UP
- ***Alumni brief:*** Newsletter to ex-students to keep them informed and updated with UP and alumni doings and achievements.
- ***School's newsletter:*** Distributed to headmasters of different schools with news on degrees and other relevant information to be distributed to prospective students.
- ***Faculty publications:*** Internal and external focus. Publications used by the various faculties to promote themselves.

Verbal communication

- ***Official opening:*** Speech delivered by the Principal to new students and parents at the opening of the academic year
- ***One-on-one discussions***
- ***Meetings***
- ***Grapevine***
- ***Small-group information sessions***
- ***Presentations***

Computer-mediated communication

- **Electronic mail:** Campuswide e-mail as well as interpersonal e-mail. See addendum 8.4.
- **UP Bulletin:** Electronic newsletter, aimed at external stakeholders. See addendum 8.5.
- **Internet**
- **Intranet**
- **Electronic Tukkiewaria**

For the purpose of this study, only formal internal media were used for the empirical analysis. The following eight media were identified as the most used and known forms of internal communication means within UP after discussions with the Communication manager at Marketing Services, UP; and from the Markinor communication audit (Constantaras 1995).

The eight media were then categorised in verbal (face-to-face and telephone), informal addressed written (memo and short letter) and formal unaddressed written (*Tukkiewaria* and *From the Office of the Principal*) and computer-mediated communication media according to the richness continuum provided by the MRT in Chapter 2 of this study.

The media are:

- **Verbal communication**

One-on-one conversations; group meetings (academic, departmental, information meetings), and **telephone conversations** are used in this study as verbal media forms of communication in UP.

The results of the Markinor (Constantaras 1995) internal communication audit on UP indicated that meetings and one-on-one discussions between superiors and

employees are the best known and most preferred forms of verbal communication in UP.

With regard to written communication media the following media were chosen for the survey:

- ***Written communication***

Written unaddressed (formal) communication media

For the purpose of this study *Tukkievaria* and *From the Office of the Principal* are used as means of unaddressed written (formal) communication within UP.

The *Tukkievaria* is a formal two-weekly printed newsletter to personnel with the aim to keep them informed and to create awareness and understanding of organisational processes; to establish common visions and goals and to improve communication and information flow in UP. See addendum 8.2 for an example.

From the Office of the Principal on the other hand is a written and printed address to all personnel on matters concerning changes in the University, appointments of executives and other matters such as salary benefits. This is a formal letter and is issued whenever the Principal has an urgent or important matter to raise. See addendum 8.3 for an example.

The results from the Markinor audit (Constantaras 1995) indicated that the *Tukkievaria* and *From the Office of the Principal* are viewed by personnel as the most important means of corporate and official means of internal communications within UP.

Written addressed media

Memoranda and short letters to personnel are used in this study as means of written addressed media in UP. These letters address personnel members by name and concerns specific queries or personal matters such as medical benefits, pensions, salaries and promotional opportunities. The Markinor audit (1995) found that addressed letters are the most desirable means of communication when personal matters are concerned.

- ***Computer-mediated communication media***

For the purpose of this study, ***electronic mail*** and the ***electronic bulletin*** (an electronic personnel newsletter) are used as means of computer-mediated communication media within UP.

The results of the Markinor audit (1995) indicated that e-mail is thought to be the most effective means of computer-mediated media, followed closely by the internet and then the World Wide Web.

Since the Markinor audit in 1995, several other means of computer-mediated media were introduced in UP.

At the end of 1999 the Marketing Services Division, introduced a campuswide e-mail message system to the personnel of UP. The aim was to prevent overload of messages, but still guarantee employees access to relevant information. The campuswide e-mail informs personnel on work-related as well as cultural and social developments on a daily basis. Initially all messages were sent out campuswide, but employees felt that they are not always interested in all messages, thus the process was adjusted to accommodate personnel's wishes. Messages are now only listed according to the headings, with links to the intranet for each message. This allows employees to read only what is of interest to them at their own leisure. See addendum 8.4 for an example.

Marketing Services presented a second means of computer-mediated communication when they introduced the UP electronic bulletin. The electronic UP-bulletin is an electronic newsletter containing information of interest to personnel. It is updated bi-weekly on the intranet to allow employees to read it at their convenience and own leisure. These messages are not only for personnel, but are also distributed to external publics. See addendum 8.5 for an example.

Although there are other computer-mediated media available in UP to keep personnel informed, only e-mail and the UP-bulletin were used in the survey.

Choosing the correct medium

The importance of these communication media characteristics to the survival of the organisation implicates that managers must become sensitive to the correct type of communication medium to use in different situations. The medium should serve the communication process and not vice versa.

Face-to-face negotiations used to be considered the only viable format, but this is no longer the case. Communicators today must consider several communication media when developing their communication strategy.

3.5 CONCLUSION

According to this chapter it is clear that internal communication plays a significant role in organisations. Successful internal communication supports the achievement of the organisation's goals. To communicate successfully it is of utmost importance that the organisation must know its target populations and which medium to use for which message when communicating. Thus, media selection has a strategic role to play in the organisation. Each medium has different characteristics that make it either suitable or not suitable in different communication situations. The important point is that each organisation should

decide, after thorough analysis of media available to them, which media serves its own communication needs most effectively.

According to the literature, the most fundamental and most important medium is face-to-face communication – one-on-one or in groups. Its greatest strength comes from the personal interaction between managers and employees – in the fact that employees are able to ask questions and get immediate answers – and as a result of the personal warmth and credibility it has compared with formal communication media. Although face-to-face is the most preferred medium it is not always possible to use it because of distance, time pressure and economic reasons.

A newsletter, although the most widely used medium in organisations is not the most preferred medium. According to employees, it cannot replace direct communication with management and co-workers. It is time-consuming and does not always address the necessary concerns of employees. Computer-mediated communication media is becoming more and more important in internal communications because it bridges time and distance barriers.

The media as discussed in this chapter are all tools to support management and communicators in their communication efforts.

Thus, to be truly effective on an on-going basis in most organisations, one or more additional formal media, such as telephones or electronic media, printed materials, video tape/film productions, closed circuit or satellite television should supplement face-to-face exchange of information. (McCathrin 1989; Lubbe et al. 1994; Puth 1994).

In the following chapter, the implementation of the research methodology that was conducted for this study will be discussed.

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

In the previous chapters the research problem was identified and formulated against existing literature and theoretical frameworks. Since the next step in the research process involves choosing an appropriate research design, this chapter will focus on the choice of research design as well as the methodological implications of the latter on sampling, data collecting and the development of the measuring instrument. The contents of the questionnaire are disputed and motivated, while hypotheses are formulated and brought into association with the research aims. The different variables are also operationalised to enable the testing of these hypotheses.

According to the literature a research design can be defined as the “plan of procedures for data collection and analysis that are undertaken to evaluate a particular theoretical perspective”. The research design involves the process of planning what and how data will be collected. Thus it can be seen as the blueprint for the collection, measurement and analysis of data (Bless & Higson-Smith 1995: 63; Leedy 1997: 93). The aim of the research design on the one hand is to specify the unit of analysis and on the other hand to describe the circumstances under which the observation takes place (Smith 1988: 179).

4.2 GENERAL AND SPECIFIC METHODOLOGY

Except for the specific aims of this study, there are three main aims to be distinguished in any research study. A study can be *exploratory*, *explanatory* and

descriptive or may even include more than one of these aims in one study (Babbie 1992:20).

This study includes elements of all three social research goals. An exploratory research effort was necessary to gain more insight on the topic of media choice at UP while descriptive methods were used to describe the measurement and statistics of the study. The study also included an element of explanatory research because the aim with the study was to determine whether the predictions of the MRT and the SIT are supported or not.

A quantitative approach is followed in this study – variables are operationalised and then measured with the aim to describe, predict and explain (Smith 1988: 179; Leedy 1997:104).

The first step in the sampling process is defining the population order to achieve the objectives of this research study. It is necessary to explore the following concepts: the focus of the study, the unit of analysis and the time dimension of the problem at hand (Bless & Higson-Smith 1995:64)

4.2.1 The unit of analysis

The unit of analysis indicates whom or what is to be studied (Bless & Higson-Smith 1995: 64). In this case, the individual academic and non-academic staff at the main campus of UP is the unit of analysis.

After a researcher has established the unit of analysis to be studied, it is necessary to pay attention to the focus points of the research.

4.2.2 The focus of the study

The focus of the study concerns the specific opinions and attitudes of the respondents thus, their orientation towards internal communication media in UP (Babbie 1990:98; Bless & Higson-Smith 1995:64).

4.2.3 Time frame

Because the research studies the opinions and attitudes of respondents at a given time, it is a cross-sectional research design (Bless & Higson-Smith 1995:66).

4.2.4 Other classifications used in this study

This research design is also functional, because the attitudes and opinions of individuals serve as primary data (Leedy 1997:101).

It can further be classified as a natural, non-participating field research where observation takes place without experimental manipulation (Smith 1988: 181). The method of data collection is unobtrusive and the researcher and the respondents are removed from each other (Dane 1990:16).

As seen from the above characteristics of this research design, it is clearly a typical **survey research**. Survey research involves obtaining information directly from a group of individuals, by using interviews or questionnaires to collect data. In this case paper questionnaires are used. When the research design defines research on the basis of general scientific considerations its research methodology originates from specific methods of sampling, measurement development, data collecting and data analysing as in this case, it can be classified as a survey research (Neuman 1997: 31 – 34).

4.3 SAMPLING

As a result of the size of a population, it is usually not practically and economically feasible to involve all members of a specific population in a survey. It is therefore necessary to make use of sampling (Huysamen 1994: 37). A sample is a selected set of elements drawn from a larger whole of all the elements, namely the population. To be able to generalise findings gathered from a sample of the target population, it is necessary that the sample must show the same characteristics as the population from which it is chosen (Baker 1988: 144). Thus, sampling is based on the acceptance that the researcher can study a part of the elements in a population, to be able to make diversions about the total population (Cooper & Emory 1995: 200).

According to Diamantopoulos & Schlegelmilch (1997:14) the process of sampling and data collection consists of the following steps:

- Define the population
- Specify the sampling frame
- Choose and motivate a method of sampling
- Determine the sample size
- Sampling and data-collection

4.3.1 Population

As mentioned earlier the **populations** of interest to social and behavioural scientists are usually so large that from a practical point of view it is simply impossible to conduct research on all of them. Consequently, such researchers have to obtain data from only a sample of such populations (Huysamen 1994: 38). According to Mouton (1996:110) the aim during the process of sampling is to get a sample that is as representative as possible of the target population. Thus,

“representativeness is the underlying criterion of a valid, that is, an unbiased sample”.

It is therefore a general phenomenon in research surveys to divide the wider group or population into a smaller but well-chosen group of persons. This smaller group of the whole population which is actually investigated by the researcher and whose characteristics will be generalised to the entire population is called a **sample** (Bless & Higson-Smith 1995: 85 – 86; Cooper & Emory 1995: 200).

The **population** for this study can be defined as:

All academic and non-academic personnel at the main campus of the University of Pretoria, with access to all the specified internal communication media.

The following eight specific media are tested in this survey, namely one-on-one and telephone conversations, group meetings, electronic mail, the electronic Bulletin, *From the office of the Principal*, the *Tukkievaria*, and memoranda and short letters. According to the theoretical literature the best way to test why certain media are preferred for specific messages, rests on the ability to reduce equivocality. The questionnaire consisted of messages ranging from high in equivocality to messages low in equivocality, such as normal routine messages. The literature has it that employees will choose rich media, such as face-to-face conversations, meetings and telephone when dealing with highly equivocal messages; and lean media, such as letters, memoranda and electronic mail to deal with routine messages, thus low in equivocality (Daft & Lengel 1984; 1986).

The original target population - namely all academic and non-academic personnel of the UP - was inaccessible, because some of the faculties are dispersed and situated at different sites. The latter predict possible logistical (distance, time) and economical problems for the researcher. A further problem stemmed from the fact that due to current restructuring of faculties and personnel changes, no accurate list of all personnel of UP was available at the time of the sampling.

According to Du Plooy (1996: 50) provision is made for the defining of an accessible population, when the original target population is inaccessible. Smith (1988:77) refers to this as a survey-population. Du Plooy (1996: 50), however, pointed out that when sampling is conducted from an accessible population the results can only be generalised to that accessible population and not to the original target population.

For the purpose of this study, it was then decided to rather use an accessible population as recommended by Du Plooy (1996: 50). For economical reasons it was decided to use only UP personnel situated at the main campus.

4.3.2 Sampling frame

To be able to study the accessible population it is necessary to select a sample-frame. This sampling frame is the actual list of sampling units from which the sample is selected. The sampling frame should be all-inclusive, so that every unit in the population to be surveyed is included (Bless & Higson-Smith 1995:88; Mouton 1996:135). Mouton (1996:135) emphasised that it should be noted that "the sampling frame is not a *sample*, it is the *operational definition of the population* that provides the *basis* for sampling".

For the purpose of this survey the latest, updated telephone and e-mail directory (1999) including all personnel situated at the main campus of UP was used to compile a fairly comprehensive sampling frame. To ensure a representative sample of this accessible population it was necessary to secure that the list (sampling frame) was as complete as possible before the sample was drawn.

4.3.3 Method of sampling

The latest (1999) complete telephone and e-mail list including all personnel at the main campus of UP is used as the sampling frame.

The survey population for this study consists of two definite subgroups, namely academic and non-academic personnel. It was thus necessary to first identify the subgroups and to draw a random sample from each separate subpopulation to ensure a representative sample from the survey population.

With **stratified random sampling** clearly distinguishable subpopulations are obtained with a greater degree of certainty than is possible with simple random sampling. This method is used to ensure that the different segments of the population are represented in the sample. With the stratified random sample we are ensured of this representativeness, irrespective of the sample size, because it has been built into the sampling strategy right from the beginning (Huysamen 1994: 40; Leedy 1997: 213; Neuman 1997:212).

Two sampling frames were created in order to stratify the names in the telephone and e-mail list according to their position in UP. The same percentage was selected from each of the two frames, to ensure that the sample would contain the appropriate percentage of academic and non-academic personnel and to allow the researcher to generalise the findings to the population.

4.3.4 Sample size

A very important issue in sampling is to determine the most adequate size of the sample. According to Bless et al. (1995: 96) the major criterion to use when deciding on sample size is the extent to which the sample is representative of the population. Neuman (1997: 69) stated that there are no absolute rules that dictate the size of the sample and suggests that the researcher review the nature of the population, estimate the completeness of the sample frame, consider the time and funds available, and then make a decision about the sample size.

Gay, according to Krejcie and Morgan (Leedy: 1997: 210 – 211) suggested the following guidelines when selecting sample size:

The larger the sample size, the smaller the percentage of the population needed to get a representative sample:

For smaller populations, $N < 100$, there is little point in sampling. Survey the entire population.

If the population size is around 1 500, 20% should be sampled.

Beyond a certain point (about $N = 5\,000$), the population size is almost irrelevant and a sample size of 400 will be adequate.

According to the tabular guide by Meyer (In: Du Plooy 1995: 53) one should aim to be within at least a 95% confidence level for any response, which means that if the population size is 2000, a sample of 322 people would provide for a 95% confidence level and a 5% error tolerance.

Table 4.1 Tabular guide to select sample size

POPULATION SIZE	SAMPLE SIZE
Infinity	384
500 000	384
100 000	383
50 000	381
10 000	370
5 000	357
3 000	341
2 000	322
1 000	278

(Adapted from Du Plooy 1995: 53)

The survey population in this study consists of 2150 elements, which include two different strata, namely 1351 academic and 799 non-academic personnel. The relation between the academic and non-academic personnel is 1.69%, which gives a ratio of almost 2:1.

According to table 4.1, a sample size of 322 is sufficient for the survey population of 2150 elements. The researcher used the tabular guide as a basis a random sample of 400 academic and 200 non-academic personnel were chosen to guarantee a better response rate and to make sure that the sample was representative of the survey population. The units were first grouped into academic personnel (primary sampling units) and then into non-academic personnel (secondary sampling units), after which a random sample of every 2nd person from each group was chosen.

Data were collected by distributing 600 questionnaires to academic (400) as well as non-academic (200) personnel at the main campus of UP. A total number of 174 questionnaires were received back, which realises in a response rate of 29%.

A response rate of 10 to 50% is common for a mail survey. The results in this study are in line with general response rates when mail questionnaires are concerned (Babbie 1992: 226; Huysamen 1994: 149).

Possible reasons for the low response rate may be:

- the complexity and length of the questionnaire;
- the fact that respondents do not realise the importance of returning the questionnaire;
- time-consuming; and
- the fact that no direct follow-up or personal reminder was possible because of the guarantee of anonymity of the respondents.

4.3.5 Sampling errors and related problems

As the purpose of sampling is to determine samples which reproduce as closely as possible the characteristics of a population it is not always achieved.

According to Bless et al. (1995: 97) sampling errors are due to change factors, and the non-response error. This happens when an element of the sample does not respond to a measurement instrument, which means such elements are excluded from the group – which changes the constitution, and thus the representativeness of the sample.

4.4 DATA COLLECTION

There is no simple answer to which of the available methods of data collection the researcher should use when collecting primary data. According to Blankenship & Breen (1993: 122) it all depends on the purpose and nature of its use.

For the purpose of this research, the decision was made to use a self-administered questionnaire. The questionnaire items were developed from the literature. A pre-test was used to improve and refine the items that appeared ambiguous, misleading or double-barrelled. The finalised questionnaire was distributed directly by internal mail to the selected respondents.

The main reason for deciding on a paper questionnaire as method of data collection was cost and convenience for the researcher.

4.5 DEVELOPMENT OF MEASUREMENT INSTRUMENT

To establish why UP personnel choose certain communication media from a variety of communication media currently available to them, it was necessary to prepare a measurement instrument.

The typical method for conducting media choice studies is the survey - consisting of questionnaires and structured interviews (Webster & Trevino 1995:1550; Kerr &

Hiltz 1982: 165). Babbie (1992: 282) confirmed the latter by pointing out that questionnaires and structured interviews are the most commonly used ways of data collecting in exploratory and descriptive research. Several other scientists pointed out that questionnaires can be used for basic, as well as applied research, thus to gather theoretical information as well as considering the practical implications thereof (Smith 1988: 219; Frey et al. 1992: 86). This method is also practical to enable the inclusion of enough persons where different subgroups exist, e.g. academic and non-academic personnel as in this survey. The self-administered questionnaire is a cheap method of survey and is also practical in so far that a single researcher can conduct it at any given time.

For the reasons as mentioned above it was decided to use a self-administered questionnaire for data collection. The source of the individual items used in this instrument was identified from applicable literature and adjusted to the UP situation.

4.5.1 Considerations with regard to measuring instrument

A measuring instrument consists of a set of measurement scales, which organises the information and transforms it into data (Smith 1988:57).

The Likert scale (Du Plooy 1996: 77) was chosen for this study for the following reasons:

- It consists of a series of items, which addresses a construct; each represented by a 5 or 7 point scale (Wimmer & Dominick 1994: 54). It is known as a notified appreciation approach because the respondent's degree of agreement or not agreement with regard to the items are measured (Sax 1979: 249).
- It is a forced scale, which forces the respondent to make a choice from an appointed, pre-established set of options (Smith 1988: 59).

- The scale is flexible and the original dimension of importance (not important at all, extremely important) can be adjusted to measure the importance and appropriateness of certain internal media as requested in this study.
- The Likert scale (Diamantopoulos & Schlegelmilch 1997: 25) is an interval scale which provides a certain level of measurement and statistical force in research.

The process to design a Likert scale is explained as follows by Smith (1988:60):

(1) It is necessary to establish the constructs to be measured.

A construct is any concept that cannot be isolated or observed directly (Leedy 1997: 34). According to Bless & Higson-Smith (1995: 37) constructs are ideas which are developed specifically as building blocks in the research process. The constructs to be measured in this study, namely ambiguity, uncertainty, distance, time, organisational culture and symbolic means have been explained in detail in Chapter 2.

(2) To design a multi-item battery of possible scales to measure each construct.

A construct is built up out of similar concepts, which can be used to define the construct (Bless & Higson-Smith 1995:37). A multi-item battery as mentioned above conceptually defines each of the constructs, which are included as statements in the measurement instrument. The choice of these statements is explained in Chapter 2.

(3) To choose the final set of scales.

By a process of pre-testing every multi-item battery was tested by respondents. According to the outcome of the pre-testing it was decided to use the 5-point

Likert scale to measure the constructs in this study. This aspect is described in detail in the questionnaire design.

(4) To establish the discriminating power of every scale.

The discriminating power refers to the ability of a scale to only measure the construct as being studied. According to Smith (1988: 61) "it is a test of the unidimensionality as well as the validity of a set of Likert scales". As the measurement instrument was only subjected to pre-testing and not to a pilot study the discriminating power of the scale was only established during the first phase of the data analysis, when doing the reliability analysis of the constructs.

4.5.2 Composition of the measurement instrument

The measurement instrument (see questionnaire, Section B, C & D) is organised in accordance with the constructs on which the hypothesis is built. Sections B, C and D measure each construct in the form of a multi-item battery. Section A deals with the demographic, personal data of respondents, and does not consist of a Likert scale.

A discussion on each section of the measurement instrument is necessary at this stage. In this explanation only the groupings of constructs and the phase of measurement will be touched upon.

Section A consists of five questions on **demographic information**, which are coded on a nominal scale. The questions concern respondent's current position in UP (academic or non-academic), their faculty or department, years of service and gender.

Section B consists of questions to determine whether **message contents** have an influence on media choice, according to the MRT's predictions. This multi-item

battery (Items 1 – 20) is concerned with identifying the most appropriate medium in terms of “medium richness” for communication situations characterised by equivocality and uncertainty. With this it is hoped to establish whether people choose a rich medium when equivocality is high and a lean medium when dealing with routine messages, which may provide some useful information on a possible dependence between media choice and message contents.

Section C consists of questions (items 1 – 24) regarding **different factors**, which a person considers when sending messages, thus communicating with others in UP. With this multi- item battery it was tried to establish how important certain factors are for UP personnel when deciding to communicate. These considerations include the sender’s personal preferences, sensitivity towards the receiver, the message contents, situational constraints and organisational culture.

Section D concerns the appropriateness of a medium to convey **specific messages** (items 1 – 31) in the communication process, according to the Symbolic Interactionism Theory. These questions focus on how appropriate and successful, UP personnel rate certain media to be, when conveying specific messages. In this multi-item battery it was aimed to establish whether factors other than equivocality, such as the characteristics of the message (sensitivity, negativity, complexity, and persuasiveness), situational reasons (time, distance) and symbolic reasons (status, authority) have any influence on media choice.

4.5.3 Self-administered questionnaire-design

To research the aims as explained in the previous section a questionnaire was designed to collect the data. The questionnaire is described in terms of the organisation, nature and contents thereof.

4.5.3.1 Organisation and nature

In the design of the questionnaire several methodological guidelines are recommended by certain authors (Bless et al. 1995: 105 – 126; Dane 1990; 119 – 143; Huysamen 1993; Leedy 1997:191-198; Neuman 1997:245). These recommendations were applied as far as possible in the designing of this questionnaire.

The cover letter of the questionnaire was used to request the respondent's co-operation, guarantee confidentiality, explain the purpose of the survey, and indicate how the information will be used. The researcher was identified in the cover letter and contact numbers are provided for queries or problems concerning the questionnaire.

Specific instructions were provided throughout the questionnaire with regard to the completion thereof. The multi-item battery for each section was divided by separate instructions, which was necessary to orientate respondents on answering that specific section.

It was tried throughout the questionnaire to make it user friendly and logical. Questions were therefore arranged as logically as possible. The easiest questions to answer were asked at the beginning of the questionnaire, after which questions containing information on the different subjects were grouped together. The questions in the questionnaire can be categorised as factual questions (Smith 1988: 225). No open-ended questions are used, because it is time consuming and difficult to process (Smith 1988: 226; Frey et al. 1992: 93).

The researcher aimed to keep the questions short and to avoid ambiguity and vagueness as far as possible. Double-barrelled and leading questions that were present were adjusted or cutout.

Since the respondents are educated, special effort was put into the design of the questionnaire. The questionnaire was professionally printed and not copied to ensure a neat-and-easy-to-read document.

The questionnaire was also translated into Afrikaans to accommodate all respondents in their language of choice.

4.5.3.2 Contents of questionnaire

The media richness model and the symbolic interactionism perspective are the bases for the hypotheses about media choice in this study (As explained in Chapter 2). The questionnaire was designed according to these theories. The questionnaire is attached as **Addendum 8.1**.

The dominant view of the Media Richness Theory is that the primary task confronting any organisation is information processing. The need to convey equivocal/ambiguous or subjective messages versus objective information suggests that selection of media for the transmission of organisational communications may be based on the need to reduce equivocality. As equivocality increases, richer media are needed to negotiate shared understandings. However, when events are routine (unequivocal) the meaning of information is already understood, and a leaner medium can be used to efficiently convey objective message content. A medium should fit the equivocality reduction requirement of the message. A mismatch may explain failures to achieve mutual understanding (Daft et al. 1984; 1986; Daft & Lengel & Trevino 1987; 1990). Because only rich media are capable of handling equivocal messages, an equivocality/richness match should mean more effective communication. For effective communication to occur, employees should choose media that have the capacity to handle the equivocality of the message. When the communication concerns well-defined issues, equivocality is low. Precise written and quantified data should be communicated through lean media. On the other hand, highly

equivocal messages demand rich media to facilitate understanding and the emergence of a common perspective (Fulk et al. 1990: 79).

A mismatch may explain communication failures. Standard computer reports sent to resolve equivocal problems would not accommodate the subjective, ambiguous nature of these problems.

The basic proposition to be tested in this research is that organisational information processing is characterised by a relationship between the communication media and the extent of the equivocality reduction needed to reach mutual understanding. This relationship is summarised in the following hypotheses:

Hypothesis 1: *There is a significant dependence between (a) message equivocality; (b) message uncertainty and media selection.*

Hypothesis 1(a) is tested by the following questions:

B1.	Routine information e.g. announcements of meetings
B2.	Information on sensitive issues such as Affirmative Action
B4.	Changes in corporate strategy, such as agreements with other universities
B5.	Clarification on where your department will fit into the bigger organisation in future
B6.	Explanation of your department's goals e.g. research output/ production targets
B7.	Information to improve employee morale
B9.	Guidelines on how to streamline job processes
B10.	Feedback on a routine request
B11.	Information on your job description
B12.	Criticism on procedures that went wrong
B14.	Explanations about changes regarding compensation scales
B15.	Information on trends in the educational environment, such as strategic alliances
B16.	A lengthy report on research findings

Hypothesis 1(b) is tested by the following questions:

B3.	Information containing figures
B8.	Graphs on the hierarchical structure of UP
B13.	Information on new courses
B17.	A large volume of information on new procedures for your department
B18.	A lengthy list of telephone numbers of staff members of UP
B19.	Policy guidelines
B20.	Information of a technical nature e.g. how to operate a new communication medium

Although the media richness and the symbolic interactionism perspectives suggest that the desire to overcome equivocality and to achieve shared understanding influences media choice, message equivocality and uncertainty are not the only factors influencing media choice.

Several researchers (Trevino et al. 1987; Steinfield and Fulk 1986) found that situational determinants, such as distance between communication partners and time pressure represent other rational explanations for media choice. Fulk et al. (1990) found that people under time pressure were more likely to use the telephone regardless of the relative ambiguity of the message, and that managers who were geographically distant from their communication partners also showed an increased tendency to use electronic mail, again despite message ambiguity. Message content played a less important role when managers and employees were faced with situational constraints. Thus, the following hypothesis:

Hypothesis 2: *There is a significant dependence between (a) situational constraints of distance and time pressure and (b) symbolic meaning and media selection.*

Hypothesis 2(a) is tested by the following questions:

D9.	You want to communicate something complicated to someone far away
D10.	Time pressure is of concern when communicating
D12.	Urgent information is to be conveyed
D13.	Information on the outcomes of a routine meeting has to be forwarded
D14.	Immediate feedback or a response is needed on a specific matter
D16.	Distance is a factor when communicating
D29.	A rapid decision is needed on a delicate matter

The symbolic interactionism perspective (Russ et al. 1990: 157) further suggests that symbolism has an influence on media choice. Individuals must learn the system of shared meanings, implying that greater experience in social exchanges may play an important role in media selection. It follows that such learning occurs at the broad, societal level and at the more specific organisational level. At organisational level, longer tenure in the firm allows members to learn the system of meanings unique to that organisation, in this case UP. A new employee, for instance, may not understand the significance of a seemingly casual social invitation issued face-to-face from a superior, whereas the method of delivery may have specific implications clearly discernible to long-term employees. Longer membership in the organisation will be associated with greater understanding of the shared expectations regarding media selection and frequent previous requirements to handle both simple and complex communications. According to Fulk et al. (1990: 88) media choice is not based solely on objective task and contextual characteristics. In organisations, the choice of a particular medium often carries with it symbolic meaning beyond the explicit message being transmitted. Organisational and subgroup norms for media usage create pressure to choose or not choose a particular medium. These norms can have a powerful influence on media choice behaviour.

Hypothesis 2(b) is tested by the following questions:

D11.	Authority/ status is to be conveyed
D15.	A desire for teamwork or participation is to be conveyed
D17.	It is necessary to build trust
D18.	The university wants to justify major expenses in implementing a new product
D27.	You want to indicate that your communication is official

Hypothesis 3: *There is a significant dependence between the demographic variable, years service and media selection.*

Hypothesis 3 is tested by analysing years service and the factors: communicator, recipient and organisational culture to see if they have an influence on media choice. (The questions provided after the research proposition are also applicable for testing hypothesis 3).

In Section C of the questionnaire the objective is to determine which variables in the communication process have an influence on the choice of medium.

The appropriate research proposition (P1) is stated as follows:

P1: *There is a significant dependence between the communicator, recipient and organisational culture, and media selection.*

The **communicator** as variable is tested by the following questions:

1.	My personal preference
5.	I have the necessary equipment to use it
6.	I value the communication policy within my department/university
10.	I perceive it as a more personal medium
14.	I can reach a number of people at any given time
17.	It is easy for me to use
18.	I feel in control
23.	I am skilled in using it

The **recipient** as variable is tested by the following questions:

4.	The preference of the receiver
8.	It is appropriate to the receiver, e.g. considering time pressure
9.	The method is accessible to the receiver
13.	The position/ status of the receiver, e.g. Dean of Faculty
15.	Significance of my relationship with the receiver
16.	The receiver is comfortable with it
19.	It is accessible to all staff members

The **organisational culture** variable is tested by the following questions:

6.	I value the communication policy within my department/ university
7.	It is part of the organisational/ university culture to use the method
11.	To symbolise effectiveness as it benefits UP employees
20.	It is the expected method within UP
22.	It is the traditional method within UP

In Section C of the questionnaire the objective is to determine which variables in the communication process have an influence on the choice of medium. No hypotheses are stated. Factor analysis is used to determine the factors.

Hypothesis 4: Respondents in UP show a tendency to use computer-mediated communication media, as much as or more than the conventional media, regardless of message contents when making media choices.

This hypothesis is tested by all the questions in sections B and D of the questionnaire. See Addendum 8.1

4.6 PRE-TESTING

Pre-testing or a pilot study is necessary in survey research (Huysamen, 1994:197; Dane 1990: 127). Dane (1990: 127) mentioned that pre-testing differs from a pilot study in so far that the entire research procedures are not tested. Thus, data are

not statistically analysed only the measurement instrument that will be used is tested. For the purpose of this study two pre-tests were run before the genuine survey was conducted.

The purpose of a pre-testing is to establish whether the respondents understand instructions, whether items are unclear or ambiguous, and if the length of the questionnaire is reasonable.

It is important that the respondents used for the pre-testing or pilot study should be similar to those in the final survey. The questionnaire was initially only in English, but after discussions with the Communication Manager at Marketing Services of UP it was recommended to translate it into Afrikaans to accommodate all personnel in their home language. After the questionnaire had been translated it was pre-tested by a language specialist to ensure that the Afrikaans and English questions are similar in meaning.

This questionnaire was subjected to a pre-test by 8 members of UP personnel (4 academics, and 4 non-academics, including an even number of English and Afrikaans questionnaires for each group). All the necessary changes were made, after which the questionnaire was pre-tested for a second time. The result of the pre-testing was the rephrasing of 8 items, changing of instructions in Sections B, and the inclusion of an example of how to complete Section B. Changes were made to the cover letter and 4 double-barrelled questions in Sections C and 2 items in D were eliminated.

4.6.1 Problems with questionnaire

Although pre-testing was done, respondents experienced certain problems completing the questionnaire.

Three respondents pointed out that Section B of the questionnaire is too long, time-consuming and contains too much detail and therefore did not complete it.

Although special time and care were taken in the formulation of Section B, people still misunderstood the questions and completed it incorrectly, or only completed part of it. This led to those responses being left out in the statistical analysis.

Another problem was the fact that respondents only completed some of the demographic questions in Section A. Although this is not serious for the outcome of the study, the information was necessary for cross-tabulation and background purposes.

In sections C and D, respondents were directly asked to provide only one answer for each question, emphasising the *one*, but still respondents tended to ignore the instructions and gave more than one answer, making those questionnaires statistically valueless.

4.7 RESPONSE RATE

Every method of data collection has certain advantages and disadvantages.

Advantages of the self-administered questionnaire are that the researcher can give questionnaires directly to respondents or mail them to respondents, who read the instructions and questions, then record their answers. This type of survey is by far the cheapest, and can be conducted by a single researcher. The questionnaires can be sent to a wide geographical area. The respondents can complete the questionnaire when it is convenient. Posted or self-administered questionnaires offer anonymity and avoid interview bias. They are very effective and the response rate may be high for a target population that has a strong interest in the topic or the survey organisation.

One of the biggest disadvantages of self-administered questionnaires is the low response rate (Bless et al. 1995:112; Huysamen 1994:149; Babbie 1992:266; Alreck 1985:248 – 251). According to Huysamen (1994: 149) one seldom gets a response rate higher than 50%, and when dealing with the general public responses can be as low as 20%. Neuman 1997: 247) indicated that response rates are a major concern for mail questionnaires and that 10 to 50% is common for a mail survey. In 1978, Dilman developed the total design method (TDM) to improve mail and telephone survey response rates. This theory states that a survey is a social interaction in which respondents act on the basis of what they expect to receive in exchange for their co-operation (Alreck et al. 1985: 251). The researcher can increase the response rate by minimising personal costs, and by requiring minimal effort and time of respondents. Since the study concerns possible internal communication media problems within UP, the respondents can not only directly benefit by taking part, but might psychologically feel rewarded, by doing something of “value”.

The problem with a low response rate is that the people who sent back their questionnaires may not be representative of the population from which the sample was originally chosen. This might distort the real picture and can lead to wrong predictions and diversions.

From the 600 questionnaires sent out, a total of 215 questionnaires were received back within the target time period, which realises in a response rate of 35,83%. All these questionnaires, once received, were checked for completeness and accuracy. In cases where some parts were not completed in total those parts of the questionnaires were discarded. In cases of a less than 70% completeness, the questionnaire in question was discarded. From the 215 questionnaires received back, only 174 questionnaires were analysed, which amounts to a 29% response rate.

Because the anonymity of all respondents were promised, no direct follow-up queries were possible. In an attempt to get a better response rate a general electronic mail appeal was made campuswide, after the expiring date for completion of the questionnaires. The reaction on this appeal was not very positive and only a few unopened questionnaires were received thereafter.

4.8 DATA-ANALYSIS

The data analysis for this study was done with the help and in co-operation with the Department of Information Technology (Statistical Support Services) of UP.

To enable the researcher to use statistical analysis of the data at hand, the probability theory was used as basis. The probability theory is based on the principal of random selection; thus meaning that every element of a population has an equal chance of being included in the sample. With random samples the researcher can use inferential statistics (versus descriptive statistics) to generalise findings to the population from which the sample was taken. Thus, determining the grade to which the findings can be generalised (Babe 1992: 206).

According to Mouton (1996: 161) analysing data usually involves two steps, namely to (a) reduce manageable proportions from the wealth of data that one has collected or has available; and (b) identify patterns and themes in the data. These issues are discussed, along with the distinction between quantitative and qualitative data analysis.

In quantitative approaches to empirical research, "analysis" refers to the stage in the research process where the researcher, through the application of various statistical and mathematical techniques, focuses separately on specific variables in the data set.

The questionnaire data were analysed by using the following statistical methods:

4.8.1 Frequency tables

Frequency tables were done on all the questions. General frequency tables are simple devices for arraying data. They are used to better describe and clarify findings, thus make it more comprehensive.

4.8.2 Factor analysis

Factor analysis was done in Section C of the questionnaire to identify the primary factors influencing media choice.

Factor analysis is a generic name for a group of multivariate statistical methods whose primary purpose is to define the underlying structure of a set of variables and to reduce a set of variables, measures or items to a small set of common factors. Variables that highly correlate with each other, as identified from the correlation matrix, are grouped together under a single factor. Each distinct grouping of highly correlated original variables represents a separate factor (Cooper et al. 1998:577; Hair et al. 1998: 90)

The main application of factor analysis is firstly to reduce the number of variables and secondly to detect structure in the relationships between variables, that is to classify variables. Therefore, factor analysis is applied as a data reduction or structure detection method. The identification of factors is performed by a method called *principal component analysis*. This method transforms a set of variables into a new set of composite variables that are not correlated with each other. These linear combinations of variables, called factors, account for the variance in the data as a whole (Cooper et al. 1998: 577).

The question on how many factors to retain is an arbitrary decision according to Sudman & Blair (1998: 557). Hair et al. (1998: 103 – 105) provide some basic criteria for the number of factors to extract:

The most commonly used technique is the latent root criterion where only the factors having latent roots or eigenvalues greater than 1 are considered significant, and should be retained.

Once all the variables have been identified, the variables that do not load to any factor should be identified. The communalities for each variable are provided, representing the amount of variance accounted for by the factor solution for each variable. The researcher should view each variable's communality to assess whether it meets acceptable levels of explanation. If there are variables that do not load on any factor or whose communalities are deemed too low, two options are available: (1) interpret the solution as it is and simply ignore those variables, or (2) evaluate each of those variables for possible deletion. Deletion should depend on the variable's overall contribution to the research. If the variable is of minor importance to the study's objective or has an unacceptable communality value, it may be eliminated.

Eigenvalues, which equals the sum of the squared loadings for the variables on that factor, provide a measure of the percentage of variance in the contributing variables that is explained by the factor. The importance of the factor is measured by the size of the eigenvalue in relation to the total variance available for distribution. The next step is to find the factor independent of the first factor that will extract most of the remaining available variance.

Factor loadings represent the correlation between an original variable and its factors. Factor loadings greater than $\pm .30$ are considered to meet the minimal level; loadings of $\pm .40$ are considered more important; and if the loadings are $\pm .50$ or greater, they are considered practically significant. Because factor loading

is the correlation of the variable and the factor, the squared loading is the amount of the variable's total variance accounted for by the factor (Hair et al. 1998: 111). Hair et al. (1998:111) stated that the researcher should realise that extremely high loadings (.80 and above) are not typical and that the practical significance of the loadings is an important criterion, when the sample size is 100 or larger.

When a satisfactory factor solution has been derived, some meaning must be assigned to each factor, which involves substantive interpretation of the pattern of factor loadings for the variables. While all significant factor loadings are usually used in the interpretation process, it is suggested that, as a rule of thumb, variables with loadings less than .50 (Hair et al. 1998: 114) be ignored.

Factor rotation is also a process of manipulating or adjusting the factor axes to achieve a simpler and pragmatically more meaningful factor solution. The orthogonal VARIMAX Normalised rotation (axes are maintained at 90°) was performed to obtain a clear pattern of loadings, i.e. factors are clearly marked by high loadings for some variables and low loadings for others.

4.8.3 Hypothesis Testing

According to Diamantopoulos & Schlegelmilch (1997: 135) there are certain distinct steps associated with testing hypotheses:

Specify the hypotheses (null and alternative hypotheses)

The null hypothesis (H_0) should contain a statement of equality, and is always assumed to be true unless it is rejected as a result of the testing procedure. If, as a result of testing, the null hypothesis is rejected, this is interpreted as signifying support for the alternative hypothesis (H_1).

The alternative hypothesis should always include a statement of inequality.

Specification of significance level

Having formulated the null and alternative hypotheses, it is important to specify the circumstances under which the H_0 will be rejected and not rejected. Although there is no standard level of significance (α) for testing hypothesis, typical values for α are 0.10, 0.05, 0.01 and 0.001 for rejecting the null hypothesis.

Thus, when one selects the 5% significance level (i.e. $\alpha = 0.05$) to conduct a hypothesis test, one will only reject the null hypothesis when in fact it is true 5 times out of 100.

Probability value

The probability value is the basis for deciding whether or not to reject the null hypothesis. It is the probability of getting a result as extreme or more extreme than the one observed if the proposed null hypothesis is true. The probability value computed in is compared with the significance level chosen. If the probability is less than or equal to the significance level, then the null hypothesis is rejected. If the probability, however, is greater than the significance level then the null hypothesis is not rejected. When the null hypothesis is rejected, the outcome is statistically significant; when the null hypothesis is not rejected the outcome is not statistically significant.

Selection of an appropriate statistical test

A statistical test is simply a technique, which can be used to test a particular hypothesis. The type of hypothesis to be tested will require a different test each time: the population(s) from which the sample(s) are drawn will affect the choice

of test; the level of measurement of the variable(s) involved in the hypothesis under consideration is also relevant.

In the next section of this chapter the specific statistical tests used in this study are described in more detail.

4.8.3.1 Analysis of variance (ANOVA)

The ANOVA or analysis of variance enables the researcher to determine the importance of the differences between the means when several populations are concerned (Cooper et al. 1998: 492-505). ANOVA-analysis was used to determine if there exists a relationship between media choice and two of the demographic variables, namely years service and position in UP.

ANOVA breaks down or partitions total variability into component parts. Unlike the t-test, which uses sample standard deviations, ANOVA uses squared deviations of the variance so computation of distances of the individual data points from their own mean or from the grand mean can be summed.

The test statistics for ANOVA is the f-ratio. To compute the f-ratio, the sum of the squared deviations for the numerator and denominator are divided by their respective degrees of freedom. By dividing, we are computing the variance as an average or mean, thus the term mean square. The degrees of freedom for the numerator, the mean square within groups, are the total number of observations minus the number of groups ($n-k$).

If the null-hypothesis is true, there should be no difference between the populations, and the ratio should be close to 1. If the population means are not equal, the numerator should manifest this difference, and the f-ratio should be greater than 1. The f-distribution determines the size of ratio necessary to reject the null hypothesis for a particular sample size and level of significance.

4.8.3.2 Chi-square test

The chi-square test, a non-parametric test (Cooper 1998: 482; Babbie 1992:45), was done in Sections A and D of the questionnaire, with the aim to establish whether there are significant differences between media richness and the choice of medium for certain communication activities.

According to Cooper & Schindler (1998: 482) the chi-square test is probably one of the most generally used tests to establish significance between different groups or samples where nominal data is concerned. In this case the test is used to determine whether there exists a significant difference between the type of message and the richness of the medium used to communicate the message.

This test was useful because all the hypotheses for Sections A and D in this survey are formulated in terms of significant differences between media richness and media choice.

Prior to the statistical analysis, the researcher must decide on a statistical significance level (α). The level of significance refers to the chance that relations or differences, which might exist, can be described to a sampling error. A significance level of at least 0.05% is usually used, but a significance level of 0.01 (1%) is sometimes used (Cooper 1998:476).

For the purpose of this study the significance level was set at 0.05%, meaning that the hypotheses can be accepted when the p-value is smaller than 0.05. In such a case where the p-value is smaller or equal to 0.05, there exists a 5% or less chance that the difference between the samples can be blamed on a sample mistake or coincidence.

In other words, for the researcher to decide whether to reject or not reject the null Hypotheses, the p-value is compared to the significance level. If the p-value is

less than the significance level, the null hypothesis is rejected and if p is greater than or equal to the significance level, the null hypothesis is not rejected.

For the purpose of this study the significance level to reject or not reject the different hypotheses was set at 0.05.

4.9 RELIABILITY AND VALIDITY

Reliability is concerned with the consistency of measures. Reliability demands stability and the deliverance of consistency measurement over a period of time (Bless & Higson-Smith 1995: 130). According to Du Plooy (1996: 74) reliability consists of three components, namely stability, internal consistency and equivalency. When considering the development of a measurement instrument internal consistency is the most important consideration. Items in a measurement instrument can be inconsistent and may lead to unreliable measurement when they are vague, ambiguous, or irrelevant to the concept that has been measured. Respondents can contribute to unreliable measurement when they are tired, careless, experiencing emotional problems or are familiar with the measurement instrument. These factors are known as the sample-mistake (Du Plooy 1996: 72).

There exist several methods to determine the reliability of measurement. All the methods have a common goal namely to calculate the reliability-coefficient. The term coefficient refers to a correlation, which measures the amount of association of coincidence of things (Reinard 1994: 235). The reliability-coefficient changes from no reliability (0) to perfect reliability (1). According to Du Plooy (1996: 72) a reliability-coefficient of 0.9 or higher is excellent; 0.80 – 0.89 is good and 0.70 – 0.79 is reasonable.

According to Du Plooy (1996: 74) the Cronbach Alpha-coefficient is used when a measurement instrument contains items which measure the perceptions, attitudes

or opinions of respondents, as in this case. Because of the fact that respondents' perceptions, attitudes and opinions do not reflect a correct or wrong option, the Cronbach Alpha reliability verify the consistency with which respondents react on items.

Validity of measurement, or more specifically, construct validity, confronts the question whether the specific theoretical construct as studied, is really measured by the instrument (Best 1981: 153). According to Anastasi (1988: 139) the "validity of a test concerns what the test measures and how well it does so". The measurement instrument must be capable to differentiate the construct that is being studied, from all similar constructs (Leedy 1997:34). A good indication of validity is made possible by factor analysis of the measurement instrument. By making use of factor analysis it is possible to determine whether the factors or constructs as identified by the researcher according to the respondents, measure what they are supposed to measure. Construct validity determines "that the measuring instrument is actually measuring the concept in question and not some other concept" and " that the concept is being measured accurately " (Bailey 1982: 68). When claiming that a measurement instrument is valid, it is implicated that measurement is reliable because reliability is a prerequisite for validity (Babbie 1989: 43).

In determining the construct validity the measurement instrument must be in accordance with the global theoretical framework as discussed in the literature review, to ensure that measurement is logical and co-operates with other concepts in the framework (Wimmer & Dominick 1994: 59). In this study it is aimed to guarantee construct validity by using the following process:

Hypotheses based on the literature review as well as the goals of the study are formulated, variables are measured, and operationalised and the hypotheses are statistically tested.

4.10 CONCLUSION

In the previous chapters the theory and reasons for this study were explained in detail. In this chapter the methodology or research process is discussed with the aim to answer the question on why employees choose certain media above others, when they have a variety of media available; and to determine if the results of this study support the MRT and the SIT, on which this survey is based.

This study set four hypotheses and a preposition that address the research problem and objectives. A sample frame was obtained from the telephone and e-mail directory for personnel situated on the main campus of UP.

A self-administered questionnaire was distributed to the sample frame of 600 personnel (400 academic and 200 non-academic). Only 174 respondents completed and returned the questionnaires, which realises in a 29% response rate.

The data from the questionnaires were captured and analysed by using a software package from the Statistics Department at UP. The hypotheses are statistical tested by running Chi-square and ANOVA tests.

In the next chapter the results obtained by this research will be discussed.

CHAPTER 5

THE EMPIRICAL STUDY – RESULTS AND FINDINGS

5.1 INTRODUCTION

In the previous chapter the context in which the empirical research was conducted was discussed in detail, with special emphasis on sampling, research design, the response rate and how the data were collected, processed and analysed.

This chapter presents and analyses the results of the empirical study. The results and findings of this study are addressed according to the data gathered for each section in the questionnaire to make it more legible. The results of the statistical tests are presented and analysed with the primary objective to achieve the set research objectives and to test the research hypotheses as stated in chapter 4 of this study.

As introduction to this chapter the objectives of the study are mentioned briefly, after which the results are discussed according to the specific subjects (sections) as covered in the questionnaire, to make it more comprehensive.

5.2 RESEARCH OBJECTIVES OF THIS STUDY

This study was conducted on internal communication media utilised within UP to establish the following objectives:

The primary research objectives are:

- To determine whether (a) message equivocality and (b) message uncertainty influence media selection.
- To determine the influence of (a) situational factors and (b) symbolic meaning on media selection.
- To determine if the variables, communicator, recipient and organisational culture have an influence on media selection.
- To determine if demographic variables such as years service in UP have an influence on media selection.
- To determine whether employees in UP show a tendency to use computer-mediated communication media, as much as or more than conventional media, regardless of message contents, when communicating.

5.3 SUMMARY OF STATISTICS AND GENERAL FINDINGS

The sample for this study was obtained by selecting a stratified random sample of 600 employees from the UP telephone/e-mail directory. From the original 600 questionnaires sent out to academic and non-academic personnel at UP, a total of 174 questionnaires were received back. This represents a response rate of 29%.

The findings are described according to the statistical data as gathered from the different sections in the questionnaire. The reader can refer back to the questionnaire in Addendum 8.1.

5.3.1 Results of questionnaire data - Section A

Demographic profile of respondents

The demographic variables of the respondents who took part in this survey are provided in section A of the questionnaire. These five questions concerning demographic information on the respondents were asked to provide a background against which the objectives of this study could be tested.

The frequencies and percentages for each question are indicated in Table 5.1 of this study.

It is important to note that these data were only captured from respondents situated at the main campus of UP, thus the low response rates for some of the faculties such as Veterinary Sciences and Dentistry. This information is provided only as background and it should be noted that the aim of this study was in no way to compare the academic and non-academic personnel with each other.

Results of the demographic variables

The demographic variable (1) **position** within UP was divided into two categories, namely academic personnel and non-academic or support personnel. Of the respondents (N = 174) who completed and returned the questionnaire, 78 (44.8%) academics and 91(52.3%) non-academics responded. Only 2.9% did not complete this question.

On the other hand, when the same respondents were asked to complete the question on which (2) **faculty (academic)** or (3) **non-academic service** they work in, a total of 49% academics and 47% of the non-academic personnel chose not to complete the question.

The demographic variable, (4) **number of years in service** of UP indicates that 64, almost 38% of the respondents have worked for the university for between 1 to 5 years. A number of 33 (19,53%) have worked between 6 to 10 years, followed by 31 (18.34%) in the 11 to 15 years category and 31 (18.34%) in the 16 years and longer range. Less than one year amounts to 10 (5.92%) of the total respondents (N = 169).

From the 174 respondents who returned their questionnaires, only 5 (2.87%) did not complete this section, thus only 169 responses were calculated.

With regard to the question on (5) **gender**, 47.7% females and 43.1% males responded, while 9.2% did not complete this question.

Although, all the demographic data are summarised in Table 5.1, only one of the demographic variables is statistically analysed in this study, namely the number of years service in UP. The effect of this variable on media choice is statistically analysed in section C of this chapter.

See the ANOVA test, table 5.9. for the results.

Table 5.1: Demographic profile of respondents

	Missing	N=174	% of N
Position	5		2.9
Academic		78	44.8
Non-academic		91	52.3
Faculty	86		49.00
Humanities & Education		27	15.52
Theology		4	2.3
Medicine		3	1.72
Natural, Agricultural & Information Sciences		23	13.22
Economic & Management Sciences		15	8.62
Veterinary Sciences		0	0
Law		2	1.6
Dentistry		1	0.57
Engineering and the Built Environment		12	6.88
Other		1	0.57
		(88)	
Non-academic	82		47.10
Academic Administration		11	6.32
Academic Information Service		11	6.32
Marketing Services		11	6.32
Facilities and Services		12	6.9
Finance		9	5.2
Information Technology		4	2.3
Research Support		4	2.3
Personnel		9	5.17
Risk Management		3	1.72
Telematic Education		2	1.15
Other		16	9.2
		(92)	
Number of years service	5		2.87
Less than 1 year		10	5.92
1 – 5 years		64	37.87
6 – 10 years		33	19.53
11 – 15 years		31	18.34
16 years and more		31	18.34
		(169)	
Gender	16		9.2
Male		75	43.10
Female		83	47.7
		(158)	

5.3.2 Results of questionnaire data - Section B

The aim of the questions in section B of the questionnaire is to determine whether there is a significant dependence between message equivocality, message uncertainty and media richness as predicted by the Media Richness Theory (MRT) and the Symbolic Interactionism Theory (SIT). These theories suggest that for effective communication to occur, the richness of the medium should match the level of equivocality of the message. For example, when the communication concerns well-defined issues and information, equivocality is low. Thus, precise written and quantified data can be communicated through media low on the richness continuum. On the other hand, highly equivocal messages demand rich media to facilitate mutual understanding. The literature predicts that communication will be more effective when the medium matches the content of the message (Daft et al. 1986; 1987; Trevino et al. 1987; 1990).

To determine whether there exists dependence between media richness and message equivocality and uncertainty, the questionnaire was developed by reviewing existing literature. Several messages were then collected from this existing literature based on the high and low equivocal nature of their contents. It was not necessary for the researcher to pre-test the equivocality of the messages because of the latter reason. These messages were adjusted to the UP environment before they were adapted in the questionnaire. The respondents had to indicate which medium they prefer for the different types of messages, without them knowing the equivocal nature of each message.

For analysis purposes, the eight media used in the questionnaire were grouped into five categories along the continuum of "information richness". (1) Direct verbal media, such as one-on-one and *meetings*, (2) indirect verbal media, such as *telephone conversations*, (3) computer-mediated communication media, such

as *electronic mail and the electronic bulletin*, (4) written addressed media, such as *memoranda/ short letters* and (5) unaddressed written media, such as the *Tukkievaria* and *From the Office of the Principal* (Daft & Lengel 1984; 1986).

The MRT and the SIT predict that there is a significant dependence between the type of messages and media choice when communicating. To test this prediction the Chi-square test (Cooper & Schindler 1998:482) was performed.

Hypothesis regarding message equivocality and media choice

- H0:** There is no significant dependence between (a) message equivocality;
(b) message uncertainty and media choice.
- H1:** There is a significant dependence between (a) message equivocality;
(b) message uncertainty and media choice.

The data pertaining to this hypothesis are shown in Table 5.2

Table 5.2 Chi-square test: testing of hypothesis 1 (a) and 1 (b)

Statistical method	DF	Value	Probability
Chi-square	76	1434.261	0.001
Phi-coefficient		0.646	

Finding:

As mentioned in Chapter 4 the significance level for this study is 0.05%, meaning that the hypothesis can be accepted when the p-value is smaller or equal to 0.05. Since the p-value in this test results to $p \leq 0.001$ we reject H0. The Chi-square test ($p \leq .001$) between equivocality and uncertainty of messages and media selection indicates support for H1.

The acceptance of H1 indicates support for the predictions made by the MRT.

The results are tabulated and the responses are indicated in terms of frequency and percentage for each statement/ message.

See Table 5.3 for the results obtained for all messages in section B of the questionnaire.

Table 5.3 Message equivocality and media richness

TYPES OF MESSAGES	TYPE OF MEDIUM IN TERMS OF RICHNESS					TOTAL N=174
	High	Message Equivocality			Low	
	1	2	3	4	5	
	One-on-one & meeting	Tele-phone	Cmcm (e-mail & e-bulletin)	Memo/ short letter	Tukkievaria From office of principal	
1.Routine info (announcements of meetings)	6 3.47%	5 2.89%	141 81.50%	14 8.09%	7 4.05%	173
2. Information on sensitive issues such as Affirmative Action	36 20.8%	1 0.58%	53 30.64%	29 16.76%	54 31.21%	173
3.Information containing figures	10 5.81%	0 0.00%	76 44.19%	73 42.44%	13 7.56%	172
4. Changes in corporate strategy; agreements with other universities	13 7.60%	0 0.00%	77 45.03%	16 9.36%	65 38.01%	171
5.Clarification on where your depart. will fit into the bigger organisation in future	83 48.54%	0 0.00%	37 21.64%	23 13.45%	28 16.37%	171
6.Explanation of your department's goals e.g. research output/ production targets	93 54.39%	0 0.00%	50 29.24%	18 10.53%	10 5.85%	171
7.Information to improve employee morale	71 41.52%	0 0.00%	41 23.98%	18 10.53%	41 23.98%	171
8.Graphs on the hierarchical structure of UP	14 8.24%	0 0.00%	55 32.35%	39 22.94%	62 36.47%	170
9.Guidelines on how to streamline job processes	52 30.23%	0 0.00%	75 43.60%	38 22.09%	7 4.07%	172
10.Feedback on a routine request	31 18.2%	15 8.72%	102 59.30%	22 12.79%	2 0.06%	172

TYPES OF MESSAGES	One-on-one & meeting	Tele-phone	Cmcm (e-mail & e-bulletin)	Memo/ short letter	Tukkievaria From office of principal	TOTAL
11.Information on your job description	86 49.71%	1 0.58%	31 17.92%	51 29.48%	4 2.31%	173
12.Criticism on procedures that went wrong	109 63.01%	1 0.58%	35 20.23%	25 14.45%	3 1.73%	173
13.Information on new courses	22 12.72%	0 0.00%	112 64.74%	21 12.14%	18 10.40%	173
14.Explanations about changes regarding compensation scales	44 25.58%	0 0.00%	48 27.91%	46 26.74%	34 19.77%	172
15.Information on trends in the educational environment, e.g. strategic alliances	17 9.94%	0 0.00%	80 46.78%	17 9.94%	57 33.33%	171
16.A lengthy report on research findings	26 15.29%	0 0.00%	80 47.06%	46 27.06%	18 10.59%	170
17.A large volume of info on new procedures for your department	60 35.09%	0 0.00%	73 42.69%	36 21.05%	2 1.17%	171
18.A lengthy list of telephone numbers of staff members of UP	6 3.51%	2 1.17%	97 56.73%	64 37.43%	2 1.17%	171
19.Policy guidelines	18 10.47%	0 0.00%	65 37.79%	29 16.86%	60 34.88%	172
20.Info of technical nature e.g. how to operate a new communication medium	31 18.02%	1 0.58%	96 55.81%	38 22.09%	6 3.49%	172
TOTAL: COLUMN %	24.11%	0.76%	41.47%	19.31%	14.36%	100%

Cmcm = computer-mediated communication media

Responses according to the frequency table

The results in Table 5.3 support the MRT and SIT in so far that employees choose media according to the equivocality of the message contents.

Questionnaire items: 5, 6, 7, 11 and 12.

From the total number of messages, 24.11% of the respondents prefer rich media such as one-on-one and meetings for messages high in equivocality. From these almost 49% of the respondents choose a rich medium for messages concerning clarification on where the respondent's department will fit into the bigger organisation, for messages regarding explanations on the respondent's department goals such as production targets (54%) and for messages concerning information on job descriptions (almost 50%). Where improvement of employee morale are concerned, almost 42% of the respondents indicate rich media. More than 63% choose rich media where criticism on procedures that went wrong is concerned.

It is noticeable that for these messages, which concern the employee personally, one-on-one and meetings are chosen without a doubt as the most suitable choice of medium to communicate these matters. These results indicate support for the MRT.

Questionnaire items: 1, 9, 10, 13, and 15.

From the total number of messages, almost 42% of the respondents prefer computer-mediated communication media for communication of messages low in equivocality, such as routine messages (82%), feedback on routine matters (59.30%), new courses (64.74%), guidelines on how to streamline job processes (43.60%) and to be informed on trends in the educational environment (46.78%).

These messages are low in equivocality, and imply straightforward, informative data and can therefore be communicated through less rich media, such as computer-mediated communication media. These results are in support of the MRT.

Questionnaire items: 16,17,18, 20.

Respondents indicate computer-mediated communication media as their choice of media for items where uncertainty are applicable, such as lengthy reports (47.06%), large volumes of information (42.69%), long lists of numbers (56.73%), or when information of a technical nature (55.47%) are to be communicated.

These results support the MRT, that messages high in uncertainty can be successfully communicated through a written medium.

Questionnaire items: 3, 8.

For messages containing figures/numerical data, 44.19% of the respondents choose computer-mediated communication media, while 42.44% choose memoranda/short letters as the preferred medium to communicate these messages. Where graphs are concerned, the respondents respectively choose unaddressed formal written media (36.47%), computer-mediated communication media (32.35%) and addressed written media (22.94%). These results are in agreement with the MRT, which predicts that data containing figures and numbers best be communicated by a lean medium such as written media.

For the purpose of this study the *Tukkievaria* and *From the Office of the Principal* are used as formal written media, while computer-mediated communication media include e-mail, campus wide e-mail, and the e-bulletin. The information distributed by the campuswide e-mail and the e-bulletin are available on the intranet.

The following messages, items 2,4,15 and 19 show preference for both computer-mediated communication media and formal unaddressed media, and will be discussed accordingly.

Questionnaire items: 2, 4, 15, 19

Item 2 concerns information on sensitive issues, with Affirmative Action as example. It was expected that a rich medium would be used because of the equivocality of such messages. The data however show that 31.21% prefer written unaddressed, thus formal media as their choice, followed by 30.64% for computer-mediated communication media.

The preference for the formal written media and computer-mediated communication media may indicate that UP employees prefer to receive matters, even if they are sensitive, through official and reliable means, when extra-personal in nature. As mentioned the e-bulletin and campuswide e-mail are placed on the intranet, which make them official and reliable. The results might be an indication of the role organisational culture plays in UP.

The relatively high preference for computer-mediated communication media where more sensitive issues are concerned is supported by Markus (1994) who found that even lean media such as computer-mediated communication media can be successfully used for complex communications and that richer media (such as face-to-face meetings) are not necessarily preferable or more effective than computer-mediated communication media.

Computer-mediated communication media are indicated by 45.03% of the respondents as the choice of medium for information on changes in corporate strategy, followed by 38.01% who choose the *Tukkievaria* and *From the Office of the Principal* as their choice of medium. The reason for these results may indicate uncertainty on how these changes will influence the respondent's situation in future and therefore imply that they need written, reliable information when information such as these matters are communicated.

For information on policy guidelines, almost 38% indicate computer-mediated communication media, while 34.88% of the respondents indicate unaddressed formal media as their choice of medium. Where trends in the education environment are concerned almost 47% of the respondents indicate computer-mediated communication media, followed by 33.33% for the *Tukkievaria* and *From the Office of the Principal*.

These results are in accordance with the MRT, which states that these issues are high in uncertainty, and therefore best communicated through lean media, such as written media, which contains factual and objective information.

It is noticeable that for messages aimed to explain changes regarding compensation scales within UP, the results indicate computer-mediated communication media (27.91%), memoranda/ short letters (26.74%) and one-on-one and meetings (25.58%) respectively as the choices of media when such matters are communicated.

The average for these messages is 26.74%, which may indicate that if the message is conveyed by any one of these media, the response will be favourable, but this might also indicate that a combination of media is necessary to accommodate everybody and thus make certain that mutual understanding exists with regard to the message. As in the previous messages computer-mediated communication media and formal unaddressed media come out on top, but here a rich medium such as one-on-one is almost as important to the respondents.

The telephone is preferred by 8.72% employees for routine feedback and 2.89% employees for the announcement of meetings. The telephone is indicated by the MRT as a richer medium than computer-mediated communication media, written addressed and written unaddressed media. This claim can not be supported by the results in this section, except that it reflects as a fit medium to communicate routine matters.

5.3.3 Results of questionnaire data - Section C

For this section the following proposition was stated:

Proposition 1:

For respondents in UP there is a significant dependence between the communicator, recipient and organisational culture variables, and media choice.

A factor analysis was performed on all the variables in section C to determine the underlying structure of the data in section C of the questionnaire, and to establish whether the communicator, recipient and organisational culture have an influence on media choice.

To establish the number of factors to be extracted the latent root criteria were used as guideline. Only factors with latent roots or eigenvalues greater than one are considered significant; all factors with latent roots or eigenvalues less than one are considered insignificant and are discarded. In viewing the eigenvalues for the factors in this study, four factors came out.

One of the factors was later discarded when it was determined that although the eigenvalue of factor four was above 1, the loadings were lower than 0.5%. For the purpose of this study only loadings equal to or greater than 0.5 were used as of significance (Hair et al. 1998:111). The three factors retained represent 40% of the variance of the original variables.

Table 5. 4 Results for the extraction of factors

Factor	Eigenvalue	% of Variance	Cumulative % of Variance
1	4.18939	3.4255	0.2284
2	1.88511	1.5015	0.3285
3	1.58576	1.1340	0.4041

An oblique rotation (direct oblimin) was then performed to obtain a clear pattern of loadings - that is factors clearly marked by high loadings for some variables and low loadings for others. An item was included in a factor if its loading was greater than .50 on the primary factor. Loadings less than 0.2500 have been replaced by zero. See Table 5.5 for results on factor loadings.

Table 5.5 Factor loadings

Item	Factor 1 Organisational culture	Factor 2 Communicator	Factor 3 Recipient
C20	0.769	0.000	0.000
C22	0.654	0.000	0.000
C7	0.627	0.000	0.000
C13	0.596	0.000	0.000
C15	0.564	0.000	0.000
C17	0.000	0.935	0.000
C18	0.000	0.567	-0.265
C23	0.000	0.534	0.000
C8	0.000	0.000	0.760
C4	0.000	0.000	0.588
C9	0.000	0.000	0.535

Cronbach alpha for all variables = 0.8042

According to the literature it was expected that message content would be a significant factor in media choice. Although the eigenvalues on that factor are above 1, the loadings are lower than 0.5%. For the purpose of this study only loadings equal to or greater than 0.5 are used as of significance (Hair et al. 1998: 111).

Tables 5.6 to table 5.8 provide the results for each individual factor and its factor loadings, as identified from the factor analysis.

Factor 1: **Organisational culture**

Table 5.6 Factor 1: Organisational culture

Items	Statements	Factor loadings
C20	It is the expected method within UP	0.769
C22	It is the traditional method within UP	0.654
C7	It is part of the organisational/ university culture to use the method	0.627
C13	The position/ status of the receiver, e.g. Dean of the Faculty	0.596
C15	Significance of my relationship with the receiver	0.564

Statements C13 and C15 were expected, according to the literature, to reflect on how important the recipient is, when a communicator has to choose a medium to communicate a message. Against the expectations (of the researcher) the two variables came out as underlying variables of organisational culture and not of the recipient.

This outcome can possibly be explained by Trevino et al.'s (1987; 1990) statement that both communicators and recipients would develop a common understanding about which communication medium to use for sending messages to others in the organisation. According to these authors people are influenced

significantly by the specific organisational culture in which they operate over time. At organisational level, longer tenure in the organisation allows employees to learn the system of meaning unique to that organisation. A new employee or outsider may not understand the significance of a seemingly casual social issued face-to-face from superior implications clearly discernible to long-term employees. Longer membership in the organisation will be associated with greater understanding of the shared expectations regarding media selection and frequent previous requirements to handle both simple and complex communications (Russ et al. 1990: 157).

Factor 2: Communicator

Table 5.7 Factor 2: Communicator

Item	Statements	Factor Loadings
C17	It is easy for me to use	0.935
C18	I feel in control	0.567
C23	I am skilled in using it (the method)	0.534

Factor 3: Recipient

Table 5.8 Factor 3: Recipient

Item	Statements	Factor loadings
C8	It is appropriate to the receiver, e.g. considering time pressure	0.760
C4	The preference of the receiver	0.588
C9	The method is accessible to the receiver	0.535

Conclusion

From the data it is clear that UP personnel recognise all three variables – communicator, recipient and organisational culture as factors influencing media choice within the university.

It seems that factor 1 (organisational culture) has a greater influence on media choice than factor 2 (communicator) and factor 3 (recipient).

Further research on the influence of organisational culture is recommended.

Analysis of variance (ANOVA)

Several ANOVA-tests were performed to statistically establish whether years service in UP have an influence on media choice.

Table 5.9 provides the results on the influence of years service in UP on organisational culture, the communicator and recipient.

Table 5.9 Summary of data for ANOVA-test

Factors	Frequencies N = 174	Mean	Median	Standard deviation
Factor 1 Organisational culture	173	15.84393	16	4.347404
Factor 2 Communicator	173	18.76879	19	3.407201
Factor 3 Recipient	173	19.73988	20	3.354357

*Hypothesis 3 **predicted** that years service within an organisation, in this case UP, would have a significant influence on the choice of media when communicating.*

Statistical analysis of hypothesis 3.

H0: There is no significant dependence between years service in UP and media selection.

H3: There is a significant dependence between years service in UP and media selection.

The results are pertained in Table 5.10

Table 5.10 Factor analysis: testing of Hypothesis 3

Factors	F - Value	Results
1.Organisational culture	0.1074	Not statistically significant $F > 0.05$
2.Communicator	0.5078	Not statistically significant $F > 0.05$
3.Recipient	0.2874	Not statistically significant $F > 0.05$

Findings:

Different ANOVA-tests were conducted to establish if there exists a significant dependence between years service in UP and media choice. According to the ANOVA-tests in Table 5.10, the demographic variable has no influence on media choice. The results produced p-values of 0.1074, 0.5078 and 0.2874 respectively at the 95% confidence level. Since $0.1074, 0.5078$ and $0.2874 > 0.05$, no significant dependence was found.

H0 is not rejected. No significant dependence exists between the number of years service and media selection.

These results are supported by the SIT, which predicts that there are no differences between longer serving employees' media preference. Employees develop a common understanding about which communication medium to use for sending messages to others in an organisation. According to this theory people are influenced significantly by the specific organisational culture in which they operate over time (Trevino et al. 1987: 1990).

5.3.4 Results of questionnaire data - Section D

In section D of the questionnaire the aim was to establish whether other variables than message equivocality determine the choice of medium. The SIT supports the MRT in terms that message equivocality plays a role in media choice but goes further by suggesting that other factors such as situational factors (time pressure and distance, symbolic intentions) are of equal importance in influencing the choice of medium (Trevino et al. 1987, 1990).

A Chi-square test was performed to test Hypothesis 2. For the purpose of this test, 31 questions concerning message equivocality, situational constraints and symbolic meaning were gathered from the literature and adjusted to fit UP context. These were tested against the media chosen for this study.

Statistical analysis of hypothesis 2

- H0:** There is no significant dependence between (a) situational constraints;
(b) symbolic meaning and media selection.
- H2:** There is a significant dependence between (a) situational constraints;
(b) symbolic meaning and media selection.

According to the literature the following are applicable: when (a) situational constraints are present employees tend to prefer lean media regardless of the contents of the message and when (b) symbolic meaning are present they prefer rich media.

Table 5.11 Chi-square test: testing of hypothesis 2

Statistic	DF	Value	Probability
Chi-square	120	5115.653	0.001
Phi-coefficient		0.977	

Findings:

As clearly indicated in table 5.11 there is a significant dependence between (a) situational contents and (b) symbolic meaning and media choice.

On grounds of the abovementioned information hypothesis 2 can be accepted on a 95% confidence level. Since the p-value in this test results to $p \leq 0.001$ we reject H_0 . The chi-square test ($p \leq .001$) on type of message, where situational constraints are present, and media selection, indicates support for H_2 .

The results are tabulated and the responses are indicated in terms of frequency and percentage for each statement. See Table 5.12 for results.

Table 5.12 Influence of situational constraints, symbolism on media choice

TYPES OF MESSAGES	One-on-one/ meeting	Tele- phone	Cmcm (e-mail/ e-bulletin)	Memo/ short letter	Tukkievaria/ FtOtP	TOTAL N=174
1.An employee is to be congratulated on a job achievement by senior management	95 54.91%	2 1.16%	20 11.56%	41 23.70%	15 8.67%	173
2.A sensitive/ delicate message is to be conveyed	136 78.61%	6 3.47%	9 5.20%	17 9.83%	5 2.89%	173
3.Discussing a complicated technical matter	149 86.13%	3 1.73%	6 3.47%	12 6.94%	3 1.73%	173
4.Employees are to be informed about a new idea or concept	79 45.66%	3 1.73%	65 37.57%	11 6.36%	15 8.67%	173
5.Keeping someone informed on work-related developments	39 22.54%	5 2.89%	97 56.07%	22 12.72%	10 5.78%	173
6.Earlier communications on a certain matter have to be followed up	23 13.29%	15 8.67%	106 61.27%	27 15.61%	2 1.16%	173
7.Responding to a straightforward telephone message	9 5.20%	124 71.68	35 20.23%	5 2.89%	0 0.00%	173
8.A response on a complicated message is needed	48 27.75%	23 13.29%	71 41.04%	31 17.92%	0 0.00%	173
9.You want to communicate something complicated to someone far away	5 2.89%	42 24.28%	105 60.69%	21 60.69%	0 0.00%	173
10.Time pressure is of concern when communicating	6 3.47%	54 31.21%	108 62.43%	4 2.31%	1 0.58%	173
11.Authority/ status is to be conveyed	70 40.70%	6 3.49%	15 8.72%	57 33.14%	24 13.95%	172
12.Urgent information is to be conveyed	16 9.25%	71 41.04%	82 47.40%	4 2.31%	0 0.00%	173
13.Information on the outcomes of a routine meeting has to be forwarded	7 4.05%	2 1.16%	136 78.61%	28 16.18%	0 0.00%	173
14.Immediate feedback or a response is needed on a specific matter	27 15.61%	75 43.35%	67 38.73%	3 1.73%	1 0.58%	173
15.A desire for teamwork or participation is to be conveyed	115 66.47%	2 1.16%	43 24.86%	9 5.20%	4 2.31%	173



TYPES OF MESSAGES	One-on-one/ meeting	Tele- phone	Cmcm (e-mail/ e-bulletin)	Memo/ short letter	Tukkievaria/ FtOtP	TOTAL N=174
16.Distance is a factor when communicating	0 0.00%	28 16.18%	139 80.35%	5 2.89%	1 0.58%	173
17.It is necessary to build trust	135 78.03%	9 5.20%	8 4.62%	11 6.36%	10 5.78%	173
18.The university wants to justify major expenses in implementing a new product	46 26.59%	0 0.00%	30 17.34%	24 13.87%	73 42.20%	173
19.Clarification on an unclear directive is needed	99 57.23%	21 12.14%	29 16.76%	17 9.83%	7 4.05%	173
20.A large number of messages have to be discussed with your group	136 78.61%	1 0.58%	33 19.08%	1 0.58%	2 1.16%	173
21.Numerical information has to be exchanged	23 13.29%	0 0.00%	95 54.91%	49 28.32%	6 3.47%	173
22.Issues, which require back and forth discussions, are to be discussed	132 76.30%	8 4.62%	31 17.92%	2 1.16%	0 0.00%	173
23.Sensitive issues requiring negotiation are communicated	145 83.82%	2 1.16%	6 3.47%	12 6.94%	8 4.62%	173
24.The exchange of objective/factual information is required	56 32.37%	1 0.58%	80 46.24%	33 19.08%	3 1.73%	173
25.Co-ordination of project activities is needed	111 64.16%	3 1.73%	53 30.64%	6 3.47%	0 0.00%	173
26.Improvement of quality of work of a group is required	144 83.24%	0 0.00%	8 4.62%	18 10.40%	3 1.73%	173
27.You want to indicate that your communication is official	15 8.67%	3 1.73%	19 10.98%	114 65.90%	22 12.72%	173
28.An employee is reprimanded about a job mistake	148 85.55%	0 0.00%	5 2.89%	19 10.98%	1 0.58%	173
29.A rapid decision is needed on a delicate matter	81 46.82%	69 39.88%	17 9.83%	5 2.89%	1 0.58%	173
30.You want to convey a "non-negotiable" decision to someone likely to dispute it	87 50.29%	4 2.31%	14 8.09%	62 35.84%	6 3.47%	173
31.You want to convey a set of semester marks to the head of the department	26 15.03%	0 0.00%	84 48.55%	61 35.26%	2 1.16%	173
TOTAL: COLUMN %	41.18%	10.85%	30.14%	13.63%	4.20%	100%

Abbreviations:

FtOtP = From the Office of the Principal

Cmcm = Computer-mediated communication media

Results according to the frequency table

The data of the frequency table are used to describe the dependence between type of message and media selection as predicted by Hypothesis 2.

The SIT predicts that when situational constraints such as time pressure and distance, or symbolic meaning are indicated, media selection will be adjusted to accommodate these variables.

Message equivocality

In section A of this study message equivocality was tested as proposed by the MRT. The MRT and the SIT both depart from the basis that message equivocality plays a major role in media choice.

In section D equivocality is tested as part of the underlying variables indicated by the SIT.

For messages high in equivocality as in questions 2 and 3, concerning sensitive/delicate messages and complicated technical matters, almost 79% and almost 87% of the respondents respectively indicate one-on-one conversations and meetings as their choice of medium. For communications aimed to clarify unclear directives, 57% of the respondents indicate a rich medium.

Almost 86% of the respondents indicate a rich medium such as one-on-one when an employee is to be reprimanded on a job mistake. Question 30 concerns the communicating of a “non-negotiable” decision to someone likely to dispute it. It is noticeable that 50% choose a rich medium, while almost 36% of the respondents indicate a written addressed medium such as a short letter as their choice. For messages where large numbers of messages have to be discussed with a group, almost 79% indicate a rich medium to solve these problems.

For messages where numerical, objective/factual and routine data are indicated, most respondents attest computer-mediated communication media as the medium of their choice (questions 6, 13, 21, 24 and 31).

Distance

To communicate messages over a distance almost 61% (question 9) and 80% (question 16) respectively indicate computer-mediated communication media as their choice of medium. In question 9, not only distance but also a further component namely complex message is included. Although computer-mediated communication media is suited to relay messages over a distance, complicated messages require a richer media than computer-mediated communication media according to the MRT. One-on-one meetings are not always possible when distance is concerned, because of time and finances. The results in this situation however, support what the SIT says, namely that the distance might change the choice of medium, irrespective of the equivocality of the message contents. Employees who are geographically distant from their communication partners show a tendency to use electronic mail, again despite message equivocality. Message content plays a less important role when employees are faced with these constraints (Steinfeld & Fulk 1986).

Time pressure and urgency

For question 10, where time pressure is concerned, 62.43% of the respondents indicate computer-mediated communication media as their choice of medium, while 31% indicate the telephone as the most appropriate medium to relay the message. With regard to question 12 where urgent information has to be conveyed, 47% and 41% of the respondents indicate computer-mediated communication media and the telephone respectively as their choices of media. For question 14, where immediate feedback or a response is needed, 43% of the respondents indicate the telephone as their first choice followed by almost 39% for computer-mediated communication media.

However, in question 29, where a rapid decision on a delicate matter is to be communicated, almost 47% respondents choose one-on-one media as their first choice and almost 40% of them choose the telephone to convey the message.

While in questions 10, 12 and 14 only time pressure and urgency were indicated, question 29 includes the fact that a delicate matter is to be communicated urgently. It is noticeable that although the message is still urgent, a medium of high richness is chosen to accommodate the delicate nature of the message.

Employees often work under time pressure; therefore, they may not always have the luxury of time to use the theoretically “best” medium. A number of studies have found that employees acting under time pressure were more likely to use the telephone and computer-mediated communication media regardless of the relative equivocality of the message.

A very interesting finding is the difference in the choice of telephone as medium in Section A and Section D. According to the MRT, the telephone is a richer medium than computer-mediated communication media but from the data in Section A the telephone is not a preferred medium even with messages high in equivocality. In Section D however, when confronted with situational constraints such as distance and time pressure, telephone tests significantly higher as a medium of choice.

From the above discussion it seems as if telephone may be perceived as a “one-on-one” communication medium under time or distance constraints. Therefore, telephone is maybe not an independent medium but a medium directly linked to one-on-one, when the latter is not possible.

Symbolic meaning

According to the SIT (explained in detail in chapter 2), anything can be considered a symbol and a carrier of meaning. Therefore, it is possible that the media choice

itself may carry symbolic cues beyond the literal message content. For example, a manager congratulating an employee on 25 years of service with an electronic message may be sending a symbolic message about lack of concern or caring. Face-to-face communication may signify the desire for teamwork or to convey goodwill and trust.

Almost 56% of employees indicate a rich medium, such as one-on-one when being congratulated by management on a job achievement, while 23.7% indicate that a written addressed medium such as a short letter is acceptable. This can be explained as follows: although the personal addressed document is less rich than face-to-face, the fact that it addresses a person by name makes it more personal and is visible proof, and therefore more acceptable.

In question 11, the message is aimed to convey authority/status. Almost 41% indicate one-on-one media as their choice of medium, while 33% indicate written addressed media, followed by almost 14% for formal unaddressed media. Trevino et al. (1987) found that managers wishing to symbolise authority over a particular matter use a formal written communication to transmit that message.

For question 15 the communicator wants to communicate a desire for teamwork, which means that a suitable medium is necessary to convey this message. Almost 67% of the respondents indicate one-on-one or meetings as the medium of their choice. More than 78% of the respondents indicate a high preference for a rich medium such as one-on-one conversation and meetings when one aims to build trust, implied in question 17. For question 26 where the need exists to improve the quality of group work, just over 83% indicate one-on-one as the preferred medium. These results are in support of Trevino et al.'s (1987) findings namely that face-to-face media are chosen to symbolise concern, caring and commitment, or to signal a desire for teamwork and group performance.

In question 18, a message in which the UP wants to justify major expenses in implementing a new product has to be conveyed, is indicated. It is noticeable that 42% indicate *From the Office of the Principal* as their choice of medium. Trevino et al. (1987) found that when it is necessary to legitimise a decision, decision makers may send out professional looking written reports, thus formal written documents, to symbolise the legitimacy and rationality of the decision.

Almost 66% of respondents indicate written addressed media as best suited when one wants to indicate that your communication is official (question 27). Trevino et al. (1987) found that written media are important to symbolise authority, make a strong impression, and be legitimate and official.

5.4 CONCLUSION

The purpose of this research was to examine organisational media selection as predicted by the media richness and symbolic interactionism perspectives. Data from 174 employees situated on the main campus of UP were used to explore questions such as (a) does message equivocality influence media choice of communication media, (b) do UP personnel use computer-mediated communication media as much as or more than other conventional communication media, regardless of the message contents, (c) do situational constraints such as distance and time pressure and symbolism influence media choice, and (d) do different positions or years service within UP have an influence on media choice when communicating.

The overall results support the proposed relationship between media richness and message equivocality, as well as the relationship between media choice to communicate messages where situational constraints are concerned as suggested by the MRT and SIT. The results further indicate that position and years service have no significant influence on media choice.

Media selection within organisations involves more than randomly picking a channel through which to transmit data. Each medium has a capacity for certain types of messages, is appropriate for situational constraints, and conveys symbolic cues. It is important that organisations should realise that effective organisational communication may mean selecting the medium that fits and hence achieves mutual understanding. As equivocality or situational constraints vary, so too should choice of communication medium.

As this study is only an exploratory study the following chapter will provide final conclusions, and recommendations for future research.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

In the previous chapter the results of the study were discussed in detail. The last and final chapter of this study presents the conclusions of the empirical as well as the literature study. The research objectives identified in chapter 1 are addressed and the findings are integrated with the literature and stated hypotheses. Recommendations for future research opportunities are made while some final comments conclude the chapter.

The introduction is followed by an overview of the findings according to the objectives as formulated in chapter 1 of this study.

6.2 OVERVIEW OF FINDINGS

Organisations today face severe competitive and economic pressures. The purpose of this research was to examine internal organisational media selection behaviour in UP according to the predictions made by the media richness and symbolic interactionism perspectives. In this time of global competitiveness and economic pressure it is more important than ever before to communicate with internal and external publics on an ongoing and regular basis.

As can be seen from figure 3.1, although employees indicate a need for face-to-face, reliable information to equip them for the everyday challenges, managers disregardingly continue to rely on printed media. The aim with this study is to provide background on the importance of choosing a medium when communicating strategic messages within the organisation. From the literature it

is clear that every medium has its own characteristics which are favourable for certain messages and not suitable for others. It is essential that communicators within organisations realise the importance of identifying the correct medium when communicating.

Data from 174 respondents were used to explore the research objectives, namely:

- (1) To determine whether message equivocality and uncertainty influence media selection;*
- (2) To determine the influence of (a) situational factors, such as time pressure, distance and (b) symbolic meaning on media selection;*
- (3) To determine if the variables, communicator, recipient and organisational culture have any influence on media selection in UP when communicating;*
- (4) To determine if demographic variables such as years service in UP have an influence on media selection and*
- (5) To determine whether employees in UP show a tendency to use computer-mediated communication media as much as or more than conventional media, regardless of the message contents, when communicating.*

First, there is support for the proposed dependency between message equivocality and media richness as indicated by the MRT. The results indicate that employees tend to select the face-to-face medium for highly equivocal communication to deal with personal and complex issues and written media for clear, objective communications, thus UP personnel do choose media according to the message content. It is however, noticeable that the MRT is not supported when the telephone (as a richer medium) is considered for messages high in equivocality. The use of the telephone as choice of medium where situational constraints are present, however, supports the SIT.

The MRT is at risk when sensitive extra-personal messages such as Affirmative Action (AA) are to be conveyed. Although the message concerns AA, it is not applicable to the employee personally and therefore might explain the selection of

leaner media. However, one can expect that where the AA message concerns the employee personally, as discussed in Chapter 5, the choice will be for a personal, rich medium. External pressure can also influence this selection.

The second major finding from this research is that computer-mediated communication media are noticeably preferred by most of the respondents, followed by telephone as their choice of medium when time pressure and distance are involved. For messages indicating symbolic meaning, rich media such as one-on-one conversations and meetings are favoured, followed by unaddressed, formal written media such as short letters. These findings confirm the findings of earlier studies that content reasons (equivocality) and situational reasons are the most significant factors that influence or affect media choice (Daft et al. 1987; Trevino et al. 1987; 1990). The results indicate support for the SIT.

The question, whether the communicator, recipient or organisational culture has an influence on media choice, indicate that UP personnel recognise the role of all three when selecting a medium to communicate messages.

Organisational culture, however, is indicated to play a more significant role when choosing a medium within UP. The questions on position of the receiver, e.g. Dean of a Faculty, and the significance of the communicator's relationship with the receiver came out as underlying elements of organisational culture and not as expected, accommodating the recipient. This implies that organisational culture dictates how communication flow functions in UP. Managers or communication practitioners should be aware of the organisational culture within their organisations when making media choices.

Organisational culture was not statistically tested and was not the aim of the research, but further research on this topic might indicate a strong organisational culture within UP which should be strengthened and used to ensure effective internal communication and to bridge diversity on all levels within the organisation.

This finding supports the research by Trevino et al. (1987; 1990) that people are influenced by specific organisational culture and that this culture dictates how people communicate or act.

The question whether years service in UP has any impact on media choice resulted in the following: No significant dependence was indicated.

Whether employees tend to use computer-mediated communication media more or as much as conventional media when communicating can be deducted from the findings in Sections B and D (Chapter 5) of this study.

From the findings it is clear that computer-mediated communication media are preferred for almost all types of messages. In section B, (Chapter 5) where the equivocal nature of messages is linked to choices of media, computer-mediated communication media are preferred by almost 42% of the respondents for the broad spectrum of messages, except where messages concern the employees personally.

It is interesting to note that computer-mediated communication media are - except for routine messages - also preferred to keep people informed, to transfer more complicated matters and even to relay messages from the office of the Principal concerning the future of UP.

Computer-mediated communication media may not be rich in the traditional sense, but the fact that they are text based may increase people's confidence that a message is relayed and interpreted correctly. Thus, computer-mediated communication media may be seen as reliable media. Computer-mediated communication media are fast; allow for immediate feedback, message storage, search and retrieval capabilities; can reach a large, geographically dispersed audience and allow interactive communication.

It appears that computer-mediated communication media are accepted as an organisational norm/ culture within UP because they are chosen for almost all the daily communication activities.

A serious warning is necessary, namely that one should realise that while computer-mediated communication media are undoubtedly tolerated for certain messages, there are other messages that can never be communicated through computer-mediated communication media. There is no electronic substitute for face-to-face when issues are non-routine.

6.3 RECOMMENDATIONS

Personnel need to know that each medium has capacity for certain types of messages, is appropriate for situational constraints, and conveys symbolic meaning. Thus, for internal communications to be effective and to guarantee mutual understanding, the media choice must “match” the message contents.

The enormous increase in global competition has changed the way most organisations conduct business today. Although we all know that face-to-face communication should be the backbone of our internal communication strategy, time demands on all employees means that employees and management need information today, not tomorrow. This is now urging many organisations to make more use of diverse internal communication media such as e-mail. E-mail is today embedded as one of the most frequently used media for internal communication, superseding one-on-one meetings with supervisors.

Organisations must realise that internal communication has to keep up with the changes taking place and that this internal communication must be aimed to keep the employees informed, motivated and content with their work environment. Internal communication must provide consistent direction, clarify and provide

rationale for existing policies, and should reinforce the beliefs and values on which the organisation is based. It should be credible, relevant and delivered in a timely way. Taking the abovementioned into account, it is necessary to recognise the value of having multiple channels.

The following guidelines emerged from the findings of this study as well as from the literature provided in Chapters 2 and 3.

- Send equivocal messages through a rich medium such as face-to-face. It is, however, important to be aware of the barriers that can impede perfect matching of media to message. Distance and time pressure are probably the most important ones.
- Send unequivocal and uncertain messages through a lean medium. Time management is important and therefore it is essential for managers and employees alike to know when face-to-face conversations are unnecessary. Lean media are perfect for conveying precise, statistical, lengthy or informative information. As mentioned in chapter 4 of this study, lean media such as computer-mediated communication media, memoranda or reports are perfectly matched for most communication messages, except where employees are personally involved or when the communicator wants to indicate symbolic meaning such as teamwork, caring or trust.
- Use the medium for its symbolic message – use rich media to extend your presence throughout the organisation

Rich media, especially face-to-face, allow executives and other communicators to have greater personal presence within the organisation. The face-to-face media, including group discussions, speeches, and videotape presentations, convey the human side of the communicator and the cues of personal interest, caring and trust that are filtered out of a written medium. An important aspect of rich media is that the communicator has a strong “*personal*

presence” in the communication through which receivers interpret sociability, sensitivity, trust, bearing, social strength, and status. Thus, richer media enable the executive’s personal bearing and style to have impact on the organisation, a particular important factor when implementing strategy.

- Use the medium for its symbolic message

Organisations have distinctive cultures that guide behaviour and create understanding among members. This understanding extends to how media are used and the meaning they convey in the particular organisation. Managers should be aware of the importance of symbols in their work. Media choice presents an opportunity to manage symbols creatively. For example, a manager who makes a special effort to meet with subordinates is sending a message about personal caring and goodwill, while the manager who creates a formal report is sending a message about the importance and legitimacy of the topic.

Media choice may also create a particular kind of corporate culture. If managers promote the frequent use of face-to-face discussions throughout the organisation, they may be contributing to the creation of an organisational culture that values informality, teamwork, participation, goodwill and caring. Alternatively, if senior management promote the use of written communications, they may create a corporate culture that is efficiency-oriented, bureaucratic, formal, and concerned with status and authority. It is important that managers are consciously aware of the profound impact these symbols can have on their day-to-day communications as well as the creation of a specific kind of organisational culture.

- Use rich media for implementing company strategy

Perhaps the greatest role for executives and people in communication jobs is the implementation of strategy. Communicators must influence the values and actions of people within the corporation. Successful communicators can use

media creatively to generate powerful images that will change behaviour. Executives who issue memos and directives have little impact on changing the commitment of employees. Rich media, properly harnessed, can wrench the organisation out of entrenched habits by melting frozen response patterns.

If at all possible, top executives should personally communicate a new strategy by visiting relevant groups and discussing a new strategy with them. In this way middle managers learn the strategy in depth and can work toward implementing it. More importantly, they also perceive the executive's intensity and commitment to the new strategy. In today's large corporations a personal visit to all employees is not always feasible, so managers should turn to the richest medium available. Video tapes and satellite hook-ups are not as rich as face-to-face, but they are richer than the written directive and have greater social presence. The ability to motivate and influence a large number of employees depends on the executive's artistry in selecting the appropriate medium for conveying information. Equally important, however, is selecting the medium to receive information.

- Be a critical receiver

Lean media can filter out information about critical issues. Top managers are responsible for interpreting the internal and external corporate environment. However, if they rely solely on written and formal sources of information, the images of corporate reality they receive are oversimplified and insulated from the realities. The use of multiple media can help. In addition to formal reports, managers should seek rich face-to-face encounters with employees. Their viewpoints will provide alternative views of corporate reality that can be combined with the more rational images generated on paper.

- Evaluate new communication technology carefully

The advances of computer-mediated communication media appeal to all modern executives who want to use the latest and most efficient ways to

communicate and process information. Computer-mediated communication media enable accumulation and transmission of voluminous objective data about corporate performance, internal activities and environmental events. These media enable managers to communicate specific messages to a large group without the delays associated with telephone tag and interoffice mail.

Despite their usefulness for some tasks, electronic media should not be seen as suited to the entire range of executive communications. The manager (communication) should evaluate these systems carefully, taking into account their capabilities and their limitations. For example, computer-mediated communication media enable the transmission of voluminous objective data about corporate performance, internal activities and environmental events. They, however, do not substitute for face-to-face media for transferring multiple cues, enabling rapid feedback and attaining social support for enacting solutions to equivocal problems.

It is recommended that employees should be sensitised to realise that media selection within their organisation involves more than casually choosing a medium through which to communicate data.

6.4 AREAS FOR FUTURE RESEARCH

It is important to understand how each communication channel has its advantages and disadvantages; how it may increase or reduce communication constraints, and how its effectiveness is contingent on a wide array of factors, including task requirements. If media choice could be conducted in other types of organisations, it might provide an important contribution to the factors influencing internal communications.

The fact that organisational culture came out stronger than the communicator or recipient where media choice is concerned could be used to the benefit of UP.

UP should strive to create or further this common culture which will help them to bridge language, gender and cultural diversity in future. People should concentrate on how things are communicated around here (UP), which would create a unifying function. Thus, future research should be conducted in UP to establish to what degree organisational culture influences or dictates messages on different job levels and within UP.

The findings also indicated that several media may be chosen for a single message, thus future research could concern the choice of multiple media for a single message.

The results of this study indicated that computer-mediated communication media were preferred for almost all types of communication, except where message contents were very personal. Future research could explore the capacity of these media to facilitate mutual understanding for different kinds of messages. In addition, other variables could be incorporated such as physical accessibility, or perceived quality and reliability of each medium. It is important to understand how each communication channel has its advantages and disadvantages, how it may increase or reduce constraints on communication, and how its effectiveness is contingent on a wide array of factors, including task requirements.

Whether all employees feel comfortable using electronic media could also be determined in future studies. Communicators must realise that even if they have access and prefer a specific medium, it is very important that the receiver of the message has access and feels comfortable using this medium.

Finally, future research will be needed to relate media choices to managerial performance and communication effectiveness.

6.5 CONCLUSION

This research has a number of implications for managers and communication practitioners alike. From the literature and findings it is clear that if internal communication is to be effective, organisations need to provide appropriate media and support effective media use. Understanding employees' media choices can provide an important knowledge base for management decisions about communication media resources and training. Managers should realise that effective internal communications are among the best tools to help them accomplish their goals, because they encourage a respectful dialogue that fosters trust, faster decision-making and improved performance.

This study emphasised the fact that there exists a significant relationship between message contents and media choice whenever and whatever messages need to be relayed. Thus, effective organisational communication may mean selecting the medium to fit message equivocality and hence achieve mutual understanding. As equivocality varies, so too should choice of medium. According to Daft et al. (1987: 364) the application of the right medium to the situation is the key to effective organisational communication.

Internal communication must be a continuous process - the responsibility must lie not only with one, but with everyone within the organisation. It should be used to reinforce the guiding principles, beliefs and values of the organisation.

It is important to bear in mind that this is only an exploratory study with the aim to investigate how personnel within UP make media choices when communicating with each other. Although the findings are only of an exploratory nature and cannot be generalised to other organisations. They do provide suggestions for understanding organisational communication behaviour.

Thus, a well-directed employee communication programme represents a fundamental management resource with a tremendous untapped potential for

helping any organisation to reach its aims. It can help to build more co-operative relationships among management, unions and employees. Likewise, it can help to improve overall employee performance, attitudes and teamwork in any type of organisation – including those in business, government and education, as well as health, church, community and other service areas.

Communication at the University of Pretoria plays an integral role in the internal positioning of the University. The research indicated that the preference for electronic communication is increasing. It is however important to determine through further research to which extent this statement is true and which messages are most suitable for this medium. It is also important to determine if this communication medium can be utilised in all the University business units and whether managers need further training in the use of electronic mail. Credible mediums, as indicated by the research, can also be utilised to a further extent without compromising their integrity. The research also indicated that personnel place great value on interpersonal communication especially where messages directly concern them. Greater emphasis must be placed on the role of managers in satisfying this communication need. Further research of the relationship between the communication message and the communication medium will streamline communication processes and increase effectivity.

With the ever-changing environment and objectives of the University of Pretoria to be internationally competitive and locally relevant, it is necessary that those in command and responsible for communicating the necessary messages to the employees take note of the importance of the medium when sending their messages. The success of communication at the University of Pretoria is dependent on the success of the whole communication process, but the importance of the choice of communication medium must never be underestimated.

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ADDENDUM 8.1

QUESTIONNAIRE IN AFRIKAANS AND ENGLISH



Navoring oor Interne Kommunikasie by die Universiteit van Pretoria

LL JORDAAN
Tel: (012) 420-2276
e-pos: edebeer@ccnet.up.ac.za



MEDIASELEKSIE:

'n INTERNE KOMMUNIKASIESTUDIE VIR UP

Geagte Kollega,

Die meegaande vraelys handel oor interne kommunikasiemedie soos tans in gebruik binne die Universiteit van Pretoria. Soos u weet, is kommunikasie krities belangrik in die doeltreffendheid en voortbestaan van enige organisasie. Toenemende ontwikkeling op die gebied van kommunikasietegnologie veroorsaak dat daar 'n wye verskeidenheid van kommunikasiemedie bestaan waaruit 'n persoon kan kies wanneer boodskappe gestuur of ontvang word. Vir die doeleindes van hierdie studie is kommunikasiemedie die verskillende metodes (een-tot-een gesprekke, e-pos, vergaderings, ensomeer) gebruik deur persone binne UP om te kommunikeer. Gesien in die lig van die belangrikheid van doeltreffende kommunikasie en die toenemende ontwikkeling van nuwe kommunikasiemedie, is dit belangrik vir UP om die korrekte medium te kies ten einde doeltreffende kommunikasie binne die instelling te waarborg.

Die doel van hierdie opname is om te bepaal hoe en waarom sekere kommunikasiemedie, te midde van 'n wye verskeidenheid, gekies word.

Verleen asseblief u hulp deur hierdie vraelys te voltooi. Aangesien die bevindings van hierdie ondersoek deur UP oorweeg sal word in hul kommunikasiebeplanning, kan u as werknemer direk voordeel trek uit u deelname aan die opname. Dit sal waardeur word indien u tyd op sy kan sit om die vraelys so volledig moontlik in te vul, aangesien u antwoorde uiters belangrik is ten einde leemtes binne die Universiteit se interne kommunikasiestelsel te identifiseer. U kan verseker wees dat u antwoorde anoniem sal bly en dat die resultate slegs gebruik sal word om tekortkominge binne die huidige kommunikasiesisteen aan te spreek.

Voltooi asseblief die vraelys teen 15 Oktober 1999 en stuur dit na kamer 2-7 Bemakingsdienste.

Kontak my, Leonore Jordaan, gerus by (012) 420-2276 of by edebeer@up.ac.za indien u enige navrae of probleme met die vraelys ondervind.

Baie dankie vir u samewerking.



Afdeling A:

Beantwoord asseblief die onderstaande vrae deur 'n X in die gepaste blokkie te maak.

1. In watter een van die volgende kategorieë hoort u huidige pos tuis?

C1 (Akademies)	1
C2 (Nie-Doserend)	2
C3	3

V3 ☐ ☐ 6

2. Indien Akademies, beantwoord asseblief hierdie vraag deur aan te dui in watter fakulteit u tans werksaam is. (Indien nie, antwoord asseblief vraag 3.)

Geesteswetenskappe & Opvoedkunde	1	Teologie (A & B)	2	Geneeskunde	3
Natuur, Landbou & Inligtingswetenskappe	4	Ekonomiese & Bestuurswetenskappe	5	Veeartsenykunde	6
Regsgeleerdheid	7	Tandheelkunde	8	Ingenieurswese & Bouwetenskappe	9
Ander	10				

V4 ☐ ☐ 7 - 8

3. Indien Nie-Doserend, in watter Afdeling werk u tans? (Indien nie, antwoord vraag 4)

Akademie Administrasie	1	Akademie Inligtingsdiens	2
Bemarkingsdienste	3	Fasiliteite en Dienste	4
Finansies	5	Inligtingstegnologie	6
Navorsingsondersteuning	7	Personeel	8
Riskobestuur	9	Telematiese Onderwys	10
Ander	11		

V5 ☐ ☐ 9- 10

4. Hoe lank is u al by die Universiteit van Pretoria werksaam?

Minder as 1 jaar	1	1 - 5 jaar	2
6 - 10 jaar	3	11 - 15 jaar	4
16 en meer jare	5		

V6 ☐ ☐ 11

5. Dui asseblief u geslag aan?

Manlik	1	Vroulik	2
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V7 ☐ ☐ 12

Afdeling B:

In hierdie afdeling wil ons bepaal: (A) op watter wyse u verkies om interne kommunikasieboodskappe te ontvang en (B) op watter wyse u tans hierdie boodskappe binne dié Universiteit ontvang. Kolom (A) dui aan watter metode u persoonlik verkies as die mees geskikte medium om kommunikasieboodskappe binne u instelling te ontvang. Dui asseblief die metode aan wat u die meeste verkies deur 'n X in die gepaste blokkie aan te bring (*slegs een keuse*).

Kolom (B) dui die metodes aan waarop u tans boodskappe binne die organisasie ontvang. In kolom B, dui asseblief die metodes aan waarop u tans die selfde boodskappe vanaf die universiteit ontvang, deur 'n X in die gepaste blokkies te maak (*meer as een keuse is moontlik*). In kolom A moet u dus fokus op die metode wat u beskou as die mees geskikte medium. In Kolom B, moet u die metodes aantoon waarop u meestal inligting ontvang oor elke item ondergenoem.

Hieronder volg 'n voorbeeld van hoe om u antwoorde in kolom A en B in te vul:

Tipes boodskappe	KOLOM A Die medium van u keuse (volgens u die mees geskikte medium vir die boodskappe)								KOLOM B Huidige metodes waarop u tans boodskappe vanaf die Universiteit ontvang							
	Een-tot-een	Telefoon	Vergaderings	Uit die Kartoor van die Rektor	E-pos	Elektroniese Bulletin	Tukkievaria	Memorandum kort brief	Een-tot-een	Telefoon	Vergaderings	Uit die Kartoor van die Rektor	E-pos	Elektroniese Bulletin	Tukkievaria	Memorandum kort brief
1. Roetine inligting bv. Aankondigings van vergaderings/gespreksforums.	1	2	3	X	5	6	7	8	1	2	X	4	5	X	7	8
2. Inligting oor 'n sensitiewe aangeleentheid soos Regstellende Aksie.	1	2	X	4	5	6	7	8	1	2	3	4	X	6	7	8



Tipes boodskappe	KOLOM A Die medium van u keuse (volgens u die mees geskikte medium vir die boodskappe)								KOLOM B Huidige metodes waarop u tans boodskappe vanaf die universiteit ontvang							
	Een-tot-een	Telefoon	Vergaderings	Uit die Kantoor van die Rektor	E-pos	Elektroniese Bulletin	Tukkievaria	Memorandum/ kort brief	Een-tot-een	Telefoon	Vergaderings	Uit die Kantoor van die Rektor	E-pos	Elektroniese Bulletin	Tukkievaria	Memorandum/ kort brief
1 Roetine inligting bv. Aankondigings van vergaderings/gespreksforums.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
2 Inligting oor 'n sensitiewe aangeleentheid soos Regstellende Aksie.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
3 Inligting wat syfers bevat.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
4 Veranderinge in korporatiewe strategie, soos ooreenkomste met ander universiteite.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
5 Verduideliking/uiteensetting oor waar u departement in die toekoms in die groter organisasie sal inpas.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
6 Verduideliking van departementele doelstellings soos navorsingsuitsette, produksieteikens.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
7 Inligting daarop gemik om werknemers se moraal te verbeter.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
8 'n Grafiese voorstelling van UP se hiërargiese struktuur.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
9 Riglyne om werksprosedure te vereenvoudig.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
10 Terugvoer op 'n roetine navraag.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
11 Inligting rakende u posbeskrywing.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
12 Kritiek op prosedure wat verkeerd geloop het.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8

Slegs vir kantoor gebruik									
KOLOM A	KOLOM B								
	1	2	3	4	5	6	7	8	6 - 14
	1	2	3	4	5	6	7	8	15 - 23
	1	2	3	4	5	6	7	8	24 - 30
	1	2	3	4	5	6	7	8	31 - 39
	1	2	3	4	5	6	7	8	40 - 48
	1	2	3	4	5	6	7	8	49 - 57
	1	2	3	4	5	6	7	8	58 - 66
	1	2	3	4	5	6	7	8	6 - 14
	1	2	3	4	5	6	7	8	15 - 23
	1	2	3	4	5	6	7	8	24 - 30
	1	2	3	4	5	6	7	8	31 - 39
	1	2	3	4	5	6	7	8	40 - 48



Tipes boodskappe	KOLOM A Die medium van u keuse (volgens u die mees geskikte medium vir die boodskappe)								KOLOM B Huidige metodes waarop u tans boodskappe vanaf die universiteit ontvang							
	Een-tot-een	Telefoon	Vergaderings	Uit die Kantoor van die Rektor	E-pos	Elektroniese Bulletin	Tukkievaria	Memorandum/ kort brief	Een-tot-een	Telefoon	Vergaderings	Uit die Kantoor van die Rektor	E-pos	Elektroniese Bulletin	Tukkievaria	Memorandum/ kort brief
13 Inligting aangaande nuwe kursusse.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
14 Verduidelikings rakende veranderinge in vergoedingskale.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
15 Inligting oor tendense in die opvoedkundige omgewing, byvoorbeeld Strategiese alliansies.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
16 'n Lywige verslag oor navorsingsdoelwitte.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
17 'n Groot volume inligting oor 'n nuwe prosedure aan u departement.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
18 'n Lang lys van telefoonnommers van UP personeellede.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
19 Beleidsriglyne.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
20 Inligting van 'n tegniese aard, byvoorbeeld Instruksies om 'n nuwe kommunikasie medium te gebruik.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8

Slegs vir kantoor gebruik									
KOLOM A	KOLOM B								
	1	2	3	4	5	6	7	8	49 - 57
	1	2	3	4	5	6	7	8	6 - 14
	1	2	3	4	5	6	7	8	15 - 23
	1	2	3	4	5	6	7	8	24 - 30
	1	2	3	4	5	6	7	8	31 - 39
	1	2	3	4	5	6	7	8	40 - 48
	1	2	3	4	5	6	7	8	49 - 57
	1	2	3	4	5	6	7	8	58 - 66

Afdeling C:

Dink aan u daaglikse kommunikasie aktiwiteite. U moet dikwels besluit of u 'n brief, e-pos, formele verslag, telefoonoproep, of memorandum gaan gebruik wanneer u inligting wil uitstuur of 'n aangeleentheid wil kommunikeer. Oorweeg asseblief elk van die ondergenoemde stellings en dui aan hoe belangrik u hierdie stellings ag in u keuse van 'n geskikte medium. Merk u keuse deur 'n X in die gepaste blokkie te maak.

	Stellings	Glad nie belangrik nie	Belangrik	Neutraal	Bale belangrik	Uiters belangrik
1	My persoonlike voorkeur.	1	2	3	4	5
2	Die algemeen gebruikte metode in UP.	1	2	3	4	5
3	Die karaktereenskappe van die boodskap, bv. Moeilikeidsgraad, duidelikheid.	1	2	3	4	5
4	Dien ontvanger se voorkeur.	1	2	3	4	5
5	Ek beskik oor die toerusting om dit te gebruik.	1	2	3	4	5
6	Ek heg waarde aan die kommunikasiebeleid binne my departement/ universiteit.	1	2	3	4	5
7	Dit is deel van die organisasie/ universiteitskultuur om die metode te gebruik.	1	2	3	4	5
8	Dit is geskik vir die ontvanger, bv. in agneming van tydsdruk.	1	2	3	4	5
9	Die ontvanger het toegang tot die metode.	1	2	3	4	5
10	Ek neem dit waar as 'n meer persoonlike medium.	1	2	3	4	5
11	Om doeltreffendheid te simboliseer soos dit UP werknemers betaan.	1	2	3	4	5
12	Die beste manier om werksverwante aangeleenthede te kommunikeer.	1	2	3	4	5
13	Die ontvanger se posisie/ status, bv. Dekaan van Fakulteit.	1	2	3	4	5
14	Ek kan 'n aantal persone op enige gegewe oomblik bereik.	1	2	3	4	5
15	Belangrikheid van my verhouding met die ontvanger.	1	2	3	4	5
16	Die ontvanger is gemaklik daarmee.	1	2	3	4	5
17	Dit is vir my maklik om te gebruik.	1	2	3	4	5
18	Ek voel in beheer.	1	2	3	4	5
19	Dit is toeganklik vir alle ander personelede.	1	2	3	4	5
20	Dit is die verwagte metode binne die UP.	1	2	3	4	5
21	Dit is die beste manier om belangrike inligting wat akkuraat oorgedra moet word te kommunikeer.	1	2	3	4	5
22	Dit is die tradisionele metode van kommunikasie binne die UP.	1	2	3	4	5
23	Ek is vertrouwd en vaardig in die gebruik daarvan.	1	2	3	4	5
24	Dit is geskik om groot volumes inligting oor te dra.	1	2	3	4	5

Slegs vlr kantoorgebruik	
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Afdeling D:

In hierdie afdeling wil ons bepaal hoe geskik spesifieke media is om bepaalde boodskappe oor te dra. Dui asseblief u keuse (slegs een) aan deur 'n X in die gepaste blokkie hieronder aan te bring.

Watter een van die volgende media is die mees geskikte medium wanneer ...

	Media Seleksie							
	Een-tot-een	Telefoon	Vergaderings	Uit die Kantoor van die Rektor	E-pos	Elektroniese Bulletin	Tuiskievaria	Memorandum/ kort brief
1 'n werknemer geluk gewens moet word deur senior bestuur met 'n werkprestasie.	1	2	3	4	5	6	7	8
2 'n sensitiewe/ delikate boodskap oorgedra moet word.	1	2	3	4	5	6	7	8
3 'n gekompliseerde, tegniese aangeleentheid bespreek moet word.	1	2	3	4	5	6	7	8
4 werknemers in kennis gestel moet word van 'n nuwe idee.	1	2	3	4	5	6	7	8
5 iemand op hoogte gehou moet word van werksverwante ontwikkelings.	1	2	3	4	5	6	7	8
6 vroeëre kommunikasie oor 'n bepaalde aangeleentheid opgevolg moet word.	1	2	3	4	5	6	7	8
7 op 'n alledaagse telefoon boodskap reageer word.	1	2	3	4	5	6	7	8
8 'n reaksie/ antwoord op 'n gekompliseerde boodskap benodig word.	1	2	3	4	5	6	7	8
9 u 'n ingewikkelde situasie aan iemand moet kommunikeer wat in afstand verwyder is.	1	2	3	4	5	6	7	8
10 tydsdrukte van belang is wanneer gekommunikeer word.	1	2	3	4	5	6	7	8
11 gesag/ status oorgedra moet word.	1	2	3	4	5	6	7	8
12 dringende inligting oorgedra moet word.	1	2	3	4	5	6	7	8
13 inligting rakende die uitkoms van 'n roetine vergadering uitgestuur moet word.	1	2	3	4	5	6	7	8
14 onmiddellike terugvoer of reaksie rakende 'n spesifieke aangeleentheid benodig word.	1	2	3	4	5	6	7	8
15 'n behoefte aan spanwerk of deelname oorgedra moet word.	1	2	3	4	5	6	7	8
16 afstand 'n faktor is.	1	2	3	4	5	6	7	8
17 dit nodig is om vertroue te bou.	1	2	3	4	5	6	7	8
18 die universiteit groot uitgawes, in die implementering van 'n nuwe produk wil regverdig.	1	2	3	4	5	6	7	8
19 verduideliking van 'n onduidelike opdrag nodig is.	1	2	3	4	5	6	7	8
20 'n groot aantal boodskappe met u werksgroep bespreek moet word.	1	2	3	4	5	6	7	8
21 numeriese inligting oorgedra moet word.	1	2	3	4	5	6	7	8

Slegs vir kantoorgebruik	
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	Media Seleksie							
	Een-tot-een	Telefoon	Vergaderings	Uit die kantoor van die Rektor	E-pos	Elektroniese Bulletin	Tukkievaria	Memorandum/ kort brief
22 aangeleenthede, wat oor en weer bespreking vereis, moet plaasvind.	1	2	3	4	5	6	7	8
23 sensitiewe aangeleenthede, wat onderhandeling vereis, gekommunikeer moet word.	1	2	3	4	5	6	7	8
24 uitruiling van objektiewe/ feitlike inligting nodig is.	1	2	3	4	5	6	7	8
25 koördinasie van projekaktiwiteite nodig is.	1	2	3	4	5	6	7	8
26 die kwaliteit van die werk van 'n groep verbeter moet word.	1	2	3	4	5	6	7	8
27 u wil aandui dat u kommunikasie amptelik is.	1	2	3	4	5	6	7	8
28 'n werknemer aangespreek moet word rakende 'n fout in die uitvoering van sy taak.	1	2	3	4	5	6	7	8
29 'n vinnige besluit oor 'n delikate aangeleentheid nodig is.	1	2	3	4	5	6	7	8
30 u 'n nie-onderhandelbare/finale besluit aan iemand oordra wat dit gaan betwis.	1	2	3	4	5	6	7	8
31 u 'n reeks semesterpunte aan die hoof van u departement moet oordra.	1	2	3	4	5	6	7	8

Slegs vir kantoorgebruik	
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DANKIE VIR U TYD EN SAMEWERKING

**Na voltooiing van u vraelys, stuur asseblief per interne pos aan Estelle de Beer,
Kamer 2-7, Bemerkingsdienste.**



Research on
Internal Communication
at the
University of Pretoria

LL JORDAAN
Tel: (012) 420-2276
e-mail: edebeer@ccnet.up.ac.za



MEDIA SELECTION:

AN INTERNAL COMMUNICATION STUDY FOR UP

Dear Colleague,

This questionnaire addresses internal communication media as utilised within the University of Pretoria. As you know, communication is crucial for the overall effectiveness and survival of any organisation. With the emergence of new communication technologies, there is an increasing number of media which a person may select when sending or receiving messages. For the purposes of this study, communication media are the different methods (one-on-one discussions, e-mail, meetings, etc.) used by people to communicate within UP. Given the importance of effective communication and the increasing development of new communication media, it is important for UP to choose the correct medium to guarantee effective and efficient communication within the institution.

The purpose of this survey is to establish how and why certain communication media are selected, amidst a wide variety of existing media.

Please assist us by completing this questionnaire. As the findings of this survey will be considered in communication planning at UP, you as an employee will directly benefit by participating in the survey. It will be appreciated if you will take the time to complete the questionnaire in detail, because your responses are extremely important to enable identification of gaps within the University's internal communication system. All your answers will be treated with the strictest confidentiality and the results will only be used to rectify shortcomings in the current communication system.

Please complete this questionnaire by 15 October 1999 and forward it to Room 2-7 Marketing Services.

If you have any queries, please do not hesitate to contact me, Leonore Jordaan, at (012) 420-2276 or at edebeer@up.ac.za.

Thank you for your co-operation.

Section A:

Please answer the questions in the appropriate space by marking an X.

1. In which of the following categories does your current position fall?

C1 (Academic)	1
C2 (Non-Lecturing)	2
C3	3

V3 ☐ ☐ 6

2. If Academic, please answer this question by indicating the faculty to which you belong? If not please answer question 3.

Humanities & Education	1	Theology (A & B)	2	Medicine	3
Natural, Agricultural & Information Sciences	4	Economic & Management Sciences	5	Veterinary Science	6
Law	7	Dentistry	8	Engineering & Building Sciences	9
Other	10				

V4 ☐ ☐ 7 - 8

3. If Non-academic, in which section do you work? If not please go to question 4.

Academic Administration	1	Academic Information Service	2
Marketing Services	3	Facilities and Services	4
Financial Department	5	Information Technology	6
Research Support	7	Personnel Department	8
Risk Management	9	Telematic Education	10
Other	11		

V5 ☐ ☐ 9- 10

4. How long have you been in the service of the University of Pretoria?

Less than 1 year	1	1 - 5 years	2
6 - 10 years	3	11 - 15 years	4
16 years and more	5		

V6 ☐ ☐ 11

5. Please indicate your gender

Male	1	Female	2
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V7 ☐ ☐ 12

Section B:

In this section we would like to determine: (A) in which way you prefer to receive internal communication messages and (B) in which way you are currently receiving these messages within the University. Column (A) concerns your media preference when receiving communication messages within your institution. Please indicate your most preferred method of communication to receive each of the following messages, by marking an X in the appropriate space (*only one choice*).

Column (B) concerns the methods by which you are currently receiving messages within your organisation. In column B, please indicate the current methods of communication by which you receive the very same messages from the university, by marking an X in the appropriate spaces (*more than one choice possible*). Therefore, in column A, focus on the method you deem to be most apt. In column B, indicate the way in which you mostly receive information for each item mentioned below.

Given below is an example of how to fill in your answers in Columns A and B:

Types of messages	COLUMN A Your most preferred method to receive messages.								COLUMN B Current methods of receiving messages from the University							
	One-on-one	Telephone	Group meetings	From the office of the Principal	E-mail	Electronic Bulletin	Tukkievaria	Memorandum short letter	One-on-one	Telephone	Group meetings	From the office of the Principal	E-mail	Electronic Bulletin	Tukkievaria	Memorandum short letter
1. Routine information, e.g. announcements of meetings/forums.	1	2	3	X	5	6	7	8	1	2	X	4	5	X	7	8
2. Information on sensitive issues such as Affirmative Action.	1	2	X	4	5	6	7	8	1	2	3	4	X	6	7	8



Types of messages	COLUMN A Your most preferred method to receive messages								COLUMN B Current methods of receiving messages from the University							
	One-on-one	Telephone	Group meetings	From the office of the Principal	E-mail	Electronic Bulletin	Tukkievaria	Memorandum/ short letter	One-on-one	Telephone	Group meetings	From the office of the Principal	E-mail	Electronic Bulletin	Tukkievaria	Memorandum/ short letter
1 Routine information e.g. announcements of meetings/ forums.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
2 Information on sensitive issues such as Affirmative Action.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
3 Information containing figures.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
4 Changes in corporate strategy, such as agreements with other universities.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
5 Clarification on where your department will fit into the bigger organisation in future.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
6 Explanation of your department's goals e.g. research outputs/ production targets.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
7 Information to improve employee morale.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
8 Graphs on the hierarchical structure of UP.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
9 Guidelines on how to streamline job processes.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
10 Feedback on a routine request.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
11 Information on your job description.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
12 Criticism on procedures that went wrong.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8

For office use only									
COLUMN A	COLUMN B								
1	2	3	4	5	6	7	8	9	6 - 14
1	2	3	4	5	6	7	8	9	15 - 23
1	2	3	4	5	6	7	8	9	24 - 30
1	2	3	4	5	6	7	8	9	31 - 39
1	2	3	4	5	6	7	8	9	40 - 48
1	2	3	4	5	6	7	8	9	49 - 57
1	2	3	4	5	6	7	8	9	58 - 66
1	2	3	4	5	6	7	8	9	6 - 14
1	2	3	4	5	6	7	8	9	15 - 23
1	2	3	4	5	6	7	8	9	24 - 30
1	2	3	4	5	6	7	8	9	31 - 39
1	2	3	4	5	6	7	8	9	40 - 48

	COLUMN A Your most preferred method to receive messages								COLUMN B Current methods of receiving messages from the University							
Types of messages	One-on-one	Telephone	Group meetings	From the office of the Principal	E-mail	Electronic Bulletin	Tukkievaria	Memorandum/short letter	One-on-one	Telephone	Group meetings	From the office of the Principal	E-mail	Electronic Bulletin	Tukkievaria	Memorandum/short letter
13 Information on new courses.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
14 Explanations about changes regarding compensation scales.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
15 Information on trends in the educational environment, such as strategic alliances.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
16 A lengthy report on research findings.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
17 A large volume of information on a new procedure for your department.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
18 A lengthy list of telephone numbers of staff members of the UP.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
19 Policy guidelines.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
20 Information of a technical nature e.g. how to operate a new communication medium.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8

For office use only									
COLUMN A	COLUMN B								
	1	2	3	4	5	6	7	8	49 - 57
	1	2	3	4	5	6	7	8	6 - 14
	1	2	3	4	5	6	7	8	15 - 23
	1	2	3	4	5	6	7	8	24 - 30
	1	2	3	4	5	6	7	8	31 - 39
	1	2	3	4	5	6	7	8	40 - 48
	1	2	3	4	5	6	7	8	49 - 57
	1	2	3	4	5	6	7	8	58 - 66

Section C:

Think about your everyday communication activities. You often have to decide whether to use a letter, e-mail, formal report, telephone conversation, or memo when you want to forward information or want to communicate about an issue. Please consider each of the factors below and indicate how important you regard these factors, in your choice of an appropriate medium. Indicate your choice by marking an X in the appropriate space.

	Factors	Not Important at all	Important	Neutral	Very Important	Extremely Important
1	My personal preference.	1	2	3	4	5
2	The generally used method in the UP.	1	2	3	4	5
3	The characteristics of the message, e.g., complexity.	1	2	3	4	5
4	The preference of the receiver.	1	2	3	4	5
5	I have the necessary equipment to use it.	1	2	3	4	5
6	I value the communication policy within my department/ university.	1	2	3	4	5
7	It is part of the organisational/ university culture to use the method.	1	2	3	4	5
8	It is appropriate to the receiver, e.g. considering time pressure.	1	2	3	4	5
9	The method is accessible to the receiver.	1	2	3	4	5
10	I perceive it as a more personal medium.	1	2	3	4	5
11	To symbolise effectiveness as it benefits UP employees.	1	2	3	4	5
12	It is the best way to communicate work-related issues.	1	2	3	4	5
13	The position/status of the receiver, e.g. Dean of Faculty.	1	2	3	4	5
14	I can reach a number of people at any given time.	1	2	3	4	5
15	Significance of my relationship with the receiver.	1	2	3	4	5
16	The receiver is comfortable with it.	1	2	3	4	5
17	It is easy for me to use.	1	2	3	4	5
18	I feel in control.	1	2	3	4	5
19	It is accessible to all staff members.	1	2	3	4	5
20	It is the expected method within UP.	1	2	3	4	5
21	It is the best way to communicate important information that needs to be conveyed accurately.	1	2	3	4	5
22	It is the traditional method within UP.	1	2	3	4	5
23	I am skilled in using it.	1	2	3	4	5
24	It is appropriate for sending large volumes of information.	1	2	3	4	5

For office use only	
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Section D:

In this section we would like to determine the appropriateness of specific media to convey certain messages. Indicate your choice (only one) by marking an X in the appropriate space below.

Which one of the following media is most appropriate when ...

	Media Selection								For office use only
	One-on-one	Telephone	Group meeting	From the Office of the Principal	E-mail	Electronic Bulletin	Tukkievaria	Memorandum/short letter	
1 an employee is to be congratulated on a job achievement by senior management.	1	2	3	4	5	6	7	8	30
2 a sensitive / delicate message is to be conveyed.	1	2	3	4	5	6	7	8	31
3 discussing a complicated technical matter.	1	2	3	4	5	6	7	8	32
4 the employees are to be informed about a new idea or concept.	1	2	3	4	5	6	7	8	33
5 keeping someone informed on work related developments.	1	2	3	4	5	6	7	8	34
6 earlier communications on a certain matter have to be followed up.	1	2	3	4	5	6	7	8	35
7 responding to a straightforward telephone message.	1	2	3	4	5	6	7	8	36
8 a response on a complicated message is needed.	1	2	3	4	5	6	7	8	37
9 you want to communicate something complicated to someone far away.	1	2	3	4	5	6	7	8	38
10 time pressure is of concern when communicating.	1	2	3	4	5	6	7	8	39
11 Authority/ status is to be conveyed.	1	2	3	4	5	6	7	8	40
12 urgent information is to be conveyed.	1	2	3	4	5	6	7	8	41
13 information on the outcomes of a routine meeting has to be forwarded.	1	2	3	4	5	6	7	8	42
14 immediate feedback or a response is needed on a specific matter.	1	2	3	4	5	6	7	8	43
15 a desire for teamwork or participation is to be conveyed.	1	2	3	4	5	6	7	8	44
16 distance is a factor when communicating.	1	2	3	4	5	6	7	8	45
17 it is necessary to build trust.	1	2	3	4	5	6	7	8	46
18 the university wants to justify major expenses in implementing a new product.	1	2	3	4	5	6	7	8	47
19 clarification on an unclear directive is needed.	1	2	3	4	5	6	7	8	48
20 a large number of messages have to be discussed with your work group.	1	2	3	4	5	6	7	8	49
21 numerical information has to be exchanged.	1	2	3	4	5	6	7	8	50



	Media Selection							
	One-on-one	Telephone	Group meeting	From the Office of the Principal	E-mail	Electronic Bulletin	Tukkievaria	Memorandum/ short letter
22 issues, which require back and forth discussions are to be discussed.	1	2	3	4	5	6	7	8
23 Sensitive issues requiring negotiation is communicated.	1	2	3	4	5	6	7	8
24 the exchange of objective/ factual information is required.	1	2	3	4	5	6	7	8
25 co-ordination of project activities is needed.	1	2	3	4	5	6	7	8
26 improvement of quality of work of a group is required.	1	2	3	4	5	6	7	8
27 you want to indicate that your communication is official.	1	2	3	4	5	6	7	8
28 an employee is reprimanded about a job mistake.	1	2	3	4	5	6	7	8
29 a rapid decision is needed on a delicate matter.	1	2	3	4	5	6	7	8
30 you want to convey a "non negotiable" decision to someone likely to dispute it.	1	2	3	4	5	6	7	8
31 you want to convey a set of semester marks to the head of the department.	1	2	3	4	5	6	7	8

For office use only	
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THANK YOU FOR YOUR TIME AND CO-OPERATION

**Please send the completed questionnaire to Estelle de Beer,
Room 2-7, Marketing Services**

ADDENDUM 8.2

EXAMPLE OF *TUKKIEVARIA* (PERSONNEL NEWSLETTER)

VOLUME 18
NO 3
26 FEBRUARIE 2001

VARIA

UNIVERSITY OF PRETORIA STAFF NEWSLETTER / UNIVERSITEIT VAN PRETORIA PERSONEELBLAD



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Employment Equity a priority says new Student Dean



The University of Pretoria has announced the appointment of Dr Ezekiel Moraka, previously Head: Student Support, as Student Dean with effect 1 July 2001. He replaces Prof Flip van der Watt, who retires after 12 years of dedicated service in this position.

Moraka has been student dean designate since 1 January 2001.

He made headlines last year with his appointment as the first black head of a UP residence, Boekenhout, where he did pioneering work. He will now also go down in history as the first black student dean at UP.

"My position as residence head gives me good insight and an understanding of the difficulties experienced with racial transformation and integration in the residences. Our biggest challenge remains to encourage racial harmony," says Moraka. One of the strategies implemented this year is the requirement that all house committees must have 27 percent black representation and reflect the racial composition of a residence. In addition, racial integration have been implemented in the corridors at all the residences, which means that 27 percent of students in each corridor is black. We are currently monitoring the process."

Last year he visited the student services departments of 11 universities overseas to gain insight and obtain new perspectives on dealing with diversity and how student affairs are structured.

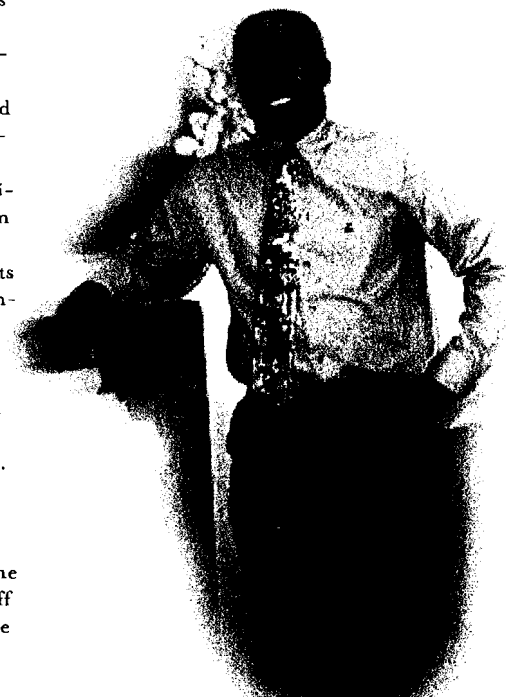
To run an efficient and effective Student Services Department, Moraka believes competent and committed staff is a prerequisite for the transformation process at the University. A staff complement that is racially representative of the

student population could also contribute towards creating an atmosphere that is conducive to learning.

"Student Affairs, like all other units within the University is also involved in the process of transformation. Employment equity is high on our list of priorities," he says.

Moraka recently completed his doctorate in education management and is regarded as an educationalist of stature. He has vast experience in the field of student affairs.

- Look out for a profile on Moraka in the next edition of Tukkies.



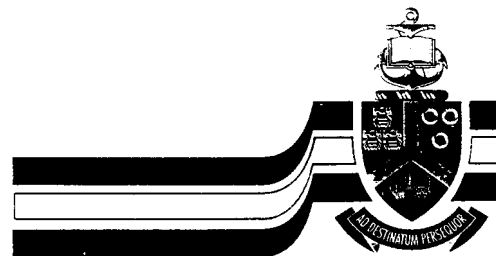
ADDENDUM 8.3

**EXAMPLE OF
*UIT DIE KANTOOR VAN DIE REKTOR/
FROM THE OFFICE OF THE PRINCIPAL***

UIT DIE
KANTOOR
VAN DIE
REKTOR



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



Universiteit van Pretoria

0002 Pretoria RSA Tel (012) 420-4111
Faks (012) 362-5168/362-5190/420-3696
[Http://www.up.ac.za](http://www.up.ac.za)

Geagte Personeellid,

GEDRAGSKODE VIR PERSONEEL: BESIGHEIDSPRAKTYKE

Na onderhandelinge met die verskillende werknemerorganisasies, is die Gedragskode vir Personeel: Besigheidspraktyke, goedgekeur. Hierdie Kode vorm nou deel van u diensvoorwaardes.

Die Gedragskode kan vanaf die intranet (<http://www.up.ac.za/intranet/principal/>) bekom word (General Information - Policies and Procedures) en kopieë daarvan is ook op aanvraag by die Departement Personeel beskikbaar.

'n Vorm (R 217/00) is ook by die Departement Personeel beskikbaar, om aan die vereistes van par 7.7 (Verklaring van Geskenke Ontvang), te voldoen.

U aandag word ook op die vereiste van par 5.7 (Verklaring van Botsende Belange) gevestig. Indien hierdie bepaling wel op u van toepassing is, moet u sodanige botsende belange skriftelik voor einde Februarie van elke jaar verklaar. (Verwys par 12.6 van die kode).

Hierdie Kode is reeds van 1 Februarie 2000 van krag.

Samewerking met die implementering van hierdie Kode word waardeur.

Vriendelike groete

J van Zyl
REKTOR

2000-01-31

ADDENDUM 8.4

EXAMPLE OF *CAMPUSWIDE ELECTRONIC NEWS*



Subject: Campuswide electronic news / Kampuswye elektroniese nuus
Date: Fri, 23 Feb 2001 14:30:50 +0200
From: Marketing Services <marketing@postino.up.ac.za>
Organization: University of Pretoria
To: Kampuswye e-pos <emaildir@kendy.up.ac.za>

Dear colleague

Read more about the following:

Senate Hall Bookings

<http://www.up.ac.za/intranet/email/230220011.html>

CAPITALISATION OF ASSETS IN EXCESS OF R1000-00

<http://www.up.ac.za/intranet/email/230220012.html>

Reminder: Africa Dialogue Lecture: Reconciliation in Post-Apartheid SA: The Home for All Campaign

<http://www.up.ac.za/intranet/email/230220013.html>

Geagte kollega

Lees meer oor die volgende:

Senaatsaal-besprekings

<http://www.up.ac.za/intranet/email/230220011.html>

KAPITALISERING VAN BATES GROTER AS R1000-00

<http://www.up.ac.za/intranet/email/230220012.html>

Herinnering: Afrka Dialooglesing: Reconciliation in Post-Apartheid SA: The Home for All Campaign

<http://www.up.ac.za/intranet/email/230220013.html>