

Preface

Over the past twenty years I have had the opportunity to teach many hundreds of people from both government and private enterprise about various aspects of business systems. Much of this has dealt with business forms both management and design but I have always emphasised the procedural and systems components.

In 1985, after many requests from business colleagues and participants in various courses, I developed the material for a course in the writing of procedure manuals. That course has now been run many times and the participants have contributed a great deal of additional information from their experience. Added to this is the information that is progressively coming from other sources.

Much has been written over the years in books and journals, but the major question that continually arises concerns the most appropriate writing system and manual structure. Some favour Leslie Matthies' *Playscript*; others prefer Robert Horn's *Information Mapping* or *Structured Writing*. Still others prefer to use individual work modules or a variety of other techniques.

In spite of all that has been said, manuals continue to be a headache for administrators. It is very rare to find manuals that are actually used, and even rarer to find ones that are up to date.

From the research and information that is currently available. I don't believe that there is any one system that is suitable for every type of procedural document. I am more inclined to the notion that a mixture of techniques is the most appropriate. In this paper I want to examine the issues that need to be considered in arriving at a suitable compromise and provide what I hope will be some workable guidelines.

Part 1 — Why have a manual?

Modern office management

It has been said that "*behind every business activity there lies a piece of paper*". Even with today's business computers, this adage is still true and the major categories of business paper are forms and written procedures.

In the 1800's a significant change took place in the business world. Many small businesses expanded with more people, multiple departments, more administration and an ever-increasing volume of paper.

As production rose and competition increased, management wanted more information, more data, and more reports. Job variety increased, clerical workers grew in numbers, jobs became more readily available, and people moved much more frequently from one position to another.

As an example of how things have changed, 1930 statistics for the United States show that for every person working in a clerical job there were thirty plant or production workers. By 1950 this had increased to the point where there was one clerk to every 2.5 plant workers. In Australia in 1981 the ratio was one clerk to every 2.05 trades/production workers.

With all this increase in work variety and the number of people moving produce procedure manuals. Management hoped that these would always enable the jobs to be done the same way no matter who was doing them.

My experience in talking to business people over many years has been that many organisations don't have manuals at all, let alone ones that are comprehensive. Of those that do, they rarely keep them up to date; and their employees pay scant attention to the content because the manuals don't state what **really** happens. Even when they are up to date, people either can't find what they are looking for, or they are just confusing.

In spite of the desire of many managers to have work documented, little is known about the vast problems of human communication. Many managers believe that their responsibility for instructing staff stops when they write up the policy and procedural instructions. If this was all that was needed—if human communication was so simple—then manuals would work. **But they don't!**

A successful procedure manual that people **really USE** in their day-to-day work is rare indeed.

The scope of business paperwork

Before we can look at the structure of manuals, we need to consider the scope of paperwork used in business administration. Such paperwork covers a vast array of subjects. The following list is not exhaustive but shows a significant sample of the range found in most businesses.

Policy—generally statements of management decisions. They may provide a broad framework for the organisation's direction or may include detailed rules or standards laid down by senior management.

Job or position specifications—descriptions of the tasks and responsibilities of each employee.

Lists of authorities—statements showing who is authorised to carry out specific tasks or to spend the organisation's money.

Organisation charts—diagrams showing the lines of authority in the organisation.

Standards—these are often confused with policy and state the organisation's rules governing such matters as service to the public, corporate image, form and document design, and product quality.

Procedures—detailed instructions showing how the work flows from one part of the organisation to another and how to carry out specific tasks.

Forms—documents for collecting, storing and providing information in a predetermined format.

Forms catalogues—lists of forms used either throughout the organisation or in specific departments or work groups. In some organisations the catalogues also contain samples of the forms and instructions on how to fill them in.

Work schedules—lists of specific work tasks to be performed within a specified time frame.

Announcements of appointments—memos or letters giving the names of people recently appointed to specific positions within the organisation.

System flow charts—diagrams showing the flow of work or paper either throughout the organisation or through the various system functions. These are often computer-oriented.

Computer operations guides—detailed procedures showing people in computer operations how to carry out the processing of each particular job.

Computer system specifications—documentation showing how the various computer systems work and usually containing detailed specifications of the programs.

Purpose Analysis—the primary step

I will be making the point throughout this paper that good manuals incorporate a variety of writing styles and structures, each designed to suit the specific task at hand. So, in considering the role of manuals and how you will produce them, you need to first ask **why** you need them—who will use them and what they will use them for. These questions are very important if you are to arrive at a sound manual structure.

They will include such matters as:

- What type of people need the contents?
- How much knowledge do users have of the technical content?
- What is the literacy capability of the users?
- If manuals are given to the workers, will they actually use them? If so, what will they use them for?
- What information or benefits do each of these people need to get from the manuals?

- How much detail is needed?
- How often will people refer to them?
- Do you need to give a separate manual to each person or will a copy for the supervisor be enough?
- If each person gets a copy, does it need to contain only the work of that person, or should it also contain details of related work activities?
- Are the manuals needed for staff training?
- Is there some legal reason for having the procedures documented?

Once you know the answers to these questions you will have a sound basis for later structural decisions such as:

- How much policy should be incorporated with the step-by-step procedures?
- Should policy be in a separate manual?
- To what extent do you need to show the inter-relationship of the various participants in the procedure?
- Do all procedures need to be documented?
- How will you index the various manuals?
- How will you go about updating them once they have been issued?

Who will use the manual?

A vital clue to establishing the need is the first question in the above list: *what type of people need the contents?* The most obvious answers will include:

Procedures or Organisation & Methods Analysts

These people have a primary interest in workflow and efficiency. Together with computer systems specialists, they are also interested in origin of data, distribution and processing of reports, and possible sources of clerical error such as unnecessary movement of people and documents, transcription of data and duplication of effort.

Departmental Managers

The needs of senior and middle management are quite different. They are rarely interested in the fine detail of the operating procedures. They may be involved in the writing of them, but after their implementation their interest is often only limited to matters of dispute. Their primary interest is usually in the *policy* aspects since the administration and implementation of policy is one of their primary responsibilities. It should be quite easy for them to refer to these matters without wading through masses of step-by-step detail.

First Line Supervisors

These are usually in the firing line. If an operative doesn't know how to do something, it is the supervisor who is supposed to know the answer—and who gets the blame if that answer isn't forthcoming. On the other hand, management expects the supervisor to see

that the operatives get the job done. The supervisor needs to have both the fine detail and the policy.

The supervisor, or someone else delegated to the job, will usually have to work with the systems or procedures analysts in the development of any new systems. With this in mind, the supervisor often needs a certain amount of computer documentation in addition to the clerical procedures.

Operatives

I am using this term to refer to those who do not have any supervisory responsibility. (I dislike the term *workers*, often used by operatives to refer to themselves, since it implies that supervisors and managers do not work. Whenever I use the term *workers*, I am referring to all people in an organisation who work, irrespective of their status.)

While they often **need** a broad understanding of management's expectations, they often don't **want** it. In any case, their primary interest is in the fine detail.

They want answers to questions such as:

How do I do my job?

What happens next?

What do I do with this piece of paper when it lands on my desk?

How do I make these calculations?

How do I evaluate this application?

What do I enter into the computer?

Do I have the authority to make a decision on this problem or should I refer it to my supervisor?

Computer Specialists

In most organisations, systems analysts have a great interest in the function of the system as a whole. In the case of computer systems, it is most likely that the analyst's primary concerns will actually be system or project oriented. So, somewhere in the documentation there will need to be a project or system description. However, this doesn't always need to be in the users' procedure manuals.

My experience is that most computer systems people are **project** oriented in their approach to their work. This is only natural, since they are working specifically on projects. Their day-to-day work planning has to be around project control schedules. It is important for future systems development on those projects that the systems concepts are thoroughly documented.

But general office workers don't necessarily think in terms of systems or projects unless the content of those systems coincides with the content of their day-to-day work. This can happen—but it is wrong to assume that it is a universal occurrence. The structure of a computer system tends to be machine-oriented and it is rare for the human component of the system to follow the same form (London, 1976).

The problem we face in writing manuals is that the information needs of those who will carry out future development on the system and computer programs is generally very different to the information needs of the day-to-day users. Clyde Jackson (1974a), speaking as a representative of the computer systems fraternity, said:

"For much too long people who do not work in the systems/data processing section have

held the computer in awe almost as a mythological being. Because they communicate with the computer through us, they have seen us almost as the high priests. And, generally we love every moment of it. Let's quit putting ourselves and them on. The computer is a machine. That's all. Granted, it is complex and sophisticated, but it is still a machine. It can only do what people tell it to."

What to you want the manual to do?

Once you have identified the types of users, you have the task of deciding what each of them needs from the manual. The following list is not exhaustive, but gives an overview of some of the more common uses of manuals.

Training

This is the first and most frequent use of many manuals, whether for training in new systems and changes, or for teaching newly appointed employees.

I have often come across managers who think that all they have to do in inducting new employees is to hand them a procedure manual and let them learn by reading and doing. While I have a strong aversion to this so-called *training* approach, I believe that there is still a need to supplement verbal instruction and on-the-job help with good manuals. While the manual should not normally be the sole source of information for the new employee, it should be written and structured in such a way that in an emergency, someone else can follow it—***and do the job properly in the process.***

For this reason it needs to provide step-by-step instructions about each task and give as much detail as is necessary to get that task done correctly. You will have to take into account the expected technical capability of the employee. For example, a procedure for a nurse in a hospital shouldn't need to go into detail about how to roll up a bandage. A procedure for a clerk shouldn't have to explain the difference between a pencil and a ball point pen. This might seem obvious, but I once came across a clerical procedure where the first step was: *1. Pick-up pen.*

The point is that in some situations, you will need to find out the technical capabilities of the workers and what they would normally be expected to know. This particularly applies to specialist trades or professional people.

In addition to the step-by-step detail, the new employee needs to understand the overall policy or philosophy of management with regard to the operations of the organisation or section. Where does the employee's work fit in to the overall structure?

On-the-job reference

Once the employee has been trained, there may be the need for occasional reference to less familiar tasks. This especially applies in administrative jobs where there are many exception routines that are needed on only rare occasions.

One example that I came across was in the oil industry where a special report had to be made out if an incident occurred involving fire or a likelihood of fire. It was a very rare occurrence and most employees would never need to use it, but ***if*** it was used, it had to be accurate and complete. This was a procedure that needed fine detail, especially as most

people who would make out such a report would not understand all the technical requirements or the ramifications of the task.

The main point about this function is the ease with which people can find the relevant information. It is very different to reading the manual from start to finish. Can the employee find the relevant section easily from the index or table of contents? Once the section is found, can the relevant paragraph or sub-section be found easily? Can the employee be sure that this is the right sub-section; that it is not just something that is similar but with subtle differences in technical detail?

Review and refreshment of memory

From time to time, employees may want to review the procedures or refresh their memories on obscure points. Will the manual aid such review?

Resource allocation

If properly structured, a manual can aid management in allocating resources. Many manuals are so poorly structured that the reader cannot even get an *indication* of the people involved, let alone a clear picture. A manager should be able to look at the manual and see quite clearly who is involved in each task or business function.

Standards

This is another special purpose of manuals. Standards are not needed by every employee, but when they are, they should be clear, and especially, easy to locate. Closely related to standards are *guidelines*. A good example of this is in the field of forms analysis. Sometimes, form design standards can be very restrictive. One Australian Government Department specified in its standards manual that captions on forms should always in be 8 point medium type and form titles in 11 point bold.

Considering that this Department had more public-use forms than any other Department, the restrictiveness of these standards would be obvious to any competent forms analyst.

Standards are hopefully introduced for sound practical reasons. They exist because someone in the organisation deems that they are necessary; perhaps for maintaining a consistent image to customers; perhaps for maintaining a high standard of service quality. No matter what the reason, if they exist, they should be written—and the manual structured—in such a way that they are both easily located and hard to overlook.

Audit and Control

This is where a well structured manual is invaluable. If it reflects not only what is done, but *how* it should be carried out, then auditors and others responsible for checking on the running efficiency of the business will be able to do so with ease. For this task, the manual should not only state the policy requirements, but provide the step-by-step detail in such a manner that an employee's work can easily be checked for compliance to standards.

Clyde Jackson (1974b) stated that manuals serve as: "*an objective basis for evaluating either an individual's or a department's performance by stating the criteria for measurement in advance of the evaluation. The evaluator and the evaluatee will both benefit by knowing the ground rules.*"

Legalities

Sometimes manuals are needed primarily for legal reasons, perhaps so that the organisation (usually a government body) can state that there is an **approved** procedure. My experience is that such **approved** procedures are so encumbered with **red tape** that they are rarely followed.

Part 2 — Why many manuals are ineffective

What is “Information”?

What is “*information*”? What is its relationship to “*information science*”? What is an “*information resource*”? Is “*information*” the same thing as “*data*”?

Many writers on the subject confuse the issue by intermingling terms, often using them as synonyms. For example, one book on Information Resources Management uses the terms *data*, *information* and *information resource* in the same sentence, with no clear indication that there is any difference in meaning. Later the terms knowledge and data resources are mingled as if data automatically becomes knowledge once it is read (Horton 1979).

I take issue with the concept that data or facts become information when placed in context or in a sentence. Certainly, data has no inherent meaning out of context; but even then it only has meaning to the person who does the placing. We'd have to be naive to assume that the intended meaning of data in context is automatically understood by the recipient of the reference material or message.

Information implies that a person has been, or is being informed or enlightened; but to be informed implies that the person did not previously have that information. It is different to telling a person something or relating facts if the person already knows the facts, then they had already been informed. To be information, the content of the message has to be useful to the recipient.

The implication is that if the proposed recipient of a message doesn't want the message, or doesn't believe that there is a need to receive the message, then it won't be considered as information quite a relevant issue when we consider how little attention is paid to instructions on how to fill in forms.

Information is very much in the eye of the beholder. For example, this paper hopefully provides information—if you understand English and the Roman alphabet. But what if it was written in Japanese? It would only provide information to a person who understands Japanese characters.

For my purposes, I will define *information* as: *Knowledge received concerning some fact or circumstance which the recipient perceives as an addition to their current store of knowledge.*

Communication — the fundamental issues

The number one problem with most procedure manuals is that the writers believe communication is a simple process.

"The belief that communication is a tool—an instrument for getting your message across—has led to false and exaggerated expectations about what communication can do.

...We cannot guarantee, predict or fully control the direction of the process or the nature of the meaning inferred." (Shulman et al 1988)

In *Learning and Visual Communication*, David Sless (1981) discusses human message problems and presents a model to help our understanding. He describes the traditional approach to communication theory (Figure 1) and why he believes that a new approach is needed (Figure 2).



Figure 1 — A traditional model of communication

In instructional communication many writers treat the communication process as the message between the sender and the receiver as shown in Figure 2. In doing so, they miss out on a fundamental principle.

They think that all they have to do is select what they consider to be familiar words, or words readily found in a dictionary, and string them together in sentences according to logical rules of grammar. They have a mistaken belief that having done this, they have fulfilled their responsibilities; that effective communication will automatically take place as long as the reader has a basic understanding of grammar and the meaning of the words.

If the receiver of the message doesn't understand it as the sender intended, then effective communication hasn't taken place. David Sless's new model helps to clarify the problem.

"...I shall adopt a completely different strategy and discuss communication in terms of two relations: the author/message relation and the audience/message relation

...I will always declare whether I am going to consider a particular message in its audience context or in its author context the message will not be treated as a distinct entity which can be analysed separately from author or audience. "

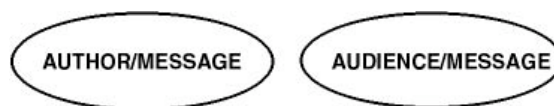


Figure 2 * A New Model of The Communication Process

What a great world we would live in if communication was as simple as many writers claim! Misunderstandings and the need to 'read between the lines' could easily become things of the past.

But in reality, life isn't so simple!

In our written procedures we have to communicate to the worker in the worker's language. The procedure has to be translated into action and if that action is wrong then there is a good chance that the procedure writer has failed to communicate effectively.

The blind faith in *Readability Formulae*

Readability is one of the most misunderstood aspects of writing. The first person to popularise the subject of readability appears to have been Rudolph Flesch with his book *The Art of Plain Talk* in 1946.

The theory is that if you apply a formula such as the *Flesch Reading Ease Scale*, the *Gunning Fog Index*, the *Lensear Write Formula*, or *Fry's Readability Graph*, you will be able to determine the readability of your writing. Such formulae are concerned primarily with the average length of sentences and the percentage of words having three or more syllables.

"...Nobody can learn to be a writer by using a mathematical formula. Indeed, I have seen many would-be writers mess themselves up by trying to apply a formula while they were actually writing. The result was horrendous. They would lose their flow of words, forget their thought patterns, and end up with nothing worth saving.

A piece of writing with a bad score is almost undoubtedly unclear, unless the writer was or is a true master of the language. On the other hand, a good score on the formula does not necessarily guarantee that writing is either good or clear. The formula cannot evaluate the content or information of a message; also, it cannot evaluate the style." (Bates 1981b)

Unfortunately, authors claim that they do work.

"...In order to ensure that your writing is at the required level, you can test and measure its readability.

...the Clear River Test uses the metaphor of a piece of writing floating down the river of comprehension. There are four docks jutting out into the river. The more complicated the writing, the further out the docks jut, thereby impeding the progress of the text on its way to comprehension. The standards to attain in order not to block-readability for this test are:

- *25 words or less per sentence*
- *12 words or less per punctuated pause*
- *75 words or less per paragraph*
- *150 syllables or less per 100 words.*

*If a piece of writing can meet all four of these standards, **there is no obstacle to reader understanding** (thus, the clear river metaphor)." (d'Agenais & Carruthers 1985 p112 - 116, EMPHASIS MINE)*

This is perhaps extreme, but my strong advice is to beware of anyone who tells you that they can determine the readability of a procedure by applying a formula. Modern research has shown that their reliability is very poor (Holland 1981). As for using them to evaluate the readability of procedure manuals and other technical writing—forget them! These indexes were never designed for such writing and they **just don't work!**

For a more exhaustive treatment of the subject the Document Design Center at the American Institutes for Research in Washington D.C. has produced an excellent paper (Redish & Selzer 1985).

The problem of word meanings

We don't enter this world with dictionaries built into our brains. Most of us learn the meanings of words through usage and this in itself leads to all sorts of complexities. Much, and perhaps most, of our learning about word meanings is based on supposition. We hear someone else such as a parent, peer or teacher use a word, and we assume its meaning from the context.

But what if the person using the word didn't make the same assumptions? What if they forgot to give us all the context? What if they falsely assumed that we already knew at least some of the context and therefore there wasn't a need to tell us everything?

If we don't know the word, we may look it up afterwards in a dictionary only to find that it has many meanings. Which of these meanings will we choose in interpreting the original statement? Do we know which meaning the originator intended? Do we even know whether or not the originator of the statement used the same dictionary—or, for that matter, used a dictionary at all? Maybe the originator didn't know the proper meanings and inadvertently used the wrong word.

A major problem with word meaning occurs where the writer aims at **correctness** and chooses the biggest and most specific words. I'm not against the use of dictionaries or even increasing our **word power**—knowing the correct words is vital to our communication—but words serve little useful purpose if they can't be understood.

Correctness should not be an end in itself. Manuals should not be written like college textbooks requiring exhaustive study. People in the work environment don't have time to study. Work place manuals should not require the reader to have an open dictionary or thesaurus on the desk.

The problem of Jargon

Jargon is a part of our everyday way of life. I don't believe it would be wrong to say that almost every work group has its own jargon. Then there is jargon which is common to all work groups within a particular organisation. But should it be used in procedure manuals?

It isn't necessarily wrong or out of place—what is most important is whether or not it will be understood. If the word is common to a particular trade and the manual is being written for people who have been trained in that trade then it would be appropriate.

On the other hand, if it is unique to an organisation and new employees wouldn't be expected to understand it, then you may have to consider using some other commonly understood term or else explaining the term elsewhere in the manual.

One of the most common faults in today's business communication is the use of computer jargon, and this is particularly prevalent in manuals written by computer systems analysts. Specialised computer terms are necessary within the industry but analysts often get so wrapped up in their little technical world that they forget that many of the people who will use their manuals are outside the computer industry—they forget that the computer world is really only a very tiny cog in the wheel of business activity.

The problem of empathy—or lack of it!

For communication to be effective, writers need empathy—the ability to place themselves in the shoes of the readers and understand how the readers will view the writing. That's no easy task!

Almost every information design project we undertake provides overwhelming evidence that unless a document is evaluated and tested with potential users before publication, there is no guarantee that it will be understood. There are too many variables.

From a procedure manual point of view it won't usually be possible to adequately test every procedure before implementation. All you can do in these circumstances is write from your own experience or the experience of others in the field, and that is essentially the purpose of this paper—to fill in many of the potential gaps in your knowledge.

Of course, even in testing you can never truly place yourself in the position of the users. The very fact that you have a prior understanding of the intended meaning, or that you think you understood management's intention, colours your thinking. The writer can never truly be in the position of the reader.

So, as writers, we need to come to terms with the **logic of our position**. As David Sless explains (Sless 1986, p 34-35):

"...Authors and readers may be confronted with the same physical object; But in communication we are not concerned primarily with physical characteristics but with problems of understanding. We cannot be certain that understanding will be shared, that reader and author will notice or pay attention to the same aspects of a text.

...If we now look at the author's position from this skeptical viewpoint we can see that any statement he makes about readers must be a construction —imagined—and any notion of the readers which he uses either implicitly or explicitly to guide the construction of his message must also be imagined.

...The author's view can never be the same as the reader's in the same way that the view of a mountain from the south can never be the same as the view of the mountain from the north.

...the separation of the author from the reader is not an unusual occurrence but the normal condition for communication. But as I have also shown....the author always creates an image of a reader; similarly the reader creates an image of the author. These are the defining characteristics of the process of communication. "

The problem of being an intermediary

The discussion on the logic of our position leads us to a very important point about our job as a manual writer. Professional procedures analysts are generally neither end-users nor originators of the source material. Not only do you have to write so that the end-users will understand your intentions, but you first have to act as a translator. Your job is to **interpret** management's requirements into a workable document. So you have to be able to put yourself into the position of both management and end-users. As with any situation involving language translation, this compounds the problem.

The problem of past experience

Not only does our understanding of specific word meanings come from our past learning, but work experiences may also play a significant part in a user's comprehension of procedures. Work practices vary from one organisation to another, from one state to another, and from one country to another. If you don't take this into account, assumptions may be made that could have devastating consequences.

Many managers write to reflect past problems with the emphasis on policy, rules, or covering up loopholes. This may have to be covered somewhere, but it is wrong to make it the primary emphasis. Intimidation is no way to get workers on side. Of course, if that is your management style, then there's nothing that I can do about it other than warn that it isn't the best way to deal with subordinates.

The problem of morality

This may sound a strange subject to include in a paper on procedure manuals, but the moral intent of management may be an important ingredient in the way some matters are expressed.

A great deal of 'communication' is manipulative—designed to deceive the readers into thinking that they understand the writer's intentions

- Is there a **hidden agenda**? Is the sponsoring manager **playing politics**, either with staff or with other managers?
- Is management **'using'** the procedures analysts to **'rubber stamp'** preconceived notions?
- Is management covering its tracks so that if something goes wrong with their intended system, the procedures analysts can take the blame?
- Does management want an **'official'** version, knowing that the end users do something different?
- Is management telling the procedure writer to lie?

Because we live in a world where communication is manipulative—a world where people do lie a world where people don't always tell us the whole story—we have to imagine the intention in our endeavours to understand the communication.

"For communication to occur, a further condition is necessary: a communicative intent must be inferred in the information being read. By this we mean that if we believe the information in our environment was generated by someone else in order to communicate then the necessary and sufficient conditions exist to describe the phenomenon as communication. It is important to note here, that it is the inference of the other and their intent that is critical, not the physical presence nor that the other really had a communicative intent." (Shulman et al 1988).

These are all very real issues in communication. Most management publications on communication don't even mention such matters as lying, but we all know it exists. If people were fundamentally honest we wouldn't need passwords, locks on cupboards, signatures, authorities, declarations, and a whole host of alibi papers.

The problem of writer ego

Unfortunately for some procedure manual users, the writer's primary concern is that of expressing their egocentric '**creativity**'. Often, it's a matter of showing-off their '**knowledge**' of the language or trying to impress their '**superior**' intelligence by the use of big words and complex sentences.

I'm not suggesting that you go to the opposite extreme and write in what I call "**kidlish**"—the idea that the expression plain language means writing for 12 year-olds. But the language should be easily understood and the intended meaning readily assimilated by the average reader of the manual.

The problem of abbreviation

This is almost the exact opposite to the '*writer ego*' approach. Here, the writer believes in brevity.

These people often leave out connecting words in sentences in the mistaken belief that brevity is the key to comprehension. Much of this belief is based on the results of research that show that shorter sentences are more readily understood by the general public and that words of more than two syllables are harder to understand. (Grant et al 1982).

But even though sentences may contain single thoughts, they do need to be complete.

The problem of the writer's viewpoint

The vast majority of manuals that I have seen have been written from the point of view of the **writer** and in very few cases has the **writer** been the **worker** who is to use the procedure. It may have been the person's supervisor, but in most cases it has been a '**professional**' analyst.

The manager tends to write to reflect the problems that have been encountered in the past and I have dealt with this subject earlier in the paper.

Most analysts that I have met think primarily in terms of the system. Many procedures are written primarily for the analyst's benefit. The content and layout are designed to show the background to the system—especially if it is a computer system—and the way in which the analyst's logical thought processes were developed. They are written so that they can be understood by other analysts who may be faced with the task of changing the system.

But a procedure should be written for the person carrying out the task. It should be written in the **work** mode. It should be written to show people how to **do** something, so it involves **action!** It should be written in the present tense: *write this ... get that ... move the piece of paper*

Simple verbs are the most important words in written procedures.

The problem of bad categorisation

Another cause of confusion is failure to categorise content. Authors categorise material in a book by writing it in chapters. Libraries categorise books by subject so that books with similar content can be found together and so speed up reference. Records Managers specialise in records classification so that an organisation's records can be easily located.

Bates (1981a) describes how the ability to categorise is a factor that seems to make the human mind unique. The ability to sort things out is one of the most important tools we have in learning and remembering. He describes people going to a grocery store with a list that has been written up just as they came to mind. They wander all over the place looking for the items on the list. I was faced with this time-consuming task when I first left home and developed the habit of listing the items by category so that they could be located easily in the supermarket.

But when it comes to procedures, many writers muddle people's thinking by not keeping logical thought patterns together. They write down the material like a shopping list, as it comes into their head. But this is not necessarily the sequence in which a new employee will want to learn about the subject in order to understand what to do.

Two problems peculiar to procedures

The 'Jellyfish' Approach

I have borrowed this term from Leslie Matthies as it is so descriptive of a large number of procedures that I have seen. It most commonly occurs when a straight narrative style is used.

These procedures have no skeleton. The reader doesn't really know where the procedure starts, what is supposed to happen at the other end or what happens from one step to another.

The jellyfish approach is overcome by having a clear start and a clear finish with a logical time sequence flow connecting them.

The problem of confused content

The most common cause of confusion is what Leslie Matthies labelled '**foreign matter in the procedure**'. This is detail which is not directly related to the job of telling someone how to go about a task. It may be useful it may be interesting background but it doesn't necessarily belong in the actual procedure sequence (Matthies 1977a).

The following are some of the items of foreign matter which he says is typical of that often found in procedures.

- *Authorising signatures*
- *Definitions of words*
- *Scopes*
- *Opinions of the writer*
- *General discourse on the subject*
- *Departmental responsibilities*
- *Flag waving (we are in fighting trim)*

What do we mean—"Plain Language"?

The 1982 British Government Report, *Forms Under Control* (Grant et al 1982), had this to say about English Language in Britain.

"...about one in 20 of the adult population have a reading age of less than nine. In all, about one quarter of Britain's adults fail to reach a reading age of 13 as measured by UNESCO literacy standards.

...In order to be understood by the majority of recipients, we consider that forms must be aimed towards a reading age of around eleven. This means above all, simple, direct language with an absence of multi-syllable vocabulary."

An Australian report (Goyen 1983) stated that:

"...it would appear that a year 7 readability level ... may be too high, since the reading attainment of a significant number of adults falls below this level."

From around the world, we find similar statements about the comprehension of the average population but what does this mean for the procedure writer?

In recent years there has been worldwide emphasis on the use of plain language. The problem with this is that what it means to one person may mean something totally different to another (Charrow 1979). To many people, plain language becomes childish language. The emphasis is on writing for a 12 year old instead of making the language plain for the intended reader. In some quarters, the term '*appropriate language*' is preferred because of the unpopular connotation attached to '*plain language*'.

The need for plain language is highlighted by the use of what has been called '*gobbledegook*'. This example from Leslie Matthies illustrates the point.

THE REPORT AS WRITTEN

The optimum proficiency will be attained only by complete analyzation of current practices, followed by considerable deliberation that actually leads to extensive modification that can only result from being fully cognizant of present deficiencies which pertain to the transport of materials within the confines of this plant, with special emphasis that may ameliorate the conditions currently encountered in the transportation processes between the receiving facilities and the in-process stockroom.

THE REPORT AS IT WOULD HAVE BEEN UNDERSTOOD

Bill and I have been looking for some way to get the men in the stockroom and the receiving checker together because they loose so many packages in between. We thought the quickest way to stop it is to

Much has been written about this subject and I don't propose to go into a lot of detail here. This is not a text on grammar—a search of bookstores and libraries will uncover a wealth of information on the more technical details. However, I strongly recommend "*Writing in Plain English*" by Robert Eagleson and published by AGPS (ISBN 0 644 06848 5.)

Part 3 — An overview of common formats

The Narrative

This is the format used by people who place everything together in one bundle. It is the style that I mentioned earlier as being a jellyfish procedure with no skeleton.

The narrative is the easiest style to use for lazy people. They just write down what comes into their head as it comes. There is often no particular structure, just a succession of ideas flowing from a creative mind. Some people, such as story-tellers, have the knack of doing this and making it interesting, but this style isn't appropriate for procedures.

The following is an example taken from a narrative procedure dealing with office administration.

1.2 - Stationery and Mailing

All correspondence is typed on A4 size paper. In special circumstances, some other larger sized paper may be used to print schedules, etc. but use of such sizes should be limited.

Envelopes for general correspondence normally are not typed. Stationery has been designed which, when folded correctly, will fit the standard DL size window envelope (form No. 1985).

For those items that require an envelope other than the one specified above, this should be mentioned as a special instruction at the beginning of dictation or noted in the Typing Request. Policy Documents are to be mailed in the white general use envelope (form No. 1368).

Centre staff should scan all material typed and correct any typing errors. However, the responsibility for the accuracy of the typing rests solely with the signatory.

The delivery/collection system operated by Centre staff does not provide for the collection of items to be mailed: this service is provided separately.

The main problems with the narrative are as follows:

- There is usually no clear starting point and rarely a clear ending. The user doesn't know when the work is finished.
- It is not easy to find specific steps or items of information.
- The content is rarely in time sequence.
- Many different and often distinct procedural routines are included in the one narrative.

Outline Format

This is a term used by Clyde Jackson (1974c) to describe a highly structured version of the narrative format.

Its main advantage over the narrative is that each section, subsection and paragraph is clearly labelled and numbered to aid identification of material. Jackson calls it the outline format because it shows the outline structure of the procedures.

The following example is taken from one given by Clyde Jackson in *Verbal Information Systems*.

IV. Rental Contracts:

Safe Deposit boxes may be rented under one of six different types of contracts. The vault clerk is to carefully determine the type of rental contract the customer desires, and obtain and complete all necessary forms. (Do NOT use checking account forms.)

A. Individual—Use card on page 24, obtaining signature on the specimen signature line on the front and on the individual contract on the back.

B. Joint Tenants—Either party may enter the box alone. Use signature card on page 24 obtaining both signatures on the specimen signature on front and on the joint contract on the back. (Do not tell the customer the contents will belong to the survivor in the event of the death of one party.)

C. Tenants in Common—Both parties must be present and sign to enter the box. Use regular signature card altered exactly as illustrated on page 25, obtaining signatures on the specimen signature line on the front, and on the Tenants in Common contract on the back.

D. Partnership

1. Use the signature card on page 27, obtaining signatures on the specimen signature line on the front and the contract on the back.

2. Use resolution on page 26.

3. Deliver keys only to those who are authorized to enter the box.

This format is certainly an improvement and does enable the user to more readily find information. From my experience, it is the most commonly used form of procedure writing.

Its major problems are as follows:

- Step-by-step procedures are intermixed with statements of policy.
- There is still no clear start and end point for each separate activity.
- This approach generally requires a reasonable familiarity with the content to be of value as a day-to-day working tool.
- It is not a good tool for training new staff.

Playscript

This is a technique developed by Leslie Matthies after many years of research into office procedures.

I was first introduced to it in the late 1960's. Even though this was before the latest edition of Matthies book, it seemed obvious to me that the principles behind his system had a great deal of merit. However we found many problems with the way it was being used and tried various ways to get around them. Later, I discovered that we had not been given the full story. Many of the problems we encountered are covered by Matthies in his book and it became clear that our criticisms were not justified. In fact, it was we who were wrong, not Leslie Matthies. We weren't using Playscript as it was intended to be used.

Some writers on procedure manuals have also been critical of Playscript, but after using it for some years I am convinced that most of their criticism is unjustified and based on insufficient knowledge of its operation.

The main thrust of Playscript is to cull policy and general descriptive material, leaving behind the step-by-step detail of how to carry out the procedure. Having culled this material, Matthies further breaks down the content into two separate types of documents—**procedures** and **job outlines**.

A Playscript **procedure**

"is a write-up that reflects the system. It is a document that spells out clearly how an activity flow proceeds from one work group to the next, down through the system channel from start to finish. It...tells them how to work in a coordinated team work basis.

We see the procedure only as a written plan for teamwork! "

A Playscript **job outline** documents

*"...the way that **an individual** performs his work at his work station along the systems channel. You could call the job outline a one-man procedure. "*

Matthies prefers to confine the word **procedure** to meaning a write-up reflecting **teamwork** activities, not individual activities.

Playscript is given its name from the method of writing it up like a play with **actors** and **action**. The **Job Outline** is similar except that there is only **one actor**.

A key point about Playscript is that it only applies to the procedural content of a manual. In Part 5, I deal with the subject in more detail.

The next page has an example of a typical Playscript procedure.

The Individual Task Module

In this approach, the procedure is written for each separate task. Its structure can be similar to Playscript but is usually headed by descriptive material which explains the module's purpose, the background policy, related forms and documents, and possibly such matters as cross-references to other modules.

While it can be very successful for tasks such as computer operations jobs, it doesn't work well for normal clerical tasks. Its major disadvantage is that it doesn't readily show the work relationship between people when more than one is involved in the same task. It also encourages the inclusion of too much unstructured commentary.

PROCEDURE SUBJECT: Purchasing items for the Association

ACTION BY	STEP	ACTION
Purchaser		PHONES the Association office and asks for a purchase order number.
	2	DESCRIBES the item and the total amount of money that will be required.
Association Secretary	3	CHECKS the <u>AUTHORISATION TO BUY</u> list issued by the Branch Council. 3a. <u>IF THE PURCHASER IS ON THE LIST</u> GIVES the person the next order number. 3b. <u>IF THE PURCHASER IS NOT ON THE LIST</u> ADVISES the person who has the authority to order.
	4	ENTERS immediately into Purchase Log: 'date', 'item purchased' and 'purchaser's name'.
Purchaser	5	GIVES the Purchase Order number to the vendor and asks that the number be shown on the invoice. 5a. <u>IF PAYING BY CASH</u> OBTAINS the signature of the person receiving the money plus the word 'PAID' on the invoice. 5b. <u>IF IT IS A CREDIT PURCHASE</u> INSTRUCTS vendor to send the invoice to the Association, marked 'Attention Treasurer'.
<i>continued next page</i>		

A typical Playscript procedure

Part 4 * Which system will you use?

The criteria

Once you have analysed your needs, there remain three further steps in selecting an appropriate system:

- Deciding how you will break up the content.
- Deciding what writing and structural styles you will use for each type of content.
- Deciding how you will index the manuals.

I will now deal with each of these in detail.

Breaking up the content

This is a most important concept! Far too many manuals use the narrative style throughout with all types of content intermixed. We know from experience that this is ineffective that people have difficulty using manuals where policy and procedures are combined. So the best piece of advice I can give is to keep them separate. Likewise, lists of authorities, meanings of words and other types of business paperwork should be kept in separate sections. Some may be appropriate in the same manual; others, such as memos from management, would be better placed elsewhere.

Certain types of manuals, such as those for computer operations or manuals showing technical standards, may need an entirely different approach. This is the reason for considering the individual users and their specific needs rather than applying the same system across the board.

Deciding on the writing and structural style

Until more thorough research findings are available, this remains very much a matter of personal preference.

From my experience in over twenty years of writing procedures, I would choose Leslie Matthies' Playscript for the step-by-step procedures and task descriptions. I'll have more to say about this towards the end of the paper.

However, it isn't suitable for writing up policy. In fact, it was never designed for that, a matter clearly brought out in Documents To Manage By (Matthies 1982).

For the policy component you might choose to use the Outline Format or even develop your own style. The most important factors are clear writing and clear headings to enable people to find information when they are skimming. Our experience in testing public-use documents is that many people tend to skim rather than look up an index.

I want to stress the aspect of clear headings. Many writers forget about section or paragraph headings and just use a numbering system to help people find information.

Deciding on the index and overall structure

This is where you need to do a great deal of planning. It's no good just developing your structure as you write. You will need to do your homework, analyse the manuals needs for the whole organisation, and then develop a structure that ties all components together.

Matthies recommends a straight sequential numbering sequence, but I have found problems with this approach. Users of manuals prefer some sort of structure so that related matter is kept together for ease of cross referencing.

One excellent approach that is worth considering is that given in *Creating Effective Manuals* (d'Agénais & Carruthers 1985, Chapter 3). While some parts of this book (such as those dealing with readability formulae and colour) are either misleading or technically wrong, it does contain much useful material on structure and manuals control.

They point out that: "*Manuals are used about 95 percent of the time for referencing and*

about 5 percent of the time for general reading, most of which is required in the training of new staff. because referencing time is so high, it is essential that the retrieval of information be made as simple as possible so that little time is wasted in seeking the information.

...the alpha subject index is the key to the manual. However, the numbering system is the key to the key, for it is the numbering system which identifies each and every document.

...because a manual is not static (it changes as policy and procedures change), the numbering system must also be flexible. "

Put simply, their system divides each manual into primary divisions (each with a two digit code); these are subdivided into sections; and these are further subdivided into individual subject documents such as policy statements or procedures.

This brings me to an important point that is often misunderstood. While I have said that different types of material (such as policy and procedures) should be written up in their own styles, I don't suggest that they should also be in different parts of the manual. There is a sound case for keeping related matters close by one another. People want to be able to find information quickly and easily, and if related matter can be found together in one manual, this certainly helps.

It is an easy matter to cross reference material from one manual to another, but if the manuals are not easy for the employees to use, then experience shows that they won't be used. And if they won't be used, there isn't much point in writing them in the first place.

Does Playscript really work?

The answer to this is definitely yes!

The number one problem that most people have with it is, ironically, Matthies book. It is a very entertaining and interesting publication which appears to have been designed to sell the concept to management. But it is not very useful as a working tool. I have covered the technical detail extensively in my own book on procedure writing (Barnett 1993). If you want to use Playscript, my advice is that you study the book in detail before implementing it.

Most problems arise when people try to write up complex procedures where there are multiple choices and various channels in the flow of activity. There are special rules for these situations and they need to be followed if you are to get it to work.

Another problem comes from Matthies' definition of a procedure. He separates the detailed descriptions of specific tasks by one person from those activities that involve multiple people. Once this concept is understood, the technique is much easier to use. In reality, this separation is misleading since a Job Outline is written up the same was as a Procedure and follows the same rules. The only difference is that there is only one actor on the stage.

In conclusion, the following points summarise Playscript's main advantages.

It forces the establishment of responsibilities.

You can't write a Playscript procedure unless you know who is responsible for the tasks. Employees can readily see if they are involved in a particular procedure. Managers can see the relationship of their departments to the others involved in the flow of work.

It is a useful tool for getting agreement.

Since Playscript clarifies the procedure, people can see what happens. Either a specific step happens next or it doesn't!

Writing is simplified.

Matthies has found that most people can learn to write it clearly in after only 5 or 6 hours of training and practice. Another side benefit of the easy writing is that after using Playscript, people can easily write up their own procedures. The basic rules are easy to learn and this becomes a great advantages when documenting procedures for the first time. It becomes a much easier matter for an experienced procedures analyst to edit and expand the procedures.

It forces brevity and therefore simplifies language.

The very nature of the action-oriented, single-step approach means that statements are brief and direct. As explained earlier, this is a major factor in effective communication of such matters.

It provides for uniformity in style.

No matter where an employee goes within the organisation, the format of procedures is the same.

It is highly beneficial for staff training.

Even after the oral description of how to carry out a task, a new employee will usually want to look up any written procedures. If these are in narrative format, this can be a tedious task. Well-written Playscript procedures are so easily followed that new employees can usually understand them with very little need to seek clarification from a superior.

Procedure linkage made easy.

The format makes it easy to link related procedures together. Other systems can certainly do the same, but Playscript forces the linking since no procedure series should end with the reader left dangling and nowhere to go.

It simplifies the introduction of change.

Employees can see at a glance just what a new procedure requires. Even experienced people need this type of assistance.

It makes non-routine procedures easier to follow.

Most organisations have procedures that are only used occasionally. These are the ones that people forget how to deal with, and Playscript is ideal in these situations. If it is well written, it provides the detail of each step in sequence so that there can be no doubt about what is to happen next.

It assists systems analysis.

It is particularly valuable for analysts working on system changes as it enables them to see very clearly exactly what happens at each step.

It can be a great help for analysts during interviews, as it helps control the direction of the interview. The person who has the tendency to waffle can be brought back to the point very quickly by being pointed to the step under discussion.

It provides an effective audit trail.

Its detailed approach helps the systems auditor work through the procedure both from the point of view of theoretical controls and the practical application by the worker.

Can manuals be effective?

Manuals invariably fail! They fail because writers don't understand communication—because writers don't put themselves in the shoes of the users—because writers don't consider the logic of their position in relation to the readers.

So, can they be made to work? The undeniable answer is yes!.

I'm not naive enough to suggest that they will work 100% of the time—no human communication is that effective—however, they can be understood. They can be structured so that people will know how to find information, and they can be produced in such a way that the majority of employees *will* use them.

What it takes is a determination to break from tradition and to put people first! It takes managers who will look beyond the immediate budgetary constraints, allocate the resources put forth the effort to do the task.

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