

NRA Wales 72

NRA
Options for the Development of an Enhanced Team
Culture in the NRA
Welsh Region
Simon Halfacree

***Options for Development of an Enhanced Team Culture
in the NRA, using the Welsh Regional Technical
Department as an example.***

***Report submitted as part of assessment for Certificate in
Management by the Open College and Nottingham
Trent University***

***Report prepared by Simon Halfacree, Consents and
Environment Officer, National Rivers Authority, Welsh
Region***

2nd November 1994

*This report represents the views of the
author alone and not any section
of the NRA*

Acknowledgements

Thanks are due to the following, who have influenced this report:-

- ♦ Ron Seegelaar Open College Tutor
- ♦ Jenny Jarvis Open College Tutor
- ♦ Jill Anderson NRA Head Office Training Officer
- ♦ Alun Gee Mentor
- ♦ Kevin Thomas Line Manager
- ♦ Colleagues In NRA Group 2
- ♦ Colleagues who participated in the questionnaire
- ♦ Family

Summary

The main aim of this project is to examine whether the performance of the NRA would benefit from a greater emphasis on team-work. Team-work is not universally employed, to its full potential within the NRA, although it is mentioned in many planning documents. The Regional Technical Department of the Welsh Region is used to illustrate how an enhanced team culture might be implemented in practice.

Options for the use of psychometric testing in team-building are considered, as a possible means of enhancing the effectiveness of teams. Psychometric testing is employed in the NRA, but its use is usually confined to aiding selection.

The report considers various aspects of actively promoting team-work and presents a vision for an organisation based on single-function and multi-function work-teams and project teams. A possible mechanism for allowing job-rotation is described and the means by which this might improve flexibility, individual development and motivation are discussed. Implications of an enhanced team structure are considered in the areas of market testing, resource planning, performance related pay, communications and information.

Project Terms of Reference

To consider options for team building within the Head Office Regional Technical Department of the Welsh Region of the National Rivers Authority.

In particular :-

1. To consider organisational changes and other options which might improve team-working.
2. To consider periodic rotation of elements of work within each team, to improve motivation, development and flexibility ('Star team concept').
3. To evaluate the benefits to the Function of a more flexible team-based structure, with regard to a 'Market Driven - Value for Money' approach.
4. To investigate the practical value of personality evaluation techniques (eg OPQ) in team construction.
5. To consider any financial implications of identified options (eg to Performance Related Pay).
6. To make recommendations on team building, considering their local and national implications.

Table of Contents

	<u>Summary</u>	page 1
	<u>Project Terms of Reference</u>	page 2
Section 1	<u>General Introduction</u>	page 5
Section 2	<u>Team-work Enhancement Options</u>	
2.1	<u>Existing Structure</u>	page 8
2.2	<u>Discussion</u>	page 10
2.3	<u>Options</u>	page 11
2.4	<u>Recommendations</u>	page 14
Section 3	<u>Job Rotation</u>	
3.1	<u>Introduction</u>	page 15
3.2	<u>'Star Team Concept'</u>	page 17
3.3	<u>Recommendations</u>	page 18
Section 4	<u>'Market Testing' Implications</u>	
4.1	<u>Introduction</u>	page 19
4.2	<u>'Core Pilot Study'</u>	page 19
4.3	<u>ETC implications for MD-VFM</u>	page 20
4.4	<u>Recommendations</u>	page 20
Section 5	<u>Psychometric Testing as an Aid to Team Construction</u>	
5.1	<u>Introduction</u>	page 21
5.2	<u>Psychometric Test Options</u>	page 22
5.3	<u>Discussion</u>	page 24
5.4	<u>Recommendations</u>	page 25
Section 6	<u>Financial Implications</u>	
6.1	<u>Introduction</u>	page 25
6.2	<u>Current PRP System</u>	page 27
6.3	<u>PRP in an ETC</u>	page 27
6.4	<u>Recommendations</u>	page 28
Section 7	<u>Communication Implications</u>	
7.1	<u>Introduction</u>	page 28
7.2	<u>Communication Options</u>	page 29
7.3	<u>Recommendations</u>	page 30

Section 8	<u>Information Implications</u>	
8.1	Introduction	page 31
8.2	ETC Options	page 32
8.3	Recommendations	page 33
Section 9	<u>Summary of Recommendations</u>	page 33
Section 10	<u>Statement of Costs and Savings</u>	page 34
	Bibliography	page 35
Appendix 1	Mission Statement.....	page 36
Appendix 2	Questionnaire	page 36
Appendix 3	Details of Psychometric Tests	page 37
Appendix 4	Additional Existing Structures	page 49

Section 1 General Introduction

The main aim of this project is the critical evaluation of options for developing a culture in the NRA which enhances the team approach to undertaking our business, as defined in our Mission Statement (Appendix 1). The project will use, as an example, the Regional Technical Department in the Head Office of the Welsh Region, but the principles should be applicable in many other areas of the NRA and implications for the whole NRA are discussed in detail.

In its recently published Corporate Strategy, the NRA identifies team-work as one of its three core values, along with 'achievement of results' and 'trust'. In the section on 'Organisation and Resourcing' it is stated, with regard to Cultural Values, that the NRA will :-

- ♦ be guided by the values of achievement of results, team-work and trust and use them to judge our actions;
- ♦ remove unnecessary bureaucracy whilst retaining good financial controls and accountability;
- ♦ aspire to best practice in all that we do.

In the 'Human Resource Issues' section the following statements are made :-

'The NRA will:

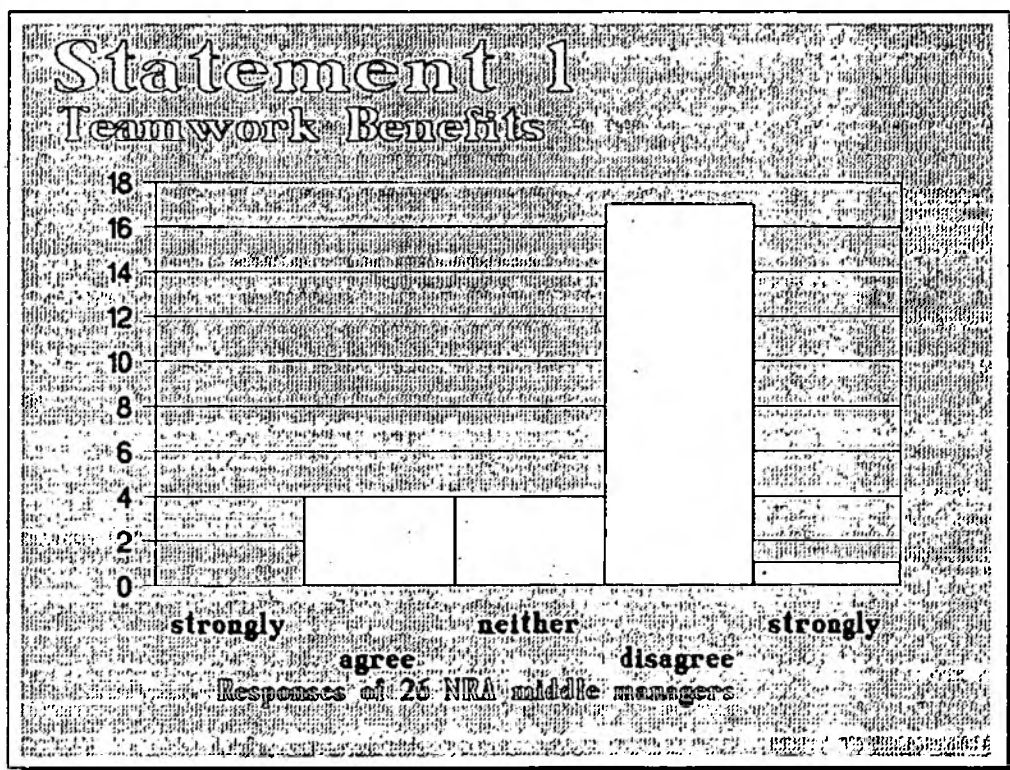
- ♦ develop professional, well informed employees, capable of delivering our mission.

- ♦ take all reasonably practicable measures to safeguard the health and welfare of our employees.'

It is highly laudable to put forward these aims in such a document, but initiatives must be taken to achieve them.

In order to determine the opinions of managers in the Welsh region of the NRA, on various aspects of team-work, a questionnaire was sent out to 38 individuals who represented a complete mix of functions and geographical locations. A response was received from 70 % of those questioned, to 5 questions relevant to this report. The first statement, which the respondents expressed an opinion on was :

"The NRA is currently obtaining the full potential benefits of team-work." The results are given in figure 1 below.



Of the 26 who responded, 18 either disagreed or strongly disagreed with this statement, as against 4 who agreed with it. The number of individuals who neither agreed nor disagreed was 4. This suggests that, in many areas there is considerable scope for improving team-work in the NRA, although there are some limited areas where it is working effectively.

As the first part of the questionnaire indicates, team-work is employed in the NRA, but good team-work is not universal and there are opportunities to maximise the potential of the NRA's greatest asset, its workforce, by examining options to proactively apply a more uniform and logical team-work approach. It has been recognised that the NRA has an excessively task-oriented culture, even at senior management levels and some of the changes which are being recommended should help to address this problem.

In order to be relevant in the current 'Market Testing' climate, consideration will be given to this aspect of any proposals. In particular, any implications for the Region's Market Driven Value for Money initiatives will be looked at.

The title of 'Enhanced Team Culture' (ETC) has been selected to encompass the suggested approach, which is designed to improve working conditions for staff, the way the NRA is perceived from outside and the workforce's productivity. There are financial, motivational, recruitment, information and resource implications. The project will therefore draw on the complete spectrum of issues which have been covered in the modules which make up the NRA's Certificate in Management Course.

task-oriented culture, even at senior management levels and some of the changes which are being recommended should help to address this problem.

In order to be relevant in the current 'Market Testing' climate, consideration will be given to this aspect of any proposals. In particular, any implications for the Region's Market Driven Value for Money initiatives will be looked at.

The title of 'Enhanced Team Culture' (ETC) has been selected to encompass the suggested approach, which is designed to improve working conditions for staff, the way the NRA is perceived from outside and the workforce's productivity. There are financial, motivational, recruitment, information and resource implications. The project will therefore draw on the complete spectrum of issues which have been covered in the modules which make up the NRA's Certificate in Management Course.

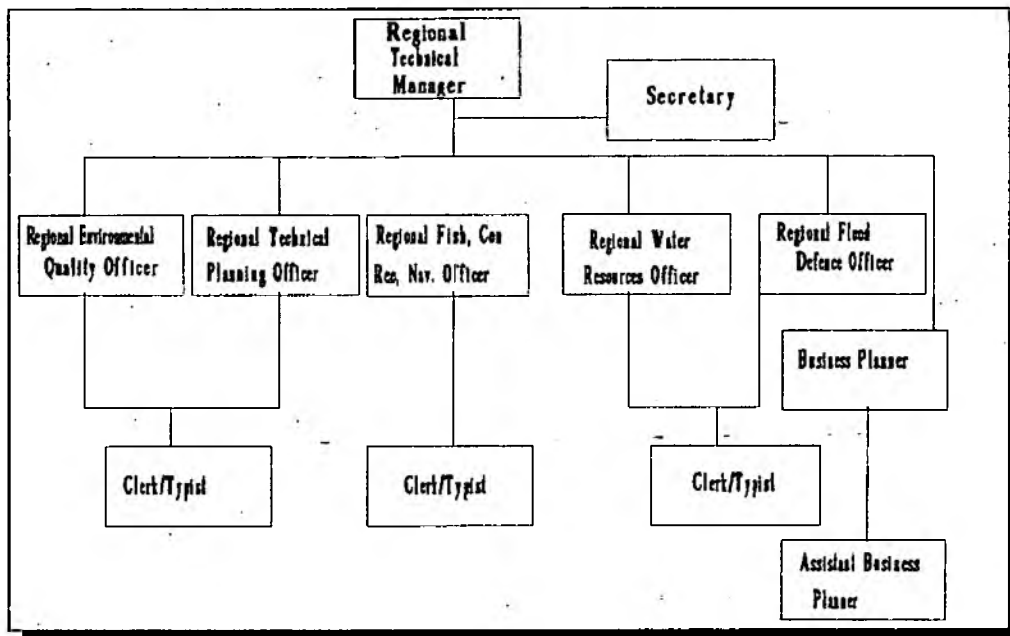
The development of an Enhanced Team Culture has many potential benefits for the NRA and these will be discussed. There will also be drawbacks to any proposed new system and these will be taken into consideration to achieve a balanced view of the benefits to the organisation.

Section 2 Team-work Enhancement Options.

2.1 Existing Structure

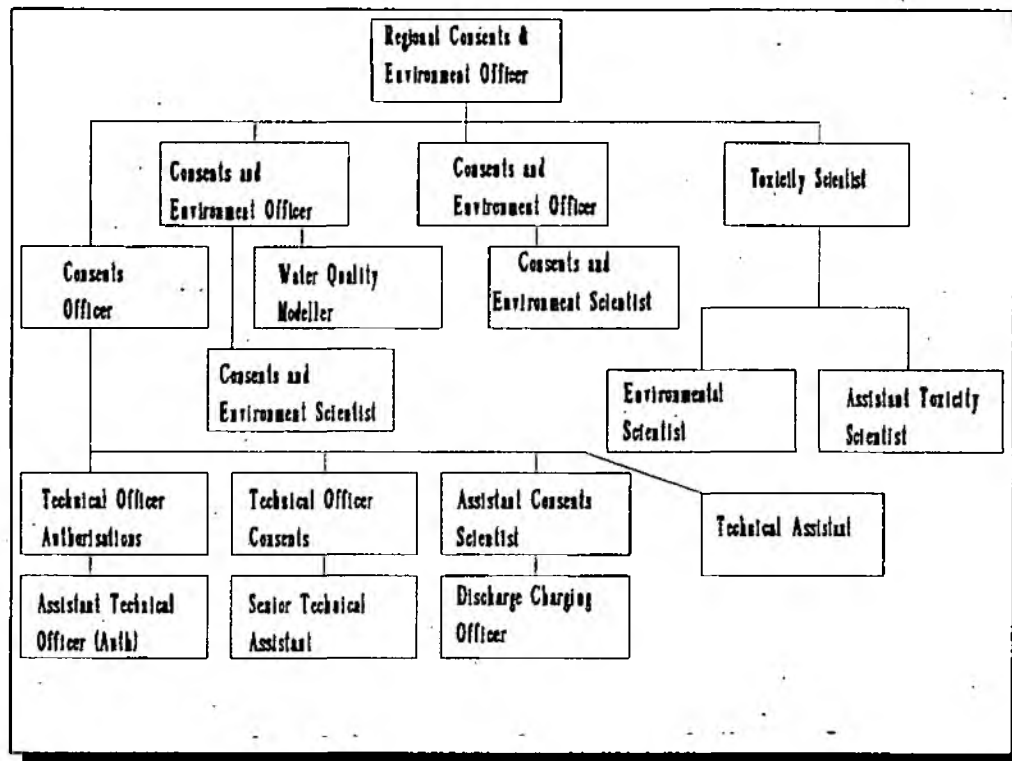
The NRA is typical of many public sector organisations in that it is a hierarchically structured bureaucracy. Each sub-unit of the structure answers to a line-manager in a system reminiscent of a military organisation. This type

of structure may have been appropriate in the past, but with current changes in the way work is undertaken there are alternative organisational structures which have many benefits and only minor drawbacks. The relationship of the Regional Technical Department to the overall structure of the NRA is that it sits within the Regional Head Office with the Regional Technical manager being a member of the Regional Management Team. The Heads of Function in the Region are in the tier immediately below the Regional Technical Manager. (fig 2).



The Core Functions of the NRA are Water Quality, Water Resources, Flood Defence and FRCN (Fisheries, Conservation, Recreation, Navigation). The support services consist of Public Relations, Personnel, Administration, Legal. Beneath the Heads of Function the structures extend down to the lower graded posts.

The Heads of Function chair Functional Groups such as the WQFG which make decisions for the Region on Functional issues at the appropriate level. A typical structure for a sub-unit of the Regional Technical Department shows the typical hierarchical structure (fig.3), as illustrated in the figure below.



2.2 Discussion

There have been many Sociological, Technological, Economic and Political (STEP) factors which have combined to change the nature of the workforce of the NRA in recent years. In the NRA, individuals are generally well qualified and self-motivated. and developments in 'Information Technology' have influenced productivity and the ways in which we are able to communicate. Economic pressures are forcing the NRA to look for ways of achieving greater efficiency and political influence, in the form of Government Policy, is dictating the general route by which this must be achieved.

person is absent from his normal workplace, for whatever reason, there is often a shortage of knowledge in his specialist area. If such an individual leaves the organisation then the same level of expertise may never be achieved again.

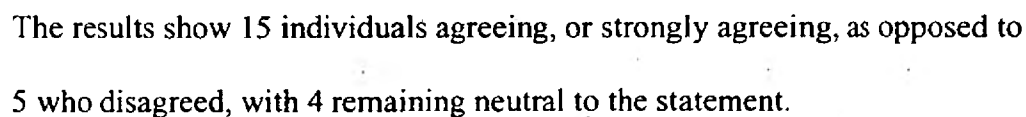
A typical NRA structure may have up to 7 or 8 tiers of management within each Region, although there are recent improvements, in some regions, where the problem has been addressed by reducing the numbers of tiers when re-organisations have been undertaken. The large number of tiers has major implication for communications and provides barriers to motivation, by distancing staff from their more senior colleagues, who are responsible for decisions which effect the way in which they undertake their jobs. It also reduces efficiency, as there are too many managers who each devote significant amounts of time to managing small numbers of staff. The ETC approach has opportunities for reducing the number of tiers of management, which has benefits for enhanced communications and efficiency.

Individuals can stagnate in a job, by being continually focused on small element of the NRA's business and having no variety and a poor understanding of the total spectrum of NRA activity.

2.3 Enhanced Team Culture Options

As part of the questionnaire, individuals were asked to give their opinion on the following statement :-

The results are shown below :-



- **Project teams** - These teams are established to tackle a particular discrete piece of work, usually within a single function of the NRA.

- ◆ **Multi-agency teams** - These teams have members from across a range of functions and are usually established on a temporary basis to tackle a specific issue.
- ◆ **Work teams** - This type of team undertakes the day-to-day work of the NRA and will be considered first. Work teams can operate at any level in an organisation and will include teams of middle managers, who are established to ensure co-ordination of the technical work teams.

The options which are available for work teams in an ETC are :-

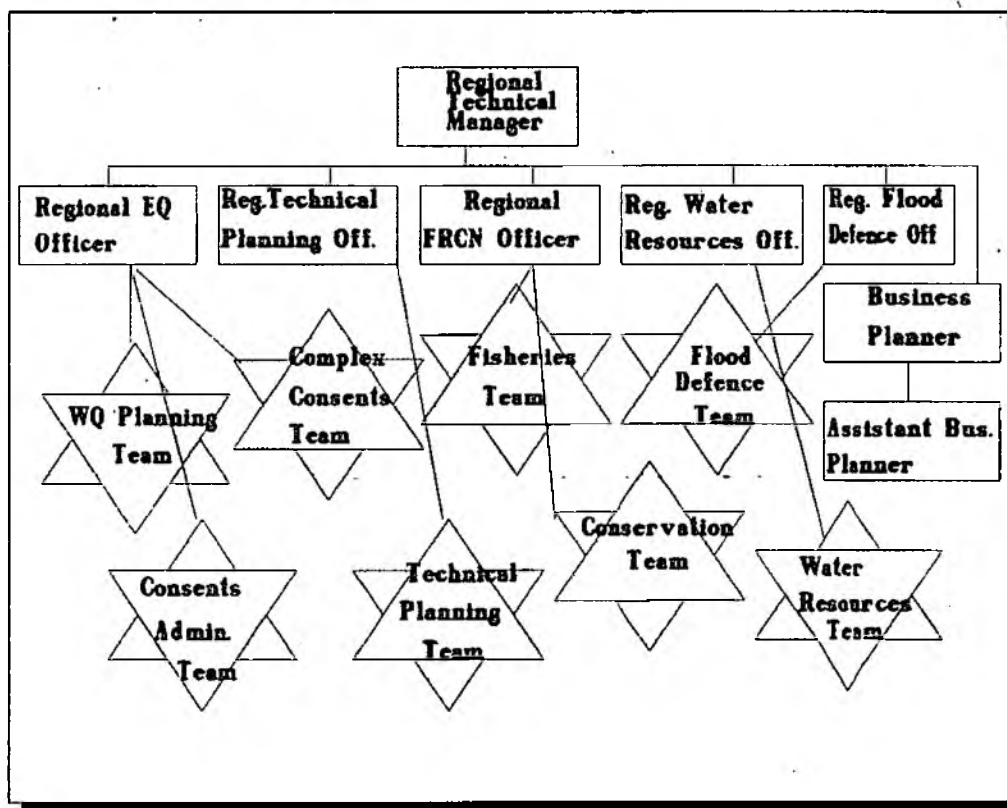
1. Identify defined areas of work **within each function** and establish teams to tackle all work within their defined area.
2. Establish **multifunctional** teams to tackle areas of work where the work is similar in nature across functions.
3. A **hybrid** approach involving a combination of the above types of team with one type of team operating within a function and dealing with specialist technical issues and the other spanning functions and dealing with more general areas of work.

Because '1' and '2' each have certain advantages and disadvantages, the hybrid approach, where the best parts of each are selected, is considered to be more efficient.

The size of teams is important, as a team should be large enough to function with some absentees, but not too large so that communications are problematic. It is considered that the ideal size of team is 6-7 individuals

including the team leader. The areas of work which are selected for each team should therefore be matched to this size of human resource.

With regard to Project Teams, these are often established purely on the basis of technical specialism or previous project experience. It is considered that all employees should participate in Project Teams and this should be actively pursued. The structure below shows a possible ETC version of the Welsh Regional Technical Department.



2.4 Recommendations

The following recommendations are made with regard to organisational structures :-

- 1. The structure should be based on a hybrid of specialist functional teams and multifunctional teams to take advantage of the advantages of each.**
- 2. The teams should each consist of six or seven people including any team leader.**
- 3. Project teams, both single and multi-functional should be established where necessary and will include members of specialist and multifunctional work teams.**

Section 3 *Job Rotation Within the Team*

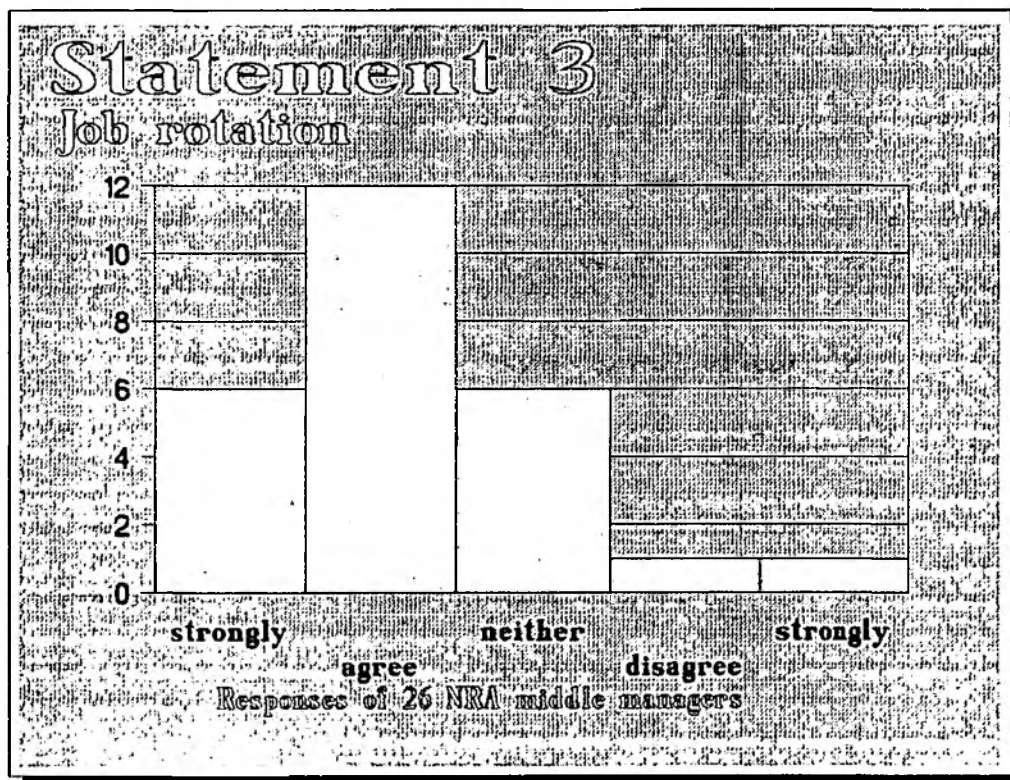
3.1 Introduction

The NRA has a relatively young workforce and there is a loss of impetus in many peoples' career development as they reach the level in the organisation where the number of jobs reduces, as the hierarchical pyramid structures narrow. Many of the relatively young employees who have joined the NRA since 1989 have high career expectations and can easily become disillusioned if they do not continually receive new experience and new challenges. Some of the staff who transferred from the Water Authorities would also benefit from a wider outlook on the NRA and a broader blend of knowledge. There are approaches used in other organisations which address these issues and within an ETC it would be possible to pursue these approaches, which have benefits for both the organisation and the individual. Attempts have been made at job exchanges and secondments, over the years, but the structure has been too rigid to accommodate these methods of presenting challenge and broadening experience, so that problems have often developed.

The third part of the questionnaire asked the respondents to give their opinion on the following statement :-

"A team-based structure where there was periodic job rotation within each team and an opportunity to move between teams and across functions, to allow individuals to gain broader experience, is desirable."

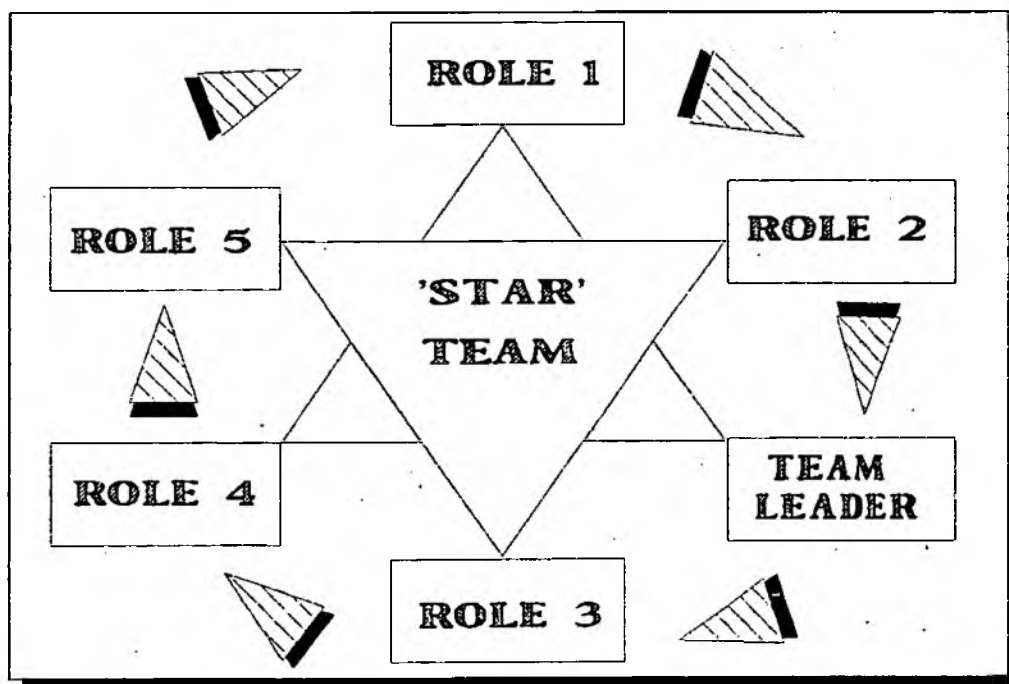
The response was:-



The response to the questionnaire shows only 2 individuals disagreeing and 18 agreeing. Support was not universal, as 6 managers neither agreed nor disagreed. However, there is clear indication that this sort of structure with an element of rotation would be attractive to the majority.

3.2 Star Team Concept

The 'star team concept' is one of many similar ideas, which allow an organisation to be more 'organic' and flexible. The concept considers each team as a star with the points of the star representing a particular job within the team. The role of team leader can be outside this star, or be one of the points of the star. Each team member carries out a particular job and periodically the team members rotate around the points of the star. In this way, over a period of time the team becomes more flexible and resilient than a traditional hierarchical structure. If a person is absent, then other members of the team have had recent experience of carrying out his job and the absence does not cause problems. If an individual leaves then their replacement is introduced at one point of the star and gradually increases his level of expertise as he moves around the points. If there is a need to reduce numbers then the team could be reduced in size by redistributing work between jobs and reducing the number of points on the star.



In order to develop multi-functional individuals it would be feasible for individuals to move from one team to another at the appropriate time in the cycle of rotation. If an individual wished to remain in a particular team, then this would be acceptable, but no team member could remain in a particular job, as this would block the movement of others and destroy the organic nature of the structure.

If a team was made up of individuals having different levels of knowledge, expertise and ability then the star might have some shorter and some longer points so that the more junior staff would only rotate around the shorter points. If the team leader position was part of the star then individuals would gain experience in this important role and one more tier of management would be eliminated.

Within the NRA there are some jobs which are so specialised that they can only be undertaken by one individual. This individual could be part of a team, but only alternate between his specialist job and the team leader role, as his period as team leader came around. If the 'expert' individual wished to enter the main body of the team, then some arrangement might be made where he could carry out the specialised elements of his job where necessary.

3.3 Recommendations

- 1. Consideration should be given to the star team concept as a means of allowing job rotation without stressing the organisation.**

Section 4 Implications for 'Market Testing' of Enhanced Team Working

4.1 Introduction

Together with many other public bodies, the NRA is being required by government to pursue a 'Market Testing' program, in order to improve its efficiency. In the NRA a Director of Market Testing has been appointed and a program devised for each of the NRA's activities to be tested. Market testing can result in a number of different outcomes, but fundamentally it is designed to lead to 'contracting out', because of the Government's belief that the private sector is always more efficient than the public sector. The NRA's programme for Market Testing does not recognise the interactions between different parts of the organisation and the fragmentation which will occur will produce inefficiencies which will more than outweigh efficiency savings gained.

In the Welsh Region this problem of fragmentation was recognised and the real aim of 'Market Testing' identified as achieving 'Market-Driven Value for Money' (MD-VFM). Following consideration of this idea by the National Executive Group, a study was undertaken by the Region, whereby synergies between sections of the NRA's core business were identified and various organisational structures examined in order to determine how this could deliver value for money. This was known as the Core Pilot Study.

4.2 Results of Core Pilot Study

A key conclusion of the Core Pilot Study was 'that existing synergies are vital to delivery of a quality service. Detailed in-function case studies of Water

Quality and Water Resources have shown that fragmentation arising from existing market testing proposals would result in estimated efficiency losses equivalent to 16% and 20% respectively of the value of the activities considered.'

Another conclusion was that 'Synergy analysis shows that most Functional work is best structured around a Functional Unit, with multifunctional overview to provide integrated management, consistent responses to the public and promote day to day cooperation between functions to ensure efficient use of field staff.'

In the Regional Technical Department this might leave the structure unchanged from its present arrangement.

4.3 ETC Implications for MD-VFM Approach

In opting for a hybrid system for the ETC there is some disagreement with the findings of the Core Pilot Study, which recommends that Functional units are the basis for the majority of the NRA's work in its core business. However, it is considered that with a detailed consideration of synergies that the appropriate functional and multifunctional teams could be identified. Identification of these teams is beyond the scope of this report.

4.4 Recommendations

- 1. That any further consideration of organisational structures should consider a hybrid of single function and multifunctional teams.**

Section 5 *Psychometric Testing as an Aid to Team-working*

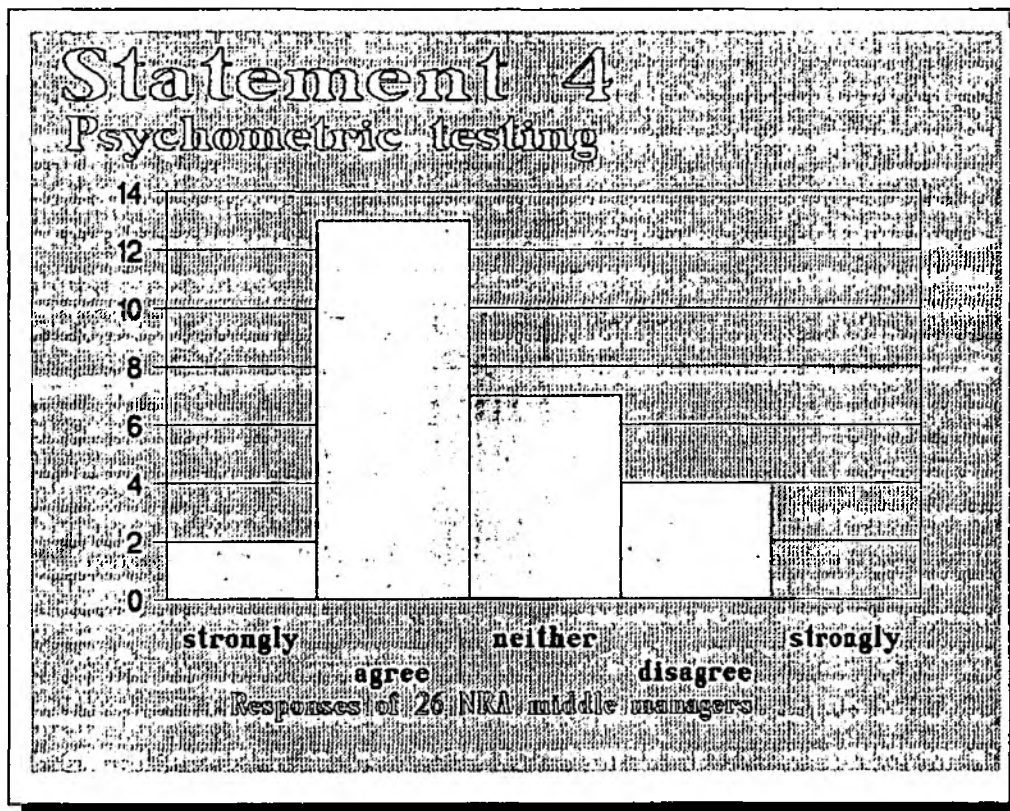
5.1 *Introduction*

A number of Psychometric tests are currently employed by the NRA as an aid to recruitment. In practice the results of the tests are used to support impressions gained from the application form and from the interview, as a means of doing no more than helping to ensure that an unsuitable candidate is not selected due to giving a performance at interview which does not reflect his typical working persona. However, psychometric tests could also be used for other purposes, as they provide an objective indication of the personality of an individual which could indicate his ability to function effectively within a team. The team may be anything from one which is technically orientated and at the bottom of the structure, up to the Regional Management Team.

Aptitude tests are also employed and these can be useful in recruitment when used in combination with psychometric tests. However, from the point of view of this project aptitude tests are not considered relevant as the organisation should have real knowledge of each individuals capabilities.

As part of the questionnaire, the following statement was considered :

" Psychometric test results should be used as an aid to team building."



There was a significant number of individuals who neither agreed or disagreed (7), but those in agreement outnumbered those who disagree by 15 to 4. Many of the comments received showed that the respondents had some concern for the way the tests might be used.

5.2 Psychometric Test Options

There are a number of psychometric tests which are available for use by personnel staff or which need to be administered by specialists. The tests all have their strengths and weaknesses and a brief summary of the characteristics of each test is given in Appendix 3 to provide an indication of how it might be used in team building. The tests which have been considered are listed below:-

1. The PA Preference Inventory - used for selection, team-building and career planning counselling.
2. Myers-Briggs Type Indicator - used for team building.
3. 16-PF(16 personality factors) - used for senior and middle management selection.
4. OPQ 4.2 - used for selection for appropriate culture and team-building.
5. FIRO-B - shows how an individual will fit into an organisation.
6. GMA Abstract Test - used for senior management selection.
7. Sweney's Decision Profile - used for selection, career development and team-building.
8. Sweney's Stress Index - used for examination of an individual's tolerance to stress.
9. Fleishman's Leadership Opinion Questionnaire - used for selection, management development and team creation.
10. Thomas-Kilman Modes of Conflict Instrument - used for general management selection and career development.
11. The Insight Profile - applicable to team-building.
12. The SPQR - used for senior management selection in the public sector.
13. The Omega Motivation and Competency Inventory - relevant to career development and team-building.
14. Raven's Progressive Matrices - used for matching individuals to cultures and for team-building.
15. Watson Glaser Critical Thinking Analysis - identifies high-powered intellectuals for appropriate cultures.

16. The Colour Test - appropriate to selection, career development and team role exercises.
17. The DMT - used for senior recruitment and development.
18. Belbin's Team Role Model Tests - relevant to team integration, career development and culture matching.
19. The Bortner Type A Questionnaire - used in team formation and determining interpersonal compatibility.

5.3 Discussion

The use of psychometric tests is often viewed with some alarm by the individuals whose careers might be affected by their use. To quote just two of the negative comments received via the questionnaire :-

1. "Do we assume that Psychometric tests are all that they are made out to be !! Have recently read that these are being used to determine which staff are made redundant."
2. "Whilst aware of the benefits in constructing a well rounded team, I am concerned about the tests being used to produce an 'elite' as well as concerns over confidentiality."

However, the results of the questionnaire show a clear majority in favour of using the tests and it may be that the following quote from the questionnaire is more relevant :-

"All too often teams are built on the basis of an individual's functional background rather than their characteristics and therefore team role. Would lead to more effective teams."

The tests which are recommended are based on a combination of applicability to the NRA, ease of use and versatility. A comprehensive consideration of test selection is beyond the scope of this report.

5.4 Recommendations

1. Results of the OPQ 4.2 and Myers-Briggs tests should be used as an aid to building of all types of team in order to improve their stability and efficiency.
2. Aptitude tests should be used only where there is no other evidence of competency in the areas tested

Section 6 Financial Implications of an Enhanced Team Culture

6.1 Introduction

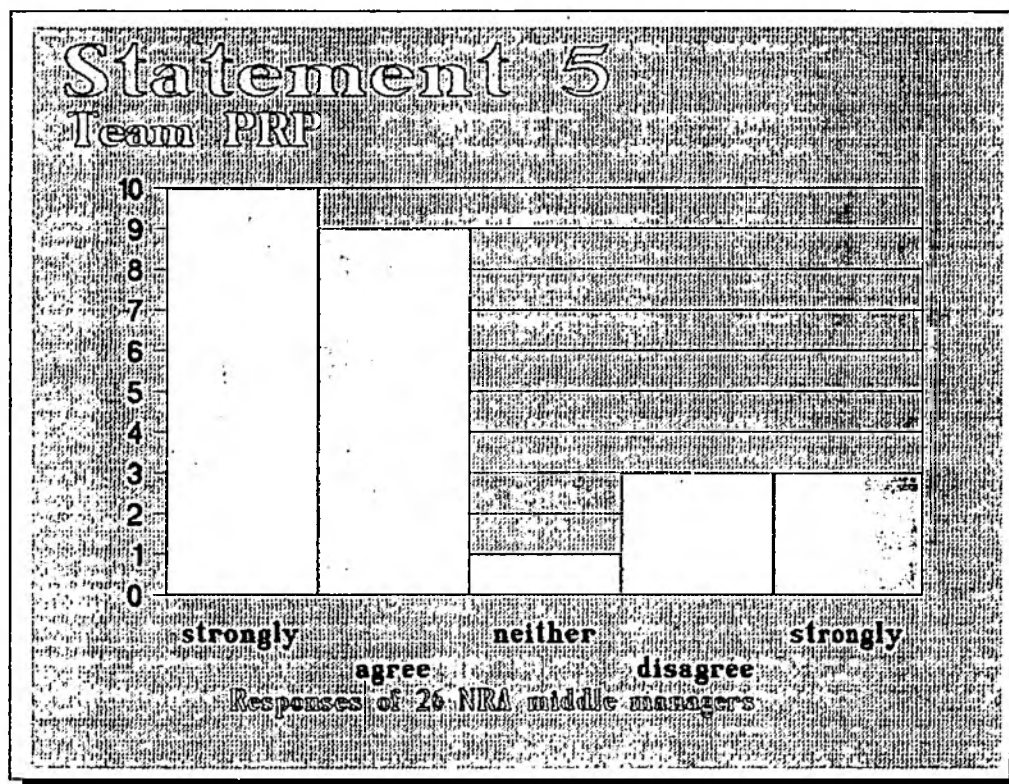
The first area where financial implications of an enhanced team culture should be considered is in relation to performance related pay (PRP) as this is a key factor affecting the work force's morale and therefore their performance. Other areas with financial implications include improved performance due to better communications and the savings which would arise from reducing the number of tiers which would, in some cases, lead to senior/middle manager posts being superfluous. The adoption of this system could therefore assist the reduction of 'head count' required by the government without compromising the NRA's performance. Some further consideration of these issues is made in the section on Costs and Savings (Section 10).

The last part of the questionnaire asked those responding to decide whether they agreed or disagreed with the following statement :-

The last part of the questionnaire asked those responding to decide whether they agreed or disagreed with the following statement :-

"A PRP system where an element of PRP was available for performance of the team and an element for the individual, would be preferable to the current system."

The results are shown in the graphic below :-



The results show some polarisation, with 6 individuals disagreeing or strongly disagreeing and only one remaining neutral. However, 19 respondents favoured team PRP, more than 3 times those who opposed it. The following comments are typical of those in agreement :-

"Most definitely ! PRP as presently proposed for the NRA does not encourage team-work either within a team, or more importantly between teams ("Sorry I can't do that for you its not in my objectives" scenario !)"

6.2. Current PRP System

The NRA is currently mid-way through the first year of its new PRP system and a number of drawbacks of PRP, in general and the NRA system in particular, are already apparent. PRP is a system which, looked at simplistically, seems likely to improve the performance of an organisation, by rewarding better performers for their efforts. In the NRA, the introduction of PRP, together with Job Evaluation, has led to a significant drop in the morale of staff. The main drawbacks of PRP are considered to be :-

- ☐ PRP can limit cooperation, as an individual is motivated to achieve his personal objectives, rather than those of his section.
- ☐ In the NRA system, if an individual is significantly above the mid-point of his grade then he cannot receive PRP, even if he performs well.
- ☐ The setting of appropriate personal objectives in a complex organisation like the NRA can be difficult.
- ☐ Assessment of performance against objectives may not be clear cut and non-achievement may be outside the control of the individual.

6.3 PRP in an ETC

In an enhanced team culture, an element of PRP would be paid for achievement of personal objectives and an element would be paid for

achievement of team objectives. This would lead to the following advantages compared to the current position :-

- ♦ Co-operation within the team would be enhanced.
- ♦ An individual in a successful team would receive the team PRP even if individual PRP was not available to him.
- ♦ The setting of carefully chosen team and individual objectives would lead to a reinforcement of key objectives.

Obviously in an organisation like the NRA an increase in productivity does not lead to an increase in income and the financing of the team PRP may have to be from efficiency savings.

6.4 Recommendations

1. **The PRP system should be revised to include an element of team PRP for each individual's work team.**

Section 7 Communication Implications of an Enhanced Team Culture

7.1 Introduction

The introduction of an enhanced team culture would have two main types of benefit to the organisation with regard to its communications. The first type relates to the improvement in communication between the Regional Management Team and the staff at the lower end of the structure. By

eliminating some of the tiers at the lower level, the number of interfaces between people would be reduced and this would inevitably increase the efficiency of communication. At each interface there will be an element of inefficiency and delay, as individual managers attempt to 'find' time to communicate in the task-oriented culture of the current NRA. Assuming that the communication originates from the top of the structure there will be fewer individuals to add their own interpretation or dilute the original message.

7.2 *Communication Options*

The principal of more direct communication also applies to upward communication where, at each level in the chain, there is a danger of unpalatable messages being sanitised by middle managers. In the current structures, in order to really determine what the 'workers' feel, a senior manager will usually have to communicate directly at this level and if he is looking for an accurate impression, then he must speak to a number of individuals. Although distortion of messages passing up the structure would not be eliminated, there should be a significant improvement. This feeling of closer contact between the top and bottom of the structure is likely to facilitate the development of a more coherent culture, with greater agreement on priorities. This is particularly important in times of change, which are currently more or less continuous, but which will become even more acute with the formation of the Environment Agency.

The second type of improvement in communication relates to the benefits that might be achieved within the team. At present individuals or sub-units of the

Welsh region can operate in closed compartments, often with a lack of understanding of what other individuals or sub-units are attempting to achieve. There are a number of methods which might be introduced with the ETC approach which would improve this situation :-

- ♦ The production and circulation of team mission statements so that all employees can appreciate the *raison d'etre* of each team.
- ♦ The production of annual and quarterly team objectives which should be posted at the teams location and available via the electronic mail system.
- ♦ The networking of each team's computer systems, with messages by electronic mail being sent to teams rather than individuals.
- ♦ The instigation of compulsory weekly team meetings.

It is accepted that some of these suggestions are already in place in some parts of the NRA, but this is in a patchy distribution, which be much more effective it was uniformly applied.

The ETC approach would also be beneficial for external communications. It would avoid the situation where enquirers from the public, or other organisations would be told, as happens frequently, that a particular individual who deals with these matters is unavailable.

7.3 Recommendations

1. **Mission statements for each team should be produced and these should be communicated to all other teams.**
2. **Information Technology should be organised on a team basis.**

3. In general, electronic office communications should be between teams rather than individuals.

Section 8 Information Implication of an Enhanced Team Culture

8.1 Introduction

The NRA uses large amounts of information in undertaking its duties. This information ranges from water quality and quantity information to budgetary information etc. At present many of the NRA's information systems are antiquated and inadequate. The introduction of a state-of-the-art information system linked to the introduction of a national computer network would lead to considerable efficiency savings in communications (see above), data processing and report production. After delays caused by government approval for expenditure not being forthcoming, progress is being made in this area. The Water Archive Management System (WAMS) is due to be trialled in a number of regions, including Welsh Region in the near future.

WAMS will be a 'Microsoft Windows' based system and will allow retrieval of archived data from a variety of existing databases, statistical and other processing and production of tables and graphics which can be imported into word-processor packages for efficient and effective report production. Although WAMS will require a number of relatively high specification PC's to be networked most of the files will be held on shared 'file server' processors which will have considerable storage and processing power. Individuals will be able to gain access to files on the file server as if they were

stored on their own PC and processed information will be accessible by all members of staff, anywhere in the Region via the IT communications network.

Ultimately the NRA or its successor organisation the proposed Environmental Agency, will have a national IT communications network and one of the major benefits that this will bring is an organisation-wide 'electronic office' system. Based on experience in the Welsh Region the benefits of an electronic office system to a geographically dispersed information intensive organisation such as a national environment agency cannot be underestimated. Such a system would greatly increase the efficiency of national communication and help to ensure that we are one organisation with common objectives.

8.2 ETC Options

In an enhanced team culture there are a number of options which might be looked at to enhance the value of new information systems :-

- ♦ Members of a team would be on the same local network and fileserver and would each have access to all of the teams' files and communications.
- ♦ One of the roles within the team would be to have responsibility for data collection and processing . In this way all members of the team would have a higher level of expertise than if they only carried out this function for themselves.

8.3 Recommendations

1. That organisation of information systems should take account of the team element of the structure

Section 9 Summary of Recommendations

1. The structure should be based on a hybrid of specialist functional teams and multifunctional teams to benefit from the advantages of each.
2. The teams should each consist of six or seven people including any team leader.
3. Project teams, both single and multi-functional should be established where necessary and will include members of specialist and multifunctional work teams.
4. Consideration should be given to the star team concept as a means of allowing job rotation and promoting multifunctionalism.
5. The OPQ 4.2 and Myers-Briggs tests should be used as an aid to building of all types of team in order to improve their stability and efficiency.
6. The PRP system should be revised to include an element of team PRP for each individual's work team.
7. Mission statements for each team should be produced and these should be communicated to all other teams.
8. Information Technology should be organised on a team basis.
9. In general, electronic office communications should be between teams, rather than individuals.

enhanced team culture could be achieved with a slight reduction in budget due to the reduced head count and that the efficiency would initially reduce due to training commitments, but ultimately improve due to better motivation and the presence of a more flexible organisational structure. Considering the tier at which posts would be removed from the structure, the reduction in staff costs might approach 10%, but this would depend on the detail of the new structures and would not be achievable in all departments.

Bibliography

1. Stephanie Jones (1993) "Psychological Testing for Managers", Publisher Piatkus ISBN 0-7499-1178-6
2. Schein, Edgar H. (1991) "Organisational Culture and Leadership - A Dynamic View", Jossey-Bass Publishers, ISBN 0-87589-639-1
3. Lawton, A. and Rose, A. (1991) "Organisation and Management in the Public Sector", Pitman Publishing, ISBN 0 273 03274 7
4. Touch Ross and Co (1994) "Options for the Geographical and Managerial Structure of the Proposed Environment Agency" Report to Department of the Environment.
5. NRA Welsh Region (1994) "Market Driven Value for Money - Core Pilot Study" Report to NRA Executive Group.
6. Furnham A. (1994) "In search of the best person for the job", New Scientist 18th June 1994.
7. Pedler M., Burgoyne J., Boydell T. (1986) "A Manager's Guide to Self Development" Second Edition McGraw-Hill, ISBN 0-07 -084924-2

Appendix I

The NRA's Mission Statement

" We will protect and improve the water environment by the effective management of water resources and by substantial reductions in pollution. We will aim to provide effective defence for people and property against flooding from rivers and the sea. In discharging our duties we will operate openly and balance the interests of all who benefit from the use of rivers, groundwaters, estuaries and coastal waters. We will be business-like, efficient and caring towards our employees."

Appendix 2 NRA Team-work Questionnaire

Please circle the appropriate figure for each statement (or underline if replying via the electronic office system) to represent your personal opinion.

'1' represents strongly agree, '2' agree, '3' is neither agree nor disagree, '4' is disagree and '5' is strongly disagree.

1. The NRA is currently obtaining the full potential benefits of team-work.

Comments

2. The NRA would benefit from moving to a structure based on an appropriate combination of multifunctional, single function and project teams, rather than the current hierarchical structure with little multi-functionalism.

Comments

3. A team-based structure where there was periodic job rotation within each team and an opportunity to move between teams and across functions, to allow individuals to gain broader experience, is desirable.

Comments

4. Psychometric test results should be used as an aid to team-building.

Comments

5. A PRP system where an element of PRP was available for performance of the team and an element for the individual, would be preferable to the current system.

Comments

Appendix 3 Details of Psychometric Tests

The PA Preference Inventory

The PA Preference Inventory is often abbreviated to PAPI and is an assessment tool which has been developed by the PA Consulting Group. PAPI is used as a mechanism for structuring an occupational discussion, for

selection purposes, as part of a team-building exercise, or for a career planning exercise or counselling session. PAPI has been devised to reveal people's preferred ways of working and how they can most usefully be accommodated in an organisation. PAPI would therefore be a useful tool in team building as it indicates how an employee is likely to react in a given team situation.

PAPI is a short simple and user-friendly questionnaire requiring the subject to identify preferences in 90 pairs of statements. The test takes between 10 and 20 minutes to administer and is very quick to score. The main advantages of PAPI are that it is quick and easy with a clear simple feedback chart which is understandable to those unfamiliar with psychological tests.

Myers-Briggs Type Indicator

The Myers Briggs test is a popular personality questionnaire which looks at thinking and relating styles and is based on Jungian psychology. The test has been well validated and refined over a period of years. It attempts to classify people according to specific personality types which comprise of combinations of extrovert and introvert, sensing and intuitive types, thinking types and feeling types and judging and perceiving types.

Myers Briggs is used in career development, team-building, management development and more rarely in selection. The Myers Briggs test takes about 20-30 minutes to complete and can be quickly scored. Feedback takes around 30 minutes. This test is seen as being potentially valuable in team building.

16-PF (16 personality) factors)

The 16PF test is a well known standard test which can be used to give an indication of personality types. It is based on the proposal that an individual's personality consists of 16 different personality factors. A large number of validation studies have been carried out and a number of typical groups of personality type have been identified.

The 16PF test consists of over 100 statements on a self-scoring sheet where one of 3 options must be selected for each statement. The test takes about half an hour to complete and a further 10-15 minutes to score. Feedback is likely to take from 20-30 minutes depending on the objectives of the feedback session. 16PF is mostly used in selection procedures for middle and senior management and is not particularly suited to team-building.

OPQ 4.2

OPQ stands for Occupational Personality Questionnaire and has been published by the UK market leaders in occupational psychometric testing. There are a number of different versions with the most popular being Concept 4.2, which is applicable to middle and senior management. OPQ tests are basic personality tests which aim to present a fuller picture of an individual than other available tests whilst at the same time being user-friendly and understandable by the non-specialist. OPQ 4.2 identifies 30 different dimensions of personality and has proved to be very useful in selection.

The OPQ questionnaire has sets of four statements and the testee has to decide which is the most and which is the least, applicable to themselves. The test takes from 30-40 minutes to complete and can be scored, if the computer based version is used, in about 5 minutes. Feedback ideally takes 1 hour, but can be undertaken in 30 minutes. Amongst the measures of personality, OPQ looks at team types and leadership styles. The team types are based on the Belbin model (see below) and the leadership styles are categorised into five types : directive leader, delegative leader, participative leader, consultative leader and negotiative leader. The test also considers the individual's degree of adaptability. OPQ can help significantly in selecting people for appropriate corporate cultures and in team building.

FIRO-B

FIRO-B was developed just before the second world war and was originally used for assessing US armed services recruits. The questionnaire has been revised, since this time, with the most recent version being copyrighted in 1987. The main aim of the test is to help people become more aware of how they behave to other people and how people behave towards them. FIRO-B consists of a form with 54 statements which have to be considered in two ways. The test is self-scoring and takes about 10-15 minutes. Feedback takes at least 20-30 minutes and could take an hour.

The test looks at how aware a person is of the way they deal with other people and can be used to help people fit into specific organisations. It is not

specially suited to team building, but may be useful in combination with one of the other tests.

GMA Abstract Test

GMA stands for Graduate and Management Assessment and is concerned with analysing conceptual thinking. It is an ability test rather than a personality test. The test is designed to analyse a person's ability to handle conceptual and abstract thinking and a person who is very successful in this test would probably make a good strategic thinker.

The test is totally visual and consists of shapes and designs to be analysed in boxes. There are 23 groups of tests forming each separate problem, each including 5 elements. The test is strictly timed and takes half an hour with scoring taking about 5 minutes. Feedback takes about 10-15 minutes and involves the explanation of the relevance of strategic thinking within a personality appraisal. The test is highly appropriate to senior management selection and to the problem of looking for qualities needed for corporate leadership. As such it is not particularly suited for use in team-building.

Sweney's Decision Profile

Sweney's decision profile was developed specifically to analyse the decision making characteristics of managers in more detail than general occupational personality tests. The questionnaire consists of 48 statements with true and false options and can be scored on the reverse according to 13 variables. The

test takes about 10-15 minutes and can be scored in about 10 minutes, with feedback taking about 15-20 minutes.

This instrument is seen as particularly useful in matching individuals with corporate cultures. The nature of cultures has much to do with how a person copes with risk. It aims to define the most significant aspects of decisions and to measure individuals against these for use in selection and career development and in team building.

Sweney's Stress Index

Sweney's stress index is an instrument to specifically examine the level of stress perceived by individuals in their working and private lives. The test consists of a self-scoring sheet, listing 105 potential stressors with 4 choices for each ranging from strongly agree to strongly disagree. The test takes about 10-15 minutes to administer, 10-15 minutes to score and 30 minutes to provide feedback.

The test is usually used for senior management selection, career development and for dealing with employees who need counselling. Although the test is not specifically designed to aid in team-building, it could be used to ensure that an individual is not appointed to a potentially stressful team leader role if he is unlikely to be able to cope.

Fleishman's Leadership Opinion Questionnaire

This test is geared towards asking people what they think about specific leadership issues. The test aims to analyse the particular leadership style of an individual, especially how they react towards subordinates in being directive or delegative. The test consists of 40 questions on a self-scoring sheet and is called a Leadership Opinion Questionnaire because it is looking at a person's opinions in situations calling for leadership decisions.

The test takes 10-15 minutes to complete and is very quick to score with feedback taking about 20 minutes. The test has been validated in a number of situations and can be useful in selection procedures, in management development and in the creation of teams.

Thomas-Kilman Modes of Conflict Instrument

The Thomas-Kilman Conflict Mode Instrument looks at how a person would respond in debate and discussion particularly in disagreement. The testee is asked to respond to a specific set of 30 statements listed on a sheet by indicating how they would expect to behave from 2 options. The time resource needed is 10-15 minutes to complete, a few minutes for scoring and 20-30 minutes to provide feedback.

This test is employed for general management selection and career development and also for selection of senior candidates for leadership roles. As such, it is not particularly suited to team-building, although it could be used for identifying a team leader for a contentious senior team.

The Insight Profile

This test is geared towards asking people what they think about specific leadership issues. The test aims to analyse the particular leadership style of an individual, especially how they react towards subordinates in being directive or delegative. The test consists of 40 questions on a self-scoring sheet and is called a Leadership Opinion Questionnaire because it is looking at a person's opinions in situations calling for leadership decisions.

The test takes 10-15 minutes to complete and is very quick to score with feedback taking about 20 minutes. The test has been validated in a number of situations and can be useful in selection procedures, in management development and in the creation of teams.

Thomas-Kilman Modes of Conflict Instrument

The Thomas-Kilman Conflict Mode Instrument looks at how a person would respond in debate and discussion particularly in disagreement. The testee is asked to respond to a specific set of 30 statements listed on a sheet by indicating how they would expect to behave from 2 options. The time resource needed is 10-15 minutes to complete, a few minutes for scoring and 20-30 minutes to provide feedback.

This test is employed for general management selection and career development and also for selection of senior candidates for leadership roles. As such, it is not particularly suited to team-building, although it could be used for identifying a team leader for a contentious senior team.

The Insight Profile

The Insight Profile has been developed as a simpler, more practical and less complex alternative to the other main tests and looks at 5 basic factors. The test consists of 106 pairs of statements relating to behaviour and attitudes at work. Along a five point scale it is necessary to circle a number according to the extent to which the testee agrees with a statement. The test takes about 10-20 minutes to complete, 5 minutes to score and provision of feedback takes 30-40 minutes.

This test is applicable to a variety of managerial and professional groups and is widely used in the public sector especially for selection purposes. Insight has been used to build up teams, as an alternative and in conjunction with Belbin Team Types (see below). It fits in well with the task of selecting people for appropriate corporate cultures.

The SPQR

SPQR has been developed by Succession Planning Associates as a tool to provide information about candidates for specific positions in the public sector especially in local or central government. SPQR takes the form of a list of 100 statements which are personally rated along a scale of 5 options. Time requirements are : completion - 10-15 minutes, scoring - a few minutes, feedback - 20 minutes to 1 hour.

SPQR is applied to a range of Public sector appointments at senior manager level. The test can only be administered by its authors. The test has no particular applicability to team building.

The Omega Motivation and Competency Inventory

The Motivation and Competency Inventory aims to give the user a good general overview of the individual's workstyle and approach based on sound psychological research. The assessment is geared towards analysing general management motivation and competencies and is particularly suitable for senior level management. The test is relatively time consuming, requiring 6 hours to complete, a number of hours to score and at least 2 hours to provide feedback.

The Omega Motivation and Competency Inventory is used in career development exercises and team building, rather than selection, especially by organisations who employ this test amongst their fast-track and senior managers.

Raven's Progressive Matrices

Raven's Progressive Matrices are an abstract reasoning test which can be widely used as an ability and intelligence test. It is also used in testing of strategic thinking. The Matrices consist of 36 puzzles, each having three rows of three designs, with a final one missing. It is necessary to apply increasing intellectual judgement to decide which is the image to fill in the gap, based on what has gone before. The test is quick to score, but takes forty minutes to complete and 20-30 minutes to provide feedback.

Ravens Matrices are used as an intelligence test for general use or specifically in senior executive selection to test strategic and conceptual thinking patterns.

The matrices can help in matching people to cultures where a good deal of strategic thinking is required and is also valuable in the formation of teams.

Watson Glaser Critical Thinking Analysis

The Watson Glaser test is an ability rather than a personality test which can give an insight into critical reasoning skills which can be important in selection. This test is one of the most well known and well established verbal reasoning tests and consists of 80 separate questions divided into 5 sets. The test is relatively quick to administer requiring a strictly-timed 30 minutes to complete and between 20 and 30 minutes to provide feedback.

This test is usually applied to senior managerial roles particularly in selection for jobs requiring the extensive use of critical faculties. The test gives insight into the ability to perform well in certain cultures and is important in organisations with a great need for high-powered individual intellectual performance in problem-solving and executing a variety of assignments, where lateral thinking is required. The Watson Glaser test is not particularly valuable in team-building.

The Colour Test

The Colour Test is a move means of looking at an individual's way of thinking which examines individual personality traits and aspects of emotional development which can be indicative of their role within a team. The testee is asked to arrange a number of coloured tiles according to a few simple rules and this apparently allows some deductions to be made about personality. The

test takes about 10-15 minutes and there is no scoring requirement, as this is part of the feedback process which takes about 20-30 minutes.

The test is used as a basic personality indicator and in selection, career development and team-role exercises to augment true psychometric personality tests.

The DMT

DMT stands for Defence Mechanism Test and this aims to provide detailed insight's into an individual's emotional and psychological development and in the occupational context gives a view of an individual's ability to cope with stress and facility to make judgements based on only partial information. The test is unlike any other and requires the participant to observe a series of photographic slides, each initially being shown for a for a brief period of time and then report verbally and draw what they see. The period of time which the slide is visible gradually increases. The test takes about an hour to complete, an hour to score and about half an hour for feedback.

The DMT has clinical uses and is used in senior recruitment and career development exercises as it can be used in assessing trainees in their ability to succeed in potentially stressful occupations and how well individuals will work in a team.

Belbin's Team Role Model Tests

Belbin's team role model tests aims to help people to have increased confidence in their own strengths and to recognise and accept their weaknesses whilst acknowledging the strengths and weaknesses of others. Participants on the course are claimed to improve their personal performance by 10-15 per cent and also improve the effectiveness of teams in which they are involved, by a similar amount. The idea is based on nine specific team roles which have been identified : co-ordinators, shapers, plants, resource investigators, implementers, monitor evaluators, completer finishers, team workers and specialists. The test is based on a 'Teamopoly' game as part of a seminar, which takes two and a half days and includes scoring and feedback.

The Belbin model is useful in team construction, as it is suggested that any team should have as many of the different roles represented as possible. Each person may contribute more than one role to the team, as there are scores for each role for each individual. In practice, because of difficulties in having the ideal people to choose from, this test is best used as a team integration device for understanding the strengths and weaknesses of colleagues. This test is also useful for career development and can indicate an individual's ability to fit into certain corporate cultures.

The Bortner Type A Questionnaire

This test is a simple instrument to determine whether an individual has a type A or type B personality, which can be indicative of those who might be subject to stress (the test was initially developed to test whether people were more or less likely to suffer from heart disease). The test takes about 5 to 10

minutes to complete and can be rapidly scored with feedback taking about 10 minutes.

It can be very useful for an employer to know the tendency towards type A or type B staff especially in the formation of teams and in analysing the success of particular individuals working together.

Appendix 4 Additional Existing Structures

Regional EQ Department

