Motivating Systems Development Staff

BUTLER COX
P,E,P

PEP Paper 17, March 1991

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by Vivienne Cuming

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Staff motivation is a matter of serious concern

PEP research and analysis of the PEP database reveal that there is a clear link between good people-management and staff productivity. In PEP Paper 12, *Trends in Systems Development Among PEP Members*, we showed that inadequate people-management is associated with low PIs and high error rates. We can also observe a direct relationship, illustrated in Figure 1.1, between the level of satisfaction that team members have with their project managers' managerial abilities and the performance of the project (in terms of PIs and error rates). Project teams that report a high level of satisfaction typically achieve good project-performance measures, while those reporting a low level of satisfaction are unlikely to do so.

Figure 1.1 Project teams with a high level of satisfaction typically perform well

We analysed the PEP project database and constructed team-satisfaction and project-performance ratings on a scale of 1 (very low/poor) to 5 (very high/good). The resulting points were plotted on a graph; the grey line represents the least-squares best-fit through the points.
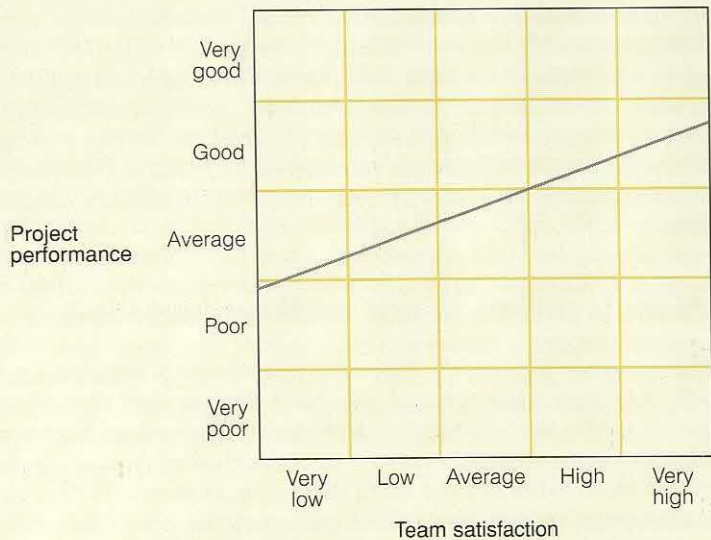
It is therefore a matter of concern that there is such widespread dissatisfaction among development staff with the managerial ability of project managers, and in particular, with their people-management skills. It is also a matter of concern that many project managers and systems development managers have a very poor understanding of one of the main aspects of people-management — staff motivation. Motivating staff has been described as 'getting people to do willingly those things that have to be done'. Many

theories have been developed in an attempt to identify the factors that influence this willingness, and to describe the relationship between these factors and employees' behaviour. Yet, despite the plethora of material available on the subject, staff motivation is a skill that is neither widely nor well practised, and project performance is undoubtedly suffering as a result.

We describe in this report some of the management techniques that could profitably be adopted in systems development departments to motivate team members. We believe that the ability to motivate staff is not an innate skill; it can be learned, and it is therefore essential that organisations provide an environment in which project managers are encouraged to acquire the skills and apply the techniques, to the benefit of the systems department and of the organisation as a whole.

Staff are dissatisfied with managers' 'people' skills

The depth of the concern that systems staff feel about their managers' lack of people-management skills is illustrated in the findings of a study by PA Consulting Group, entitled *Human Resource Issues in Information Technology*. Interviews with senior IT directors, IT line managers, and human-resource specialists in 36 UK organisations revealed that almost half of the sample believed that the supervisors and project managers in their IT departments had 'bad' people-management skills, and less than a quarter rated their skills as any better than 'poor'.

Few organisations rate their project managers as any better than 'poor'

This concern is also evident among PEP members; the PEP staff-survey questionnaires consistently reveal dissatisfaction among team members with the way in which the people-oriented aspects of management are handled, such as rewarding a team for good work, offering feedback on performance, and providing opportunities for career development (see Figure 1.2). In the voting on research topics for 1991, people-management skills scored highest. This demonstrates the importance that PEP members attach to this topic.

Staff motivation is not well understood

Despite extensive research and many books and articles on the subject, staff motivation is not a subject that is well understood. Ignorance of the underlying concepts probably means that many project managers are not behaving in ways that will exact the best from their staff. What is even more worrying, however, is that there are widespread misconceptions in the systems area about what motivates development staff; where such misconceptions prevail, the effect can be positively counter-productive. Our research has revealed four very common myths in the field of staff motivation. They concern salary, management style, recognition and acknowledgement, and the role of competition.

Project managers do not behave in ways that get the best from their staff

Myth: Staff are motivated by salary alone

Previous research by Butler Cox for the Foundation Report, *Staffing the Systems Function*, showed that although a high salary will

Figure 1.2 Team members are dissatisfied with managers' performance in respect of people-oriented factors

CD Career-development opportunities   IM Immediate manager relationship
FB Feedback   Re Recognition
GS Goal setting   SM Senior management relationships

(Source: Butler Cox survey of PEP members)
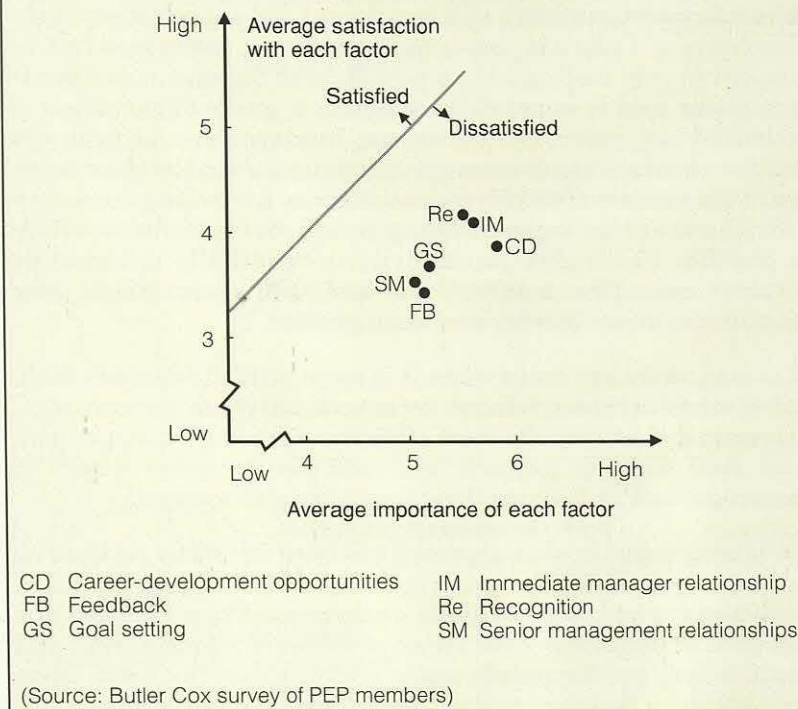
help to attract recruits, it does not, in itself, motivate staff to improve performance.

Pay is a 'hygiene' factor rather than a positive motivator

In the 1960s, Frederick Herzberg, professor of management at the University of Utah, postulated that pay should be regarded as a 'hygiene' factor rather than as a positive motivator. (A hygiene factor is a condition of employment that must be present if the needs of staff are to be met, but that will not, in itself, satisfy their job requirements.) No subsequent research has proven otherwise. Cor Alberts, a divisional director from CAP Gemini in the Netherlands, concurred with Herzberg's view when, during the 1988 conference on recruiting and retaining information technology personnel organised by INTRO UK, he said: "IT staff want to develop and learn new things. Their personal growth is important, but the salary is regarded only as a yardstick, at least in the Netherlands. The salary is questioned because they need to get enough in comparison to other people in the IT profession, or in the company itself."

Similar views were expressed by PEP members during the research for this project. They reported that the importance of money as a reward is based on the indication that it gives to individuals of their value to the organisation, and of their progress compared with that of other staff.

Myth: Staff respond to management-by-fear

Few people would openly maintain that fear and punishment are effective motivators of staff. We are certainly aware of no evidence to support the view, even though the actions of some managers —

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for example, pushing their teams to meet unrealistic targets, or looking for opportunities to criticise their staff — suggest that this is a policy to which they adhere.

Robert Zawacki, professor of management and organisation at the University of Colorado, explains that project managers can be tempted to rely too heavily on punishment because it is easy to administer and it appears to result in a quick suppression of undesired behaviour. He points out, however, that at best, the punitive manager can increase productivity only in the short term, and at the expense of employees' satisfaction. In the long term, staff will either leave the organisation, or remain but contribute as little as possible. The higher productivity level initially achieved by punitive managers is short-lived, and staff performance soon deteriorates under this style of management.

The punitive manager will increase productivity only in the short term

Of course, there are times when it is appropriate to censure staff, and to take disciplinary action for consistently poor performance. However, it is seldom the most effective method of management; most staff want to perform well and they respond better to encouragement and advice than to anxiety and tension.

The management-by-fear approach has been forcefully rejected by authors Tom DeMarco and Timothy Lister in their book, *Peopleware: productive projects and teams*. They dismiss this approach as one of the 'false hopes of software management' and conclude that putting people under pressure does not make them work better — it simply makes them enjoy their work less.

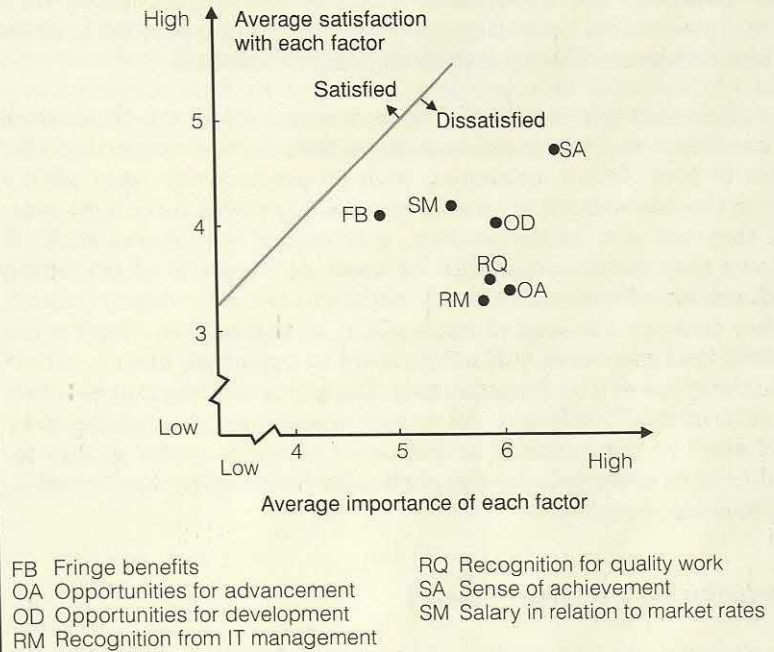## Myth: There is no need to acknowledge good performance

Many managers operate on the assumption that their staff know they are doing well without having to be told. Team members do indeed know when they are performing well. However, they do not know whether their success is being recognised unless they are complimented on it.

In PEP Paper 7, *Influence on Productivity of Staff Personality and Team Working*, we referred to the importance of reward as a motivating factor and demonstrated that, for systems development staff, rewards such as recognition, advancement, and opportunities for achievement and development rank higher than pay and fringe benefits. Figure 1.3 shows that PEP members regard reward and recognition as very important, but that they are not very satisfied with the way these factors are dealt with by managers. Clearly, more frequent and more timely recognition of performance is desired.

Systems development staff are more concerned about recognition than pay and fringe benefits

Jobs that enable individuals to observe the results of their work quickly are intrinsically more motivating than jobs in which knowledge of the outcome is delayed. However, the nature of most systems work is such that a systems designer, for example, may not know for several months whether the design of a system is good or bad. It is therefore essential that project managers provide regular comment on their staff's performance and achievements. Although formal appraisals have a valuable part to play, they are not sufficient and need to be supplemented with continuing informal feedback.

Chapter 1   Staff motivation is a matter of serious concern

Figure 1.3 Systems staff regard reward and recognition as very important, but are not very satisfied with the way these factors are treated by managers

FB Fringe benefits
OA Opportunities for advancement
OD Opportunities for development
RM Recognition from IT management

RQ Recognition for quality work
SA Sense of achievement
SM Salary in relation to market rates

(Source: Butler Cox survey of PEP members)

Myth: Competition is more motivating than performance goals

It is commonly thought that an element of competition will spur staff on to improve their performance. However, extreme care is needed when a competitive situation is encountered or generated. It is necessary to differentiate between friendly rivalry, in which staff good-naturedly seek to outdo one another's achievements, and aggressive competition, in which the 'combatants' try to subvert each other's efforts — to the detriment of the business.

We believe that it is more constructive to encourage staff to strive to meet a performance standard, rather than to compete against each other. Several PEP project managers commented that they would not actively encourage competition between their staff, although they recognised that some individuals might respond positively to a degree of internal competition. They believe that most systems development staff respond better to personal targets than to competition (either internal or external) and wish to encourage their team members to work together, not against each other.

Systems development staff generally respond better to personal targets than to competition

'Personal' competition can be introduced through joint goal-setting and feedback. The positive motivational effect of setting objective and measurable goals, and providing feedback on subsequent performance has been demonstrated in research studies conducted by Robert Zawacki and his colleague Daniel Couger, professor of the computer and management science department at the University of Colorado. In a series of national surveys in the United

States, they asked over 2,500 staff to comment on various factors affecting staff motivation, including objective-setting and feedback. Their findings on feedback are discussed in more detail in Chapter 2. Their findings on goal-setting are confirmed by the PEP database. We have found that systems departments with formal procedures for setting goals and appraising performance on a regular basis achieve productivity improvements.

The goals that systems staff find most motivating are those such as deadlines and budgeted man-days that serve as objectives for them to beat. Other measures, such as productivity, may play a role in the assessment of whether or not objectives have been met, but they are not, in themselves, motivating to systems staff. It follows that measures should be used as a means of providing feedback on achievements and to highlight areas for improvement, rather than as a means of motivating, in themselves. Staff must believe that measures will not be used to apportion blame, otherwise the effect will be demotivating. The particular measures taken must be carefully selected. An unbalanced range of measures may lead staff to cut corners in one area of work — for example, quality — in order to boost the particular factor being measured — for instance, timeliness.

Measures are a useful basis for providing feedback on achievement, but do not, in themselves, motivate staff

Structure of the report

Our discussions with PEP members revealed that many project managers are aware of the concepts underlying staff motivation, but not of the techniques for applying them. They are familiar with the 'what' but need help with the 'how'. In Chapter 2, we describe techniques for motivating staff and provide specific guidelines for putting them into practice.

People-management skills do not come naturally to many of the staff in systems departments, and those who do not value the skills are not disposed to apply them. The organisational environment plays a significant role in influencing the behaviour of staff; it can either facilitate or inhibit the application of motivating techniques. In Chapter 3, we describe four means by which systems development managers can encourage their project managers to practise the techniques — by setting a good example themselves, by providing appropriate training, by considering the merits of implementing performance-related pay schemes, and by appointing as project managers staff with good people skills.

Research sources

We began by analysing the PEP staff-survey database in order to identify which staff factors are of major concern to PEP members, and to assess how satisfied team members are with the managerial abilities of their project manager. We then compared, on a project-by-project basis, the project team's opinions of their project manager with the performance indicators achieved.

Our analysis identified several project managers who had achieved both good performance indicators and high opinions from their team, and we invited some of them to discuss the skills, qualities, and actions that they believe contribute to motivating staff.

We also carried out personal and telephone interviews. We spoke to systems development managers to gather information on the criteria used and the process followed to select project managers. We sought the opinions of project managers on how best to motivate teams, and asked team members for their views on what motivates staff. These were supplemented by further interviews with organisations that had recently reviewed specific aspects of people-management, such as appraisal, training, and selection. We also reviewed text books and research articles on the topic. A short bibliography is included at the end of this report.

Chapter 2

Project managers can practise techniques to motivate staff

The project manager's role is to achieve results through the efforts of his team members. Some project managers find it difficult to delegate tasks: many have been promoted on the basis of their good technical ability and still yearn to build systems themselves. Faced with backlogs and time pressures, they may be tempted to undertake tasks that more properly belong to their team members. They must recognise that the project manager's task is to direct the individual efforts of staff members and to make the team more productive. This requires the project manager to undertake various management activities. Some of these, such as project planning, allocating tasks, and monitoring progress, are task-oriented and require him to be skilled at 'doing' these tasks. Other activities, such as motivating staff, are people-oriented.

Many project managers, while fully aware of their task-oriented responsibilities, fail to appreciate the need for good people-management skills. Success in this area is more dependent on practising the qualitative aspects of project management — sometimes referred to as 'being' skills. They comprise:

Project managers often fail to appreciate the need for good people-management skills

— Being a good communicator.

— Being concerned about the needs and interests of team members.

— Being good at understanding people's strengths and weaknesses.

— Being fair and open-minded with team members.

— Being capable of trusting team members and earning their confidence.

We believe that explicit techniques can be practised to support such 'being' skills — listening, providing feedback, looking for behaviour patterns, demonstrating good judgement, showing loyalty, and behaving in an exemplary manner. Project managers will have opportunities to use these techniques in many of their normal day-to-day activities. They might also profitably organise events of a more social nature for their team members, to create further opportunities to put these techniques into practice. Figure 2.1 provides examples of the best opportunities for practising each of the specified techniques.

Explicit techniques can be practised to support 'being' skills

Listening

The ability to communicate well has been identified as one of the competencies that contributes to superior managerial performance. Advertisements and job profiles frequently specify good

Figure 2.1 Day-to-day activities and social events both provide opportunities to practise particular techniques that support 'being' skills

Situation	Techniques					
	Listening	Providing feedback	Looking for behaviour patterns	Demonstrating good judgement	Showing loyalty	Behaving in an exemplary manner
Project team meetings	✓		✓	✓	✓	✓
Inspections	✓	✓		✓	✓	✓
Informal one-to-one discussions with staff	✓	✓	✓	✓	✓	
Staff appraisals	✓	✓	✓	✓		✓
Social activities — for example, gliding outings	✓		✓			✓
Preparing progress reports on projects				✓	✓	
Recruitment interviews	✓		✓	✓		✓
Work-related events — for example, lunchtime seminars	✓		✓			✓

communication skills as a prerequisite, and distinguish between the skills of written and oral communication. Listening skills are rarely mentioned, but they are fundamental, since dialogue without listening is, at best, only partial communication.

The quality of listening skills is easily tested. If the listener is really listening, he will be able to repeat what has just been said, and to recall more detail later. The speaker will feel that he has had the listener's full attention.

Listening involves attending, following, and reflecting

Listening is not a passive state. As Michael Bird points out in his book, *The Time Effective Manager*, "... good listening does not mean being silent the whole time, agreeing to everything that is being said, letting the speaker ramble on indefinitely or gritting your teeth in a fixed smile and feigning interest ... It does mean helping others to articulate their ideas and feelings, as appropriate, helping others to solve their problems, considering the real reason why the other person wants to talk to you, and finding out if action is wanted from you or just a sympathetic hearing ..."

Good listening is achieved by practising three sets of specific skills — attending, following, and reflecting:

Attending skills comprise the non-verbal side of communication, or body language. They indicate whether the listener is genuinely paying attention to the speaker. Any lapses in 'attending' on the part of the listener are likely to be picked up by the speaker and interpreted as lack of interest or sympathy.

Following skills require the listener to encourage the speaker to describe his views and feelings. This is achieved by the use of appropriate questions, encouraging phrases, and effective handling

of silences. Questions do, of course, have different purposes. Conversational 'door-openers', such as "How are you coping with task x?" or "What happened next?" prompt the speaker to articulate his views. More challenging questions, such as "What evidence do you have to support this view?" will stimulate the speaker's thinking. Straightforward questions, such as "Could you say more on ...?" are appropriate where the speaker's ideas or explanations are not clear. Questions such as "How did you feel about that?" or "Why do you think that happened?" may lead the speaker to reveal more about his feelings.

The listener must, however, be wary about probing too early in the conversation, or asking too many questions; he must not appear to be intrusive, nor to be interrogating the speaker. He should provide signs that he is following the speaker, through the use of encouraging words and murmurs; during silences, he should remain attentive and give the speaker an opportunity to collect his thoughts.

Reflecting skills require the listener to demonstrate that he has understood what the speaker has said. The listener restates, in his own words, the views and feelings expressed, and lets the speaker comment on the accuracy of his 'play-back'. Reflecting techniques include paraphrasing, reflecting meanings, reflecting feelings, and summarising.

Some common obstacles to good listening are described in Figure 2.2, with suggested solutions.

Figure 2.2 There are many obstacles to good listening but they can be overcome

Obstacles	Suggested solutions
Self-consciousness and day dreaming The listener is preoccupied with himself or becomes lost in his own thoughts.	The listener must give his full attention to the speaker and concentrate on what is being said rather than on his own thoughts. If there is some more pressing matter distracting him, he should postpone the current discussion to another time when he can give it his full attention.
Long speech by the speaker The listener loses the thread of the argument.	If the listener cannot recall what has been said or does not understand it, he should ask the speaker to repeat, elaborate, or simplify it. He may also try summarising what he thinks was said to check whether or not he has understood.
Hearing what you want to hear The listener distorts the message to fit his opinions or requirements.	The listener must be aware of his own motives and be prepared to change his view in the light of what the speaker says.
Rehearsing a reply The listener starts to prepare a response before the speaker has finished talking.	Once the listener starts to plan a response, he ceases to give his full attention to the speaker. He should try to respond to what the speaker has just said rather than preplan questions and comments.
Antagonism The listener feels hostile towards the speaker and automatically infers that a contradictory view to his own is being expressed.	If the listener feels hostile towards the speaker, he may find it difficult to listen with an open mind. He should not make assumptions about what is being said, but try to concentrate on the content rather than on his opinions of the individual.
Environmental interruptions A variety of external distractions impair the listener's concentration.	It is essential to choose a time and a place where there will be no interruptions.

Providing feedback

Both academic researchers and popular authors on management
issues have singled out feedback as a critical feature of staff
motivation. They are equally consistent in the view that this is a
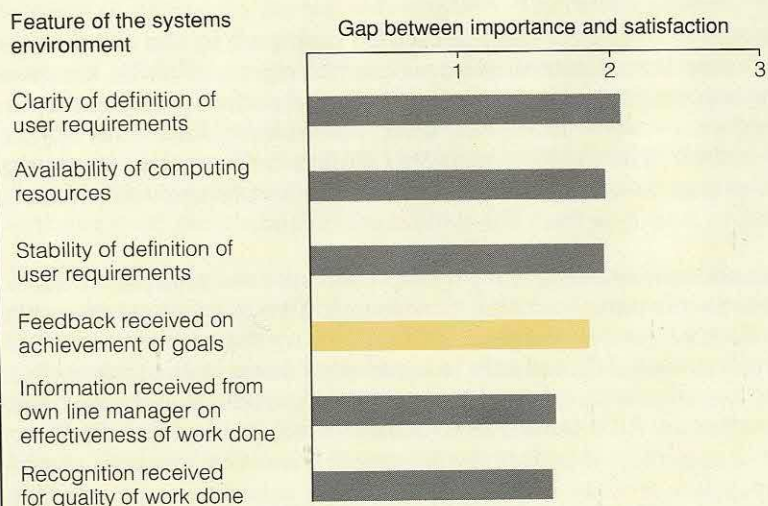skill in which most managers are weak.

We discussed in Chapter 1 the extensive surveys carried out in the
United States by Robert Zawacki and Daniel Couger to measure
staff satisfaction with their managers' feedback skills. Staff were
asked to rate, on a scale of one to seven, how satisfied they were
with the feedback they received. The results showed that
satisfaction ratings are moderately low, and that systems staff —
particularly, more junior systems staff — are less satisfied with
feedback than staff from other departments within the organ-
isation.

This low level of satisfaction with the feedback they receive is also
evident among PEP members. Analysis of the staff-survey database
shows a significant gap between the importance that PEP members
give to feedback and the satisfaction that they feel. Of the 59 factors
that staff are asked to rate in the questionnaire, feedback
consistently appears among the six with the biggest gap between
importance and satisfaction (see Figure 2.3). This is consistent
with their desire for greater recognition, which was illustrated in
Figure 1.3.

**Figure 2.3   Staff rate the importance of feedback very highly but they are
not very satisfied with the feedback they get from managers**

In the staff-attitude survey conducted as part of PEP, systems staff are asked
to rate, on a scale of 1 to 7, how important they consider 59 particular
features of their environment, and how satisfied they are with the way
managers deal with these features. The six features with the biggest gaps
between importance and satisfaction are shown in the diagram.

Feature of the systems environment	Gap between importance and satisfaction
Clarity of definition of user requirements	(gap ≈ 2)
Availability of computing resources	(gap ≈ 2)
Stability of definition of user requirements	(gap ≈ 2)
Feedback received on achievement of goals	(gap ≈ 1.7)
Information received from own line manager on effectiveness of work done	(gap ≈ 1.6)
Recognition received for quality of work done	(gap ≈ 1.5)

There are two sides to feedback — praise and reward, and
constructive criticism or censure — and both are important in
motivating staff. By praising good performance, the manager adds
to the satisfaction that team members get from a job well done and
encourages them to achieve again. By constructively criticising

poor performance, he develops the individual and helps him to avoid further mistakes.

The three golden rules on feedback are that it should be appropriate, timely, and well put:

— Praise that is unmerited or out of proportion to the action will be seen as insincere and make the recipient feel uncomfortable. Criticism that is unjust or directed towards a fault over which the recipient has no control will be resented. Feedback should be focused on the value it has for the recipient; it should not constitute the views and feelings of the manager, under the guise of feedback.

— Feedback should be given as soon as possible. If it is delayed, it becomes difficult for the recipient to identify the actions that led to a successful or unsuccessful outcome, and is less likely to be accepted in a positive spirit. If praise is delayed, the recipient will be suspicious about an apparently new-found interest in his work; if censure is not timely, he will justifiably question why criticisms were not raised earlier.

— The manager should always give specific examples of what he is praising or criticising and avoid making generalisations, or comments on the staff member's personality. It is extremely rare for a public reprimand to be appropriate, but occasionally — for instance, where deliberate disobedience is concerned — a manager may need to censure publicly to reassert his authority. Several project managers in PEP commented that criticising under-performers has a positive motivational effect on the rest of the team because it reassures them that the project manager is aware of discrepancies in performance.

Looking for behaviour patterns

The group of project managers who took part in the Butler Cox workshop discussion on good people-management skills stressed how important it is to understand the behaviour of individual team members — their strengths, their weaknesses, and what makes them 'tick'. They believe that this skill is important so that they can praise or criticise team members in a way that will elicit a positive response from the person concerned.

Success in assessing people depends on how accurately their behaviour is perceived and interpreted. This is a complex process in which subjective and personal factors play a significant part. The perceiver responds not only to sensory evidence but combines this with his own motives, expectations, feelings, and memories of past experiences. As a result, perceptions of other people's behaviour are frequently inaccurate. Research into the nature of the perception process has identified some common causes of this inaccuracy. These are described in Figure 2.4.

Perceptions of other people's behaviour are frequently inaccurate

To avoid being influenced by personal prejudice or subjective interpretations of an individual's behaviour, it is wise to adopt a more deductive approach: to observe what is happening, to make inferences about the possible causes, and to ask questions to gain information and test hypotheses before reaching a conclusion. Good

<table>
<tr><td>Figure 2.4 Perceptions of other people's behaviour are frequently inaccurate</td></tr>
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Halo/horn effect
Individuals often make an early judgement about whether they like or dislike someone, and proceed to select information that confirms this judgement and to ignore information that contradicts it.

Law of primacy
People typically give a more significant weighting to early information than to later, contradictory evidence.

Assumption of mutual like/dislike
People tend to assume that those whom they like, like them in return. Conversely, those they dislike are judged to dislike them also.

Assumption of multiple similarities
People often assume that because there are some common features of their personalities, others will also exist.

Implicit personality theories
Most people have a set of ideas about other people and the way in which they behave. Having detected one characteristic in the person being judged, an individual frequently assumes that other characteristics, related to this belief, also exist. Implicit personality theories often include stereotyping.

people managers work things out by observing what is happening, and seeing patterns, not by guesswork.

Demonstrating good judgement

A project manager's performance will often be gauged by the quality of his decisions. Team members expect him to make fair decisions based on a logical analysis of the facts. This calls for sound judgement. It is imperative that the manager hear both sides of any new argument or proposition before reaching a conclusion; very few decisions genuinely have to be made instantly. He should also beware of acting on partial information. The test question, "but what is the rest of the story?" will often elicit more details that will make it possible to avoid hasty and potentially embarrassing decisions. Once he has the relevant information, and has weighed up the pros and cons, however, he should make a decision without procrastinating. He must be sufficiently flexible to review his decision if circumstances change, but beware of changing his mind without good reason.

The project manager needs to keep an open mind

The development team should be involved, where possible, and encouraged to put forward ideas. The project manager needs to keep an open mind while listening to their suggestions. If his response always begins with "no", or "yes, but . . .", he is not being open-minded. He should test his ideas by asking "why?" and "why not?" before making a decision. If ideas are modified, or turned down, the reasons should be explained to the team.

If a project manager finds himself constantly unable to justify decisions, jumping to conclusions, ignoring important information in decision-making, or denying its relevance, relying on 'gut feel', or being impatient with colleagues who want to discuss the pros and cons when he wants to 'get on with it', he should seriously consider the quality of the judgements he is making. He might, for instance, ask himself:

— What are the reasons for my decision?

— What information have I taken into account?

— What options did I consider?

— What are the plus and minus points for each option?

— Why is this the most appropriate option?

A reputation for fair play and sound judgement will earn the project manager the trust of his staff and this will be a strong force in motivating the development team.

Showing loyalty

The project manager expects his team to be loyal to him, just as his manager expects loyalty from him. He must therefore be prepared to support or defend his team. This does not mean covering up for, or failing to acknowledge, failures. It does mean showing confidence in the team and demonstrating concern for their interests. In support of his staff, the manager must:

The project manager must be prepared to support or defend his team

— Use his abilities and position to secure adequate resources for his team to do their job.

— Trust his team to get on with the tasks that they are capable of doing.

— Honour all commitments to his staff and avoiding making any promises that he cannot keep.

— Defend the conduct of his team against criticism from outsiders and listen to their version of events before reaching a conclusion.

— Personally accept responsibility if things go wrong.

— Put people forward for reward, recognition, and further development.

One of the conclusions from the Butler Cox workshop discussion on good people skills was that good project managers are willing to take a back seat when praise is given: they recognise that a shared success for the team is more important than a high profile for the project manager. Moreover, loyal managers are eager to see their team members develop. They will encourage staff to attend training courses, to take on more demanding tasks, and to aim for promotions that are within their capabilities.

He must recognise that a shared success for the team is more important than his own high profile

Behaving in an exemplary manner

A project manager's personal behaviour must be compatible with his objectives. Actions that are at odds with his stated aims will undermine his authority and reduce the likelihood of his team's striving to achieve the results he wants.

Team members take their lead from the manager, so he must set a good example. If he expects his team to work hard, to show enthusiasm, and to be loyal, he must also display these qualities, avoiding behaviour that he would not tolerate in his staff. He

cannot legitimately censure team members for conduct such as poor time-keeping and failure to keep their word, if these are also weaknesses of his.

The project manager should ensure that his actions fit his words. Mismatches will indicate that he does not mean what he says — a cheery greeting is hollow without an accompanying smile, and apparent concern is meaningless if the reply does not merit his undivided attention. Such behaviour will quickly lead to a loss of credibility with development staff.

Fluctuations in behaviour are disconcerting for the team

The behaviour of a project manager, and his style of operation, must also be consistent. Fluctuations in style or attitude are disconcerting for the team. Ideally, the manager will be lively, energetic, charismatic, inventive, enthusiastic, and so on, but if he does not have it in him to be all of these things, it is pointless to pretend. The team will soon detect any attempt to deceive them.

We have seen in this chapter that there are techniques that project managers can practise to help motivate the members of their teams. To be fully effective, however, these techniques need to be practised in an environment which itself supports the concepts underlying staff motivation. In Chapter 3, we identify ways in which the systems development manager can ensure that he creates such an environment, and so support the development of motivated and productive development staff.

Chapter 3

Systems managers must help project managers apply the techniques

Knowing the techniques of motivation is not enough: they must be applied, and this is not always easy. For systems development staff, the main obstacle is that many of them do not value 'people' skills. Perhaps this is not so surprising given the typical personality characteristics of systems development staff. In PEP Paper 7, we reported on the work of Michael Lyons, a US writer and researcher, which showed that the personalities of systems development staff are by no means representative of the general population: more than 50 per cent of all systems development staff fell into just three of 16 personality classifications, compared with only 8 per cent of the general population (see Figure 3.1). As a result, we concluded that systems development staff are, in relation to the average population, insensitive, short of communication skills, and 'loners', preferring to work by themselves rather than as part of a team.

During a talk on human-resource issues (given at a Butler Cox Foundation meeting in October 1990), Robert Zawacki maintained that, while the basic personality profile will never change, an individual can change his behaviour — providing there is a suitable reward. In his experience, "what gets rewarded gets repeated".

The organisational environment can thus play a significant role in influencing the behaviour of staff by ensuring that suitable rewards are administered, and by providing adequate support.

The organisational environment influences the behaviour of staff

In this chapter, we identify four ways in which senior systems managers can encourage project managers to value people skills and to put the techniques described in Chapter 2 into practice. The first is to set a good example. The second is to provide adequate training. The third is to reward those who perform well, according to guidelines that should be established within the organisation. The fourth is to select as project managers those who possess good people skills in addition to the technical and task-oriented skills also required in this role.

Set a good example

The techniques for motivating staff, described in Chapter 2, are universally applicable and should be practised by all levels of management. Just as the behaviour and performance of project managers have an influence on their teams, the example set by senior systems management affects their staff: practising motivating techniques encourages staff to behave in the way the manager wants. In other words, to ensure that the techniques are applied, senior systems managers must be seen to be applying them themselves. This includes agreeing on people-management objectives with project managers and providing feedback on the

To ensure that the techniques are applied, senior systems managers must apply them themselves

Figure 3.1   The personality characteristics of systems development staff are not representative of the population at large
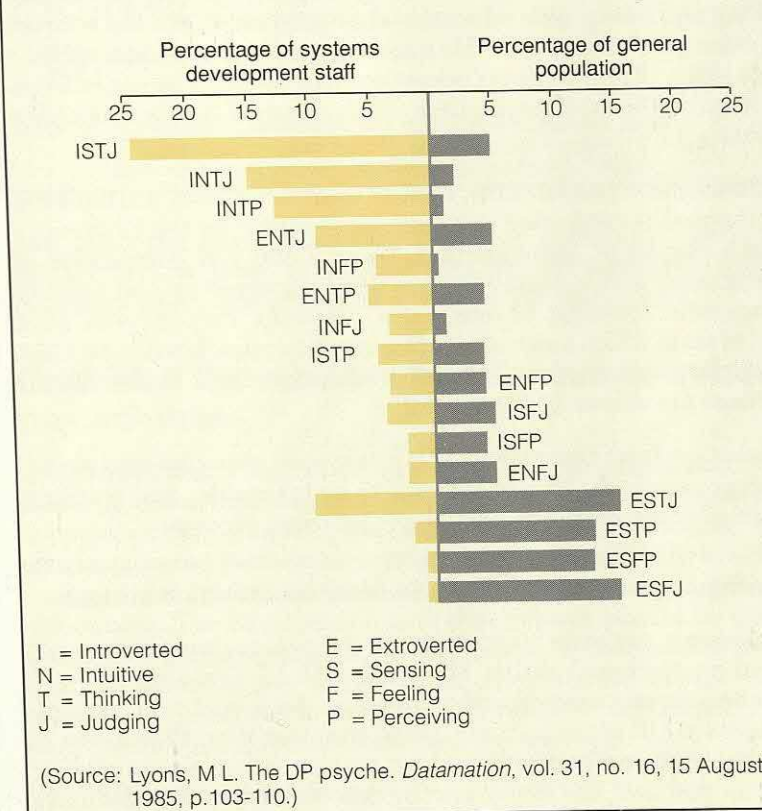
There are 16 personality classifications (known as the Myers Briggs Personality Classifications). Each corresponds to one of the 16 possible combinations of end points of the four personality dimensions and each is identified by the four corresponding end-point letters. Individuals are typed by the classification that accords most closely to their personality measures.

The diagram shows the 16 combinations, and the proportions both of systems development staff and of the general population corresponding to each one.

The most marked differences occur in 6 of the 16 classifications, ISTJ, INTJ, INTP, ESTP, ESFP, and ESFJ. In summary, they can be described as having the following characteristics:

— ISTJ   Serious, quiet, practical, orderly, thorough, responsible.
— INTJ   Original, sceptical, critical, independent, determined, stubborn.
— INTP   Quiet, reserved, logical — having sharply defined interests.
— ESTP   Practical, unhurried, mechanically minded.
— ESFP   Easy-going, friendly, sporty, practical.
— ESFJ   Warm-hearted, talkative, popular, conscientious, cooperative.

The diagram shows that three of these classifications (ISTJ, INTJ, and INTP) account for more than half of all systems development staff, but for only 8 per cent of the population at large. The other three (ESTP, ESFP, and ESFJ) account for 4 per cent of systems development staff, but for 42 per cent of the population. Clearly, the personality of systems development staff is by no means representative of the population at large.

Percentage of systems development staff | Percentage of general population

25 20 15 10 5 | 5 10 15 20 25

ISTJ
INTJ
INTP
ENTJ
INFP
ENTP
INFJ
ISTP
ENFP
ISFJ
ISFP
ENFJ
ESTJ
ESTP
ESFP
ESFJ

I = Introverted   E = Extroverted
N = Intuitive   S = Sensing
T = Thinking   F = Feeling
J = Judging   P = Perceiving

(Source: Lyons, M L. The DP psyche. *Datamation*, vol. 31, no. 16, 15 August 1985, p.103-110.)

quality of project managers' people-management skills. These are aspects of the senior systems manager's responsibilities that are often overlooked.

Provide adequate training

There is evidence to suggest that explicit people skills can be learned. Since the majority of companies are prepared to invest in

their staff, they should consider providing management training in this area, particularly where little is provided at the present time, or where organisations are unhappy with the calibre of their current management team.

People skills can be learned

Few people would disagree with the view that functional skills such as marketing, financial accounting, and operational planning can be learned. Indeed, most Master of Business Administration (MBA) courses are specifically designed to teach these skills. To state that behaviour skills can also be learned is more controversial, yet various research studies support the validity of this view.

Most management skills, including people skills, are thought to be learnable

Two researchers from the University of Lancaster, John Burgoyne and Roger Stuart, examined which skills and qualities of managers contribute to successful performance, and to what extent these are acquired by learning. One of the significant sets of skills identified was that of 'social skills and abilities', including leadership, influencing, communicating, and using and responding to authority. Burgoyne and Stuart found that most managers consider their own skills to be learnable, and demonstrated that day-to-day working and living, plus educational programmes, are the sources that managers believe contribute most to developing an individual's people skills. (Their findings are set out in a research paper entitled *The Nature, Use and Acquisition of Managerial Skills and Other Attributes.)*

The finding that people skills, such as communication, are believed to be learned, is confirmed in a study undertaken by the University of Bath School of Management. Over 2,500 UK companies of varying sizes and industry sectors were surveyed on the topic of management training. In one of the questions, respondents were asked to state which methods of training they considered to be most appropriate for a given range of management skills. Their responses are shown in Figure 3.2.

The message from these surveys is clear: most management skills, including people skills, are thought to be learnable, and training courses play a significant part in the learning process.
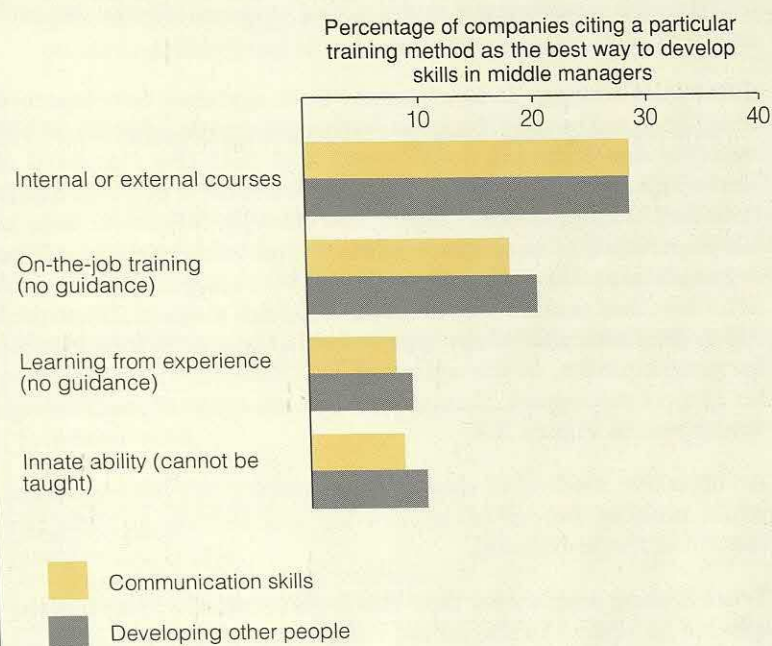
Training in people skills lags behind technical training

The evidence suggests that, in most companies, training is still centred on technical skills. The 1990 BIS IT Training Survey, conducted among systems directors and personnel and general managers in UK organisations, found that less than 10 per cent of the total systems training budget was spent on management training, and that the major part of this was devoted to the more functional skills of project management, such as time management, and project planning. Less priority was given to behavioural aspects, such as interpersonal skills and team leading.

Most companies provide little management training for systems staff

This emphasis on technical skills was also evident among the organisations that took part in a study undertaken by the Butler Cox Foundation in Australia. Most of the participating organisations allowed 10 to 15 days per staff member per year for technical training; only half of them had set any objectives for management-development training, and of those that had, half

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Figure 3.2   Most companies believe that middle-management skills can be taught

Percentage of companies citing a particular
training method as the best way to develop
skills in middle managers

| | 10 | 20 | 30 | 40 |

Internal or external courses

On-the-job training
(no guidance)

Learning from experience
(no guidance)

Innate ability (cannot be
taught)

■ Communication skills

■ Developing other people

(Source: Mangham, I L and Silver, M S. Management training: context
and practice. London: Economic and Social Research Council;
Bath: University of Bath, School of Management, 1986.)

had allocated fewer than four days per person per year. This relatively low level of expenditure on management training indicates where the priorities of most organisations lie.

Consider the merits of performance-related pay schemes

Performance-related pay schemes can be great motivators

If rewards and recognition are conferred in proportion to the performance achieved by individual members of staff in a way that is perceived as being fair, they can act as great motivators. While well structured performance-related pay schemes help to achieve this goal, the means of implementing such schemes are not without difficulties. The basic principle is that reward should be directly related to performance. High performers will therefore benefit from substantial pay differentials; they should expect — and receive — good rewards for good results. Conversely, poor performers should receive less than the average.

The difficulties most frequently encountered in implementing performance-related pay schemes are:

— Success, or failure, is difficult to prove because no clear and measurable objectives have been set.

— Staff are dissatisfied with the size of the performance-related reward.

— The employee feels that the company has failed to honour its promises; a scheme can then be said to have failed — at least in terms of motivation.

In order to overcome these difficulties, performance-related pay schemes must incorporate the following elements:

— Written job descriptions and defined responsibilities for each grade of staff.

— Joint goal-setting. It is essential that systems development managers agree on objectives with each grade of staff in the systems development department and that the standard of performance expected and the timescale for achievement is specified. The particular objectives set will vary according to the experience of each grade of staff, and to the culture of the organisation; they should reflect the range of tasks and activities that need to be undertaken at each stage of the project life cycle. Examples of the types of objectives that could be set for programmers, at the coding and module-testing stage, and for project managers, throughout the life cycle of the project, are shown in Figure 3.3.

— An objective method of assessing an employee's performance, while making proper allowance for any factors outside the control of the individual.

— Trust among employees that the organisation will apply the scheme according to the stated rules.

— Adequate merit awards with appropriate differentials maintained between poor performers and high-fliers. One way of achieving this is to set, annually, a median salary for the

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Figure 3.3 All systems staff should have defined objectives for the tasks to be undertaken at each stage of the life cycle

We have listed here examples of appropriate objectives for two levels of systems staff, and for particular stages of the development life cycle. PEP members need to create similar lists for each staff level at each relevant life-cycle stage.

Programmer

Objectives must be agreed for completion date and man-days of effort for each item of work. Criteria for determining that an item has been completed to the required quality must also be agreed:

— Code has been inspected and errors corrected.
— Module tests have been completed, with no errors outstanding.
— Documentation is up-to-date and accepted after inspection.
— All programs conform to agreed standards.

Project manager

Objectives must be agreed for completion date and man-days of effort for the project, and for the productivity of the development team. Quality objectives must also be agreed with the project manager:

— Changes to specifications below an agreed level.
— Mean time to failure, once the project is operational, above a specified time.
— Minimum user-satisfaction rating.

People-related objectives should also be agreed with the project manager:

— Maximum level for staff turnover within the team.
— Targets for staff development within the team (for example, attendance at training courses, grade promotions).
— All staff appraisals completed on time.
— Minimum satisfaction-rating of the project manager by the team.

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average performer, with positive and negative differentials for the high-flier and the poor performer, respectively. Although the figures will vary among organisations and according to circumstances, high-fliers are unlikely to be motivated by a positive differential of less than 15 per cent.

Select managers with good people skills

As part of the research for this paper, we contacted PEP members in the United Kingdom and the Netherlands and asked those responsible for selecting project managers what skills and qualities they were looking for. Their responses are shown in Figure 3.4.

Figure 3.4 PEP members seek a wide range of skills and personal qualities from project managers

Functional skills
Technical skills/knowledge
Business skills/knowledge
Planning and control skills
Delegating skills
Problem-solving skills
Previous experience as a project manager
Ability to contribute ideas to the business

People-management skills
Communication skills
People skills (not defined)
Negotiating skills
Ability to lead staff
Ability to motivate staff
Ability to involve staff
Ability to develop staff

Personality characteristics
Emotional resilience
Self-confidence
Drive and energy
Sensitivity to events
Ability to make decisions
Maturity
Motivation
Ability to trust the team

Most organisations seek a mixture of functional and behavioural skills in a project manager

Some members concentrated on technical skills and experience, but most listed a mixture of functional and behavioural skills, believing that too strong an emphasis on technical issues detracts from good performance at the project-manager level. Others added specific personality characteristics that they expect aspiring project managers to possess, such as emotional resilience and drive.

Yet, in spite of these apparently firm views on the skills that make a good project manager, most PEP members surveyed were being highly subjective in their assessment of candidates. For example:

— Few organisations have written skills profiles that identify the range and depth of skills required in each role within the systems development department.

— Many members admitted that they rely on 'gut feel' when assessing a candidate's people skills.

— Although two-thirds of those surveyed make some use of personality tests, only two of them have based the 'desired'

profile on the traits and characteristics of people who are currently performing successfully in project-management roles.

— No respondent was able to produce evidence of improved staff performance as a result of using personality tests to select project managers.

In PEP Paper 7, we stated that knowing the personality characteristics of staff is an essential element in assembling teams, and recommended that systems development departments should introduce personality testing. We still believe this to be true — but would add that these tests must be used in an objective manner if they are to deliver the expected benefits.

The possible consequences of inaccurately assessing the potential of systems development staff is illustrated in Figure 3.5. Not all staff have the potential to perform well as project managers. Each quadrant shows the likely career prospects for an individual, based on current technical performance and managerial potential:

Not all staff have the potential to perform well as project managers

— The *no-hoper* has low managerial potential and average technical performance. This person makes only a limited contribution to the business and is not a suitable candidate for the project-manager role.

— The *hybrid* has high managerial potential and above-average technical performance. This type of person is likely to advance through any career path and perform well as a project manager, but is comparatively rare.

— The *unfulfilled manager* has high managerial potential and average technical performance. This person has the qualities to be a good project manager, but if career progression is based on technical performance, he will not be given the opportunity

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Figure 3.5   Staff promoted to management roles are often unsuited to the task

Staff with average technical performance are unlikely to be given the opportunity to show their full managerial potential, while staff who are good technicians are likely to be promoted to positions for which they have insufficient managerial ability.
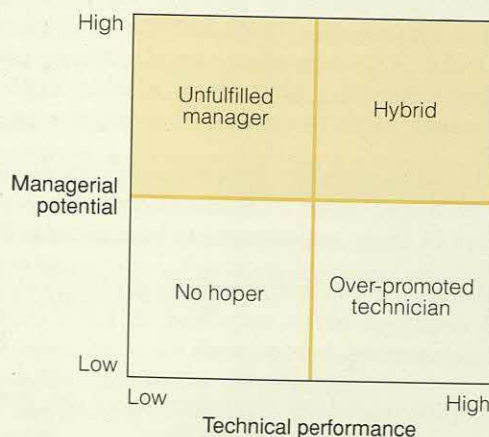
(Source: *Recruiting and retaining information technology personnel.*
Henley-on-Thames: INTRO UK, 1989.)

to take responsibility for leading a team, and is likely to look for a more satisfying career elsewhere.

— The *over-promoted technician* is probably typical of many systems professionals today. Such people have very little managerial potential, but they are competent technically. They have been promoted to their present positions as a reward for good technical performance, and are likely to promote the same type of person. They do not make the best project managers.

To reduce the likelihood of making inaccurate assessments, we recommend that PEP members adopt an objective approach to selecting project managers (either by internal promotion or new appointments) such as that described below.

An objective approach to selecting project managers should be adopted

The first step in the process is to define the skills and characteristics that the organisation is seeking. These should be chosen on the basis of a clear link with proven or expected good performance in the role of project manager, and should be appropriate to the organisational environment concerned. They should be defined in terms that can be tested; otherwise, it will be virtually impossible to assess whether or not candidates possess them, or have the ability to acquire them. This step is one of the stages followed by the Leeds Permanent Building Society when selecting and promoting staff in all parts of its business, including the systems development department. The Leeds Permanent assesses candidates according to a predefined list of criteria, chosen because of a demonstrated link with superior performance in the role. The specific criteria used for selecting project managers, and the various stages in the assessment process, are described in Figure 3.6, overleaf.

The list of required skills and characteristics should be classified under the following five headings:

— Those that are *essential* to fulfilling the role of project manager, such as good people skills, energy, and drive. Candidates who do not possess these mandatory qualities should be rejected outright.

— Those that are *unacceptable* in a project manager — for example, indecisiveness. Candidates with these characteristics should also be rejected outright.

— Those that are not essential but that are considered to be *relevant* to the role of project manager, such as thorough technical knowledge. All other things being equal, possession of these skills or characteristics will give a candidate an advantage.

— Those that are *irrelevant* to the role of project manager — for example, length of service. Such skills or characteristics should have no bearing on a selection decision one way or another.

— Those that put a candidate at a *disadvantage* without actually preventing him from being considered further — for example, temporary non-compliance with regulations, such as security clearance.

Those responsible for selecting candidates should describe the behaviour that they associate with these skills and characteristics,

> **Figure 3.6 Leeds Permanent Building Society has initiated an objective approach to selecting project managers, with encouraging results**
>
> In the spring of 1989, Leeds Permanent Building Society introduced assessment centres into the systems development department for the selection and promotion of all levels of staff. The chief aim was to adopt a more professional approach to selection that would lead to a more rigorous and consistent assessment of candidates' ability and potential.
>
> The term 'assessment centre' refers to the assessment of a group of individuals, using a comprehensive and integrated series of techniques such as personality tests, interviews, and simulated exercises. The purpose of an assessment centre may be recruitment, identification of management potential, or assessment of staff's training and development needs, and the range of techniques used typically varies according to the nature of the organisation and the level of the candidates being assessed.
>
> In selecting project managers, Leeds Permanent Building Society uses five techniques to highlight different aspects of the candidates' capabilities — in-tray exercises (to test their ability to set priorities, delegate tasks, and so on), numerical and reasoning tests, group exercises, a personality test, and an interview. Candidates are awarded scores by a panel drawn from the systems and personnel departments of the building society, against 11 criteria — management control, interpersonal impact, leadership, diplomacy, communication skills, business knowledge, planning, openness to change, problem solving, emotional resilience, and drive.
>
> These criteria were chosen following internal discussions among senior systems development staff, and are described in behavioural terms so that the panel has a common understanding of their meaning. The scoring system was devised by applying the full range of tests and exercises to an existing, successful, project manager and calibrating the marks around this person's performance.
>
> At the end of the assessment, the panel discusses each candidate's performance, reviewing the spread of scores achieved and deciding whether or not to make an appointment. All successful and unsuccessful candidates — internal and external — are invited to contact the personnel department for feedback on their performance.
>
> Leeds Permanent Building Society has found that candidates are impressed by the thoroughness and fairness of the selection process, and believes that it has improved the quality of its decision-making. The company now intends to test what improvements in performance have been achieved as a result of running assessment centres, by comparing the results of the selection tests and exercises with staff's subsequent performance appraisals.

and define how they will identify whether or not particular candidates qualify. The usual sources include *curricula vitae,* references, tests, exercises, and interviews. Details that appear on *curricula vitae,* and comments made in references, can generally be verified independently. Provided that pass/fail criteria have been established, tests and exercises can also be a reasonably objective way of assessing candidates. Interviews necessarily contain an element of subjectivity, but can be a useful means of testing the validity of results from other forms of assessment, such as personality tests and references. The interviewer can probe into particular issues through the use of open questions. Indirect questions can often be more revealing about a person's character.

Used objectively, the traditional sources of information on candidates can be valuable

The selection criteria and the selection process itself need to be reviewed periodically. They may need to be modified if they are not resulting in the selection or promotion of successful project managers.

Project and systems managers should examine their own behaviour

It is clear from the research undertaken for this paper that both project managers and systems development managers could profit from examining their own behaviour to identify areas in which they might modify their management techniques or seek training to improve their effectiveness as motivators of their staff. Figures 4.1 and 4.2 (overleaf) summarise the actions that managers should take to ensure that the learning and practice of the techniques become accepted features of the systems environment.

Staff motivation is an aspect of management that demands far more attention than it is currently attracting in the systems area. We have shown that the skills required to be a good people-

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Figure 4.1 Action checklist for project managers

Listening
— Do I genuinely pay attention when one of the team speaks to me, or could my behaviour indicate a lack of interest or sympathy?
— Do I encourage my staff to describe their views and feelings by asking questions without either intruding or interrogating?
— Do I confirm that I have correctly interpreted what the speaker was saying?

Providing feedback
— Am I certain that any praise or censure I offer is truly warranted and of value to the recipient?
— Do I ensure that I offer feedback promptly after the event, before its relevance is lost?
— Can I always provide examples to which my praise or criticism specifically applies?
— Do I provide sufficient feedback on individuals' performance?

Looking for behaviour patterns
— Can I honestly say that I observe what happens among the team members, think about the causes, ask questions, and test hypotheses before I reach conclusions about the behaviour of individuals?

Demonstrating good judgement
— Do I always listen to both sides of an argument before reaching a conclusion?
— Do I make sure I have all the pertinent information before making a decision?
— Do I then make decisions without procrastinating?
— Am I prepared to review that decision if circumstances change?
— Do I keep an open mind and encourage the team to be involved?

Showing loyalty
— Do I demonstrate concern for the interests of my team?
— Do I encourage their development?
— Do I share any praise with the team?

Behaving in an exemplary manner
— Is my own behaviour what I expect from my team?
— Is my own behaviour consistent?

Figure 4.2 Action checklist for systems development managers

Setting a good example
— Do I set a good example by applying the techniques that I expect project managers to perfect, such as providing feedback to project managers?
— Do I agree on objectives for project managers with reference to people-management activities?

Providing training
— Am I providing adequate training in this area?

Considering the merits of performance-related pay schemes
— Do I agree on job objectives with staff that specify the standard of performance expected and the timescale for achievement?
— Do I make an objective assessment of each employee's performance, and reward according to performance?

Selecting managers with good people skills
— Do I have a clear view of what I am looking for in a project manager?
— Is there a process in place for selecting project managers who demonstrate the skills and characteristics that I have defined?
— Is this selection process ever reviewed in the light of experience?

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manager, in general, and to motivate staff, in particular, are not innate; they may be learned, and they may be put into practice to very positive effect, providing the organisation creates an environment where the value of such skills is acknowledged.

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