Training needs analysis: weaknesses in the conventional approach

Michael James Leat
Senior Lecturer, Human Research Studies, University of Plymouth, UK
Murray Jack Lovell
Director, Hemsley Fraser Training Group, Plymouth, UK

Introduction

By its very nature, the diagnosis of training needs is a process of information gathering and analysis, and the many texts on the subject commonly advocate a range of investigative techniques for improving its effectiveness. Perhaps understandably, “analysis of employee performance” figures widely in the diagnostic process (e.g., Bartram and Gibson (1994)) and in reviewing the literature it is apparent that the knowledge, skills and abilities of the individual are commonly identified from the performance appraisal process (see especially Digman (1980)). However, it is equally obvious that the same procedure is frequently used for a number of other purposes. This is reflected in the survey by Long (1986) (see Table 1), where remedial elements of the appraisal mechanism are represented by items (a) and (b); maintenance elements by items (a) and (c); and developmental elements by items (a), (d) and (e). Clearly, such features are important components of the needs analysis process inasmuch as they can accurately focus training and developmental initiatives, but the commonplace inclusion of a remuneration feature (item (g)) and its imprudent linking with items (b) to (f) may arguably serve to undermine the integrity of contemporary performance appraisal practices.

It is also apparent that such practices may be typically judgemental and obsessed with “summary person” analysis, thereby demonstrably concerned with classifying the individual as a successful versus unsuccessful performer at the possible expense of meaningful behavioural diagnosis. Thus, while the “summary person” analysis may seek global information to assist the comparative evaluation of employee performance, the “diagnostic person” analysis demands different data sets in order to understand how an individual’s knowledge, skills and abilities translate into varying behaviours and achievements. Long’s (1986) survey illustrates this dichotomy, revealing that the performance appraisal process is increasingly utilized for reviewing past efforts and setting performance objectives, while at the same time being employed to assess training and developmental needs.

It will be subsequently argued that such linking introduces undesirable concerns and inaccuracies into the appraisal process and consequently challenges its effectiveness as a determinant of developmental needs.

Moreover, there is a widespread tendency for contemporary appraisal mechanisms to concentrate on the “person” level of analysis (i.e., “summary person”, “diagnostic person” or both) and seemingly overlook the significance of integrating other levels of analysis in order to unify individual and organizational goals. Concentration on the “person” level would appear to ignore the central concept of McGehee and Thayer (1961) and latterly Bramley (1989) who assert that needs analysis should essentially be undertaken at three levels – i.e., the organization, the task and the person, if meaningful conclusions are to be reached.

The objectives of this paper are therefore to:
- investigate the flaws that are allegedly introduced when performance appraisal systems rely primarily on “summary” person assessment techniques;
- identify the limitations of contemporary needs analysis systems that overly focus on “summary” person analyses and neglect organizational aims and individual aspirations;
- explore the feasibility of a diagnostic needs analysis process that might overcome intrinsic problems associated with conventional performance appraisal mechanisms;
- propose a methodology that might accurately determine training and developmental needs at the organizational, task and employee level; and introduce a conceptual model that illustrates its application within the corporate environment.

Objective setting and performance appraisal

In questioning the propriety of performance appraisals as mechanisms for determining training and developmental needs, it may be helpful to examine how organizational
objectives are typically set within the management by objectives (MBO) framework suggested by Drucker (1954) and widely adopted since its inception.

The following interpretation by Henderson (1984) presents a fairly concise account of the procedure and plainly locates the appraisal activity in relation to the other stages of the MBO process:

- The overall organizational mission and objectives are established and communicated downwards through the organizational hierarchy.
- Supervisors and subordinates analyse the organizational objectives from the perspective of their work units and jobs and establish goals for their respective functions.
- Supervisors and subordinates rank goals in order of importance and then, in turn, mutually agree on the accomplishment of specific goals that are observable, can be defined in measurable terms, and have a time constraint.
- Plans are developed that describe the actions that will be taken to achieve the identified goals within the constraints of available resources.
- Supervisors and subordinates monitor progress through the goal achievement period and, at the end of the period, measure the degree of goal achievement in a performance review session.

Thus, the parameters for performance appraisal are apparently established, but it is at this stage that the goals of the process become somewhat unclear. In initiating the performance review, should it be principally concerned with evaluating the “summary” person and therefore perceptively judgemental; or is its intention diagnostic, aimed at discerning, maintaining and enhancing individual, group and organizational competence? (see Table I).

Summary appraisal and the MBO process

In performing a “summary person” analysis, a judgemental evaluation is undertaken which attempts to classify the employee as a successful versus unsuccessful performer. Typically, each participant undergoes a rating process whereby dimensions of his or her task role are contrasted with various performance or behavioural ideals. The extrapolation of these data will then ordinarily provide an overall measure of individual performance which can be ranked against that of other employees and linked to some form of reward mechanism.

Unfortunately, the validity of such summary procedures rely on the appraiser making veridical assessments and there are very well documented reasons why flawed conclusions may be the outcome.

First, the very process of ranking or otherwise grading individuals may be inadvisable, inasmuch as:

- Ranking may be an inappropriate mechanism for comparing the members of one group with those from another group.
- A comparatively low-ranked employee in a high performing group may be superior to a high-ranked employee in an average group.
- Comparative ranking positions may suggest vast differences in performance which in actuality may be minimal.
- The ranking technique may utilize an insufficient number of behavioural dimensions which can lead to the oversimplification, and hence the inaccurate evaluation of performance within a complex activity.
- Tasks may be performed through intensive group interaction, thereby making it difficult to evaluate an individual’s contribution accurately.
- Ranking can stimulate intragroup hostility, resulting in lowered productivity and worker dissatisfaction.

Second, Henderson (1984) points to an “activity trap” which illustrates a further central weakness in any MBO-based appraisal process that is inclined towards “summary” assessment. This tends to influence the behaviour of those individuals and groups drawn into the trap and typically manifests itself in the following ways:

- An inclination by participants to over-emphasize areas where goals are known to be monitored and de-emphasize those where goals are not set, vague or qualitative.
- A tendency for the “easily measurable” to become important rather than “measuring the important”.

Table I
Performance appraisal revisited

<table>
<thead>
<tr>
<th>Stated aims of the performance appraisal process</th>
<th>(n = 230) 1977 (%)</th>
<th>(n = 250) 1985 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) To assess training and developmental needs</td>
<td>96 97</td>
<td></td>
</tr>
<tr>
<td>(b) To help improve current performance</td>
<td>92 97</td>
<td></td>
</tr>
<tr>
<td>(c) To review past performance</td>
<td>91 98</td>
<td></td>
</tr>
<tr>
<td>(d) To assess future potential/promotability</td>
<td>87 71</td>
<td></td>
</tr>
<tr>
<td>(e) To assist career planning decisions</td>
<td>81 75</td>
<td></td>
</tr>
<tr>
<td>(f) To set performance objectives</td>
<td>57 81</td>
<td></td>
</tr>
<tr>
<td>(g) To assess salary increases or new salary levels</td>
<td>39 40</td>
<td></td>
</tr>
<tr>
<td>(h) Others – e.g. updating personnel records</td>
<td>– 4</td>
<td></td>
</tr>
</tbody>
</table>

Source: Long (1986)
• The setting of goals that are relatively easy to achieve, thereby ensuring that goal achievement will reflect favourably on departments and key individuals within them.
• An unwillingness to become involved in goal achievement areas where there is greater risk and higher chances of failure.
• A tendency to inappropriately or inefficiently use resources in order to ensure that certain measured objectives are achieved.
• A preoccupation with developing paper-work systems for the purposes of posturing and deflecting criticism.

This does not mean that it is appropriate to condemn out of hand the MBO process, but given these pitfalls, “summary person” analysis should arguably be removed from the performance appraisal mechanism, thereby excising judgemental and perceptively threatening aspects from the process.
Thus, the MBO procedure should be singularly concerned with the “diagnostic person”, specifically exploring the reasons underlying individual performance and subsequently providing an empirical base from which training and development interventions can be devised, validated and reviewed. However, if it appears to be linked to summary comparators influencing remuneration, promotion, recognition, group positioning, etc., then the activity trap becomes a serious risk to effective job performance. Moreover, this linking generally contributes to significant biases and distortions in the appraisal of such job performance, arguably rendering the appraisal process ineffectual as a vehicle for beneficial needs analysis.

## Bias and concern within the appraisal process

It is not the intention to overly dwell on the MBO procedure as there are a number of methodologies for accomplishing analysis at the “person” level, and Wessman (1975) suggests that performance appraisals, surveys, critical incidents, assessment centres, psychological testing, skills inventories and coaching are appropriate techniques. He nevertheless cautions that developmental objectives often become secondary to administrative goals and warns that performance appraisal data may be excessively biased by trait judgements. Thus, the prevalence of such biases, and the likely presence of other distortions arising from rater concerns, exposes the third and possibly the most fundamental weakness in conventional appraisal procedures, especially where assessments are of a “summary” nature and might perceptibly influence group prestige, team motivation, and/or individual gradings, promotions and remunerations.

Although an extensive treatise on the forms and origins of bias are clearly outside the scope of this paper, the following extracts from the literature may illustrate its insidious character and its potential effect on assessment processes.

Hoffman et al. (1981) posit that the purpose for which appraisal information is intended to be used affects the manner in which the information is organized. Thus, an observer who categorizes a behavioural episode with the purpose of recounting the incident or empathizing with the appraisee, may tend to encode the data in terms of goal achievement, task failure or other dimensions of the individual’s performance. Alternatively, an observer whose object is to form a personality impression of the appraisee or predict future behaviour; may tend to organize the data in terms of the appraisee’s traits.

Consequently, Woehr and Feldman (1993) suggest that the relationship between memory and judgement may be driven by contextual factors existing at the time ratings are required, as well as at the time information is encoded – this casting doubt on the veracity of any appraisal data that are obtained through the observation of critical incidents. Thus, the amassment, collation and translation of performance-based observations required for the analysis might be unavoidably distorted by prevailing contextual factors in addition to other non-conscious biases associated with encoding, recall, discriminatory sensitivity, prior belief, expectancy and hindsight.

Furthermore, such errors may be compounded by the problems that seemingly occur when appraisal programmes are used for both salary determination and personnel development (see particularly Cascio (1982), Hyde and Smith (1982) and McAfee (1982)). Despite the cautions, many organizations persist in such linking, seemingly oblivious to the fact that each system requires different data sets (“summary person” data versus “diagnostic person” data), may contribute to undesirable rating inaccuracies, and probably introduces excessive administrative complexities into the process.

Cascio (1982) and Hyde and Smith (1982), discuss the conflict that occurs when a supervisor has to concurrently adopt the role of “judge” (summary assessment) and “helper” (diagnostic evaluation), and they identify a number of rater concerns that could induce or amplify both conscious and non-conscious rating distortions. These anxieties have
similarly been reviewed by other authors (e.g. Landy and Farr (1980)) who have acknowledged the inherent nature of such concerns and attempted to gauge their influence on contemporary appraisal mechanisms.

From such studies, the principal rater concerns would appear to be:

- **Rater acceptance**, where the rater perceives that an adverse summary appraisal may undermine mutual acceptance or friendship, and thus the need for social affiliation could override impartiality.

- **Rater security**, where a disagreeable rating might demotivate the appraised individual and adversely affect the team for which the rater is responsible. Moreover, owing to its perceived influence on employee remuneration, it may induce a reaction ranging from ill-humour and abuse to outright physical violence.

- **Rater limitation**, where the rater has a measure of self-doubt regarding his or her own abilities, developed skills or education, and consequently feels that any critical comment could be challenged.

However, the potential discomfort ensuing from these concerns may be ingeniously avoided by falling into the MBO activity trap and measuring or emphasizing only those dimensions and qualities which will provide an acceptable or non-threatening result. Similarly, it may be comparatively easy for a supervisor to boost an overall rating by focusing on performance areas that are particularly favoured by the organization, likewise forcing the appraisal towards a predetermined result. Moreover, Hyde and Smith (1982) concluded that such effects are likely to be minimized and the appraisal information consequently more accurate if the purpose of the appraisal is clearly employee development and perceptively dissociated from remuneration, disciplinary or other summary administration. They therefore imply that if the appraiser is presented as counsellor, mentor and cultivator, then the concerns of both the rater and the rater diminish to approach the conditions required for honest, responsible analysis.

Cummings and Schwab (1978), however, have a markedly different view from these commentators, and support an MBO-based performance assessment process that is essentially judgemental and perceptively task-oriented. They also suggest that developmental appraisal should be limited to “proven high performers with upward potential”, with inferior achievers undergoing a form of evaluative monitoring, reliant on supervisory control and disciplinary intervention to precipitate performance improvements. This implies an apparent disregard for performance appraisal methodologies as mechanisms for determining training needs and developing lesser achievers, yet Long (1986) reports that this is one of the principal aims of performance appraisal practices (see Table I).

However, notwithstanding such polarized viewpoints, Cascio (1982) and others describe a further concern that may question both the propriety and impartiality of all analyses processes that involve interpersonal exchanges between appraiser and appraisee; whether it be conventional performance appraisal, supervisor evaluation, assessment centre, or any perceivable derivative of performance counselling. This takes the form of a rater affiliation concern and its influence would appear wide ranging indeed.

### Rater affiliation

While it may be reasonably argued that the aforementioned concerns can be suppressed or eliminated, the rater affiliation effect suggests a same-as-me or different-than-me bias that:

- subconsciously minimizes unacceptable behaviours where there are rater/ratee similarities; and
- negatively emphasizes them where dissimilar characteristics exist.

Cascio (1982) is not alone in positing that such affiliations may be based on gender; race, age, personality, education, status, organizational experience, etc., and perceptibly shape our assessment of others, not only in the workplace but in possibly every area of interpersonal activity.

The following studies are therefore included as representative examples from the literature.

In a laboratory experiment, Goldberg (1986) randomly assigned the names of male and female authors to identical academic articles and presented them for appraisal by a mixed group of undergraduates. As perhaps anticipated, the assigned female authors were significantly down-rated by the male undergraduates. Surprisingly, however, they were similarly down-rated by female students.

Interestingly, a replicated study by Seymour and Voss (1988) showed no significant rating variances between men and women in female-dominated fields, such as nutritional science, education and textiles; while in male-dominated fields, such as computer science, astronomy and civil engineering, there was a high degree of prejudice by women against...
women. Such gender bias is perhaps explained by Schein (1975) who suggests that men and women appear to share common gender-role stereotypes about work-related variables, and thus may be expected to evaluate male and female ratees with biases common to both rater genders.

As with other affiliations, race has been the subject of a number of appraisal studies, yet conclusions appear contradictory. Some commentators describe the prevalence of same-race interaction effects (DeJung and Kaplan (1962)), while others propose that racial similarities or differences have less influence on the appraisal process than qualitative measures of ability, education and experience (Waldman and Avolio (1991)). The position is much the same regarding other sources of bias such as those relating to age or status affiliations, yet there are two instances where the implications are perhaps more insidious inasmuch as they are comparatively inconspicuous and frequently inexplicable.

### Special relationships and the appraisal process

The first case is concerned with the distortion of judgement that may occur when a similarity in personality between the appraiser and appraisee (i.e. in terms of traits, attitudes and aptitudes) facilitates a high leader-member exchange relationship (high LMX). This is discussed by Frank and Hackman (1975) who suggest that supervisors may develop high quality exchanges with subordinates when such similarities are evident, resulting in remarkably favourable performance appraisal ratings.

Their observations are supported by Duarte et al. (1993) who confirm that high LMX employees are frequently awarded superior appraisal ratings, regardless of actual performance, although the effect seems more pronounced for general tasks and relationship-oriented categories.

Therefore, it may be reasoned that the assessor’s behavioural preferences can be intuitively applied within any appraisal or social situation to the benefit or detriment of the appraisee, thus extending into and influencing many areas of interpersonal communication.

The second case relates to a form of bias suggestive of a self-fulfilling prophecy, which can similarly contribute to substantial inequalities within the appraisal process. A particularly chilling example of this phenomenon was reported by educational psychologists Rosenthal and Jacobson (1968) who conducted psuedo-scientific tests on a class of elementary schoolchildren, ostensibly to determine special intellectual qualities. In actuality, the researchers randomly selected one out of every five children and suggested to their teacher that these exhibited superior intellectual attributes which would lead to high academic achievement. As the result of this prognosis, something happened within the teacher-pupil relationship which encouraged the selected children to make clear gains over other pupils in almost every area of objectively and subjectively quantified performance.

A similar study narrated by Snyder (1982) describes how five trainee welders were randomly selected at a vocational training centre and their instructor informed that these men had unusually high aptitude. Although the individuals knew nothing of their superior appellation, they nevertheless learned essential trade skills in half the standard time, scored significantly higher than others in welding tests, were absent less frequently than other trainees, and were singled out by colleagues as preferred co-workers.

Thus, a link between the prior expectations of the assessor and self-fulfilling prophecy may be demonstrated, suggesting that pre-appraisal knowledge could positively or negatively influence the relationship and therefore introduce irregularities into the analysis. However, without such information the process may be difficult or impossible to conduct unless it is structured around psychometric methodology which may prove impractical. It may therefore be expedient to consider that on the one hand, favoured subjects appear to benefit from a special relationship with their supervisors, resulting in enhanced developmental progression for the select few. On the other hand, it may be considered that a disproportionate preoccupation with the notional abilities of the few may detract from the fair evaluation of the majority.

Whatever the view, the literature clearly shows that a range of rater concerns and biases tend to pervade the performance appraisal process. The extent to which this matters, however, arguably depends on the purpose for which the mechanism is intended. If its purpose is aimed at confirming remuneration decisions or initiating disciplinary processes, then the distortions may be comparatively irrelevant. The procedure will either motivate or demotivate the appraisee and perhaps be subjected to varying degrees of conscious and non-conscious supervisory manipulation until an acceptable result has been contrived.

However, if its purpose is training and development then analytical and diagnostic
veracity is singularly important in order to propose training interventions that will encourage individual growth, improve task efficiency and increase organizational effectiveness. Feasibly, if summary or evaluative judgements could be excluded from the appraisal process, concerns associated with rater acceptance, rater security and rater limitation might be minimized, thereby enabling the assessor to concentrate on the role of helper and developer.

Contrary to this notion, authors such as Schneier and Beatty (1979) have outlined an integrated approach to needs analysis using both MBO- and behaviourally-based methods. They suggest that effectiveness-based procedures (i.e. summary and evaluative) applied through the MBO process provide a global analysis of results, while behaviourally-based indicators (i.e. diagnostic) facilitate the identification of deficiencies at a micro behavioural level. However, they offer no palliative for the concerns, biases and distortions that may be inherent; nor do they appear concerned about the conflict that may occur when the process attempts to combine both “summary” and “diagnostic” features.

The existence of a paradox is evident. In order to determine training and developmental needs the employee has to undergo some form of comparative procedure whereby actual effectiveness is contrasted with some precept of ideal performance. Unfortunately, this very process suggests a review of acceptable or unacceptable work behaviours, implying a notional ranking of employee effectiveness which the organization would perhaps find difficult to ignore. Thus, appraiser and appraisee become intuitively aware of the potential significance of the evaluation, precipitating the introduction of bias and concern into the mechanism.

Consequently, an ideal methodology should perhaps recognize the inevitability of biases, affiliations and rater concerns, and exploit the appraiser’s conscious and non-conscious beliefs about the employee to anticipate work behaviour and diagnose appropriate training interventions.

Task objectives may therefore be negotiated and established within an informal team briefing framework, while the needs analysis process can be based on the superiors’ expectations of employee performance.

Although this may appear to introduce a high degree of subjectivity into the needs analysis process, it can nevertheless articulate the superior’s perception of the employee in a number of work-related situations while proposing training interventions that might narrow the gap between anticipated and desired behaviour. Also, because the process does not require a formal appraisal interview, all manner of hidden agendas that typically surface during the conventional appraisal interchange may be avoided. Furthermore, if the process can explore relevant performance and behavioural dimensions at the three levels suggested by McGehee and Thayer (1961), then perhaps a procedure of even greater integrity and value will be realized.

Underpinning the central hypothesis, supervisors may instinctively know why they allocate specific types of work to one individual in preference to another, or why they favour certain people to deal with particular situations, yet they may fail to appreciate the potential importance of such behavioural expectations as legitimate components of the needs analysis process. Perhaps to utilize these behavioural expectations effectively, all that may be required is some form of diagnostic instrument to guide their enquiry at the organization, task and person levels of analysis advocated by McGehee and Thayer (1961) in their seminal work.

Needs analysis at the organization level

McGehee and Thayer’s three-level approach to needs analysis has evoked much comment since its inception. Essentially, they considered that training and developmental needs analysis typically concentrated on the “person” or “task” level, seemingly oblivious to organizational goals. They subsequently described an approach whereby needs analysis at the organization, task and person level can be integrated to provide an effective training strategy.

First, McGehee and Thayer (1961) propose that needs analysis should be undertaken at the organization level to determine where training initiatives should best be directed in the pursuance of organizational objectives.

Possibly the most appropriate focus for this area of analysis is provided by Katz and Kahn (1978) who suggest that organizational effectiveness can be expressed in the following terms:

- Goal achievement, measured in relation to product or service quality, increased output and productivity improvements.
- Increased resourcefulness, through the achievement of greater market share, the establishment of new markets, and increased employee versatility.
- Customer satisfaction, resulting from the minimizing of complaints, the maximizing of on-time deliveries, and an enhanced organizational (or functional) image.
- Internal process improvements, arising from propitious group cohesion, high standards of supervision, minimal departmental boundaries, and the establishment of
needs analysis

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realistic and tangible departmental objectives.

Consequently, the needs analysis should explore such features as the goals of the organization, skills resources, indices of effectiveness, and the organizational climate.

Thus, an examination of overall organizational goals and objectives may reveal functional targets that require changes in performance standards, thereby necessitating training involvement.

Similarly, the manpower plan may predict exposures resulting from promotions, retirements, and labour turnover, and provide a demographic base for identifying current and future training needs.

Effectiveness indices such as labour costs, material costs, machine down-time, material wastage, product quality, equipment utilization, distribution costs, late deliveries, customer complaints, etc., may be analysed in order to determine whether shortfalls in performance can be improved through the introduction of appropriate training.

Organizational climate indices such as labour turnover, absenteeism, short-term sickness, attitude surveys, grievances, strikes, etc., may similarly suggest training intervention, as well as perhaps indicating the need to alter some aspects of the work situation, again implying future training support.

Needs analysis at the task level

Second, needs analysis should be undertaken at the task level in order to assess the demands of respective job roles and the manner in which they may be enhanced, enlarged, or otherwise modified to support organizational and individual goals.

This will involve the collection of data about a particular job or group of jobs, examining:
• standards required;
• knowledge, skills and attitudes required to achieve standards.

Job descriptions may provide outlines of jobs, listing typical duties and responsibilities. These may be derived from task analysis and various other sources, but might nevertheless be subject to change over time owing to the:
• establishment of new organizational priorities;
• modification and enhancement of jobs by incumbents working towards personal career goals.

Nevertheless, job specifications may provide detailed lists of all identifiable tasks, typically stipulating the skills and attributes necessary to accomplish these tasks and defining the standards which will determine satisfactory performance. Performance standards may be established and subsequentlyphrased as objectives for the job, thereby describing the conditions, targets, standards, and functional measures that represent job achievement.

Job observation or work sampling may be incorporated within the process in order to facilitate the detailed analysis of specific job activities.

Hierarchical task analysis (HTA) may be employed to redescribe and simplify complex tasks, using a decision-tree approach to specify overall goals and illustrate the conditions under which subordinate operations can be correctly undertaken (see Annett and Duncan [1967]).

Discussions with the job holder may identify inherent problems that are not readily apparent. He or she may also prove of invaluable assistance in the developing and testing of appropriate solutions.

From each of these analytical sources new competences, craft disciplines and special skills may be exposed that require varying degrees of training input, particularly in activities that are subject to rapid technological evolution or are undergoing significant change in working practices.

Needs analysis at the person level

Third, needs analysis should be undertaken at the person level, focusing on how well a particular individual fulfils the activities comprising his or her task role and identifying training interventions that address performance variances and promote employee development.

As previously discussed, various mechanisms may assist in achieving this, but the analysis should essentially consider not only the employee’s current training needs, but also evaluate the skills required for horizontal job enlargement and vertical role integration. Practitioners should nonetheless be mindful of the many cautions that have pervaded this enquiry and, in doing so, focus on the “diagnostic person” and resist the temptation to use the process for any other purpose.

Therefore, the process should ideally centre on both observable and notional work behaviour; endeavouring to produce training and developmental strategies that will help the individual to achieve all dimensions of performance that are important to the organization and to current and future task roles. However, this has little to do with the summary evaluation of an employee’s quantitative achievements, where high profile objectives may have been met, but at what cost to less visible, but equally essential, indices of organizational effectiveness? Thus, the
Fortuitously, this truism has been appreciated by various authors and, more recently, Vinton et al. (1983) and Mabey and Salaman (1995) have supported McGehee and Thayer’s (1961) study, observing that “… training needs analyses often concentrates on the person analysis level and neglects the links with organizational goals which are necessary to ensure that training is effective in advancing the cause of the company”. They consequently advocate procedures that will deter undue concentration on a single level of analysis, and suggest the propriety of a broader process wherein the variances uncovered between actual performance and performance objectives should provide the data for the determination of training needs. Central to their proposition is the utilization of behaviourally anchored rating scales (BARS) in an effort to overcome weaknesses in the assessment process.

While there are a number of variants of BARS, the original concept was developed by Smith and Kendall (1963), who cautioned that numerical rating scales (e.g. 1 to 5) or adjectival rating scales (e.g. very poor to very good) offered insufficient guidance to enable the appraiser to make accurate assessments. They therefore suggested that ambiguities in the rating process might be reduced if such scales (introduced by Paterson in 1923) had their numerical or adjectival anchors replaced by corresponding descriptions of observable job behaviours.

For instance, if a task can be broken down into a number of key competences or performance dimensions, then examples of poor, acceptable, or high achievement may be described for each dimension, thereby offering greater accuracy and finer discrimination within the appraisal procedure. However, Smith and Kendall (1963), like more recent exponents, such as Schneier and Beatty (1979), do not restrict its application to “diagnostic” needs analysis and thereby possibly expose the process to varying degrees of supervisory manipulation as the result of rater concern.

Thus, although Schneier and Beatty (1979), Vinton et al. (1983) and others, have made the link with multi-level analysis, they do not appear to have paid sufficient regard to clues presented by Landy and Farr (1983), i.e. that the accuracy and merit of the BARS approach will depend on “… the purpose or purposes of the judgements, the carefulness of the scale development procedures, and the preferences of the raters, among other factors”. Therefore, while a derivative of BARS may suggest a feasible diagnostic mechanism for needs analysis at the three levels proposed by McGehee and Thayer (1961), its purpose should nonetheless be wholly developmental in order to negate any anxiety and resentment that could arise from the inevitable permeation of biases and concerns.

A procedure that notionally fits such precepts is a form of behavioural expectation scales (BES) where an appraiser makes value judgments regarding the way that a particular employee would be expected to act in a given range of work-related situations. Initially proposed by Blood (1974), the suggested BES process hinges on the translation of important performance indicators into a number of behavioural expectation descriptors which effectively illustrate varying degrees of competence or workplace behaviour.

This involves the identification, collation and description of performance dimensions that may be of general and specific relevance to individual organizations, their staff and the various tasks which they perform. Behavioural examples are then defined for each dimension and scaled to illustrate progressive levels of performance ranging from the unacceptable to the superior. Each dimension may include further subsets of specialist skills or desirable behavioural items and, where necessary, will suggest training and developmental interventions according to relative positioning on the scale. Thus, the appraiser can recall previously observed incidents and personal knowledge of an employee to predict future behaviour and utilize the BES’s diagnostic properties to assist in the determination of appropriate training needs.

As a simple example, organizations might consider that literary competence and text-processing skills are essential requisites for their administrative personnel in order to improve internal efficiencies and the staff/customer interface. The following narratives illustrate various levels of text management skill, each linked to a notional scale that may represent employee development.
initiatives and/or further vocational training:
2.4 This administrator can always be expected to produce the highest standard of literary composition and report writing using desk-top publishing technology and a range of data enhancements.
1.6 This administrator can be expected to produce a high standard of literary composition using word-processing and desk-top publishing technology.
1.2 This administrator can be expected to produce an acceptable standard of literary composition, and accurately reproduce it on an electronic typewriter.
0.8 This administrator could not be expected to produce comprehensible and grammatical written material from source information.
0.4 This administrator is always expected to make typographical errors when copying from existing material.
0.0

Therefore, a rating between 0.4 and 0.8 suggests that the individual does not make excessive typographical errors but is presently unable to originate acceptable literary composition; while a rating between 1.2 and 1.6 signifies some word-processing ability and an improved standard of literacy. Consequently, the appropriate training intervention may be interpreted as that necessary to move the individual from the current position on the scale to that required by the organization, task and individual.

Thus, indices and indicators of organizational effectiveness representing customer care, quality, cost control, material utilization, etc., can be translated into descriptive illustrations of behaviour and skill which will serve to focus the analysis on essential developmental issues. Also, because the process permits the use of simple, generic language in the construction of performance descriptors, the instrument should be comparatively easy to apply and interpret without extensive knowledge of individual task roles.

Nonetheless, its application must be strictly qualified, as the BES approach to the location and analysis of individual needs is essentially subjective, and the process might consequently encounter hostile resistance if adopted for purposes other than training and development. Indeed, if it was used to activate reward mechanisms or support disciplinary decisions it could aggravate management/employee relations, possibly leading to industrial action or even litigation. Therefore, the behavioural descriptors underlining the BES instrument must be demonstrably linked to training solutions, remedial counselling, job enlargement, and/or vertical role integration, and distinctly dissociated from any considerations of remuneration or promotion.

Figure 1
Integrating three levels of analysis

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Consequently, development of an effective BES methodology will necessitate extensive research into the interrelationship between inner and outer contextual change (see Petigrew et al. (1992)) and the goals of organizations and the individuals within them. Equally, the ways in which task roles are evolving must be examined in order to identify, define and translate into training needs, the behavioural components required for the three levels of analysis. Thus, an appropriate research programme is likely to be fairly involved and time-consuming, with the resultant instrument requiring considerable field evaluation prior to its wider introduction. Nevertheless, the BES mechanism should offer an informal, non-confrontational, yet powerful analytical technique, particularly where employee task roles are multidimensional, service based, or of a highly qualitative nature. Thus, through the medium of behavioural expectations, critical incidents and management experience, training and developmental needs may be appropriately focused at individual, task and organizational levels.

Figure 1 shows the intended approach, illustrating how such a procedure might integrate these three levels of analysis. Moreover, the resultant feedback loops indicate the paths by which training and development can advance corporate objectives, improve task effectiveness, enhance job satisfaction, and facilitate the changes that confront contemporary organizations.

Conclusion

In the final analysis, the process undoubtedly demands subjective input and organizations must resist the temptation to use the resultant information for summary as opposed to diagnostic purposes. If they fail to observe this precondition, the procedure will be subject to the same distortions that pervade conventional needs analysis practices. Bias and concern will be introduced into the process resulting in conscious and non-conscious rating inaccuracies which will negate the integrity of the needs analysis procedure. However, if a definitive behaviourally anchored instrument can be constructed, validated and applied along the lines discussed, then perhaps a credible needs analysis methodology may be realized that could reconcile and advance the fulfilment of individual, task and organizational goals.

References


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