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Job, Role, Competency and Skills Analysis

Key concepts and terms

- Accountablity profile
- Competency analysis
- Competency modelling
- Critical-incident technique
- Descriptor
- Faults analysis
- Functional analysis
- Generic role
- Job
- Job analysis
- Job breakdown
- Job description
- Job learning analysis
- KSA (knowledge, skills and abilities statement)
- Learning specification
- Manual skills analysis
- Person specification
- Personal construct
- Repertory grid analysis
- Role
- Role analysis
- Role profile
- Skills analysis
- Task analysis

Learning outcomes

On completing this chapter you should be able to define these key concepts. You should also know about:

- Job analysis methodology and techniques
- Role analysis methodology
- Analysing technical competencies
- Job descriptions
- Behavioural competency modelling
- Skills analysis

Introduction

The analysis of jobs, roles, skills and competencies is one of the most important techniques in human resource management. It provides the information required to produce job descriptions, role profiles and person and learning specifications. It is of fundamental importance in organization and job design, recruitment and selection, performance management, learning and development, management development, career management, job evaluation and the design of grade and pay structures. These constitute most of the key HRM activities.

This chapter starts with definitions of the terms used in job and role analysis and then deals with job analysis, role analysis, competency analysis, skills analysis, job descriptions and role profiles.

Definitions

The terms 'job' and 'role' are often used interchangeably. But they are different as defined below.

Job

A job is an organizational unit which consists of a group of defined tasks or activities to be carried out or duties to be performed.

Job description

A job description defines what job holders are required to do in terms of activities, duties or tasks. They are prescriptive and inflexible, giving people the opportunity to say: 'It's not in my job description', meaning that they only need to do the tasks listed there. They are more concerned with tasks than outcomes and with the duties to be performed rather than the competencies required to perform them (technical competencies covering knowledge and skills and behavioural competencies).

Job analysis

Job analysis is the process of collecting, analysing and setting out information about the content of jobs in order to provide the basis for a job description and data for recruitment, training, job evaluation and performance management. Job analysis concentrates on what job holders are expected to do.

Role

A role has been defined by Ivancevich *et al* as 'an organized set of behaviours'. It is the part people play in their work – the emphasis is on the patterns of behaviour expected of them in order to achieve agreed outcomes. The term 'role' is sometimes used interchangeably with 'job'. But they are different. Roles are about people. Jobs are about tasks and duties. It is recognized more generally that organizations consist of people using their knowledge and skills to achieve results and working cooperatively together rather than impersonal jobs contained in the boxes of an organization chart. References are therefore nowadays made more frequently to roles, although use is still made of the terms job analysis, job design and job evaluation.

Role profile

A role profile defines outcomes, accountabilities, and competencies for an individual role. It concentrates on outcomes rather than duties and therefore provides better guidance than a job description on expectations and does not constrain people to carrying out a prescribed set of tasks. Outcomes may be expressed as key result areas – elements of the role for which clear outputs and standards can be defined, each of which makes a significant contribution to achieving its overall purpose. Alternatively, they may be termed accountabilities – areas of the role for which role holders are responsible in the form of being held to account for what they do and what they achieve.

A role profile does not prescribe in detail what has to be done to achieve the required outcomes. It therefore allows for greater flexibility than a job description and is more easily updated to reflect changing demands.

Role profiles are person-orientated. A role can be described in behavioural terms – given certain expectations, this is how the person needs to behave to meet them. Because it identifies knowledge, skill and competency requirements it also provides a better basis for recruitment and selection, performance management and learning and development purposes.

Accountability profile

An accountability profile is a type of role profile that focuses on what role holders will be held to account for in terms of what they do and what they achieve. It may be set out as a list of main accountabilities.

Generic role

A generic role is a role in which essentially similar activities are carried out by a number of people, for example a team leader or a call centre agent. In effect, it covers an occupation rather than a single role. It is described in a generic role profile.

Role analysis

Role analysis finds out what people are expected to achieve when carrying out their work and the competencies and skills required to meet those expectations. Role analysis uses similar techniques to job analysis although the objective of the analysis will be somewhat different.

Competency analysis

Competency analysis is concerned with functional analysis to determine work-based competences and behavioural analysis to establish the behavioural dimensions that affect job performance. Work-based or occupational competences refer to expectations of workplace performance and the standards and outputs that people carrying out specified roles are expected to attain. Behavioural or personal competences are the personal characteristics of individuals which they bring to their work roles.

Skills analysis

Skills analysis determines the skills required to achieve an acceptable level of performance.

Person specification

A person specification, also known as a job or role specification, sets out the education, qualifications, training, experience, personal attributes and competences a job holder requires to perform her or his job satisfactorily. Person specifications are used in recruitment and selection, as described in Chapter 31.

Learning specification

A learning specification defines the knowledge and skills needed to achieve an acceptable level of performance. It is used as the basis for devising learning and development programmes (see Chapter 42). Learning specifications may be drawn up on the basis of competency and skills analysis.

Job analysis

Job analysis produces the following information about a job:

- Overall purpose – why the job exists and, in essence, what the job holder is expected to contribute.
- Organization – to whom the job holder reports and who reports to the job holder.

- Content – the nature and scope of the job in terms of the tasks and operations to be performed and duties to be carried out.

If the outcome of the job analysis is to be used for job evaluation purposes (see Chapter 47) the job will also be analysed in terms of the factors or criteria used in the job evaluation scheme.

Job analysis methodology and techniques

The essence of job analysis is the application of systematic methods to the collection of information about job content. It is essentially about data collection and the basic steps are:

- obtain documents such as existing organization, procedure or training manuals which give information about the job;
- obtain from managers fundamental information concerning the job;
- obtain from job holders similar information about their jobs.

There are a number of job analysis techniques used for data collection as described below.

Interviews

The full flavour of a job is best obtained by interviewing job holders and checking findings with their managers or team leaders. The aim of the interview should be to obtain the relevant facts about the job, namely the job title, organizational details (reporting relationships as described in an organization chart) and a list of the tasks or duties performed by the job holder.

For recruitment, training or job evaluation purposes these basic details can be supplemented by questions designed to elicit from the job holders more information about the level of their responsibilities and the demands made upon them by the job. These can cover the amount of supervision received, the degree of discretion allowed in making decisions, the typical problems to be solved, the amount of guidance available when solving the problems, the relative difficulty of the tasks to be performed and the qualifications and skills required to carry out the work.

Conducting a job analysis interview

- Work to a logical sequence of questions which help interviewees to order their thoughts about the job.
- Probe as necessary to establish what people really do – answers to questions are often vague and information may be given by means of untypical instances.

- Ensure that job holders are not allowed to get away with vague or inflated descriptions of their work – if, for example, the interview is part of a job evaluation exercise, they would not be human if they did not present the job in the best possible light.
- Sort out the wheat from the chaff; answers to questions may produce a lot of irrelevant data which must be sifted before preparing the job description.
- Obtain a clear statement from job holders about their authority to make decisions and the amount of guidance they receive from their manager or team leader – this is not easy; if asked what decisions they are authorized to make, most people look blank because they think about their job in terms of duties and tasks rather than abstract decisions.
- Avoid asking leading questions which make the expected answer obvious.
- Allow the job holder ample opportunity to talk by creating an atmosphere of trust.

It is helpful to use a checklist when conducting the interview. Elaborate checklists are not necessary. They only confuse people. The basic questions to be answered are as follows.

Job analysis interview checklist

1. What is the title of your job?
2. To whom are you responsible?
3. Who is responsible to you? (An organization chart is helpful.)
4. What is the main purpose of your job, ie in overall terms, what are you expected to do?
5. What are the key activities you have to carry out in your role? Try to group them under no more than ten headings.
6. What are the results you are expected to achieve in each of those key activities?
7. What are you expected to know to be able to carry out your job?
8. What skills should you have to carry out your job?

The answers to these questions may need to be sorted out – they can often result in a mass of jumbled information which has to be analysed so that the various activities can be distinguished and refined to seven or eight key areas.

The advantages of the interviewing method are that it is flexible, can provide in-depth information and is easy to organize and prepare. It is therefore the most common approach. But interviewing can be time-consuming which is why in large job analysis exercises, questionnaires may be used to provide advance information about the job. This speeds up the interviewing process or even replaces the interview altogether, although this means that much of the 'flavour' of the job – ie what it is really like – may be lost.

Questionnaires

Questionnaires about their roles can be completed by role holders and approved by the role holder's manager or team leader. They are helpful when a large number of roles have to be covered. They can also save interviewing time by recording purely factual information and by enabling the analyst to structure questions in advance to cover areas which need to be explored in greater depth. The simpler the questionnaire the better: it need only cover the eight questions listed above.

The advantage of questionnaires is that they can produce information quickly and cheaply for a large number of jobs. But a substantial sample is needed and the construction of a questionnaire is a skilled job which should only be carried out on the basis of some preliminary fieldwork. It is highly advisable to pilot-test questionnaires before launching into a full-scale exercise. The accuracy of the results also depends on the willingness and ability of job holders to complete questionnaires. Many people find it difficult to express themselves in writing about their work.

Observation

Observation means studying role holders at work, noting what they do, how they do it, and how much time it takes. This method is most appropriate for routine administrative or manual roles but it seldom used because of the time it takes.

Job descriptions

Job descriptions should be based on the job analysis and should be as brief and factual as possible. The headings under which the job description should be written and notes for guidance on completing each section are set out below.

Job title

The existing or proposed job title should indicate as clearly as possible the function in which the job is carried out and the level of the job within that function. The use of terms such as 'manager', 'assistant manager' or 'senior' to describe job levels should be reasonably consistent between functions with regard to grading of the jobs.

Reporting to

The job title of the manager or team leader to whom the job holder is directly responsible should be given under this heading. No attempt should be made to indicate here any functional relationships the job holder might have to other people.

Reporting to job holder

The job titles of all the posts directly reporting to the job holder should be given under this heading. Again, no attempt should be made here to indicate any functional relationships that might exist between the job holder and other employees.

Overall purpose

This section should describe as concisely as possible the overall purpose of the job. The aim should be to convey in one sentence a broad picture of the job which will clearly distinguish it from other jobs and establish the role of the job holders and the contribution they should make towards achieving the objectives of the company and their own function or unit. No attempt should be made to describe the activities carried out under this heading, but the overall summary should lead naturally to the analysis of activities in the next section. When preparing the job description, it is often best to defer writing down the definition of overall responsibilities until the activities have been analysed and described.

Main activities, tasks or duties

The following method of describing activities, tasks or duties should be adopted:

1. Group the various activities identified by the job analysis together so that no more than seven or eight areas remain. If the number is extended much beyond that, the job description will become over-complex and it will be difficult to be specific about tasks or duties.
2. Define each activity in one sentence which starts with a verb in the active voice in order to provide a positive indication of what has to be done and eliminate unnecessary wording; for example: plan, prepare, produce, implement, process, provide, schedule, complete, dispatch, maintain, liaise with, collaborate with.

3. Describe the object of the verb (what is done) as succinctly as possible; for example: test new systems, post cash to the nominal and sales ledgers, dispatch to the warehouse packed output, schedule production, ensure that management accounts are produced, prepare marketing plans.
4. State briefly the purpose of the activity in terms of outputs or standards to be achieved for example: test new systems to ensure they meet agreed systems specifications, post cash to the nominal and sales ledgers in order to provide up-to-date and accurate financial information, dispatch the warehouse planned output so that all items are removed by carriers on the same day they are packed, schedule production in order to meet laid-down output and delivery targets, ensure that management accounts are produced which provide the required level of information to management and individual managers on financial performance against budget and on any variances, prepare marketing plans which support the achievement of the marketing strategies of the enterprise, are realistic, and provide clear guidance on the actions to be taken by the development, production, marketing and sales departments.

An example of a job description is given in Figure 26.1.

Job title: HR adviser; recruitment
Reports to: HR Service Centre Manager
Reports to job holder: none
Job purpose: To provide recruitment services to line managers for jobs below management level
Main duties:

1. Respond promptly to requests from line managers to assist in recruiting staff.
2. Produce person specifications.
3. Agree on the use of recruitment agencies and/or media advertisements or internet notifications of vacancies.
4. Brief and liaise with agencies and/or draft advertisements for jobs for approval by line managers and place advertisements or information on vacancies using the media and/or the internet.
5. Process replies and draws up short lists.
6. Conduct preliminary interviews independently or conduct short-list interviews with line managers.
7. Agree offer terms with line manager, take up references and confirm the offer.
8. Review and evaluate sources of candidates and analyse recruitment costs.

Figure 26.1 Example of job description

Role analysis and role profiles

Role analysis uses the same techniques as job analysis but the focus is on identifying inputs (knowledge and skill and competency requirements) and required outcomes (key result areas or accountabilities) rather than simply listing the tasks to be carried out.

A role profile is initially set out under the same headings as a job description ie: role title, responsible to, responsible to role holder and the purpose of the role. But it then focuses on the following aspects of the role.

Key result areas

A key result area is an element of a role for which clear outputs and outcomes can be defined, each of which makes a significant contribution to achieving the overall purpose of the role. It may be described as an accountability – an aspect of the role for which the role holder is responsible (held to account for).

The number of key result areas is unlikely to be more than seven or eight, certainly not more than 10. The basic structure of a key result area definition should resemble that of a job description task definition, ie it should be expressed in one sentence starting with an active verb. However, the content of the key result area definition should focus more on the specific purpose of the activity in terms of outputs or standards to be achieved rather than describing in detail the duties involved.

Knowledge and skills required

These should be expressed in terms of 'need to know' – the knowledge required of techniques, processes, procedures, systems and the business generally (its products or services and its competitors and customers), and 'need to be able to do' – the skills required in each area of activity.

Behavioural competencies

These are how the role holder is expected to behave when carrying out the role. These behavioural competencies may be linked to the organization's competency framework and cover such areas as team working, communication, people management and development and customer relations. An example of a role profile is given in Figure 26.2.

Role title: Database administrator
Department: Information systems
Responsible to: Database manager
Purpose of role: Responsible for the development and support of databases and their underlying environment
Key result areas:

1. Identify database requirements for all projects that require data management in order to meet the needs of internal customers.
2. Develop project plans collaboratively with colleagues to deliver against their database needs.
3. Support underlying database infrastructure.
4. Liaise with system and software providers to obtain product information and support.
5. Manage project resources (people and equipment) within predefined budget and criteria, as agreed with line manager and originating department.
6. Allocate work to and supervise contractors on day-to-day basis.
7. Ensure security of the underlying database infrastructure through adherence to established protocols and develop additional security protocols where needed.

Need to know:

- Oracle database administration.
- Operation of oracle forms SQL/PLSQL, Unix administration, shell programming.

Able to:

- Analyse and choose between options where the solution is not always obvious.
- Develop project plans and organize own workload on a timescale of 1–2 months.
- Adapt to rapidly changing needs and priorities without losing sight of overall plans and priorities.
- Interpret budgets in order to manage resources effectively within them.
- Negotiate with suppliers.
- Keep abreast of technical developments and trends, bring these into day-to-day work when feasible and build them into new project developments.

Behavioural competencies:

- Aim to get things done well and set and meet challenging goals, create own measures of excellence and constantly seek ways of improving performance.
- Analyse information from range of sources and develop effective solutions/recommendations.
- Communicate clearly and persuasively, orally or in writing, dealing with technical issues in a non-technical manner.
- Work participatively on projects with technical and non-technical colleagues.
- Develop positive relationships with colleagues as the supplier of an internal service.

Figure 26.2 Example of a role profile

Generic role profiles

As, by definition, generic role profiles cover occupations rather than individual roles, they tend to generalize more and may be somewhat simpler than individual role profiles, for example by restricting the profile to lists of key result areas and competency dimensions. An example of a generic role profile is given in Figure 26.3.

Generic role title: Team leader
Overall purpose of role: To lead teams in order to attain team goals and further the achievement of the organization's objectives.
Key result areas:

1. Agree targets and standards with team members that support the attainment of the organization's objectives.
2. Plan with team members work schedules and resource requirements that will ensure that team targets will be reached, indeed exceeded.
3. Agree performance measures and quality assurance processes with team members that will clarify output and quality expectations.
4. Agree with team members the allocation of tasks, rotating responsibilities as appropriate to achieve flexibility and the best use of the skills and capabilities of team members.
5. Coordinate the work of the team to ensure that team goals are achieved.
6. Ensure that the team members collectively monitor the team's performance in terms of achieving output, speed of response and quality targets and standards, and agree with team members any corrective action required to ensure that team goals are achieved.
7. Conduct team reviews of performance to agree areas for improvement and actions required.

Competencies:

- Build effective team relationships, ensuring that team members are committed to the common purpose.
- Encourage self-direction amongst team members but provide guidance and clear direction as required.
- Share information with team members.
- Trust team members to get on with things – not continually checking.
- Treat team members fairly and consistently.
- Support and guide team members to make the best use of their capabilities.
- Encourage self-development by example.
- Actively offer constructive feedback to team members and positively seek and be open to constructive feedback from them.
- Contribute to the development of team members, encouraging the acquisition of additional skills and providing opportunities for them to be used effectively.

Figure 26.3 Example of a generic role profile

Behavioural competency modelling

Behavioural competency modelling is the process used for identifying, analysing and describing behavioural competencies which define the behaviours that organizations expect their staff to practice in their work in order to reach an acceptable level of performance. As explained in Chapter 11, they have an important part to play in providing information which contributes to a number of HRM activities, for example, recruitment, learning and development, and performance management. Examples of competencies and competency frameworks were given in Chapter 11 and suggestions were also made about how a competency framework should be constructed. The guidance on the criteria for a fully rigorous competency definition, shown in Table 26.1, was produced by a task force set up by the Society for Industrial and Organizational Psychology (SIOP) in the United States (Shippmann *et al*, 2000) to investigate and review the practice of competency modelling.

Table 26.1 Criteria for a rigorous competency definition

Variable	Conditions required to meet high rigour criteria
Method of investigation	A logically selected mix of multiple methods are used to obtain information, eg interviews, focus groups, questionnaires
Type of descriptor content collected	Variable combinations of multiple types of information are collected, eg work activities, KSAs (knowledge, skills and abilities statements) and performance standards
Procedures for developing descriptors	Information collected from content experts using a structured protocol and a representative sample
Detail of descriptor content	Use of a number of labels representing discrete categories of content that operationally define each category and leave no room for misinterpretation
Link to business goals and strategies	Steps taken to ensure that results are aligned with the broader goals and longer-term strategies of the organization
Content review	Formal review takes place to ensure that ● item level descriptions are clear ● content categories do not overlap, content categories are internally consistent ● items represent measurable content appropriate for the intended application
Ranking descriptor content	The set of descriptors are prioritized and ranked
Assessment of reliability	Content category labels are matched with item-level descriptors and rated according to their relative importance for successful job performance
Item retention criteria	Multiple, clear, logical criteria are consistently applied to items to determine whether content is retained or deleted.
Documentation	Clear definitions are made of the procedures to be employed in applying the competency framework

(Source: Shippmann et al, *2000)*

These are exacting criteria. The emphasis is on the systematic collection and analysis of data. There are five approaches to behavioural competency analysis. In ascending order of complexity these are:

1. expert opinion;
2. structured interview;

3. workshops;
4. critical-incident technique;
5. repertory grid analysis.

1. Expert opinion

The basic, crudest and least satisfactory method is for an 'expert' member of the HR department, possibly in discussion with other 'experts' from the same department, to draw up a list from their own understanding of 'what counts' coupled with an analysis of other published lists.

This is unsatisfactory because the likelihood of the competencies being appropriate, realistic and measurable in the absence of detailed analysis, is fairly remote. The list tends to be bland and, because line managers and job holders have not been involved, unacceptable.

2. Structured interview

This method begins with a list of competencies drawn up by 'experts' and proceeds by subjecting a number of role holders to a structured interview. The interviewer starts by identifying the key result areas of the role and goes on to analyse the behavioural characteristics which distinguish performers at different levels of competence.

The basic question is: 'What are the positive or negative indicators of behaviour which are conducive or non-conducive to achieving high levels of performance?' These may be analysed under the following headings.

Behavioural headings

- Personal drive (achievement motivation).
- Impact on results.
- Analytical power.
- Strategic thinking.
- Creative thinking (ability to innovate).
- Decisiveness.
- Commercial judgement.
- Team management and leadership.

- Interpersonal relationships.
- Ability to communicate.
- Ability to adapt and cope with change and pressure.
- Ability to plan and control projects.

Under each heading instances will be sought which illustrate effective or less effective behaviour.

One of the problems with this approach is that it relies too much on the ability of the expert to draw out information from interviewees. It is also undesirable to use a deductive approach which pre-empts the analysis with a prepared list of competency headings. It is far better to do this by means of an inductive approach which starts from specific types of behaviour and then groups them under competence headings. This can be done in a workshop by analysing positive and negative indicators to gain an understanding of the competence dimensions of an occupation or job as described below.

3. Workshops

Workshops bring a group of people together who have 'expert' knowledge or experience of the role – managers and role holders as appropriate – with a facilitator, usually but necessarily a member of the HR department or an outside consultant.

The members of the workshop begin by getting agreement to the overall purpose of the role and its key result areas. They then develop examples of effective and less effective behaviour for each area which are recorded on flipcharts. For example, one of the key result areas for a divisional HR director might be human resource planning, defined as:

> *Prepares forecasts of human resource requirements and plans for the acquisition, retention and effective utilization of employees which ensure that the company's needs for people are met.*

The positive indicators for this competency area could include:

- seeks involvement in business strategy formulation;
- contributes to business planning by taking a strategic view of longer-term human resource issues which are likely to affect business strategy;
- networks with senior management colleagues to understand and respond to the human resource planning issues they raise;

- suggests practical ways to improve the use of human resources, for example, the introduction of annual hours.

Negative indicators could include:

- takes a narrow view of HR planning – does not seem to be interested in or understand the wider business context;
- lacks the determination to overcome problems and deliver forecasts;
- fails to anticipate skills shortages; for example, unable to meet the multi-skilling requirements implicit in the new computer integrated manufacturing system;
- does not seem to talk the same language as line management colleagues – fails to understand their requirements;
- slow in responding to requests for help.

When the positive and negative indicators have been agreed the next step is to distil the competency dimensions that can be inferred from the lists. In this example they could be:

- strategic capability;
- business understanding;
- achievement motivation;
- interpersonal skills;
- communication skills;
- consultancy skills.

These dimensions might also be reflected in the analysis of other areas of competency so that, progressively, a picture of the competencies is built up which is linked to actual behaviour in the workplace.

The facilitator's job is to prompt, help the group to analyse its findings and assist generally in the production of a set of competence dimensions which can be illustrated by behaviour-based examples. The facilitator may have some ideas about the sort of headings that may emerge from this process but should not try to influence the group to come to a conclusion which it has not worked out for itself, albeit with some assistance from the facilitator.

Workshops can use the critical incident or repertory grid techniques as described below.

4. Critical-incident technique

The critical-incident technique is a means of eliciting data about effective or less effective behaviour which is related to examples of actual events – critical incidents. The technique is used with groups of job holders and/or their managers or other 'experts' (sometimes, less effectively, with individuals) as follows:

1. Explain what the technique is and what it is used for, ie 'To assess what constitutes good or poor performance by analysing events which have been observed to have a noticeably successful or unsuccessful outcome, thus providing more factual and "real" information than by simply listing tasks and guessing performance requirements.'
2. Agree and list the key result in the role to be analysed. To save time, the analyst can establish these prior to the meeting but it is necessary to ensure that they are agreed provisionally by the group, which can be told that the list may well be amended in the light of the forthcoming analysis.
3. Take each area of the role in turn and ask the group for examples of critical incidents. If, for instance, one of the job responsibilities is dealing with customers, the following request could be made: 'I want you to tell me about a particular occasion at work which involved you – or that you observed – in dealing with a customer. Think about what the circumstances were, eg who took part, what the customer asked for, what you or the other member of the staff did and what the outcome was.'
4. Collect information about the critical incident under the following headings:
   - what the circumstances were;
   - what the individual did;
   - the outcome of what the individual did.
5. Record this information on a flip chart.
6. Continue this process for each key result area.
7. Refer to the flipchart and analyse each incident by obtaining ratings of the recorded behaviour on a scale such as 1 for least effective to 5 for most effective.
8. Discuss these ratings to get initial definitions of effective and ineffective performance for each of the key result areas.
9. Refine these definitions as necessary after the meeting – it can be difficult to get a group to produce finished definitions.
10. Produce the final analysis which can list the competencies required and include performance indicators or standards of performance for each key result area.

5. Repertory grid

Like the critical incident technique, the repertory grid can be used to identify the dimensions which distinguish good from poor standards of performance. The technique is based on Kelly's

(1955) personal construct theory. Personal constructs are the ways in which we view the world. They are personal because they are highly individual and they influence the way we behave or view other people's behaviour. The aspects of the role to which these 'constructs' or judgements apply are called 'elements'.

To elicit judgements, a group of people are asked to concentrate on certain elements, which are the tasks carried out by role holders, and develop constructs about these elements. This enables them to define the qualities which indicate the essential requirements for successful performance.

The procedure followed by the analyst is known as the 'triadic method of elicitation' (a sort of three card trick) and involves the following steps:

1. Identify the tasks or elements of the role to be subjected to repertory grid analysis. This is done by one of the other forms of job analysis, eg interviewing.
2. List the tasks on cards.
3. Draw three cards at random from the pack and ask the members of the group to nominate which of the these tasks is the odd one out from the point of view of the qualities and characteristics needed to perform it.
4. Probe to obtain more specific definitions of these qualities or characteristics in the form of expected behaviour. If, for example, a characteristic has been described as the 'ability to plan and organize', ask questions such as: what sort of behaviour or actions indicate that someone is planning effectively? How can we tell if someone is not organizing his or her work particularly well?
5. Draw three more cards from the pack and repeat steps 3 and 4.
6. Repeat this process until all the cards have been analysed and there do not appear to be any more constructs to be identified.
7. List the constructs and ask the group members to rate each task on every quality, using a six or seven point scale.
8. Collect and analyse the scores in order to assess their relative importance.

Like the critical-incident technique, repertory grid analysis helps people to articulate their views by reference to specific examples. An additional advantage is that the repertory grid makes it easier for them to identify the behavioural characteristics or competencies required in a job by limiting the area of comparison through the triadic technique.

Although a full statistical analysis of the outcome of a repertory grid exercise is helpful, the most important results which can be obtained are the descriptions of what constitute good or poor performance in each element of the job.

Both the repertory grid and the critical incident techniques require a skilled analyst who can probe and draw out the descriptions of job characteristics. They are quite detailed and time-consuming but even if the full process is not followed, much of the methodology is of use in a less elaborate approach to competency analysis.

Choice of approach

Workshops are probably the best approach. They get people involved and do not rely on 'expert' opinion. Critical incident or repertory grid techniques are more sophisticated but they take more time and expertise to run.

Analysing technical competencies

The approach to the definition of technical competencies (descriptions of what people have to know and be able to do to carry out their roles effectively) differs from that used for behavioural competencies. As technical competencies are in effect competences, a functional analysis process can be used. This methodology was originally developed by Mansfield and Mitchell (1986) and Fine (1988). In essence, functional analysis focuses on the outcomes of work performance. Note that the analysis is not simply concerned with outputs in the form of quantifiable results but deals with the broader results that have to be achieved by role holders. An outcome could be a satisfied customer, a more highly motivated subordinate or a better-functioning team.

Functional analysis deals with processes such as developing staff, providing feedback and monitoring performance as well as tasks. As described by Miller et al (2001) it starts with an analysis of the roles fulfilled by an individual in order to arrive at a description of the separate components or 'units' of performance that make up that role. The resulting units consist of performance criteria, described in terms of outcomes, and a description of the knowledge and skill requirements that underpin successful performance.

Functional analysis is the method used to define competence-based standards for N/SNVQs.

Skills analysis

Skills analysis determines the skills required to achieve an acceptable standard of performance. It is mainly used for technical, craft, manual and office jobs to provide the basis for devising learning and training programmes. Skills analysis starts from a broad job analysis but goes into details of not only what job holders have to do but also the particular abilities and skills they need to do it. Skills analysis techniques are described below.

Job breakdown

The job breakdown technique analyses a job into separate operations, processes, or tasks which can be used as the elements of an instruction sequence. A job breakdown analysis is recorded in a standard format of three columns:

1. The stage column in which the different steps in the job are described – most semiskilled jobs can easily be broken down into their constituent parts.
2. The instruction column in which a note is made against each step of how the task should be done. This, in effect, describes what has to be learned by the trainee.
3. The key points column in which any special points such as quality standards or safety instructions are noted against each step so that they can be emphasized to a trainee learning the job.

Manual skills analysis

Manual skills analysis is a technique developed from work study. It isolates for instructional purposes the skills and knowledge employed by experienced workers in performing tasks which require manual dexterity. It is used to analyse short-cycle, repetitive operations such as assembly tasks and other similar factory work.

The hand, finger and other body movements of experienced operatives are observed and recorded in detail as they carry out their work. The analysis concentrates on the tricky parts of the job which, while presenting no difficulty to the experienced operative, have to be analysed in depth before they can be taught to trainees. Not only are the hand movements recorded, but particulars are also noted of the cues (visual and other senses) which the operative absorbs when performing the tasks. Explanatory comments are added when necessary.

Task analysis

Task analysis is a systematic analysis of the behaviour required to carry out a task with a view to identifying areas of difficulty and the appropriate training techniques and learning aids necessary for successful instruction. It can be used for all types of jobs but is specifically relevant to administrative tasks.

The analytical approach used in task analysis is similar to those adopted in the job breakdown and manual skills analysis techniques. The results of the analysis are usually recorded in a standard format of four columns as follows:

1. Task – a brief description of each element.
2. Level of importance – the relative significance of each task to the successful performance of the role.

3. Degree of difficulty – the level of skill or knowledge required to perform each task.
4. Training method – the instructional techniques, practice and experience required.

Faults analysis

Faults analysis is the process of analysing the typical faults which occur when performing a task, especially the more costly faults. It is carried out when the incidence of faults is high. A study is made of the job and, by questioning workers and team leaders, the most commonly occurring faults are identified. A faults specification is then produced which provides trainees with information on what faults can be made, how they can be recognized, what causes them, what effect they have, who is responsible for them, what action the trainees should take when a particular fault occurs, and how a fault can be prevented from recurring.

Job learning analysis

Job learning analysis, as described by Pearn and Kandola (1993), concentrates on the inputs and process rather than the content of the job. It analyses nine learning skills which contribute to satisfactory performance. A learning skill is one used to increase other skills or knowledge and represents broad categories of job behaviour which need to be learnt. The learning skills are the following:

- physical skills requiring practice and repetition to get right;
- complex procedures or sequences of activity which are memorized or followed with the aid of written material such as manuals;
- non-verbal information such as sight, sound, smell, taste and touch which is used to check, assess or discriminate, and which usually takes practice to get right;
- memorizing facts or information;
- ordering, prioritizing and planning, which refer to the degree to which a role holder has any responsibility for and flexibility in determining the way a particular activity is performed;
- looking ahead and anticipating;
- diagnosing, analysing and problem solving, with or without help;
- interpreting or using written manuals and other sources of information such as diagrams or charts;
- adapting to new ideas and systems.

In conducting a job learning analysis interview, the interviewer obtains information on the main aims and principal activities of the job, and then, using question cards for each of the nine learning skills, analyses each activity in more depth, recording responses and obtaining as many examples as possible under each heading.

Job, role, competency and skills analysis – key learning points

Job analysis methodology and techniques

The essence of job analysis is the application of systematic methods to the collection of information about job content. It is essentially about data collection and the basic steps are:

- obtain documents such as existing organization, procedure or training manuals which give information about the job;
- obtain from managers fundamental information concerning the job;
- obtain from job holders similar information about their jobs.

Job descriptions

Job descriptions should be based on the job analysis and should be as brief and factual as possible. The headings should be: job title, reporting to, reporting to job holder, main purpose of job, main activities, tasks or duties.

Role analysis methodology

Role analysis uses the same techniques as job analysis but the focus is on identifying inputs (knowledge and skill and competency requirements) and required outcomes (key result areas) rather than simply listing the tasks to be carried out.

Behavioural competency modelling

Behavioural competency modelling is the process used for identifying, analysing and describing behavioural competencies which define the behaviours that organizations expect their staff to practice in their work in order to reach an acceptable level of performance. The emphasis is on the systematic collection and analysis of data. There are five approaches to behavioural competency analysis. In ascending order of complexity these are: expert opinion, structured interview, workshops, critical-incident technique, and repertory grid analysis.

Analysing technical competencies

The technique of functional analysis is used which starts with an analysis of the roles fulfilled by an individual in order to arrive at a description of the separate components or 'units' of performance that make up that role. The resulting units consist of performance criteria, described in terms of outcomes, and a description of the knowledge and skill requirements that underpin successful performance.

Skills analysis

Skills analysis determines the skills required to achieve an acceptable standard of performance. It is mainly used for technical, craft, manual and office jobs to provide the basis for devising learning and training

Job, role, competency and skills analysis – key learning points (continued)

programmes. Skills analysis starts from a broad job analysis but goes into details of not only what job holders have to do but also the particular abilities and skills they need to do it. Skills analysis techniques include: job breakdown, manual skills analysis, faults analysis and job learning analysis.

Questions

1. What is the difference between a job and a role?
2. How should a job analysis interview be conducted?
3. What are the advantages and disadvantages of questionnaires as a method of analysing jobs?
4. What is job learning analysis?

References

Fine, S A (1988), Functional job analysis, in S Gael (ed) *The Job Analysis Handbook for Business, Industry and Government*, Wiley, New York

Ivancevich, J M, Konopaske, R and Matteson, M T (2008) *Organizational Behaviour and Management*, 8th edition, McGraw-Hill/Irwin, New York

Kelly, G (1955) *The Psychology of Personal Constructs*, Norton, New York

Mansfield, B and Mitchell, L (1986), *Towards a Competent Workforce*, Gower, Aldershot

Miller, L, Rankin, N and Neathey, F (2001) *Competency Frameworks in UK Organizations*, CIPD, London

Pearn, K and Kandola, R (1993) *Job Analysis*, IPM, London

Shippmann, J S, Ash R A and Battista, M (2000) The practice of competency modelling, *Personnel Psychology*, **53** (3), pp 703–40