Training needs analysis: an evaluation framework


Summary
Training needs analysis (TNA) is the first step in the training and educational strategy of an organisation and is crucial to meeting the continuing professional development needs of the healthcare workforce and service. TNA must be carefully planned, conducted and have clear outcomes to ensure that training interventions are implemented effectively and that they lead to meaningful changes in service delivery. However, there is a dearth of literature on approaches to critique TNA. This article describes a framework developed specifically to evaluate the effectiveness of TNA. The framework combines approaches that have been used to evaluate conventional research studies and audit.

EDUCATION AND training have become central to the delivery of the modernisation agenda for the NHS (DoH 1999). The government has established Workforce Development Confederations (WDCs) to ensure that educational and training provision meets the needs of local health economies. Continuing professional development (CPD) that is geared to the needs of the health service and its users is regarded as the cornerstone of these reforms. The overall training strategy developed by healthcare organisations is ensuring that the workforce is equipped with the appropriate knowledge base and competencies required to meet these needs (DoH 2002). TNA is considered vital in establishing the CPD needs of the healthcare workforce. However, evidence that it is still not being conducted routinely for all staff in the NHS has provoked unfavourable comment from the National Audit Commission (NAC 2001). Moreover, when TNA is conducted, there is no guarantee that the findings reflect the needs of all stakeholders accurately and/or fairly.

Training needs analysis
TNA is the opening step of a cyclical process contributing to the training and educational strategy of an organisation (Furze and Pearcey 1999). The cycle starts with a systematic consultation to identify the learning needs of the target population. This is used to plan a training intervention which will meet the identified need. Once it has been implemented, the intervention must be evaluated to determine its effectiveness. The outcomes of evaluation are also used to amend the next training cycle. However, changes in the demands placed on, or by, the employing organisation also need to be considered. New government policy, advances in technology, role expansion and the increasing expectations of service users are additional drivers for change in CPD for nurses.

As the first step in the training cycle, TNA plays a crucial role in ensuring that service needs are met. If needs assessment is misinformed because it has omitted the views of key stakeholders or has asked the wrong questions, any subsequent training is unlikely to reflect the needs of the organisation or its staff. Similarly, if TNA progresses too slowly, given the current pace of change in health care, any training intervention arising from it will be out of date before it can be implemented. A recent search of the nursing and healthcare literature between 1985 and 2003 identified 266 papers concerned with TNA. Most of these consisted of ‘recipe book’ accounts of how to undertake it rather than presenting empirical findings that would be of value.

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Key words
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- Professional development

These key words are based on the subject headings from the British Nursing Index. This article has been subject to double-blind review.

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Viewing TNA as making sure the right training is audit is to ensure that the ‘right things are done’. To establish and extend knowledge about effective evaluations of research has been the topic of heated debate for some years (Closs and Cheater 1996). Many of the features of TNA reflect audit rather than ‘pure’ research. Both are cyclical processes in which accounts have the potential to influence the rest of the training cycle in practical ways. In the quest to evaluate the usefulness of TNA to stakeholders, attention was turned to the literature that compared research with audit.

### Box 1. Potential stakeholders
- Employees
- Service users
- Educational providers
- Commissioners

to education providers and commissioners. In fact, only 23 of the articles reported the outcomes of TNA in relation to the CPD needs of qualified nurses or included nurses as part of a larger group. Accounts of well-conducted training needs assessments are of potential value to WDCs, which are now funding their own TNA as the first step in commissioning new training programmes. Other interested parties will include service users and potential students.

All these groups need to be able to distinguish between TNA, which represents value for money, and TNA which does not. However, critical analysis, employing the conventional criteria recommended to review research findings (Parahoo 1997), revealed that many of the published accounts of TNA retrieved by the searches described above were flawed. For example, response rates were sometimes extremely poor and there was evidence of sampling bias, which would probably have rendered the outcomes invalid (Hicks and Hennessy 1999).

Reflecting on the process of critique, it became apparent that although the criteria used to evaluate conventional research studies can certainly be applied to accounts of TNA to differentiate between studies which are methodologically sound and those which are not, additional criteria are required to determine which accounts have the potential to influence the rest of the training cycle in practical ways. In the quest to evaluate the usefulness of TNA to stakeholders, attention was turned to the literature that compared research with audit.

**Training needs analysis and clinical audit**

The extent to which activities such as clinical audit, evaluation and action research fulfil the requirements of research has been the topic of heated debate for some years (Closs and Cheater 1996). Many of the features of TNA reflect audit rather than ‘pure’ research. Both are cyclical processes in which information about practice is fed back to staff with the intention of improving their performance. Thus ownership of the findings is an important characteristic of successful audit (Balogh 1996), and this appears to be true of TNA. The difference between research and audit has been summarised by Smith (1992) – research seeks to establish and extend knowledge about effective practice (‘the right things to do’), while the aim of audit is to ensure that the ‘right things are done’. Viewing TNA as making sure the right training is done would provide a much needed definition. At present its aims are confused and this affects its outcomes and their usefulness. Drawing on its similarities with the audit process, however, it is possible to see TNA as a means of improving service delivery through training. Models to evaluate TNA should therefore incorporate the same type of criteria that are used to determine whether audit is meeting its intended aims. The authors developed a framework specifically to evaluate the effectiveness of TNA. This framework combines approaches which have been used to evaluate conventional research studies and audit.

**Planning training needs analysis**

To guide the development of a training intervention that can be effectively implemented and lead to meaningful changes in service delivery, TNA must be carefully planned, conducted and result in clear outcomes.

**Developing clear aims**
The aims of any TNA must be stated clearly at the outset. Unless they are explicit, any training programmes arising as a result will lack impact. However, the aims of CPD in post-basic nursing education remain confused (Furze and Pearcy 1999) and the purpose of TNA sometimes appears muddled. Early proponents of TNA in nursing regarded it primarily as a vehicle to plan an individual’s career (Sheperd 1994) or as a mechanism to ensure that the requirements for professional updating had been met (Bysshe 1991). More recently, in line with government rhetoric, the purpose of TNA has become much more closely associated with ensuring that the training needs of the workforce are identified from the perspective of what is required by the employing organisation to deliver its service (Laverton and Wimpenny 2003). Clarity of aims and the issue of who the TNA is intended to serve pervade the remaining criteria for evaluation discussed below.

**Stakeholder involvement**
Approaching appropriate stakeholders and securing their participation is an important aspect of the planning stage of the training initiative. Its purpose is to ensure that all have the opportunity to inform the training delivered and ultimately the service. Wright (1999) advocates an approach incorporating the demands of the organisation, the occupational groups to be included, consideration of the role played by each group of staff, the needs of the individuals performing that role and the requirements of the service user. Possible stakeholders in organisations concerned with health-care delivery are shown in Box 1.

Today it is considered imperative to include service users and their families in healthcare delivery and planning (DoH 1999). However, some authors have ignored service users altogether (Hicks and Hennessy 1999). In addition, there is emerging evidence that some groups of patients and their carers have scant interest in informing service delivery,
with the result that much valuable time can be lost attempting to secure their views (Fontenla and Gould 2003, Gould et al 2000). There is also a real possibility that the same core group of individuals in a given locality are repeatedly consulted over issues concerning health care and service delivery, introducing consumer bias, or the equally undesirable possibility of consumer exhaustion and loss of goodwill. Where data concerning user views already exist, it is feasible to use secondary data to inform TNA and similar initiatives. For example, the National Surveys of NHS Patients Cancer Network Report 1999-2000 (DoH 2002) draws extensively on service user opinion and the same data could be used to support contemporary studies in the same locality in which the views of cancer patients and their families are required.

Course evaluation with concomitant feedback to inform future course planning has always played an important role in nurse education, but the opinions of nurse educators have been overlooked, despite the recognised challenge of maintaining clinical competence (Gibson 1998). A decade ago, Sheperd (1994) suggested that nurse educators should identify their own training needs to aid their students’ learning, but there is little evidence that this is happening, and there is a real danger that teachers may not be fully up to date in rapidly changing areas.

Identifying organisational needs versus individual staff needs The needs of the organisation for training and education should be clearly identified and match the aims of the TNA. However, the extent to which TNA should be used to fulfil individual career aspirations while meeting organisational needs remains the subject of intense debate (Hicks and Hennessy 1997). With the emphasis on competency-based training, the view that TNA should be used primarily for individual career planning appears naïve and outdated. Nevertheless, wise employers remain cognisant of career planning appears naïve and outdated. Nevertheless, wise employers remain cognisant of the recognised challenge of maintaining clinical competence (Gibson 1998). A decade ago, Sheperd (1994) suggested that nurse educators should identify their own training needs to aid their students’ learning, but there is little evidence that this is happening, and there is a real danger that teachers may not be fully up to date in rapidly changing areas.

Ensuring participation Any account of TNA should demonstrate links between staff in the organisation where it is being conducted and the team responsible for performing it. Outcomes have a greater chance of being acted on if they ‘belong’ to the organisation and receive the support of individuals in senior positions. Unless good relationships exist between representatives from these two groups, there is little prospect of the TNA outcomes being translated into a training programme and eventually influencing practice. Positive indicators of a working relationship between university staff conducting the TNA and service staff would be indicated by joint membership of project steering groups or joint authorship of articles and reports. If a TNA is set up primarily as a research project to enhance the scholarly reputation of the investigator, it is unlikely to have much impact on the way things are done in the clinical setting.

Conducting training needs analysis

Issues centre on design of the TNA and reflect much of what has been written about conducting conventional research studies, but with additional considerations, namely issues concerning timing and the context in which TNA is undertaken.

Sampling A sample is a subset of the target population to be included in a study (Parahoo 1997). In TNA, as in most conventional research studies, it is seldom possible to include every eligible person and a method of sampling that does not introduce bias should be used. For example, inviting individuals attending a conference concerned with implementing research findings to participate in a TNA concerned with ensuring that research results enhance practice is convenient because it capitalises on the presence of a captive audience. However, it means that only the opinions of those interested in research use are likely to be included.

Purposive sampling is useful during TNA. The findings must be interpreted with caution, however, because the sample is not randomly obtained. Purposive sampling involves deliberately choosing who to include in a particular study on the basis that they will be able to provide the necessary data (Parahoo 1997). In the case of TNA, a number of influential people may be selected, not only because of their special knowledge of the organisation and what is required to run it effectively, but also because they occupy key positions concerning the uptake of findings. The outcomes of TNA are more likely to have an effect if they have the approval of the chief executive and if they are in line with the organisation’s overall strategic and financial plan. Involving the relevant people early in the TNA and ensuring that their views are solicited is an important contributory factor to success.

Methods of data collection The method of data collection must be rigorous yet practical. TNA is conducted because of the need to tackle a genuine problem such as how to implement a new computer system for staff to use in the clinical areas

REFERENCES
Box 2. Evidence of the potential value of training needs analysis

- Aims are clearly stated at the outset of the initiative
- Participation by all potential stakeholders, with use of secondary data sources where appropriate
- Consideration of the specific needs of the organisation involved, with scope for considering the individual needs of staff
- Demonstrable links between those responsible for conducting the TNA and the organisation where it is taking place
- A realistic approach to sampling – allowing the voices of key stakeholders to be heard but avoiding bias
- Rigorous and flexible approaches to data collection that include more than one method
- Adherence to the original timetable
- Evidence that contextual issues inside and outside the organisation, such as the introduction of new policy or technology, have been considered
- Clear outcomes that match the original aims, organisational and stakeholder need
- Explicit indications of how the outcomes will, or could, be used to influence the rest of the training cycle


(Fyffe and Fleck 1998) or how to ensure that a particular university course meets the needs of staff in delivering care for a specific client group (Smith and Topping 2001). A range of methods can be used, including: face-to-face interviews; telephone interviews; focus groups; documentary analysis; observation, and questionnaires. In many cases methods have been combined to ensure that all eligible staff can have some input in course planning. Those responsible for carrying out the TNA may find that to reach all stakeholders in the time available, they have to be pragmatic in their approach to data collection. They may not be able to use the same method of capturing the required information from everyone in the same way. Sometimes a pre-existing meeting or study day will offer the opportunity to distribute questionnaires, but not every eligible person will attend and they may have to be interviewed individually. When conducting TNA it seems more important to ensure that key people are included rather than to exclude a stakeholder because he or she was unable to participate in a focus group on a given day.

Timing and context

TNA is more than an academic exercise. The pace of change in health care requires programmes that are responsive to local and national requirements for training, with swift action on the part of commissioners. When the need for TNA is mooted, stakeholders will be interested in how soon the results will become available without compromising its rigour. The context of the TNA, the time that it takes place in the life of the organisation or in relation to the introduction of change, are also important and will influence its outcomes and the ways they are used. TNA may used as a political tool for example, to prove that a particular change is necessary.

Conclusions

TNA can be redefined as making sure the right training is done to match organisational and stakeholder need, which is in line with similar definitions that have been successfully applied to clinical audit (Smith 1992). TNA is of growing importance in modern health care and much has been written about how it should be conducted. Nevertheless, there is a dearth of literature concerning approaches to critique TNA.