

# Quality Indicators for Professional Education

---



*Workshop on Performance Indicators for Quality Assurance in Distance Higher Education, Colombo, Sri Lanka, 14-16 August 2007*

*Quality Indicators for Professional Education*

*By Professor Mohan Menon, Commonwealth of Learning*

## Introduction

Quality of courses and programmes in professional education is critical to the performance of the products in the real work situations. Any quality indicators or performance measures in higher education should accommodate the variety of programmes in the sector and the QA frameworks should be able to differentiate between the requirements of a knowledge-based programme in higher education from that of professional courses. The quality of a lawyer or a teacher or a doctor in one's real professional role will depend on the required knowledge in relevant areas as well as the competencies he or she possesses to be an effective practitioner. The training environment in a professional programme should be such that the transactional processes involved in the training situations should facilitate the professional to develop better insights into the work situation and practices. The training experiences gained in the pre-service and in-service professional development programmes viz. medicine or engineering should be able to prepare them for dealing with the complex realities obtained in the medical or engineering profession.

While the processes involved in the curriculum transaction are core to any educational experience, indicators of quality in professional higher education tends to focus attention on organisational and administrative processes and the organisation of mode related learning components such as course development and learner support. Naidu (2004) emphasizing this point in the context of teacher education says that 'at times when there is some attention being paid to learning and teaching, the emphasis is on the quality of the teachers, their training, and on the support that they might be receiving. The quality of the learning experience is seen to have been assured with qualified personnel'. This is not essentially true as the presence of required number of health educators need not always ensure effectiveness of a health education programme by ODL if the course materials are developed with only mechanically following an ID template as well as adequate opportunity for learner support, without ensuring the manifestation of the required transactional (pedagogical) processes.

Koul (2006) does give some emphasis to the learning design aspect. He identified ten factors grouped into three dimensions to contribute to quality assurance in ODL. The core dimension includes two factors viz.

one, course materials, instructional design, teaching-learning including evaluation practices and learner support services and two, learner centricity of support services, and research and capacity building. While there are several factors under the 'systems' and 'resources' (Koul, 2006), the core dimension is critical to the effectiveness of any course. I consider the following four quality indicators within the 'core dimension' of a professional education programme/institution most critical to its quality.

- Design of Learning
- Learner-centredness
- Reflective Practice
- Dialogue in instruction

## Quality Assurance of Teacher Education

Let me take in this paper the example of teacher education to illustrate the special quality assurance requirements of tertiary level professional courses through open distance learning. The quality of the teacher education courses mainly determine teacher performance in the classroom, school and community leading to effective learning among children. Role of teacher is considered to be the single most important factor in assuring quality in the teaching-learning process. Hence, without exception all countries, both the developed and the developing, have been placing considerable emphasis on pre-service and in-service teacher training and also on-going professional support of teachers. Traditionally teacher training, both pre-service and in-service, involved face to face classes organised in institutions combined with workshop and workplace experiences based on the multi-faceted role played by teachers in the classroom, school and community. With the democratization of school education, achieving universal primary education happens to be the single most priority for most developing countries. This has put a lot of pressure on the system needing adequate infrastructure and human resources such as trained teachers to take care of more and more children enrolling in primary education. This in turn has also necessitated expansion of secondary education. Many developing countries find their schools either not having enough teachers or a large chunk of teachers are untrained.

Developments in open and distance learning and technology made it possible to think of alternative modes of teacher preparation. Many countries are benefiting by the use of ODL and ICT for teacher training. There have also been major changes in approach to organising teacher training curriculum. Innovations such as Collaborative Reflective Practice (Menon, 2004) as core to teacher training are slowly becoming popular. In spite of these major developments and innovations in teacher training curriculum and its organisation and transaction, quality of these programmes is still a concern among educational professionals, teacher educators and educational policy makers. It is thus important to identify and adopt quality assurance modalities both internal and external to the learning/training environment.

## Transactional Processes for Professional Development

Yadav and Panda (1997) discuss the requirements of any occupation or area of work to be considered as a profession. Major characteristics of a profession emerging from this discussion are:

- Professions have more specifically defined objectives.
- There is an abstract theoretical knowledge gathered through specialised study of the area which has the potential for application.
- Through applications of theoretical knowledge, actual practices are created and refined through independent practice and experience, and these practices created are utilised for rendering service with a view to improving conditions of its recipients.
- There is a code of conduct and ethics to be observed by the members of a profession to reflect its moral component.
- Performance of members are controlled and facilitated by professional bodies.
- Professional performance demands from members certain type of attitudinal make-up and value orientation based on personal attributes.
- The society should believe that a profession has authentically developed practices and that its members are capable of using them for the benefit of their clients.

## Nature of Transactional Processes in Teacher Education

The reality of classroom teaching has involved a single teacher placed in a classroom full of students. In many schools in the developing context, these are multi-level or multi-grade situations. The teacher's job has been to move students through the curriculum and, to the highest extent possible, practice struggling to deal with challenges developed in that environment. These struggles force teachers to assimilate and accommodate as they seek more effective classroom strategies. When teachers are successful in their classroom settings, they gain new experiential insights that build their professional knowledge base. When incidents are unresolved, they persist in the mind of the educator. During such experiences, teachers question their pedagogic abilities and efficacy. If honest, all teachers would admit that they have had such episodes. These unsettling attempts might involve an unruly student, an intimidating parent, or systemic challenges.

Can the training interventions take into account and utilise such episodes and experiences for discussions and reflections? Can case studies and simulations be developed basing on these experiences? According to the theory of *Constructivism*, individuals build their own theory of the nature of the world, from their own perceptions and experiences. It is grounded in the idea that "people learn by actively constructing new knowledge, rather than having information poured into their heads". Many argue (Bates, 1999; Jonassen, 2000) that learning within the constructivist environment promotes meaningful learner engagement and critical, creative and complex thinking by learners. Let us examine a couple of training and educational practices adopting a constructivist environment.

Cady (1998) highlights the effectiveness of Reflective Practice Groups in induction training of teachers. The groups followed a ten-step, reflective process that connected theory to critical incidents of practice. Shared reflective practice was found to be an important element in creating a supportive professional environment for all participants - new teachers, experienced teachers, administrators, and college faculty. The Reflective Practice Group process involved ten steps (given in Fig. 1), which could be completed in one and a half to two hours.

1. Convene the small group.
2. Each participant takes 2-3 minutes to *share a personal situation which occurred in the school setting* where the individual did not know quite how to handle matters. The episode should include students.
3. The group chooses one episode for an *in-depth discussion*.
4. The episode is retold in detail by the originator. The person *tells the objective facts as well as the personal emotions which were associated* with the episode. The other participants ask for further details when the person finishes.
5. The participants take five minutes to think and write hypotheses for the rationality behind the action the teller took. The hypotheses are concise statements which include psychosocial, pedagogical, and institutional factors. The statements might begin, "A teacher in such a situation might feel frustrated because..."
6. The *participants share the hypotheses* that were written. This begins to suggest the teaching theory behind the episode.
7. The episode teller *responds to the hypotheses and attempts to relate them to the experience* which was told. The teller begins to *uncover some of the internalized knowledge, practice, and self awareness associated* with the episode.
8. The group begins *a discussion about how a teacher in such an episode has effects on students*. The group asks, "What did the students learn from this?"
9. The group *discusses how things could have been handled in a different manner*. What benefits would result from an alternative approach? Why am I doing things the way I do?
10. The *group summarises and debriefs*.

**Fig. 1: Reflective practice group process**

While discussing the pedagogical architecture named Collaborative Reflective Practice for the Graduate Certificate Programme in Open and Distance Learning in the University of Southern Queensland, Naidu (1997) refers to the Kolb Learning Cycle (1984) which involves four processes necessary for learning to occur. These are:

- concrete experiences (e.g. laboratories, field work, observations, films);

- reflective observation (e.g. learning logs, journals, diaries, brainstorming);
- abstract conceptualisation (e.g. lectures, papers, analogies); and
- active experimentation (e.g. simulations, case studies, home work);

Basing on the processes suggested by in Kolb Learning Cycle, the 'Collaborative Reflective Practice' constituted four critical elements, viz. *experiencing*, *reflecting*, *conceptualising*, and *applying*.

*Experiencing* refers to participation in purposeful learning activity that may be presented as part of a course or prior learning experience. *Reflecting* is conscious and deliberate mulling over one's personal experiences with or without self-evaluation. *Conceptualising* comprises studying, interacting with peers and also critically reflecting on the subject matter. *Applying* involves reformulating the theoretical concepts and using them in specified meaningful situations for further reflection.

## Emerging Transactional Processes

An analysis of the transactional steps involved in Reflective Practice Group (Cady, 1998) and Collaborative Reflective Practice leads to identification of certain transactional processes that can be adopted in a learning situation especially in professional development area. It can be seen that these processes follow certain sequence forming a cycle.

- Experiencing, either presented as part of the course or prior experience of the teacher.
- Reflecting on one's own experiences with or without self-evaluation.
- Sharing personal experiences with peer group telling objective facts and personal emotions.
- in-depth discussion among the participants.
- Each hypothesising rationality behind personal actions.
- Sharing hypotheses among participants and relating to theories.
- Responding to hypotheses and relating to ones own personal experiences shared earlier.
- Discussion on how the action shared has affected student learning.
- Discussion on how things could have been handled in a different manner.
- Summarising and reformulating the theoretical concepts for application in meaningful situations and further reflection.

Can these transactional processes be designed in the use of ICT to the same effectiveness as in the formal face-to-face situation? Let us examine.

## Transaction in Distance Education

### Transactional Distance – Face-to-face Move vs Distance Mode

The apprehensions professionals have about the potential of distance education mode in professional development is mainly created by the importance of human interaction in professional development and the physical distance existing between the teacher educator and teacher trainee in the programmes through distance education. The 'distance' in distance education is not merely geographical but also psychological. Psychological distance can be very large even in a face-to-face situation with only one teacher and a learner! The psychological space between learner and the teacher that arises from geographic distance has to be overcome by using the appropriate communication technology. This (psychological space) has been termed "transactional distance" and has been defined as a function of two characteristics existing in all educational programmes (Moore, 1983). First of these is the *extent and nature of the dialogue* occurring when a teacher instructs and a learner responds. Dialogue describes the extent to which an educational programme provides for a learner and teacher to conduct a series of responses to the stimulus of each other. The second characteristic that determines transactional distance is the *design or structure of a course*. Programmes, which are highly structured and in which teacher-learner dialogue is non-existent, create high transactional distance. On the other hand there is low transactional distance in those teleconference programmes that have much dialogue and little pre-determined structure. Student learning in a face-to-face situation which does not encourage teacher-learner and learner-learner dialogue can be at a higher transactional distance than a student in teleconference or computer conferencing situation if the dialogue is encouraged.

### Dialogue in Instruction

There can be three types of dialogue that can happen in a transactional situation. These are dialogue between:

- learner and content;
- learner and instructor; and
- learner and other learners.

While discussing about dialogue in teleconferencing Moore, (1991) feels that with the new form of dialogue (which is dialogue between learner and fellow learners) becoming prominent in distance education there is a need to change our theorisation about distance education.

The possibility of creating various transactional processes (discussed in the earlier section) in the instructional situation will depend on the three dimensions of dialogue that can happen in instruction which in turn is decided by the nature of the communication medium and instructional method adopted.

## Theory-Based Teacher Education Curriculum

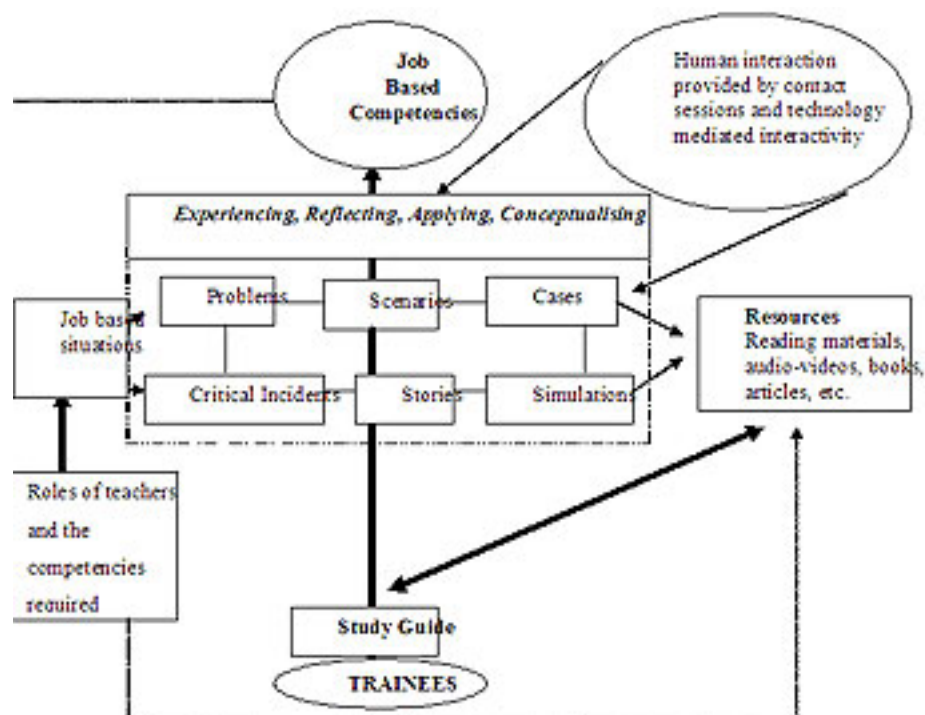
Teacher development is seen here as the entire process of developing and maintaining professional competence in teachers including pre-service training, induction training, in-service training and on-going professional development of teachers. There have been criticisms of teacher development courses and programmes being very theoretical and irrelevant to the real situations in the classroom. Competencies required for the transacting curriculum in complex situations are often not developed in the teachers putting lot of pressure on them when they enter schools. They do learn a lot on the job but remain ill equipped to a large extent. It has often been argued that what a teacher requires is to deal with classroom and situations and take decisions and manifest competencies in dealing successfully with those situations. However, the teacher education curriculum has remained theoretical with an assumption that if they are taught theory and show its applications in selected situations they would be able to extend that to other situations even if the context changes. Such a theory-based approach to training has been the norm in most face-to-face teacher education courses.

## Constructivists Approach to Curriculum Design

Based on the processes involved in the collaborative reflective practice it is possible to conceptualise a teacher development curriculum for a ODL based programme or course. The reading materials, media based materials, resource materials, interactive sessions including face-to-face contact classes and technology based interaction, assignments and projects could play appropriate roles in facilitating the trainee going through the processes of *reflective practice* under experiencing, reflecting, applying and conceptualizing. The core reading and other media materials would consist of cases, stories, critical incidents, scenarios, simulations and problems derived from the classroom, school and community situations based on the roles the teacher has to play and the competencies he/she has to develop to function in these situations.

### **Fig. 2: Constructivist approach to curriculum design**





This approach follows a situated learning design (*design of Learning*) which allows a pedagogically sound approach of learning in a situated manner within the real job context. The cases, problems etc. will be designed and developed in such a way that the trainee while going through them will at appropriate points will have to take a decision, perform an activity, experience in real situations and/or an audio-video episode, recall prior experiences, read a relevant theoretical writing or factual information and/or reflect on the issue either individually or collaboratively (*dialogue in instruction*) in face-to-face or technology mediated human interaction. Such a transactional process is expected to develop in the trainees those competencies required for performing the pre-specified roles effectively (Fig.2).

The Constructivist approach allowing each individual to follow unique learning path and construct ones own knowledge and develop competencies does indicate that the there is *learner-centredness* in the curriculum transaction facilitated by flexible and alternative learning activities. Designing the course materials and learner support

## Conclusion

It is fairly evident from this paper that the four quality indicators viz. *design of learning*, *learner-centredness*, *reflective practice* and *dialogue in instruction* are the critical factors influencing the quality of a professional education programme. Extent of effective expression of these indicators in the learning system designed for a professional course determines mainly the quality of the course for achieving the desired learning objectives. This constitute the core dimension of the quality framework. This however, will have to be effectively supported by the other two dimensions- systemic and resource dimensions.



## References

- Beetham, H. & Sharpe, R. (2007) 'Rethinking Pedagogy for a Digital Age- Designing and Delivering e-Learning' Routledge, London.
- Cady, Joan M. (1998) Reflective Practice Groups in Teacher Induction: Building Professional Community Via Experiential Knowledge, *Education*, Spring.
- Kolbe, D.A. (1984) *Experiential Learning: Experience as the Source of Learning and Development*, Prentice-Hall, New Jersey.
- Koul, B.N. (2006) Towards a culture of Quality in Open Distance Learning: Present Possibilities, in Koul, B.N. and Kanwar, A. (eds), *Towards a Culture of quality*, Commonwealth of Learning, Vancouver.
- Menon M.B. and Dash, N.K. (2000) 'Professional Development in Higher Education at a Distance', in *Training of Professionals through Distance Education in South Asia*, eds N.K. Dash and S.B. Menon, IGNOU, New Delhi.
- Menon, M.B. and Phalachandra, B. (2001) Transactional processes for professional development and use of ICT, *Staff & Educational Development International*, 5(1), 9-25.
- Menon, M.B. (2004) Networking for Quality Assurance in Teacher Education by Open Distance Learning in Rama K. and Menon, M.B. *Innovations and Best practices in Quality Assurance for Teacher Education*, NAAC-COL, Bangalore.
- Naidu, S., Oliver, M., & Koronios (1999). Approaching clinical decision-making in nursing practice with interactive multimedia and case-based reasoning. *The Interactive Multimedia Electronic Journal of Computer Enhanced Learning* [On-line].
- Naidu, S. (2004) Learning Design as an Indicator of Quality in Teacher Education in Rama K. and Menon, M.B. *Innovations and Best Practices in Quality Assurance for Teacher Education*, NAAC-COL, Bangalore.
- Schank, R., Fano, A., Jona, M., & Bell, B. (1994). The design of goal-based scenarios. *The Journal of the Learning Sciences*, 3(4), 305-345.
- The Cognition and Technology Group at Vanderbilt (1991). Technology and the design of generative learning environments. *Educational Technology*, May, pp. 34-40.
- Yadav, M.S. and Panda, S.K. (1997) 'Higher Education and Professional Development', in *Staff Development in Higher and Distance Education*, ed. S. Panda, ABI, New Delhi.