Chapter 10
Monitoring and Supervising Teacher Education and School Education

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Abstract For planned development in all walks of life, be it science and technology or economy or education or any other sub-system of a larger society, it is essential to keep a tab and constantly watch whether we are moving as per the plan or not. If it is going on properly and moving towards achieving the set goals, it is always satisfying and motivating and energises us to perform much better. But if it is not so, and instead of going ahead, it is going in a reverse direction or in an awkward direction, we need to correct them at the right time so that the wheel of progress and development may be put on the right track. Monitoring, supervising, and inspecting are the key concepts and actions which help us do the above tasks thereby assisting in the attainment of set goals and objectives. All these three terms, i.e. monitoring, supervising, and inspecting have the same purpose but are done with little varied approaches and act as the heart and soul of a healthy system of functioning of an organisation. This chapter deals with these processes in depth with regard to teacher education and school education. It explores the definitions of these terms and discusses the nuances of monitoring, supervision, and inspection. While discussing, the chapter focuses on these aspects and assessment in teacher education and school education separately highlighting all aspects and stakeholders in the field of school education and teacher education. The chapter also puts light on the data management system and emphasises that the present-day education enterprise must have an efficient system of collecting, storing, retrieving, analysing, and interpreting data. This contributes to validating the realisation of objectives of the institution and helps understand what has been achieved, to what extent achieved, lacunae if any, and possible steps to be taken to potentiate the system.

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Introduction

Let us reflect on our formative years and be reminded of those teachers who made an impact in our lives and contributed to a large extent in shaping us into what we are today. Most of them were positive figures who were able not only to deliver the subject information, but also motivated us to be interested in the subject and ensure success. This is true for every generation. Good teachers explain the concepts to the students in return for receipt of emoluments. Better teachers demonstrate and work along with the students and are admired. The best teachers inspire the child to self-learning, and it is they who are revered. These great teachers are not congenitally born with extraordinariness but shaped themselves into entities through rigours of discipline, training, and development to leave an impact that is expressed through their pupils. Successful communities have good citizens and good citizens are essentially products of a superior education motivated by excellent teachers. Imperative it is, therefore, that education in general and specifically teacher education be made exemplary so that quality teachers are produced, who in turn will ensure quality education in schools. Any such superior educational structure requires careful nurturance of the system per se with real-time *monitoring*, continual *supervision*, and periodic *inspection*. Teacher education and school education are no exception, for education is the best investment that any community, society, or nation can make that will give the best dividends to the generation next.

Definition of Terms

Monitoring is a continuous systematic assessment of a process, made to ensure qualitative superiority and temporal punctuality as envisaged during planning. It is a process of surveillance and is necessarily continuous with inbuilt loopbacks to change or modify the process with a view to improve. According to the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD), "Monitoring" is "*the ongoing, systematic collection of information to assess progress towards the achievement of objectives, outcomes and impacts*". Another term frequently used is "Evaluation" which is described as "*the systematic and objective assessment of an ongoing or completed project, programme or policy, its design, implementation and results, with the aim to determine the relevance and fulfilment of objectives, development efficiency, effectiveness, impact and sustainability.*"

   Supervision is necessarily an oversight mechanism where a supervisor keeps a close eye on the supervisee (person or process) to critically observe and if need be, guide the course of action to achieve the aim of the process/project.

   Inspection is a periodic activity to carefully scrutinise or examine/study the subject (person or process) to evaluate if the intended levels or standards are being achieved/maintained.

All these three terms are primary activities related to ensuring quality assessment/control/preservation/improvement. Monitoring is always on a real-time basis, while supervision is frequent. The former is a part and parcel or in close association with the process, while the latter is from a relatively higher platform. Inspection, on the other hand, is a periodic activity usually done by somebody from outside the organisation or at least a person with higher responsibility or position/authority within the organisation.

Nuances of Monitoring, Supervision, and Inspection

Education is an extremely complex endeavour despite its simplistic exterior. The factors affecting education are many starting from the physical facilities of the educational institution, the familial background of the students and their domestic support (physical, financial, or emotional), the quality of teachers (including their training), and the wherewithal provided to the teachers or the students, teacher's levels of motivation/dedication, community support, administrative structuring, higher level visions on education, etc. Being multi-factorial, the maintenance of superiority requires managerial care through *Monitoring and Evaluation* (M&E). However, this managerial care is not a third-party exercise but needs the involvement of all stakeholders, who must share the responsibilities of ensuring ascendancy.

M&E in all spheres of development including the domain of education has evolved over years. In the early days, it was broad input–output checking which then morphoses into project-based monitoring systems to satisfy the requirements of funding authorities, and currently onto the present-day emphasis of providing valid and reliable data on real-time basis leading to evidence-based pointers of progress at the diverse levels of implementation, including at the local school (including Teacher Training Colleges) and administrative/community levels. It merits no separate mention that M&E quantifies not only outputs, but also outcome measures of education through high-performance dynamic and robust data-generated analysis and feedback. The scope is obviously not constant, with varying perceptions and requirements of the sector depending upon changing times, places, priorities, and resources. The progression of M&E procedures is not a linear process but more of a progression in flux that has many variants, subject to its appropriate responses to altering demands in different contexts. Also, it is prudent to appreciate that the issues of governance accountability, sustainability, and transparency, especially for the effectiveness and efficiency of funding for education have led to the emergence of the involvement of all stakeholders, including civil society and the local community. After all the educational enterprise is answerable not only to the present administrative/political disposition, but also to the future generations of citizenry.

Having established the subtle nuances of the terms "monitoring, supervising, inspecting," etc., and their roles in the field of education, it may be realised that all these various entities are aimed at establishing/ensuring quality in the business of imparting school/teacher education. Though distinct in themselves, these terms

are complementary to one another. These do not exist in water-tight compartments but seamlessly ingress onto one another's territories. These are initially continuous as input–output studies but ultimately affect the impact or the outcomes of the programmes.

As is clear from above, there are a multitude of terms that are individually distinct but complementary. To avoid further misperception and for the sake of uniformity, let us use an over-encompassing term for these, called "assessment" in this discussion.

Why do we need to "Assess"? We need to:

- Measure results of the training programme on the target group,
- Ascertain cost-effectiveness,
- Ensure efficiency in maximising the outcome with optimal resource allocation,
- Achieve goals, objectives, and targets as per plan.

When to assess:

- Monitoring must be continuous,
- Supervision should be frequent,
- Inspection may be periodic, Semi-annual/annual.

Assessment is a planned activity with clear-cut phases, i.e. before (planning), during (real-time), and after (post-event). Planning is of paramount import and comprises of:

- Identifying target group,
- Decide the purpose of the exercise,
- Evaluate resources available,
- Time frame of/for the activity,
- Periodicity,
- Budgeting, cost projections,
- Methods of data collection, analysis, and feedback.

The during and after-event activities are offshoots of the planning template. Lessons learnt are to be ploughed back for reportage and usage during the planning of a subsequent similar activity.

What are the levels of assessments? Essentially these are:

- Self,
- Peer,
- Seniors,
- Heads of Departments,
- Director of the Institution,
- School Management,
- District School Authorities,
- Educational Boards/ Universities,
- State Education Departments,
- Central Education Ministry,
- International bodies,

- Independent Evaluators.

  In **which** manner does the assessor perform her/his role?

- Planning,
- Organising,
- Leading,
- Helping,
- Evaluating,
- Motivating,
- Communicating,
- Linking with decision makers/higher authorities.

  Types of assessments/Attributes of assessor: (Supervisor–Supervisee Equation)

- Friendly mentor, offering support, guidance even a shoulder to lean on, or
- Strict on accountability and generating a sense of responsibility.
- Combination of the above two, through verbal advice, written counselling, general suggestions, specific advisory, etc.

  What must be the characteristics of the "Assessment"? Essentially, assessment must be effective and efficient for that it must be:

- High performing, dynamic, and sustainable.
- Ability to modify in accordance to need or changing circumstances, perceptions of the environment, and times.
- Suited to the requirement of the community, organisation, state, or the nation,
- Must be able to assist governance,
- Information transparent,
- Accountable,
- Data-driven and statistically decipherable,
- Significant to all stakeholders, i.e. Government, Administration, financers, donors/funding agencies, civil society, parent bodies, and academia.

  How does this affect the School Education (or Teacher Education)?

  As described earlier, "education" being vibrant demands real-time input to stay relevant and contemporary. Thus, assessments must:

- Facilitate the teachers through feedback about classroom interaction to make teaching–learning effective.
- Data-driven,
- Obtained through student/parent/teacher/school questionnaires, as well as through observations by authorities and feedback from the community.
- Never to be used for policing the teachers/ students/ schools or for fault finding/ blame-sharing.
- Offer guidance/assistance/wherewithal to the system to improve the quality of education.

Assessment must contribute to improve all aspects that may affect the teaching–learning process:

- Improve physical facilities, classrooms, common area, toilets, playground, cafeteria, etc.,
- Appropriateness of the teaching–learning material,
- Assessing staff–student ratio,
- Climate of the premises, i.e. safety, security, and dignity,
- Quality of support available to the teachers/faculties,
- Contribute to time management,
- Gauge institutional problems and their suitable solution,
- Robustness of data collection, analysis, and feedback loop,
- Policy scrutinising,
- Teachers' welfare, pay and allowances, and motivation/morale,
- Effectiveness of PTAs,
- Community participation,
- Quality assurance, Quality control, and Quality enhancement,
- Comparison with other institutions,
- Result analysis (Board/University Examination).

Data Management

It needs no emphasis that the present-day education enterprise must have an efficient system of collecting, storing, retrieving, analysing, and interpreting data. This contributes to validating the realisation of the objectives of the institution and it also tells us the levels of achievements that have occurred, to what extent, lacunae if any, and possible steps to be taken to potentiate the system. The following steps are felt essential for the same:

- Formatting of information sheets,
- Organised gathering,
- Processing and storing,
- Analysis and interpretation,
- Managerial Action,
- Feedback mechanism,
- Research, data mining, and Publication.

Assessments of School Education

As elucidated earlier, the complexities of the management of education are enormous irrespective of the levels of the educational institution. The difference is only of the magnitude. Consequently, the assessments must be equally robust and continuous. The findings must not only assist in solving the present challenges, but the

lessons learnt necessarily be ploughed back to the institute for positive changes in the subsequent sessions/years.

The levels of assessment can be, for the sake of convenience, divided into two:

- Intrinsic (within the institute)
- Extrinsic (by outside agencies)

Intrinsic is done by:

- **Students**, through self-learning and contribution to the school authorities with physical and intellectual efforts. Japan is a prime example where the students contribute to the upkeep and cleanliness of the school, through good habits of not littering and weekly cleaning of the classrooms, common area, and even toilets. Teaching and mentoring younger students or even low-achiever peers are done as a routine. All these need monitoring daily.
- **Non-teaching Staff** are equally important members of the school education system and can contribute as well as benefit from the assessment system.
- **Teachers**, through the implementation of curriculum as per schedule and plan in terms of quality and punctuality. Manage group learning activities as well as individual learners' progress, difficulties, or problems, which may be scholastic or extra-scholastic, including Psycho-social. Class teachers keep student inventories in terms of achievements as well as physical and social growth. Managing learning resources optimally, maintaining data including storage, analysis, interpretation, and dissemination with other teachers, school authorities, and parents. All these are monitoring and supervisory activities.
- **Headmaster/Principal**, through marshalling resources through equitable distribution for optimal utilisation, Supervise instructions by the teachers, result analysis, financial management, Liaison with school management and other educational authorities, with facts and figures, data and interpretations, suggestions, advice, etc. These are essentially supervisory and inspective activities.

Extrinsic agencies are:

- **Parents**, through active and daily interaction with their respective wards regarding their progress, monitoring the activities of their wards in non-schooling hours, and close interaction with teachers, other parents, and community leaders. Realisation that enrolment of the child to a school is not the end of parental responsibilities to their wards' scholastic/extra-scholastic growth and development.
- **School Management**, monitoring the schools' performance on a regular basis, seeking inputs from headmasters regarding teaching–learning activities, financial management, resource utilisation, etc. Supervision of staff performances and appraisal.
- **Community leaders**, through close interaction with the school authorities regarding the progress of the children of the community, any difficulties faced by the school authorities and their time-bound resolution.

- **District Education offices, State Education Departments/Central or State Secondary Education Boards, and Ministry of Education**, all have their respective roles well delineated that are in large measures, supervisory, and inspective in nature. Further discussion on this subject is beyond the mandate/scope of the present discussion.

The modern management techniques of **Kaizen, Quality Circle**, etc. have a role in a modern education system. This can give an insight into the functioning of the educational system and is a form of "preventive monitoring", which may be instituted within the institution. Short-term priorities (Crisis management), Medium-term objectives (School Improvement Plans) and Long-term visions (Expansions, etc.) are also the result of Monitoring/Supervision and Inspection.

The Indian school system is a massive structure with approximately 1.5 million schools, 8.5 million teachers, and 250 million children from varied backgrounds and socioeconomic status. It is a herculean task to ensure uniformity and standards, especially given the challenges posed by the diversity of geography, culture, heritage and tradition, and languages. The **Right of Children to Free and Compulsory Education** (Amendment) **Act**, **2019** which was passed by the Parliament on January 3, **2019**, received the assent of the President of India on January 10, **2019**, is being implemented by the states and being guided and monitored by the Department of School Education and Literacy (DoSEL), Ministry of Education (MoE). As a part of this exercise, a "Performance Grading Index" (PGI) has been devised to assist the States and Union Territories to identify existing gaps and plans, priorities, and institute interventional strategies. PGI ensures efficiency, inclusiveness, and equitability in School Education (SE) of the country through constant monitoring of data and plotting a matrix of Inputs, Outputs, and Outcomes as well as confirming course correction by a Quick Response System. The PGI is dependent on the data/information obtained through UDISE (Unified District Information System for Education), NAS (National Achievement Survey), Mid-Day Meal, Public Finance Management System (PFMS), and also through information obtained from States and UTs. There are 70 indicators measuring a total of 1000 points (each indicator being assigned 10/20 points), with benchmarked/optimal acceptable levels, divided into two broad categories namely:

- Outcomes
- Governance and Management

The states are graded according to their performance, which is obviously dynamic and changes annually depending upon their performance.

Assessments in Teacher Education

Educating teachers is a specialised activity as it produces "Skilled Professionals". Like any other professional training activity, it has two primary aspects, namely:

- Knowledge base, which is theoretical and academic in nature.
- Skill development, which is practical training and hands-on.

Some points which need to be included in the Teacher's supervision and support are:

- **Assessment literacy of the teacher**

  This would include points such as, what are the multitudes of tools and techniques that are being used by the teacher to assess the learning levels of the child. It will reflect the *standard of teacher competence in the assessment of learning levels of students*. The paper–pencil forms of assessment tools being used may also be asked amongst others.
- **Level of Understanding which the teacher has of his/her students**

  Knowledge of physical, social, and intellectual development and characteristics of students and how these may affect learning.

  Understanding students from diverse linguistic, cultural, religious, and socioeconomic backgrounds

  Strategies for teaching tribal students.

  Differentiate teaching to meet the specific learning needs of students across the full range of abilities.

  Strategies to support the participation of students with differential abilities.
- **Content knowledge and its organisation for transaction**

  Use curriculum, assessment, and reporting to design learning sequences and lesson plans.
- **Facilitating and supporting the creation of a safe learning environment**

  Demonstrate an understanding of the relevant issues and the strategies available to support safe and responsible learning situations.
- **Engagement in professional development**

  Understand the relevant and appropriate sources of professional learning for teachers.
- **Collaboration with colleagues**

  Understand the role of professional bodies in broadening teachers' professional knowledge and practice.
- **Values and Ethics**

  Moral agency is a dual state that encompasses the teacher as a moral person engaged in ethical teaching through professional conduct and, as a moral educator who teaches students with the same core values and principles that he or she strives to uphold in practice.

There is a considerable body of literature available to indicate the role of large-scale assessments as a valuable resource for studying national and global trends

and contributing to evolving systems in education. In India, the large-scale assessment study, the National Achievement Survey (NAS), conducted under the aegis of the Department of School Education and Literacy, Ministry of Education (MoE), provides an effective basis for informed policy-making in the field of school education for the country. NAS is a school-based assessment and reports a fair and accurate statement of the educational health at the district level of the States and Union Territories in India. It is a technically robust learning assessment survey that plays a vital role in measuring the learning levels of students in Classes 3, 5, 8, and 10. Along with the competency-based assessment items, NAS also assesses the contextual variables through the pupil questionnaire (PQ), teacher questionnaire (TQ), and school questionnaire (SQ). The TQ helps to identify the existing patterns in the in-service teachers in terms of:

- appraisal of teachers' work in schools, the form and nature of the feedback teachers receive, and how the information gained from these processes is used;
- the amount and type of professional development available to teachers and barriers to this development;
- teachers' pedagogical and professional practices;
- school leadership, that shapes the learning environment in schools and the work of teachers;
- teachers' reported feelings of self-efficacy and job satisfaction and their perceptions of the climate in the schools and classrooms in which they work.

In India, NAS thus presents a system-level reflection on the effectiveness of school education in the country. NAS is embedded in a rich system of background variables and is a repository of valuable data for understanding school education in the country.

Conclusion

Assessment including monitoring, supervision, and inspection of Teacher Education and School education at a macro level is similar to that described earlier in this discussion, with certain peculiar nuances intrinsic to training teachers which demands a wider deliberation.

At a micro level, i.e. training of individual trainee teachers needs remarkably close quarter monitoring, through real-time accounting of all activities and progress. Regular supervision of the skill development endeavours and periodic inspections to see that the aims and objectives of the training programmes are realised.

Like any other professional training programme, an internship with dedicated mentorship is a must, if quality teachers are to be produced. Translation of all the theoretical knowledge into classroom activity must be supervised by senior professionals. Record of the progress, shortfalls, corrective interventions, and results of such remedial measures must be documented.

Education at any level is a complex exercise needing careful planning, deft execution with military speed, and surgical precision. All these need close-quarter monitoring, real-time supervision, and robust and efficient inspection. Teacher education being a specialised training must be allocated due diligence in terms of systemic attention and individual nurturance through mentoring and handholding in an institutional manner.

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