



### A Study of Monitoring and Evaluation Practices at Secondary School Level in Pakistan

Ali Hussain<sup>a\*</sup>, Dr. Nabi Bux Juman<sup>i</sup><sup>b</sup>

<sup>a</sup>Department of Educational Leadership and Management, International Islamic university, Islamabad.

<sup>b</sup>Department of Educational Leadership and Management, International Islamic university, Islamabad.

\*Email: [ahbangash.edu@gmail.com](mailto:ahbangash.edu@gmail.com)

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**Abstract:** The current study aimed to identify the Monitoring and Evaluation (M&E) practices at the secondary school level in Pakistan that described the practices and their outcomes in various school aspects in Pakistan. The study analyzed the existing monitoring and evaluation practices at the secondary school level in Pakistan, to identify the gaps in existing monitoring and evaluation practices and to propose a strategy for bridging the gaps in the existing monitoring and evaluation system to enhance the operations of secondary schools in Pakistan. The principals' opinions were gathered through a questionnaire while Regional Directors were interviewed to verify and cross-check the opinions of principals. Concurrent triangulation research design of mixed methods was used to take the qualitative and quantitative data for analysis to reach the conclusions. The population of the study consists of 12 Regional Directors (RDs), and 186 secondary school principals of Federal Govt Educational Institutions (FGEI) Cantonments and Garrisons (C/G). Census sampling technique was used and all the population of 12 RDs, and 186 principals of FGEI (C/G) Pakistan were taken as samples of the study. Validity of research tools were carried out through field experts while reliability was checked through Cronbach Alpha. The collected data were analyzed by the latest (version 2024) of SPSS. Mean and standard deviation were used as descriptive statistics while Chi-square was used as inferential statistics to check the significance of the statements. Interviews were conducted for 12 RDs for in-depth understanding and the interviews' data were analyzed theme-wise through thematic analysis. The major findings revealed that the existing M&E practices in majority of the schools are traditional and are carried out without using any M&E model, emerging technology and independent body of external evaluators. In majority of the institutions only internal evaluation is conducted due to insufficient financial, material and human resources therefore, the existing M&E practices have low reliability and objectivity. Findings of the current study revealed that there is a need of M&E framework, using technologies, independent body of external evaluators. On the basis of the results of the study, a monitoring and evaluation model was proposed at the secondary school level so that it could include all the proposed equipment in the existing M&E system to improve the quality of academics, administration, infrastructure, physical facilities, and co-curricular activities.

**Keywords:** Monitoring and Evaluation, M&E Framework, Secondary School Level

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#### 1. Introduction

Monitoring and evaluation (M&E) is a systematic process to gather, process, analyze, and interpret data for preparation of corrective measures and planned series of actions to address preset objectives (Mehmood, 2021). M&E have been in existence since the ancient times, however, today, its need as a management tool has grown significantly to ensure accountability and transparency in the operational and managerial activities of educational institutions. The genesis of M&E was applied in the field of education as a means of evaluating performance. (Mehmood, & Bangash, 2021). Monitoring and evaluation as a distinct field of professional

practice aimed at large-scale development of programs and projects. In early stage, monitoring and evaluation process was mainly used to support decisions and generate knowledge related to effective human action (Datahan, 2020).

### **1.1 Monitoring and Evaluation Practices in Pakistan**

According to UNESCO (2019), in countries like Pakistan, the M&E has gained its importance more because of their spending on education which was 2.8 percent in 2017, even the national budget for education increased by 27 percent since 2009. In 2017, at primary level, the students' enrollment was below 80 % and 36 percent of the students have completed secondary education. According to UNESCO Pakistan Country Strategic Document 2018-2022, about 25 percent youth was recorded illiterate and 8.1 percent were unemployed in Pakistan due to lack of vocational and technical skills. Furthermore, there is also a concern in terms of quality of secondary education. The survey highlighted low competency at lower secondary school level where 48 percent of the students couldn't read a story even in Urdu, and about 52 percent could not solve three-digit division question. The main reasons of low competency of students at school level in Pakistan may be because of acute shortage of faculty, unplanned capacity building programs, inadequate physical facilities, conventional way of teaching methods, ineffective school management and subjective assessment, monitoring and evaluation mechanism. The culture of science experimentation and reading of books in libraries is nearly to vanish at secondary level in Pakistan. The overall declining trends at secondary school level need to be addressed by establishing objective and quantifiable monitoring and evaluation system to identify the issues, give adequate solutions, preparation of corrective measures and ensure the implementation of corrective measures. Moreover, the existing tendency to control the dropout at primary school level may increase the strength of students at secondary level. But due to narrower base of secondary level it would be difficult to handle the heavy influx in existing secondary schools of Pakistan. (Government of Pakistan, 2016). Besides, after 18<sup>th</sup> constitutional amendment, the education became provincial subject and there is no central autonomy, and the level of concerns has significantly raised in Pakistan more that how the managerial, pedagogical and other institutional activities of the schools may be assessed and improved quantifiably and objectively. Constantine, (2018) also suggested quantifiable, objective and IT equipped M&E system that can provide essential information about all aspects of the school and it would be a yardstick for assessing inadequacies and ensuring informed decisions.

### **1.2 Objectives of the Study**

This study is aimed at the following objectives to assess the M&E practices at secondary school level in Pakistan.

- a) To study the existing monitoring and evaluation practices at secondary school level in Pakistan.
- b) To identify the gaps in existing monitoring and evaluation practices at secondary school level in Pakistan.
- c) To propose a strategy for bridging the gaps in the existing monitoring and evaluation system to enhance the operations of secondary schools in Pakistan.

## **2. Literature Review**

Monitoring and evaluation hold significant position in success of any system or organization. Monitoring and evaluation are both imperative parts of any system and these are regarded as vital tools for success of any system. Ballard, (2017) was of the view that monitoring and evaluation is a procedure which supports implementers of program to sort-out knowledgeable decisions concerning operations of the project or program, proper delivery of the program and effectiveness of the program by use of evidence based on objectives. Importance of monitoring and evaluation cannot be ignored or under estimated. Sufficient, demanding, all-inclusive and uninterrupted monitoring and evaluation serve as imperative ways to effective execution of every project or program related to education. Whenever initiation of any program of any takes place, there comes also necessity of instrument through that instrument, the improvement of application could be eagerly assessed. Such instrument is commonly known as mechanism to monitor. In every system of education, inspection and supervision activities are covered by monitoring. (Khwaja, 2017, Rehman, 2018). Monitoring encompasses practice of gathering information and occasionally accumulating significant signs to assess input and output and procedure to give on the function of elements of the educational system (Bahadur, 2017). To examine the smooth functioning of every program, every institute and system develops its own mechanism of monitoring

(Mohanty, 2015; Hussain, Bashir & Memon, 2022). Some administrations depend on inside monitoring (conducted by officials which serve within that organization and here lies role and liability of every official to check these actions which implement program effectively) whereas some rely upon outwardly monitoring team (it is done by a third party (Daft, 2017; Bahadur, 2017). Monitoring is procedure of intermittent check on dimensions of program’s input, and activities and output undertaken during program application (Bashagi, 2019; Shakir & Saeed, 2024). Monitoring is an activity that comprises uninterrupted and organized assessment and endorsing of any project, program or plan. On the other hand, Evaluation is adjudging and considering or defining the value, the worth as well as excellence of a program. It includes associating the current condition with the past so as to observe the degree to which the already formed objectives have been attained (Quist, 2018). In education sector the process of monitoring and evaluation is done to observe effectiveness and efficiency of maintaining standard of education in educational programs. There are always two main activities happen in education. Two main activities comprise learning acquired by students and teaching impart by teachers. Teaching done in government sector secondary level schools is always done by post graduate degree holder teachers. During their pre-service education and induction training, these teachers attain training in different methods/techniques of teaching. Their lesson planning skills, teaching skills and teaching methodology skills are sharpened during their education and training. It is the responsibility of head/principal at secondary level regarding monitor and evaluate the school. Aim of this process ensures the effectiveness of teaching learning process (Kasambera, 2017; Mahnaz et al., 2023).

### 3. Research Methodology

Mixed method approach was used for conducting current study. Concurrent triangulation research design of mixed method was used for taking qualitative and quantitative data to reach the conclusions. Creswell, (2015), concluded that concurrent mixed method collects quantitative and qualitative data to reach the conclusion. The current study investigates the existing monitoring and evaluation processes in schools of Pakistan to find the existing practices, to identify the gaps, and to develop strategy to bridge the gaps in existing monitoring and evaluation system at secondary schools of Pakistan. Further, the questionnaire was developed for principals of secondary schools to get quantitative data while semi structured interviews were developed for Regional Directors (RDs) to get in-depth information and crosscheck the qualitative data.

#### 3.1 Population

Population of the current study comprised of all Regional Directors of FGEI, and all secondary school Principals from twelve regions of Federal Government Educational Institutions (Cantonment/ Garrisons). RDs are the overall head of their regions and are involved in Internal and External M&E process of the institutions fall under their jurisdiction in their respective region. There are twelve regions in FGEIs (C/G) across the country. So, the entire Twelve RDs were included in population of the study. Principals of Secondary Schools are the academic, HR, financial and administrative heads of the educational institutions. They are responsible for internal monitoring and evaluation of the institution. There were 186 principals performing their duties in 186 secondary schools of Federal Government Educational Institutions Pakistan across the country which were included in population of the study. The study comprised of the following population.

Table 1. Population of the Study

| Title | KPK | Punjab | Sindh | Baluchistan | Total |
|-------|-----|--------|-------|-------------|-------|
| RDs   | 2   | 8      | 1     | 1           | 12    |
| Heads | 26  | 143    | 10    | 7           | 186   |

Source: EMIS of FGEIs (Cantonments/ Garrisons) Directorate -2021

#### 3.2 Sample of Schools and Students

Census sampling technique was used to give accurate representation and enable the researcher to infer unique conclusions from the diverse populations of the current study. The sample was comprised of all 12 Regional Directors, and 186 principals. Lohr, (2021) also suggested that census sampling, is the complete enumerations, where the data are collected from every member of the population of the study, which is an effective technique to understand and interpret societal trend, attitude, and behavior objectively for drawing conclusions. Details of the study sample are as under.

Table 2. Sample of the Study

| Title | KPK | Punjab | Sindh | Baluchistan | Total |
|-------|-----|--------|-------|-------------|-------|
| RDs   | 2   | 8      | 1     | 1           | 12    |
| Heads | 26  | 143    | 10    | 7           | 186   |

Source: EMIS of FGEIs (Cantonments / Garrisons) Directorate -2021

### 3.3 Research Instruments

A combined questionnaire was developed for MEAs and principals of secondary schools. The questionnaire consisted of items pertaining to monitoring and evaluation practices, and their gaps. An open-ended part was added to get respondents’ suggestions to improve the existing monitoring and evaluation processes in schools. Validity of the questionnaire was carried out with the help of field experts for making it valid for data collection. Reliability of Questionnaire was checked through Cronbach which was 0.86, and is acceptable in social sciences. Taber, (2018), also suggested that Cronbach’s Alpha should be used to check consistency coefficient and the reliability must be 0.80 or above. Descriptions of questionnaire are as under:

Table 3: Classification of Items in Tool

| Variables                            | Items                   |
|--------------------------------------|-------------------------|
|                                      | Demographic Information |
| Governance & Management              | i-viii                  |
| Security System                      | 1-7                     |
| Infrastructure & Physical Facilities | 8-12                    |
| Human Resources                      | 13-24                   |
| Classroom Pedagogy and Skills        | 25-29                   |
| Gaps in M&E Practices                | 30-38                   |
| Strategy to bridge the gaps          | 39-48                   |
|                                      | 49-55                   |

Semi-structured interview for Regional Directors (RDs) related to existing M&E practices, their gaps, and developing strategies for bridging the gaps and improve the current M&E system was developed. Validity of Semi-structured interview was carried out through field experts and consultation of study supervisor. Thematic analysis was used and its six-steps, identified by Clarke & Braun, (2016) were followed.

### 3.4 Data Collection

Frequent physical visits were made to get official document from secondary schools, data through questionnaires and from principals and MEAs while qualitative data were gathered through semi-structured interviews from RDs. Response rate through questionnaire as well as interview was 100 %.

### 4. Data Analysis

Latest version of SPSS (version 2024) was used for quantitative and qualitative data analysis by using descriptive and inferential statistic. In inferential statistics, Chi Square was used to check the significance level of each statement by five Likert scale to reach the conclusions. The practices of current M&E system were analyzed based on fourteen variables. Findings and results of the study were arranged in sequential order. On the basis of findings, and conclusions, strategies were developed in the form of recommendations to bridge the gaps and improve the existing for monitoring and evaluation at secondary school level in Pakistan.

Table 4: Opinions of Principals About Governance and Management

| Questionnaire Items   | A   | UD | DA  | N   | X    | SD   | $\chi^2$ |
|---|-----|----|-----|-----|------|------|----------|
| 1 Your organization has proper M&E system                         | 180 | 0  | 6   | 186 | 4.38 | 0.65 | 76.70    |
| 2 MEAs evaluate Agenda points of staff meeting                    | 147 | 14 | 25  | 186 | 4.02 | 0.98 | 66.40    |
| 3 MEAs assess the implementation of School Improvement Plan (SIP) | 6   | 18 | 162 | 186 | 1.86 | 0.78 | 199.6    |
| 4 MEAs examine the HR management of the school                    | 180 | 6  | 0   | 186 | 4.09 | 0.36 | 233.9    |
| 5 MEAs monitor the financial management of the school             | 129 | 11 | 46  | 186 | 3.56 | 1.38 | 84.90    |
| 6 MEAs evaluate the curricular activities of the school           | 186 | 0  | 0   | 186 | 4.56 | 0.51 | 1.71     |
| 7 MEAs assess management and administrative aspects               | 166 | 0  | 20  | 186 | 4.48 | 0.50 | 0.11     |

Tabulated value of Chi-Square = 9.448, (p-value = 0.00) and  $p < 0.05$ , (K-1) = df = 4

Table 4, revealed majority of the principals acknowledged that their organization has proper monitoring & evaluation (M&E) mechanism. MEAs evaluate agenda points of staff meeting and their outcome but they do not assess the implementation of the school improvement plan (SIP). MEAs examine HR Management and monitor financial management of the school. MEAs assess the curricular activities, and administrative aspects of the school.

Table 5: Opinions of Principals About Security System of the School

| Questionnaire Items  | A   | UD | DA  | N   | X    | SD   | $\chi^2$ |
|--|-----|----|-----|-----|------|------|----------|
| 1 MEAs Check Security System of the School                   | 180 | 6  | 0   | 186 | 4.43 | 0.56 | 76.40    |
| 2 MEAs Assess Security Equipment Properly                    | 136 | 7  | 43  | 186 | 3.72 | 1.06 | 85.10    |
| 3 MEAs Check CCTV Cameras in the School                      | 56  | 4  | 126 | 186 | 2.33 | 1.48 | 86.01    |
| 4 MEAs Check the Availability of Security Guards             | 180 | 6  | 0   | 186 | 4.42 | 0.56 | 77.01    |
| 5 Existing M&E is Effective to Ensure Security in the School | 36  | 6  | 144 | 186 | 2.03 | 1.26 | 120.8    |

Tabulated value of Chi-Square = 9.448, (p-value = 0.00) and  $p < 0.05$ , (K-1) = df = 4

Table 5, revealed MEAs check the security system, guards and its equipment but they do not check the CCTV cameras in the schools. Further, the existing M&E system is not effective to ensure security in the school.

Table 6: Opinions of Principals and MEAs About Infrastructure and Physical Facilities

| Questionnaire Items                                      | A   | UD | DA  | N   | X    | SD   | $\chi^2$ |
|--|-----|----|-----|-----|------|------|----------|
| 1. MEAs Evaluate the Classrooms as per Requirement       | 160 | 0  | 26  | 186 | 3.75 | 0.71 | 217.70   |
| 2. MEAs Check the Furniture as per Requirement           | 71  | 2  | 113 | 186 | 2.46 | 1.56 | 94.40    |
| 3. MEAs Checks the Availability of Drinking Water        | 140 | 8  | 38  | 186 | 3.67 | 0.91 | 164.70   |
| 4. MEAs Assess the Availability of Electricity           | 140 | 3  | 43  | 186 | 3.60 | 0.93 | 194.80   |
| 5. MEAs Enquire the Availability of Sports Equipment     | 160 | 6  | 26  | 186 | 3.82 | 0.97 | 217.70   |
| 6. MEAs assess the Availability of Washrooms             | 164 | 0  | 20  | 186 | 4.01 | 0.91 | 174.20   |
| 7. MEAs Check the Availability of First Aid Unit         | 66  | 0  | 120 | 186 | 2.30 | 1.55 | 80.80    |
| 8. MEAs Assess the Physical Facilities of the School     | 80  | 6  | 100 | 186 | 2.72 | 1.60 | 51.80    |
| 9. MEAs Assess the Availability of Training for Faculty  | 12  | 3  | 171 | 186 | 1.76 | 0.76 | 143.40   |
| 10. MEAs Assess the availability of Science Laboratories | 146 | 5  | 35  | 186 | 3.63 | 0.99 | 262.61   |
| 11. MEAs Assess the Availability of the School Library   | 139 | 8  | 39  | 186 | 3.83 | 1.25 | 98.11    |
| 12. M&E Mechanism has Improved the Infrastructure        | 58  | 6  | 122 | 186 | 2.47 | 1.48 | 60.31    |

Tabulated value of Chi-Square = 9.448, (p-value = 0.00) and  $p < 0.05$ , (K-1) = df = 4

Table 6, revealed that MEAs assess the classrooms as per requirement of students' strength. availability of drinking water, electricity, sports equipment but they do not assess the furniture, First Aid Unit, physical facilities, and training mechanisms of the faculty. Majority of the respondent agreed that their organization has not improved the infrastructure and physical facilities in their school.

Table 7: Opinions of Principals and MEAs About Human Resources (HR)

| Questionnaire Items   | A   | UD | DA  | N   | X    | SD   | $\chi^2$ |
|---|-----|----|-----|-----|------|------|----------|
| 1. MEAs Monitor the Enrolment of Students                         | 129 | 1  | 56  | 186 | 3.54 | 1.39 | 91.60    |
| 2. MEAs Assess the availability of Faculty as per Requirement     | 160 | 2  | 24  | 186 | 3.97 | 1.12 | 187.70   |
| 3. MEAs Assess the Attendance of the Faculty                      | 61  | 8  | 117 | 186 | 2.58 | 1.56 | 56.20    |
| 4. MEAs Monitor the Attendance of Supporting Staff                | 70  | 2  | 114 | 186 | 2.45 | 1.52 | 97.70    |
| 5. M&E of Your Organization has Addressed the Deficiency of staff | 17  | 14 | 155 | 186 | 1.93 | 0.96 | 152.70   |

Tabulated value of Chi-Square = 9.448, (p-value = 0.00) and  $p < 0.05$ , (K-1) = df = 4

Table 7, revealed that MEAs monitor the enrolment of the students and availability of the faculty as per requirement but they do not assess the attendance of faculty and supporting staff on regular basis. Resulting, the existing M&E mechanism has not addressed the deficiency of staff.

Table 8: Opinions of Principals and MEAs About Classroom Teaching Pedagogy

| Questionnaire Items  | A   | UD | DA  | N   | X    | SD   | $\chi^2$ |
|--|-----|----|-----|-----|------|------|----------|
| 1. MEAs Monitor the Lesson Planner in Classroom                          | 160 | 0  | 26  | 186 | 4.05 | 1.13 | 97.70    |
| 2. MEAs Assess the Teaching Style & its Suitability with the Topic       | 21  | 2  | 163 | 186 | 1.90 | 0.99 | 186.60   |
| 3. MEAs Focus on Using AV Aids in Classroom                              | 60  | 0  | 126 | 186 | 2.35 | 1.50 | 38.90    |
| 4. MEAs Assess the Relevance of Teaching with Paper Pattern              | 44  | 0  | 142 | 186 | 2.16 | 1.24 | 60.50    |
| 5. MEAs Assess the Preparation and Confidence of Teachers                | 147 | 2  | 37  | 186 | 3.79 | 1.32 | 135.0    |
| 6. MEAs Assess the Speaking Skill and Expression of Teachers             | 43  | 2  | 141 | 186 | 2.07 | 1.29 | 125.90   |
| 7. MEAs Evaluate the Learning Outcome of Students                        | 27  | 0  | 159 | 186 | 1.96 | 1.24 | 96.40    |
| 8. MEAs Assess 21 <sup>st</sup> Century Skills During Classroom Teaching | 0   | 0  | 186 | 186 | 1.48 | 0.50 | 0.50     |
| 9. M&E Mechanism has Improved the Teaching-Learning Process              | 55  | 4  | 127 | 186 | 2.29 | 1.33 | 91.40    |

Tabulated value of Chi-Square = 9.448, (p-value = 0.00) and  $p < 0.05$ , (K-1) = df = 4

Table 8, revealed that MEAs monitor the lesson planner, preparation and confidence of teachers but they do not assess teaching style, and its suitability with the topic. They also do not assess the use of AV Aids, relevance of teaching with paper pattern, speaking skills and expression of teachers. The respondents also disagreed that MEAs evaluate the learning outcome of students, and development of 21<sup>st</sup> century skills. Majority of the respondents agreed that the existing M&E system of their organization has not improved the teaching-learning process in schools.

Table 9: Opinions of Principals about Main Problem and Gaps

| Questionnaire Items   | A   | UD | DA  | N   | X    | SD   | $\chi^2$ |
|---|-----|----|-----|-----|------|------|----------|
| <b>The Main Problem and Gap in Existing M&amp;E is:</b>                         |     |    |     |     |      |      |          |
| 1. Limited time to assess various activities                                    | 156 | 0  | 30  | 186 | 3.90 | 1.23 | 94.91    |
| 2. Limited M&E Staff for conducting evaluation                                  | 156 | 0  | 30  | 186 | 3.81 | 1.29 | 116.30   |
| 3. Insufficient financial resources to conduct evaluation in the school         | 166 | 0  | 20  | 186 | 4.17 | 0.90 | 125.40   |
| 4. Unavailability of technical experts in MEAs                                  | 14  | 0  | 172 | 186 | 1.56 | 0.98 | 184.01   |
| 5. That school staff doesn't support M&E  | 169 | 0  | 17  | 186 | 3.98 | 1.04 | 87.40    |
| 6. That there is no proper framework of M&E                                     | 156 | 2  | 28  | 186 | 3.90 | 0.90 | 154.70   |
| 7. Conventional way of M&E which takes long time to complete                    | 186 | 0  | 0   | 186 | 4.28 | 0.44 | 39.80    |
| 8. Absence of emerging technologies   | 186 | 0  | 0   | 186 | 4.80 | 0.40 | 67.40    |
| 9. That it is not carried out by independent body                               | 186 | 0  | 0   | 186 | 4.06 | 0.21 | 151.70   |
| 10. That it doesn't assess the of 21 <sup>st</sup> century skills in classrooms | 176 | 0  | 10  | 186 | 4.13 | 0.74 | 224.10   |

Tabulated value of Chi-Square = 9.448, (p-value = 0.00) and  $p < 0.05$ , (K-1) = df = 4

Table 9, revealed that insufficient financial resources, limited time and M&E staff, school doesn't support M&E. Findings also showed unavailability of technical experts of the MEAs and proper framework of M&E at the secondary school level. The conventional way of M&E takes long time to complete its rotation and the process lacks emerging technologies. Further, there is no independent body to conduct external M&E therefore objectivity and

transparency of existing M&E is open to question. The findings also revealed that M&E do not assess the development of 21<sup>st</sup> century skills in classrooms.

#### **4.1 Discussion**

The aim of current study was to assess the monitoring and evaluation practices at secondary level in Pakistan. The objectives of the study were to assess the M&E practices at secondary school level in Pakistan, to identify the gaps in existing monitoring and evaluation and develop a strategy for bridging the gaps in the existing monitoring and evaluation system to enhance the operations of secondary schools in Pakistan. Findings showed that almost all the organizations have M&E mechanism, but they neither have logical framework nor follow M&E Model. Therefore, principals and MEAs were not satisfied with the existing M&E mechanism. Jaciw, (2016) also concluded that evaluation without logical framework and model is meaningless and the findings of his work was aligned with outcomes of current study. Furthermore, in developing countries M&E process is carried out systematically by using model like Result-based management (RBM), Outcome-based M&E model and logic models. The Model enables the MEAs to implement the program, diagnose key issues, measure the progress and suggest corrective measures for improvement.

The present study revealed that MEAs monitor the financial management, curricular activities, administrative aspects and overall management of the schools, but they don't assess the implementation of school improvement plan (SIP). The Hunde, (2019) also recommended the capacity building of evaluators to establish objective M&E for monitoring the implementation of SIP through structured and concrete tools. The respondents, "principals" agreed that the existing M&E system of their respective organizations assess the security system including availability of the security guards and their security equipment. But it doesn't assess latest IT equipment related to security and CCTV cameras therefore the existing monitoring and evaluation system is ineffective for ensuring security in the school. The findings of the study conducted by Jennings, (2011) also concluded that institutions can never be secured by using conventional physical security measures and deter potential threats. Therefore, latest security related IT gadgets, including video cameras, closed circuit television system, metal detector and latest entry-control devices should be used to prevent mishaps. But at the same time, proactive and reactive strategies should also be devised to counter the unpleasant situation.

The respondents opined that the existing M&E system of their organization check the availability sports equipment, electricity, water and washrooms but they do not assess the availability of First Aid Unit, furniture, and other important physical facilities required for implementing 21<sup>st</sup> century skills. In conclusion, the present M&E system has failed to address the evolving needs of infrastructure and physical facilities at secondary school level. Similarly, the study revealed that the existing M&E system assesses the availability of science laboratories their equipment and instruments required for experimentations but it doesn't assess the functionality and working schedule of these laboratories. Resulting, the existing M&E system doesn't promote a culture of science experimentations at secondary school level. Likewise, the study also revealed that the existing M&E system assesses the availability of school library, available latest reading material but it doesn't assess the functionality level of the library. In conclusion, the M&E system has failed to develop a culture of books reading among the students at secondary school level. Panotes, (2015) also suggested to provide policy guide to implement for the capacity building of MEAs for assessing physical facilities in schools. He suggested that MEAs should assess building, classrooms, library, science laboratory, offices, staff, exam hall, auditorium, sports equipment, first aid facilities, and tuck-shop. The findings of present study revealed that monitoring and evaluation assistants check the availability of faculty only while, they do not assess the daily attendance of staff.

The present study also revealed that the existing M&E system assesses the lesson planner, preparation and confidence of faculty in classroom teaching, but they do not assess the use of allied material and audio-visual aids. The assessment to check the relevance of lecture, teaching methodology and its suitability with topic is also not included in the existing M&E system. Govender, (2021), that mostly in school evaluation, the teachers are not evaluated about their teaching method, using audio-visual aids and relevance of their lectures. He recommended that teachers should be assessed for enhancing their classroom practices. The findings of the present study also showed that monitoring and evaluation assistants do not assess the speaking skill, learning outcome and development of 21<sup>st</sup> century skills in the students. Care, (2018) also concluded MEAs may assess the writing and typing skills through writing and typing

test respectively, but assessment of 21<sup>st</sup> century skills, critical thinking and collaboration is quite difficult and challenging for MEAs. Though the 21<sup>st</sup> century skills have gained global attention but their limited implementation and development thereof in classroom are likely due, in part, to the lack of evaluation system and expertise at school level. Further, the school evaluation system should have quantifiable and tangible rubrics for getting concrete and authentic information for making informed decisions. Additionally, the principals must be trained for assessing 21<sup>st</sup> century skills in classrooms.

The findings of present study revealed some gaps and issues in the existing M&E system of secondary schools. Study concluded that evaluation without M&E framework, conventional way of M&E, lack of emerging technologies, absence of independent body for M&E, non-cooperative attitude of school staff, limited time for assessment, insufficient M&E staff, and financial resources are the main gaps and issues in the existing M&E system at secondary school level. Further, the existing M&E also do not assess the 21<sup>st</sup> century skills classrooms. Khalil (2019) concluded the same that conventional way of M&E may delay the execution of program, evaluation process and program outcome whereas, using technology can maximize the effectiveness of program and ensure informed decisions making. The findings of the work conducted by Kim (2014), suggested an independent body of MEAs for external evaluation, like Educational Evaluation Council (EEC) is working in Finland. In the same way, the World Bank (2018) also highlighted that every organization should have an independent M&E system otherwise it should be conducted by a third party like UNICEF and World Bank.

The findings of the present study revealed that each organization must have a clear logical framework for M&E with tangible indicators (KPIs) for measuring all aspects of the school. The M&E system should be equipped with latest technologies and IT gadgets for taking informed decisions. An independent body of external evaluators (technical experts) should be engaged to ensure transparency and reliability in the existing monitoring and evaluation process at school level. The respondents proposed that such a culture should be established at secondary school level that could facilitate M&E mechanism. Additionally, there should be adequate financial resources to implement the M&E process in true letter and spirit. Moreover, sufficient time should be allotted for M&E for assessing various activities of the school and the frequencies of visits should be rationalized. Finally, the measuring tools of M&E should be smart, quantifiable and measurable which could assess and give tangible, and concrete outcomes of the school program.

## **5. Conclusion**

Following conclusions were drawn from the current study:

### **5.1 Conclusion of Quantitative Data Based on Objective No. 1**

The respondents agreed that majority of the organizations have M&E mechanism, which work without any logical framework and M&E model. Therefore, respondents were not satisfied with the existing M&E system. The MEAs monitor the financial management, curricular activities and administrative aspects of the school, but they don't assess the implementation of school improvement plan (SIP) and management of resources in the educational institutions. They check the security system, availability of the security guards and security equipment, but they don't check the latest security equipment and CCTV cameras in the school. The existing M&E mechanism is not effective to ensure security in the school. The MEAs evaluate the availability of drinking water, electricity, sports equipment and washrooms, but they don't assess the availability of furniture, First Aid Unit and overall physical facilities of the school, therefore, the existing M&E mechanism has not improved the infrastructure and physical facilities of the school. Similarly, the availability of science laboratories, their equipment and instruments are assessed, but they don't examine the functionality level of science laboratories. Therefore, M&E mechanism has not developed the culture of science practical in schools. Likewise, the availability of library, latest reading material and reference books are assessed, but functionality level of the library is not assessed. Thus, the M&E mechanism has not developed a culture of book reading among the students at secondary school level. The MEAs assess only the availability of faculty, whereas, they don't assess the attendance of the faculty and supporting staff. MEAs monitor the lesson planner, preparation and confidence of teachers during classroom teaching, while they don't assess the use of AV Aids, relevance of lecture with paper pattern, teaching style and its suitability with the topic. MEAs don't assess the speaking skill and expression of the teachers. They also don't evaluate the learning outcome of students and



development of 21<sup>st</sup> century skills in the students. The MEAs don't assess school morning assembly, speech competitions, STEAM and STEM projects of the students.

### **5.2 Conclusion of Based Objective No. 2**

The existing M&E system is not based on logical framework and model. The M&E process is carried out in conventional way without using technology and IT gadgets. In addition, the existing M&E system has no specific budget therefore, institutions located in far-flung areas are not included in assessment due to unavailability of financial resources and transportation. Subjectivity and reliability of the M&E are the main issues of existing M&E which are due to lack of technologies and independent body for M&E system. The reluctance and non-cooperation of school staff towards MEAs is also one of the main gaps that adversely affect the implementation of M&E in schools. Another main gap, that existing M&E system assesses the institution and its staff while the students are not included in assessment system because no students' portfolios are available for assessing the holistic development of the learners. Moreover, the existing M&E do not assess the development of 21<sup>st</sup> century skills in in classroom. Most importantly, the corrective measures or report of M&E has no implementation.

### **5.3 Conclusion Based on Objective 3**

The researcher concluded from the responses that there should be systematic and analytical M&E framework so that it could assess all aspects of secondary schools. The proposed M&E framework must be aligned with the mission, vision, and goals of educational institutions. The proposed M&E framework developed on the basis of guidelines of national educational policy, national quality standards, curriculum, and assessment system. The study concluded that tools and rubrics used by M&E mechanism should be tangible and well quantifiable to collect reliable data. The proposed M&E framework should be designed in logical sequence for assessing inputs, processes, and outcomes of secondary school program. The existing conventional way of M&E should be transformed by using latest emerging technologies for ensuring transparency and taking informed decisions. Suitable budget should be allocated for M&E to ensure its smooth functioning. Additionally, it must be equipped with transport facilities so that MEAs could assess the schools in far-flung areas. Similarly, the visits frequency and time duration of school evaluation should be increased to assess a large number of schools judiciously. Likewise, there should be an independent body of evaluators for assessing various school aspects objectively. The school staff should be capacitated to make their attitude positive towards M&E by realizing that M&E framework has been designed and developed for facilitating them not for creating threatening situation in schools. Students' holistic development should be assessed, similarly their achievements and performance be evaluated by using their portfolios. Additionally, the 21<sup>st</sup> century skills in classrooms and the STEAM projects of students should be assessed properly by using structured tools. Most importantly, corrective measures should be implemented at secondary school level to improve the various facets of the schools.

### **5.4 Conclusion of Qualitative Data (Interviews)**

Interviews of 12 Regional Directors were conducted and concluded bellow.

#### **5.4.1 Conclusion Based on Objective 1**

M&E practices are carried out in every organization but they don't follow any model. The MEAs properly assess governance and administration at secondary schools. The MEAs also assess the security measures, physical facilities, availability of electricity, library laborites, and washrooms, but they do not assess the functionality of science laboratories and library. MEAs monitor the lesson planner, preparation and confidence of teacher and students' written work is also assessed but neither they assess the use of AV Aids, activities and nor check the development of 21<sup>st</sup> century skills of students.

#### **5.4.2 Conclusion Based on Objective 2**

The responded concluded that the existing M&E practices do not follow any M&E model and framework. The results of existing M&E practices are mostly unreliable and subjective. There is also no specific budget allocated for M&E at secondary school level. Mostly M&E are conducted without using emerging technologies therefore, the process

takes long time to complete its rotation. Additionally, the M&E is conducted once or twice in an academic year which cannot make assessment of daily attendance of staff and students. Furthermore, it would be impossible for M&E system to assess the cleanliness of various aspects of the school on regular basis. The perception of school staff is very negative towards M&E process that restrains the implementation of M&E process and corrective measures. Further, the main focus of MEAs is teachers and building of the school while assessment of students and development of 21<sup>st</sup> century skills in classroom are not included in the existing M&E process. There is also a gap between the preparation and implementation of corrective measures of M&E at secondary school level.

### 5.4.3 Conclusion Based on Objective 3

The respondents concluded that the existing M&E system needs major reforms and they proposed the M&E system should be developed based on framework and model which should be aligned with mission, vision, and goals of the organizations and school. Further, the proposed model must have alignment with national education policy, national educational standards, curriculum, and assessment system for achieving national objectives and goals. Financial resources are the most important part of M&E therefore, adequate budget allocation be ensured for the implementation of proposed M&E system. In addition, transport facilities and IT gadgets so that MEAs could evaluate educational institutions located in remote areas. The external evaluation should be carried out through independent body to get reliable and objective data for preparation of corrective measures to improve various school aspects. The holistic development of students, and development of 21<sup>st</sup> century skills in classrooms should be assessed as these are significant part of school education. Most importantly, the corrective measures should be implemented without any delay in secondary schools to get desired outcome aligned the vision and mission of the organization.

### 5.5 Recommendations

On the basis of findings, following recommendations were made:

- a) The M&E system should be designed and developed based on functional M&E model which should be aligned with the mission, vision, and goals of organization and institution concerned.
- b) Separate budget allocation should be ensured to implement the M&E at secondary school level.
- c) An independent body should be engaged for conducting external evaluation to get objective and reliable information.
- d) Capacity building of MEAs should be arranged in proper intervals to familiarize them with data collection by using emerging technologies.
- e) The duration of assessment and frequency visits of MEAs to secondary schools should be increased in order a large number of educational institutions could be assessed carefully.
- f) The school staff should be realized through formal and informal meetings that M&E process is conducted for facilitating them not for creating threatening situations in schools.
- g) Assessment of holistic development of learners should be carried out by using their portfolios for getting complete picture of the student. Moreover, development of 21<sup>st</sup> century skills should be assessed in students with quantifiable tools.
- h) Hybrid mode of evaluation should be established at secondary school level by using IT gadgets for taking informed decisions.
- i) The M&E system should be linked with Learning Management System (LMS) and corrective measures for secondary schools should be generated systemically on LMS. The information related to sending and implementation of corrective measures should be updated on LMS on daily basis for swift disposal of issues and making informed decisions.

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