EFFECTS OF MID-DAY MEAL SCHEME ON ENROLMENT AND RETENTION IN PRIMARY SCHOOLS OF WESTERN UTTAR PRADESH

ABSTRACT OF THE THESIS SUBMITTED FOR THE AWARD OF THE DEGREE OF
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By TARANANUM

Under the Supervision of DR (MRS) NASRIN
Associate Professor (UGC Research Awardee)

DEPARTMENT OF EDUCATION
ALIGARH MUSLIM UNIVERSITY
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ABSTRACT

Enrolment and Retention have been the acute problems of Indian primary education since starting. Though several cures had been induced in the system to catch hold with this problem but the success and failures were always in the radar of evaluative agencies, government funded agencies, researchers and other related apex bodies of the nation. The recommendations of these bodies intended the government to come up with certain attractive incentives to attract the children of 6-14 years of age from their homes to the schools. Over the years the incentive schemes like scholarships, free distribution of uniforms, bicycles, text-books and Mid Day Meals etc. were launched to fulfill the objective of dragging the children from homes to schools to attain the way back constitutional dream of achieving the goal of universalisation of primary education among the students of 6-14 years of age.

Mid Day Meal (MDM) Scheme has been one of the earliest supplementary nutrition programs in the country. The scheme has nutritional as well as educational objectives. The concept of serving the school children mid-day meal to allay the classroom hunger, enhancing the schools' enrollment and attendance and simultaneously improving the nutritional levels of the children is not new in India. In 1925 the British administration initiated a mid-day meal scheme (MDMS) for the disadvantaged children in Madras Municipal Corporation. In 1962, the state government of Tamil Nadu introduced a MDMS in primary schools in Chennai and later extended it to all the districts of Tamil Nadu. In 1984 the scheme was introduced in the state of Gujarat. It was also initiated in 1963 as a part of Applied Nutrition Program in the State of Karnataka for the students of 6-11 years of age with the assistance of the Co-operative for American Relief Everywhere (CARE) as an incentive program for about two hundred thousand beneficiaries. The coverage gradually increased to more than a million students in the state by the year 1980-81. Under this program each beneficiary was expected to receive a supplementary food providing 330 calories and 7 to 12 grams of protein. The cost of the food was borne by the 'CARE' while the overhead charges were borne by the state government. To start with the CARE the students were provided corn meal and skimmed milk powder and later it was switched over to bulgur wheat and soya oil. The CARE support however was being withdrawn in a phased manner from 1993-94 onwards. On 15th August 1995 the Government of India (GOI) launched the MDMS as a national program and named this program as the National Program of Nutritional Support to Primary Education (NP-NSPE). Under this scheme all the primary schools’ children of class I-V
attending the government and government-aided schools were to be provided free supply of 100 grams of food grains per school day. In 2001 the Honourable Supreme Court of India ordered the GOI that the NP-NSPE should provide 'cooked meals' with a minimum nutritive content of 300 calories and 8-12 grams of proteins for each day of school for a minimum of 200 days. In the year 2006 the GOI revised the nutritional norm to 450 calories and 12 grams of proteins. In 2007 the GOI extended the scheme to cover the children of upper primary classes (i.e. class VI to VIII) and changed its name to 'National Program of Mid Day Meal in Schools' (NP-MDMS). The nutritional norm for upper primary stage has now been fixed at 700 calories and 20 grams of protein. Since 2008 the NP-MDMS has been implemented across the country. Currently India's NP-MDMS is the largest nutritional program for the students in the world covering 104.4 million children in 1.2 million schools across the country with an annual budget of allocation of Rupees 119,370 million. The Office of the Supreme Court Commissioners had observed that the NP-MDMS was one of the most successful schemes of the GOI and had resulted in the increment of enrolment, attendance and retention of the children in the primary schools. It has also helped to foster the social equality and has enhanced gender equity as more parents are now sending their daughters to school.

The mid-day meal scheme is the world's largest scheme which was started with an aim to provide safe and nutritious meal to India's school children so that they may grow up strong and bright but unfortunately instead what our future generation is being fed with grains crawling with worms, flies and even lizards. A hot cooked nutritious meal was also thought to be the selling point to persuade poor families to send their children to schools and not to pull them out to start earning as child labourers. The administrative and logistical responsibilities of this scheme are enormous and therefore offering food stamps or income transfer to targeted recipients is considered as an alternative. We show that the alternative delivery mechanism is not feasible in the Indian context for it may lead to adverse consumption choices by the heads of the targeted households. We also test whether or not the meals offered through MDM scheme provide sufficient nutrition, food safety, and convenience and variety to the targeted children. Laboratory results show that nutritional delivery through the meals is low in comparison to the daily requirements in general and much low in nutrients such as protein, fat, iron, and iodine in relation to the meal quantity in particular.
Since the central government was contemplating to participate in the phased expansion of the mid-day meal scheme in lieu of buffer stocks of food grains and also in view of the government's emphasis on primary education. The Mid Day Meal scheme otherwise known as school lunch program was aimed at providing one meal out of the three meals for a child in the school in order to provide at least one third of the calories and half of the protein requirement per child per day. In low socio-economic communities the meal should be able to fill the nutrient gap that existed in the diets of the children. Thus the school meal in principle should ensure the supply of at least 750 Kcals of energy to every child taking the meal. In the present study it was observed that only 303 Kcals was provided to each child per day through the MDM scheme. The extent of energy deficit in the diets of school age children as revealed by NNMB Surveys 1991-92 was about 767 Kcal per day. There was thus still a considerable energy-deficit (45%) in the diets of the school children. Therefore the benefits in terms of nutritional status were probably not that perceptible. Improvement if any was only marginal which was seen in the distribution of weight for age and Waterloo's classification in the children of MDM schools compared to non-MDM schools. The National Evaluation of School Nutrition Programs (NESNP) in USA showed that the school lunch programs exceeded the most reasonable expectations for its nutritional effectiveness. The anthropometric analysis in the NESNP suggested that long term participation in the school lunch program had no relationship to height but a marginal impact with respect to the weight of the beneficiaries. The MDM program in the state of Karnataka in fact seemed to have achieved educational rather than nutritional benefits as evidenced by lower dropout rate and higher retention rates when compared to the data of United Nations International Child Emergency Fund (UNICEF) and National Council for Educational, Research and Training (NCERT). The retention rate in Karnataka as reported by NCERT in 1978 was about 27%. Earlier workers had also observed a significant nutritional and educational impact of noon meal program.

Related literature is that mirror which reflects the past views and presents the future prospective. It is imprudent and wastage to precede any study without knowing what has been done before the related literatures of the research titles were reviewed to find the facts of the problem. There were certain literatures at national and international level which covered almost all the variables such as enrolment, retention, dropouts and attendance in the primary schools. For the present study the investigator consulted various source books, published journals, theses, reference books, articles, research abstracts, encyclopedias abstracts International and reviews etc. related
to the research problem. It was found that several studies had been conducted by taking different aspects of mid-day meal in India and in abroad. It is prudent to say that no study has been conducted or similar to the present study. Apart from that the other variables, incentives and schemes related studies were also evaluated to formulate the objectives and hypotheses of the study. The related literatures such as: Ismail Naseem (1987) studied the dropout in the schools of Addu Atoll and he found that there were several factors responsible for enrolment and dropouts. Florencceo (1988) made a case study of nutritional support and academic achievements in Philippines as a result he found a proportionate relationship among both the factors. Sigman and others (1989) conducted a study in Kenya and found that children who were comparatively well nourished and had higher composite scores on the tests of verbal comprehension and intelligence than the children who were less well nourished. Lock Head, Marla ine e, Adriaan M. Verspoor and Associates (1991) found the significant relationship between the nutrition and academic achievements among the school children at primary level. M. Kabir, Farzana Naim, M. Srakar and P.D Sharma, (2000) studied the primary schools in Bangladesh. They found that the primary education system in the country failed to impart the skills upto the mark. Salvacion V. Santiago in (1989) proved that the physical facilities in BLIC elementary schools of Philippines were somehow satisfactory. Sudan, Irvinder Kaur (1994) conducted a study on the nutritional status of rural schools’ children and Adolescents (6-8 years) in Jammu Province for evaluating their nutritional status, physical growth and nutrient. The study concluded that there were mal-nutrient students in the schools. Levinger Beryl (1994) reported in school feeding programme about the myths and potential on the basis of a review of literature and assessment of empirical evidences. Omoli George Albert (2010) critically analyzed the causes of dropouts in the primary schools of Sudan. The study in particular came up with the ways of reducing school dropouts and that might prove the basis for addressing the school dropouts in Torit County and in other parts of Sudan.

The related literature was reviewed and the studies were collected at national level too. Among them the studies related to Mid-Day Meals, enrolment, retention, and dropouts were separately analyzed. . Rajammal P. Devdas (1966) conducted a study on the school lunch programme: organization and outcomes. They found that the malnutrition affected not only the health of the children but their attendance and performance also in the school. Sharma H.C. (1982) attempted to examine the effects of the stay of teachers on the enrolment and retention in the primary schools of Rajasthan. He found that the retention, attendance and regulating of students were better in those schools where the teachers stayed at their headquarters as compared to those
schools where they did not stay. Incentives like free books, uniforms and food had a positive effect on the regularity of the students and the school environment & the facilities for games also contributed to the retention positively. Verma (1987) in a study on factors affecting literacy programmes in tribal areas of Himachal Pradesh revealed that the government had taken some effective steps for opening of school in far flung tribal areas. Julia Blue and Seva Mandir (2005) conducted a study on the assessment of the programme Implementation and its impact in Udaipur District. The report assessed the impact of mid day meal scheme on tribal communities and subsistence farmers in rural Udaipur. It came up with the normal findings such as cooked mid day meal had become a permanent part of the daily routine of rural primary schools in Udaipur, there were efforts in introducing variety of menus, meals was helping the nutritional needs of the poor children and the enrolment and attendance increased. Ashwini Vashisth (2008) studied on Mid Day Meal an investigative study present status and issues in the district Gurgaon of Haryana. The study found that there was positive impact of MDM on the enrolment and retention of the school children. This research study measured the level of enrolment and retention with and without Mid Day Meal in the Government Primary schools. As a consequence several other things also came into scanners of the researcher. The concerns of stakeholders of the MDM are the most important outcome. This research also evaluated the efforts of the functionaries and its direct and indirect impacts over the MDM program. The study sampled out in Western Uttar Pradesh to inculcate the idea of its success and failures.

The review of the above related literatures for the study entitled as “Effects of Mid Day Meal scheme on enrolment and retention in the government primary schools of Western Uttar Pradesh” helped the researcher to formulate the objectives of the study. The main objectives of the study were (i) To investigate the opinions of the stakeholders (teachers, parents, headmasters, Grampradhans, ABSAs) regarding the effect of Mid-Day-Meal (MDM) scheme on the number of enrolment of the students from class I-V in the government primary schools (ii) To find the effects on the number of enrolment of the students from class I-V in the government primary schools due to the Mid-Day Meal scheme in comparison to the enrolment without Mid-Day Meal scheme (iii) To measure the opinions of the stakeholders (students, teachers, parents, Headmasters, Grampradhans, ABSAs) regarding the effect of Mid-Day-Meal scheme on the strength of retention of the enrolled students in the government primary schools from class I-V (iv) To find the effects on the level of retention of the students from class I-V in the government primary schools due to Mid-Day meal scheme in comparison to the level of retention of the
students without Mid-day Meal scheme (v) To examine the level of quality and quantity of cooked MDM (in the opinions of the stakeholders) supplied in the government primary schools (vi) To identify the problems during implementation and coordination with the stakeholders of the cooked MDM scheme (vii) To investigate the laxity of the officers and the workers responsible for the execution of the cooked MDM scheme (viii) To investigate the most effective reason for enrolment & attendance in the government primary schools due to the possible incentives offered by the government (ix) To know the exact opinion of the cooks regarding the management and the execution of MDM scheme and (x) To observe on the spot the difference between the natural settings and the actual settings of MDM execution in the government primary schools.

To fulfill these objectives the main hypotheses formulated were (i) There is no significant difference in the enrolment of the students from class I-V in the government primary schools due to Mid-Day Meal scheme in the opinions of the stakeholders (teachers, parents, headmasters, Grampradhans and ABSAs) (ii) There is no significant difference in the number of enrolment of the students from class I-V in the government primary schools during post MDM period in comparison to the number of enrolment of the students during Pre-MDM period (iii) There is no significant difference on the level of retention of the primary schools students from class I-V due to Mid-Day Meal scheme as per the opinions of the stakeholders (students, teachers, parents, headmasters, Grampradhans, ABSAs) of MDM (iv) There is no significant difference in the level of retention of the students from class I-V in the government primary schools during post MDM period in comparison to the level of retention of the students in the government primary schools during Pre-MDM period (v) There is no significant problem in the quality and quantity of the cooked MDM supplied in the government primary schools (vi) Is there any significant problem during implementation and coordination with the stakeholders of the cooked MDM scheme in the government primary schools? (vii) There is no significant laxity from the officers and the workers responsible for the execution of the cooked MDM scheme (viii) there is no significant reason for enrolment/attendance in the government primary schools due to the possible incentives offered by the government. (ix) What exactly is the thinking of the cooks regarding the management and the execution of MDM scheme? (x) There is not any difference between the natural settings and the actual settings of MDM execution in the government primary schools.
To test the above hypotheses a definite methodology for the study was followed. The first valuable step taken for conducting the research was the identification of problem and the next step was the selection of sample and sample size. The study was based on the primary and secondary sources of data. The sample of the study comprises Students, Teachers, Parents, Headmasters, Grampradhans and ABSAs of 40 schools of 40 different villages from the 2 blocks each out of four selected districts of Uttar Pradesh (India). The data was collected on the basis of stratified random sampling. The researcher visited to all the 40 selected schools to collect the primary data via six exhaustive questionnaires along with the checklist/schedule for the cooks and the spot observation forms to investigate and verify the conditions personally. The secondary data for the purpose was collected from the schools’ records provided by the headmasters of all the 40 schools from the school records, various monitoring reports on MDM and VEC manual & all official documents etc. The effort was made to cover all categories of the concerned stakeholders of the scheme under the investigation to get the true representation of each. Therefore the students (500), teachers (60), parents (300), headmasters (40), Grampradhans (20), ABSAs (Assistant Basic Shiksha Adhikaris) (10), cooks (40) and self observation schedules (40) were sampled and investigated through the questionnaires (Five points Likert scale) & schedules from four selected districts of Western Uttar Pradesh for the purpose. The rigorous efforts of following the steps of ‘tool development’ included the pilot test of tools i.e. reliability and validity of the proposed items of the questionnaires and schedules. For the purpose of comparison of pre and post effects of MDM scheme on enrolment and retention the secondary data was collected from the schools’ records, reports of the education ministry, MDM guidelines by MHRD, MDM annual work plans, letters and GOIs (Government Orders). Once the data was collected the statistical tools such as paired-sample t-test, ANOVA (Analysis Of Variance), descriptive analysis (percentage), one-sample t-test and mean values were used according to the nature of data to test the different hypotheses for the purpose of fulfilling the particular objectives. The analysis was done with the help of a statistical package, SPSS 17.0 version and MS EXCEL. The collected data was filtered, tabulated and analyzed with the help of above mentioned tools and software.

Analysis of data means the determination of inherent facts from the tabulated materials; it involves breaking-up of complex factors into simple segments and converting them in new visible arrangements. Analysis serves a two-fold purpose- (i) at first it aims to reduce the data to Intelligible and Interpretable form so that the relationship of it can be studied and tested. (ii) It
aims to extract as much information as possible. Interpretation takes the results of the analysis and makes the inferences pertinent to the research relations studied and draws the conclusions. In the present study the data had been critically analyzed through textual discussion, tabular and graphical devices. Since the present research study was proposed to study the effects of Mid Day Meal Scheme on enrolment and retention in the primary schools so the analysis of data and the findings emanating from the analysis have been presented in detail. The analysis and Interpretation have been presented objective-wise.

The outcomes of the above exercise of data analysis were mentioned in chapter IV of the research report. The analysis was conducted to test the hypotheses and sub-hypotheses to fulfill all the objectives and their sub-objectives formulated to solve the research problem. The First Objective was to know the impact of MDM on the number of enrolment in the government primary schools. The result from ANOVA indicated that among the five groups the mean square was 1330.634 with 818.561 ‘F’ value. The significant value was 0.01. On the other hand the mean differences were measured within the five groups. The comparison in the table indicated that the mean square was 1.626 while the ‘F’ value and significant values were the same. The mean differences between and within the groups indicated that there was significant impact of MDM scheme on the level of enrolment in the primary schools so the null hypothesis (H01) “There is no significant difference in the enrolment of the students from class I-V in the government primary schools due to Mid-Day Meal scheme in the opinions of the stakeholders (teachers, parents, Headmasters, Grampradhans, ABSAs)” was rejected on the basis of the results of ANOVA. Objective 1 was also described by descriptive statistics (percentage) to show the percentage of the respondents’ responses. The Second Objective of the study was to measure the actual difference in the volume of enrolment in the classes I - V between pre-MDM and post-MDM era empirically. The secondary data was analyzed through paired sample t-test. The t-value was 0.485 and the 2-tailed difference was 0.63 therefore it was quite clear that the enrolment status of the boys in class-I during Pre-MDM period had no significant difference from the post-MDM enrolment status of the boys. On the other hand in case of the enrolment status of girls’ students of class-I the table showed that t-value was 15.58 and 2-tailed difference was 0.01 with 39 degree of freedom which meant that it was highly significant. The enrolment status of girls students had improved with high significance after the schools introduced the MDM scheme so the related null hypothesis (Ho2) “There is no significant difference in the number of enrolment of the students from class I-V in the government primary schools during
post MDM period in comparison to the number of enrolment of the students during Pre-MDM period.” was absolutely rejected. The Third objective was to investigate the opinions of stakeholders of MDM scheme regarding its impact on retention. Here also on the basis of comparison of mean differences among the six groups resulted the mean square of 2770.272 with 649.508 ‘F’ value. The significant value was 0.000 which was less than alpha value (0.01). The mean differences measured within the six groups and the comparison in the table indicates that the mean square is 4.265 with the same ‘F’ value and significance level. This means that there is significant impact of MDM scheme on the level of retention. Thus the null hypothesis (Ho3) “There is no significant difference on the level of retention of primary schools students from class I-V due to Mid-Day Meal scheme as per the opinions of the stakeholders (students, teachers, parents, Headmasters, Grampradhans, ABSAs) of MDM was rejected on the basis of the result of ANOVA. The same objective was also explained with the support of descriptive statistics (percentage).

The Fourth objective of the study was to compare the physical volume of retention from class I to V between pre-MDM and post MDM era empirically. Again the paired sample t-test was used to find the significant differences. The t-value was 1.58 in case of boys with 39 degree of freedom and the 2-tailed difference was 0.123 with only 12% confidence this means that the dropout was not significant among the boys’ students if the comparative difference was calculated from pre and post data of retention. While in case of girls the result seemed to be quite different as the t-value of comparative table was 3.93 on 39 degree of freedom and the 2-tailed difference was 0.00 with 100% confidence to say that there was significant dropout among the girl’s students. In total the class-II data from the table had t-value as 3.89 with 39 degree of freedom and the 2-tailed difference was 0.00. Thus the status of both boys and girls regarding the enrolment and retention among all 40 schools in all the classes(I-V) was highly significant in the post MDM era so on the basis of the results of paired-sample t-test null hypothesis (Ho4) “There is no significant difference in the level of retention of the students from class I-V in the government primary schools during post MDM period in comparison to the level of retention of the students in the government primary schools during Pre-MDM period.” was rejected. The Fifth objective was the investigation of the opinion of the stakeholders regarding the quality and quantity provided as MDM. The significance level (0.000) intended the researcher to interpret that the significance level was quite high in case of examining the quality and quantity of MDM served in the primary schools. On the other hand if we compared the mean within the groups the
table suggested that the value of mean square was 12.826 with 0.00 level of significance which was less than the alpha value (0.01) so on the basis of ANOVA again the null hypothesis (Ho5) "There is no significant problem in the quality and quantity of cooked MDM supplied in the government primary schools" was rejected. For the purpose of clarity again the responses of the stakeholders were represented through the percentage. **The Sixth objective** of the study was to identify the problems during implementation and coordination with the stakeholders of the cooked MDM scheme. The research question "Is there any significant problem during implementation and coordination with the stakeholders of the cooked MDM scheme in the government primary schools?" formulated for this objective was answered through the use of percentage or Average. **The Seventh objective** was to understand the opinion of the stakeholders about the laxity in the execution of MDM scheme. In this case also the outcome of the table of ANOVA indicated the 0.01 significance level which was less than any alpha value (0.01). On the other hand, the mean square within the group was 7.772 with same 'F' value and level of significance. Thus null (H0-7) hypothesis there is no significant laxity from the officers and the workers responsible for the execution of the cooked MDM scheme formulated for the purpose proved to be rejected. To fulfill the objective percentage analysis was taken place. **The Eighth objective** was to investigate the most effective reason for increasing the trends of enrolment according to the parents and the headmasters. Mean differences of the incentives provided in the government primary schools were calculated from the point of view of the parents and the headmasters to know the proper weightage of each incentive chronologically for increasing the trends of enrolment. It is quite clear that most of the parents responded that the free distribution of MDM during school time in the government primary schools was the most important reason for their wards to stay and study in the government primary schools. The mean value for the MDM as a reason was the highest i.e. 261.4 the second important reason was the higher fees charged with the private/ convents' schools. The approximate mean value of the incentive (Fees) was around 198. The distance of the primary schools stood at the 3rd place with mean value of 171. The mean values for scholarship as a reason was about 157 and for books it was 147 only. Thus it is clear that the most important reason for the enrolment/attendance in the government primary schools was the free lunch provided as MDM in the government primary schools. According to the headmasters the most important reason for the enrolment/attendance in the government primary schools was the free lunch provided as MDM in the government primary schools because the mean value of it was found as 33.2. The second most important reason was fees in the private convent with the mean value of 31.2. Free distribution of uniform in the
schools was the 3rd reason with the mean value of 31.0. Rest two reasons were free distribution of books with mean value of 28.8 and the distributions of scholarships was the last among the reasons with the mean value of 28.4 only. so the null (H0 8.1) hypothesis “There is no significant reason for Enrolment/Attendance in the government primary schools due to the possible incentives offered by the government.” was rejected. Thus it was found that MDM was the most effective reason of increasing trend of enrolment in the schools from the point of view of both the parents and the headmasters. The Ninth objective was to know the exact opinion of the cooks regarding the management and the execution of MDM scheme. The Research Question ‘What exactly is the thinking of the cooks regarding the management and the execution of MDM scheme?’ was answered by showing the responses of the cooks in the form of percentage The Tenth objective was to observe on the spot the difference between the natural settings and the actual settings of MDM execution in the government primary schools. For this objective One sample t-test was computed and it was found that the There was much difference between the assumed settings and the actual settings of MDM execution in the government primary schools so null hypothesis (Ho10) “There is not any difference between the assumed settings and the actual settings of MDM execution in the government primary schools.” was rejected.

Finally the research report in chapter V concluded the study with summary, conclusions, implications, recommendations and suggestions. As the outcome of the research it was found that the enrolment increased during post-MDM period. The percentage of agreement of the teachers about enrolment was more than 70%, the dropout decreased in the post MDM period which led to the increment in the retention level, quality and quantity of the foods provided still not up to the mark, there were laxities from the officers & teachers in the execution of the scheme, there were acute problems in the coordination among stakeholders. The parents and the teachers pointed out that MDM was the main reason to drag the students from homes to schools. The cooks admitted that there was mismanagement in MDM scheme and the concerned officers were accountable for that. As per spot observations the condition in schools was worse than that was assumed.

The study concluded that as the number of beneficiaries increased substantially since 1995. Moreover approximately 60% of the beneficiaries were from families having low per capita income. The status of enrolment in the government primary schools was increased substantially due to the implementation of this scheme. The students of the schools were retained for the full
school time due to the fulfillment of the appetite and nutritional requirements of the students. The real face of the scheme can be seen through the perceptions of beneficiaries regarding the implementation and the success & failure of the scheme. The students were least aware about the enrolment, they were happy to receive the foods in the interval, they were least satisfied with the quality of the foods, they were accusing to the officers for the laxity found in the execution of the scheme, and they were staying in the schools during school hours. As per teachers’ perception the MDM scheme was appreciable, they were not happy with the management of the MDM scheme, they were over burdened due to their involvement in the formalities of the execution of MDM scheme most of the time. They thought that there was positive progress in the enrolment and retention in the government primary schools. The parents’ perceptions indicated that most of them were not ready to give credit that increment in the enrolment & retention in schools was due to the introduction of MDM scheme, some parents were glad to receive this scheme. Headmasters’ perception was that they were agreed that the enrolment & retention had increased due to MDM, they were agreed that there was still a long way to execute the MDM scheme properly. The Grampradhans’ perception was that they were agreed that the enrolment had increased due to MDM, they were in favour of improving the quality & quantity of MDM and they felt that there were laxities in the execution of the scheme. As per ABSAs’ perceptions it was found that they thought that MDM was good for the schools’ academic performance. The perception of cooks indicated that they were not satisfied by the logistics management of MDM raw materials and they were agreed that enrolment and retention levels were improved due to this scheme. The outcome of the spot observation concluded that there was still the scope for the improvement in health & hygiene.

The teachers were little dissatisfied due to the extra burden apart from the teaching tasks they needed to perform to implement the scheme in the schools. They felt that the scheme was successful in terms of dragging the students from home to schools. They considered that the MDM scheme was the strongest incentive for supporting and increasing the level of enrolment. The perception of the teachers regarding the retention of the students in the schools during the school times had substantially improved due to MDM. The teachers were with the perception that the quantity of the foods provided was quite insufficient. They also felt that the quality of the foods provided was not up to the mark. The quality and quantity of the foods provided in the form of cooked MDM still required to go a long way. The teachers’ perception regarding the efficiency in the execution of MDM scheme in the schools was quite indifferent. They felt that
the coordination at the ground level of the execution was good but the support from the officials and decision makers was lacking the coordination badly. About the role of MDM on the level of enrolment the perception of parents are indifferent. They accepted that the level of enrolment in the schools have improved but the absolute reason is not only the MDM. There were several other reasons like free books, uniforms and scholarship which contributed to drag the students from home to schools. Parents were hesitant to accept that their wards are attracted by the MDM only. The findings regarding the perceptions of the headmasters related to MDM scheme were noted down in terms of impact on the level of enrolment. It was concluded from the findings that the headmasters appreciated the program with conformity that there were improvement in the enrolment especially among the girls students. Although the headmasters were also with contrast perception that the credits must be given to other incentives such as scholarships, uniforms, bicycles and free books for the students. Headmaster was in perception that the level of retention in the schools had substantially improved due to MDM.

The findings from the collected secondary data highlighted almost similar situations in the government primary schools. The class-wise evidences regarding enrolments and retentions were found as positively responded to the schemes. The enrolment in Class-I, was increased substantially with remarkable change among the girls’ students. Almost similar changes were found in all other classes also especially with the positive changes in the enrolment of girls’ students. The current study has its importance and implications at different levels. At the central government level the study will be useful as a feedback to improve the current condition of the scheme. The recommendations and suggestions may be used to improve the quality and quantity of the MDM scheme. As it is clear that the state government own major accountability for the successful and effective execution of the MDM scheme thus the current study has several implications for them. The state government can also use the study as a feedback and for the evaluation of MDM scheme in the state. They may use the suggestions and recommendations for the formulation of ‘policies’. The study has the relevance at the local level where Grampradhans may use this study to understand the particular problems during the execution. It will also help to optimize the logistics at the local level to ease the complications. Among the educational implications of the study the main implications were: the motivation and generation of the new ideas and motivating the researchers to continue with the evaluation of the scheme. The study will also work as a referral point for the future researchers and this may be a source-point for statistical department as a feed of data.
The study recommended for the implementations that good quality MDM ration must be provided to the students, quantity of cooked meal per students should be increased so that the students' appetite level must be satisfied, the strict monitoring and supervision by proper authority (responsibility be fixed in case of misdeed) so that the cases of cheating may be checked, MDM should be supplied in the packed form to remove the burden of the teachers which It will create minimum disturbance in the academic environment. Proper coordination among the suppliers of MDM ration, distributors of MDM, guardians and teachers at school needs to be established so that scheme may further be strengthened, parents are to be educated properly to utilize the facilities of MDM scheme in the right perspective and they should be made to understand the significance of regularity, punctuality and retention of their children in the school premise during school hours, the students who are the most regular in the class may be rewarded with cash prizes along with appreciation letter in public functions and lastly, the village Panchayat may also be associated with the scheme of Mid-Day Meal and the best Panchayat should be awarded prize and recognition publicly if all the children of their Panchayat get enrolled in the school.

This study suggested to the students that they should identify the benefits of the scheme with positive thinking and should provide the appropriate ‘feedback’ of the scheme to the higher authorities. It is suggested to the teachers that they should participate actively to check the quality & quantity of the foods and should ensure the healthy and hygienic elements of the foods. The parents of the beneficiaries are suggested that they should be aware and should play the roles and responsibilities regarding MDM in the schools and should provide proper feedbacks of MDM scheme in time to the competent authorities. It is suggested to the headmasters that they should take the accountability of success and failure of the MDM scheme and should check the quality, quantity, health and hygienic factors of this scheme. The Grampradhans are suggested to ensure the efficient logistic system of ingredients & cereals of the MDM and should appoint the vigilance team to maintain check & balances. The ABSAs are suggested to ensure the coordination between FCI, BSA, and DM for better management. The suggestion for the cooks is to ensure the proper cooking & hygienic distribution of the foods among the students. Furthermore, it is also suggested that the members of the implementing agencies need to be trained on budgeting, preparation of nutritious and tasty foods. For this the services of Food and Nutrition Board, Government of India and Chartered Accountants can be drawn to impart
training to the members engaged in the execution of the MDM scheme in the government primary schools. The study strongly suggested to all the executive members of the MDM scheme that the management of this scheme should be outsourced especially in Uttar Pradesh. It is hence proved that the private agencies have already executed this program successfully and efficiently in Tamil Nadu and Gujarat. The mothers of the students should be encouraged by taking part in the scheme as contemplated by the government of India.

Finally during the span of investigation the researcher had herself observed that almost all the stakeholders of the MDM scheme are in the greed of short term benefits even at the cost of quality and quantity of this precious scheme. There exist the generous requests to all the stakeholders of MDM scheme to think about the students, villages, societies, generations and nations before taking their self-centered decisions.

Data collected from the unannounced spot-visits’ observation of the schools where the state government was providing mid-day meals had indicated that by and large the scheme was not being implemented satisfactorily. In majority of the schools the meals served were not well cooked, not adequate and not palatable. Several schools lack essential infrastructures such as potable/drinking water, toilet facilities and water to wash hands while in some cases the environmental hygiene was poor. The focus group discussions with the teachers and the students showed that as MDM has been in operation only for a relatively short period neither the teachers nor the students had fully realized the potential role of MDM in improving health and nutritional knowledge in the schools and catalytic role it could play in improving school retention rates.

It had been observed that wherever there was either a headmaster or a teacher who under stood that this was able to overcome infrastructural gaps and lack of awareness and successfully implemented the scheme. It was obvious that overcoming the lacunae with regard to infrastructures will take time and expenditure. The authorities may try to fill the infrastructural gaps in these schools in a phased manner. However, it is recommended that highest priority may be accorded to orienting and training headmasters/teachers so that they understand the importance of MDM and do not regard the supervision of MDM distribution to the children as an additional workload. The headmasters/teachers should highlight to the students and should inform to the parents that the mid-day meal is additional to the home meal and not a substitute
for it. The headmasters/teachers will become aware that the MDM provides an opportunity for health and nutrition education and they will give practical lessons on personal hygiene and environmental sanitation to the children in primary schools. The study had come-up with few recommendations for implementations such as good quality MDM ration must be provided to the students, the strict monitoring and supervision should be by proper authority (responsibility be fixed in case of misdeed) so that the cases of cheating can be checked, MDM should be distributed to the students in packed form to remove the burden of teachers which in turn will also create minimum disturbance in the academic environment, Proper coordination among the suppliers of MDM ration, distributors of MDM, guardians and teachers at school needs to be established so that the scheme may further be strengthened, parents are to be educated properly to utilize the facility of MDM in right perspective and they should be made to understand the significance of regularity, punctuality and retention of their child in the school.

The Parent Teacher Associations and other mechanisms for the involvement of society in improving, monitoring of the MDM scheme and ensuring that the problems if any are detected and rectified at the earliest. The school should develop a system in which the teachers play a key role in monitoring and ensuring quality and quantity of the food served, by persuading the children to consume all the foods provided and to observe hygiene practices during eating. Ensuring that left over food is not thrown in and around the school to prevent environmental decoration. It would be useful to find out the causes of refusal to take MDM by some children/parents so that the percentage of its acceptance may be improved. For this the parents’ views can give an insight. The schools are also suggested to mention the approximate number of children that could be expected to be present for the next day so that the FSPs may prepare accordingly and the supplies is neither in excess or fall short. The teachers and the parents need to be sensitized regarding the importance of whole hearted participation by all in order to get optimum benefits from the scheme. MDM can become a part of the curriculum where good hygiene practices are not just taught but put into effective action. In the urban areas the children are exposed to unhygienic junk foods sold outside the schools. Some of the children are able to afford them. Therefore there is a great need for educating the children to choose healthy and wholesome foods. The school children should go through the health check up periodically in the school-premises. Height and weight should be recorded as a part of the school health card. It is suggested that as the session begins in the month of July every year so the health check-up
should be undertaken. If complete health check-up is not possible in all the schools at least height and weight should be recorded and the children with the problem of severe / moderate / under nutrition should be identified and those children should receive priority in MDM and also in health care.