CHAPTER V  
SUMMARY, CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH  

5.1 SUMMARY:

The concept of nutritional support to education is not new in India and it dates back to 1925 when Madras Corporation developed a school lunch program. However it was only in 1995 that such a scheme was launched at the national level in order to provide nutritional support to students in primary schools. The objective of this scheme was to give boost to universalization of primary education and to impact the nutrition of students in primary classes.

On November 2001, Supreme Court directed the state governments to implement the Mid-Day Meals Scheme by providing every child, in every government school and government assisted primary schools with a prepared Mid-Day Meal with a minimum content of 300 calories and 8-12 grams of protein each day of school for a minimum of 200 days, within three months that was by 28th February, 2002. Very few states, however introduced cooked meal in primary schools before the Supreme Court’s that deadline. The deadline was later extended to January, 2005 by Supreme Court. In 2001-2002 the guidelines of the scheme had been modified so as to enable reputed NGOs and other such organizations to participate in the implementation of the programme. The programme which initially covered children of primary stage (Class I to V) in government, local body and government-aided schools, was expanded in October 2002 to cover children studying in Education Guarantee Scheme (EGS) and Alternative and Innovative Education (AIE) centers, also.

Central Assistance under the scheme consisted of free supply of food grains @ 100 grams per child per school day, and subsidy for transportation of food grains up to a maximum of 50 per quintal. The cost of converting food grains into cooked meal in the original scheme was expected to be borne by State Governments/local bodies. Because of inability of most State Governments and Local bodies to provide requisite funds, the cooked meal programme could not be universalized even up to 2004. It was estimated that the overall coverage under this scheme as of January 2004, was only in half of India’s 31 states, with seven states with an aggregate of 400 million population not
implementing the scheme so far despite the Supreme Court order. Therefore, it became imperative to revise the scheme to include additional Central Assistance to State/UTs for meeting cooking cost also.

Like many other states, Punjab could not switch over to cooked meal scheme from the very beginning due to few reasons inter alia due to paucity of funds involved in the conversion of food grains to cooked meal. However, in compliance with the Supreme Court’s order dated 28.11.2001, cooked meal was provided to the children of primary classes in one block in every district of Punjab during the year 2002-03. The Govt. of Punjab started providing cooked meal to all the students of primary classes in government elementary schools with effect from September, 2004.

In October 2004, serving of cooked meal could not be universalized in eight states which included certain major states. In many of the remaining states, quality of meal served to children was not satisfactory. Keeping these aspects in view, changes in the scheme had become necessary. Following the Supreme Court’s orders the Government of India revised its guidelines for the Mid-Day Meal Scheme in 2004. According to these guidelines, the Mid-Day Meal Scheme was fully implemented in 20 states and all seven union territories, and partially in the remaining eight states, where scheme was not fully implemented. New guidelines were also provided for meals to be served during the summer vacations, in drought affected areas. The center after witnessing the successful implementation of the scheme revised the guidelines in 2006 and went a step further by increasing the calorific values of cooked food from 300 to over 450, 12 grams of proteins and adequate quantities of micro nutrients like iron, folic acid, vitamin A. In October 2007, the scheme was further revised to cover children in upper primary (classes VI to VIII). The scheme was again revised in April 2008 to extend the scheme to recognized as well as unrecognized Madarasas/Maqtabs supported under Sarva Shiksha Abhiyan (SSA) as Government Aided centres. The programme was extended to all areas across the country from 2008-09.
5.1.1 Statement of the Problem:

An Evaluative Study of Mid-Day Meal Scheme in Bathinda District of Punjab

5.1.2 Objectives of the Study:

1. To study the historical and policy perspectives of the Mid-Day Meal Scheme of government of India and its implementation mechanism in the primary schools of Punjab.

2. To compare the working of Mid-Day Meal Scheme in rural and urban primary schools in Bathinda District of Punjab.

3. To evaluate whether the scheme has been effective in raising the overall current enrolment rate in the primary schools of Bathinda District of Punjab.

4. To evaluate whether the scheme has been effective in checking the dropout rate in the primary schools of Bathinda District of Punjab.

5. To evaluate whether the scheme has been effective in reducing the gender gap in primary schools of Bathinda District of Punjab.

6. To study the views and perceptions of stakeholders, head teachers, teachers, and cooks about the problems faced in running the Mid-Day Meal Scheme in the Bathinda District of Punjab.

7. To conduct case studies of working of Mid-Day Meal Scheme in ten selected primary schools (five rural and five urban) of Bathinda District.

8. To suggest measures to further improve the planning and implementation of Mid-Day Meal Scheme.
5.1.3 Delimitations of the Study:

The study was delimited as stated below:

1. The study was delimited to the primary schools of Bathinda District of Punjab.
2. The study of views and perceptions of stakeholders, Head teachers, teachers and cooks were restricted to 100 primary schools of Bathinda District of Punjab (taken 15 to 20 from each block).
3. The analysis of views and perceptions of the respondents was delimited to the content analysis.

5.1.4 Operational Definitions

5.1.4.1 Evaluative Study:

An evaluative study, critically evaluates the effects of policies and programmes on their targets in terms of the objectives they are meant to achieve. It assesses the extent to which goals are realized and looks at the factors associated with successful and unsuccessful outcomes. The assumption is that by critically analyzing the facts evaluation assists decision-makers to make wise choices among future course of action. Criticism of the consequences of programmes should improve decision-making.

5.1.4.2 Mid-Day Meal Scheme:

Mid-Day Meal Scheme is the popular name for the national school meal programme in India. On August, 1995, scheme was launched as a centrally sponsored scheme by the Ministry of Human Resource Development (Department of Education) with the objective of “universalisation of primary education by increasing enrolment, retention and attendance and simultaneously impacting on nutrition of students in primary classes”. It involves provision of free of cost lunch to school children on all
working days. Following the Supreme Court’s orders, Govt. of India revised its guidelines for the Mid-Day Meal Scheme in 2004, 2006 and 2008 which were latest revised in 2009.

5.1.5 Method and Procedure Adopted:

To conduct the present study the investigator had adopted four different methodological approaches in descriptive research which had resulted in dividing the present research work into following four parts:

i. Historical & Policy Perspectives and Implementation Mechanism

ii. Analysis of Secondary Data

iii. Study of Views and Perceptions

iv. Case Studies

5.1.5.1 Historical & Policy Perspectives and Implementation Mechanism:

The historical and policy perspective of Mid-Day Meal Scheme was studied on the basis of literature available, Supreme Court’s judgment, and centre and state Government’s various reports. The implementation of the government’s policies vis-à-vis evolution of various school food programmes including Mid-Day Meal Scheme was studied in detail. Needless to mention that, the implementation of Mid-Day Meal Scheme was studied in the broader context of implementation of Mid-Day Meal Scheme in the whole country.

5.1.5.2 Analysis of Secondary Data:

The trend analysis was done to study the pattern of impact of Mid-Day Meal Scheme in Bathinda District, based on secondary sources of data. For this purpose the data collected from Punjab Government’s Mid-Day Meal Cell, D.E.O. Office Bathinda
and B.P.E.O. office of six education blocks of the district was analyzed. The secondary data from all these sources was pooled up to study the trends and patterns of:

a. Gross Enrolment Ratio (GER)

b. Net Enrolment Ratio (NER)

c. Gender Gap

d. Drop-Out Rate

After the implementation of Mid-Day Meal Scheme in the Bathinda District of Punjab.

5.1.5.3 Study of Views and Perceptions:

The views and perceptions of the respondents about the different issues related to Mid-Day Meal Scheme had been studied by the method of research applied as under:

5.1.5.3.1 Sample:

The technique of multistage sampling was employed to select head teachers, teachers, students, parents and cooks from Bathinda District for seeking their views and perceptions about the various issues and problems related to Mid-Day Meal Scheme. For the purpose of drawing head teachers, teachers and cooks 15 to 20 primary schools were selected randomly from each of the six blocks of the district. For the sample of students and their parents two schools from each block (one rural and one urban) were selected and all the students but only parents of 25% of them were taken.
Table 5.1: Details of sample of primary schools taken for the study

<table>
<thead>
<tr>
<th>Educational Block</th>
<th>Number of schools</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
<td>Urban</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Bathinda</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Mandi Phul (East)</td>
<td>15</td>
<td></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Mandi Phul (West)</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Nathana</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Sangat</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Talwandi Sabo</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.2: Details of sample of subject taken for the study of views and perceptions

<table>
<thead>
<tr>
<th>Education Block</th>
<th>Head Teachers</th>
<th>Teachers</th>
<th>Students</th>
<th>Parents</th>
<th>Cooks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathinda</td>
<td>20</td>
<td>50</td>
<td>150</td>
<td>38</td>
<td>80</td>
</tr>
<tr>
<td>Mandi Phul (East)</td>
<td>15</td>
<td>35</td>
<td>150</td>
<td>37</td>
<td>50</td>
</tr>
<tr>
<td>Mandi Phul (West)</td>
<td>15</td>
<td>35</td>
<td>150</td>
<td>37</td>
<td>50</td>
</tr>
<tr>
<td>Nathana</td>
<td>15</td>
<td>40</td>
<td>150</td>
<td>38</td>
<td>50</td>
</tr>
<tr>
<td>Sangat</td>
<td>15</td>
<td>40</td>
<td>150</td>
<td>37</td>
<td>50</td>
</tr>
<tr>
<td>Talwandi Sabo</td>
<td>20</td>
<td>50</td>
<td>150</td>
<td>38</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>(100)</td>
<td>(250)</td>
<td>(900)</td>
<td>(225)</td>
<td>(360)</td>
</tr>
</tbody>
</table>

5.1.5.3.1.1 Development of Interview Schedules:

In order to study the views and perceptions of stakeholders, head teachers, teachers and cooks about the problems faced in Mid-Day Meal Scheme, following interview schedules were constructed and standardized by the investigator herself:

1. Interview schedule for head teachers

* Mandi Phul (East) is a rural block.
2. Interview schedule for teachers
3. Interview schedule for students
4. Interview schedule for parents
5. Interview schedule for cooks

5.1.5.4 Case Studies:

To study the working of Mid-Day Meal Scheme in Bathinda District of Punjab, case studies of 10 primary schools selected from different blocks were conducted, with the help of a self developed observational schedule, as per the following sample:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Block</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bathinda</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>Mandi Phul (East)</td>
<td>_</td>
<td>1</td>
</tr>
<tr>
<td>3.</td>
<td>Mandi Phul (West)</td>
<td>1</td>
<td>_</td>
</tr>
<tr>
<td>4.</td>
<td>Nathana</td>
<td>1</td>
<td>_</td>
</tr>
<tr>
<td>5.</td>
<td>Sangat</td>
<td>_</td>
<td>1</td>
</tr>
<tr>
<td>6.</td>
<td>Talwandi Sabo</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

These case studies helped in painting a wholesome picture of the working of Mid-Day Meal Scheme at the primary school level in the Bathinda District.

5.1.5.4.1 Development of the Observational Schedule:

In order to conduct the case studies of ten schools of Bathinda District an observation schedule had been constructed and standardized by the investigator herself. For this purpose the investigator had reviewed the available literature related to norms and instructions regarding the implementation of Mid-Day Meal Scheme in primary
schools. Observation schedule had been prepared to seek information about the following:

a. Availability of Infrastructure  
b. Availability of manpower  
c. Quality of meals served  
d. Quantity of meals served  
e. Management of scheme  
f. Effectiveness of scheme  
g. Problems faced in the implementation of scheme  
h. Community participation  
i. Head teachers’, teachers’, cooks’ and stakeholders’ response towards scheme  

Then opinions of the experts about the observation schedule were sought after discussing the objectives of the research study with them. The suggestions given by the experts about various items of the schedule were incorporated. After this a preliminary tryout of this schedule was carried out.

5.1.6 Conduct of the Study:

1. To study the historical and policy perspectives of Mid-Day Meal Scheme the sources of literature containing the history of school meal programmes in various parts of the world and states of India and various policy documents were scrutinized to cull out the relevant theoretical and empirical observations.
2. To collect the secondary data for trend analysis, the investigation herself visited the State Mid-Day Meal Cell sector 34A, Chandigarh, DEO office, Bathinda.
Mid-Day Meal Cell, Bathinda and B.P.E.O. offices of all the six educational blocks of the district.

3. To get the views and perceptions of respondents the investigator personally visited and interviewed the various subjects as stated in the sampling.

4. To conduct the case studies of ten primary schools the self constructed ‘observational schedule’ was used. The investigator had personally visited these schools and remained present during the preparation and distribution of meals to collect the detailed information regarding various aspects of Mid-Day Meal Scheme.

5.1.7 Analysis of Data:

1. The quantitative data depicting the Gross Enrolment Ratio (GER), Net Enrolment Ratio (NER), Gender Gap and Drop-Out Rate which were available in various secondary sources were analysed with the help of statistical tables and drawing of line graphs and bar graphs, etc.

2. The technique of ‘content analysis’ was used to study the views and perceptions of different group of subjects namely head teachers, teachers, parents, students and cooks with regard to the various issues related to Mid-Day Meal Scheme (already stated). Further, ‘percentage analysis’ of views and perceptions given by the respondents was done and presented in the form of statistical tables and results were discussed.

3. The qualitative data collected through the observation schedule for conducting case studies of 10 schools was logically arranged to bring out a wholesome picture of the implementation of Mid-Day Meal Scheme in the primart schools of Bathinda District.
5.2 CONCLUSIONS:

On the basis of the study of historical and policy perspectives, implementation mechanism, analysis of secondary data, content analysis of views and perceptions of respondent groups and the case studies of some Government Elementary Schools of Bathinda District, the following conclusions were drawn:

5.2.1 Conclusions on the Basis of Historical and Policy Perspectives:

1. After the launch of the School Lunch Programme (SLP) at the initiative of a Frenchman, Victor Hugo in the year 1865 for the school children of France, first time in the world, various countries have passed Acts for the adoption of the school feeding programmes for the sound development of minds and bodies of the students. Different international organizations like UNICEF, FAO and WHO along with other organisations assisted the countries in these programmes. United Nation’s Children’s Emergency Fund in 1956, initiated several child welfare programmes for the less developed countries of the world.

2. In India, for the first time a Mid-Day Meal Programme was introduced for children belonging to poor socio-economic status in Madras Corporation area in 1925. After that Mid-Day Meal Programmes were provided to poor children on a modest scale in several states, notably in Madras, Kerala, Andhra Pradesh, Mysore and Orissa. However, there was no uniformly organized system of school meals programme in most of the states. Even in the states where school meals were served, they were restricted to certain districts. Other states in India such as Andhra Pradesh, Bihar, Gujarat, Kerala, Mysore, and Uttar Pradesh introduced this programme only after Second World War. At the same time some international organizations such as UNICEF, FAO, WHO, and International Voluntary/Charity organizations like
Catholic Relief Service, Church World Service, CARE, US's Meals for Million Association, etc. came forward to assist different states in introducing the Mid-Day Meal Programme. This shows that the idea of a national Mid-Day Meal Programme had been evolving for over a decade. However, the idea of 'food for learning' with FAO commodity assistance was mooted only in 1982.

3. The Mid-Day Meal Scheme got further impetus in December 1988 when the Department of Education formulated a proposal for covering 994 ICDS blocks with concentration of SC/ST children. The progress of the scheme was evident to the extent of the fact that 13 state and 4 UT governments were implementing the Mid-Day Meal Programme for elementary school children between the age group 6-11 years with varying degree of coverage as of 31st December, 1994. In all 20.48 million children were covered.

4. Later with a view to enhancing enrollment, retention and attendance and simultaneously improving nutritional level among school children, Mid-Day Meal Scheme was launched as a centrally sponsored scheme on 15th August 1995. The programme aimed to provide wholesome cooked processed food through local bodies/authorities such as Panchayats, Nagar Palikas who were expected to develop institutional arrangements for the purpose. During the interim period, food grains (wheat/rice) at the rate of 3kg per children per month were distributed to the targeted children, subject to a minimum attendance of 80 per cent.

5. On November 2001, in its interim order in Peoples Union for Civil Liberties versus Union of India & others (Writ Petition (Civic) No. 196 of 2001) the apex court decreed that “State governments must implement the Mid-Day Meals Scheme by providing every child, in every government school and government assisted primary
schools with a prepared Mid-Day Meal with a minimum content of 300 calories and 8-12 grams of protein each day of school for a minimum of 200 days. Those governments providing cooked meals must within three months (28th February 2002) start providing cooked meals in all government and government-aided primary schools in half of the district of the State (in order of poverty) and must within a further period of three months (28th May 2002) extend the provision of cooked meals to the remaining parts of the state”. Very few states, however introduced cooked meal in primary schools before the Supreme Court’s initial deadline of February 28, 2002. The deadline was later extended to January, 2005 by Supreme Court. In 2001-2002 the guidelines of the scheme had been modified so as to enable reputed NGOs and other such organizations to participate in the implementation of the programme.

6. The programme which initially covered children of primary stage (Class I to V) in government, local body and government-aided schools, was expanded in October 2002 to cover children studying in Education Guarantee Scheme (EGS) and Alternative and Innovative Education (AIE) Centers, also. Central Assistance under the scheme consisted of free supply of food grains @ 100 grams per child per school day, and subsidy for transportation of food grains up to a maximum of Rs per quintal. In 2002, the Planning Commission has asked State Governments to earmark a minimum 15 per cent of additional Central assistance under PMGY from financial year 2004-05 for meeting cooking cost under the Mid-Day Meal Scheme.

7. The cost of converting food grains into cooked meal in the original scheme was expected to be borne by State Governments/local bodies. Because of inability of most State Governments and Local bodies to provide requisite funds, the cooked
meal programme could not be universalized even up to 2004. It was estimated that the overall coverage under this scheme as of January 2004, was only in half of India’s 31 states, with seven states with an aggregate of 400 million population not implementing the scheme so far despite the Supreme Court order. It was being implemented fully in the states of Gujarat, Kerala, Rajasthan and Tamil Nadu and in substantial parts of other states including Karnataka, Madhya Pradesh, Maharashtra and West Bengal, partially in Chhattisgarh, Delhi, Orissa, and Punjab, but not at all in Assam, Bihar, Jharkhand, Uttar Pradesh and Haryana (Third Report of the Commissioner, May 1st, 2003). Therefore, it became imperative to revise the scheme to include additional Central Assistance to State/UTs for meeting cooking cost also.

8. The scheme was revised in September 2004 to provide cooked mid day meal with 300 calories and 8-12 grams of protein to all children studying in classes I – V in Government and aided schools and EGS/ AIE centres. In addition to free supply of food grains, the revised scheme provided Central Assistance for the following items:

a) Cooking cost @ Re 1 per child per school day.

b) Transport subsidy was raised from the earlier maximum of Rs 50 per quintal to Rs. 100 per quintal for special category states, and Rs 75 per quintal for other states.

c) Management, monitoring and evaluation costs @ 2% of the cost of foodgrains, transport subsidy and cooking assistance.

9. In July 2006 the scheme was further revised to provide assistance for cooking cost at the rate of (a) Rs. 1.80 per child/school day for States in the North Eastern
Region, provided the NER states contribute Rs. 0.20 per child/school day, and (b) Rs. 1.50 per child/school day for other states UTs, provided that these States and UTs contribute Rs. 0.50 per child/school day. In 2005-06 9.53 lakh primary schools/sections and EGS/AIE centers and 11.94 crore children were covered under the scheme. For the scheme 22.50 lakhs MTs food grain was allotted and actual 64 per cent of the allotted food grain was lifted from the FCI godowns. Central assistance provided towards cooking cost was Rs. 1781 crore and for Management, Monitoring & Evaluation was 21.30 crore.

10. In October 2007, the scheme was again revised to cover children in upper primary (classes VI to VIII) initially in 3479 Educationally Backward Blocks (EBBs). One of the salient features of the revised scheme, in addition to extension of the scheme to upper primary stage is changing of the name of scheme from ‘National Programme of Nutritional Support to Primary Education’ to ‘National Programme of Mid Day Meals in Schools.’ Around 1.7 crore upper primary children were expected to be included this expansion of the scheme.

11. The scheme was once again revised in April 2008 to extend the scheme to recognized as well as unrecognized Madarasas/Maqtabs supported under Sarva Shiksha Abhiyan (SSA) as Government Aided centres. The programme was extended to all areas across the country from 2008-09. The calorific value of a Mid-Day Meal at upper primary stage had been fixed at a minimum of 700 calories and 20 grams of protein by providing 150 grams of food grains (rise/wheat) per child/school day.
5.2.2 Conclusions on the Basis of Secondary Data:

On the basis of the analysis and interpretation of secondary data obtained from various secondary sources, the following conclusions were drawn:

1. There was a considerable positive impact of implementation of Mid-Day Meal Scheme on the GER and NER of primary school students of Bathinda District of Punjab. This clearly showed that the introduction of Mid-Day Meal Scheme in the primary school in Bathinda District helped in increasing the overall enrolment.

2. A considerable impact of implementation of Mid-Day Meal Scheme on Gender Gap in primary schools of Bathinda district was also observed. The Gender Gap appeared to decrease in almost all the blocks of the Bathinda district as well as in the overall district after the introduction of the scheme.

3. There was also a sizeable impact of introduction of Mid-Day Meal Scheme on the overall Drop-Out Rate as it was significantly reduced after the implementation of Mid-Day Meal Scheme in this district. In almost, all the blocks of this district, separately also, Drop-Out Rate was found to decrease after the implementation of the scheme.

5.2.3 Conclusions on the Basis of Views and Perceptions of the Respondents:

1. The study of opinions and perceptions of the respondents led us to conclude that most of the schools had proper supply of water for cooking a safe and healthy meal, adequate store room and the storage bins to prevent the decay, contamination or pilferage of food grains, sufficient cooking vessels needed for cooking for all the students and permanent cooking sheds. But schools did not have eating plates therefore the children brought bowls or plates or lunch boxes from their homes or ate on papers torn from the note books. Moreover, schools had to face theft of LPG
cylinders, food grains, cooking utensils and destroy of firewood *chulha* due to lack of infrastructure.

2. It was also opined by majority of the respondents that cooking and serving process of the meals, in most of the schools was the responsibility of head teachers and cooks, while in schools where teacher was in-charge of Mid-Day Meals she/he also participated with them, whereas there were some schools where all the teachers felt themselves responsible for the implementation of the Mid-Day Meal Scheme in their school participated along with head teachers and cooks. Moreover sometimes mothers of students also participated in managing the Mid-Day Meal Scheme which is a good sign of sense of responsibility among all the concerned.

3. Majority of the respondents viewed that funds required to run the Mid-Day Meal Scheme were usually delayed by the government. Funds were not provided for the last three months, therefore head teachers were making all the expenses from their pockets or cooks were making arrangement of ingredients on credit and where contractors were making arrangements of meals in those cases contractors were making all the expenses to run the scheme. Moreover it was evident that whatever funds government provided were insufficient to make arrangements for Mid-day Meals. It was very difficult in those small payments to appoint and retain the cooks.

4. It was also reported that Mid-Day Meal Scheme had not been ever interrupted and meal was served regularly on every working day without any gap. Moreover, funds were usually late and even payments to cooks had not been made from last three months which made it difficult to continue the meal programme. Many head teachers and teachers made all the expenses from their pockets and moreover cooks also made arrangements by borrowing ingredients from the grocery shops and even
head teachers had brought cooking vessels from their home and worked extra time
in morning and evening for making arrangements to continue the meal programme.
But as the funds were not being provided for the previous three months so fear was
expressed that the scheme might be interrupted in future.

5. It was found that the head teachers, teachers and stakeholders were quite satisfied
with the provision of cooked meals under Mid-Day Meal Scheme as cooked meal
was directly consumed by students. Previous system of dry ration was a head ache
for parents, as that small amount of grains was difficult to get grind and dry ration
system was not much beneficial for children also as they sold the grains for buying
some type of eatables which were not good for their health.

6. Further, majority of the head teachers, teachers and stakeholders were very much
satisfied with the quality of meals served under the Mid-Day Meal Scheme. Some
stakeholders were dissatisfied with the quality of meals served. They enlisted many
reasons behind it, like the quality of food grains was poor and hygiene was not
taken care of during cooking, in very few instances worms were found in the meals
and many times food was over cooked or under cooked.

7. There definitely seems to be a correlation between pupil absenteeism and Mid-Day
Meals Scheme. As head teachers and teachers perceived that pupil absenteeism had
been reducing after the introduction of the scheme.

8. The quantity of meals served under the Mid-Day Meal Scheme in general, was
sufficient to fulfil the needs of the children. But many students did not find the
meals sufficient to fill their bellies therefore they brought meals from their homes
also.
9. Majority of the respondents also perceived that school meals programme had positive effects on the physical health of the students. As the nutritional status of pupils was improving after the introduction of the scheme they also supported that the weight was improving and number of underweight children was decreasing. However a number of parents were not convinced by this and according to some others in fact poor quality food served in Mid-Day Meals had bad effects on students’ health.

10. The perceptions of the respondents also led us to conclude that academic achievement of pupils was improved as they could concentrate more and take more interest in studies because they no longer got hungry during the school. But some of the head teachers and teachers perceived a negative impact of this scheme on academic achievement of pupils as they paid more attention to meals and related activities in the school and because the teachers’ time for academic work was wasted on meals related activities. But parents did not support the negative effect of meals on academic achievement of pupils however, many parents did not accept any positive effect of Mid-Day Meals on academic achievement of pupils too.

11. It was also concluded on the basis of opinions of respondents that because of Mid-Day Meals pupils’ habits about health and hygiene were improving as they were learning about washing hands before and after the meals and personal hygiene and cleanliness of eating utensils and eating place. Moreover pupils ate peanuts, coconut, green vegetables and whole grams even when they did not like those, because they had become aware of their benefits. In some schools students’ habits about health and hygiene did not change as they were not guided by the teachers, while some teachers were of the view that there was no improvement in the habits
as students did not bother about hygiene. But if some attention was paid, the lunchtime routine could be used to impart various good habits to children, such as washing one’s hands before and after eating and eating in clean utensils.

12. It was further found that the habit of truancy among students had been reduced since the implementation of the Mid-Day Meals Scheme. Now children didn’t go to home during the lunch break for meals as they were already getting meals in their school, if in some cases students went to home for some reason they came back before meals were served.

13. Respondents also reported that there was timely delivery of food grains in all schools and grain supply was never ever late in the whole district. This indicated that Punjab government by making provisions of timely delivery the food grains in the schools was sincerely performing its duty.

14. In majority of the schools it was perceived that there was no effect of Mid-Day Meal Scheme on the academic work of teachers except the teacher incharge of Mid-Day Meals and the head teacher who rendered the whole responsibility. Furthermore it was also revealed that in case where Mid-day Meals was a collective responsibility, teachers had to pay more attention to Mid-Day Meal Scheme which affected the academic work of teachers, and many times distribution of meals during class time had wasted the academic time of the teachers. In most of the cases Mid-Day Meals was being served during the lunch break to save the academic time. But as some variety of meals took longer time to get cooked so in those cases meal was not served on fixed time but after the break. Students also found the lunch break as the right time to serve the meals and they wanted that meals should not be delayed after the lunch break.
15. Responses of the majority of respondents also indicated that generally pupils were served in the corridor of the school. But in the schools where corridors were not constructed pupils were served under the shadow of trees, whereas in some schools early primary students were served in their classes as it was difficult to manage them out of the class. In few schools sweepers cleaned the premises after the meals but in most of the schools nobody cleaned the premises after the meals as respondents felt that cleaning the premises every time was not easy.

16. Daily different types of meals were served in the schools of Bathinda district. A set menu was followed in all schools of the district i.e Monday: Roti and Sabji, Tuesday: Dal chawal, Wednesday: Roti and Black Channa, Thursday: Rice and karhi, Friday: Dal and Roti, Saturday: Sweet Rice. Moreover teachers and head teachers were not sure who decided the menu for Mid-Day Meals for their school.

17. In most of the schools students to cook ratio was 65 students per cook, as number of students was 100-200 and as per government recommendations they had appointed 2 to 3 cooks. The analysis of the perceptions also showed that in all schools students-cook ratio was as per the government’s recommendations. The cooks were unaware of the fact that they were appointed on the basis of the number of students to be served.

18. The social and communal harmony among the people of Punjab was also evident in the implementation of Mid-Day Meals Scheme from the fact that the upper caste parents had never objected to the cooking of food by lower caste cooks in the schools. It was also evident from the results that quality of food was the main concern of the parents as the cooks cooked well, so they had no problem with their castes. Teachers also did not discriminate against lower-caste children in the
distribution of meals in schools. Students of all castes were served meals together without any discrimination and students of all social backgrounds enjoyed the sharing of similar meals with their friends of different castes. Not a single case of parents’ objection on sharing of meals by their children with children of lower castes had been found in the schools. Most of the parents had never forbidden children to eat the meal at the school. Very few parents had forbidden their children to eat the meals at school because according to them the quality of meals was poor. Thus in case of Punjab the social evil of caste discrimination was not observed.

Furthermore, Mid-Day Meals had a positive effect on the spirit of social unity among pupils as students of different castes and social status sat and ate together during the Mid-Day Meals. Generally caste and class differences did not come into their mind while eating the similar food together.

19. It could not be ensured that the food served under Mid-Day Meals Scheme met the required calorific and protein value. As majority of the cooks did not know about calories and protein value of meals they cooked. Without the knowledge of calories and protein value, only serving fresh and seasonal vegetables was not enough to meet the required value. Furthermore, head teachers accepted that they did not have any system of assessing the nutritive value of the meals in their schools. It was evident that meals served under Mid-Day Meal Scheme except eradicating the hunger, had very few chances of combating malnutrition among the school going children. Head teachers accepted that government had made standard norms to include minimum quantity of vegetables, dal/lentils in the meals everyday, which were impossible to implement in schools. The respondents enlisted many causes behind it, like cooks were illiterate so they were unaware of the norms, they only
cooked according to average cost of meal per day per child which was fixed at 2.89 rupees by the government.

20. Meals were prepared in the school, by cooks appointed by head teachers with the help of Village Education Committee members except one case where cooked meal was supplied from the house of the head cook. Norm of appointing women cooks from the local community had been followed in all schools. Most of the cooks were poor women from SC/ST community and widows. As sufficient number of SC women were available for cooking so the schools did not experience any problem in the appointment of cooks.

21. Furthermore, it was opined that payments to cooks were made by cheques by head teachers on the basis of release of funds by the government. Payments to cooks were not made for last three months since the funds were not provided by the government but some of the head teachers were making few payments to cooks from their own pockets.

22. All the cooks liked their job of cooking and serving the kids in school however the job in comparison to other jobs was not attractive from the earning point of view. But they considered the job of serving small kids as a virtue. They got 10,000 rupees for 12 months, but did not get wages during vacations therefore their daily wages were only 28 rupees per day. This much of daily wages were less than wage rates recommended by the government which showed poor condition of Mid-Day Meal Scheme cooks in the district. Moreover most of the cooks had been working in the schools as cooks from last 1 to 5 years. Furthermore preparation of meals took around four-six hours depending on variety of meals they cooked on a particular day and distribution of meals every day took 15 to 30 minutes depending
upon the number of students. Whereas cooks also had to perform many more tasks like washing utensils, cutting and washing the vegetable these works also take time. It was also confirmed that cooks worked for five to six hours but their remunerations were very less as compared to their work.

23. Cooks were unaware of the basis of their selection whether it was their sex, caste, experience or economic status which was taken into consideration while appointing them as cook in the school. They opined that they were selected because they were known to the other cooks working in the school or because they were members of some Self Help Group.

24. Meals were not ever short in quantity. Cooked meal had been sufficient for all children & usually meals were left after serving all the children. Usually one or two chapattis and one or two serving spoons of sabji were served to children in Mid-Day Meals. Many times servings were not fixed & students were served as much they wanted when the meals were left extra just to finish the meals.

25. As per the perceptions of the respondents to provide quality and hygienic meals in schools proper care was taken at school as well as district administration level. At school level cooks took proper steps for cooking the meals. They started their cooking after cleaning the surroundings and washing the utensils daily in the morning or after cleaning the grains and keeping them in sun light. After that they peeled and cut the vegetables and after washing vegetables they cooked them. Moreover the government of Punjab was concerned about the quality of grains and tried to supply Fair Average Quality (FAQ) grains in schools. The quality of wheat was satisfactory but the quality of rice was not that good, whereas in some cases satisfaction with quality of both rice and wheat was evident. To ensure the quality
of meals served cooking and serving process was sometimes supervised by ABMs (Assistant Block Managers) Mid-Day Meals, Doctors and Padho Punjab workers. While the head teachers of schools supervised the cooking and serving process daily and even sometimes other teachers and mothers visiting the schools also stood nearby the cooks to check the cooking and serving process. Even head teachers or teacher incharges tasted the meals before serving to the students in order to ensure its quality. In many schools not only head teachers or teacher incharges tasted the meals but all the teachers tasted the meals every day.

26. Government had provided grains, storage bins, some utensils, LPG and chulha & even funds for ingredients & salaries for the meals programme. Kitchens were also constructed with the funds provided by the government. But the cooks complained that provisions made by the government were not sufficient for their salaries. Moreover, LPG chulha, cooking utensils, storage bins in different schools were also not sufficient. Whenever there was a problem regarding inadequacy of resources to meet the needs, those were arranged by cooks, head teachers & incharge Mid-Day Meals. Where contractor was responsible for meals he himself made arrangements to compensate for the inadequate resources.

27. As told by the respondents Self Help Groups with the help of head teachers were procuring ingredients from the market for Mid-Day Meals Scheme, but wherever contract system was prevailing, contractor of Mid-Day Meals was procuring the ingredients. The community also contributed in different ways to the Mid-Day Meal Scheme. Some schools borrowed ingredients from shops, when the funds were delayed and the community donated eating utensils or provided water from outside the school.
28. It was also revealed that children did not have to offer any type of help for meals preparation and distribution. Very small portion of students had only helped the cooks in making the students sit in lines for distribution of meals or once a while helped the cooks in taking *roties* from the kitchen for their class.

29. It was also found that LPG and firewood both type of fuels were used for different purposes. Cooks used firewood to make *chapaties* on firewood *chulha* and cooked *dal* and vegetables on LPG *chulha*. Cooks made all the arrangement of the firewood from surroundings or from the market and got the LPG cylinders refilled from the gas agency.

30. Most of the respondent parents had two children and remaining had only one child aged between 6-14 years. Views and perceptions of respondents also confirmed that all the parents who had children of age between 6 to 14 got their children enrolled in the school. Shorter distance of the school from their house and incentives like, fewer burden of fees, uniform and free meals for children in government school were the main factors behind parents’ decision to send their children to the government school. It was difficult for the poor parents to bear the expenses of private school therefore they attached their selection of school with direct benefits they got from the government school.

31. Parents did not accept that they send their children to school more often because meals were provided there but for their education. But parents accepted that Mid-Day Meals was a big help for the poor like them. Moreover students also did not accept that they go to school more often because meals were provided there, they expressed that they enjoyed studies and company of friends however they accepted that they enjoyed the meals provided by the school very much.
32. As per told by the respondents children used to go to school during all working days of a week. They could not attend the school during their illness, even though during their illness they wished to go to school. Even though parents wanted to send their children to school during vacations as school provided meals, education and as children played in front of teachers at the school therefore they had not to worry about their safety. But during vacations, the parents revealed, it was difficult to control them.

33. Parents did not accept that they had any economic benefit of this scheme. They reveled a number of causes behind it: meal served was not sufficient enough to fill the children’s bellies so parents had to pack the meals for school, children only ate selected items in school, they usually took meals from their home, children ate very few types of meals which were not financially difficult to afford for the parents. When they cooked for their self they could also cook for their children. But there was a major portion of parents who accepted that Mid-Day Meals Scheme had economical benefits to them. It had relieved them from the tension of preparing every morning the meals for their children.

34. Stakeholders perceived that quality of the school meals was not satisfactory as compared to the home cooked meals. For some of them, not the quality but variety of meals was better than the home cooked meals. Moreover for some parents there was no significant difference in the quality of the school meals as compared to the home cooked meals. The schools which were providing the quality of meals near to home cooked meal were appreciable. Overall Mid-Day Meal served in schools was hygienic and was of satisfactory quality. As children had never ever become sick after eating the school meals except one or two instances when children felt
stomach ache after eating food or felt nausea after eating food. Majority of the children did not bring the meals from school to home. This indicated that children liked the meals served in the school and they consumed the meals at school.

35. It was expected that the responsibility of daily serving of the meals needed the physical involvement of teachers, which directly or indirectly could affect the teacher absenteeism. But this view point was not supported by parents’ perceptions. They opined that there was no link between the Mid-Day Meal Scheme and teacher absenteeism and perceived no change in teacher absenteeism after the introduction of the scheme.

36. Mothers told that they did not supervise the preparation and serving of meals in the schools except few who had supervised the preparation and serving of meal when they went to school for some work. Majority of mothers were willing to supervise the preparation and serving of meals if they got time to do so whereas, few mothers were also there who were not interested in supervision of the preparation and serving of meals even if they got time.

37. Majority of the students liked the meals served under the scheme; they liked different items served in Mid-Day Meals, especially the rice served in Mid-Day Meals as mothers did not cook rice at home. But few students were also there who did not ever like to eat the meals served under this scheme because, they did not like the taste of meals and according to them meal was not hygienic and sometimes worms were found in the rice. It was also reported that sometimes meal was overcooked and sometimes undercooked and some of the respondent students did not like sweet rice and *dal* served under this scheme.

38. Majority of the students revealed that they ate nothing in breakfast except a cup of
tea or glass of milk in the morning, few ate only one *prantha* in breakfast whereas some ate nothing in breakfast and came empty stomach in school. Children can concentrate more on studies only if they are well fed. Therefore there was a dire need of serving Mid-Day Meals in school. Hungry and under nutritious child is less active and responds less in class than other children. If the child is not fed well his or her learning will be hinded as he or she will not be able to concentrate. Students could pay more attention to studies after taking the meals. They told that they felt more active and felt good after the meals. According to their perception, this scheme had made positive impact on their classroom learning in the school and when they were hungry; they did not like to learn but after meals they got their bellies filled and they learnt well.

39. Every student felt that Mid-Day Meal Scheme was not wastage of time. Students were worried that they would be left hungry without Mid-Day Meals. Students liked the meals and they did not feel that it was mere wastage of time. All students wanted Mid-Day Meal Scheme to be continued and said that it should not be discontinued whether, they liked to eat meals or not. Thus Mid-Day Meal Scheme had attraction for the targeted population i.e students.

40. The students wanted some changes and gave different suggestions to make the scheme more attractive. Some students requested to serve *aloo puri* or *channa puri* once a week, some requested to serve *kheer* or *kdah parshad (Halwa)* instead of sweet rice and some suggested replacing *Rajmah* with *Dal*.

### 5.2.4 Conclusions on the Basis of Case Studies:

1. The Mid-Day Meal Scheme of government of India was found to work well in the Bathinda district of Punjab. Food Grains were supplied to the school by the
government. Cooks were appointed properly and in most of the cases the food was prepared in the school and was served fresh to the students.

2. *Karhi, Rice, Moong Dal, Chapaties, Petha sabji, Kheer, sweet rice, Channa dal, Channa sabji* were found to be served in the Mid-Day Meals in the schools of Bathinda district. The food served appeared to be tasty and fresh. It was served to the students while sitting in lines.

3. Head teachers and teachers personally looked into the distribution of meals. In some of the cases, meals served was sufficient and students got second servings also. However in most of the cases the students were not satisfied with the quantity of meals served and brought some quantity of meals from their homes also. But most of the students and parents appreciated the provision of Mid-Day Meals.

4. Further it was also observed that in some cases where separate kitchens were not constructed in schools food was cooked in class rooms were used as kitchens or the food was being cooked by the cooks at their homes, whereas in some other cases the kitchens constructed were very small in size and the cooking process could not be carried out easily in them.

5. Further, storage facility was not found to be satisfactory in most of the schools. As there were no proper storage rooms in some of the schools for storing the food grains and other food items. Storage containers were found to be small in some cases and the grains were kept in jute bags.

6. Moreover, there was no proper supply of drinking water in some schools even the clean water needed for cooking was not easily available at some places. There were no proper taps in the kitchens. As no proper water storage facility was available in the kitchen of some schools. At some places, the investigator observed that even the
drinking water was being continuously wasted due to lack of taps on the pipes. Therefore the supply and storage of water for drinking and cooking needs lots of improvements in it.

7. Other irregularities observed in the implementation of Mid-Day Meal Scheme were: serving the meals late, unequal distribution of meals, irresponsible behaviour of the teachers in some cases, insufficient quantity of food, lack of proper place for cooking and serving the meals.

8. In some cases, the head cook was given full freedom to appoint the cooks, store the grains and cook the meals which may bring some unsatisfactory results. In many cases, the leftover food was taken to their home by the cooks whereas in some other cases cooks were also found to be insincere.

9. As far as various best practices and limitations of the scheme are concerned no significant differences were observed in the working of Mid-Day Meal Scheme in the rural and urban schools of Bathinda District.

Hence, we can conclude that as a school feeding programme Mid-Day Meals is among the most beneficial ways of using food aid for education; it responds to an immediate need on the part of children and parents, it is well liked by beneficiaries: it is people centered and benefits directly the most needy part of the population; and it is a way of channeling food to a large number of needy children. Since, it operates through one of the most extensively developed social service system, namely schools.

It is further concluded that the pattern of operational difficulties observed in the present study was in no way different from what was seen generally in earlier evaluation studies of several ‘supplementary feeding programmes’ in the country. The constraints of the inputs were short of supply of food, interruption of funds and inferior
quality of food (occasional), inadequate facilities for storing, cooking, low contingent and honorarium amounts etc.

Notwithstanding some of these problems, the results of the present study indicate that the programme is not without benefits, it has immense potential to improve the nutritional as well as the educational status of children provided the programme is strengthen by increasing the inputs and removing the bottle necks observed.

5.3 IMPLICATIONS OF THE STUDY AND SUGGESTIVE MEASURES TO FURTHER IMPROVE THE MID-DAY MEAL SCHEME:

The basic purpose behind the present research work has been to examine and evaluate the actual performance of Mid-Day Meal Scheme in Bathinda Distt. of Punjab, through broad-based assessment of the process of implementation of the scheme by doing an in-depth analysis of the situation. The already stated conclusions of the study reflect that this initiative of government of India has major impact on child nutrition, school attendance and social equity. However, issues related to provision of basic infrastructure, funding and quality which includes taste and variety of meals need urgent attention if Mid-Day Meals Scheme has to realise its full potential. The investigator has proposed the following implications of the research study along with the measures to further improve the present Mid-Day Meal Scheme:

1. The study shows that water for washing hands and utensils before and after the meals was not available in sufficient quantity in school and schools were facing loss of food grains and cooking material due to lack of infrastructure. Thus it has been suggested that for smooth functioning of the Mid-Day Meal Scheme the physical infrastructure requires urgent attention. Unavailability of drinking water created
problems in many schools. Therefore quality drinking water is also the area of concern and it should be addressed soon as possible.

2. Even though food grains supplied by the Food Corporation of India through PUNSUP are being used for Mid-Day Meal Scheme, yet there are few complaints about quality of food grains. It is recommended that government should make arrangements for supplying schools with still better quality of rice.

3. The quality and quantity of nutrients of food items should be maintained by following a standardized recepies for all food items across all schools.

4. Bottlenecks coming in the way for the smooth and continuous flow of funds should also be removed. Irregularity of funding process discourages constructive initiatives. As the study showed cooks were not committed and well protected with remunerations. Best cooks are not joining the schools for cooking due to meager payments. Therefore their remunerations should be increased and well trained cooks should be selected in the schools.

5. A vibrant school-community network must be promoted and possible opportunities for community participation especially for mothers in monitoring the working of the Mid-Day Meal Scheme should be considered on priority basis. Parents Teachers Association needs to be asked to shoulder responsibilities beyond its normal domain.

6. The amount spent per student per day on the meals may be increased as soon as possible to make the things easier for the school administrators.

7. The study clearly indicated that many times head teachers or teachers had to make all the expenses or arrange ingredients by borrowing from shops. Therefore there is need of depositing security money for the expenses for running the scheme for atleast three months smoothly.
8. Cooks should be given training for cooking specified items in the menu and handling of ingredients to avoid loss of nutrients, over cooking and ensure hygiene.

9. It is clear from the study that some students felt quantity of the meal served was not sufficient. Therefore it is suggested that quantity of meals per student per day may be increased as per requirement and steps should be taken to ensure serving of prescribed quantity to each child.

10. Many schools did not have eating plates therefore the children brought bowls or plates or lunch boxes from their homes or ate on papers torn from the note books. In this way serving of proper quantity of meals is difficult to maintain as sometimes utensils are small or are not according to nature of meals served. Moreover it is not hygienic too. Therefore there is need to provide eating utensils to schools.

11. Some schools had to face theft of LPG cylinders, food grains, cooking utensils and destroy of firewood *chulha* due to lack of infrastructure. It is recommended that fencing of schools should be done as soon as possible and proper locking system should be created to avoid the loss.

12. In schools, after the meals, no one bothers for cleaning the eating premises. There is need of appointing a sweeper or responsibility of cleaning the premises should be given to cooks to maintain a healthy academic environment in the school.

13. Mid-Day Meal time can be used effectively for improving pupils’ habits about health and hygiene. Therefore there is need to orient teachers to guide and train pupils’ for personal hygiene and cleanliness of utensils and eating plates.

14. This study indicates that majority of children were completely dependent on school meal. Hence there was a need to educate children and mothers with respect to importance of breakfast in classroom attention and concentration, as long time
fasting would deprive seriously the learning abilities of children. But it cannot be denied that school meal is attracting the children towards school.

15. The students wanted some changes and gave different suggestions to make the scheme more attractive. Through the study it is very clear jaggary rice (sweet rice) served on every Saturday is not liked by pupils so it should be stopped and instead of it *kheer* or *halwa* should be introduced. Moreover as asked by many students *Rajmah* should also be introduced in the menu.

16. The study has brought this fact into light that where separate kitchens were not constructed in schools food was cooked in class rooms or at cooks’ homes, whereas in some other cases the kitchens constructed were very small in size and the cooking process could not be carried out easily. Therefore there is need to construct the spacious kitchens in all schools so that large scale cooking can be done easily. Cooking at homes of cooks should not be permitted, as the supervision of cooking process is not easy in that case.

**5.4 SUGGESTIONS FOR FURTHER RESEARCH:**

1. The present investigation was undertaken at the district level, replicative studies of the present study may also be conducted at the state level.

2. Comparative studies of different districts of Punjab may also be carried out to compare the working of Mid-Day Meals Scheme. Further the effectiveness and problems faced in the implementation of Mid-Day Meals Scheme should also be comparatively studied in those districts.

3. Replicative studies of the present study should be carried out in other districts of the different states of the country also in order to evaluate the effectiveness and problems faced in the implementation of Mid-Day Meal Scheme in these districts.
4. After the introduction of Mid-Day Meals Scheme some important impacts were noticed and improvement in nutritional status of the children was one of those impacts. A detailed study of effects of Mid-Day Meal Scheme on health of the children should also be carried out.

5. Mid-Day Meal Scheme gave relief to parents from the responsibility to serve their children during school time, which had positive impact on parents’ willingness to send their children to schools daily and in reducing dropout rate and child labour indirectly. A Comparative study of other incentive schemes may also be conducted to study their relative effectiveness.

6. In the present study, the views and perceptions of different groups of respondents towards various issues related to Mid-Day Meal Scheme were studied by including only the Head Teachers, Teachers, Cooks, Students and their Parents. A similar study may also be conducted to study the views and perceptions of other sections of society as well.

7. Due to the lack of availability of detailed official record of the overall enrollment, retention and school attendance rate and gender wise data before cooked meals system was introduced, a comparative study of these variables before and after the implementation of cooked Mid-Day Meals could not be possible at primary level. But this comparison could be done at secondary level as the scheme in secondary schools has recently been implemented.

8. A school meal programme is now a standard welfare measure for school going children in many countries across the world. A comparative study of school meals provided in different countries may also be conducted.
9. The present study was confined to the benefits of Mid-Day Meal Scheme to the stakeholders i.e. parents & students. Further research may also be carried out to study the employment generation benefits of Mid-Day Meals.

10. There are some differences in the system of cooking and serving of meals in different districts of Punjab. A comparative study of districts providing meals through centralized kitchens established by NGOs and districts providing meals through cooking done at schools by SHGs may also be conducted to study their relative effectiveness.