As mentioned previously, the intervention module was developed. The researcher trained teachers in a small group before starting the intervention. Training and feedback to the teachers took place in the pilot phase of the study and necessary alteration was done in the main intervention programme. Training on a one-on-one basis was given to the concerned class teacher throughout the intervention period. In turn, the teacher successfully implemented the intervention in a regular classroom which constituted children from Class IV in Hindi Medium Primary School and brought up positive impact on both children and the teacher. It has been already discussed in previous chapters how the intervention programme altered attitude and perception of the implementer of the programme (i.e., the teacher) and how the intervention programme affected children’s learning outcomes.

While developing and planning the present intervention programme, components were integrated from new researches in the field, theoretical understanding and teaching-learning models practiced in the field. Therefore, the present study incorporated several approaches to make an effective intervention, especially for children with LPs and LDs. For example, whole classroom approach, child-centred teaching-learning approach, group intervention, peer-assisted and cooperative learning, multi-sensory approach of teaching-learning, integration of linguistic components, and organic and experiential approaches were integrated for planning the intervention programme. In the following section, all these components of the intervention
programme have been discussed in relation to the findings of the present study and related existing literatures have been mentioned as a frame of reference.

**Intervention Programme for Children with Learning Problems/Disabilities**

The classroom comprised of diverse group of children and their needs. Therefore, before implementing the whole classroom based intervention programme, it was necessary for teachers and other school authorities to understand their needs and requirement. Following were the crucial factors that were taken care of prior to giving training in specific teaching-learning strategies.

Before starting the intervention, training was given to strengthen pre requisites literacy skills, for instance, alphabetic word reading and phonetic skills in children to ensure that they pick up the basic reading skills. Training in these areas was continued during the course of intervention as well depending on the needs of the child. For improving children’s academic performance at primary grade, instruction in subject matter is needed (William, et al., 2009). Therefore, in the present study, apart from the enhancement of the reading comprehension of narrative text, training was also given for the content knowledge of Science and Social Science. The nature of stories and informational lessons differs from Science and Social Science subjects. The stories follow a pattern and sequence (the hero, problem, settings, place and steps to solve the problem), whereas the expository text does not have such pattern. Therefore, readers find difficult to remember a big chunk of information (Gajria, et al., 2007).

The main aim of the present intervention programme was to improve reading comprehension of children with learning problems by utilising general school teachers as an implementer of the study. The process of reading was aimed at creating independent readers. An individual’s ability to read text of her/his own choice, on her/his own and comprehend the meaning; is referred
as an independent reader. The use of GO approach (story mapping technique and conceptual maps) encouraged children to think independently (Drapeau, 2009). It was not happening in the classroom prior to the implementation of the intervention programme. After introducing the intervention programme, it became possible for children to think independently as they perceived and felt that their opinion and views were heard, considered and respected. For instance, instead of asking them to follow a fixed pattern of story maps and conceptual maps, they were encouraged to create new and unique form of graphic representation for both narrative and expository text.

**Training in Cognitive and Meta-cognitive Skills:**

Reading acquisition as well as reading impairment in children is influenced by several cognitive and meta-cognitive factors (Verhoeven, Reitsma and Siegel, 2011). Therefore, before implementing the actual intervention programme, it was necessary to prepare children for the programme, which required activation of many cognitive components. Children’s reading acquisition has been well addressed in reference to information-processing theories. It has been found that inappropriate information-processing by readers lead to limited word reading and reading comprehension skills in them (Radach, Kennedy and Rayner, 2004).

Several cognitive factors on the part of children, for instance, poor attention (Adams and Snowling, 2001), auditory perception (Tallal, 2000) and visual perception (Ramus, 2001) adversely affect reading development in children. In spite of posing cognition needed for reading, a reader fails to adequately comprehend the text due to lack of awareness about their cognitive processes, for instance, which cognitive strategies, when and where to use them (referred as meta-cognition) (Grabe, 2009). Thus, the present study focused on the enhancement of meta-cognitive skills along with cognitive skills that facilitated understanding of text in a better way by developing several strategies, for example, setting goal of reading, posing relevant questions about the lessons, monitoring thinking while answering story mapping technique questions, creating story maps and conceptual maps, use of
mental schema while summarising more information, drawing inferences, awareness of most important information and less important information, creating mental schema before making drawings on the paper, and awareness of text structure (details are mentioned in Chapter 4 where the content of the intervention programme has been described).

Graphic organisers promote critical and creative thinking in children which further facilitates development of cognitive and meta-cognitive skills (Drapeau, 2009). In several studies where different meta-cognitive components were added with story elements, for example, Short and Ryan (1984) added training in generating six questions (who, what, when, where, why and how) about story grammar and struggling readers’ achievement was improved up to 20% in comparison of using only story grammar components. Therrien, Wickstorm and Jones (2006) trained poor readers to generate questions based on story structures after reading the stories and answers were provided by children orally. Children in the current study exhibited significant improvement in terms of providing answers of literal and inferential questions towards the end of the intervention. In addition, improvement was also seen in reading speed and reading fluency. Self-questioning was used by Faggella-Luby, Schumaker, and Descher, (2007) and Tylor, Alber and Walker, (2002), resulted in enhanced meta-cognitive skills of children. It has been reported by National Reading Panel (2000) that when readers are taught meta-cognitive strategies, their cognition is also enhanced.

**Multisensory Approach:**

In order to make children’s learning richer and appealing for them a multisensory approach was followed where three senses (auditory, visual and kinaesthetic) were integrated. This approach is an effective tool for children’s learning (Jubran, 2012). A study by Joshi, Dahlgren and Boulware-Gooden (2002), examined the effect of multisensory approach (auditory, visual, and kinesthetic) based on Orton-Gillingham method resulted as an effective approach for improving children’s reading. The treatment group showed significant gain in phonological awareness, decoding, and reading
comprehension skills of children while control group students exhibited improvement only in the domain of reading comprehension. In Indian classroom setting, Narayanan (2013) used similar approach for teaching children with LDs and LPs and got positive result.

Teaching-learning Approach Practiced in the Classroom

Teaching-learning strategies practiced by teachers in classroom also have impact on children’s reading outcomes. Keeping this in mind, before starting the implementation of the intervention programme, training was given to teachers about how to deal with children effectively and how to manage classroom efficiently. In the classroom setting, teachers follow a certain approach to teach children, which is either mechanical or strategic in nature that has an impact on children’s reading achievement. It has also been found that teachers who practiced teaching-learning approach which is mechanical in nature lead to poor reading comprehension among children in comparison to strategic approach of teaching-learning practiced by them (Taylor et al., 2003). There are various components related to teachers and teaching-learning approach that influenced children’s learning; teaching in small groups, integration of strategic skills for promoting reading comprehension skill and strategies appropriately modelled and coached by teachers, ensured children’s learning. In addition, teachers who focused on higher-order thinking skills resulted in gain in reading achievement [ibid]. Therefore, in the present study, training was given about specific strategies for the promotion of higher-order thinking (meta-cognition), which is necessary for reading comprehension.

In order to understand text, children need more occasions, where they can engage themselves with the reading of text-material (Levy, 2011). While using story mapping technique and generating conceptual maps, children spent more time reading text in order to answer questions and drawing maps for it. Daily practice of independent reading benefited children in several aspects, for example, acquiring experience to make use of important skills and ability to develop awareness that reading cannot only be informational; at the same time, it can be enjoyable too. This practice in the school hour was more effective as these children had middle and low socio-economic background where there
was least encouragement from parents and other family members to read on their own at home. So, in this context, children do not really get time or environment to read on their own at home. It is not completely right to say that inappropriate teaching-learning approach could be the reason for children’s under achievements. But this perspective enforces to consider factors related to school environment (curriculum, teaching-learning approach and time provided for learning) which can be altered and monitored.

The constructivist approach of teaching-learning method was followed. Thus, in the present study, children were not given direct instruction for doing sessions. They did tasks as per their own knowledge and skills by putting their own effort. They were facilitated by the teachers and peers if they had any difficulties in doing tasks of reading comprehension (both narrative and expository). It was noticed in the course of the intervention sessions that all children (especially the struggling ones) were not able to learn effectively without instruction provided by the teacher. They also faced difficulties in reading acquisition due to lack of explicit instruction needed for appropriate decoding of text (Harris and Graham 1996). Children who failed to cope without teacher’s direction, gained in learning when instructions were made explicit to them. Therefore, direct teaching was very effective for the development of basal reading skills; especially for children with learning difficulties (Swanson 1999b). Studies have been suggested that struggling readers show better performance in classroom based intervention programmes as it gave them opportunity to engage in reading process with a group of children similar to their own reading levels. In the classroom programme, weak children get opportunities to engage in challenging tasks as they are also supported by their more experienced peers, which is otherwise very difficult for struggling readers (Ehri, et al., 2007; Taylor et al., 2000 and Narayanan, 2013). Class IV children with LPs, with LDs, and with low IQ, exhibited wide-ranging difficulties in the domain of reading; thus, direct support was effective for them. In addition, children under the normal range (those who were performing academically well) who were able to read text and learn from it,
also required direct instruction for vocabulary and reading comprehension (Torgesen et al., 2007).

**Peer-assisted/ and Cooperative Learning:**

Several approaches were adopted to teach children who were struggling with reading in the classroom. As it has been mentioned earlier that children were helped by their more experienced peers in the classroom as it was not always possible for the class teacher to give individual attention to each and every child. Therefore, resources easily available in the classroom setting were utilised to ensure optimum learning in children. In several sessions, small groups were formed (2–4 members) in order to complete the task. So, support was provided by children in the classroom, which enlarged the boundary of all the children’s learning, a Vygotsky’s concept of zone of proximal development (ZPD). In this regard, a research synthesis presented by Okilwa and Shelby (2010) suggested that peer tutoring showed positive impact on academic performance of children with disabilities in general as well as special classroom settings. In other studies, peer-mediated reading strategies has been found to be effective for improving specific reading skills in children, for instance, phoneme segmentation, non-sense words and oral reading fluency (Calhoon, et al., 2007), word identification, word attack, and passage comprehension Calhoon (2005) and performance across school subjects: Language, Mathematics, Science and Social Studies Okilwa and Shelby (2010). At the same time, children without learning problems who offer support to their weak peers are also benefited in this process (Cushing and Kennedy, 1997). Therefore, peer-assisted learning approach is reciprocal approach, where the one who is serving support and the one who is receiving support are benefited. As mentioned earlier, the intervention programme was based on whole classroom approach, where a large number of children were dealt together. In order to make it effective, children were divided into small groups and children with reading problems were given more attention, such as intervention given on one-to-one basis and in small groups had showed positive impact (Wanzek and Vaughn, 2007).
Duration of the Intervention Programme

The need of intensive intervention has been suggested by response to intervention (RTI) for children who academically lag behind in spite of posing necessary cognitive skills. There is a strong relation between duration of the intervention programme (number of sessions, duration of every sessions, frequency of the intervention and the total period for which intervene is being carried out) and its effectiveness. Few studies in this domain have studied direct effect of duration of the intervention on the effectiveness of the programme (Jitendra et al., 2004 and Wanzek et al., 2006). A recent study conducted in Indian school setting by Narayanan (2013), who planned and implemented an intensive whole classroom based intervention programme for children who had difficulties in reading acquisition (focused on the enhancement of all reading skills) by following the information-processing approach. The intervention was implemented by the regular school teacher after giving training by the researcher. The programme was delivered on daily basis (total 78 sessions of 50 minutes each) over the period of 13 weeks. The results showed that teachers successfully implemented the intervention and improvement was seen in children’s learning outcomes, as measured by the researcher and performance in final examination. There is no such fixed rule as to how long an intervention should be last for in order to assure its effectiveness. Vaughan, Denton and Fletcher (2010) reviewed several studies and reported that findings did not clearly show that “increasing the amount of treatment of a relatively low-intensity intervention by a small amount is associated with improved outcomes”. They also noticed that intervention delivered for the period ranging between 8–16 weeks (on daily basis for around 2 hours), resulted in remarkable improvement in performance of children with severe reading problems. Jitendra et al. (2004) also studied the effect of the duration of the intervention programme on learning outcomes of children with reading disability. They provided Read Well Instructions for 2–7 weeks for one year and improvement was seen in reading fluency. In the next year, duration of the intervention was increased (2–16 weeks), which led to enhancement of more reading components (e.g., spelling and comprehension).
of children. Therefore, the high gains in children could be due to increased intensity and duration of the intervention. The duration of the intervention programme is also associated with the severity of the children’s difficulties. Children with severe learning impairment need more time of intervention (Vaughan, Denton and Fletcher, 2010).

**The Role of the Implementer of the Study: the Teacher**

The role of the implementer of the present intervention programme was double; as the participant and/or learner in the teacher-training programme and as well as implementer/teacher/facilitator of the intervention programme. The effectiveness of the implementation is highly dependent on the role of the implementer (Scanlon et al., 2008). There are various factors on the part of the implementer, for instance, knowledge, beliefs and personal attributes, which impact the intervention process and so as the outcome [ibid]. On the basis of the interviews with teachers and classroom observation, it was evident that teachers had stereotypical views towards struggling children and causes behind their poor performance. Therefore, the initial teacher-training was aimed at addressing their existing thoughts, beliefs and practices. For effective teacher-training, Brownell et al., (2013), has presented reviews of evidence-based studies and suggested several features of the programme in order to enrich teachers’ professional development skills for the implementation of the intervention programme; focus on content knowledge, opportunities for active learning, coherence, duration and collective participation. Thus, the teacher-training in the present study integrated all these components. In reference to the first point (content), teachers in the study were qualified (D.Ed. and B.Ed.) for teaching primary school children as well as they had considerable years of teaching experience, so, they had knowledge of the content of the curriculum. Therefore, content of the curriculum aspect was not included in the training. But the training mainly focused on the strategies of the intervention programme and its implementation.

As mentioned earlier, the teacher-training was provided by the researcher (occurred in the form of workshop), where teachers were given
opportunities to actively participate in learning process by engaging in discussion, activities, role play, etc. Therefore, the researcher tried to incorporate all the strategies during the teacher-training that were expected from teachers to execute while teaching children, e.g., open discussion, learner-centred approach, non-threatening and healthy teacher-child interaction and experiential and joyful learning, etc. (details are mentioned in Chapter 5). Maldonado (2002) has presented findings from several researches for effective professional development skills for teachers from Grade K–12. He mentions that like children, teachers also do not learn any strategy efficiently in one trial. So, teachers’ participation in any workshop for professional development does not really guarantee mastery over strategies that are likely to be effectively used in the natural settings. Thus, they were given opportunities for practice during the sessions on each other and assess each others’ performance. Then, implementation of strategies was done in natural settings and assistance was offered throughout the intervention period when there was the need. It was very challenging for the researcher to change teacher’s existing beliefs and faith towards teaching-learning approach, children and the intervention programme and translating it into the practice.

Teacher-training also included basic skills for effective classroom management, awareness about children’s learning related disabilities and difficulties and possible causes, and objective of the intervention programme and teachers’ possible role throughout the journey of implementation of the programme. Further, implementation of the actual intervention was done on a regular basis. Needed support was also provided in weekly meetings. Teacher’s learning during the teacher-training (professional development) depends on factors related to classroom context (curriculum, support provided by the school, interaction with colleagues in the same school settings) (Brownell et al., 2013). Referring to the present study, school authorities and other teachers in the school were open to accept the change and thus fully cooperated, which made the tasks easy for class teacher to accept change and execute the same in daily teaching. Teachers learn professional skills
efficiently when interactions occur between their personal factors and contextual factors [ibid].

Integration of the new strategies learnt during the teacher-training programme depends on the teacher’s ability to retrospect the teaching-learning approach practiced by them earlier and need of children in reference to newly acquired strategies. Further, teachers’ ability to retrospect influenced by their understanding about educational practices and curriculum, understanding about teaching and learning approaches, eagerness to learn new things, willingness to accept change, determination for using new strategies for teaching children (Brownell et al., 2013). Therefore, in order to execute acquired professional development skills in the natural settings effectively and efficiently, constant monitoring and assistance is needed in the process of implementation (Brownell et al., 2013). Hence, the focus of the ongoing teacher-training was to bring changes in teachers on a personal level by changing their beliefs, perception, and attitudes. It also helped teachers to sharpen their professional development skills by offering assistance when needed and by monitoring the implementation process and feedback was also given to the implementer of the study (Durlak and DuPre, 2008). Whatever teachers were taught in the training programme was cogent with other training programmes in the field and taught strategies were pertinent to other circumstances too.

In reference to the duration of the training programme, a prolonged training is suggested. Amount of time spent for the professional development programme signifies its success (Garet, et al., 2001). An ongoing and extended teacher-training was provided throughout the intervention programme. In reference to the last point (collective participation), all primary school teachers participated in the workshop. Therefore, an interactive learning environment was created as all participants were from the same level and same school. As mentioned earlier that only Class IV teacher was the implementer of the intervention programme. After gaining experience in the workshop, other teachers were very eager to implement the new strategies in their classroom
for teaching-learning. At times, they would share problems encountered in their respective classroom with Class IV teacher and ask for assistance. So, teachers helped each other to bring change in their beliefs, behaviour and teaching-learning approach. It is also to be noted that such training was possible as this was a private school and management facilitated such training. In-service training is continuously provided in government funded schools. In spite of engagement with children, the learning outcomes remain poor for them.

The above discussions brought insight that features of the training programme which have been suggested in existing models were incorporated in the present study and assured empowerment of teachers’ professional development skills. Personal factors of teachers (beliefs, thought, perception, and knowledge) and contextual factors (related to school and curriculum) come into the play, which should be taken into the account. The National Curriculum Framework/NCF 2005 (NCERT) has emphasised on the constructivist approach of teaching-learning approach, which promotes learners to play central or key role in the process of learning and teachers facilitate the learning process in the educational settings; therefore, it is also applicable for teachers in pre-service training and in-service training. Referring to the teaching-learning in a regular classroom setting for addressing needs of diverse group of children, a teacher should be sensitive towards developing and maintaining a trust-worthy and mutual relationship with children. S/he needs ability to retrospect her/his behaviour towards children. A teacher should be able to accept and respect natural learning process of children and individual differences, as mentioned by (Jayaram, 2012). A teacher should also consider the prior knowledge (awareness of languages and dialects) of children acquired at home before formal educations as every language follow some rules (Priyadarshini, 2012).

**Impact of the Intervention Programme on Children’s Learning Outcome**

As mentioned earlier, the study mainly focussed on strengthening reading comprehension ability (both narrative and expository) of Class IV
children. In addition, training for the improvement of basic reading skills was also given for those children who needed, for example, spelling, vocabulary, alphabetic and phonological awareness. The classroom was comprised of diverse group of children. Improvement was seen across all groups of children from pre-test to post-test but the impact was not uniform.

**Reading Comprehension: Narrative and expository text**

It is clear from research review that reading without understanding meaning is of no use. Unfortunately, studies conducted in Indian classroom settings revealed that the teaching-learning approach practiced by regular teachers do not promise reading comprehension skills of children (Sinha, 2012). A study conducted on children coming from elite schools in Mumbai with good performance performed even lower than the average in public examination on comprehension of narrative as well as expository text. This gap in their performance could be stem from the fact that children lacked the ability to employ taught strategies to unfamiliar text due to poor comprehension ability (Narasimhan, 2004). Thus, understanding meaning of the text is of prime importance for children's academic success. There are two factors that predict children’s reading comprehension outcome; one is *process* (factors associated with children), which refers readers’ ability to decode, ability to draw inferences, functioning of working memory, how quickly the child processes information, ability to link text with the prior knowledge, and ability to monitor when and where to use what strategies (Mancilla-Martinez and Lesaux 2010; Pressley, 2000). The second important component is knowledge which signifies readers' mastery over word meanings and content knowledge of the text-material, awareness of language and print being read by the reader (Pressley, 2000; Kintsch and Rawson, 2004). Thus, the present study aimed at enhancing these two factors i.e., components related to the children as well as factors related to the text. Furthermore, the process of reading requires three components— the reader, the text and the activity. A reader comprehends text when interaction occurred among these three components (The RAND Reading Study Group 2002; Alexander and Jetton,
In the present study, children’s improved reading comprehension skill was the result of the compound effect of these factors.

Reading comprehension is a complex process where a reader assimilates various strategies to get meaning of the text, for instance, cognitive and metacognitive strategies necessary for reading, children's prior knowledge about the structure of the text and the subject matter (Block and Pressley, 2002; Kintsch and Rawson, 2007). The intervention programme incorporated primarily two approaches of graphic organisers (i.e., story mapping technique and conceptual maps), which encouraged children to think independently and made them active participants in creating knowledge.

The result showed that children learnt to identify important information (story elements) in the narrative text (Baumann and Bergeron, 1993; Idol and Croll, 1987). For example, asking questions to herself/himself regarding the story elements; characters, setting, problems faced by the characters, actions taken to solve the problems, and outcome. They also acquired skills to represent stories in the form of drawing or graphic organisers. These strategies enhanced children's ability to recall story elements and lead to improved reading comprehension; especially for LPs and LDs (The National Reading Panel, 2000). On the basis of interaction with children during the ongoing sessions and interview that took place after the completion of the story, it was evident that majority of children had internalised all elements of story mapping technique. Unfortunately, children who were performing poorly were slow at grasping and internalising knowledge of story elements; therefore, they were provided individualistic attention and sometimes direct instructions too. The intervention programme carried out by Montague, et al., 1990 (as cited by Rice 2006) had followed such an approach.

Children also acquired skills for generating questions and providing answers on their own before the reading, during the reading and after completing the reading text-material. This process impelled children to actively engage with reading material, assess their understanding about the text and form a mental schema. This strategy is an effective tool for children with
LDs (Vaughn, Gersten and Chard, 2000). The use of the graphic organisers helped children to summarise a large number for information in written form as well as translate into visual images. This process promoted children's engagement with the text-material as they read the text several times in order to concise the information. For summarising information, children write information in their own words and reorganise according to their own understanding. This process required ability to identify important information and ability to identify less important information. This skill is crucial for the enhancement of children's reading comprehension ability of narrative as well as expository text-material (Kamil, 2004; National Reading Panel, 2000).

Children also engaged in active participation in the teaching-learning process as they perceived and felt that their opinion and views were heard, considered and valued. For example, instead of asking them to follow a fixed graphic organisers or conceptual maps, they were encouraged to come up with new or individualistic form of drawing of stories and conceptual maps. In the ongoing sessions, children were given more chances to engage with the text. Research suggests that if weak readers would follow the strategies used by good readers then they will be benefited. For example, good readers engage a lot with written text. As a result, they are exposed to new words and information, text structure and get chance to monitor their understanding (Stanovich, 1986; Cunningham and Stanovich 1997). On the contrary, struggling readers engage less with text; therefore, do not learn new vocabulary and do not understand meaning of the text efficiently that develops into a disliking towards reading (Baker and Wigfield, 1999). During the training, children were given literacy instructions and more opportunities for independent reading which helped to improve text understanding (Deshler et al., 2001; Gersten, et al., 2001).

Interpretation of a text depends on its readers. Different readers can interpret the same text in different ways. It also happened that children were not expected and encouraged to depend on standard form of language while answering story elements rather they were encouraged to answer in their own
language according to their own understanding, thinking and feeling. During the analysis, grammatical errors were not considered while focus was not on the content, how original their ideas were, and how creatively they had represented. In the process of implementation of the intervention programme, the class teacher and the researcher did not give direct answers to the questions. Instead, they were facilitated to come up with answers that they were supposed to know. For instance, instead of directly teaching children to derive inferential comprehension answers they were given clues that helped them to arrive at right answers.

In order to make sense of the text, expert readers use several skills (Duke and Pearson, 2002; Paris, Wasik and Turnr, 1991). During the course of the intervention, children acquired different skills that are required for the comprehension of narrative and expository text, for instance, ability to identify central idea of the text, ability to generate questions and ability to find clues to get answers to questions, ability to summarise text, ability to present text in the form of visual image, ability to recognise unessential and unnecessary information, identifying important information, and drawing inferences etc., (Gersten, et al., 2001; National Reading Panel, 2000; RAND Reading Study Group, 2002). Children were taught to relate new information appearing in the text to their existing information. At many points of time, background knowledge of the text was provided. Children learnt to use past knowledge for answering comprehension based questions and for drawing inferences. Research suggested that prior knowledge related to topic helps children to comprehend text in a better manner (Gersten et al., 2001; Mancilla-Martinez and Lesaux 2010; Block and Pressley, 2002; Kintsch and Rawson, 2007).

Before introducing any new topic to the children, an open discussion was done where teachers and children discussed related information. By solely depending on the text information for introducing any new topic to children is not an effective way of teaching. Providing information initially by other means (e.g., discussion) makes children aware about background knowledge before the exposure of formal text (printed text) of the lesson Westwood (2008b). This is more applicable to the children with learning problems.
Several strategies are important for meaningful reading, for example, comprehension monitoring, use of graphic organisers, answering questions, text structure recognition, and summarisation. These can be taught to readers at every stage from K–12 as suggested by The National Reading Panel (2000). These strategies were modelled by the teacher by thinking aloud and by asking readers to explain the appropriate use of strategies. Discussion about meta-cognitive strategies i.e., how children think and how they extract meaning from text also promoted children’s learning that happened along with the discussion of subject content. During the classroom discussion, the main focus was on making connection between text-text, text-self and text-world. The most important aspect, opportunities were provided, so that children would use learnt skills independently with the help of scaffolding teaching. The effective comprehension strategies explained and modelled by teachers helped children to become strategic readers (Almasi, 2003; Pressley, 2002). It has been found that when specific strategies for comprehension are provided by teachers, children’s reading outcomes are improved (Carlisle and Rice, 2002). Children should be aware about which strategy to use, when and for what purpose which help to become strategic reader (Paris, Wasik, and Turner, 1991). The more focus was on the learning of children with LDs, LPs, and low IQ as struggling readers need to be taught these strategies as they are not very efficient about when and how to apply these strategies (Gersten et al., 2001).

After perceiving the structure of the text and knowing the purpose of the reading, children tailored which strategies to be used. For example, organisation of the narrative text (stories) is done by considering important story elements which depends on children's ability to link different components of a story and their understanding about the same Graesser, Olde and Klettke (ND). Contrary to this, expository text (lessons from Social Science and Science) comprised of complex concepts, domain specific vocabulary, and new text structures, which affect children's ability to find central theme, comprehend text and deal with large information. Thus, children faced difficulties in drawing inference of text being read (Saenz and Fuchs, 2001). In order to deal a large amount of information, children were
taught to create conceptual maps where substantial amount of information was represented in chunk and in precise way. Under this process children learnt to identify more important information and less important information. It also helped them to make connections among different elements of the lesson. Research suggested that when information is presented in a structured and sophisticated format, it becomes easier for readers to understand and remember (Ae-Hwa et al., 2004; Williams, 2005). It also reduces information processing demand. It was mentioned by the teacher that “...now children do their tasks in a proper way”. It means that, now children do not ask question regarding how to make drawings, what all information to be included so on and so forth. It showed that children had acquired strategies for organising, summarising important elements of the lesson and making connection among them. The intervention process induced creative skills in children as they tried their level best to come up with unique drawings and conceptual maps.

Creating conceptual maps was not merely putting information in different boxes. Perhaps, during the process of generating maps, children identify important information, different themes and sub-themes, find best and creative ways of representation. Therefore, tasks of generating maps promoted children’s engagement with information processing and higher order thinking skills led to improved reading comprehension.

**Strategies Transfer: Narrative Text Comprehension to Expository Text Comprehension**

The improvement was seen in children’s comprehension of narrative-text as well as expository text, as a result of the intervention programme. As it is known, the nature of narrative text (stories) and expository text (Science and Social Science lesson) are different, so as strategies and cognitive processes for comprehending these tasks. Comprehension of the expository text material is difficult than the comprehension of narrative text (Rice, 2006). As mentioned earlier, in order to train children for representing stories in the form of visual image, an extra component (i.e., drawing) was added with the story mapping technique. As it is found that graphic representation of information
help children to find link among different elements and draw inferences which lead to better recall of the events and information (Kim et al., 2004). Its effectiveness has been well established in researches. It helps readers to represent connection among different story elements and a large number of information in the form of visual image. This approach is effective for improving comprehension of normal children, children with LDs and children with LPs (Ae-Hwa et al., 2004; Williams, 2005). Therefore, addition of drawing along with story mapping technique served as a bridge that helped to transfer children’s acquired strategies of narrative text comprehension for the making conceptual maps for expository text, thus expository text comprehension was also increased.

**Connection between Reading Comprehension and Other Basic Reading Skills**

Reading skills cannot be seen in isolation. All reading components are interlinked. Reading text with comprehension is the result of the interaction between lower-level and higher-level processes. In order to perform higher-level process effectively, the lower-level processes are supposed to happen automatically (with minimal effort) (Grabe, 2009). For example, when children face difficulties in lower level reading skills and take too much time for it then their higher level of reading skills is also influenced. In other words, it has been found in researches that children who face problems in reading comprehension also tend to have poor skills in one or more of the following domain; word reading ability, limited vocabulary, decoding ability, fluency, phonological and alphabetic principles (Cromley and Azevedo, 2007; Carlisle and Rice, 2002; National Reading Panel, 2000). Deficit in any of these reading skills is related to weak reading comprehension of the child.

The pre-assessment test showed that children, who had poor comprehension ability, also exhibited weakness in the domain of basic reading skills. Therefore, apart from escalating children’s reading comprehension for
narrative and expository text, the intervention also focused on the enhancement of basic reading skills where children showed inefficiency. Improvement was seen in children's basic reading skills in the post-test assessment. The following section will deal with how basic reading skills contributed children's ability to comprehend text.

**Reading Comprehension and Phonological Awareness and Decoding:**

The pre-test assessment showed that children who were poor in comprehension also exhibited inefficiency in the awareness of symbol-sound connections and sound structure of words. Phonological awareness is also required for learning alphabetic principles (Van Kleeck, Gillam, and McFadden, 1998; National Reading Panel, 2000; Lam and McMaster, 2014). The ability to produce correct pronunciation of the words (refer as phonics) is the main component of decoding ability. For example, if children fail to decode text automatically, it means most of the cognitive resources are consumed by him/her for merely spell out the word. Therefore, very less cognitive resources are left for the use of understanding the text, which result in poor comprehension ability of the child (Klingner, Vaughn, and Boardman, 2007). In contrast, comprehension becomes easier when decoding happens automatically which requires easy recognition of letters and words (Kuhn and Stahl, 2003). Explicit training was given for the awareness of phonemic blending and phonemic segmentation (National Reading Panel, 2000; Stahl, 2001). Children increased engagement with the text made them to deal new words where they got opportunities to apply newly acquired phonemic principles. The post-test assessment showed improvement in phonological and decoding ability of children who lagged behind.

**Reading Comprehension and Fluency:**

The reading comprehension ability of a child influenced his/her reading fluency and vice versa (Kuhn and Stahl, 2003; National Reading Panel, 2000; Lam and McMaster, 2014). If a child's reading fluency skill is poor, consequently, s/he takes more time to read the text. By the time, the child will
finish reading a sentence, because of limited capacity of the working memory; s/he is likely to forget what the sentence all about. As a result, the reading comprehension ability is tending to adversely affected (Penner-Wilger, 2008; Abadiano and Turner, 2005). In the present study, children were given more time to engage with the text-material. In order to provide answers in the written form and creating conceptual maps, they had to read the same text several time (repeated reading). Repeated reading increases the reading fluency of children Gersten, et al., (2001). Thus, children become more familiar with the words (especially new/unfamiliar vocabulary) which enhanced their reading fluency ability. It was evident from classroom observation and time taken by them to finish the sessions and content of the answers. At last, the post-test assessment also resulted in the improved fluency skill.

**Reading Comprehension and Vocabulary:**

A child's knowledge of vocabulary is strongly related to reading comprehension (Joshi and Aaron (2000). In addition, it also contributes to speed of reading and decoding ability of the child [ibid]. A study conducted by Yildrim, Yildiz and Ates (2001), aimed at finding correlation between vocabulary and reading comprehension in reference to different types of text of Class V children. Result showed a medium correlation with narrative text comprehension while a strong correlation was found with expository text comprehension. Comprehension of the expository text was more dependent on the vocabulary than narrative text comprehension as vocabulary contributed more to the expository text comprehension in comparison to narrative text. If a child is able to decode words automatically but fails to understand the meaning of it (weak vocabulary), then reading comprehension ability of the child would be weakened. Moghadam, Zainal, and Ghaderpour (2012) presented a review and suggested that vocabulary knowledge is positively related to ability to understand text. There are two factors related to vocabulary; breadth (knowledge of the number of words) and depth of words. They also mentioned that “knowing an abundant vocabulary cannot assist learners a great deal if their comprehension is insubstantial and shallow” [ibid]. In other words, for
thorough understanding of the text, the knowledge of breadth and depth of vocabulary is required on the part of readers (Moghadam, Zainal, and Ghaderpour, 2012; Shen, 2008; Verhoeven, Reitsma, and Siegel, 2011).

A detail review presented by (Jayaram, 2012) argued that apart from providing instructions for strategic reading and learning and maintaining a literacy rich environment in the classroom, structured and explicit input is needed for enhancing basic or core reading skills, for instance, phonemic awareness, phonics, word recognition and vocabulary.

**Intervention in the Context of Language**

In the Chapter ‘Review of Literature’, the need and rationale of developing language based intervention programme has been already discussed. It is well known that reading strategies used by readers and problems faced by them vary according to the nature and characteristics of the language (Jamal and Monga, 2010). Most of the researches on reading problems of children with LPs and LDs have been done in Western countries and findings are generalised for other language learning. So, there is lack of intervention programme in Indian languages (especially Hindi language) as most of the intervention programmes for children with LDs and LPs are in English language. Due to different characteristic shared by both English and Hindi language, there is a need of specific intervention programme for specific linguistic features.

A research based on a comparison of two different languages i.e., Hindi and English, read by same dyslexic children, it was found that learning of Hindi language highly depended on mastering grapheme-phoneme correspondence (GPC) rules. Whereas, reading English language was based on using direct access strategies for reading. In order to strengthen GPC rules for learning, use of phonics approach was suggested by them (Gupta and Jamal 2006). The present study is based on the Hindi language which is alphasyllabic
in nature, its characteristics has been discussed in the Chapter ‘Review of Literature’.

Hindi being an *akshara*-based orthographic system which has many rules for ligature, for example, rules for using matras/vowels, joining matras/vowels with consonants, and joining consonants with consonants etc., which is related to week blending skills and phonological awareness in learners (Gupta, 2003). Similar findings have been reported in studies conducted on Kannada readers (Karanth, Mathew and Kurien, 2004). Therefore, Hindi readers with learning problems need training in the domain of GPC (Gupta and Jamal, 2006). It was also suggested that Hindi learners required training in the use of ligatures in order to sharpen their reading skills which further facilitate addressing spelling errors (Nag, 2011). Training in the phonological awareness and orthographic principles is required in Telugu language, which is also an *akshara* language (Duggirala, 2004) and in Kannada language (Nag and Snowling, 2011).

Despite of Hindi language being based on transparent orthographic system, children faced difficulties in reading. Children’s difficulties were mainly in the use of matras/vowels, and the use of blends which showed poor knowledge of phonological skills and orthographic principles. These problems were common in all groups of children but children with LDs, LPs, and low IQ had severe difficulties. Acknowledging the importance of these skills for successful reading, training was given in these domains apart from enhancing reading comprehension skills of children. Towards the end of the session, an improvement was seen in their performance and reduction was also noticed in errors committed by them.

During the classroom sessions, it was noted that children were able to read whole word correctly but faced difficulties in identifying the phonological components of the same word/s, which demanded training in the domain of GPC and phoneme segmentation in reference to the present study. Despite the transparent nature of the Hindi orthographic, children had to struggle in identifying components of sounds due to complexities of the language which
was also noted by Nag (2007) and Gupta (2004). It could also be the result of the kind of teaching-learning approach practiced in the classroom where there was least focus on the inherent vowel within each consonant. Furthermore, rules of blending and combining sounds were not taught explicitly. Direct training to the learners in these domains was provided which resulted in increased reading performance of children as noted by Nag (2011) too. Errors related to GPC and phoneme segment were reduced in post-test assessment and the teacher reported same changes even in their daily classroom activities in the present study.

**Final Thought:** Children cannot succeed academically without comprehending what they read. Thus, focusing on the enhancement of children’s ability to understand text in primary grades can have positive and lifelong effect on their learning achievement. The above discussion summarised the important points that should be taken care while planning intervention programme for children with LPs and LDs. A combination of various approaches, for instance, multiple strategies based instructions, peer-assisted learning, learner-centered approach, whole classroom approach and multi-sensory activities should be incorporated to ensure optimum learning in children. In addition, studies conducted in Indian setting (including the present study) brought an insight in to how to change the way children with LDs are perceived and contextualised. In addition, specific language components should also be considered while planning an intervention programme. Therefore, training for improving reading comprehension skill should be given in early grades so that children would be benefited throughout their life. The question raised could be that the changes observed are not necessarily due to the graphic organisers (story mapping technique and conceptual maps). The pre-requisite for reading has to be taken care of and the learning in group has to be facilitated for any school-based learning to take place. Contextualising is the backbone of ensuring learning in any setting. The cultural foundation of learning of Vygotsky (1978) cannot be ignored.

The present study is on lines with the model proposed by Narayanan (2013). She put forward a reciprocal model for classroom based intervention
programme, where the researcher trained teachers for addressing need and demands of children with learning problems and learning disabilities in regular classroom settings. Teachers, in turn, implemented the programme. So, input was given to both the teacher and the children simultaneously. Results showed positive impact on both teachers and children. The present study also utilised the same reciprocal model and yielded positive outcome in teachers as well as children of diverse nature in a regular classroom setting.