CHAPTER- II

REVIEW OF RELATED LITERATURE

2.1.0 INTRODUCTION

The present study was related to the Dyslexic children. In this study an attempt was made to identify dyslexic students studying in various schools of Nawanshahr and treating them with the help of Ron Davis and Eclectic Approaches. In this chapter research studies pertaining to the Dyslexia have been reviewed. Also studies related to the influence of Multisensory Structured Linguistic Method, Alphabetic Phonic Method, Behaviour Modification Method, Eclectic Approach and Ron Davis Approach on reading, spelling, word fluency and writing abilities of dyslexic students have been reviewed. These studies are given in the following captions.

2.2.0 DYSLEXIA

Jorm (1983) summarized that there seemed to be a causal link between antisocial behaviour and reading retardation: first, antisocial behaviour resulted in reading retardation, second that reading retardation caused antisocial behaviour and third, common causes such as family circumstances caused antisocial behaviour and/or reading retardation.

Khader and Rama (1988) designed a reading readiness programme for educable mentally retarded children and reported effectiveness in improving reading Kannada in an experiment.

Yuill and Oakhill (1988) designed a scheme which focused upon the band of children who fall within the normal range of cognitive ability yet fail to comprehend fully what they read. The authors break down the many skills needed to understand a text into manageable chunks: lexical elaboration, question generation and comprehension monitoring. Tasks were designed so as children can make links between the text and its meaning. Sessions last between 20-45 minutes, twice a week for four weeks. Previous studies by Yuill and Oakhill had shown that less skilled readers had difficulty in making inferences from text. They argue that word
recognition and decoding skills were not always adequate in developing good reading skills. The meanings of individual sentences and paragraphs have to be integrated so as to understand the main ideas of the text. It has been suggested that working memory plays a part in this skill. Yuill and Oakhill tested the effect of children’s reading comprehension using three types of intervention: 1. Inference skills training (this consisted of lexical inference, question generation and prediction); 2. Comprehension exercises; 3. Rapid decoding practice. The same narrative texts were used in all three intervention conditions. The experimenter saw children in groups of three to five, twice a week over three and a half weeks. Length of sessions varied from 20 to 45 minutes. Training sessions lasted slightly longer than control sessions, since subjects had to spend time thinking of questions, whereas the control group had precise tasks to perform that did not involve long periods of silence. This was an experimental study, rather than an evaluation of a separately devised project. The results showed that less skilled comprehenders were benefited from Inference Training more than skilled comprehenders. The authors concluded that for less skilled comprehenders Inference Training was both more beneficial and more helpful than decoding practice. However, comprehension exercises appeared to be as beneficial as Inference Training. This is of interest as few studies have tackled comprehension improvement directly. It is believed that children in the Inference Training groups gained new confidence and enjoyment from the reading tasks, and motivation was high relative to the repetitive tasks required in the decoding groups. However, observations showed that the decoding group found the rapid reading task challenging, and they had faster reading speeds. This suggests that less skilled comprehenders deficits were not a result of slow decoding.

**Mohite (1989)** developed a diagnostic tool for teachers to identify learning difficulties in spelling and reading. The instructional programme resulted in improving of spelling & reading skills of the experimental group.

**Rath (1991)** demonstrated an individualized instruction - training approach in improving reading skills and comprehension of students with learning difficulty

**France et al. (1993), Topping (1995, 2001), Watt and Topping (1993)** cued spelling was a procedure designed by Keith Topping and colleagues at the University of Dundee for two individuals working together. The pair might be parent and child
working at home or two children working together in school. In school, the children can be of the same or different age and spelling competence. They may remain in role as tutor and tutee, or the roles may reverse at intervals. Cued Spelling can also be used for whole-class tutoring. According to the authors, the technique consisted of 10 steps, 4 points to remember, and 2 reviews, a chart setting all this out can be downloaded from the website. The most accessible description of the method is in Topping (2001). He admitted that it looks rather complicated but maintained that you can train seven-year-olds to do it half an hour, it is a lot simpler than it looked. It was usually done three times a week for an initial trial period of six weeks. Each session took about 15 minutes. France et al. (1993) trained 47 parents as tutors, and gathered test data on 22 children who were Cued Spelling tutees and on 10 better spellers in the same class as a comparison group. Watt and Topping (1993) gathered similar data on 10 children tutored by their parents, with a comparison group of only 6. In both cases, the results were promising.

Collins (1996) in Bradford LEA the Better Reading Partnership developed out of the realisation that those experiencing difficulties in reading were not finding current strategies of simplifying text very helpful. Such approaches were found to result in poor quality learning and a heavy dependence on the teacher. The National Charity Volunteer Reading Help was a vital component in this partnership. They recruited adults from existing curriculum support staff and parent volunteers already helping in the school. The two-day training course included a direct observation using a one-way viewing facility. The ongoing training was supported by a project co-ordinator who met with the partners to discuss the development and progress pupils were making and consider new aspects of the reading process. The partners had already worked with 1649 children. The partners worked with the pupils for ten weeks. They read together for 15 minutes, three times a week. Each reading session followed a common structure of re-reading a known and familiar text, re-reading a book recently taken home, and introducing a new text. The focus was on the development of independent learning strategies. The reading partners were encouraged to discuss the text with the pupil and were trained to prompt the pupil to problem, solve difficulties and to develop reading behaviours that would have maximum pay-off. Bradford LEA carried out its own evaluation. The Suffolk reading
test was used to monitor the effectiveness of the programme for the cohort of pupils who took part in 1995-96. They made significant gains in the 10-week period.

**Bains (1997)** studied differential impact of various remedial strategies on reducing reading disability of dyslexic primary school children and one of her objective was to identify dyslexics from among primary school children studying in English medium schools of Chandigarh. She found that 14.63% of surveyed population suffered from dyslexia i.e. 30 out of 205 children.

**Umadevi (1997)** studied the effectiveness of remedial programme on improving reading comprehension skills of dyslexic children studying in standard 4th of English medium schools in Devangere city, the results of the study yielded significant positive improvement in the reading comprehension skills of the subjects.

**Moore and Wade (1998)** reported on a long-term follow-up of 121 former Reading Recovery children from seven schools in Australia and six in New Zealand, plus an equal number of matched comparison children from the same schools. The children were between 10 and 12 years old, and the former Reading Recovery children had experienced the initiative when they were six. The former Reading Recovery children wrote slightly longer texts and made significantly fewer errors in spelling, punctuation and grammar per 100 words, and the overall quality of their writing was rated significantly higher. Closer to home, the evaluation of the Basic Skills Agency’s Family Literacy Demonstration Programmes included assessments of the emergent or early writing of all the children in the study, 362 at the outset (when the children’s ages ranged between 3:00 and 6:11) and smaller numbers at the end of the courses and at three follow-up points. The assessments were made on a seven-point scale which was empirically derived from analysis of the over 900 scripts involved. The children made significant gains, which were judged by the evaluators to be better than would have been expected.

**Treiman et al. (1998)** examined the linguistic factors that influence children's performance on phonemic awareness tasks. They found that, contrary to some previous claims, children did not perform better with fricative consonants (e.g., /z/) than with stops (e.g., /d/) in a phoneme recognition task. However, preschoolers and kindergartners were more likely to mistakenly judge that a syllable began with a target phoneme when the initial phoneme of the syllable differed from the target only.
in voicing (e.g., /t/ for the target /d/) than when it differed in place of articulation (e.g., /b/-/d/) or in both place and voicing (e.g., /p/-/d/). These results shed light on the organization of children's phonological systems. They also have implications for the design and interpretation of phonemic awareness tasks.

Sutherland and Topping (1999) studied two groups of 16 children in P4 (equivalent to Y3) in one Scottish primary school, with two equivalent groups of 16 in the same classes in the same school who did not receive Paired Writing training. One experimental group had helpers (tutors) of the same ability (and swopped roles at intervals), the other had helpers of different ability (and did not swop roles). The cross-ability group made a significant gain during the intervention, while the same-ability group did not (at least in absolute terms this group’s control group’s post-test score declined so much that the same-ability groups posttest score was significantly better).

Nixon and Topping (2001) studied 10 writers in one P1 class (equivalent to Reception) in a Scottish primary school, plus 30 of their classmates as an ‘unpaired’ comparison group, and 10 helpers from P7 (equivalent to Y6) in the same school. The 10 writers had a significantly higher average score for writing at pre-test than the comparison group, but had also made a much more significant gain at post-test.

Tahilliani (1999) compared the effectiveness of remedial reading programme on learning disabled and normal children and found it more effective for learning disabled than normal children. The data was collected by the reading test of Hindi language on 58 identified learning disabled and 60 normal children.

Brooks and Hutchison (2000) Worcestershire began using BRP in 1999, as the approach adopted for an Innovative Development Project (IDP) funded by the Basic Skills Agency. Modifications to the Bradford model were that the partners were parents, and they were asked to read two books at each session (not three), and they read with children twice a week for 15-20 minutes. One book was familiar, and the second was new, and the new text from each session became the familiar book for the next. The LEA has trained many parents, and about 60 have achieved accreditation for this work. In addition 10 schools in an Education Action Zone use it with teaching assistants. The 1999-2000 IDP was evaluated by two researchers from the National Foundation for Educational Research. The scheme was generally successful, but the
LEA adviser commented that there were gains across all year groups as long as the children had started reading. It was not successful with non-readers. Because the evaluation used a cross-over design, the phase 2 data from the first group to receive the intervention were effectively follow-up data. The phase 2 data from that group showed that the group continued to make approximately standard progress. They were not making any further relative gain, but were maintaining the gain made in phase 1.

Kohli (2001) surveyed primary school going children of Chandigarh. Ten English medium public schools were randomly selected for the above purpose and she found that 24.42% of primary school going population suffered from dyslexia i.e 75 out of 307 children.

Nagia (2002) developed a remedial programme for promoting education of dyslexic children in mainstream schools and found it effective on a sample of 30 students from primary classes consisted of 15 from class 2nd and 15 from class 3rd. The remedial programme developed by the investigator proved to be effective in improving spelling, reading level, reading comprehension, listening comprehension and total language abilities.

Shaywitz (2003) showed with the help of functional magnetic resonance (fMRI) that normal readers do not use the same areas of the brain during reading as readers with a reading disorder. There was activity in the left hemisphere of normal reader’s brain and readers with a reading disorder showed activity in their left as well as right hemispheres. He found that the poor reader’s left-brain structures concerned with word analysis and automation of reading were under active during reading activities.

Brazeau (2005) mentioned in his study ‘I’m confused, is it dyslexia or is it learning disability?’ that dyslexia is not something which is very rare but it is the most common learning disability. It accounts for 23% of the population.

Berninger et al. (2006) the International Dyslexia Association defined dyslexia as unexpected problems of neurobiological origin in accuracy and rate of oral reading of single real words, single pseudowords, or text or of written spelling. However, prior research had focused more on the reading than the spelling problems of students with dyslexia. A test battery was administered to 122 children who met inclusion criteria for dyslexia and qualified their families for participation in a family
A genetics study that has been ongoing for over a decade. Their parents completed the same test battery. Although a past structural equation modeling study of typically developing children identified a significant path from handwriting to composition quality, the current structural equation modeling study identified a significant path from spelling to composition for children and their parents with dyslexia. Graphomotor planning did not contribute uniquely to their composition, showing that writing is not just a motor skill. Students with dyslexia do have a problem in automatic letter writing and naming, which was related to impaired inhibition and verbal fluency, and may explain their spelling problems. Results were discussed in reference to the importance of providing explicit instruction in the phonological, orthographic, and morphological processes of spelling and in composition to students with dyslexia and not only offering accommodation for their writing problems.

Gupta and Jamal (2006) examined the nature of reading errors made by dyslexic readers in Hindi and English. A detailed analysis of error type showed 60% and 57% of phonological errors; 15% and 35% of orthographic errors; 25% and 7% of mixed errors; and 0.38% and 0.94% of unrelated errors in Hindi and English, respectively. Further, in both Hindi and English, the majority (65% & 69%, respectively) were the scaffolding errors, followed by the errors preserving the initial phoneme (22% & 23%, respectively), errors preserving the final phoneme (9% & 6%, respectively) and errors with orthographic overlap (4% & 2%, respectively). In Hindi, a far greater percentage of nonword (89%) than word (11%) errors was found, whereas in English, 54% of nonword and 46% of word errors was found. A significant correlation was found between reading accuracy in Hindi and in English. The findings were discussed in terms of linguistic interdependence hypothesis and orthographic transparency.

Shovman and Ahissar (2006) a large body of data suggested that phonological deficits play an important causal role in dyslexics’ reading difficulties. The functional role of visual impairments was still highly debated. Many recent studies had shown clear visual deficits in large subgroups of dyslexics. However, the relationship between these deficits and visual routines required for reading is not clear. To assess the direct contribution of visual factors to dyslexics’ slower and less accurate reading, they composed a task that was similar to single word reading in its
basic visual characteristics, but had none of the other (phonological, morphological, semantic, etc.) aspects of reading. Young adult dyslexics, with average or above general cognitive abilities, and controls matched for age and cognitive skills participated in the study. They measured both SOA and contrast thresholds for identifying unfamiliar letters. Letters were chosen from an alphabet graphically similar to Hebrew and English (a subset of Georgian letters), but unfamiliar to the subjects. Effects of decreasing letter size, increasing letter crowding and adding white noise, were measured. Dyslexics performed as well as controls under all test conditions, and had similar effect sizes. They thus concluded that, despite the data showing that dyslexics have marked difficulties with single word reading, the cause of these difficulties is not a visual processing deficit.

Fink (2007) to investigate how, when, and under what conditions individuals with dyslexia manage to develop high literacy levels, an interview and literacy assessment study was conducted with 60 highly successful men and women with dyslexia and 10 peers without dyslexia. The sample with dyslexia included a Nobel laureate, a member of the National Academy of Sciences, and leaders in a variety of fields requiring extensive reading (i.e., medicine, law, business, and the arts and sciences). For both males and females with dyslexia, interest-driven reading was key to the development of high literacy levels. Results showed distinct groups of successful professionals with dyslexia: a compensated group and two partially compensated groups. In each group, literacy development was augmented by avid reading in a content area of passionate personal interest, along with systematic phonics instruction. Through avid reading on a specific topic, the individuals with dyslexia developed knowledge of the specialized vocabulary, typical text structures, concepts, themes, and issues of a particular field. Extensive reading about a favorite subject enhanced the background knowledge of these individuals and enabled them to gain reading practice, which in turn, fostered the development of reading fluency and increasingly sophisticated skills. Although topics and genres of personal interest varied, fascination with a subject area was a common theme among those interviewed. In the literacy assessment, the 60 men and women with dyslexia demonstrated most of the salient characteristics of Chall’s Stage 5, the highest level of reading development. All participants comprehended sophisticated text, but some, with partially
compensated dyslexia, showed continuing lags in basic, lower level “print” skills. Individuals with partially compensated dyslexia fell into two groups: one group showed specific deficits only in spelling, whereas the other group had difficulty in spelling, word recognition, and oral reading. Many, but not all, of the participants with dyslexia showed ongoing lags in reading rate. Gender differences were most apparent in topics of personal interest reading and in mentoring patterns. The study explored how adults with dyslexia, who may continue to lack strong integration of lower level “print” skills, succeed in constructing higher order “meaning” skills. This analysis underscored the need for a balanced approach to literacy instruction that included both “print” and “meaning” aspects. It emphasized the need to integrate solid interest-based approaches as a centerpiece of instruction.

Shepard (2008) four reading intervention strategies that were research validated and had demonstrated the likelihood to improve students’ oral reading fluency and comprehension were: repeated readings, phonics instruction, vocabulary preview/review, and guided reading. Brief experimental analyses of oral reading fluency were conducted with seven elementary students who were experiencing difficulties in learning to read. A reading clinic model served as fieldwork experience in which pre-service teachers learned how to apply a sequential application of specific reading interventions. Following a baseline condition, instructional treatments were combined with prior conditions until there was improvement in oral reading fluency in the instructional passages. The purpose of this study was to evaluate the critical features for a quality reading clinic. Pre-service teachers determined what components of the reading clinic were beneficial and most effective in their preparation to teach reading. The results of an open-ended questionnaire and a survey given to the pre-service teachers were an important basis for interpreting the findings.

Murphy and Schochat (2009) analysed the potential correlations between reading acquisition, phonological awareness, and auditory temporal processing in Brazilian children with dyslexia. This study evaluated sixty children, nine to twelve years of age, divided into two groups: a control group of twenty seven children without dyslexia and a study group of thirty three children with dyslexia. The children in both groups were submitted to tests designed to assess reading skills, phonological awareness, and auditory temporal processing. In the results of all three tests,
significant differences were found between the dyslexic children and those in the control group, with poorer results for the dyslexic group. However, for both groups, correlations were found only between the performance on the reading test and the performance on the phonological awareness test. Dyslexic children demonstrated poorer results in all tests when compared to their controls. However, there was no definitive evidence that their poor performance on the auditory temporal processing tests was directly related to their phonological awareness skills, or even to their reading skills.

SUM UP

Dyslexia is not something which is rare. It affects significant number of school going children- 14.63% (Bains-1997), 24.42% (Kohli-2001) and 23% (Brazeau-2005). Dyslexia is neither due to lack of cognitive abilities (Yuill and Oakhill-1988), nor a result of visual processing deficiency (Shovman and Ahissar-2006) and auditory temporal processing deficiency (Murphy and Schochat-2009). In case of poor reader’s left-brain structures concerned with word analysis and automation of reading remains under active during reading activities (Shaywitz -2003).

2.3.0 MULTISENSORY STRUCTURED LINGUISTIC METHOD

Shedd (1969) reported to have achieved a 2.77 grade score increase in nine months with 156 diagnosed dyslexics (grade IV to VIII) with three periods a week of special multisensory instructions.

Dyslexia Institute (1975) adopted multi-sensory method at every step of a planned programme of structured language. They advocated that while teaching reading by Multisensory Structured Linguistic (MSL) method, children are also prepared for written language and spelling. A careful record of progress through the structure is maintained. Nothing is taken for granted, and recall is based only on what has been included in individuals programme.

Frankiewicz (1984) investigated the progress of sixth, seventh and eighth grade students in reading during a three year period. He found improvement in achievement on an annual basis and cumulative improvements after two and three years which appears to be attributed to continuous multisensory instruction received in the programme.

Clark (1988) summarised that despite the wide spread use of multisensory structured language technique and positive reports from practitioners that these techniques work, there has been little empirical data to validate their effectiveness.

Sparks et al. (1992) reported that adopting Multisensory Structured Linguistic Method for foreign language instruction (Spanish) for at risk learners resulted in significant improvement over one year of instruction on measures of foreign language aptitude, phonology, and other native language skills. Students who received instructions on sound/symbol correspondences in both English and Spanish showed even greater gains than students taught these relationships in Spanish only. At risk students who were taught Spanish using a traditional foreign language teaching method did not make similar gains.

Pennock (1999) the purpose of this study was to investigate the effectiveness of a multisensory approach to reading being used in the West Windsor-Plainsboro School District's Special Services Department. Project Read, developed by Language Circle Enterprises, was being used to teach phonology, comprehension, and written expression to students with learning disabilities. A pull-out approach was used with the second and third grades in one elementary school. Students were mainstreamed
for homeroom, lunch, science and social studies. They were pulled out and sent to a Learning Center in the school for reading language, arts, and math. Reading scores were used from the previous year Gates-MacGinitie Reading Test and compared to this year's scores. Students were measured with two different normed tests that could not be compared to statistical significance. The results were presented in tabular form to examine whether or not there was growth. The results indicated that each participant of the study showed growth in reading skills. None of the students regressed, several exhibited minimal growth, and others made moderate gains.

Johnson et al. (1999) Multisensory Teaching System for Reading (MTSR) was described by its UK providers as a ‘fully scripted, multi-sensory, structured, sequential package for teaching word level reading. It was based round the teaching of three elements of the reading process - phoneme/grapheme relationships, rules of English, and how to tackle irregular words’. It was derived from a scheme developed in Texas by Margaret Taylor Smith and called Multi-sensory Teaching System (MTS). MTSR was developed and produced at Manchester Metropolitan University in collaboration with the British Dyslexia Association; development was financed by a research grant from the (then) Department for Education and Science. The published teaching pack consisted of a teacher’s book, two books of teaching materials with cards, and a videotape. The developers had so far mounted four evaluations: a pilot study in 12 primary schools in three LEAs in the North West of England, and three larger studies, in Rutland, Ireland and Bolton. The impact on reading was good. For spelling the results were curiously contradictory: the pilot study had a large negative ratio gain, while the Bolton study had a massively positive one.

Jamieson (2005) in this dissertation researcher investigated what constitutes a learning disability, its etiology and whether or not it was possible to identify these disabilities in early childhood. The investigation further aimed to discover if these learning disabilities were comprised of sub-disabilities and if these can be identified as such. To this end the research aimed to determine the most appropriate remedial intervention strategies used for learning disabilities. Multisensory intervention was therefore explored. On the basis of this the Montessori Method was examined to ascertain whether or not the method can contribute to multisensory intervention at the
preschool level. It was argued that the Montessori Method was admirably suited to making such a contribution. Further empirical research for these claims was indicated.

Rosica (2005) The Wilson Reading Program was designed by Barbara Wilson and published in 1988 for the first time. It was originally designed for students diagnosed with dyslexia, but its focus has been expanded to include struggling readers and spellers who are below their classmates. Wilson is based on the Orton-Gillingham multisensory principal. It is well organized and systematic. The Wilson Reading Program was administered to a small group of two students, aged nine to eleven who receive all their academic instruction in a self-contained special education classroom. These students have similar intelligence levels, and a similar degree of difficulty with reading and spelling. Three other students in the self-contained classroom served as a control group. Pretests and posttests were administered to all five students in order to determine their levels of decoding and encoding prior to administration of the Wilson Program. The two students in the study group increased their decoding and encoding significantly; while the control group improved only to a level that would be consistent with their instruction in a self-contained classroom.

Sum Up

2.4.0 ALPHABETIC PHONIC METHOD

Miles (1970) advocated phonic cues which are based on Alphabetic Phonic Method. The procedure takes the child through 15 stages, each tested by graduated dictation exercises, until all phonemes combinations and spellings are covered. It is highly successful approach for spelling.

American Institute for Research (1970) reported that Alphabetic Phonetic Structured Linguistic Method was very successful to improve reading disability of dyslexic children.

Kline (1975) reported that pupils in reading clinics sample who were provided Orton Gillingham instructions were nearly twice as likely to show improvement as students in a comparison group.

Frankiewicz (1984) investigated the progress of 12-14 years old students in spelling. He found improvements after two and three years which appear to be attributable to continuous alphabetic phonic instructions received in the programme.

Brightman (1986) identified significant spelling gains among first, second and third grade students on the basis of pretest – post test measures after at least one year of Alphabetic Phonic multisensory teaching.

Larsen and Hammills Test of Written Spellings (1986) was used to study spelling performance of those students who were getting alphabetic phonic multisensory instructions. The sample used to norm the TWS-2 consisted of 3805 students six to eighteen years old. Total TWS-2 post test scores were significantly higher than pre test levels for the total group \( t = 9.00, p < 0.001 \) and all sub groups. The greatest change in pretest posttest scores occurred among elementary students \( \text{pretest} = 74.9, \text{post test} = 79.5 \).

Roy (1986) who studied the effect of Alphabetic Phonic Method during a two year period stated improvement in reading skills among students aged eight to fifteen years.

Guercio (1987) conducted a pilot study with a trained resource teacher who used Alphabetic Phonic Method for reading with reading disabled students. They gained an average of nine months in a year. In the year before the teacher had the training, students made only 4.5 months gain in the same nine month period, as measured by the same standardized achievement test.
Woodcock, Mather and Barnes (1987) used Woodcock Reading Mastery Test-revised (WRTMT-R) to determine whether progress was achieved by 245 learning disabled children receiving Alphabetic Phonics Multisensory Instructions. Post test total reading cluster scores were significantly higher for the total group (t = 10.60, p < 0.001) and all sub groups indicating improved reading performance.

Hook et al (1993) used an intensive phonic programme for 12 weeks within a resource classroom for eight learning disabled students (aged 13 years 3 months to 15 years 2 months). Results indicate that reading skills and word recognition increased for all subjects. Specific improvements were found for word attack skills, spelling, capitalization and punctuation.

Wilson and Frederickson (1995) poorly developed phonological skills had been suspected as one of the causes of reading difficulties. The PAT programme was designed to help children in reading, spelling and writing phonically regular words. It was acknowledged that children need to experience a wide variety of stimuli such as story books, poems and rhymes to develop literacy skills. The programme aims to enhance children’s literacy skills by making analogies. Children who had existing knowledge of word sounds can develop these by applying them to other words, thus using commonly occurring rimes. This way of teaching encourages a problem-solving based approach rather than the traditional ‘listen and learn’ way. The daily 10-minute programme provided intensive work on three skills within the same activities: identifying sounds, blending phonemes together, and segmenting or isolating sounds in words. PAT was made up of training worksheets containing specific rimes supported by reading lists and sentences for dictation. Training required children to generate their own words from rimes. This was based on the idea that once children can understand the concept of reading and speech made by analogies, all they had to remember was how to form the rimes. There were no pictures or visual cues of any sort due to the fact that the child was learning to focus on sound and to develop a problem solving approach to generate words. Pictures would deflect from developing their own strategies for remembering. The developer of the programme and a colleague designed and implemented the evaluation. Three schools participated in the study. Equal numbers of programme and comparison children from each of Years 4 to 7 were selected in order to test the hypothesis that children with literacy difficulties
who completed the programme would make better progress than their counterparts. All the children in both experimental and control groups were on at least Stage 2 (now School Action) of the SEN Code of Practice; the two groups of 24 children were carefully matched. The pre-tests were carried out between two and five weeks prior to the PAT programme. The post-tests were carried out by educational psychologists who did not know which intervention group the children were in. The programme ran for 20 weeks. Groups of six met four days a week for 20 minutes. The children in the experimental group did make significantly more progress than those in the control group.

Broom and Doctor (1995) devised and implemented a remediation programme in a case study of a developmental phonological dyslexic. Psycholinguistic assessment determined the developmental stage at which the subject’s acquisition of reading skills had arrested. This was determined to be at the logographic stage of reading so his pattern of performance resembled that of phonological dyslexics. Remediation focused on development of an alphabetic or phonological strategy for reading. The efficacy of remediation was investigated employing a single-subject case study incorporating a crossover design with multiple baseline and repeated pre- and post-therapy measures. The results of therapy indicated significant improvement in phonological reading skills as a consequence of the treatment. In addition, these effects generalised to untreated items and were accompanied by changes in reading strategy. Theoretical explanations and practical implications of the results were also discussed.

Sylva and Hurry (1996) found that Reading Recovery students made significantly more progress in all the reading measures than control students in non-Reading Recovery schools. The Phonological Intervention students made significantly more progress in reading accuracy (but not reading comprehension) and in spelling, as well as in the directly taught phonological skills measured in comparison with control students attending other schools. This pattern of results could be explained by the hypotheses that phonological interventions are particularly powerful at improving children’s spelling skills which, given time, will improve their word recognition. The fact that children’s reading comprehension was not significantly improved is consistent with the finding of other evaluations of primarily phonics-based reading
Interventions. Interventions with a narrower model of reading tend to have a narrower effect.

Watson and Johnston (1998) reported on a study of around 300 Primary 1 children in which they examined the effectiveness of a synthetic phonics teaching programme. Performance on the synthetic phonics programme was compared with performance on a typical analytic phonics programme, and also with a similar programme that included a substantial element of phonological awareness training. The synthetic phonics programme was by far the most effective. After a training period of 16 weeks, the synthetic phonics taught children were reading and spelling seven months above chronological age, and were a similar amount ahead of the children taught by the two analytic phonics programmes. In this report they described the progress the children had made from Primary 1 through to the end of Primary 5, focusing on comparing the attainment of boys with that of girls. They examined the extent to which children underachieve when taught by synthetic phonics compared with an analytic phonics programme.

National Reading Panel (2000) reviewed more than 100,000 studies in the areas of alphabetic phonemic awareness, phonics, fluency, comprehension, teacher education, reading instruction and computer technology in order to identify methods that consistently relate to reading success. The results of the NRP report identified five necessary components of good reading instruction: phonemic awareness, phonics, fluency, vocabulary, and comprehension. The NRP report revealed that (1) phonemic awareness instruction causes improvement in students’ phonemic awareness, reading, and spelling (with effect sizes in spelling for students with reading disabilities being weak); and (2) phonemic awareness instruction is most effective when (a) alphabetic letters are included, (b) there are fewer rather than more manipulations of phonemic units, and (c) instruction is conducted in small groups.

Derrington (2001a, b) Phono-Graphix™ has been taken up quite widely in the UK, and substantial data were received from Bristol LEA. Its essential features were that it

- Develops the concept that written English is a phonemic code-each sound in a spoken word is represented by some part of the written counterpart.
• Teaches the phonological skills of blending, segmenting and phoneme manipulation that are needed to use a phonemic code.

• Teaches knowledge of sound-to-symbol relationships (correspondences) explicitly.

The scheme is supported by detailed training and materials, and by a network and website. The impact measures were substantial.

Castles and Coltheart (2004) re-assessed the evidence that phonological awareness represents a skill specific to spoken language that precedes and directly influences the process of reading acquisition. Longitudinal and experimental training studies were examined in detail, as these were considered most appropriate for exploring a causal hypothesis of this nature. A particular focus of their analysis was the degree to which studies to date had controlled for existing literacy skills in their participants and the influence that these skills might had on performance of phonological awareness tasks. They concluded that no study had provided unequivocal evidence that there was a causal link from competence in phonological awareness to success in reading and spelling acquisition. However, they believed that such a study was possible and outline some ideas for its design and implementation.

Aram and Biron (2004) compared two interventions: one focusing on language and storybook reading and the other on alphabetic skills and writing. Seventy-one preschoolers aged 3–5 from a low SES township in central Israel (35 in the reading program and 36 in the writing program) participated in evaluation of the interventions. Twenty-four untreated preschoolers served as a control group. The children were tested twice, at the beginning and at the end of the school year, in: phonological awareness, word writing, letter knowledge, orthographic awareness, listening comprehension, receptive vocabulary, and general knowledge. Both programs involved games and creative activities. The writing program encouraged letter knowledge, phonological awareness, and functional writing activities. The reading program utilized the children’s books for focusing on language and exploring major concepts raised by these books. Results indicated that children in the two literacy programs progressed significantly more than the control group on phonological awareness and orthographic awareness. However, the joint writing group significantly outperformed both the joint reading group and the control group
Craig (2006) using a pretest–posttest comparison-group design, this 16-week study investigated the effects of two instructional approaches on the phonological awareness, alphabetic knowledge, and early reading of kindergarten children. The primary goal was to compare a form of contextualized instruction based on an adapted interactive writing program with a field-tested program of metalinguistic games. For instructional purposes, the children in each treatment group were divided into small intervention classes, with groupings based on children's common strengths and needs. Each week, these classes met with trained literacy tutors for 420-min lessons. Pretest and posttest measures provided data on children's phonological awareness, spelling, and reading development. Statistical analyses of the data indicated no between-groups differences with regard to phonological awareness and spelling achievement. In contrast, results revealed statistically significant differences between the two groups on word identification, passage comprehension, and word reading development measures, with the adapted interactive writing group demonstrating greater achievement. These findings verify that the children participating in a contextualized program matched or exceeded the achievement of the children participating in a structured program of metalinguistic games.

Graham (2007) in response to the reauthorization of IDEA, in the spring of 2005, the West Virginia Department of Education (WVDOE) initiated a project to implement a Response-to-Intervention (RtI) approach to the identification of students with specific learning disabilities. The present study evaluated to what extent the Tier 1 approach provides effective instruction to reach mastery in Phonemic Awareness and Phonics in Kindergarten through 3rd grade. The research design for this study was a program evaluation. The participants in the West Virginia RtI pilot project included approximately 150 teachers from Kindergarten through 3rd grade, 11 principals, 11 project coordinators, and 9 special education directors representing the 11 pilot schools participating in the project. The pre-post survey design was utilized. Analysis of survey data from the 11 schools did not reveal any significant changes...
over time. Results of this evaluation could not substantiate increase in student reading
or increase in teacher skills due to Rtl implementation.

Sum Up

Interventions with the help of Alphabetic Phonic Method improves reading
ability of dyslexics (American Institute for Research-1970, Kline-1975, Roy-1986,
Guercio-1987, Woodcock, Mather and Barnes-1987, Hook et al-1993, Wilson and
Reading Panel-2000, Derrington-2001a,b, Aram and Biron-2004, Craig-2006),
and Biron-2004), spelling ability of dyslexics (Miles-1970, Frankiewicz-1984,
Brightman-1986, Larsen and Hamills Test of Written Spellings-1986, Hook et al-
Panel-2000), comprehension ability of dyslexics (National Reading Panel-2000,
Craig-2006) and word fluency of dyslexics (Hook et al-1993, Sylva and Hurry-1996,
National Reading Panel-2000, Craig-2006). Intervention with the help of Synthetic
Phonic Programme is more effective than Analytic Phonic Programme (Watson and
Johnston-1998). Besides this there are some contradictory evidences which shows that
this method does not improve comprehension ability of dyslexic children (Sylva and
Hurry-1996), spelling ability of dyslexic children (Craig-2006) and reading ability of
dyslexic children (Graham-2007). Moreover no study has provided unequivocal
evidence that there is a causal link from competence in phonological awareness to
success in reading and spelling acquisition (Castles and Coltheart-2004).

2.5.0 BEHAVIOUR MODIFICATION METHOD

Haring and Hauck (1969) examined changes in four elementary– age boys
reading performance. They compared the boys’ skills under baseline conditions to
t heir performance when programmed reading materials and token reinforcements
were provided, the frequency of correct responding increased.

Lahey (1971) used modeling technique to increase the use of objectives in
reading.
Lahey, McNees and Brown (1973) evaluated the effects of simple reinforcement on the reading comprehension performance of two elementary age pupils. Their single subject analysis indicated that the accuracy of answers to reading comprehension questions could be increased by providing praise and rewards for correct answering.

Fry (1973) examined the effects of token reinforcement programme on the reading ability of thirty, 7-12 years old children with retarded reading levels. Pre and post-test measures included word recognition, accuracy and comprehension of prose reading and sight and word vocabularies. Two groups were used, one which received reinforcement and other no treatment. All the subjects were reassessed at a three months follow up evaluation. Results showed that the subjects in the reading programme made substantial gains (6 months in reading ages) on all measures while the control group made small gains on all measures. Results are interpreted as supporting the validity of token reinforcement programmes in educational settings.

Hart and Risley (1974) increased the use of phrases and compound sentences using behavioural techniques and common teaching materials.

Word, Penny and Rozynko, Vitali (1974) reviewed a case study of behaviour therapy of an eleven years old girl with reading problem caused by learned dysfunctional avoidance responses. Relaxation and desensitization techniques to reduce fear responses were employed. Concomitantly, the behaviour positively about reading were reinforced. In this case, by engaging in behaviour compatible with anxiety, the association or connection between the stimulus and the resulting fear was broken.

Lovitt and Hurlburt (1974) used behavioural procedures to study the effects of phonics instruction on the oral reading behaviour of two elementary age dyslexic boys. In both cases when phonic instruction was implemented the boys had higher correct oral reading rates and lower error rates that they did under baseline conditions.

Robin, Armel and O’Leary (1975) have shown that verbal self guidance produces small, beneficial effects on handwriting.

Ballard and Glynn (1975) found that the combination of self-evaluation and self reward had positive effects on the students writing.
Lovitt and Hansen (1976) found that the reading performance of learning disabled boys could be substantially affected by making rapid progress contingent on performance (i.e. token or even social praise). They established a programme called ‘contingent skipping and drilling’ in which rapid, accurate reading and answering resulted in the opportunity to skip sections of the text but slow, inaccurate reading and answering resulted in required repetition and practice on materials. The skipping and drilling programme resulted in substantial improvement in the pupil’s reading performance.

Jenkin, Barksdale and Clinton (1978) found that contingent reinforcement led to improvement in the reading rate and comprehension of elementary age learning disabled boys and that the improvement transferred across settings and were maintained.

Malamuth (1979) evaluated a broad-based self management programme using assorted materials, the students were shown how to direct themselves to scan materials during reading. Although conventional significance levels were not reached, Malamuth interpreted the results as indicating that pupils receiving the experimental programme performed better on reading tasks than those in a control group.

Swanson (1981a and b) examined the effects of self recording and reinforcement techniques on the reading of elementary age, learning disabled pupils. In a series of these three studies. He found that self recording and reinforcement contingencies influenced oral reading accuracy, silent reading rate and comprehension question accuracy.

Rose and Sherry (1984) used behaviour analysis procedures to examine the effects of previewing procedures on oral reading performance. He reported that listening procedure resulted in fewer oral reading errors for both elementary and secondary students.

Lawrence (1988) there were four groups of pupils: a no-intervention control group, and three groups who all received DISTAR. One group received only that intervention, while the other two received in addition one of two ‘therapeutic’ interventions designed to boost pupil’s self-esteem about reading. The DISTAR-only group received instruction in the skills of reading through the Direct Instructional Teaching technique devised by Engelmann et al. The teachers involved in using
DISTAR with this and the other two relevant groups were all trained in the technique by a manager of the scheme’s UK promoters. The children were taught in groups of 6-10, according to the number identified in each school as low attainers, for one hour, 3 times per week. In this technique, children sit in a semi-circle within touching distance of the teacher. The lowest-attaining children were placed in the centre. They interact continuously with the teacher, learning word patterns out loud. The sequences were highly structured, and were taught until all children had mastered them. The children in the experimental group receiving the first of the ‘therapeutic’ interventions in this study received DISTAR as above, plus counseling once a week for 20 weeks from one of 35 non-professionals. The children were seen in pairs, for 45 minutes each time. The counsellors were selected by the head teachers of the schools involved. They had four meetings beforehand at which they were given handouts on how to structure the sessions with games and activities. These had been designed by the experimenter, or were those described by Canfield and Wells. The counsellors were also briefed on self-concept theory and on the establishment of empathy as described by Rogers and ‘modeling’ as described by Bandura. The essence of the intervention was an accepting and non-judgmental relationship between counsellor and children. The group receiving the second of the ‘therapeutic’ interventions received DISTAR as above, plus a weekly drama session designed to enhance self-esteem. Groups varied in size from 7 to 15. The sessions lasted about 45 minutes, and were taken by the County Adviser for Drama. They were structured to allow the children to experience success, and included roleplaying of ‘experts’ for example they would be on an imaginary journey and would each be given a different expert role. The rule was that no criticism of experts was allowed. The drama condition was intended to illustrate an even simpler method of delivering self-esteem improvement than the delivery of counseling by non-professionals. The two ‘therapeutic’ conditions (counseling by non-professionals plus DISTAR, drama plus DISTAR) did not differ, and were better than DISTAR only and no intervention, which also did not differ.

Bereiter and Scardamalia (1989) used cognitively based intervention to remediate the reading disability of a male of 3rd grade. The approach assumes that cognitive strategies of learning disabled children represent adaptive solutions to
immediate problems that confront them. It facilitates the students insight into his own learning and promote intentional learning.

**Graham and Harris (1989)** used cognitive behaviour modification to improve the use of verbs, adverbs and adjectives in the written composition of 6th grade learning disabled children and found it effective.

**Pavchinski, Peter, Evans, Joseph and Bostow, Darrel (1989)** conducted a two part experiment in which a severely learning disabled 12 years old boy was treated for lack of reading and maths skills. Token reinforcers were delivered for correct responses to a structured set of maths problems and sight words. Following implementations of a changing criterion experimental design in part I, the students achieved 90% correct responses level on maths and word recognition item after exhibiting an initial baseline of only 34% correct.

In part II of the study the procedures produced a 100% correct responses level in the items (multiplication, division) that were most difficult for the students following 3 weeks later indicating that students retained most of the knowledge gained from the treatment, showing that some learning disabled may effectively remediated using token reinforcement as motivational tools.

**Stephen (1990)** describe the psychotherapy of a severely dyslexic adult whom he saw in concurrent psychotherapy remediation. Subject was 33 year old and evaluation found him to functioning only at the second grade level in reading, spelling and maths; he exhibited specific deficits in visual recall, visual motor integration and auditory recall. Most of his emotional problems, such as his lowered self esteem, depressed mood, temper out bursts, alcohol use and limited social life, were largely in reaction to his significant learning problems.

Shortly after evaluation, began twice, weekly remediation in which he made excellent progress. Only three months after beginning the work, word recognition skills had risen from late second to middle fourth grade. He was highly motivated Psychotherapy was terminated after two years. Finally, he had begun to formulate some positive goals and enrolled in a part- time diploma programme at public high school, where he earned a diploma in about three years.

**Hurry and Sylva (1998)** Reading Recovery was aimed at children who after one year of schooling showed they were having difficulty with reading. Children
identified as being in the bottom 20 per cent of the class in reading received daily 30-minute individual lessons for up to 20 weeks from a specially trained teacher, who provided highly responsive instruction tailored to the needs of each child. Throughout the lesson the teacher’s interventions, based on daily diagnoses, were carefully geared to identify and praise successes, promoting confident and independent behaviour. This ensured that a range of strategies were brought to bear whenever problems arise. Children left the programme when reading improved to the level of the average class reading group, enabled them to work in class without additional support. Children who were not successfully discontinued were referred for more detailed assessment and specialist help. The Sylva and Hurry study showed that, during the intervention, Reading Recovery children made significantly greater progress than either Phonological Intervention children or those in the relevant control group; and that Phonological Intervention children did not make significantly greater progress than those in their control group.

Nugent (2001) paired reading was devised by Morgan to meet the needs of children who were finding reading difficult and to involve non-professionals in helping them. He designed it to be simple to administer after the minimum of training, and flexible, in that it could be applied to any form of reading material. Essentially, it was a ‘scaffolding approach’ in which tutor and child begin by reading aloud together, and the tutor gradually withdraws and leaves the child to read aloud alone. Techniques were specified for intervening when the child falters or makes an error, and praise was given regularly. This evaluation covered not just one project in that LEA, but 155 projects spread across 71 schools, both primary and secondary. The results consistently showed that the technique was effective, and other partnership approaches had imitated, incorporated or adapted it.

Reiber and McLaughlin (2004) behavior management techniques were essential components of any treatment method for students with ADHD. Further, they appear to be the only line of treatment to which school personnel had direct access. Research has suggested that nearly all educators employ some form of behavioral modification techniques in their classroom. This paper explored a variety of classroom interventions to assist teachers to work successfully with children with ADHD. These included: classroom structure, teaching modifications, peer
interventions, token economies and self-management. The interventions reviewed were presented on a continuum from the least basic modifications needed in the classroom to those in which more time and resources were involved. All the strategies reviewed were evidence based.

Wanzek et al. (2006) synthesized previous research studies examining the effects of spelling and reading interventions on the spelling outcomes of students with learning disabilities. An extensive search of the professional literature between 1995 and 2003 yielded a total of 19 intervention studies that provided spelling and reading interventions to students with LD and measured spelling outcomes. Findings revealed that spelling outcomes were consistently improved following spelling interventions that included explicit instruction with multiple practice opportunities and immediate corrective feedback after the word was misspelled. Furthermore, evidence from spelling interventions that employed assistive technology aimed at spelling in written compositions indicated positive effects on spelling outcomes.

Sum Up

2.6.0 ECLECTIC APPROACH

Shedd (1969) stressed the need to teach, right from the beginning, by the multi sensory method utilizing the advantages of phonic, whole word and reading experience methods.

Chomsky (1971) suggests that children who are unable to read, should be introduced to reading through writing as a first activity.

Cashdan (1974) reported that Initial Teaching Alphabet Method (i.t.a) would be successful with either phonic or look and say methods. It would improve reading and lead to much clear, and earlier writing as the part of the child.

Cotterell (1976), Pollock (1976) and Sartin (1976) summarized the treatment given by specialist as providing motivation, reteaching specific skills, giving practice in consolidating sight words, using multisensory methods, offering Kinaesthetic practice and maintaining interest by using tapes and a variety of aids. Clay (1977b) noted that the ability to analyse words into sounds is a pre requisite to writing and thus a logical sequence in learning to read.

Clay (1979a) developed Reading Recovery Programmes and trialled in Auckland, New Zealand. The Reading Recovery Approach is derived from an information processing model of reading behaviour. The child is not only taught sets of items (letters, words, sounds) but also taught how to carry out different kind of operations on print. The goal is the development in children of self-motivated, self correcting reading strategies rather than the inert reception of information about reading and thus to do it. Research has demonstrated that reading disabled are not a homogeneous lot in their perceptual and processing skills. A multidisciplinary approach is desirable for reading disabled, recognizing the fundamental importance of phonological processing abilities.

Mather (1992) reported that dyslexic children do need different special methods. She viewed that there is no best method for teaching, reading. She suggested a combination of methods that would help the dyslexic children to learn to read.

Bains (1997) tested the effectiveness of Multisensory Structured Linguistic method, Alphabetic Phonic method, Behavioral Modification method and Eclectic method on comprehension of Thirty dyslexic children. Out of these 30 children, 6 children were randomly assigned to each of the 5 groups i.e. 4 experimental groups,
and one control group. After Twenty weeks training to the Experimental groups investigator found that all four remedial methods had successfully and significantly reduced comprehension problems. However investigator found Eclectic Method superior to Alphabetic Phonic methods, Behaviors Modification method and Multisensory Structured Linguistic methods. Also Multisensory Structured Linguistic method and Behavioral Modification method were found equally effective in improving comprehension of dyslexic children.

Matthews (1998) THRASS (Teaching Handwriting, Reading and Spelling Skills) was a structured multi-sensory literacy programme, devised by Alan Davies, which teach children about letters, speech sounds and spelling choices. It was divided into the three main areas of handwriting, reading and spelling. It increased understanding of the way the English language was structured, with 44 phonemes, of which 20 are vowel sounds and 24 are consonant sounds. Children learned immediately that the same sound can be represented by different letters or groups of letters (graphemes), eliminating any confusion. Davies found that the problem many people had whilst learning to read and write was that there were 44 sounds or phonemes in most well-known accents of English, yet only 26 letters to represent them. Therefore the central feature of the scheme was that children were taught explicitly about the variety of grapheme-phoneme and phoneme-grapheme correspondences of English. Teachers were given training in the use of materials (video, workshops, audio cassettes and an instruction booklet). A typical THRASS lesson might included identifying upper and lower case letters by name, and writing each letter while listening to verbal instructions. Children were introduced to common sequences such as days of the week or seasons. During each lesson new learning was introduced but there was always practice of material already covered. Children were encouraged to work together whilst the teacher provides positive encouragement and reinforcement for correct responses. THRASS was conducted with pupils in Y3-6 in 1998 at Bridgend. Both reading and spelling were assessed. The results showed considerable impact on reading for all year groups, and on spelling in Y3, but not on spelling in Y4-6, where the children made standard progress.

Westervelt et al. (1998) over a six-week residential summer camp in the USA, 48 dyslexic students aged between 9 and 14 years received daily tuition in
phonics using the Orton-Gillingham multisensory method and oral reading. Student progress was monitored and individual achievements were shared in a weekly newsletter. Psychosocial difficulties were addressed by praising the children, encouraging them to praise and support each other and by creating opportunities for each child to demonstrate success and receive recognition for it. Awards were presented daily to children who had shown progress in socialising. At the end of the summer camp the children showed significant gains in phonetic reading, spelling skills and self-esteem. However, it was noted that children who also had ADHD showed little gain in self-esteem, despite showing the same degree of improvement on the literacy measures. It would seem that the additional difficulties experienced by these children prevented them from receiving praise as readily as the other children with dyslexia did.

Nicolson et al. (1999), Reason and Boote (1994) the Interactive Assessment and Teaching (IA&T) approach was the programme advocated by Reason and Boote (1994). IA&T was a pragmatically based approach that was designed for children with special educational needs, and was compatible with current theoretical approaches to the teaching of reading. It is an individually adaptive, curriculum-based, support programme with the emphasis on word building and phonics skills in the broad reading context. The model of literacy development included both writing and reading, and their interaction. Furthermore, three separate aspects of literacy were considered—meaning, phonics and fluency. While beginning readers often had difficulties with meaning, understanding the rules of the reading game, it was with phonics and fluency that most poor readers struggle. On the basis of this theoretical and pragmatic analysis of development of the skills and knowledge in reading, Reason and Boote developed their step by step approach to tailoring the reading support to the individual capabilities of each reader. This involved five steps: First, make an initial assessment in terms of the four stages for Meaning, Phonics and Fluency separately. Second, decide on priority teaching areas. Third, develop a support plan, in terms of the objectives and the learning steps involved, making sure that each step is achievable. Fourth, select appropriate teaching methods and teach each step, trying to ensure variety and motivation. Finally, record and evaluate progress, keeping records for each step. The IA&T programme was studied in the first
of two phases of a research programme devised by researchers from the Psychology Department of the University of Sheffield. Both phases involved children in Y2 and Y3. The results of phase 1 were mixed. The IA&T children made significantly greater gains than those in the control groups during the 10 weeks of the intervention in both reading and spelling. For Y2 the gains in spelling were maintained in follow-up tests six months later, but almost completely lost in reading (the control group had slipped back even further). For Y3 the gains in reading were maintained, while the spelling gain was partly lost.

Brooks and Weeks (2000) in 1996-99, the DfEE funded a three-year project by the Helen Arkell Dyslexia Centre investigating individual styles in learning to spell. Several pilot and exploratory phases led to the production of a teaching pack offering 10 different teaching approaches, which teachers were to select from for individual children based on a simple assessment of their preferred styles. The approaches were: Neurolinguistic Programming, Onset-Rime, Look-Cover-Write-Check, Own-Voice, Tracing, Simultaneous Oral Spelling, Picture Association, Mnemonics, Phonics, and Look-Say. The developers of the project evaluated it both in special schools, and in three mainstream schools. A cross-over design was used, involving two groups of children. In phase 1, one group received the intervention while the other acted as a comparison group. In phase 2, the second group received the intervention, while the children in the first group also continued to do so. The results were in line with prediction. Both groups made significant gains in both phases. In phase 1 the first group made significantly more gain than the comparison group; in phase 2 the difference was non-significant. Thus both groups made good gains while receiving the intervention, while the second group made only standard progress in phase 1 before receiving it, and the first group continued to make better than standard progress in phase 2 (follow-up).

Clipson-Boyles (2001) the Catch Up Project was initially developed in 1998 at Oxford Brookes University, in partnership with the Caxton Trust, for struggling Y3 readers, as a result of a study undertaken by the project consultants, Diana Bentley and Dee Reid. The research helped to identify a systematic method for supporting struggling readers which could be readily adopted by classroom teachers. The child must complete a comprehensive assessment procedure before the programme begins
in order to determine the correct level, as well as to provide some preintervention data. The 10-minute individual sessions were divided into three discrete sections. The first two minutes were called the prepared reading approach. A book at instructional level was selected, and the text and pictures were scanned to introduce vocabulary and familiarise the story. In the next four minutes the child read the story whilst the teacher recorded progress and identified points to follow up. The final four minutes were the follow-up, a linked writing or spelling activity. This was where the teacher acted upon the information gleaned and decided which skill should be worked on. The aim was to enable the children to read with accuracy and understanding. The Catch Up Project had produced various support materials, including a CD ROM, a Parents Link book, and a videotape. It was being implemented in about 3,000 schools and supporting children in Y1-4. Most of the recorded gains were substantial. In the national experimental study, however, they were less so this may have been because the scheme was (apparently) less firmly supported with these schools.

Hatcher (2000) it was well documented that children who exhibit good phonological skills appear to make the most progress in learning to read. This study illustrated that a combined phonological and literacy skills training programme effectively boosts the reading skills of reading-delayed seven-year-olds. Poor readers in Y2 were assigned randomly to one of four groups. Group one received training in phonological skills and help in learning to read. Pupils in the second group received teaching in reading alone - the teaching of reading here and in the first group was similar to Reading Recovery. The third group received teaching in phonological skills alone. A control group received normal teaching. During the intervention period, which lasted 20 weeks, each of the experimental groups received forty 30-minute teaching sessions. The reading with phonology package combined a highly structured reading scheme with systematic activities to promote phonological awareness. The first section of a session was devoted to re-reading a familiar book whilst the teacher kept a record of the child reading. This allowed for rehearsal of familiar words in different contexts. Phonological activities and letter identification were also involved in the first part of the session, accomplished using a multi sensory approach (feeling, writing and naming.) The second part of the session involved writing a story and cutting it up. The last part of the session introduced a new book. The four groups were
matched on reading age at the pre-test, and teaching time for the three experimental
groups was equated as closely as possible. The 93 children in the three experimental
groups were taught by 23 teachers. Each teacher worked with groups of two to nine
children in order to reduce the effect of differentiation. The time of day at which
children received their intervention was systematically varied. The testers were
unaware of the children’s experimental status. The Reading with Phonology group
made significantly more progress in reading than the other three groups; the other
groups did not differ - in other words, neither reading-only nor phonology-only
brought about any greater progress than normal schooling.

Kohli (2001) compared various remedial strategies in reducing language
disabilities of dyslexic children. Intervention was provided to 60 disabled subjects of
the four experimental groups through Multisensory Structured Linguistic method,
Alphabetic Phonic method, Behavioral Modification method and Eclectic Method.
Control group consisting of 15 learning disabled was not provided any intervention.
Investigator found that Alphabetic Phonic method, Behavioral Modification method
as well as Eclectic Method were superior to Multisensory Structured Linguistic
method.

Mavrommati and Miles (2002) in the Greek orthography every letter
consistently represents the same sound, but the same sound can be represented by
different letters or pairs of letters. This makes spelling more difficult than reading.
Two methods of teaching spelling to Greek dyslexic children were compared. The
first involved pictograms (specially drawn pictures) for use when alternative spellings
were possible. This was referred to as the ‘PICTO’ method. The second was in effect a
combination of two traditional methods: the first involved the teaching of letter-sound
correspondences in a multisensory way; the second involved the use of concepts
derived from linguistics, the children being taught the derivations of words and shown
how the same root morphemes, derivative morphemes, etc., were consistently
represented by the same spelling pattern. This combination of methods is referred to
as ‘TRAD’, signifying ‘traditional’. There were 72 subjects in the study, aged between
9 and 11 years. Four different teachers, each using both PICTO and TRAD, took part
in the teaching sessions. The PICTO method proved considerably more effective; and
possible reasons are suggested as to why this might be so.
Rack and Hatcher (2002) SPELLIT stands for Study Programme to Evaluate Literacy Learning through Individualized Teaching. It was a research and development project funded by the DfES, the Community Fund, WHSmith, and the Dyslexia Institute.

The pupils involved were aged about 7 at the start of the study, and took part in the programme over Y2-3 or Y3-4. There were three different learning programmes:

- Structured multi-sensory teaching using the Dyslexia Institute’s approach, twice weekly over a 24-week period in sessions each lasting one hour this was in effect the ‘experimental’ condition
- A Home Support Programme consisting of activities and exercises to be done at home for around 15 minutes per day, for 5 days per week over a 30-week period an ‘alternative intervention’.
- A Combined programme involving 1 hour per week of structured teaching for 24 weeks and Home Support Activities in 15-minute sessions, 3 times per week over a 30-week period.

There was also a No Teaching ‘control’ group of children who received no additional support but went on to receive a programme involving structured teaching later. The programme was evaluated by its developers at the Dyslexia Institute in York. For reasons beyond the researcher’s control, the Combined programme did not operate as planned, and provided no data, leaving the experimental, control and alternative intervention (Home Support) groups. The control group made poor progress, falling further behind standard rates of progress. The Home support group progressed at exactly the standard rate. The experimental group made more progress than this, but not significantly.

Torgerson et al. (2003) Time for Reading was designed and evaluated by staff at the University of Sunderland. The evaluators describe it as ‘varying from other volunteer studies in several ways:

(i) The project was designed to operate with children of 4 and 5 years of age whose schools were located in areas of particular socio-economic disadvantage. It was hypothesised that work with younger children from such communities might avoid the negative impact of an experience of reading failure;
(ii) The focus of the volunteer inputs concerned the development of the children’s phonological awareness, letter knowledge, the gaining of experience of a wide range of reading related behaviours and the heightening of the enjoyment of stories. All of these, it was considered, were likely to be particularly important at the early stages of reading acquisition;

(iii) A detailed training programme was supplemented by a specially prepared manual for volunteers and teachers…. It was considered that the provision of detailed training and guidance might help to overcome a major reason for the failure of the intervention evaluated by Loenen’s study;

(iv) Ongoing supervision, monitoring and management was provided by the research team in collaboration with senior staff in the volunteer schools’.

The intervention took place over six months when the children were aged 4-5. A total of 31 volunteers worked with 68 children. Testing was conducted at the beginning and end of the intervention (two phonological awareness tests, of rhymes and initial phonemes), and then again two and a half years later (year follow-up) (reading and spelling), when the children were aged 7-8 (Y3). Both the participating children and a randomly-assigned control group were studied. There were no significant differences between the groups in either test used either at the end of the intervention or at the 3-year follow-up.

Johnson (2004) constructivism referred to a collection of educational practices that were student-focused, meaning-based, process-oriented, interactive, and responsive to student personal interests and needs. In contrast, instructionism referred to a collection of educational practices that were teacher-focused, skill-based, product-oriented, non-interactive, and highly prescribed. In the context of reading instruction, constructivist theoretical assumptions were reflected in whole language learning; instructionist theoretical assumptions were manifested in remedial reading. Constructivist remediation was teacher-controlled and skill-directed instruction delivered in a context that was personally meaningful to students. Both constructivist and instructionist assumptions were acknowledged and combined to provide the foundation upon which specific skill deficits were identified and corrected in meaningful context. Constructivist remediation was conceptualized and presented in
terms of seven critical elements that were integrated and interdependent. Core skills remediation in 1) phonological processing, 2) sight word vocabulary, and 3) reading comprehension, based upon 4) authentic individual student assessment, were taught in instructional contexts made meaningful by 5) whole pieces of literature, 6) integration of literacy and language development, and 7) enhanced student motivation through self-selected, functional learning activities.

Jurickova (2006) in this paper author focused upon specific learning difficulties which, represent a big social issue especially for the people suffering from this handicap. Teachers who encounter learners with SLD in their classes should have some knowledge to be aware of learners’ weaknesses connected with their handicap. Second part of this paper was practical and it suggested possible activities of teaching these children English vocabulary as vocabulary belongs to the most important parts of each language. Therefore, when there were sufficient conditions, teachers should use special techniques to help their learners to acquire a foreign language. After seeking for an optimal method and technique for teaching and learning foreign languages that could be easily applied on every learner, experts had come to a conclusion that only one method or technique convenient for everyone did not exist and probably could not exist at all. In present days so called eclectic approach that is a combination of positive components of different methods and approaches had enforced. For that reason, all the activities practised in the research were based on Total Physical Response, Multisensoric Approach and Multiple Intelligences Theory. It was clear that each activity except for a doll was popular among the children and each activity would find its fans. The aim of the research was to find out what way of learning vocabulary children with SLD prefer. The research had shown that the most popular activities that children with specific learning difficulties prefer were those where the most senses were employed, such as movement, hearing, speaking, and touch, and at the same time the activities had to be interesting, funny, easy to understand, and that the children could practice them by themselves or together with their friends. These reasons were visible from the most favourite activities Poster, Assembling the picture and Finger writing. It should be pointed out that these techniques could be also used for teaching other learners, not only learners with SLD. To conclude, during her training the teacher should be acquainted with the widest
range of methods and techniques to be able to choose what components were competent and adequate for a concrete individual or for a concrete group. The teacher should apply as many techniques as possible, and according to her learners' approach decide which is for her learners the most suitable, regarding learners’ results as well as their opinion concerning the technique and also conditions in which the teaching process took place.

Severson (2007) in 2001, President George W. Bush implemented the NO Child Left Behind Act, (NCLB). This act delivered a strong message to schools nationwide. The Reading First initiative was trying to reduce the number of students needing special education services based on a lack of scientifically based reading instruction during early elementary years. The Amery School District in Northern Wisconsin was striving to meet the requirements of NCLB. The purpose of this study was to evaluate the effectiveness of Sonday System: Learning to Read at addressing the needs of struggling readers at the elementary level. The Sonday Program claimed to solve and prevent reading failure. The Sonday System enabled teachers to use multisensory, structured phonics quickly and successfully because the design was streamlined and uncomplicated, while the directions were explicit and easily understood. Winsor Learning can prepare any teacher to correctly identify and effectively remediate students at every level of intervention, Pre-k to adult. Another purpose of this program evaluation was to investigate Sonday System in regards to meeting the scientifically based research regarding how children learn to read. The results of this study provided evidence of increased student achievement. The study also provided evidence of the need for a balanced reading program.

Mitra (2008) Reviewed literature and empirical studies of dyslexia and ELF and found that the Phonological Deficit Hypothesis and the Cerebellum Deficit Hypothesis were in connection with a genetic disorder that could be the cause of the deficits. These form the basis of reasoning how the dyslexic pupil interrelated with his/her surroundings from a psychological and social point of view. Teacher/pupil relation would then decide which approaches, concepts, and methods could ensure success in teaching EFL to dyslexics. The methods presented were meta-cognition, meta-linguistics and mnemonics which through theories and examples would prove
the best way of motivating and thus integrating dyslexics into the normal school curriculum with better prospects of a successful future.

**Sum Up**


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2.7.0 RON DAVIS APPROACH

Pfeiffer et al. (2001) conducted a longitudinal study for five years which indicated that all learners, not only those suffering from a reading disorder, could benefit from the Davis Learning strategies. The Davis Alignment Procedure was adapted to serve as complement to the curriculum in the grade classes (age 5 to 9 years). The purpose of this technique was to prevent any younger child from lapsing behind and was not aimed at the learner who already has problems due to a diagnosed reading disorder. These Davis Learning Strategies were tested on 86 preprimary school learners (grade K-1) in the San Francisco Bay-area and Davis Learning Strategies were used to ascertain whether children would benefit from them regarding sight-word skills. Symbol Mastery techniques were mainly used, but the learners were also taught how to focus. The outcome was that children who followed the programme did significantly better in grade 1 than control group concerning the mastery of 100 sight words. Follow-up data also indicated that not one of the experimental group’s learners was referred to special education within 2 years and, furthermore, the referral of gifted children from this group was significantly higher than from the typical school population.

Engelbrecht (2005) tested the effect of Ron Davis Approach on the reading ability and Psychological functioning of children. Twenty Afrikaans – speaking learners in grade V to VII from a school for children with special educational needs in the Western Cape were randomly assigned to an experimental and a control group. The participants of the experimental group were then subjected to an intervention programme based on certain Davis techniques. It comprised of seven weekly sessions of two hours each. The results indicated that the experimental groups reading, spelling abilities as well as psychological functioning improved significantly.

Because of the dearth of literature on Ron Davis approach for at risk learners in both native and foreign language instruction, there is a need for further research to substantiate the effectiveness of this approach.