# Chapter 2

## Review of Literature

### Introduction

This study intended to investigate the manner in which classroom instruction was carried out for preschool children with special needs (CSN). Four research questions were formulated to aid in this investigation. The questions are: 1) How are students assessed? 2) How is classroom instruction planned? 3) How is classroom instruction implemented and 4) How are recommended practices in the field used in classroom instruction? This chapter places the study in the theories and context of current literature pertaining to preschool education CSN together with the practices that are recommended to provide quality instruction for this group of children. The chapter concludes with the conceptual framework of the study which also includes a description of the curriculum used in the government preschools for CSN.

### Theoretical Framework

In order to investigate, describe and understand how instruction is carried out in the local PSE classrooms, it is imperative to have a strong grounding in the principles and concepts related to the field. One would, as well, need to be familiar with the variations in terminology used in it, the teaching and learning strategies associated with these concepts, and the particular attributes on which classroom instruction focuses. A comprehensive understanding of these prerequisites will provide the foundation for examining the classroom milieu. Effective classroom instruction must needs be flexible, and able to meet the individual needs of the

students in a specific teaching context (Cole & Chan, 1990). They added that the key to success is knowledge of the various teaching techniques. However, teaching or instructional techniques do not materialise by themselves. They are based on methods which are derived from the principles of specific theoretical models.

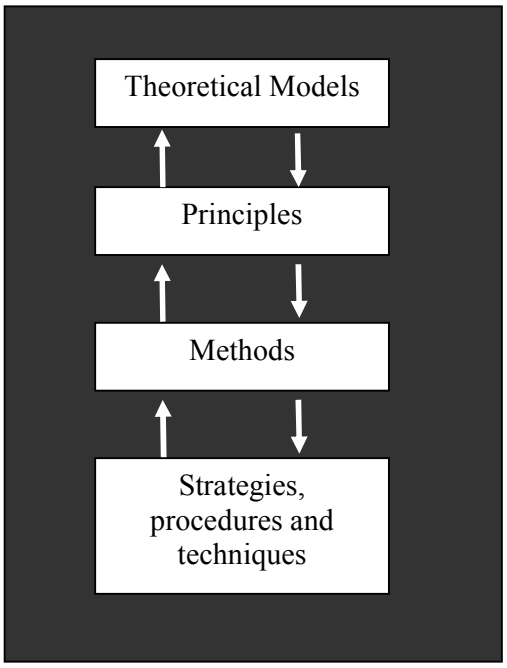


*Figure 2.1.* Hierarchical Conceptual Schema

The definition of technique and its relationship to theories can best be explained by using the "hierarchical conceptual schema" (p. 2) used by Cole and Chan (1990) in the Figure 2.1.

As maintained by Cole and Chan (1990), "a theory or a theoretical model is a set of propositions used to guide practical decision making" (p.3). Principles are generalisations derived from the theoretical models to guide teaching methods. Methods, which are tangible and closer to classroom instruction, are "established teaching plans" based on these theories (Lerner, 2003, p.4). These plans which are used to organise classroom practice contain statements that indicate the principles

derived from a specific theory. Two different teaching methods can have one common principle as its guide. Strategies also known as minor methods are "specific teaching operations that are used to guide the (teaching) activities" (p. 4). Procedures and techniques are stages to achieving the desired objectives in classroom instruction.

Succinctly put, techniques, procedures and strategies for classroom instruction are based on methods that are guided by the principles which are in turn established from the theories.

Research in early childhood education and psychology, not only formed the basis of PSE's theoretical framework, it also played a vital role in the development of methods to improve classroom instruction. PSE programmes are based, more on the behaviourism theory, but other theories like constructivism, developmental, humanistic, psychoanalysis and ecology also exercise a primary influence (Duncan, Kemple & Smith, 2000). These theories have been instrumental in expanding teaching and learning models for special education.

Cole and Chan (1990) described the models as the Behaviourist Model, Cognitive Model, Developmental Model, Humanistic Model, Ecological Model and Medical Model. For the purpose of this study, only three models the Behaviourist Model, the Cognitive Model, and the Ecological Model will be explored in detail, as they are closely related to classroom instruction in PSE in the Malaysian context.

### *The Behaviourist Model*

The Behaviourist Model, based on the learning proposition of Thorndike and Skinner heavily influenced special education (Cole & Chan, 1990). Encompassing the fundamentals of the behaviourist theory, and using principles of behaviour control, it has influenced numerous teaching methods in special education.

Behaviourists believe that child development is a continuous set of changing behaviours influenced by the environment and sensory training. Proponents of this model believe that learning occurs through operant conditioning which is affected by reinforcements and punishments that follow behaviour. Reinforcement, such as praise or tokens, are given to establish the wanted behaviour, while punishments are meted out to reduce or stop an unwanted behaviour (Berk, 1993). Based on this theory, Individuals with Disabilities Education Act 1997 (IDEA 1997) has stated that the individualised education plan of a child must include an evaluation of the child's behaviour referred to as functional behaviour assessment and the intervention referred to as positive behaviour support that will be provided to change the behaviour (Lerner, 2003).

Some of the teaching methods influenced by this theory are, stimulus control and contingency management, precision teaching, mastery learning, behaviour analysis, direct instruction and computer-assisted instruction methods (Cole & Chan 1990). But the methods commonly used for instruction in the local preschools are, direct instruction and behaviour analysis (Wong, 2005). Direct instruction involves execution of planned activities by adults in the classroom (Click, 2004). Teachers teach a skill and continuously monitor the child until the skill is mastered. The behaviour analysis method is incomplete without the mention of task analysis, a procedure whereby a skill is subdivided into a series of components and prerequisites and taught through repeated interactions, in a highly structured environment, and the steps are learnt in a sequential manner (Cole & Chan, 1990). According to Gargiulo and Kilgo (2000), pictures, phrases and songs that accompany daily activities to provide steps to the task not only make learning fun but also functional since children can use them over and over again. Task analysis can be performed using backward or forward chaining. Backward chaining starts

with the last step of a task analysis whereas, forward chaining starts with the first step. Backward chaining is usually used with children who are lower functioning so that they can be reinforced as soon as they have completed the step (Gargiulo & Kilgo, 2000).

The focus of the Behaviour Model is on intellectual development, that is, learning of contents and facts for success in school settings (Brewer, 1998). Motor and social-emotional development is not emphasised, stating that success in academic achievement will elevate positive self-esteem. The curriculum is highly sequenced, but is not integrated and so does not promote generalisation of intellectual abilities (Brewer, 1998).

However, the curriculum used in the PSECLD programme places equal importance on motor and social-emotional developments, as much as any other area. In addition, teachers are encouraged to use integrated approach during classroom instruction so that more than one component is addressed during a single activity.

### *The Cognitive Model*

Advocates of the Cognitive Model encourage progress in the physical, social-emotional and intellectual areas, unlike the Behaviourist and Ecological models. Early proponents of similar beliefs are Jean Jacques Rousseau (18$^{th}$ century) and Pestalozzi. Rousseau, who considered the child as an active learner (Berk, 1993), believed that the child's nature should be taken into consideration when making educational decisions. The child should also be provided with ample practical opportunities to make it easier for the child to learn (Brewer, 1998). Pestalozzi, who also considered the child an active learner, believed that lessons should be organised in keeping with the development level of the child. Moreover, he deemed that a child should be recognised as an individual and allowed to

discover knowledge independently. He also stressed the value of play as a mode of learning (Brewer, 1998).

The 20th century exponents of the cognitive model, Piaget and Vygotsky, also promote active learning through interaction with objects and people. The integrated content in the curriculum should be based on children's interest and taught in a meaningful context. The activities are designed to find solutions for social and cognitive problems. Interrelationship among all areas of growth is given prominence to enable the child to develop as a whole being (Brewer, 1998). According to Piaget, children must be actively involved with the environment in order to gain knowledge (Odom & Wolery, 2003). He further stated that the quality of the environment and the nature of the child's activities influenced the development of intelligence. Although adults should help children to conceptualise information, they should not get involved in direct teaching (Click, 2004; Odom & Wolery, 2003).

In contrast to Piaget who supports self-discovery, Vygotsky, who is also an advocate of cognitive approaches, believes in assisted discovery of knowledge by interaction between children and more mature adults to facilitate learning (Berk, 1993; Click, 2004). This model also stressed the understanding of the child's developmental stages (Odom & Wolery, 2003). The PSECLD programme also stresses the integration of components for teachings proposed by the Cognitive Model.

### *The Ecological Model*

This model views children as part of a larger social system, where they influence and are in turn influenced by the environment. According to Bronfenbrenner's ecological theory, the child experiences problems due to an

imbalance between its development and the environment. So, changing the environment can alleviate the problems. Hence, the Ecological Model highlights the dominant aspects of classrooms such as the settings within it; the related influence exerted by external settings like, the home, the community and society in general that affect the education of the CSN (Odom &Wolery, 2003).

According to Cole and Chan (1990), the ecological model encourages "…teachers to look beyond the narrow confines of typical classrooms (p.12)" in order to help the students adapt to their social and physical environment. Aspects such as bureaucracy, time constraint and manpower have to be considered if the PSECLD programme is to include activities that involve the social and physical environment of the students.

The PSECLD programme followed by the government preschools for CSN has stressed on the importance of the classroom settings arrangement. Teachers are required to arrange the setting according to the divisions stated in the Curriculum Specifications.

### *Developmentally Appropriate Practice (DAP)*

DAP is a set of general guidelines established by the National Association for the Education of Young Children (Gargiulo & Kilgo, 2000) as recommendations for providing early childhood education. According to Gestwicki (1999) "…it is a philosophy of making decisions related to children's programmes based on child development knowledge.(p.6)" The guidelines are considered to be dynamic since they allowed professionals to make interpretations and adjustment so that their instruction is appropriate for their charges. Although the 1987 version of the DAP guidelines did not cater much for CSN, modifications were made to the guidelines as

it was realised that early childhood programmes would also serve CSN (Bowe, 2000).

According to Herr and Libby (1995) DAP focuses on the child as a whole, integrating the child's needs, interest, and abilities. Cognitive, social, emotional and physical developments are all included when planning lessons. Lessons are planned using thematic approach. The themes are selected based on the children's interest in order to provide intrinsic motivation. DAP also focuses on providing meaningful experiences because they are more easily comprehended and remembered.

Age, individual and cultural appropriateness are the three main dimensions of DAP. Gargiulo and Kilgo (2000) state that the learning environment and experiences must be based on the typical development of the child, as well as take the individual difference and his social and cultural context into consideration. They add that DAP is based on three premises. First, "the process of learning is just as important, if not more important as the end product; second, children learn through play and through concrete hands-on activities that are relevant to their lives; and third, heterogeneous grouping is embraced with the belief that appropriate educational experiences meet the needs of young children with a wide range of abilities, cultural backgrounds and interests (p. 196)."

The PSECLD programme also emphasises the importance of learning through play and carrying out activities that are related to the students' lives advocated by the DAP.

### *Effective Practices in Preschool Special Education*

Guralnick firmly opines that the effectiveness of PSE had already been established during the first generation research, in spite of all the difficulties encountered, and criticisms about the methodology used in the process, while

conducting it (Bowe, 2000; Guralnick, 1991). He feels that second-generation research should concentrate on discovering the effectiveness of specific features in PSE.

Following is a delineation of teaching strategies, and the factors influencing them, which have been identified through extensive research over the years, as being effective in instructing preschool CSN with learning disabilities. These methods and strategies are based on the principles derived from the theories explained earlier.

Instruction in PSE should be individualised, intensive and goal-directed (Heward, 2003). Jordan (2004) states that, a principled eclectic approach to meet individual needs, as well as using play as a tool for teaching, achieved results. According to Gable (2004), active engagement of children brought about by direct systematic instruction that includes modelling, and role-play activities, will be able to replace behaviours that disrupted classroom instruction. Beckman and Kohl (1984) suggested that toys and materials may have some bearing on the quantity and quality of social interaction in children. In a survey conducted to explore preschool teachers' beliefs concerning the importance of various developmental skills and abilities, Kowalski, Pretti-Frontczak and Johnson (2001) discovered that the teachers stressed social-emotional functioning, but Jacobson (2002) pointed out that activities that promote social-emotional skills should include features that strengthen cognition as well. Odom and Wolery (2003) think that the social-emotional skills of the child should be nurtured to help build and strengthen its social relationships, which can in turn, improve child's academic performance.

For Click (2004), a good preschool is one that was able to provide social, emotional, cognitive and physical development in a child. It is teachers who are able to meet the children's developmental needs and who are able to organise activities that are developmentally appropriate. On the same note, Jacobson (2002) said that

the effectiveness of a programme depended on the environment and the activities that were able to engage young children in learning, and prepare them for success in primary school. The environment here refers to the physical design, learning and social-emotional dimension of the classroom, and related aspects such as space, material, activities, play, routines (Bailey & Wolery, 1992). Natural (Sandall, McLean, & Smith, 2000), or developmentally advanced settings (Odom & Wolery, 2003) are ideal for preschool CSN. These settings must reflect the culture of the children and their families (Dunlap, 1997; Odom & Wolery, 2003; Sandall, McLean, & Smith, 2000). The environment should be modified to suit the child and not the other way (Dunlap, 1997).

Mohd. Sharani (2003) stated that the activities must be carefully selected in order to provide variety and to inculcate interest in the child who is easily and quickly bored, so that loss of precious learning time can be decreased. All these effective practices in PSE are based on several theories, and teachers are wont to select and use them during classroom instruction.

### *An Eclectic Approach to Teaching*

The cognitive, behaviourist, ecological as well as other theories and models have some common goals, the main one being to help CSN, to learn, but they differ on the means to reach that end. Each model has its view of the best and most appropriate way to educate children with impairments. However, Brewer (1998) stated that models only served as guidelines. They were not supposed to be implemented in its entirety.

Brewer (1998) adds that teachers who used these models should construct their own understanding of the teaching and learning processes, and incorporate them into the model. She highlighted the fact that uncritical acceptance, encouraged

neither professional growth nor development of teachers or curriculum planners. Extensive research in the last two decades has helped develop, and define, preschool special education into a distinct field, generating its own body of knowledge, theories and philosophies relating to effective practices in the classroom (Bowe, 2000).

Providing instruction for CSN is shifting from depending on a single theory or model to an eclectic approach. In an eclectic approach to providing instruction in the classrooms, teachers can use a variety of methods from several theories, to devise different activities for students of different age levels, in order to provide an appropriate and effective learning experience. The advantages of using an heterogeneous approach to instruct preschool children with learning disabilities, is seen in Odom and Wolery's (2003) tenets in the unified theory of early intervention practice, Dunlap's (1997) attributes of early intervention programmes and Sandall, McLean and Smith's (2000) strands of recommended practices. Practices, both value-based and evidence-based, are associated with these tenets, attributes and strands. Evidence-based practices are those supported by widespread research using "valid measures and rigorous procedures" (Sandall, McLean, & Smith, 2000 p. 30) whereas value-based practices form the core of early intervention, and of special education in general (Odom & Wolery, 2003). These practices have helped create a dependable foundation of knowledge in PSE (Heward, 2003).

### *The Unified Theory of Practice*

Brewer (1998) suggested that teachers should use diverse approaches during instruction, but Odom and Wolery (2003), affirmed that practitioners have indeed moved, from depending on single, theoretical perspective practices, such as a behavioural or cognitive one, to a "theory of practice" (p.2), and since it draws from

various psychological and educational theories, they described it as a "unified theory of early intervention practice" (p.2). This theory has eight tenets. The tenets are, "family and homes are primary nurturing contexts" (p.2); "strengthening relationships is an essential feature of early intervention or early childhood special education" (p. 3); "children learn through acting on and observing their environment" (p.4); "adults mediate children's experiences to promote learning" (p.5); "participation in more developmentally advanced settings is essential" (p.5); "early intervention or early childhood special education practice is individually and dynamically goal-oriented" (p.6); "program transitions enhanced by adult or experiences(p.6); and "broader ecological contexts influence families and early intervention/early childhood special education programs" (p.6).

***The Attributes***

Dunlap (1997) stated that early intervention programmes should have eight attributes: "effective interaction with parents" (p.16); "providing programme for varying needs" (p.16); "recognizing each child's individuality" (p. 17); "child as active participants in learning" (p.17); "development of attitudes and emotions" (p. 18); "providing experiences with pre-academic activities" (p.18); "providing activities that enhance physical development" (p.19) and "daily schedules" (p.19).

***The Strands***

The Division of Early Childhood (DEC) of the Council for Exceptional Children carried out rigorous steps to identify and categorise the empirical and research-based practices in the field. First, researchers, personnel trainers, administrators, practitioners and family members were asked to identify practices.

Then, these practices were combined with those found in the literature. Finally, the consolidated results were validated.

The seven strands in DEC recommended practices (Sandall, McLean, & Smith, 2000) are, "assessment" (p.17); "child-focused interventions" (p.29); "family-based interventions" (p.39); "interdisciplinary models" (p.47); "technology applications" (p.55); "policies, procedures and systems change" (p.65); and "personnel preparation" (p.77). The recommended practices for each are grouped under unifying statements. The strand related to classroom instruction, "child-focused interventions" (p. 29) are grouped under three statements. These statements declare that adults must do three explicit things, "design environments", "individualise and adapt practices" and "use systematic procedures within and across environments" (p. 31) in order to create definite outcomes in child-focused interventions.

Variations in PSE are possible but the programmes should take into account the empirical and value-based practices that are stated in the attributes, tenets and strands because a PSE programme should, concurrently, cater to the social, emotional, physical and cognitive developments of the child (Dunlap, 1997). Some of the main value and empirical-based practices, also known as recommended practices that are common in the tenets, attributes and the strands are discussed here.

### *The Recommended Practices*

Although referred to as tenets (Odom & Wolery, 2003), attributes (Dunlap, 1997) and strands (Sandal, McLean & Smith, 2000) they have several common practices that form the foundation of classroom instruction such as, individualised and goal-oriented instruction; specific roles played by adults and students, adults as

facilitators and students as active learners during instruction; role of the environment; pre-academic activities; and routine and are highlighted below.

***Individualised Instruction***

Instruction for preschool CSN should be individualised, goal oriented and based on ongoing data to meet children's changing needs. Individualised instruction can be defined as an attempt to adapt instruction to individual differences among students so that their personal, social and academic growth is enhanced.

This is a strongly held value-based practice of PSE. Children with a wide range of disabilities and varying developmental levels, are served in this programme. Hence it is necessary to recognise each child's individuality (Dunlap, 1997), to prepare appropriate goals and adapt practices to cater to the individual needs (Sandall, McLean, & Smith, 2000).

According to Dunlap (1997), preschool education should cater to the different learning styles and developmental level of children, besides developing positive self-esteem and feeling towards learning. She emphasised the importance of developmentally appropriate practice and interesting themes. The child should not be forced to do activities for which it is not developmentally ready.

Individualised instruction is the teaching provided daily to the child with disability, according to the objectives crafted in the child's Individualised Education Plan (IEP). The plan and the instruction should be consistent with the child's needs, and the curriculum (Borich, 1996).

The IEP is a working document which enables them to plan individually for CSN. It describes the teacher's plans for meeting a student's educational needs (Gibb & Dyches, 2000). It is also a document to show that the child is receiving an appropriate programme (Spodek & Saracho, 1994). So the IEP should describe the

student's present level of educational performance, annual goals and short term objectives that are expected to lead to the achievement of the annual goals. The annual goals and targets are decided after a thorough assessment of the student's needs.

### *Adults as Facilitators*

Adults play a major role in the education of preschool children with disabilities but the definition of the role varies according to the philosophy followed in the programme. Behaviourists believe that children learn best when the instruction is teacher-directed. On the other hand, constructivists believe that education should be child-directed. According to Odom and Wolery (2003) adults should only mediate children's experiences in order to promote learning. Sandal, McLean and Smith (2000), were of the opinion that adults must ensure the presence of three particular features in PSE in order to create specific outcomes in child-focused interventions. The three features are: design environments that promote learning; individualise and adapt practices to suit the individual child; and use systematic procedures within and across environments.

### *Child as Active Learner*

Behaviourists view children as passive learners, whereas constructivists regard children as active learners. Although special education has deep roots in behaviourism, the trend is slowly changing towards constructivism. Children are active participants in learning, (Dunlap, 1997) constantly engaged in activities and events (Odom & Wolery, 2003). The DEC recommended practices state that adults should ensure that the child's environment encourages involvement (Sandall,

McLean, & Smith, 2000). There are strategies such as activity-based intervention and play that assist the child to be an active learner.

"Activity-based intervention is a child directed, transactional approach that embeds intervention on children's individual goals and objectives in routine, planned, or child-initiated activities, and uses logically occurring antecedents and consequences to develop functional and generative skills" (Bricker & Cripe, 1995 p.40). Play helps the child to make choices, as well as practise gross and fine motor and social skills (Dunlap, 1997).

***Pre-academic Activities***

Children learn by observing their environment and acting on it (Odom & Wolery, 2003). According to Dunlap (1997), they are better able to acquire skills which are developmentally appropriate and meaningful. So a variety of techniques should be employed to make the pre-academic lessons meaningful and interesting. Activities should help children acquire the skill, and strengthen their desire to use them. Exposing them to the joys of reading and writing would be more meaningful and interesting than forcing them to read and write individual letters.

Bailey and Wolery (1992) believed that a preschool environment should contain ample literary stimuli to help the students acquire pre-academic skills. They also suggested that teachers should include frequent reading activities in their instruction.

***Routine***

Routines allow students to know what will happen next so CSN are comfortable with a fixed schedule because it helps them to relax and handle transitions (Cook, Tessier & Klein, 1992). Teachers can use routines to establish

transition from one activity to another (Odom & Wolery, 2003). The routine must encompass a good balance of child-selected activity, teacher-directed activity, pre-academic, art, music, and physical activities, individual, small and large group, quiet and noisy activities (Dunlap, 1997). A daily routine will ensure that time is not wasted, but it should not be rigidly enforced.

CSN are not able to adapt to changes as fast as normally developing children. Signals can be incorporated into routines to provide information about the changes to the CSN. Knowing that changes are part of the routine can prevent misbehaviour due to not knowing what is going to happen next.

## Preschool Special Education

The importance attributed to education during the early years, is a philosophy derived from the field of early childhood education, which refers to educational services provided for children from birth to eight years old (Coughlin, 1996; Goodwin & Driscoll, 1980). That there is a vital relationship between experiences in early childhood and a child's development is a widespread belief held across cultures, and this belief is also mirrored in the proverbs used by the people. Besides cultural beliefs, educational theorists, religious leaders, reformers and philosophers have also contributed towards the present-day thinking of early childhood education (Gargiulo & Kilgo, 2000).

The beliefs of Martin Luther, Jan Amos Comenius, John Locke and Jean-Jacques Rousseau about early childhood education in the 17$^{th}$ century are found in the thinking of later theorists, who became pioneers of early childhood education (Brewer, 1998). Johann Heinrich Pestalozzi, Robert Owen, Friedrich Wilhelm Froebel added their theories and beliefs about early childhood education to further enrich the field. The work of these individuals, and those of the twentieth century

such as John Dewey, Maria Montessori, Jean Piaget and Skinner has contributed much towards the concepts and practices used in PSE (Brewer, 1998; Gargiulo & Kilgo, 2000).

In addition to the beliefs of the sixteenth, seventeenth, eighteenth and nineteenth century leaders, research carried out in the twentieth century also confirms that the first six years of a child's life are crucial for laying the foundation of learning (Bowe, 2000; Chiam, 1991; Dunlap, 1997; Lerner, 2003). According to Bloom (1964) and Kolucki (2000), any type of deficiency during the first five years of a child's life would affect the cognitive and affective development. Bloom believed that 50 percent of an individual's intelligence measured at the age of 17, would actually have been established by the age of four. Kolucki added that if the learning capacities of a child with disabilities were not recognised, and supported with stimulating environment, the child would eventually lose its abilities to learn. Hunt (1961) believed that a high level of intellectual capacity during adulthood depended upon a high-quality educational experience during the early years. The positive results from the extensive research on early childhood education, led educators in the field of special education to recognise the importance of early education for children who have deviated from the norm in terms of mental, learning, emotional and behavioural development (Lerner, Mardel-Czudnowski & Goldenberg, 1981; Lerner, 2003).

Before the 20$^{th}$ century, children with special needs were excluded from school. Changes in American law in 1975 provided educational opportunities, but the children were segregated into special schools and classes. Since research supported the certainty that early childhood education was the cornerstone of later learning and behaviour in schools, policy makers were also convinced of its'

advantages for CSN (Hohenshil & Humes, 1988; Jacobson, 2002). So changes were made in the education system to provide early childhood education for CSN.

Consequently, PSE emerged as a field, the origins of which can be traced back to the research in early childhood education and special education for school aged children. But there are differences between the two and PSE. Unlike early childhood education, PSE places much importance on the involvement of the child's family, individualises education programme for each child and makes use of specialised teaching approaches. The emphasis on family involvement and the focus on early developmental skills are the differences between PSE and special education (Odom & Wolery, 2003).

Professionals in the field have, variously, referred to the education provided for children with disabilities from birth to six years, as early intervention, or early childhood special education or PSE. The terms are ofttimes used to denote specific age range within the group. Preschool special education as defined by Bowe (2000) "is special education and related services for three to five year old children with disabilities…" (p. 38). Gargiulo and Kilgo (2000) also referred to educational services for special children aged between three and five, as early childhood special education (ECSE), while Guralnick (1991) calls it early intervention.

Generally though, most writers in the special education field, label education and related services given to the age group from birth to five years, as early childhood special education (Bowe, 2000; Dunlap, 1997). Bowe (2000) also pointed out that early childhood special education was usually used as an umbrella term to comprise services provided for all children with disabilities from birth, to five or six years old. He added that it aimed to provide a seamless system for delivery of services for children with special needs from birth to six years so that there was continuity.

According to the Individuals with Disabilities Education Act (PL 101-476) of the United States, disabilities are those impairments related to sensory, physical, health, speech or language, autism, mental retardation, multiple disabilities, emotional disturbance, specific learning disability and traumatic brain injury (Bowe, 2000; Gargiulo & Kilgo, 2000). Some states in America have also included children who experience developmental delays in cognitive, social or emotional, adaptive, physical and communication as eligible for receiving PSE.

Although almost all special education provided for young children with disabilities is based on research in the United States and Britain, the delivery mechanism varies across countries and cultures (Odom, Teferra, & Sudha Kaul, 2004). Literature and practice, in some countries, do not make a clear distinction between early childhood special education, PSE and early intervention. Often-times, the terms early childhood special education and early intervention are used interchangeably with PSE. Regardless of variations in terminologies and age ranges, this education, provided during the years before formal schooling, aims to reduce or prevent failure in school in later years (Lerner, 2003).

These variations were also evident in Malaysia when preschool services for CSN began to be provided. The need for such services increased yearly. There were long lists of parents waiting to enrol their children into the preschool programmes. Meeting the demand became the cynosure of service providers and administrators.

### *Preschool Special Education: A Malaysian Perspective*

The year 1926 marked a milestone for children with special needs in Malaysia in terms of formal instruction in classroom. Saint Nicholas Home started a school for visually-impaired children in Melaka. The number of learning institutions for children with such impairments increased thereafter, through the joint efforts of

the government and non-government organizations, albeit slowly. More primary and secondary schools, and vocational training centres for the visual, as well as the hearing-impaired, were gradually established.

However, children with other challenges were still not included in these efforts. It was not before 1964, that this lacuna was addressed.

Educational services for children with cognitive, communicational and social and emotional disabilities began in 1964 when The Selangor and Federal Territory Association for Retarded Children opened a school for such children (Sebestian, 1992). A year later, the Bethany Home, in Teluk Intan, Perak, opened its own school (John, 1996). Other NGOs who began to understand the need to look into the educational interests of these children set up similar establishments over the years. Over this period, these children, initially known as mentally-impaired, came to be denoted as children with Learning Disabilities.

In 1995, a Special Education Department was formed in the Ministry of Education and became instrumental in executing the Special Programme for Children with Learning Disabilities (Sharifah Zainiyah, 2005). With this initiative, more integrated programmes were established, in mainstream primary and secondary schools, to provide classroom instruction for students with Learning Disabilities.

This term, Learning Disability, came to be entrenched in the milieu of Special Education in Malaysia instead of mental impairment, when making reference to these groups of children. LD, the acronym, is an umbrella term to refer to such disabilities as cognitive, communicational, social and emotional, and developmental delays, autism, Down syndrome, mental retardation, and attention deficit hyperactive disorder (ADHD), besides specific learning disabilities like

dyslexia and dyscalculia. This usage is in contrast to that of LD in the western context, where it means only the specific learning disabilities (Lerner, 2003).

Running parallel to these advances in education for children with sensory impairment and other special needs was the idea of providing formal instruction in preschool classroom.

Preschool special education is "crucial for establishing a lifelong foundation for learning" (Lerner, 2003, p. 238). This awareness created a demand for it. Non-governmental organizations involved in special education began to cater for preschoolers. Parents who did not have access to centres began to provide preschool education for their children after reading books on it. Eventually, these parents opened up their own centres for preschool programmes. Acknowledging the need, individuals who returned from overseas with a degree in special education or related fields, also set up establishments for PSE.

Matters related to classroom instruction such as writing of the individualised education plan, setting of classrooms, planning lessons, instructional methods, teaching materials, assessment procedures of almost all these programmes were adopted from the programmes in United States, Britain, Australia or New Zealand or from research carried out in these countries and adapted to the local context.

A great deal of attention, time and money is spent on training teachers for preschool CSN. They are sent for conferences and seminars, conducted by both local and foreign experts in the field. Some are sent overseas to observe first-hand, how classroom instruction in preschools for CSN is carried out in other countries. Even so, the impact of the adapted PSE on local CSN is far less than expected, compared to that of their counterparts abroad (Sharifah Zainiyah, 2005), because local adults with special needs do not enjoy the success experienced by their counter-parts abroad.

Facilities like the internet, continuously make available the latest developments in PSE in the western world. Torgesen (2002) revealed that preschool education was able to reduce reading failure rates, from as high as 38 to 40 percent to just 6 percent or less. They maintain that children who do not get preschool education, would need intensive, long-term special education later, which does not necessarily promise good results despite being expensive. O'Connor, Harty and Fulmer (2005) , who carried out a study on students with reading problems, found that increasing the levels of intervention in reading during kindergarten, reduced the problem of placement in special education in primary schools. This is because, in their preschool years, children with disabilities were able to acclimatise quickly to new ways of working, as long as they were in programmes suited to their respective developmental stages (Roffey, 1999). PSE not only helped CSN, but also the country's economy.

According to Bennardo (1998) the effectiveness of PSE is not only observed in the increase in the academic abilities of children with impairments, but also in the reduction of expenses incurred through special education placements. Schweinhart (2002) discusses the findings of some longitudinal studies, carried out to analyse the benefits of the High/Scope Perry Preschool programmes in USA. A fixed batch of students who had completed this programme, were monitored at ages ten, 15, 19 and 27 to understand the benefits. The findings supported the belief that these students needed reduced special education services during formal schooling and welfare aid, indirectly contributing towards the economic benefits of the programme were, among others. He claimed that the government was able to save $7.16US in tax dollars, for every dollar spent on the preschool programme. The World Bank, which commissioned research in developing countries, reports that in India, it costed $6US to maintain a child with special needs in the mainstream, compared to the $5US for

a child without, but it costed $33US to keep that child with special needs, in a special school (CSIE, 1994).

It goes without saying if a PSE programme is able to help get CSN into the mainstream education system, it will contribute to the economic gains as well as ensure that all children receive primary education. As local experts realised the effectiveness of PSE in the international field, small-scale informal studies were carried out on components of PSE programmes such as services, curriculum and teachers. Results obtained from a study carried out on PSE teachers was presented by Ms Wong Poh Wan, the Director of Services with Malaysian CARE, during a symposium held in 2005.

She highlighted some of the problems experienced by the teachers providing PSE, in the NGO-managed special education schools (Wong, 2005). Informal discussions with administrators and teachers of NGOs' special education schools, emphasised the fact that teachers were not monitored at length to evaluate how they provided instruction in the preschool classroom, whether they used the strategies that they have been taught; and if they used them, to determine if they were being implemented correctly or were being watered down or filtered.

Constant appraisal exercises have shown discrepancies between research and practice. Strain (2004) discovered that where prevention and intervention practices showed progress in addressing the challenging behaviours of young children, but like Odom et al, (2005), he too was not sure if the recommended practices, proven by research, were extensively used in educational programmes. Heward (2003), on the other hand, was certain that effective practices were underused in special education. These discrepancies, between research and practice, represent a serious challenge to the implementation of a quality programme (Guralnick, 2000). In the developed countries, this disparity has reduced the possibility of effective classroom

instruction. Therefore, it is imperative to study classroom instruction in the local special education preschools to understand how it is carried out, and to discover how the recommended practices were used.

## Instruction in PSE Classrooms

During a symposium on Early Childhood Special Education, Wong (2005) a director with Malaysian CARE which provides PSE, pressed for local research to improve classroom instruction for CSN. Wong felt that although the PSE service had been around for almost fifteen years, there was room for improvement. There was a dearth of research in special education in general, and PSE in specific, in the local context. She adds that the PSE service providers are looking to research carried out locally to help improve the instruction provided for the children.

Further, when considering studies done abroad, a majority of those in PSE look at specific disabilities and components of development areas at a very atomic level (Gelzheiser, McLane, Meyers & Pruzek, 1998; Pretti-Frontczak, Kowalski, & Brown, 2002). The study by Gelzheiser et al. discovered the discrepancies between the Individualised Education Plan and instructional practices in just one component, the social development component of children. The study by Pretti-Frontczak et al. focused on a nationwide discovery of preschool teachers' use of assessment and curricula. These types of research are unable to help teachers who had to teach children whose disabilities ranged across the full spectrum of special needs and performance levels. Such research, carried out on a specific stage of classroom instruction or on specific components, is useful for identifying recommended practices on an individualised basis, but often proves unsuitable for a classroom environment that caters for children with varying challenges.

Wong (2005) stated that the NGOs are of the opinion that more local research in special education will be able to improve the services they offered. They should begin by investigating the two related concerns, that is, the quality of classroom instruction and if it meets the needs of the children.

Administrators must come to realise that investigating classroom instruction, will provide necessary information on whether the instruction can be improved, and if so improved, if it would produce better results.

Hence, it is vital that the two concerns receive adequate attention from the service providers, as has been done in the developing countries. Information about the effectiveness of the programme in meeting the needs of the children, has encouraged the development of more programmes and the participation of more children. Information about disabling conditions and suitable instructional strategies, for specific groups of children during specific stages of development, has provided practitioners with essential knowledge concerning the suitability of different techniques for, assessing the students, planning, and implementing instruction in the classrooms (Bowe, 2000).

Examining classroom instruction for CSN is extremely important for ensuring that the children receive effective preschool education. Most of the strategies recommended for use in the PSE classrooms are derived from a solid foundation of research, accomplished with legitimate metrics and meticulous procedures (Sandall, McLean & Smith, 2000). However, the impact of the strategy on the child will be affected if it is not implemented correctly (Sandall, McLean & Smith, 2000).

However, studies that investigate all the three stages, assessment, planning and implementation, will give a better overall picture of classroom instruction in actual environments where there are a number of students with varying disabilities

and abilities, all vying for the teacher's attention. It is extremely important to study how teachers use the recommended practices in this context.

Instruction in PSE classrooms comprise assessing the students, planning lessons and finally implementing the lessons. Various recommended practices are associated with each of these stages in classroom instruction, sometimes with one stage or with all the stages as in the case of providing individualised instruction. As established earlier, preschool education for CSN has benefited greatly from the findings of research in the developed countries. Based on this research the Special Education Department in MOE has developed and launched its own programme with a specially designed curriculum which is used in the three preschools included in this study.

## The Conceptual Framework

According to Miles and Huberman (1994) a conceptual framework expounded the key factors to be studied and the assumed relationships among them. The preschools for CSN in Malaysia use a number of programmes but this study is concerned with the programme, PSECLD used in the government preschools. This study concentrated on how instruction, the core of the PSECLD programme, was provided in the preschool classrooms. In addition, the focus of the study was on how the three stages in classroom instruction, assessing, planning and implementing were carried out and the link between the three stages. It also examined the recommended practices that were used in these stages.

The intention of this study was to formulate a framework for classroom instruction, to be used in local preschools for CSN, which included a set of desired practices that could be incorporated into the current local context.

The rest of this chapter explains the content of the conceptual framework of the study and Figure 2.2 provides a graphical representation of this conceptual framework

### *PSECLD programme Curriculum Specification*

All the 93 preschools for CSN under the jurisdiction of the MOE used the PSECLD programme. These preschools were annexed to mainstream primary schools which usually provided primary special education as an integrated programme. The Curriculum Specification for this programme was based on the curriculum for mainstream preschool as well as primary and secondary special education. It focused on outcome-based approach which stressed on what the students should learn and achieve after having been instructed by the teacher.

The teachers were allowed flexibility in selecting the content, strategies, time and components in order to provide instruction according to the needs of the students (Kementerian Pelajaran Malaysia, 2006).

Teachers were also advised to consider the characteristics of the children, the environment, learning principles when planning activities to ensure that the teaching and learning process went on smoothly.

The original version of the curriculum specification of the programme is in *Bahasa Melayu* (Malay Language). The following is not a translation but an explanation of the content in each chapter. The Curriculum Specification of this programme consists of ten chapters:

Chapter 1 Introduction

Chapter 2 Curriculum Components

Chapter 3 Behaviour Modification Guidelines

Chapter 4 Teaching and Learning Approaches and Administration

Chapter 5 Teaching and Learning Duration

Chapter 6 Daily Activities

Chapter 7 Curricular Aids

Chapter 8 Classroom Space Management

Chapter 9 Assessment and Report

Chapter 10 Parents / Guardian Involvement

Each chapter contains pertinent information related to the programme. The Educational Concept of the programme in the Introduction states that it provides learning experiences for CSN between the ages of four and six for the duration of one or more years, so that they will be ready to make the transition into the special education primary schools for CSN (Kementerian Pelajaran Malaysia, 2006).

The aim of the programme is to enrich the child's potential in all the developmental aspects, in mastering basic skills, and inculcating a positive attitude and behaviour. It also aims to help the child adjust to school environments as a step towards preparing for primary education.

In order to achieve these aims, the programme has nine objectives. According to these objectives the programme will enable students to:

- acquire self-help skills for daily living
- master gross motor and fine motor skills
- use appropriate language in daily communication
- master cognitive skills
- practise Islamic values and culture in daily living (for Muslim students only)
- practise moral values in daily living (for non-Muslim students only)
- acquire creativity and aesthetics according to individual level
- acquire skills for interaction and socialisation

- practise behaviours that are positive and accepted by the society

Besides these objectives, the Introduction also lists criteria of students who are eligible for the programme. A medical officer has to certify that the student falls into the category of:

- Down syndrome
- mild Autism
- developmental delay
- mild cerebral palsy
- mild mental retardation
- mild hyperactive
- mild hypoactive
- mild behavioural problems
- mild emotional problems
- mild Attention Deficit Disorder
- mild Learning Disabilities

The Introduction chapter also has information on early childhood education and factors that teachers have to consider when carrying out the preschool curriculum in this programme. The second chapter consists of the nine curriculum components, which are:

- Self-management
- Physical development
- Malay language
- English language
- Cognitive development
- Islamic education
- Moral education

- Social development
- Creativity and Aesthetics

A detailed explanation of each of these components in the four areas, namely the content, learning outcomes, suggested activities and teaching aids is also provided in the curriculum specification. Chapter three provides guidelines on behaviour modification. Instances of negative behaviours are described, and suggestions to modify these behaviours are also given. Chapter four concentrates on approaches for and management of teaching and learning in the preschools. The curriculum stresses four main approaches, which are:

- learning through play
- thematic learning
- integrated learning
- smart learning

Explanation about the approaches, steps to incorporate them into the daily teaching and learning activities and the advantages of using these approaches are also given in detail. Teachers are encouraged to incorporate all four approaches during the teaching and learning activities. The teaching and learning in PSE is administered as classroom, group and individual activities. Examples of activities that can be used for the different administration purposes are detailed.

Chapters five and six explain the suggested time allocation for each activity and the arrangement of the activities in the daily lesson plans respectively. Chapter seven is an account of the materials provided by the MOE for the teacher and the students whereas chapter eight explains to the teacher, how the space in the classroom can be divided into various focal points for teaching and learning purposes. Chapter nine is about assessing students' progress and reporting the assessment for further actions. The final chapter describes the roles of the parents

and the teachers. It also explains in detail, and provides illustrations, of how parents can contribute towards the preschool education of their children, and the responsibilities of the teachers towards the parents

Together with the Curriculum Specification, the teachers are also given a list of 21 themes to help them use the thematic approach for classroom instruction. The themes are: Myself, Body Parts, My Family, My Class (inside), My Class (outside), My House, Clothes, Traditional Clothes, Food, Animals, Vegetable, Fruit, Flowers, Vehicles, Occupation (Uniformed), Festivals 1, Festivals 2, My Country, Sports and Games, Public Transport, and Weather.

### *Classroom Instruction*

According to Nicholson (1989), the ideal way to find out how instruction is carried out in the PSE classroom, is by actually observing what is happening in the classrooms. Wolery (1991) related instruction carried out to provide learning opportunities for children during intervention, to three decisions: first, an assessment of the child's performance – to gauge the performance level of the child at the outset and to know the impact of the lesson on the child; second, planning consecutive instruction based on the assessment; and third, implementing the planned instruction in the class. In order to obtain maximum output from instruction, teachers have to organise the setting as well as maintain order in the classroom (Moore, 2001).

Therefore, this study concentrated on how the three stages of instruction: assessment, planning and implementation, was provided by teachers in the preschool classroom; concentrating on the sequence and the link among the stages and the use of recommended practices.

***Assessment***

Assessment is an important stage in classroom instruction, whereby each student's strengths, abilities and weaknesses are identified, to be used for planning the Individualised Education Plan/Programme (IEP). Therefore, a close relationship between assessment and instruction will result in effective teaching (Lerner, 2003). The results of this assessment should be the anchor of the instruction that is given to the student in the classroom. Guillaume (2000) believed that assessment performed, before instruction, helped in determining the students' prior experience and knowledge; during instruction, helped to know what the child was thinking while receiving instruction; and after instruction, helped to discover the impact of the instruction on the child. He added that assessment embedded in instruction, enabled teachers to adjust goals, and select more appropriate learning opportunities. It is also important to evaluate the impact of the lesson on the students that is to carry out ongoing assessment (Nicholson, 1989). Bailey and Wolery (1992) identified three methods to assess CSN direct testing, naturalistic observation and interviews. Direct testing can be carried out using norm-referenced or curriculum-referenced tools (Bondurant-Utz & Luciano, 1994).

Assessment involves collecting information about the student to aid in planning for subsequent instruction. In the local PSE classrooms, there were between seven and nine students. The study looked at when and how the teachers assessed the students, paying attention to the methods used by the teachers to assess the students and document the results. The study also investigated how the teachers utilised the results of their assessment. The techniques used to gain information at this stage were observation, interviews and document analysis.

***Planning***

"Planning is the systematic process of deciding what and how your students should learn"(Borich, 1996; p.105). Planning instruction allows the teacher to use the curriculum and teaching strategies efficiently to help students achieve their educational goals (Meese, 1994). Guillaum's (2000) three points: goals-driven instructional plans; long-term planning preceding short-term planning; and activities logically arranged in daily lesson plans, all aptly described instruction planning for PSE. This was in accordance with Cruickshank, Jenkins & Metcalf (2003), who were of the opinion that planning involved three stages, preplanning, interactive planning and post-planning.

Preplanning precedes teaching. Daily lessons are based on the Individual Education Plan (IEP) of each child. Selecting what to teach and which instructional method to use, developing lesson plans, collecting relevant materials (Cruickshank, Jenkins & Metcalf, 2003), managing classroom environment and using assessment information (Churton, Cranston-Gingras, & Blair, 1998) are all decided in the pre-planning stage.

Interactive planning happens while teaching. It involves changes made while teaching, to accommodate student needs or to manage classroom environment (Cruickshank, Jenkins & Metcalf, 2003). Post-planning, which is referred to as assessing instruction in this study, takes place at the end of the lesson.

Factors that have a strong bearing on planning are the teacher, the environment, the student and the topic. Teacher-related factors are, knowledge of the students and subject matter and time; environment-related factors are the curriculum, availability of appropriate materials, and the physical arrangement of the setting; student-related factors are the students' interests, learning strategy preferences, background knowledge, and behaviour patterns and finally, topic-

related factors are, prior knowledge and interest level of topic (Cruickshank, Jenkins & Metcalf, 2003). Conscientious planning, when teaching preschool CSN, is extremely important for executing classroom instruction.

According to recommended practices planning is the second stage in classroom instruction. Experts in the field are of the opinion that a team comprising the teacher, parents and other professionals involved in providing educational services for the child, should be involved in preparing the IEP. The goal and objective of the IEP should be stated in behavioural terms, which will inform the teacher what to teach the student. The IEP should also be used as an assessment tool to document if and when the student had mastered the learning outcome or skills selected at the outset. The daily lessons that the teacher prepared, should be based on the IEP.

The current study looked at how planning was carried out in the three preschools, paying attention to the components that were focused upon and the documents that were used for recording information related to planning classroom instruction. Information on planning was obtained through interviews and document analysis.

***Implementation***

Implementing instruction, or in simple terms teaching, is intentional, a follow-up of the planning stage. An efficient and detailed plan will help the teacher carry out the implementation with minimum problems. The content, and the time allotted to each task in the content, should be contained within the teaching environment (Guillaume, 2000) so that valuable instructional time is not wasted. Instruction in PSE is highly individualised, specific to the developmental level and

the disability of the child. Therefore, the teacher has to be knowledgeable about suitable activities in order to implement individualised instruction.

Research has introduced various effective instructional strategies for preschool CSN. The curriculum specification of the local PSECLD programme mentioned four strategies that can be used. The four are also in line with those outlined in the literature of PSE. The four approaches are: learning through play, a thematic approach, an integrated approach and a smart approach using computer assisted teaching activities (Kementerian Pelajaran Malaysia, 2006).

However, the onus is on the teachers to select suitable strategies so it depended on the teacher's knowledge of strategies and methods to be used in the class. Focus was on the strategies and activities used to teach the skills, and how closely the implementation adhered to the planning. The technique used to study the implementation of classroom instruction was basically observation, but interviews were conducted with teachers to clarify matters concerning instruction.

### *Use of Recommended Practices*

The study also ascertained how the recommended practices in the PSE field were used during classroom instruction for CSN in the local preschools. Besides observation, the teachers were interviewed to gain their perspective and understanding of the instructional strategies that they used in the classroom to discover how they adopted and adapted the recommended practices.

According to Wolery (1991) linking the assessment results of the student to planning and implementing a lesson that met his/her individual needs was the most important recommended practice. So, this study paid attention to investigate the link between the three stages of classroom instruction in the three preschools through document analysis and observation and also how it met the individual needs of the

students. In addition, attention was also paid to how the various instructional strategies in the recommended practices were adopted and adapted.

### *Suggested Framework for Classroom Instruction in Preschools for CSN*

The exhaustive review of literature has identified various recommended practices associated with classroom instruction for preschool CSN which are products of research done in developed countries. The information from these researches is used extensively to train local teachers. The current research investigated how classroom instruction was provided in three preschools for CSN; how the teachers adopt and adapt the knowledge they have gained during the training sessions. It was the intention of this present study to combine the information gleaned from the local context with the recommended practices to build a framework that is able to depict how classroom instruction can be provided in the Malaysian preschools for CSN.

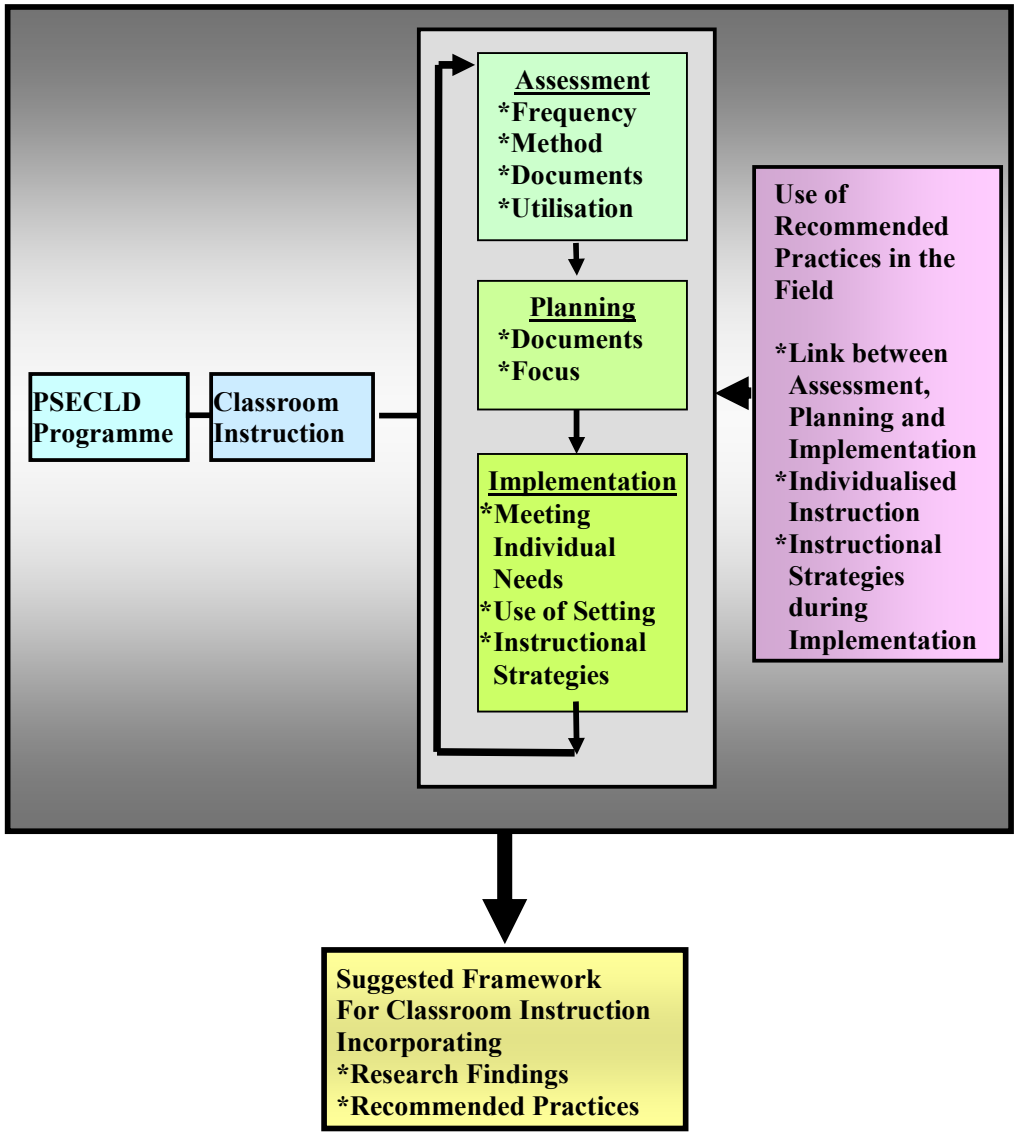


*Figure 2.2.* The Conceptual Framework of the Study

## Summary

The literature that forms the basis of this study substantiates how classroom instruction should be provided to preschool CSN. The roles played by the various theories, related to the teaching learning processes, early childhood education, special education, and their contributions towards PSE, are introduced. The developments of eclectic practices which form the basis of the recommended practices are discussed, together with research carried out in that area. This discussion culminates in the development of the conceptual framework, which provides a description of the curriculum specification used in the local preschools for CSN, a view of the three stages of classroom instruction: assessment, planning and implementation; focusing on the link between the three stages, and the recommended practices that are used in each of the stages. The conceptual framework also includes the intention of this study that is to develop a framework for classroom instruction for the local preschool.