



2007 Early Education and Childcare

Higher – Paper 1

Finalised Marking Instructions

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Question 1

- (a) Describe the linguistic development of children in one of the following age ranges: 3-5 years, 8-12 years.

6 KU

Candidates should detail accurately the linguistic development of their chosen age group.

Credit can be given to candidates who explain that all children progress at their own pace in linguistic development and that there are many factors which have an impact on this (1 mark).

Credit can be given to candidates who state that linguistic development includes the development of language and communication skills which includes verbal and non verbal skills (1 mark).

Up to a maximum of 2 marks for each aspect of their linguistic development accurately described. Any age appropriate description can be given credit.

3-5 years:

- repeats words and phrases
- continually asks questions
- remembers and repeats songs and rhymes
- talks to self while playing
- can learn more than one language
- can participate in simple conversations
- can talk in sentences though can make grammatical errors
- conversing fluently and clearly in most cases
- communicates by mark making.

8-12 years:

- expresses self clearly and fluently
- can use correct grammatical structures
- uses language to assist problem solving
- can participate in more lengthy discussions
- can reason and explain own opinion
- can express their opinion and debate issues
- reads a range of fiction and non fiction independently
- can tell a story of their own.

- (b) **Identify and explain one positive and one negative influence on children's physical development.**

**2 KU
4 AE**

1 mark for identifying and explaining each influence and **2 marks** for describing the positive or negative effect of this influence.

Candidates may choose to give positive and negative effects of the same influence.

For example (**3 marks**).

- Nutrition can be a positive influence on children's physical development. A balanced diet containing protein, fat, carbohydrate, minerals and vitamins is essential for promoting physical development. This will support the strengthening of bones and muscles and helps to provide energy for children to develop their gross motor skills.
- Breast-fed babies are less likely to be overweight and less susceptible to infection.
- Fresh fruit and vegetables are essential for healthy growth and development and may protect children from developing later illnesses.
- A good diet which includes water and vitamins and minerals has an impact on children's ability to learn and concentrate.
- If a child has an appropriate diet which does not include lots of fizzy drinks or fatty foods they will be more likely to be active which develops their gross motor skills.

Influences can be selected from:

- ante natal care
- birth circumstances
- nature/nurture
- genetics
- health
- illness short term/long term
- nutrition
- exercise, rest and sleep
- hormones
- environmental influences
- cultural background
- inter relationship of development.

- (c) **Explain the influence of nature and nurture on children's development.**

4 AE

Nature (**1 mark** for explaining nature and its influence on any aspect of children's development).

Genetic influences on development inherited from biological parents.

Nurture (**1 mark** for explaining nurture and its influence on any aspect of children's development).

Environmental influences on development such as parenting, life circumstances and education/stimulation.

Interaction of nature and nurture and its impact on the all round development of the child (**2 marks**).

(d) Luca

1 KU
4 AE

Identify one influence on Luca’s development and analyse its impact on his all-round development.

Life circumstances or education – changing teacher and moving into composite class (1 mark).

Up to 4 marks for analysing the impact of this influence on his all round development.

Social and Emotional development

Luca has changed classes and is in a composite class. He is having to build relationships with new children some of whom are older than he is. As he is with a new class he is also having to get to know a new teacher. As a result of this he is refusing to complete tasks and his behaviour is causing concern.

Cognitive Development

In moving from P1 to P2/3 Luca may be receiving less individual attention and being involved in more challenging activities. He may be having difficulty concentrating as he is not staying “on task” with activities. This could be due to the new environment or the level of difficulty.

Language and Communication/Fine Motor Skills

Luca is having difficulty with his handwriting in the move to P2/3. This may be due to difficulties with fine motor skills or perhaps as he is now having to do more extended writing tasks.

- (e) **What are the main features and principles of children's growth and physical development?**

4 KU

For full marks candidates must include an accurate description of both features and principles of growth and development. Candidates may include that while all children develop at different rates the sequence of this development follows a common pattern.

Principles of physical development (Max 2 marks for detailed answer)

Cephalo-caudal:

- cephalo-caudal principle of development refers to the sequence of physical development from head to toe such as ossification (hardening) of bones beginning with the skull down the body through the spine
- cephalo-caudal principle relates to the development of physical skills from simple to complex beginning with head control which precedes sitting unsupported, crawling and walking.

Proximodistal:

- proximodistal principle of development refers to the sequence of physical development such as ossification from the spine towards first the arms and legs and then the hands and feet
- proximodistal principle relates to the development of physical skills from 'inner to outer' beginning with reaching which progresses to the palmar grasp which precedes the pincer grip.

Features of growth and development (Max 2 marks for detailed answer)

- Babies' heads are bigger in proportion to their bodies in comparison with older children.
- Babies' heads are approximately one third to one quarter of their total length
- Between two years and the onset of puberty, children grow at a relatively steady rate.
- From about 10 years in girls and 12 years in boys there is usually a considerable growth spurt.
- Any other relevant answers.

Question 2

(a) (i) Describe one theory of cognitive development in children.

8 KU

Up to **8 marks** for a clear, accurate description of **one** appropriate theory with the theorist correctly identified.

Piaget:

- babies are born with reflexes, which are involuntary responses to the environment
- schemata are patterns of behaviour which we use to guide and direct our behaviour
- schemata are adapted through assimilation and accommodation
- cognitive development consists of four main stages
- these stages are the sensori-motor stage, the pre-operational stage, the concrete operational stage and the formal operational stage
- Piaget's ideas included concepts such as symbolism, conservation, egocentrism and object permanence
- Piaget thought that it was impossible for children to understand unless they were operating at that stage of cognitive development
- cognitive development occurs as a result of active exploration and discovery of the world by children.

Fischer:

- skill theory proposes that development progresses through a series of skill structures known as levels
- skill levels are sensori-motor action, representation and abstraction
- skills develop in phases rather than stages
- development of skills depends on amount of practice and experience in that particular area such as art
- skills at one level in one developmental aspect will build directly on the skills in the preceding level
- gradual progression from one level to the next
- discrete stages in cognitive development which relate directly to maturation
- cognitive developmental progress is continuous
- individuals often do not perform at their best level as they may pursue too many skills
- an individual's performance in a variety of skills is likely to be good but only by isolating and practising specific skills can individuals perform at their optimum level.

Vygotsky:

- saw cognitive development as an active process
- saw great regularities in the development of children's thinking
- stressed the importance of the child's social world
- he proposed that people have developed 'tools' to master their behaviour, which include speech, writing and numbering – he argued that these 'tools'(sometimes referred to as cultural sign systems) greatly affect cognitive development – especially for higher level thinking
- he saw cognitive development as being influenced by intrinsic forces as well as cultural forces
- he was interested in people's 'metacognition', ie the awareness people have of their own thought processes and their ability to improve their own learning strategies
- he saw value in abstract concepts being taught in schools, eg maths, science and social science
- role of the adult important
- zone of proximal development – Vygotsky used this term for the distance between what a child can do for themselves, and that which they can master with the help of an adult
- stressed importance of formal education.

Bruner:

- children learn through play and exploration
- the role of language is crucial – parents and teachers/lecturers should encourage children to express events by talking and writing
- the role of the adult is very important – Bruner talked about 'scaffolding' – ie the adult helping and supporting the child at a crucial time in his learning
- sequence of cognitive development – children develop three main ways of internally representing the environment to themselves (modes of thought). Enactive – based on physical actions; iconic-mental images; symbolic – for example number. Adult retains these modes throughout life
- Bruner stresses the importance of culture, family and education on the child's learning.

- (ii) **Evaluate how a knowledge of the theory chosen in (i) could assist an adult working with children in promoting holistic child development.**

8 AE

Up to **8 marks** for a clear evaluation of the use of the theory described in (i) to benefit the holistic development of children, such as:

A recognition that all aspects of development are linked, and that healthy cognitive development will benefit all other areas, leading to holistic development for the child.

Jean Piaget’s theory of cognitive development

Piaget’s theory included stages of cognitive development and schemata. The influence on current practice in early education and childcare includes the following:

- children progress through specific learning stages at different ages
- important to understand the assimilation and accommodation of schemata, applicable at all ages
- children need opportunities to learn through active exploration and investigation of their environment
- important for early education and childcare workers to recognize which developmental stage a child has reached and not expect understanding beyond their age and stage of cognitive development.

Kurt Fischer’s theory of cognitive development

Fischer put forward a theory referred to as ‘skill theory’. He sees skills developing in phases rather than stages, depending on the amount of practice and experience one has in that area of development. The influence on current practice in early education and childcare includes the following:

- skill theory proposes that children’s development progresses through a series of skill structures known as levels
- important that early education and childcare workers recognise what skills are developing and at what level to support the progression to the next level
- children need practice and experience in order to develop skills
- cognitive developmental progress is continuous
- individuals often do not perform at their best level as they may pursue too many skills
- children’s performance in a variety of skills is likely to be good but only by isolating and practising specific skills can they perform at their optimum level. For example, artistically a child may have rapid development if he gains a lot of practice and is stimulated by examples of art from people around. Another child may make little or no progress because of lack of new experience, or opportunity to practise.

Plus as above for Vygotsky, Bruner or any other, relevant, theorist, including the importance of having contact with adults or more able children to ‘scaffold’ or gain access to their ‘zone of proximal development’.

(b) **From the following list describe three methods of studying the development of children:**

- case studies
- surveys
- longitudinal studies
- experiments
- naturalistic observation
- structured descriptions

6 KU

Up to **2 marks each** for a clear description of **three** methods, such as:

Case Studies

Case studies can provide information about one person or a group of people. Carrying out a case study might involve observing the 'subject' (person), or carrying out interviews. The case study allows the researcher to study rare or sensitive occurrences, such as the effect of isolation on a child's growth and development. An example of this is the study of Isabelle, a child who was isolated with her deaf mother for six years – (Mason and Davis cited in Cardwell, Clark and Meldrum, 2000). Another famous case study is the story of Dibs (Axline, 1981), which describes how play therapy helped a child overcome emotional trauma.

Surveys

Surveys involve the use of questionnaires and/or interviews. You may have taken part in a street survey, or a telephone survey. Subjects in a survey are asked to answer questions orally or provide written answers to questionnaires devised by the researcher. The questions are designed in such a way that they should not lead the answer in any way, as this would give false results. The questions might require yes/no answers, short responses or longer answers. Sometimes it is just a matter of ticking boxes.

Longitudinal studies

A good, current 'example of this is 'A Child of Our Time' – looking at the development of a number of children born in the year 2000. In this type of study children may be studied at a particular stage in life, then later, perhaps at intervals of a number of years. There have been television programmes made in the past 40 years of longitudinal studies of children, with gaps of seven years between each part of the study. These highlighted how some children changed significantly in their hopes and aspirations as they grew and developed and became influenced by the environment and events in their lives.

Experiments

Experimental methods set out to test a particular hypothesis. For example a researcher may state the hypothesis 'children's mathematical skills improve through play'. (A hypothesis is a statement of what you predict will happen.) To test the hypothesis a researcher might set up an experiment where two groups of children are tested on a particular aspect of maths. One group will have the experience of playing with relevant mathematical materials, while the other group (the control group) will be taught by normal methods.

Naturalistic observation

Naturalistic observation refers to the method whereby researchers observe subjects in their natural environment to find out how they behave and respond in certain situations. It can be carried out in the nursery setting, or at home.

Naturalistic observation can be interventionist (participant) or non-interventionist (non-participant) and should be done as precisely as possible. This method makes use of procedures such as:

- time sampling
- frequency sampling
- duration sampling.

These help to observe the child across periods of time, and give pictures of the skills children possess and how they learn and develop new skills. Observation findings should be recorded carefully, using checklists, charts and grids. Often observers keep diaries to give a more representative picture over time, rather than making judgements from one-off situations.

When observing children it is important to be objective and not subjective. This means recording exactly what you see and hear, without assuming the intentions behind the behaviour.

Structured descriptions

Structured descriptions are usually snapshots of a child's all-round development or one developmental aspect. They are often used when children move from nursery to primary school to provide a picture of their stage of development. Health professionals use structured descriptions to monitor children's developmental progress.

Older children's learning progress may be assessed through the use of structured descriptions in the form of set tasks to achieve.

(c) **Evaluate in terms of effectiveness one method of studying child development.**

3 AE

Up to **3 marks** for a clear evaluation of **one** method, such as:

Case studies

- can provide information about one child or a group of children
- can involve observation and interviews
- can be time consuming to carry out
- allow researchers to study rare or sensitive issues
- may not be representative of children as a whole, cannot generalise
- interviews with children not always reliable
- can provide useful information and starting points to stimulate further, more scientific research

Surveys

- involves use of questionnaires and/or interviews
- questions may be answered orally or in writing
- questions should not be leading
- questions can be a mixture of ‘closed’, eg yes/no answers and ‘open’ – requiring longer answers
- surveys can just involve ticking boxes
- for child development and behaviour useful to survey parents and a range of childcare professionals
- may not get reliable answers from children
- surveys can be used in all types of studies – longitudinal, cross-sectional and cross-cultural

Longitudinal studies

- useful for seeing the effects of age and/or changing environments on individuals and groups
- useful for seeing changes in development and behaviour in children
- can be used to record children’s developmental progress
- ensures observation and assessment are ongoing
- can be time consuming because of the timescale involved
- can provide information for further research

Experiments

- used to test a particular hypothesis
- variables – independent, dependent and confounding
- scientific method of research, control experiments necessary
- experiments need to be replicated many times by others to be sure of consistency in results and conclusions drawn
- often set up in ‘false’ situations, so children may not respond naturally
- children may try and give the response they think the experimenter wants
- unethical to carry out experiments with children which place them in difficult or vulnerable situations

Naturalistic observations

- observes children as they behave and interact in early education and/or childcare settings
- allows observations to be made without putting children into an unreal or unusual situation
- helps observations to be more accurate as children are in their natural habitat
- helps observations to be more accurate as children are less likely to be aware that they are being observed
- uses a variety of sampling methods to be as precise as possible in carrying out and recording observations
- uses checklists, charts and grids to record accurately and effectively
- provides information to enable the planning of activities and experiences to help meet the developmental needs of children

Structured descriptions

- observation of a child/children/equipment at set intervals over a period of time to assess all-round/one particular aspect of development or how much a piece of equipment is used
- a table of skills which is filled in as a child achieves the skill. This can be interventionist when an adult gives a child set tasks to assess the stage of development, eg health visitors often check children at set ages. It can be non-interventionist when children are observed on an ongoing basis in an early education and/or childcare setting. The table may focus on one aspect of development or a child's all-round developmental progress
- a summary of a child's developmental stage when moving from one room or class to another in an early education and/or childcare setting. The transition report from nursery to primary school is an example
- useful as a snapshot of a child at a particular stage
- useful for comparison of a child with his/her peers and developmental 'norms'
- can help to identify developmental delay so that specialist intervention can be started early
- only shows what skills a child has at one particular moment in time and not what skills he/she may be on the verge of achieving
- adult intervention may confuse a child who may not understand the requirements of a task and therefore not demonstrate his/her full ability.

[END OF MARKING INSTRUCTIONS]