

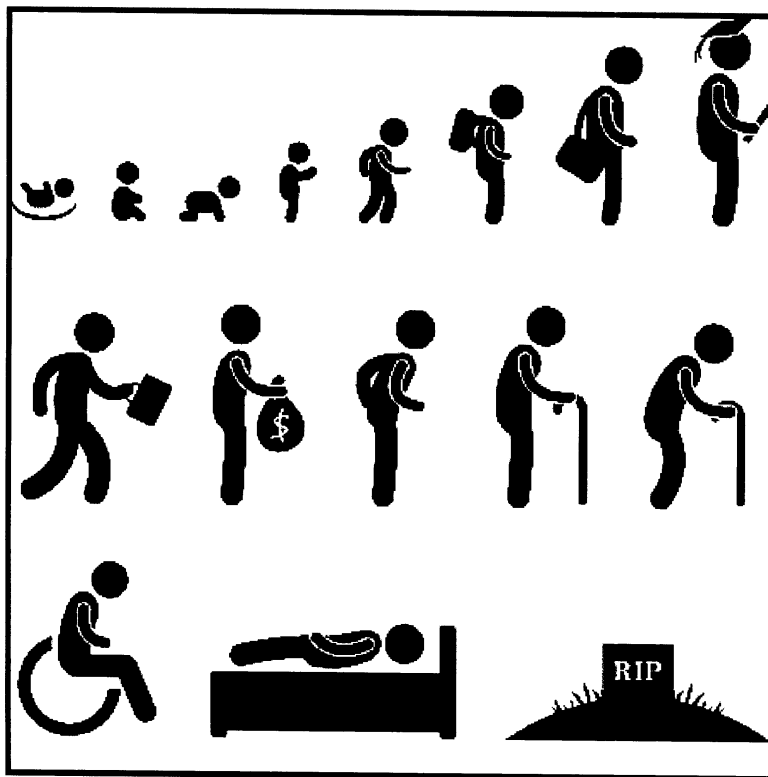
Life Span Development

Practical Manual

II B.Sc (Hons) Community Science

HDS -233

Credits 4(2+2)



Human Development & Studies
College of Community Science
Vasant Rao Naik Marathwada Krishi Vidyapeeth
PARBHANI (MS)



**Dept.Of Human Development & Studies
College Of Community Science
Vasantao Naik Marathwada Krishi Vidyapeeth
Parbhani - 431402**

CERTIFICATE

It is to certify that this is record of the practical work carried
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Course Professor

Student

External Examiner

**Head
Human Development & Studies
College of Community Science
VNMKV, Parbhani**

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Life Span Development
Practical Manual
II B.Sc (Hons) Community Science

Authors
Prof. Vishala Patnam
Prof. Ramana Desetty

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I N D E X

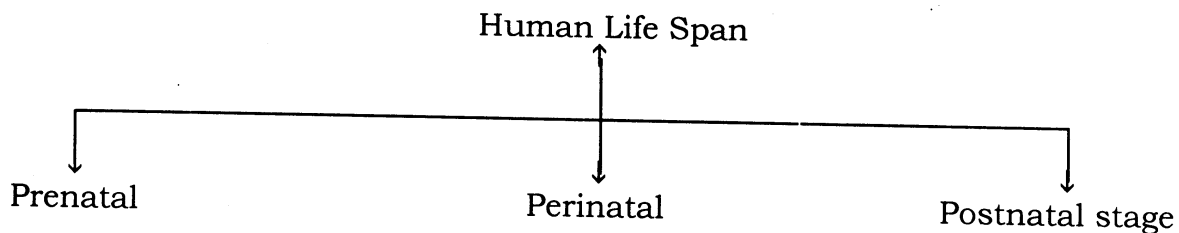
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Stages of Human Life Span

Objective

To get oriented to the stages of human life span

Human Life span starts from the moment of conception (zygote formation) and it ends at death of an individual. The stages of human life span are mainly divided into three main stages i.e 1. Prenatal Stage, 2. Perinatal Stage and 3. Postnatal Stage.



Prenatal stage is divided into 3 sub-stages i.e Zygote, Embryo and Fetus.

Perinatal stage : It includes only of the time taken from initiation of delivery pains to the completion of delivery. It may last for hours or for days.

Postnatal stage : It starts at the time of birth of a baby and ends at the time of death of that individual. It is a very long stage in human life span. It is divided into mainly nine sub-stages

Sub-stages - total 9

- 1 Neonatal Period - Birth to 4 weeks
- 2 Infancy Period - End of 4 weeks to 12 month
- 3 Toddlerhood Period - 1 yr to 2 yr
- 4 Early Childhood Period - 2 yr to 6 yr
(Pre- School Period)
- 5 Late Childhood Period - 6 yr to 13 yr or till individual's sexual maturity
(School Age Period)
- 6 Adolescence Period - 13 yr to 18 yr (Puberty Period - 11 yr to 15 yr)
- 7 Early Adulthood Period - 18 yr to 40 yr
- 8 Middle Adulthood Period - 40 yr to 60yr
- 9 Late Adulthood Period (Senior citizens) - 60 yr to till death)

Note : Collect pictures relating to all the stages of human life span and stick it

Prenatal Stage

Perinatal Stage

Postnatal Stage

Learning Outcome

Pictures Taken While Conducting the Experiment

Understanding Human Wholesome Development from Infancy to Adulthood

Objectives

To develop right concepts about the components of wholesome development of individuals and to learn simple rating technique of it through a case study by viewing video film

Introduction

Human wholesome development is mainly based on heredity and human's internal, social and physical environments. Though heredity fixes the optimum level to human development, it is the environments – internal, social and physical that help individuals to develop to that optimum level. Conducive environments enhance it, while non – conducive environments hamper it. There are total 8 components in wholesome development. They are Physical, Motor, Intellectual, Emotional, Social, Speech, Language and Moral development. One must remember that all these components are inter connected, dependent, and concurrently occur every moment at different speed / rate based on the activities / experiences of individuals (Vishala Patnam, 1991). While studying each component of individual's development one should observe the aspects / items / domains of it as given below.

Method

All classmates have decided on studying randomly chosen one male and one female classmate's wholesome development based on the aspects given below and make a brief report and presented it for understanding his and her development. The collected information (study / measurement) of boy / girl was be rated on 5 point scale: Excellent, Very Good, Good Fair and Poor. We have observed her / his picutres / albums and school college reporsts too. Later on gave the ratings of her / his overall development.

Physical Development – Measuring individual's height, weight, circumferences of head, chest and mid-arm and observing his / her body proportion, number & type of teeth, facial features, type of body build (ectomorph, endomorph and mesomorph) and GQ.

Motor Development – Studying individual's movements, abilities and activities performed by hands, legs, trunk, neck, mouth, eyes and observe total body language etc.

Intellectual Development – Studying individual's perceptions, thinking, understanding, analyzing, relating, reforming, memory, questioning, answering capacities etc and also her / his use of common sense (integration between 5 senses- Listening, observing, touching, smelling and tasting and talking).

Emotional Development – How she / he responds to stimuli, expression of emotions, understanding emotions in social context & its management suitable to her / his age and situations in a socially acceptable way.

Social Development- His / her personal interactions with people around in family and outside family. How he / she get along people with different nature, age groups, cultures, values etc. His / her capacities in making friendship, doing work with others, cooperating, coordinating, supporting, expanding social circle etc and also rating of his / her social competency (what type) extrovert, introvert and ambient.

Speech Development – Studying his / her speech - inclusive of pronunciation, articulation, voice quality, voice modulation, loudness and so on.

Language Development – Studying his / her spoken words, understanding of different meaning of those words, sentence formation, grammar, semantics, pragmatics used in routine life, known languages and in it his / her reading, writing and speaking abilities (like Marathi, Hindi, English, and Sanskrit).

Moral Development- Studying his / her moral values whether he / she has the ability to differentiate between right and wrong decisions, behavior and acts. Whether he / she try to repeat good acts and resisting doing bad acts. Interviewing her / him to know about what type of socio-cultural environment provided to her / him for it.

Note: After seeing the video film from infancy to early adulthood, rate the overall wholesome development on a 5 point scale: Excellent, Very good, Good, Fair / Ok, Poor

Components of Wholesome	Ratings		
	Childhood	School age	Adolescence
Physical Development			
Motor Development			
Intellectual Development			
Emotional Development			
Social Development			
Speech Development			
Language Development			
Moral Development			

Pictures Taken While Conducting the Experiment

Signs of Pregnancy and Pregnancy Test

Objectives

- To learn about signs of pregnancy.
- To learn how to determine pregnancy state of a woman by using One Step Pregnancy test (Strip) / CICA test.

Requirements

- A pregnant woman / her early morning urine sample.
- Interview with pregnant woman to understand her signs of pregnancy
- Urine specimen collection container
- Stop watch
- 5 ml urine sample of pregnant women (10 – 15 days after missing menstrual period)
- New one step pregnancy test / any other pregnancy test

Case study

Name of pregnant woman : _____

Length of pregnancy : _____ (Weeks/months)

Signs of pregnancy experienced by the pregnant woman and observed in her by her / others / the medical professionals.

S. No	Signs of Pregnancy	Report	
		Yes	No
1	Absence of menstrual cycle (No menstrual bleeding in pregnancy. It is called Amenorrhea).		
2	Presence of HCG hormone in urine/ blood. It is secreted from placenta.		
3	Balatable uterus		
4	Nausea or vomiting occur due to hormonal changes.		
5	Desire for special food items		
6	Bluish vagina and breast changes		
7	In sonography test indicates contents of uterus – Amniotic sac and fluid, fetus / embryo, umbilical cord		
8	Increase in abdominal growth (height)		

Description of pregnancy test

Human Chorionic Gonadotropin (HCG) is a glycoprotein hormone is produced by the developing **placenta** shortly after fertilization. In normal pregnancy, HCG can be detected in both serum and urine as early as 7 to 10 days after conception. HCG levels continue to rise very rapidly, frequently exceeding 100 IU / ml by the first missed menstrual

period, and peaking in the 100-200 IU/ml range about 10-12 weeks in to pregnancy. The appearance of HCG in both the urine and serum soon after conception, and its subsequent rapid rise in concentration during early gestational growth, make it an excellent marker for the early detection of pregnancy.

The ACONHCG One Step Pregnancy Test is a qualitative, solid phase, two-site sandwich immunoassay (5-6) for the detection of human chorionic gonadotropin (HCG) in urine. The membrane is pre-coated with anti HCG antibodies on the test line region and anti mouse antibodies on the control line region. During testing, the urine sample reacts with the dye conjugate (mouse anti-HCG antibody-colloidal gold conjugate) which has been pre-coated on the test strip. The mixture then migrates upward on the membrane chromatographically by capillary action to react with anti HCG antibodies on the membrane and generate a read line. Presence of the red line indicates a positive result (colour differ based on trade mark) while its absence indicates a negative result. Regardless of the presence of HCG, as the mixture continues to migrate across the membrane to the immobilized goat anti-mouse region, a red line at the control line region will always appear. The presence of this red line serves as verification for sufficient sample volume and proper flow and as a control for the reagents.

Procedure for pregnancy test

- Take a clean cylindrical container having about 2 cm diameter
- Collect **1-3 ml urine** sample of the pregnant woman
- Open the pouch take out the dip stick and dip its end which has a patch on it in the urine sample for 10-15 minutes.
- After 10-15 Minutes, observe the stick which will have at least one band at the proximal end i.e. resumed as control band
- The distal end will show another band red in colour if the test is positive. If urine has human chorionic gonadotropin hormone (secreted from placenta) or else no red band

Precaution

- Do not use test strip beyond the expiry date.
- Test strips should remain in the sealed pouch or in the container until ready for use. Once the cover is opened, the test strips are good only for 90 days.
- All specimens should be considered potentially hazardous and handled in the same manner as an infectious agent.
- The test strip should be discarded and disposed after testing

Observed Results

Learning Outcome

Pictures Taken While Conducting the Experiment

Prenatal Development and Process of Child Birth

Objective

To understand the process of prenatal development and child birth by viewing video films on prenatal development and child Birth

Requirements

TV & LCD projector with CPU, DVDs of related topics, a note book and pen to record points.

Introduction

Process of Prenatal development and child Birth

Prenatal period- Zygote, Embryo and fetus development through video film are need to be seen. Child birth is the process during which a fetus of viable age is expelled from the uterus. It varies in duration, severity and in the amount of risk to woman and fetus. The normal child birth is the one in which the fetus is in vertex presentation; labour pains begins spontaneously at term and terminates pregnancy naturally without artificial aid and without any complications. Presentation is not the only criterion for normal child birth as the complications may occur even if the presentation of the fetus is normal.

Signs of child birth

- Abdominal pains due to uterine contraction
- Show - Mucoid vaginal bleeding
- Dilatation of cervix
- Membranes formation in vagina Descent of fetus
- Placental expulsion

There are three stages of Child Birth / Delivery

First Stage - Dilatation of the cervix

This is the preparatory stage to the actual process of birth. i.e. expulsion of the fetus from the uterus. In primipara the dilation of cervix up to 3 cm takes place in about 24 hrs. In multi para the dilatation of cervix up to 3 cm takes place in 2-5 hrs. The amniotic sac membrane gets ruptured and amniotic fluid flushes out. The cervix gets widely opened with contractions becoming stronger, longer and closer. In transition stage cervix gets fully dilated to about 10 cm. This condition is called crowning in case of normal birth. Woman feels frequent and strong contractions and gets urge to push fetus out . this urge must be at the right time of maximum dilation of cervix.

Second Stage - Descent/ Expulsion of fetus

It starts when cervix is fully dilated; Woman experiences lesser or no uterine contractions. Woman is asked to push fetus to birth canal by holding on long and deep breath to

Pictures Taken While Conducting the Experiment

Assessment of Growth Quotient (GQ) of Children and Adults

Objectives

To learn about the standard procedure for taking anthropometric measurements of children and adolescents

To know the significance and need of assessing growth quotient of children and adolescents.

To learn the techniques and method of assessing growth quotient of children / adults.

Requirements

Pan balance

Note book and pen

Plastic scale

Calculator

Best growth norms

Children-different age groups

Measuring non stretchable rubber tape

Digital weighing machine

Infant meter

Anthropometric tape / rod

Method

We were divided into 5 groups. Each group was assigned the task of assessing GQ of 2 preschool, 2 school age and 2 adolescent (Jr. College) students. Each group as per the standard procedures took the body measurements of all the six students' (2+2+2) height (Cm), Weight (Kg) and Head circumference (Cm). Later on as per the formula, using the Best growth norms, the 6 sample students' Ht %, Wt%, and HC% were computed and their GQ was calculated. Qualitative analysis of each students physical development / growth was done and needed counselling was given to each student based on their GQ.

Standard Procedures

Anthropometry means scientific method of taking body measurements. The measurements of body weight (kg), height (cm) and head circumference (cm) are important parameters for assessing growth quotient (GQ), which has 12 benefits.

Weight of Infants

Infant's weight measurement is taken by using Pan Balance or Salter weighing machine or Beam balance or platform balance. Its suitability depends on age and physical condition of the infants. Ideally pan balance is used for infants of below 8 months age. The Salter weighing machine can be used for infants above the age of 6 months.

Pan Balance

It has a pan at the top of weighing balance for placing infant. It has a lever under the pan for adjusting the pointer on zero of the scale for taking accurate measurement. The weighing scale is fixed at the bottom of the pan balance. Each subunit of grading is equal to 50 grams or it may vary based on the make / company. Digital weighing machine or platform weighing machine is used for grownup children or adults.

For taking weight of infant using pan balance

- Place the pan balance on an even surface of the ground/ table.
- Place a soft cloth on the pan and adjust the pointer to zero of the scale aLearning Outcome by using the lever.
- Place infant carefully and lovingly on the pan and record the reading accurately without parallax error for calculating his/her weight.
- Make sure that while taking reading, the infant and the pointer are not swinging /moving.

For taking height of infants with Infantometer

Infant's height is measured in terms of length of body in supine position, because infants are unable to stand in erect position without bending legs. It is hard to take accurate measurement in standing position. Therefore, to measure the length for the infant use of the infant meter developed by Prof. Vishala Patnam, Child Development Expert.

- Remove the foot wear and head coverings of the infant.
- Clean the infant meter and keep the infant in supine position. The infant's head must touch the head board which is fixed (immobile) point. Stretch the infant's body gently by pressing the knees with hands. Hold the infant with left hand pull the mobile foot board towards the infant. Make sure that feet are in erect position and touching the foot board for taking accurate length.
- Note down the reading in cm without a parallax error.

Anthropometric Tape or Rod

Make the child or adult to remove foot wear and help him/her to stand straight with heels, buttocks and shoulders touching the smooth surface of the anthropometric tape or rod. Child / adult should keep feet together. Arms should be in hanging position. The child / adult must look straight at eye level. The lever of anthropometric rod / a plastic scale on measuring tape need to be kept on child's / adult's head pressing it very gently for making a contact with top of child's head. Request child / adult to move away from tape or rod and record the measurement in cm without a parallax error.

Head Circumference (cm)

- Remove the head coverings and hair pins or clips if any on child's or adult's head. If he / she is infant, make him / her to sit on mother's / guardian's lap. If he/she is a child let him/her sit on stool or chair in front of you as it is convenient to measure HC.
- Unwind the measuring tape and pass it around the infant's / child's / adult's head from back to any side position.
- Make sure that the tape is placed at the occipital region at the back and just above supra orbital ridges at front of infant's / child's / adult's head.
- Later note down the reading at the meeting point of the measuring tape in cm.

Anthropometric measurements of individual	Few tips to know utility of anthropometric measurements of infant / child / adult
Weight (Kg)	1 Growth 2 Gross nutritional status 3 General health status 4 Physiological changes /Abnormities, if any
Height (Cm)	1 Growth 2 Gross nutritional status 3 General health status 4 Physiological changes /Abnormities, if any
Head Circumference (Cm)	1) Growth, 2) Nutritional status, 3) Health status 4) Abnormities, if any

$$\text{Percentage of Weight} = \frac{\text{Child's actual weight}}{\text{Standard weight of child to that age}} \times 100 = \text{Wt \%}$$

$$\text{Percentage of Height} = \frac{\text{Child's actual height}}{\text{Standard height of child to that age}} \times 100 = \text{Wt \%}$$

$$\text{Percentage of Head Circumference} = \frac{\text{Child's actual head circumference}}{\text{Standard Head circumference of child to that age}} \times 100 = \text{Wt \%}$$

$$\text{GQ} = \frac{\text{Weight \%} + \text{Height \%} + \text{Head Circumference \%}}{3}$$

GQ ranges	Remarks
Above 110	Obese, needs to take immediate care
95-100 , Even till 110	Excellent
90-95	Very Good
85-90	Good
80-85	Fair / Just OK
Below 80	Poor & needs to take immediate care

Benefits of Assessing GQ of Children and Adults

- 1 Assessed GQ of child / adults indicates whether the child's physical development or growth has taken place properly as per his / her age and sex / gender.
- 2 Assessed GQ of a child / adult indicates whether the food intake of that child / adults is adequate or not.
- 3 Assessed GQ of a child / adult also gives clue about child's / adult's overall physical health and mental health status whether it is good or not.
- 4 If the assessed GQ of a child / adult is very good such child / adult hardly falls sick. It cuts down expenditure on medical treatment.
- 5 Assessed GQ of a child / adult also gives an idea whether the growth hormone in that child / adult is secreted adequately or not.

- 6 If the assessed GQ of a child is very good such child's physical fitness and energy level is also likely to be very good. That's why such child / adult is likely to show more interest in whatever they do. Their school / college associated activities (both curricular and co-curricular activities) are also found to be very good. Therefore child's / adult's GQ and child's scholastic achievements are interdependent.
- 7 If the assessed GQ of child / adult is very good such child / adult always is found to be actively involved in learning. Active learning leads to higher level of IQ. Therefore IQ is also to some extent dependent on child's / adult's GQ. Healthy mind lives in a healthy body.
- 8 If the assessed GQ of a child / adult is very good such child / adult has very good body posture, body appearance and body language. That's why he / she looks smart.
- 9 If the assessed GQ of a child or adult is very good such child / adult is likely to enjoy very good social status for having attractive physique. The child / adult who has very good social status due to physical fitness is also likely to have higher level of self-esteem, which is the core of sound and positive personality.
- 10 In the current scenario, physical fitness of people is given a lot of importance. The child / adult who has very good GQ naturally feels very happy and satisfied. It positively influences his / her mental health and confidence too.
- 11 The child / adult who maintains very good GQ range throughout her childhood till adolescence is likely to have no or less health disorders in pregnancy or risks / disorders in her prospective newborn. Therefore, maintaining very good GQ of girls in life also prevents many developmental disorders in their prospective children, it helps indirectly in building a healthy and empowered nation.
- 12 If the assessed GQ of a child / adult is very good, he or she develops a positive attitude towards life, which in turn helps her or him to lead a successful life.

Case Study-1

Growth Quotient of a Child (2-8yrs)

Child's information	Sex	Age	Height (cm)	Weight (kg)	Head circumference (cm)
Actual body measurements					
Norms of body measurements					

Using GQ formula $\frac{Wt\% + Ht\% + Hc\%}{3}$

$$Ht\% = \frac{X}{100} \times 100 =$$

$$Wt\% = \frac{X}{100} \times 100 =$$

$$HC\% = \frac{X}{100} \times 100 =$$

$$\text{Total} =$$

Therefore, his / her GQ is _____

Conclusion

Learning outcome

Case Study-2

Growth Quotient of an adolescent (13-18yrs)

Adolescent's Information	Sex	Age	Height (cm)	Weight (kg)	Head circumference (cm)
Actual body measurements					
Norms of body					

Using GQ formula $\frac{Wt\% + Ht\% + Hc\%}{3}$

Ht% = X 100 =

Wt% = X 100 =

HC % = X 100 =

Total =

Therefore, his / her GQ is _____

Conclusion

Learning outcome

Pictures Taken While Conducting the Experiment

Video Film on Stimulatory Home Environment (SHE) For Infants and Toddlers

Objective

To view the film on SHE for Infants and Toddlers for knowing how to utilize materials & family members to provide SHE for Infants and toddlers

Film

It is developed by Prof. Vishala Patnam Child Development Expert and Prof. Ramana Desetty. Financial support is given by MKV and ICAR Developmental rant. It focuses on stimulants and stimulatory activities for infants and toddlers that can be provided very easily to provide conducive learning environment to enhance their wholesome development.

Method

We the students of II B.Sc (Hons) have seen the film SHE for infants & toddlers developed by Prof. PatnamV & Prof. DesettyR by using LCD projector in the class room. As we were viewing it, we all made a notes of it for understanding the effective stimulatory materials and activities for enhancement of wholesome development of infants and toddlers. Later on we individually presented it in the class. The best presentations were appreciated by the Course Professor and the classmates. Each one has penned down the stimulatory materials/ people and the stimulatoryactivities in the given tables of this experiment. We also expressed our views about it orally and in written form while doing the experiment

Pen down 20 stimulatory materials/people suitable to infants and toddlers and from this film

1	11
2	12
3	13
4	14
5	15
6	16
7	17
8	18
9	19
10	20

Write down 10 stimulatory activities suitable to infants and toddlers from this film

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Comment on Film

Learning Outcome

Inventory for Assessment of Quality Home Environment

Objectives

To get oriented to Inventory for Assessment of Quality Home Environment developed by Prof. Vishala Patnam, *et.al* and also to learn how to administer, score and interpret its results

Age Applicability

Homes of normal and abnormal children : 2-4 yrs

Home Environment Inventory For 2-4 yr Old Children

It has a list of 100 statements related to the home environment provided to young children (2-4 yr). It has more objective and quantifiable items. However, certain items involve some level of subjective interpretation of one's observations of play material, activities, family members and interview with them. There are five major components in this home environment inventory. They are 1. Stimulatory learning material and activities provided to the child (50 items) 2. Physical environment (7 items) 3. Acceptance of child and interactions of parents/ family with the child (9 items) 4. Stimulatory activities provided to the child for nurturing academic capabilities (9 items) 5. Efforts taken for socialization of the child (25 items).

Method

First developed good rapport with the family of the child, whose home environment has to be assessed. The testers (person assessing HE) were vigilant in observing things formally and informally in child's family. The observations were focused on the items mentioned in the home environment inventory. In addition to the observations the testers interviewed family members for getting information about them and other details required for filling up the home environment inventory. The observed items to be tick marked in the inventory. The items which are not observed or did not happen were marked as in the inventory. The total tick marked items were counted. Each tick marked item got 1 point. The raw score was the total tick marked items were multiplied by 1 point. This raw score is compared with the scores given for the categories mentioned in the table 1 for analyzing / assessing the quality home environment provided to the child.

The total of items tick marked (observed/ happened) in all the five components of home environment (raw score of 1+2+3+4+5) were _____ out of 100 items.

Table 1 Levels of quality home environment

Raw Score	Quality of Home Environment
Above 86	Excellent
69-85	Very Good
53-68	Good
36-52	Fair
≤ 35	Poor

Parental Inventory for Assessing Home Environment of Child

Date / /

- 1 Parent's name _____ (Mother)
_____ (Father)
- 2 Child's name _____ Birth date _____ Age _____ Sex _____
- 3 Respondent's relationship to child _____
- 4 Address _____

- 5 Residencial phone No. _____ Mobile No. _____
- 6 Type of family : Nuclear Joint Extended
- 7 Size of family : Small Middle Large
(upto 4 members) (5 - 8 members) (Above 9 members)
- 8 Caste _____ Religion _____
- 9 Child care arrangements made at home (Give details)
Morning _____ Why? _____
Afternoon _____ Why? _____
Evening _____ Why? _____
Night _____ Why? _____
- 10 Child care arrangements made outside the home (Give details)
Morning _____ Why? _____
Afternoon _____ Why? _____
Evening _____ Why? _____
- 11 Number of primary care givers and who all are those ?

- 12 Number of secondary care givers and who all are those ?

- 13 Number of tertiary care givers and who all are those ?

14 Family background information

Members of family	Age (yrs)	Educational qualification	Profession or Job done	Designation	Gross Monthly incme (Rs.)
Father					
Mother					
Siblings					
Grand father					
Grand mother					
Any other					

1 Stimulatory Learning Material and Activities Provided to the Child /50

1a Toys (Minimum 8 toys) with any 2 features given below /8

- | | | |
|---|----------------------|--------------------------|
| 1 | Colours | <input type="checkbox"/> |
| 2 | Shapes | <input type="checkbox"/> |
| 3 | Sizes / Proportions | <input type="checkbox"/> |
| 4 | Textures | <input type="checkbox"/> |
| 5 | Quantity | <input type="checkbox"/> |
| 6 | Multi applications | <input type="checkbox"/> |
| 7 | Suitability to child | <input type="checkbox"/> |
| 8 | Other concepts | <input type="checkbox"/> |

Total of items tick marked (observed / happened) about toys _____ out of 8 items

Raw Score	Quality of toys
8	Excellent
7	Very Good
5-6	Good
3-4	Fair
Below 3	Poor

1b Socio- motor activities / games for free expression and exploration of the child

/26

- | | | |
|----|--|--------------------------|
| 1 | Crayons and papers | <input type="checkbox"/> |
| 2 | Dough / Clay play with or without colour | <input type="checkbox"/> |
| 3 | Colouring / Paining / Drawing | <input type="checkbox"/> |
| 4 | Pattern making / Building with blocks / Other material | <input type="checkbox"/> |
| 5 | Indigenous material for free play
(Sand, Pebbles, Seeds, Leaves, etc) | <input type="checkbox"/> |
| 6 | Electronic play / educational material | <input type="checkbox"/> |
| 7 | Use of household utensils and material for play
(Curtains, Kitchen utensils, Cushions, Pillows, Windows etc. | <input type="checkbox"/> |
| 8 | Colouring books and Crayons | <input type="checkbox"/> |
| 9 | Dotted pictures in books | <input type="checkbox"/> |
| 10 | Picture in books | <input type="checkbox"/> |
| 11 | Stringing (Beads / Flowrs / Popcorns, etc.) | <input type="checkbox"/> |
| 12 | Lacing toys and Clothes | <input type="checkbox"/> |
| 13 | Papers and Scissors | <input type="checkbox"/> |
| 14 | Play with water colours | <input type="checkbox"/> |
| 15 | Material for collage work
(Piece of cloth, paper used, wrappers, threads, picture cut-outs,etc) | <input type="checkbox"/> |
| 16 | Carom board and Coins | <input type="checkbox"/> |
| 17 | Balls and Bats | <input type="checkbox"/> |
| 18 | Toys | <input type="checkbox"/> |
| 19 | Dolls | <input type="checkbox"/> |
| 20 | Posters (Animals, Vegetables, Alphabet, etc) | <input type="checkbox"/> |
| 21 | Tricycles/ Cars / Scooters | <input type="checkbox"/> |
| 22 | Colour chalk | <input type="checkbox"/> |
| 23 | Games / Computers / Cell phones | <input type="checkbox"/> |
| 24 | Calculators | <input type="checkbox"/> |
| 25 | Rangoli | <input type="checkbox"/> |
| 26 | Academic / General knowledge books | <input type="checkbox"/> |

Total of items tick marked (observed/happened) about socio - motor activities/ games _____ out of 26 items.

Raw Score	Quality of socio-motor activities / games
Above 21	Excellent
18 - 21	Very Good
14 - 17	Good
10 - 13	Fair
Below 9	Poor

1 C Cognitive and Communication Activities

/16

1 c-1 Child has at least 3 items of each category literature and activities given below

/9

Academic	General knowledge books	Creative books
1 Alphabet	1 Story books	1 Magic drawing books
2 Shapes	2 Books based on concepts	2 Musical books
3 Numbers and Table	3 Books based on themes	3 Rough/waste papers
4 Words	4 Leaders	4 Coloured papers
5 History	5 Seasons	5 Puzzle books
6 Science	6 Living things	6 Drawing sheets and books
7 Songs	7 News papers	7 Colouring books/ drawing books/ book for joining dots
8 Poems	8 Magazines	8 Collage books/ complete the picture books
9 Rhymes	9 Posters of leaders & gods	
10 Pictures and words	10 Calendars	
11 Charts and cards		

Total of items tick marked (observed / happened) about literature and activities _____ out of 9 items.

Raw Score	Quality of literature and activities
8 - 9	Excellent
6 - 7	Very Good
5	Good
4	Fair
Below 3	Poor

1 c-2 Child is Provided with the Opportunities /Activities Given Below

/7

- 1 Child is encouraged to have informal learning from routine everyday life
- 2 Child has physical facilities and settings for learning by doing. (Table, chair New material/settings, Child sized rack,etc.) for various activities
- 3 Child is allowed to have free play
- 4 Child is encouraged to enjoy make believe play
- 5 Parents communicate with correct grammar and pronunciation of child and take efforts to improve vocabulary and communication skills of child
- 6 Child's conversations, dances, activities etc. are video/audio recorded/ pictures are taken and shown to the child to enjoy it.
- 7 Child is encouraged to listen/ view different languages songs / stories/ video films

Total of items tick marked (observed / happened) about opportunities/activities _____ out of 7 items.

Raw Score	Quality of opportunities / activities
7	Excellent
6	Very Good
4-5	Good
3	Fair
≤ 2	Poor

Total of items tick marked (observed / happened) with regard to stimulatory learning material and activities (SLMA) _____ out of 50 items (1a + 1b + 1c)

Raw Score	Quality of SLMA
≥ 45	Excellent
36 - 44	Very Good
27 - 35	Good
18 - 26	Fair
≤ 17	Poor

2 Physical Environment

/7

- 1 Home has enough space for child's play/activities and is well ventilated
- 2 Home has outdoor space or in the neighborhood there is enough space for child's free play
- 3 Family lives in their own house or has freedom in a rented house.
- 4 Neighborhood/Colony is aesthetically pleasing. The colony has less traffic and suitable for kids.
- 5 House is clean, and comfortable to child
- 6 Electrical points and door belts are at higher levels and the electrical sockets are safely covered for child's safety
- 7 Home has storage space for child's play & educational material.

Total of items tick marked (observed/happened) about physical environment _____ out of 7 items.

Raw Score	Quality of Physical Environment
7	Excellent
6	Very Good
4-5	Good
3	Fair
≤ 2	Poor

3 Acceptance of Child and Interactions of Parents/Family with Child /9

- 1 Parents are seen happy about child's gender & potential.
- 2 Parents speak well about child's nature and activities to visitors or to others
- 3 Parents converse with child affectionately and playfully
- 4 Parents answer to the child's questions or queries verbally in a age appropriate way
- 5 Parents caress, kiss or cuddle child.
- 6 Parents encourage child to demonstrate the learnt activities or capacities to others.
- 7 Parents give rewards or appreciate the child for good social behavior, achievement, success, attempts and interactions.
- 8 Parents do not discuss about child negatively in front of him or her.
- 9 Parents have the belief that the child's behavior can be modified.

Total of items tick marked (observed/happened) about acceptance of child and interactions _____ out of 9 items.

Raw Score	Quality of Acceptance of Child and Interaction
8 - 9	Excellent
6 - 7	Very Good
5	Good
4	Fair
≤ 3	Poor

4 Stimulatory Activities Provided to Child for Nurturing Academic Capabilities /9

- 1 Child is encouraged to learn various concepts of things and events in life
- 2 Child is taught to sing rhymes/poem.
- 3 Child is taught to narrate stories or give small speeches.
- 4 Child is encouraged to learn spatial relationships and prepositions.
- 5 Child is encouraged to learn numbers and understand number concept.
- 6 Child is encouraged to learn to read and write (Alphabet, Numbers etc.)
- 7 Child is encouraged to read picture books and enjoy it.
- 8 Child is encouraged to learn to do pre academic/pre scholastic activities and acquire skills.
- 9 Parents encourage child to talk about preschool activities and also help/ assist / encourage to revise / refine those preschool activities.

Total of items tick marked (observed/happened) about academic related activities _____ out of 9 items.

Raw Score	Quality of Childs Academic Capabilities
8 - 9	Excellent
6 - 7	Very Good
5	Good
4	Fair
≤ 3	Poor

5 Efforts Taken for Socialization of Child

/25

- 1 Parents are concerned about child's food intake.
- 2 Child is made to accept or tolerate some delay in routine activities now and then.
- 3 The content and time of TV viewing of child is taken care judiciously.
- 4 Parents introduce visitors to the child and educate child to respond to them properly.
- 5 Child feels comfortable to express his/her feelings.
- 6 Child does not get angry if parents resist him/her from doing things.
- 7 Parents explain the reason for their every 'NO' to the child.
- 8 Family members follow the rules and values set for the children to provide good role models.
- 9 Child is disciplined on the principle of " What is right is more important than who is right. "
- 10 Parents make the child to do some of the simple household work or chores.
- 11 Child is taken for outings by the family members at least once in fortnight (Museum/Zoo/Circus/ Park/ Exhibition / Sports events / Cinema / Musical performance / Sale etc.)
- 12 Child is encouraged to help the family members in household chores.
- 13 Child is taken on family trips or tours twice in a year.
- 14 Parents encourage child to pack away toys and other things after the play use with or without help.
- 15 Parents try to adopt good communication skills and language while conversing with child.
- 16 Child's art & craft work or collections are displayed in the house for publicity or to have attention & for appreciation of child
- 17 The content and time of TV viewing of child is taken care judiciously.
- 18 Parents allow the child to choose sometimes toys, things or food/ accessories required in routine life.
- 19 Parents warn the child for wrong doings.
- 20 Parents do not use physical restraints or physical punishment on child.
- 21 There was no instance of giving physical punishment to the child during last one month.
- 22 Parents neither slap nor span the child in front of visitors.
- 23 Parents keep child clean and tidy and also make child to be clean and tidy
- 24 Parents teach etiquettes to the child.
- 25 Parents make efforts to maintain warm and energetic interpersonal interactions with child

Total of items tick marked (observed/happened) about efforts taken for socialization _____ out of 25 items.

Raw Score	Quality of Childs Academic Capabilities
22 - 25	Excellent
18 - 21	Very Good
14 - 17	Good
10 - 13	Fair
≤ 9	Poor

Total of items tick marked (observed/happened) in all the five components of Home Environment (Raw schores 1 +2+3+4+5) _____ out of 100 items.

Raw Scores Obtained for Various Components of Home Environment

S. No.	Home Environment Component	Obtained Score
1	Stimulatory Learning Material and Activities Provided to Child	
2	Physical Environment	
3	Acceptance of Child and Interactions of Parents/Family with Child	
4	Stimulatory Activities Provided to Child for Nurturing Academic Capabilities	
5	Efforts Taken for Socialization of Child	
Total score obtained		<u>100</u>

Key for Assessment

Raw Score	Quality of Home Environment
Above 85	Excellent
69 - 85	Very Good
52 - 68	Good
36 - 52	Fair
≤ 35	Poor

Advocacy

Parents need to assess the home environment once in every 3 months duration for ensuring that all the materials & activities are provided regularly to child (2-4 yr old) to maintain congenial home environemtn for optimizing child's development.

Assment report

Learning outcome

Pictures Taken While Conducting the Experiment

Bayley' Scales of Infant Development (BSID)

Objectives

- ❖ To get oriented to BSID
- ❖ To observe the process of administering BSID on an infant for assessing her/his psychomotor and mental development

Utility and Description of BSID

The Bayley scales of infant development (BSID) are helpful for assessing the development of infants. The primary value of the test is to diagnose developmental delay/disorder if any at an early stage and based on it to plan and execute intervention for easy correction. BSID consists of three sub scales

Mental scale

It covers different expression of mental abilities such as vocalization, communication skills and vocabulary discrimination of shapes and spatial relationships and speed of doing work. This scale consists of 163 items / tasks (Birth to 30 months)

Motor scale

It covers neuro-muscular maturity in the form of body control and coordination in movement for pre-walking and waking stages. The test items of refer to simple tasks and handling of objects.

Infant Behaviour Record (IBR)

It assesses infant's behaviour during the testing situation which facilitates interpretation of the mental and motor development. The mental and motor sales yield two indexes respectively- MDI (Mental Development Index) and PDI (Psycho Motor Development Index). Both the scales are point scales and express infant's performance based on scale's items passed.

Suitable age – 1 month to 30 months old infants & toddlers

Approximate time requirement is – 30-40 minutes

Requirements

BSID kit

Stop watch

White papers (8 1/2" X 11")

Tissue paper roll-1

List of Test Materials

Hand bell

Cubes or blocks

A small bright colour ball

Pentorch

Pellets

A small attractive toy

A cup with saucer

Tea spoons (2)

A Whistling doll with joined limbs

Round box

A stick (about 10" -11" long with a very small toy bunny)

Paper

Pink form board

Blue form board

Rattle

Red ring	Mirror
Crayons	Yellow Pegs board
Blue Box	Picture books
Wheel toy	Toy chair
Stair ase/steps 10"	Picture cards
Walking board	Three cups to cover

Method

Before Administering the BSID

- ❖ Cleaned the test materials to prevent infection.
- ❖ Arranged the test materials as per the chronological age of infant.
- ❖ Kept the test materials out of infant’s vision and reach.
- ❖ Made sure that primary care giver remains with infant till the test is accomplished for getting maximum cooperation and response of infant.
- ❖ Developed the rapport with infant before presenting test items.
- ❖ Kept the individual record form ready for the mental and motor scales and filled up the background information on it.
- ❖ Made sure of the exact chronological age of infant / toddler and fixed it before administering test items.
- ❖ Started presenting test items from ease to difficult ones.
- ❖ Gave positive feedback in order to encourage and motivate to infant to do the test items well.
- ❖ Stopped testing infant if not in good mood or bored. Later on continued testing infant whenever she/he got into good mood.
- ❖ Marked each passed/completed items as if infant performed it, marked if he/she failed to perform it and marked for the omitted items of any by over sight
- ❖ Stopped administering the test items if infant failed to perform 3 items consecutively
- ❖ Remembered to thank and appreciate infant and infant / toddler and care giver for their co-operation and support

Scoring Procedure

Carefully recorded and underlined test last test item performed by the infant and noted down the corresponding age placement (50th percentile) which in turn denoted the mental or motor age of infant. Used the formulae given below to calculate PDI (Motor quotient) and MDI (Mental Quotient) of infant / toddler

$$\frac{\text{Mental age}}{\text{Chronological age}} \times 100 = \text{MDI}$$

$$\frac{\text{Motor age}}{\text{Chronological age}} \times 100 = \text{PDI}$$

Learning Outcome

Metal Development Scale for Infants

Name

Age

Sex

Date

Tester's Name

S. No	Description of Test Items	Test Performance ✓ or X	Development placement in months (At 50 th percentile)
1	Regards a person momentarily		.5
2	Responds to sound of bell		.5
3	Momentarily regards of red ring		.5
4	Becomes quiet when picked up while crying		.5
5	Responds to sound of rattle		.5
6	Notices ring for some time if held in moving status		.5
7	Responds to voice		.5
8	Responds to sound : light switch		.6
9	Horizontal eye coordination (red ring)		.7
10	Follows moving person		.7
11	Vocalizes once or twice while testing		.8
12	Free style inspection of surroundings		.8
13	Circular eye coordination : Ring		.8
14	Horizontal eye coordination : Light of torch		.96
15	Vertical eye coordination : Light of torch		1.1
16	Vertical eye coordination : red ring		1.3
17	Turns eyes to red ring		1.3
18	Circular eye coordination : Light		1.4
19	Social smiles		1.4
20	Vocalizes more than three times		1.4
21	Anticipatory excitement to a stimulus		1.5
22	Reacts to paper kept on face		1.5
23	Searches with eyes for sound of a person / bell		1.7
24	Social smile with clarity		1.7
25	Turns eyes to light of torch		1.9
26	Vocalizes to social smile and tries to talk		2.0
27	Vocalizes two syllables		2.2
28	Visually recognizes mother / any family member		2.3

S. No	Description of Test Items	Test Performance ✓ or X	Development placement in months (At 50th percentile)
29	Anticipatory adjustment to being lifted		2.5
30	Reacts to disappearance of face / person / object		2.5
31	Blinks at shadow of head / reaction to act		2.6
32	Eyes follow pencil / any object movement		2.6
33	Pays attention to colourful cube kept/dropped before infant		2.6
34	Manipulates (Holds) red ring		2.8
35	Glances from one object to another		2.8
36	Reaches for dangling ring / object		2.8
37	Simple play with rattle		2.9
38	Fingers / hand play (self exploration)		2.9
39	Follows vanishing ring : Dangling (slowly disappearing)		3.0
40	Follows vanishing spoon (slowly disappearing)		3.2
41	Aware of strange situation		3.4
42	Eyes follow ball across table		3.5
43	Carries ring / any toy to mouth		3.5
44	Manipulates table edge slightly		3.5
45	Inspects own hands / fingers		3.5
46	Turns head to sound of bell		3.8
47	Turns head to sound of rattle		3.9
48	Closes on dangling ring		4.1
49	Reaches for cube to catch		4.3
50	Mirror image approach / play		4.3
51	Active table manipulation		4.4
52	Paper play (Squeezing / Crumpling)		4.4
53	Eye coordination in reaching		4.5
54	Holds pellet / small objects		4.6
55	Vocalizes to happy situation		4.6
56	Likes frolic play		4.8
57	Holds two cubes in hand		4.8
58	Picks up one cube if placed in front		4.9
59	Discriminates strangers (Makes out)		4.9
60	Turns head towards fallen spoon / object (sound)		5.0

S. No	Description of Test Items	Test Performance ✓ or X	Development placement in months (At 50th percentile)
61	Sustained inspection of ring		5.0
62	Recovers rattle in crib / put in cloth		5.1
63	Reaches persistently to catch interesting toy		5.2
64	Lifts empty cup to drink		5.3
65	Reaches to hold second cube		5.5
66	Transfers object from one hand to another		5.5
67	Explorative string play (Smiles at mirror image)		5.5
68	Smiles at mirror image		5.6
69	Bangs toys in play		5.6
70	Shows interest in sound production		5.6
71	Picks up cube directly with hand		5.7
72	Lifts empty cup with handle		5.8
73	Pulls string to secure ring if placed in front		5.9
74	Looks for fallen spoon		5.99
75	Retains two of three cubes offered to her / him		6.1
76	Playful response to mirror image		6.3
77	Manipulates Bell : shows interest in details		6.5
78	Attends to scribbling on a paper		6.5
79	Cooperates in any play		6.9
80	Vocalizes four different syllables (sounds)		7.1
81	Pulls string adaptively and secures ring		7.1
82	Listens selectively to familiar words		7.1
83	Attempts to secure three cubes in hand		7.4
84	Uncovers toy hidden in front of him / her		7.5
85	Rings bell purposely		7.7
86	Responds to words / instructions		8.3
87	Fingers the holes in peg bench		8.9
88	Says 'da'da' or any sounds		8.98
89	Picks up cup and takes cube from it		9.0
90	Inhibits on command (No, don't touch)		9.7
91	Looks at pictures in a book		9.9
92	Looks at pictures in a book		9.87

S. No	Description of Test Items	Test Performance ✓ or X	Development placement in months (At 50th percentile)
93	Puts a cube in a cup on command/instruction		10.2
94	Stirs with spoon in imitation		10.2
95	Repeats performance (laughed at)		10.5
96	Unwraps a cube loosely put in paper / cloth		10.6
97	Uses expressive jargons		10.7
98	Holds a crayon properly to strike lines		10.9
99	Attempts to imitate a scribble on a paper		10.9
100	Turns pages of picture book		10.98
101	Dangles ring by a string		11.1
102	Pushes toy car along		11.3
103	Imitates words (Spoken ones)		11.9
104	Puts three or more cubes in a cup		11.9
105	Pats doll (in imitation of adult)		12.0
106	Uncovers square box if covered with lid		12.1
107	Puts beads in a box (6 to 8) (Following instruction)		12.5
108	Spontaneously scribbles on a paper with ballpen/crayon		13.1
109	Removes pellet from bottle		13.1
110	Tries to close round box		13.3
111	Places one peg in its bench		13.4
112	Uses gestures to make wants known		13.6
113	Builds tower of two cubes		13.7
114	Says two to three words (Relavantly)		14.1
115	Shows shoes or clothing (On her / him / others)		14.1
116	Places one round block in Bayley's board		14.9
117	Adjusts one round block in three shapes pink board/tray		15.1
118	Attains a toy with a stick if kept away		15.3
119	Builds tower of three cubes		16.2
120	Imitates striking on a plate / floor		16.4
121	Pegs placed in board in seventy seconds		16.5
122	Pink form board : Places round block		16.8
123	Two round blocks in blue board		17.1
124	Uses words to make wants known		17.5

S. No	Description of Test Items	Test Performance ✓ or X	Development placement in months (At 50th percentile)
125	Follows directions : doll		17.9
126	Places pegs in peg bench (45 seconds)		18.2
127	Blue board ; places two squares in cut out		18.6
128	Points out 2-3 parts of the doll as per instructions.		19.2
129	Names 2-3 objects / people		20.4
130	Blue board : places six blocks in cutouts properly		20.8
131	Differentiates while immitating a scribble and a stroke on a paper with crayon/ pen		20.8
132	Pink form board : fixes all blocks		20.9
133	Selects box : Containing key / small object		21.0
134	Forms sentence of 2 words with/without gestures		21.2
135	Names 2 pictures of known items		21.3
136	Fixes pegs in board quickly		21.4
137	Knows difference between cup and plate / saucer, and points it out		22.3
138	Identifies and points out to 2-3 pictures of known items		22.6
139	Can name two objects / people		22.8
140	Can identifies cup, plate,spoon, glass etc		22.9
141	Tries to mends broken doll jointing head limbs to trunk		23.5
142	Makes train of given cubes if instructed / shown		23.8
143	Can fix all blocks in blue colour form board (in 3 min)		23.8
144	Names three objects / people of her / his world		24.1
145	Can complete pink colour form board (reverse patten)		24.3
146	Can completes blue colour form board (1.5 - 2 min)		24.3
147	Can names cellphone/ pen/ keys		24.4
148	Points out correctly to 5 pictures in books (child related)		24.5
149	Tells names of 3 pictures of objects (Vegetables, fruits, animals etc)		24.5
150	Names watch / cell phone		24.8
151	Completes blue colour form board in 1 min		24.9
152	Makes atleast 1-2 folds of a paper		24.9

S. No	Description of Test Items	Test Performance ✓ or X	Development placement in months (At 50th percentile)
153	Imitates : vertical and horizontal striking movements		25.2
154	Understands two prepositions (on, up, under, inside, outside, etc)		25.7
155	Builds tower of six cubes		26.1
156	Tries to mend broken doll joining parts of body		26.4
157	Names at least 5 pictures from a child book		27.1
158	Understands three prepositions by doing actions		27.1
159	Points out to 7 pictures in a child book as per instructions		27.5
160	Knows concept / value of 1 or 2 number (wishes showing figures/objects)		27.7
161	Can place all pegs in board (0.5 min)		29.0
162	Can mend broken doll properly joining body parts (Head, Trunck and limbs)		28.8
163	Can build tower of eight cubes		26.9

The serial number of the last item completed

The corresponding mental age placement of the last item completed by infant / toddler

$$\text{IQ / Mental Development Index} = \frac{\text{Mental Age}}{\text{Chronological Age}} \times 100$$

Assessment Report/ Conclusion

Learning Outcome

Motor Development Scale for Infants

Name

Age

Sex

Date

Tester's Name

S. No	Description of Test Items	Test Performance ✓ or X	Development placement in months (At 50 th percentile)
1	Lifts head at the shoulder		.5
2	Postural adjustment when held at shoulder		.5
3	Arms movement in play		.5
4	Legs movement in play		.5
5	Head movements to a side		.5
6	Turns from a side to a side / center		.6
7	Head erect and vertical position		.6
8	Crawling movements done		.8
9	Retains / holds a red ring while showing		.8
10	Head erect and steady		1.4
11	Sits with support of human body		1.7
12	Dorsal (backbone) suspension -lifts head		1.9
13	Prone elevates of self with arms		1.9
14	Holds head steady if carried		2.2
15	Hands predominantly open to catch		2.5
16	Sits with slight support on human body		2.8
17	Ulnar Palmar - Holds a cube placed in it		3.0
18	Turns from back to a side		3.4
19	Head is balanced well		3.5
20	Makes an effort to sit if tried		4.2
21	Partial thumb opposition in holding / task		4.7
22	Pulls to a sitting position		4.9
23	Sits alone momentarily		4.97
24	Rotates wrists (in imitation)		4.9
25	Unilateral reaching (To a person)		5.1
26	Rolls on from back to stomach		5.4
27	Attempts to secure a pellet from floor		5.6
28	Sits alone (thirty seconds)		5.7

S. No	Description of Test Items	Test Performance ✓ or X	Development placement in months (At 50th percentile)
29	Pulls to a standing position with help		6.1
30	Sits alone steadily on a bed (safe place)		6.2
31	Sits alone in good coordination of body		6.5
32	Complete thumb opposition (Radial - like rays from common center)		6.5
33	Early stepping movements		6.6
34	Scoops (like spoom) pellets or puffed rice/wheat/ popcorn		6.6
35	Pre-walking progression		6.9
36	Partial finger (prehension) grasping of pellets or puffed rice		7.4
37	Raises self to a sitting position		8.2
38	Combines cubes or spoons are mini toys		8.4
39	Makes stepping movements		8.4
40	Stands up with support of furniture		8.5
41	Fine way grasping of pellets / popcorn		8.6
42	Pat-a-Cake; (Action play)		9.4
43	Walks with help		9.7
44	Sits down properly		9.7
45	Stands alone		10.8
46	Aufstehn-1 (Unsteadly Standing)		12.3
47	Walks alone		12.5
48	Throws a ball (On a instruction)		12.6
49	Can walk sideway		13.4
50	Trys to walk backward (few steps)		14.1
51	Stands on only right foot with help		14.6
52	Walks on only left foot with help		14.7
53	Walks up stair case with help		15.7
54	Walks down stair case with help		16.5
55	Tries to stand on a walking board/lower bench/stool		18.9
56	Aufstehn (Unsteadly standing)		20.4
57	Walks down the stair case alone		23.9
58	Walks up the stair case		24.4

S. No	Description of Test Items	Test Performance ✓ or X	Development placement in months (At 50 th percentile)
59	Walks with one foot on board		26.1
60	Stands on left foot alone		26.5
61	Stands on right foot alone		26.6
62	Walks on a line drawn on floor (Under general direction)		26.6
63	Stands on walking board/lower stool with both feet		26.8
64	Jumps up on floor, lifting with both feet		28.7
65	Walks on tip of toes (On demo)		29.5
66	Jumps from a low chair/stair		29.9+
67	Aufstehn-3 (Effortlessly standing)		29.9+

The serial number of last item completed properly _____
 The corresponding motor age placement _____ months

$$\text{Psycho-Motor Development Index} = \frac{\text{Motor Age}}{\text{Chronological Age}} \times 100$$

Assessment Report/Conclusion

Learning Outcome

Seguin Form Board IQ Test (SFBT)

Objectives

To get oriented to Seguin Form Board Test (SFBT) Material

To observe the procedure of administering, scoring and interpretation of the results of SFBT

Introduction

Seguin Form Board Test (SFBT) is also known as Goddard Form Board Test (GFBT). It consists of ten common shapes- circle, square, triangle, oval, (oblong), rectangle, star, diamond, plus, half circle, hexagon. It measures mental ability of children. Perceptual and motor disabilities if any would also be known. It is used internationally as it is culture free and performance IQ test.

Age Applicability

For normal children : 3 – 10 yrs.

For mentally challenged children : No age limit

Test Materials

Seguin Form Board, Stop watch and Manual of SFBT

Test administration

- 1 Piled up the blocks in three heaps in front of the Seguin form board according to standard arrangement
- 2 As indicated in the figure one on the other. The client/child was asked to insert these blocks into the corresponding cut outs as quickly as possible using a single hand. The client was requested to perform the test for 3 times consecutively as client needs to be given experience of three trials. The time taken for the completion of test in each trial was recorded carefully.
- 3 The lowest time taken was considered as the raw score. It is converted later as mental age based on the guidelines given in the manual of SFBT.

Clients

Example 1

Name of the client - Nandini S. Chopade

Age - 4.3 yrs

Area - Urban

Recorded time of performance of SFBT

Trials	Time taken (in seconds)
First	48
Second	34
Third	32

Lowest time taken = 32 seconds (Raw score)

As per the manual her mental age is 5.4 yrs.

Chronological age is 4.3 yrs.

$$IQ = \frac{MA}{CA} \times 100 \qquad \frac{5.4}{4.3} \times 100 = 125.58$$

IQ range of Nandini was 120 – 130

Nandini's intellectual development was assessed to be very superior

Example

Name o the client _____

Age _____

Area _____

Recording time of performance

Trials	Time taken (in seconds)
First	
Second	
Third	

Lowest time = seconds (Raw score)

As per manual mental age is _____

Chronological age is _____

$$IQ = \frac{MA}{CA} \times 100$$

The clients IQ range is _____

Conclusion

Learning Outcome

Pictures Taken While Conducting the Experiment

Assessment of the Developmental Tasks of a Child (2.5 yrs – 4 yrs)

Objective

To understand the age appropriate developmental tasks and how to assess developmental tasks quotient (DTQ) of a child (age range 2.5 -4.5 yrs)

Requirement

Check list of Developmental Tasks developed by Child Development Scientist, Prof.Vishala Patnam, pencil / pen, eraser, blank paper, calculator

Method

Purposely selected child (_____yrs old) was brought to the classroom after seeking the permission of _____(his/her) parents by explaining to them about the purpose of the experiment and required time to be spared by the child and parents / guardian. Later on, professional and friendly rapport was developed with the child and his / her parents for the successful completion of the experiment. The developmental tasks check list developed by Prof. Vishala Patnam, Human Development Scientist, VNMKV, Parbhani in 2017 was administered for assessing his / her DTQ / WDQ. It has 55 items /tasks. The child was expected to answer, perform / do the items of it. The child's _____ (parents / grandparents /guardians) also were interviewed to supplement the required information about the child for knowing his /her abilities. The child's performance/ capacities were rated on the 5 points scale i.e. Excellent - 5 points, Very good - 4 points, Good- 3 points, Fair/just OK -2 points and Poor-1 point. The responses like not knowing, unable to do it and so on are given zero points. It was marked in poor rating column as "0" or Nil. The child's responses to each item were analyzed, rated and that it was filled up by tick marks in the respective column and the row. Each column tick marks were counted and that total was multiplied with the number of points mentioned for that column. Like that all the 5 column's points were totaled /computed. This test score was compared with the Test score table to know the level / category of child's development. To assess the DTQ / WDQ , the obtained T score of the child is divided by the minimum T score mentioned in the Excellent category column pertaining to the age of child and is multiplied with 100 as shown below.

Name : _____ Age _____yrs

Total T score _____

The minimum T score of Excellent Category (EC) (for that age is) _____

T score obtained by child / Minimum expected for EC X100 = DTQ (WDQ)

By referring to the DTQ's qualitative remarks in table, it is understood that _____' wholesome development is assessed to be _____ as his /her DTQ is _____.

Learning Outcome

Case study : 1 Child's name _____ SES of family _____

Age: _____ yrs _____ months Ordinal position: _____

Parental education: Mother _____ Father _____ Parental monthly average income _____

S. No.	Developmental Tasks			Qualitative & Quantitative ratings (Points)						
	Excellent 5 points	Very Good 4 points	Good 3 points	Fair 2 points	Poor 1 point					
1	Age	Weight	Height	Head Circumference						
	2	12kg	87cm	47-48cm						
	3	14kg	96cm	48-49cm						
	4	16kg	102cm	49-50cm						
2	Eats food with one hand from plate without / less spilling food									
3	Walks, runs, jumps (long & High) proficiently									
4	Climbs up & down stair case and slides on sliding board									
5	Able to throw a ball and catch a ball									
6	Wears own clothes (T shirt, Pant, Inner clothes) without / less support of others									
7	Combs hair on his / her own									
8	Able to do personal routine work – uses toilet, brushes teeth, bathes, powders, puts accessories so on									
9	Talks properly by using appropriate words									
10	Understands the simple instructions given to him / her and accordingly does those things									
11	Holds a crayon / a pencil / a pen in hand properly for writing / drawing purpose									
12	Draws horizontal, vertical and circular lines as instructed									
13	Draws simple pictures taught to him / her using horizontal, vertical and circular lines									

S. No.	Developmental Tasks	Qualitative & Quantitative ratings (Points)				
		Excellent 5 points	Very Good 4 points	Good 3 points	Fair 2 points	Poor 1 point
14	Sings 2-3 songs / rhythms meaningfully with actions					
15	Narrates 2-3 short stories					
16	Expresses at least few things to others in such a way that others understand it well					
17	Tells full name of her / him without confusion / errors					
18	Behaves well with other children					
19	Able to give short speech on topic taught (to him / her)					
20	Able to stay away from home (in the home of neighbours / relatives/ friends/ tuitions) at least for 3-4 hrs without presence of family members					
21	Able to recognize and label 6-8 pictures / objects of common vegetables					
22	Able to recognize and label 4-6 pictures / objects of common fruits					
23	Able to recognize and label 2-3 electrical gadgets					
24	Able to recognize and label 4-6 pictures / objects of common birds					
25	Able to recognize and label 6-8 pictures / objects of common animals					
26	Able to recognize and label 4-6 colors of any pictures / objects					
27	Able to recognize and label 3-4 shapes of any pictures / objects					
28	Has time concept of Morning , Afternoon, Evening, Night					
29	Has time concept of Yesterday, Today, and Tomorrow.					
30	Knows / understands the name of month and year					
31	Greet friends / adults... Example (Says...Good morning, Namaste Good night so on)					

S. No.	Developmental Tasks	Qualitative & Quantitative ratings (Points)				
		Excellent 5 points	Very Good 4 points	Good 3 points	Fair 2 points	Poor 1 point
32	Practices manners / etiquette (Thank you Sorry.... Excuse me)					
33	Knows names of parents and few family members					
33	Knows parents' cell phone / land line number					
34	Knows home address / locality / town name					
35	Knows name of school and teacher					
36	Recognizes alphabet (Marathi / Hindi / English)					
37	Able to write dictated 5-6 alphabet()					
38	Able to recognize numbers (1-)					
39	Able to write dictated 5-6 numbers (1-)					
40	Speaks sentences without grammatical errors					
41	Able to perform simple householdchores / work					
42	Understands committed mistakes (after / before) explanation (seen in body language / spoken words / behavior)					
43	Behaves well at home with family members					
44	Behaves well with outside family members					
45	Takes care of belongings (play material, academic material, accessories so on)					
46	Packs up / keeps back things well after use (keeping back things)					
47	Understands seasons (Rainy, Summer, Winter) or says 1 -2 items (Food / Material / Clothes etc. used in that season (1-3)					
48	Understands market place					
49	Understands hospital					
50	Understands public park / garden					

S. No.	Developmental Tasks	Qualitative & Quantitative ratings (Points)				
		Excellent 5 points	Very Good 4 points	Good 3 points	Fair 2 points	Poor 1 point
51	Tells 2-3 relatives / relations with family friends / neighbors					
52	Tells examples of good behavior (in any context)					
53	Tells examples of bad behavior (in any context)					
54	Has concept of God (Name of God/ powers/ religious _____)					
55	Draws few pictures on a paper and also colours well					

Test Score (TS)

Age in yrs	Poor	Fair	Good	Very good	Excellent
2.5	Lesser than 60	60-80	80-100	100-120	120-140
3.0	Lesser than 80	80-100	100-120	120-140	140-160
3.5	Lesser than 100	100-120	120-140	140-160	160-180
4.0	Lesser than 120	120-140	140-160	160-180	180-200
4.5	Lesser than 140	140-160	160-180	180-200	Above 200

Age related maximum score and Developmental Tasks Quotient (DTQ) categorization

Age	Maximum Score	DTQ = $\frac{\text{Test score}}{\text{Age related maximum score}} \times 100$		DTQ	Qualitative remarks
2.5	120			>100-110	Excellent
3.0	140			90-99	Very good
3.5	160			80-89	Good
4.0	180			70-79	Fair
4.5	200			< 70	Poor

Pictures Taken While Conducting the Experiment

Draw A Person (DPT) IQ Test

Objective

To get oriented to Draw A person Test's material.

To observe the procedure of administering, scoring and interpretation of the results of DPT.

Introduction

Draw a person test (DPT) is devised by Dr. Pramila Pathak, Professor of Child Development, MSU, Baroda. She understood through longitudinal research that drawing performance of children is a good indicator of their intellectual development. This test is applicable to 4- 15 yrs old children. DPT indicates mental growth of children, their expressions, their fine muscle coordination, attitude towards people etc . It measures global intelligence of children. Children's drawings are reflection of their content of thinking, understanding and listening. It denotes their perception and imagination. The DPT can be administered on deaf and dumb children too in addition to children with other abnormalities. It is a simple and quick technique of assessing the intelligence of 4-15 yrs old children. There is no time limit to perform the test.

Test Material

Blank papers, pencil, eraser and manual of DPT

Test Administration

The tester built good rapport with the client. She showed a blank paper to the client and requested her/him to draw a picture of a full person (man/woman) on the blank sheet as best as she/he could draw. There was no time limit to draw the picture. The client did not spoil the paper, or else she would have given another blank paper to the client. She scored the drawing of the client as per the guidelines given in the manual and she total up the score. It is considered as the raw score, which was to be converted as IQ range as per the table 9 given in the manual.

Case study

Child's Age yrs. Gender

Std. Area

SES Date

Raw score : IQ range :

Assessment Report of Client

Learning Outcome

Study of Concerns and Problems of Senior Citizens

Objectives

- To discuss about concerns and problems of senior citizens known to the students either from their families or neighborhood and to short list the common concerns and problems for understanding them to have empathetic approach towards senior citizens

Method

The whole class students were divided into 4 groups. Each group was expected to discuss within the group about the observed or heard concerns and problems faced by senior citizens known to them either from their families or neighborhood and short list the common issues about it. Later on, all the groups presented their information to the classmates in front of the course professor. After the presentations were discussed, the information was pooled, percentages of it was computed to put it in a table form for doing write up.

Table 1 Common concerns of senior citizens known to the students either from their families or neighborhood

S.No	Common concerns of senior citizens	Percentage of senior citizens (n-)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Pictures Taken While Conducting the Experiment