

Appendix D: Physical barriers

Types of physical disabilities

Neurological [effect brain + spinal chord]

Spinal bifida - 1 or more vertebrae of the vertebral column are not comp. formed

paraplegia = inability to move + absence of sensation in lower limbs

quadriplegia = all 4 limbs "paralysed"

epilepsy - sudden disturbance in brain cells - temporary.

cerebral palsy - see later notes

postpoliomyelitis [polio] - viral infection damaging the motor cells in brain + spinal chord.

Physical [muscles + skeleton]

- amputations - loss of limb by accident or surgery.
- deformed limbs - child born without limb or part of limb
- burn lesions.

Cerebral palsy is a persistent but not unchanging disorder of posture + movement due to dysfunction of the brain before its growth + development are completed

~~Effect~~ Causes: underdevelopment of or damage to certain parts of brain concerned with movement (motor cortex; basal ganglia + cerebellum)

Classification: according to topographical + physiological

Topographical classification [based on part of ~~brai~~ body affected]

- monoplegia - 1 limb affected
- hemiplegia - 1 side body affected
- paraplegia - lower limbs affected
- triplegia - 3 limbs affected
- quadriplegia or tetraplegia - all 4 limbs affected

Physiological class. (based on movements)

• Spasticity - caused by damage to underdevelopment of the motor cortex.

muscles contract when should relax

athetosis - lack of muscular control - repeated invol. + exaggerated movements

cerebellar ataxia - balance disturbed, can't control fine motor [rare]

rigidity + tremor - excessively spastic

mixed combo - diff. combos of above

Treatment of physical disabilities

Medical + paramedical: neurologist, psychologist, psychiatrist, O.T, speech

Classroom assistance

Young learners

arrange furniture for ease of movement

store apparatus & act. within reach.

org. floor + table games within C.P reach

provide aids so can help self e.g. prestik

give tasks + resp.

create physical + emotionally secure space → encourage exploration

let learners feel NB as everyl else

School learners

make class + other areas easily accessible

build ↑ self esteem

if on meds ensure taken regularly

be prepare to improvise

diff writing - typewriter

if write extremely slow - allow oral exams + test.

if learners easily distracted try to limit distractions.

provide wash sinks in class as ³dirty from wheelchair

(F)

P.M. = perceptual
motor

①

Perceptual-motor barriers to learning

Learn through diff ways e.g conditioning, exer., imitation + modelling

Learning difficulties = refer to any problem learners experience with learning may occur if:

- ① learners don't get enough opport. for learning experience
- ② learners have opport. for learning experience but don't benefit due to probs.
- ③ emotional + behav. probs

NB of P.M.: Learn with whole body, dev quickly in preschool
Physical, perceptual or motor probs = learning probs

Manifestations

Motor mani

gross: clumsy, poor balance + uneven rhythm

fine motor: cutting, drawing, buttons

vis.  motor: eye hand eye foot

kiddy poorly coord. movement of legs + feet.

Perceptual motor manis

spatial percep. - lat per. object in relation to self bt other

- body awareness NB - learn things close, far etc

- with probs don't understand above/beneath;

under/over, 1st middle last, can't do time, depth.

laterality - dev. with learner can't be taught

- awareness of left + right of body dev. from awareness of balance

- exp problems crossing midline.

lateral dominance - dev. from laterality

- prob. with concept of L+R

- prob. distinguishing b+d = reading, writing + spelling

directionality - consequence of laterality

stable spatial word-knowledge of body = knowing obj in space

probs: order symbols arrange (b;g) (p/d → pot/top)

Perceptual mani

- ~~listening~~ ~~probs~~ visual perception probs - probs with sorting + classification of obj eg colour size, shape
 - diff + similarities in patterns + pictures
 - probs. recalling what seen
- auditory: listening probs - distinguishing sound from noise + env sound
 - cant follow instructions
 - cant block distracting stimuli
 - diff - diff + similarities betw words + contrasts in sound e.g hard/soft; fast/slow | high/low also middle + end sounds not easy 2 distinguish
 - diff to break words into syllables | put together again
 - rhymes + songs hard
 - cant interpret what hear

P.M improved through ex:

- dont find perceptual ex. meaningful - present in integrated way - game
- inclined to avoid act. that have probs with + if you give att. to weakness learner may withdrawl + opposite result
- skills not transferred - work into meaningful everyday act.

Tips

- lay out textures for learners to walk/crawl on e.g cardboard, damp sheet
- Games e.g I spy e.g Jump like a frog
- Touch your body games - get to know body
- Memory games e.g I went to shop