

Activity Analysis

1. Describe the activity
 - a. Sewing fabric together to make a weighted blanket
2. Describe the task demands
 - a. Objects Used
 - i. Electric sewing machine
 - ii. Sewing machine pedal
 - iii. Fabric approximately 58"x50"
 - iv. Sewing thread
 - v. White pencil
 - vi. Ruler
 - vii. Fabric scissors
 - viii. Bean bags, 24
 - b. Environmental Demands:
 - i. The sewing machine is located on a standard height table
 - ii. Thread is located in pull out drawer located by table
 - iii. Scissors and white pencil are located on table top organizer
 - iv. The flooring in OT workshop is smooth concrete
 - v. Chair utilized for sewing is standard plastic school chair
 - vi. Sewing machine pedal can be placed at ground or table top level
 - c. Social Demands:
 - i. Sewing does not require social interaction if being completed independently, however this activity can be completed with two people and if fabric is not supplied, person will have to interact with employees at store. If activity is done with two people the task will require the following social interaction skills:
 1. Approaches/starts
 2. Concludes
 3. Produces speech
 4. Regulates
 5. Questions
 6. Replies
 7. Times response
 8. Times duration
 9. Takes turns
 10. Matches language
 11. Clarifies
 - d. Contextual Demands:
 - i. Cultural
 1. Culture can have an influence on factors relating to choices, behaviors, patterns and routines.
 - ii. Personal

1. This includes a person's age, gender, socioeconomic status, and educational status. These all vary with the individual completing the activity.
- iii. Temporal
 1. Sewing can be completed at any time of day or at any time of the year. It can also be completed by any person from early adolescence to geriatric age. The rhythm of the activity varies depending on the person completing the activity
- iv. Virtual
 1. Sewing is completed in the real-time environment
- e. Steps of the activity
 - i. Go to store to purchase desired fabric
 - ii. Pin fabric along three sides with desired side on the inside, leaving 4th side open
 - iii. Choose thread color
 - iv. Plug in sewing machine and pedal
 - v. Place spool of thread on spool pin and empty bobbin on bobbin reel
 - vi. Use thread guide to thread bobbin
 - vii. Press pedal to thread bobbin
 - viii. Remove bobbin from bobbin reel
 - ix. Open bobbin cover, place bobbin inside, and replace bobbin cover
 - x. Thread sewing machine by following the numbers and using automatic threader
 - xi. Turn on the machine
 - xii. Select a straight stitch
 - xiii. Align the fabric under the needle
 - xiv. Lower the presser foot onto the fabric
 - xv. Press the foot pedal
 - xvi. Guide fabric through machine
 - xvii. Sew until corner of fabric is reached
 - xviii. With needle in low position, raise presser foot and turn fabric 90 degrees, lower presser foot
 - xix. Repeat previous two steps until all three sides complete
 - xx. Manually raise needle and remove fabric
 - xxi. Cut off excess thread
 - xxii. Turn fabric right side out
 - xxiii. Using ruler and white pencil mark three columns approximately 6.25" apart
 - xxiv. Align fabric under the needle
 - xxv. Lower presser foot onto fabric
 - xxvi. Press foot pedal
 - xxvii. Sew until approximately 2" of fabric left
 - xxviii. Manually raise needle and remove fabric
 - xxix. Cut off excess thread
 - xxx. Repeat previous 6 for remaining two columns
 - xxxi. With ruler and white pencil mark row at approximately 9.5"

- xxxii. Place 4 bean bags in blanket
- xxxiii. Align fabric under the needle
- xxxiv. Lower presser foot onto fabric
- xxxv. Press foot pedal
- xxxvi. Sew to end of fabric
- xxxvii. Manually raise needle and remove fabric
- xxxviii. Cut off excess thread
- xxxix. Repeat previous 8 steps until all bean bags used
 - xl. With remaining two inches of fabric, fold over and pin
 - xli. Align fabric under the needle
 - xlii. Lower presser foot onto fabric
 - xliii. Press foot pedal
 - xliv. Sew to end of fabric
 - xlv. Manually raise needle and remove fabric
 - xlvi. Cut off excess thread
 - xlvii. Turn off sewing machine
 - xlviii. Unplug sewing machine

- f. Safety Precautions
 - i. Possible safety considerations include the following
 - 1. Electrical cord is not damaged
 - 2. Unplug sewing machine after each use
 - 3. Remove any loose jewelry
 - 4. Pull back hair, hoodie strings, lanyard
 - 5. Avoid fingers getting close to feeder and needle
 - 6. Handle fabric scissors with safety
 - 7. Pinning needles are sharp and cause injury if not handled safely
- 3. Identify the primary therapeutic aspects of the activity/ adapt activity demands to align with therapy goals
 - a. Sensorimotor
 - i. Range of motion
 - 1. In order to sew a weighted blanket, the following AROM is needed: shoulder flexion 0-45⁰, elbow flexion/extension 0-160⁰, wrist flexion/extension 0-60⁰, and ankle plantar flexion 0-110⁰.
 - ii. Strength/motor control
 - 1. Ability to lift, transport, and hold materials and tools that weigh 10-15 pounds, however if sewing machine must be moved, the individual must have the ability to lift and transport approximately 30 pounds. The sewing machine has an automatic mover for the material, however motor planning requires smooth movements to help guide the material. Ability to apply the accurate pressure to the foot pedal to maintain a consistent speed to the machine.
 - iii. Postural control
 - 1. An individual must maintain a seated position for an allotted amount of time, so trunk stability and balance is required.
 - iv. Coordination/dexterity

1. The individual will need bilateral coordination in order to manipulate, hold, and stabilize tools and materials while sewing.
 - b. Visual-perceptual
 - i. Form constancy
 1. Ability to recognize tools and materials within the environment.
 - ii. Visual discrimination
 1. Ability to recognize details in the fabric and stitch lines.
 - iii. Visual acuity
 1. Ability to accurately thread bobbin and needle, as well as sew a straight line.
 - iv. Visual attention
 1. Ability to focus on important visual information and filter out unimportant background information.
 - v. Visual-spatial relationship
 1. Ability to create a straight line and identify where the end of the fabric is.
 - c. Cognitive
 - i. Attention
 1. Ability to sustain attention on task
 - ii. Memory
 1. Ability to recall the correct materials and supplies required. Also able to recall the intended use of each tool and the recall the correct steps to complete the task.
 - iii. Executive functioning
 1. Ability to initiate the task, make decisions related to task, planning steps required to complete task, sequencing steps
 - iv. Problem solving
 1. Ability to identify problem situations and respond appropriately
 - v. Body awareness
 1. Ability to recognize body position in relation to task materials
 - d. Emotional
 - i. Ability to regulate, control, and express emotions relative to sewing.
 4. Modify the activity demands to calibrate difficulty level
 - a. Objects Used
 - i. The sewing machine and foot pedal will be unchanged, however placement of these objects can make task easier. The texture, size, and color of the material can be changed. Adapted scissors be utilized to make fabric easier to cut.
 - b. Environmental Demands
 - i. The height of the table the sewing machine is on can be changed. If raised, different physical demands will be placed on the individual as the task will have to be completed standing instead of sitting.
 - c. Social Demands
 - i. Sewing does not require social interaction