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## Experiment #7: Reorder Manipulative Aptitude Test

### Introduction:

The Reorder Manipulative Aptitude Test is designed to assess an individual's eye, hand, and finger coordination or dexterity, crucial for various occupations. The apparatus includes a styrene-plexiglass performance board with perforations and sockets, rods, nuts, caps, a horizontal bar, a standard, and perforated members. The test helps in evaluating manipulative skills for vocational planning and job selection.

### Purpose:

The purpose of this test is to provide counselors, educators, and personnel managers with a valid and reliable measurement of basic occupational aptitudes. By assessing eye, hand, and finger coordination, this test aims to guide individuals into suitable work, promoting their adjustment and productivity in society. The inclusion of dexterity factors in the test battery enhances the completeness of individual potential assessment.

### Procedure:

1. Be comfortably seated at a table or desk.
2. Place the board with four trays nearest to the examinee and the T-Bar to the rear.
3. Distribute nuts, rods, caps, and washers into specific trays.
4. Use a stopwatch and adhere to time limits:
  - Rods and Caps: 3 minutes
  - Washers and Nuts (both hands): 40 seconds
  - Washers and Nuts (left hand): 40 seconds
  - Washers and Nuts (right hand): 40 seconds
5. Complete the profile sheet with name, grade/occupation, sex, and age.

### Calculations:

To obtain a Total Manipulative Aptitude percentile rating:

Names	Sex	Rods	Caps	Washers and Nuts	Total	Percentile	Standard Score
Feras Takruri	Male	27	27	24	78	70	55
Rama Gammoh	Female	25	24	24	73	50	50
Waseem Qatanani	Male	23	22	21	66	30	45

Let's analyze the results of the first part of the experiment for three participants: Feras Takruri, Rama Gammoh, and Waseem Qatanani.

1.Feras Takruri:

Feras Takruri performed well across all categories, with a Total Manipulative Score of 78, placing him at the 70th percentile. The Standard Score of 55 indicates above-average manipulative aptitude.

2.Rama Gammoh:

Rama Gammoh also performed well, scoring 73 on the Total Manipulative Score. Her performance places her at the 50th percentile, which is an average result. The Standard Score of 50 suggests an average manipulative aptitude.

3.Waseem Qatanani:

Waseem Qatanani's scores are comparatively lower, with a Total Manipulative Score of 66, placing him at the 30th percentile. The Standard Score of 45 indicates a below-average manipulative aptitude.

**Conclusion:**

- Feras Takruri demonstrated above-average manipulative aptitude, excelling in all categories.
- Rama Gammoh displayed an average performance, with scores at the 50th percentile.
- Waseem Qatanani's results suggest a below-average manipulative aptitude, particularly in comparison to the other participants.

These scores provide insights into each participant's manipulative skills, aiding in understanding their suitability for occupations requiring such abilities.

For left and right hand percentile ratings separately:

Names	Sex	LH	Washers and Nuts	Percentile	Standard Score
Feras Takruri	Male		12	10	37.5
Rama Gammoh	Female		12	10	37.5
Waseem Qatanani	Male		16	50	50

Names	Sex	RH	Washers and Nuts	Percentile	Standard Score
Feras Takruri	Male		15	30	45
Rama Gammoh	Female		16	40	47.5
Waseem Qatanani	Male		19	70	55

-In the LH manipulative aptitude:

- Feras Takruri and Rama Gammoh demonstrated similar performance, both scoring 12 in Washers and Nuts, resulting in a percentile of 37.5 and a standard score of 37.5
- Waseem Qatanani performed better with his left hand, scoring 16 in Washers and Nuts, placing him at the 50th percentile with a standard score of 50.

-In the RH manipulative aptitude:

- Feras Takruri, Rama Gammoh, and Waseem Qatanani displayed increasing scores.
- Feras Takruri scored 15, resulting in a 45th percentile and a standard score of 45.
- Rama Gammoh scored 16, placing her at the 47.5th percentile with a standard score of 47.5.
- Waseem Qatanani scored 19, achieving a 55th percentile and a standard score of 55.

#### **Conclusion:**

- Waseem Qatanani showed improvement in the RH manipulative aptitude compared to the LH, demonstrating better performance with his right hand.
- Overall, these results provide a detailed understanding of each participant's manipulative aptitude for both hands, aiding in assessing their suitability for occupations that require specific hand dexterity.

#### Let's compare the results of both parts of the experiment for each participant:

Feras Takruri:

-In the first part, Feras Takruri achieved a Total Manipulative Score of 78, placing him at the 70th percentile with a standard score of 55.

-In the second part, for the left hand, he scored 12 in Washers and Nuts, resulting in a percentile of 37.5 and a standard score of 37.5. For the right hand, he scored 15, with a percentile of 45 and a standard score of 45.

-Overall, Feras showed strong manipulative aptitude in the first part and demonstrated consistency in performance with both hands in the second part.

Rama Gammoh:

-In the first part, Rama Gammoh achieved a Total Manipulative Score of 73, placing her at the 50th percentile with a standard score of 50.

-In the second part, for the left hand, she scored 12 in Washers and Nuts, resulting in a percentile of 37.5 and a standard score of 37.5. For the right hand, she scored 16, with a percentile of 47.5 and a standard score of 47.5.

-Overall, Rama demonstrated average manipulative aptitude in the first part and showed slight improvement in performance with her right hand in the second part.

Waseem Qatanani:

-In the first part, Waseem Qatanani achieved a Total Manipulative Score of 66, placing him at the 30th percentile with a standard score of 45.

-In the second part, for the left hand, he scored 16 in Washers and Nuts, resulting in a percentile of 50 and a standard score of 50. For the right hand, he scored 19, with a percentile of 55 and a standard score of 55.

-Overall, Waseem showed below-average manipulative aptitude in the first part but demonstrated improvement in both left and right hand performance in the second part.

Comparison Summary:

-Feras consistently demonstrated strong manipulative aptitude in both parts.

-Rama showed average manipulative aptitude in the first part and a slight improvement in the second part.

-Waseem initially displayed below-average manipulative aptitude but showed improvement in both hands in the second part.

These comparisons offer insights into individual consistency and improvement, providing valuable information for understanding manipulative aptitude across different aspects of the experiment.

### **Practical Implications:**

Feras Takruri:

- Feras exhibits strong overall manipulative aptitude, suggesting suitability for occupations that require coordinated use of hands and fingers.

- Consistency in performance across both hands implies versatility in tasks that involve bilateral coordination.

- High scores in both parts indicate a well-rounded ability to handle manipulative tasks efficiently.

Rama Gammoh:

- Rama demonstrates average manipulative aptitude in the first part, indicating suitability for roles that do not heavily rely on advanced manual dexterity.

- Improvement in the second part, especially with the right hand, suggests adaptability and potential for skill development in tasks requiring better right-hand coordination.

#### Waseem Qatanani:

- Waseem initially shows below-average manipulative aptitude, suggesting potential challenges in roles that require intricate hand and finger coordination.
- Improvement in both hands in the second part indicates a capacity for skill development with practice and training.

#### **Comparison of Skills in One Hand vs. Both Hands:**

##### -Feras Takruri:

- Demonstrates proficiency in both one-handed and two-handed tasks, showcasing a high level of manual dexterity and coordination.

##### -Rama Gammoh:

- Shows average manipulative skills in one-handed tasks initially.
- Improvement in the right hand suggests adaptability, but continued practice may enhance overall dexterity.

##### -Waseem Qatanani:

- Initially struggles with manipulative tasks, particularly with both hands.
- Improvement in both hands in the second part indicates a capacity for skill development, but continued training may be beneficial.

#### **Practical Recommendations:**

##### -Feras Takruri:

- Suitable for roles that demand strong overall manual dexterity and coordination.
- Ideal for tasks that require simultaneous use of both hands.

-Rama Gammoh:

- Suitable for roles with moderate manual dexterity requirements.
- May benefit from additional training to enhance right-hand coordination.

-Waseem Qatanani:

- May benefit from targeted training to improve manipulative skills, especially in tasks requiring the use of both hands.
- Roles that emphasize one-handed tasks may be more suitable initially.