RPE Research Project

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Introduction to RPE Project

- American College of Sports Medicine recommends 20 minutes of vigorous aerobic activity 3 times a week or 30 minutes of moderate intensity aerobic activity 5 times a week. (ACSM, 2010)

- RPE scale

- Mode of Exercise
Procedures

- **VO₂ max Trial**
  - Determination of fitness level
  - Maximal O₂ consumption measured
  - Heart Rate and Lactate recorded
**Submaximal Trials**

**Cycle**

**Treadmill**

**Elliptical**

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**Elliptical Sub-Maximal Test**

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**Treadmill Sub-Maximal Test**

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**Cycle Ergometer Sub-Maximal Test**

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight: _____ kg</td>
<td>Height: _____ cm</td>
</tr>
<tr>
<td>Pbar (mmHg): _____</td>
<td>RH%: _____</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Min</th>
<th>RPM</th>
<th>Watts</th>
<th>HR</th>
<th>Lactate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
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</tbody>
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Outline

• Research Methods
• Knowledge of Equipment
• Working with Subjects & Other Researchers
• Interpretation of Data
Research Methods

- **Consistency**
  - Maintaining same procedures
  - Personal responsibilities

- **Reliability**
  - Machines
  - Proper procedures
  - Other researchers
Research Methods...

Following Protocol

- **Subject’s Role**: no working out prior, coming prepared, medical past, etc.

- **Researcher’s Role**: preparing machines & materials, proper calibration, lactate solution, etc.
Knowledge of Equipment

- RPE scale
- Heart rate monitor
- Mouth piece/ Headgear
- Lactate Machine
## Working with...

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Others Researchers</th>
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</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Communication</td>
</tr>
<tr>
<td>Professionalism</td>
<td>Conflict Resolution</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>Teamwork</td>
</tr>
<tr>
<td>▫ Blood Sample</td>
<td>▫ Supportive Criticism</td>
</tr>
<tr>
<td>▫ Skinfold Assessment</td>
<td></td>
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</tbody>
</table>
## Interpretation of Data

<table>
<thead>
<tr>
<th></th>
<th>%Hrmax</th>
<th>%VO₂max</th>
<th>Total Cal Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle</td>
<td>62.1%</td>
<td>37.7%</td>
<td>260.6 kcal</td>
</tr>
<tr>
<td>Treadmill</td>
<td>77.3%</td>
<td>55.8%</td>
<td>381.6 kcal</td>
</tr>
<tr>
<td>Elliptical</td>
<td>78.0%</td>
<td>53%</td>
<td>375.6 kcal</td>
</tr>
</tbody>
</table>

- Why is this important?
References