Evaluating a Training Program

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Evaluating a Training Program

For Teachers:

Introduction

What makes a successful training program? Athletes of all levels require training programs that take into account the specific needs of their sport as well as their own individual strengths and weaknesses. This program identifies the key components of an effective training program and investigates the methods used to evaluate, modify and improve training programs. From the analysis of fitness components and the application of training methods and principles, to the goal setting and motivation required for success, this program provides a framework for both the planning and evaluation of effective training programs.

Program Timeline

00:00:00 Copyright VEA Splash
00:00:00 Introduction
00:01:53 Meeting the Physical Demands of the Sport
00:08:58 Selection of Appropriate Training Methods
00:14:49 Application of Training Principles
00:18:15 Goal Setting and Motivation
00:23:59 Staying on Track and Evaluating Success
00:27:12 Conclusion
00:27:56 Credits
00:28:32 End Program

Website References

- http://exercise.about.com/od/cardioworkouts/g/anaerobic.htm
- http://www.netfit.co.uk/wkmen.htm
- www.ag.ndsu.edu/ext-emp/evaluation/documents/eighmy.ppt

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Student Worksheet:

*Before Viewing the Program*

1. As a class or in small groups, brainstorm what makes a great athlete. From the list identify any that may be improved and explain how this can be achieved.

2. Investigate current training programs in a sport of your choice. What are the common elements required for athletes to be at their best?

3. Organise for an elite athlete to visit and discuss their training and competition demands.
While Viewing the Program

1. What are the two key factors that determine what a training program will look like?

________________________________________________________________________

________________________________________________________________________

2. What is “fitness”?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

3. Use the following table to identify and define the components of fitness. How can each of them be improved?

<table>
<thead>
<tr>
<th>Fitness Component</th>
<th>Definition</th>
<th>Sporting Example</th>
<th>Improved by</th>
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</tbody>
</table>
4. What is the difference between an agonist and antagonist muscle?

5. Give examples of three different types of games analyses. Why are these of use?

6. Fill in the following table to clarify your understanding of Training Methods.

<table>
<thead>
<tr>
<th>Training Method</th>
<th>Fitness Components developed</th>
<th>Example</th>
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</table>
Evaluating a Training Program

7. Define the following Training Principles:
   a) Specificity

   b) Progressive Overload

   c) Intensity

   d) Duration

   e) Adaptability

8. Why is goal setting an important part of any athlete’s training program?

9. Give two examples of short term and long term goals.
10. Explain the SMARTER method of goal setting

11. What are the three main phases (macrocycles) of a training program?

12. What is a mesocycle?

13. What is a microcycle?
**Evaluating a Training Program**

**After Viewing the Program**

1. Conduct your own games analysis in a sport of your choice. Based on the information you gather, what are the most important three fitness components?

2. Conduct a fitness testing battery on yourself or a partner, and use this to set some short and long term fitness goals.

3. Use this information to design a training program, either for yourself or for a partner. If possible, participate in the training program over a period of 6 – 10 weeks, and evaluate your improvement at the end.
Suggested Student Responses

While Viewing the Program

1. What are the two key factors that determine what a training program will look like?  
   The individual and the sport they are training for

2. What is “fitness”?
   The ability to meet the physical demands of an activity

3. Use the following table to identify and define the components of fitness. How can each of them be improved?

<table>
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<tr>
<th>Fitness Component</th>
<th>Definition</th>
<th>Sporting Example</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Muscular strength</td>
<td>Strength is the ability to exert a force against a resistance</td>
<td>Weight training</td>
<td>Increasing the intensity of certain exercises by increasing the weight or resistance ... and by increasing the number of repetitions we do of certain exercises</td>
</tr>
<tr>
<td>Muscular power</td>
<td>Two major elements of power are strength and speed</td>
<td>Boxing, Football, Cricket</td>
<td>Weight lifting, circuit training, strength training</td>
</tr>
<tr>
<td>Agility</td>
<td>Agility helps speed up reaction time. This is the ability to process information via the nervous system and to react quickly</td>
<td>Basketball</td>
<td>Plyometric training</td>
</tr>
<tr>
<td>Reaction time</td>
<td>Is important in sports where quick responses have a direct influence on performance</td>
<td>Racquet sports – eg. squash</td>
<td>Interval and Plyometric training speed training</td>
</tr>
<tr>
<td>Balance</td>
<td>Is the skill of maintaining the body’s position either in a stationary position or while in motion</td>
<td>Basketball</td>
<td>Pilates training</td>
</tr>
<tr>
<td>Co-ordination</td>
<td>Efficient coordination of eyes, muscles and ears and flexibility</td>
<td>Warming up muscles in most sports</td>
<td>Specificity training</td>
</tr>
<tr>
<td>Local muscular endurance</td>
<td>High local muscle endurance enables the body to perform sustained tasks</td>
<td>Rowing, cycling</td>
<td>Flexibility training</td>
</tr>
<tr>
<td>Anaerobic power and speed</td>
<td>Intense muscular activity done in short burst.</td>
<td>Power Lifting, sprinting, Hockey, Power Lifting</td>
<td>Strength and power training</td>
</tr>
<tr>
<td>Cardio – respiratory endurance</td>
<td>Helps the body build the strength of the heart and its ability to deliver blood to the muscles.</td>
<td>Long distance running, rowing, cycling</td>
<td>Continuous training and Fartlek training</td>
</tr>
</tbody>
</table>
4. What is the difference between an agonist and antagonist muscle? 
   The agonist is otherwise known as the “prime mover”, and is responsible for the joint movement. The antagonist opposes the agonist, and relaxes to allow movement to take place.

5. Give examples of three different types of games analyses. Why are these of use? 
   Work to rest ratios, skill analysis, movement patterns

6. Fill in the following table to clarify your understanding of Training Methods.

<table>
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<tr>
<th>Training Method</th>
<th>Fitness Components developed</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Training</td>
<td>A training system that involves steady and unbroken exercises that build aerobic and muscular endurance</td>
<td>Jogging, long distance running, long distance walking,</td>
</tr>
<tr>
<td>Interval Training</td>
<td>Focusing more on completing hard repetitions with brief recovery periods between each one. It builds aerobic endurance, muscular power, anaerobic power and speed</td>
<td>Running, jogging</td>
</tr>
<tr>
<td>Fartlek Training</td>
<td>Combination of continuous and interval training which allows athletes to alter the speeds and time intervals at which they run.</td>
<td>football, field hockey, ultimate frisbee, lacrosse, soccer, and rugby</td>
</tr>
<tr>
<td>Circuit Training</td>
<td>Training that works to improve aerobic endurance, power and speed as well as fitness. It can be tailored to meet the needs of a wide variety of sports</td>
<td>Sit ups, squats and pull ups, bench lifts and skipping– rowing training</td>
</tr>
<tr>
<td>Plyometric Training</td>
<td>Fast powerful movements are built by this type of training – which works to strengthen the muscles so that they can contract harder and faster</td>
<td>Weight training, rowing, basketball training, boxing</td>
</tr>
<tr>
<td>Weight Training</td>
<td>Builds strength and muscular endurance – exercise based on repetitions, sets and gradual increases to the weights being lifted</td>
<td>Weight lifting, rowing, basketball training</td>
</tr>
<tr>
<td>Speed Training</td>
<td>Built up over a period of time, this type of training starts over reasonable distances and time and is slowly increased as appropriate while maintaining good technique to maximise speed.</td>
<td>Running sets built up over time - sprints</td>
</tr>
<tr>
<td>Pilates</td>
<td>A training method that strengthens the core postural muscles and developing body alignment.</td>
<td>Relaxation, coordination, stamina and stress relief exercises – enables the brain and body to work in a smarter way.</td>
</tr>
</tbody>
</table>
7. Define the following Training Principles:

a) Specificity
   When an athlete specifically tunes those muscles for a particular aspect of fitness.

b) Progressive Overload
   Is when an athlete slightly increases their level of training over a period of time.

c) Intensity
   Describes how hard an athlete trains.

d) Duration
   The length of a training program

e) Adaptability
   Constant changing and adaptation of the training program to cater for the fitness levels, skills and needs of the athlete keeps the athlete motivated.

8. Goal Setting – why is this an important part of any athlete’s training program?
   Setting goals provides a motivational focus for the athlete and can be used to track improvement and over time be used to evaluate progress. Goal setting can lead to feelings of satisfaction, confidence and accomplishment.

9. Give two examples of short term and long-term goals.
   Short-term goals could include improving performance to a certain level in a specified time limit.
   Long-term goals could include winning a championship, or Olympic Games Competition

10. Explain the SMARTER method of goal setting
    A way to achieve your goals is to use the SMARTER method. Making sure that your goals are: Specific, Measurable, Attainable, Realistic, Timed, Evaluated, and Recorded

11. What are the three main phases (macrocycles) of a training program?
    The Preparation or Pre-Season Phase
    The Competition or In-Season Phase
    The Transition or Off-Season Phase

12. What is a mesocycle?
    Each of the Macrocycle Phases can be broken down further into smaller Phases – which can last anywhere between two to six weeks

13. What is a microcycle?
    Each of the Mesocycle Phases can be broken down further into smaller phases – which are planned week by week.