

St Ninian's High School

Physical Education

Higher

The Mental Factor

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Introduction

Within Physical Education we study **four factors** which impact on performance in sport. These factors are:

Mental Factors: The way your mind affects how you perform.

Emotional Factors: The way your feelings affect how you perform.

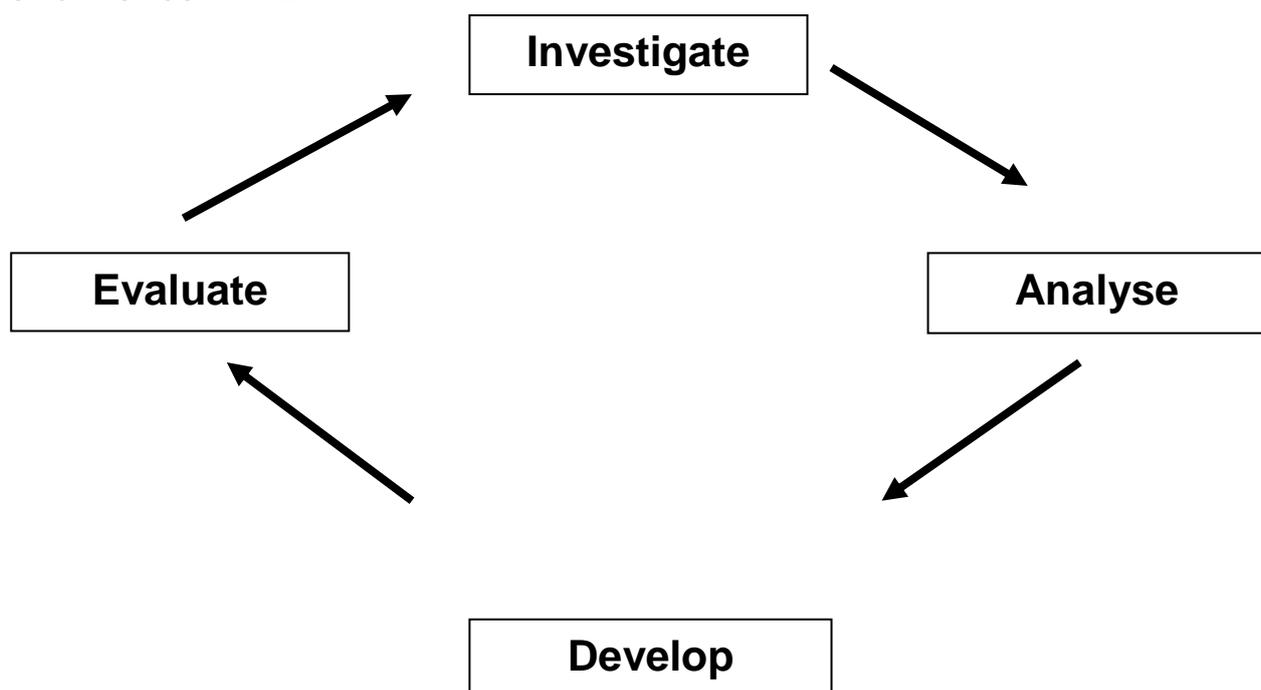
Social Factors: The way your interactions with others affect how you perform.

Physical Factors: The way your fitness, skill level and tactical ability affect how you perform.

For each factor we will:

1. Investigate the impact this factor can have on your performance
2. Analyse where your strengths and areas for development lie
3. Plan and carryout strategies to develop your performance
4. Review your performance by monitoring and evaluating any improvements made

This process of performance development is known as the 'Cycle of Analysis'. If there is an effective learning structure then there should be no learning plateaux. As we continually repeat the cycle, performance should show a gradual and continued improvement. The cycle is the means by which top level performers throughout the world improve their sporting performances. It is the way in which you will improve your sporting performance in PE.



Mental Factors

This booklet focuses on the **MENTAL FACTORS** which affect performance. An individual's mental approach to sport is of great importance and more and more sports teams are enlisting the support of sports psychologists as they realise the impact the mental fitness can have on ensuring a successful performance. The table below shows the different features that can be considered within mental factors.

MENTAL FACTORS
Level of Arousal (under/over)
Anxiety
Concentration/Focus
Motivation
Decision Making
Problem Solving
Mental Toughness

Mental strength is the ability to fight, challenge and conquer yourself, before, during and after an event and to become better, especially during tough times. When we encounter stressful situations or are faced with any kind of adversity, the resultant outcome in terms of positive or negative emotional responses and the effects these responses have on our performance will be influenced by our ability to successfully manage internal and external demands. This refers to the ability to go beyond pure physical talent, skill and ability and tap into the mental side of our performance. Every athletic contest is a contest of control, control of the mind and body connection, yet athletes consistently and persistently continue to train harder and harder physically at the expense of mental training.

Athletes that are able to engage in the mental side of training and performing have a greater advantage to those who are unable to do this. Regardless of the physical attributes that athletes may possess, the tougher athlete will most often prevail and the determining factor between success and failure is often appropriately, attributed to psychological factors. The determining factor between a good athlete and a great athlete can come down to the quality and extent of their psychological preparation and how well these athletes apply their skills during high pressure game situations.

Mental Factors Explained

Mental Factor	Definition	Impact on performance
Level of arousal	<p>The level of mental arousal is the level of excitement, anticipation, stress, aggression, apprehension and nervousness.</p> <p>It refers to the state of mental preparedness for participation in an activity.</p> <p>Inverted U Theory - Performance increases as arousal increases. Optimal point of arousal for best performance. Over arousal=poor performance.</p>	<p>If our mental arousal is too low then we may not perform at our highest level, we may appear to be tired, disinterested or distracted.</p> <p>Then again if it is too high, we may become stressed due to expectations, the importance of the occasion or the number of people watching. Having too high or too low a level of arousal may result in loss of distance in a long jump event.</p>
Anxiety	<p>An unpleasant state of inner turmoil, often accompanied by nervous behaviour, restlessness, fatigue, concentration problems and muscular tension.</p> <p>Anxiety, takes many different forms but within sport you may feel as though you are choking, you want to run away, cannot move your body in ways that you want.</p>	<p>It is usual to have pre-performance nerves, indeed, a certain level of physical arousal is helpful and prepares us for competition. But when the physical symptoms of anxiety are too great, they may seriously interfere with your ability to compete.</p>

Concentration	Concentration is the ability to stay on task. It is the ability to completely focus your attention on something for a period of time. When athletes concentrate well they can take in all the information they need to make good decisions like responding to their opponent or adapting to their environment.	
Motivation	<p>Motivation is the drive within us to achieve our aims and the outside factors which affect it.</p> <p>Extrinsic motivation is 'external': money, prizes, acclaim, status, praise.</p> <p>Intrinsic motivation comes from within i.e. an athlete driven by a need to succeed because they want to be the best and are not overly concerned by financial or ego boosts.</p>	<p>Having a high level of motivation will ensure that you continue to work until you have reached a goal that you have set yourself, often having to have overcome set backs on the way.</p> <p>Having a lack of motivation or, being motivated by external factors can have a negative impact on performance as if things do not go the way you expect them, you may not put in the required effort in order to improve.</p>
Problem solving	The ability to identify that a difficult/troubled or pressurised situation in an activity is happening or is about to happen.	<p>In tennis a player may be losing a large percentage of points when playing a forehand cross court shot. The ability to first identify this pattern of errors and to identify the cause is key to problem solving.</p> <p>The process of starting to devise an outcome for the problem is decision making.</p>

Decision making	Decision-making is an action or process of choosing a preferred option or course of action from a set of alternatives.	<p>Experience plays a significant part in the decision making process. If you make the right decision on a regular basis you are likely to experience positive outcomes.</p> <p>The best tennis players usually select the right return shot to play based on several factors. Due to their experience and skill and level of performance the decision making process is instant. Making poor decisions can often lead to the loss of possession or loss of points or goals.</p>
Mental Toughness	Mental Toughness is the ability to consistently perform at the top of your skill level and talent regardless of the competitive circumstances.	If you are mentally tough you are able to block out the pressure from opponents, the crowd, coaches, managers, team mates etc. to keep producing your best possible performance.

Analysis of Results

You will carry out a Questionnaire. Once you have done this you will analyse your findings to establish your strengths and key areas of development within the mental element of your performance.

After appropriate training, you will then carry out another Questionnaire to evaluate the improvements you have made in relation to mental factors.

(Refer to analysis booklet for questionnaires)

Approaches to Performance Development

Once you have identified a specific area for development it is important then to identify strategies to address the area and to improve mental strength. Some psychological strategies which can be used are:

<p>Controlled breathing</p>	<p>One of the easiest ways to achieve a relaxed state of mind is to maintain a good flow of oxygen throughout your body to regulate your heartbeat. This can be achieved by working on your breathing technique. If you practice deep breathing when you are relaxed, you should be able to do this when you feel tense or anxious to help you to relax.</p>	<p>Breathe slowly and deeply in through your nose, and out through your mouth in a steady rhythm. Make your breath out twice as long as your breath in. To do this, you may find it helpful to count slowly one, two as you breathe in, and one, two, three, four as you breathe out.</p>
<p>Mental imagery</p>	<p>Mental imagery is the process of creating a mental image or intention of what you want to happen or feel, and plays an ever increasing part in sports psychology.</p>	<p>The most effective imagery uses all of the following senses:</p> <ul style="list-style-type: none"> • Kinaesthetic – concentrating on the feel of the movement. • Visual – concentrating on the different things that you can see during the movement. • Tactile – concentrating on the sense of touch throughout the movement. • Auditory – concentrating on the different sounds that you associate with a sporting movement. <p>There are two main types of imagery in sport and exercise:</p>

		<p>Internal imagery and External imagery</p> <p>Internal imagery – imagining yourself doing something and concentrating on how the activity feels, looking out from your own eyes.</p> <p>External imagery – imagining yourself doing something as though you are watching it on a film so that you can develop an awareness of how the activity looks</p>
Pre performance routine	These pre-performance routines are what performers go through before a competition to help them focus attention, increase or decrease arousal.	<p>Think about a tennis player. You will see them close their eyes, take a deep breath, bounce the ball and then start the serve. This is an example of a pre-performance routine.</p> <p>It is important that you routine becomes a habit, this routine can change over time and you need to be totally comfortable and confident it is helping your performance.</p>
Positive Self-Talk	Positive Self-talk is the talking you do in your own head to yourself, about yourself and the things that happen to you.	<p>Positive & Negative.</p> <p>Your self-talk can be like an internal coach, encouraging you, boosting your confidence, believing in you, and motivating you to achieve your goals.</p> <p>Or, your self-talk can be like the devil too of course, an internal bully, undermining you, criticising you and beating up on you when you're down.</p>

Goal Setting

Once you have gathered information on your strengths/weaknesses it is vital to identify key developmental needs which you feel will have the biggest impact on improving your overall performance within your chosen activity. When striving to improve your level of performance it is important to set yourself goals. Goal setting is a mental training technique that can be used to increase an individual's commitment towards achieving a personal goal.

Having a short or long term goal can encourage an individual to work harder, to be more focused on the task and to overcome setbacks more easily. Goals can be long term (e.g. over a period of 1 year), or they can be short term (e.g. over a period of 6 weeks). Setting short term-goals will assist you to reach long-term goals. When goals are achieved it gives you confidence to continue improving. These goals can be specific to fitness test results or to actual performance within the activity.

When setting goals it is vital that these goals are SMART goals. This means:

- S – Specific
- M – Measurable
- A – Achievable
- R – Realistic
- T – Time Bound

By setting SMART short term goals, this should assist you to reach your long term goals.

Monitoring/Recording Progress and Evaluating Success

Any approach to developing performance takes time to have a positive effect. It is important to monitor and record progress as time progresses for a variety of reasons:

- It enables teams/individuals to identify which areas of performance need most attention.
- It enables teams/individuals to identify if the approaches are effective and improvements are being made.
- It provides evidence to inform decisions about adapting/modifying or changing a performance development plan.
- It provides motivation to continue to adhere to the approaches and to continuing giving 100%.
- It provides a permanent record of progress which can be referred back to at any time in the future.
- It allows you to identify when performance goals have been reached.

Monitoring

The monitoring process is about using appropriate methods to compare data with initial benchmarks showing any improvements that have been achieved. This will be completed periodically in line with targets

Recording

The recording process is about using appropriate methods to keep track of improvements and make adjustments immediately

A variety of methods can be used to monitor and record. For example:

- Diary
- Coach feedback
- Questionnaire
- Self-evaluation
- Audience reaction
- Team feedback

Recording Performance Development

Recording Performance	Process	Reasons/ Justifications
Team/Individual Video diary	<p>Follows set questions that can be written out on the board or given prior to discussion</p> <p>These help to structure the diary feedback</p> <p>Timings can vary but generally will last a few mins</p> <p>Important to provide an environment where they feel they can talk freely</p>	<p>Easy and quick to administer</p> <p>The use of video allows accuracy during transcription</p> <p>Method is designed for investigating the factor</p> <p>Immediate</p> <p>Permanent record used to compare and monitor development</p> <p>Set questions used each time allow for easy comparison</p>
Written training Diary	<p>Any internal feedback provided – feeling tired, ill etc</p> <p>Any external feedback given – test scores, verbal comments from partner coach etc</p> <p>Achievement of target goals</p> <p>Session by session account showing how you are progressing</p>	<p>Easy and quick to administer</p> <p>Immediate</p> <p>Permanent record used to compare and monitor development</p> <p>Allows you to adapt/change training based on how you are progressing</p>

Monitoring Performance Development

What monitoring methods could we use? – Pre/Post results from data collection

1. Retest - Team Sport Questionnaire

- Easy to compare results and identify improvements
- More reliable and valid by using the same test protocol to make direct comparisons
- Simple to administer
- Methods specific to factor
- Protocol provides accurate and valid data
- **Evaluating the Performance Development Plan**

Evaluation takes place after the development plan has been completed and is a comparison between your performance before the plan and after the training is completed.



Evaluating	Steps to Evaluating	Purpose of Evaluating
	<p>Identify the level of performance prior to the start of the development plan.</p> <p>Re-test using the same initial data collection methods.</p> <p>Make a comparison between the levels of performance.</p> <ul style="list-style-type: none"> • Are improvements evident? • If so, what effect have these 	<p>In order to continue to develop performance we must understand how much improvement we have made.</p> <p>Evaluating our development plan allows us to see specifically where progress was made or halted.</p> <p>By successfully monitoring our development plan we are able to adapt our</p>

	<p>improvements had on overall performance?</p> <ul style="list-style-type: none"> • Where do the future development needs now lie? 	<p>future plan to include only the most effective training approaches</p>
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Evaluating our Monitoring Methods

It is also important to evaluate the methods we used to monitor performance development. In order to evaluate monitoring methods we must look at the advantages and disadvantages of our chosen methods:

- Does the monitoring tool record what you want it to?
- Is it easy/difficult to use?
- How much information are you getting from the method?
- Can the test conditions be kept the same each time monitoring takes place?
- Can the data be interpreted easily?