

St Ninian's High School

Physical Education



S4 National

Gymnastics

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Factors Impacting on Performance

In Gymnastics we will focus on two factors which impact on performance these factors are:

- Physical Factor – Skills
- Mental Factor – Anxiety, concentration, control of aggression, decision making/problem solving

Skill Development

There are a variety of different skills used in gymnastics and there are two main focuses of skill that will be used to assess your performance – floor work and apparatus.

Floor Work

This year you will further develop your skill ability. You will focus on the following skills areas and create a sequence that will show off your ability to a standard suitable to your ability.

Rotation

This is a turning motion like a wheel. In gymnastics it is the act or process of turning (in this case your body) to move from one point of the mat to another.

Inversion

This is the reversal of a position of something. In gymnastics it is performing a skill which involves you to be upside down at a point within the movement.

Flight

This is the process or act of moving through the air. In gymnastics it is the process of performing a skill while have no part of your body touching the ground.

Balance

This is where something remains steady in a certain position with a small base for support. In gymnastics this is the process of performing a skill that involves you holding a particular position still for a minimum of 3 seconds.

Movement

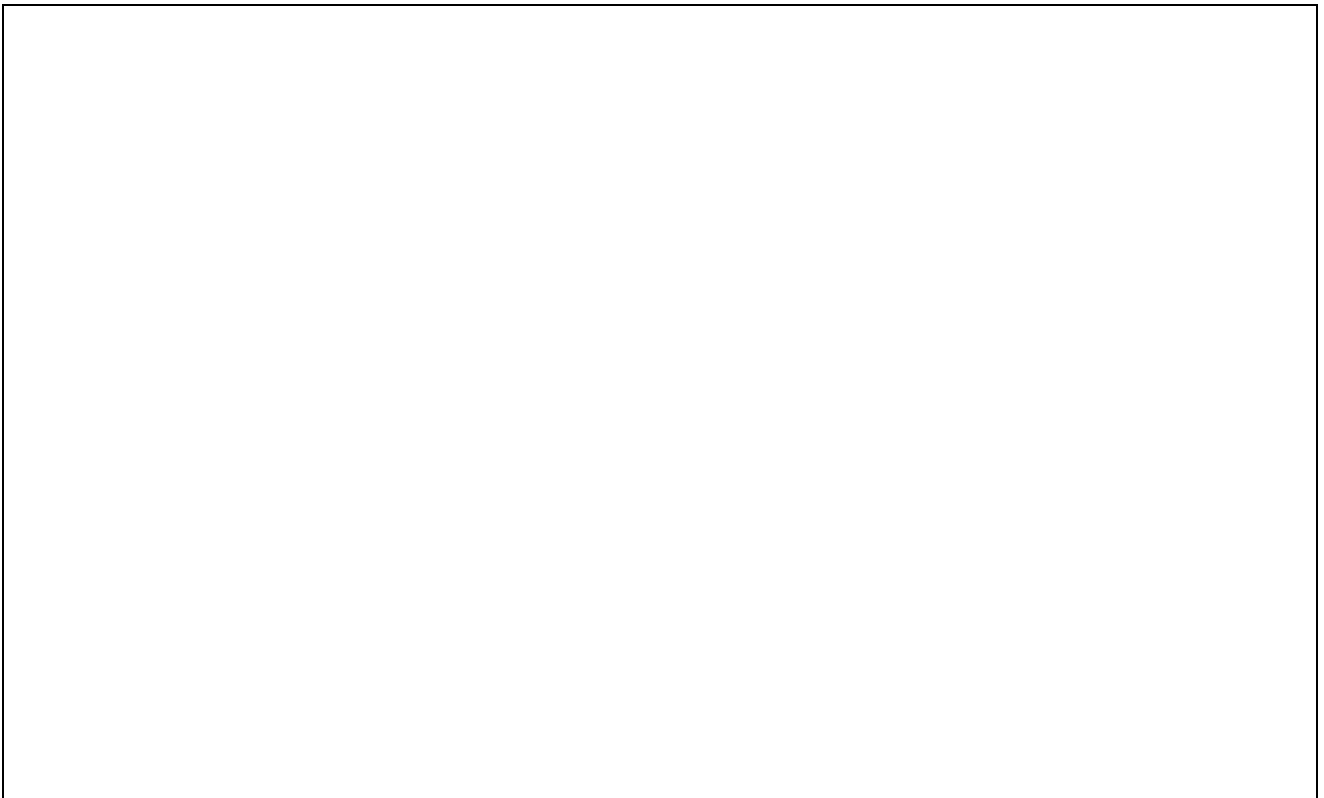
This is when you move about or change position. In gymnastics it is about being able to move yourself around the space given to you as part of a flowing sequence.

Task 1:

Create a sequence that challenges your ability but shows your strength through certain skills. The sequence must last for 60-70 seconds and include all of the above skill areas at least once.

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Use the space below to show the direction of your sequence:



Stages of Learning

The stages of learning are phases that athletes experience as they progress through skills.

Cognitive

At this stage you are figuring out the skill and attempting to understand the basic task. During this stage you find out what the skill involves. You establish the different parts of the skill and make your first attempts at learning each part. Errors are likely to be made at this stage in learning and you need advice, encouragement and support in order to make progress. At this stage you need to:

- Get a mental picture of the gymnastics skill.
- Slow the movement down if possible.
- Compare your performance with a model performer.

Associative

At this stage the athlete understands the fundamentals of the skill and is in the process of refining the skill. Performances are more consistent and learners begin to know what is relevant and what is not. During this stage you link together all the required parts of the skill. Quality practice sessions will reduce the number of mistakes you make during performance. At this stage you will need:

- Gradual build-up practices so that you become more consistent in performing the skill or technique successfully.
- Practice in a controlled environment, e.g. floor mats, no audience, no external factors
- To practice the skill or technique linking jumps, balances to the skill.
- Pressure gradually increased as your performance improves.

Autonomous

This is the last of the stages of learning. At this point the skill is well learned. The athlete performs the skill automatically without having to focus on execution. There are few errors and you can detect and know how to correct them. You can concentrate more on other aspects of your performance. At this stage you need to:

- Use the skill/technique you have improved in a full floor sequence or on apparatus.
- Try to maintain consistency and accuracy in 'performance situations'.
- Perform the skill in a sequence or on apparatus without thinking about it.

Last year you chose a stage that was best suited to how you performed based on the evidence collected. This year you must re-evaluate your performance to see what stage you are now at. (Your stage of learning may now have changed from last year).

Methods of Practice

Each stage requires different methods of practice. There are two main methods of practice which are appropriate for gymnastics. These are gradual build-up and whole-part-whole.

Gradual Build-up

Gradual build up is used when learning a new skill. It allows you to learn a skill which is complex or dangerous. The skill is learned in stages with each stage becoming progressively more difficult. You can master part of the skill and build up confidence before moving on to a more difficult stage and can move back a stage if you are not achieving success.

Whole-Part-Whole

Whole part whole is used to learn simple skills which are not dangerous. It is used when a learner has previous experience of the skill. Technical weaknesses can be identified, isolated and practised in parts and it is easier/quicker to learn.

The following list shows examples of how you could develop a skill at each stage of learning.

Skill: Backward Roll

Method of practice: Gradual Build-up

Cognitive

In the crouched position, hold your hands, palms up, out to your sides at shoulder height. Your fingertips should be pointed back and elbows pointed forward. Sit and roll back, keeping your eyes on your toes. When your hands reach the ground place your palms into the floor by your ears, push back off the ground using your hands, roll forward to stand. As you get more comfortable with the drill, you can push off with more power to allow you to stand.

Associative

Start this skill standing stretched with arms straight up overhead, not allowing them to drop forward. Then sit and lift your feet to roll onto your back. As you rock onto your shoulders, place the palms of your hands on the ground. Keep driving your toes over your head in the direction you are rolling. Focus on keeping your knees and feet together and ensure that your head is tucked in tight towards your chest. Push back with your hands to allow yourself to come back up to where you started in the standing position.

Autonomous

At this stage you are repeating the above movements and as the palms of your hands touch the ground when you roll back you must drive the roll by lifting your toes over your head, not by throwing your head or shoulders back. Keep your feet and knees together, and keep watching your toes throughout the motion. Do not allow your knees to land on the ground as you roll over. You should come straight up to a standing position with your arms above your head to show that you are finished.

Homework 1

Once you have figured out what stage of learning you are at you must think about what skill you want to work on improving. Make up an appropriate method of practice for the stage you are at.

Stage of Learning: _____

Skill Development: _____

Method of Practice: _____

Description

Lined area for writing the description, consisting of 20 horizontal lines.

Work to Rest Ratio

Work to rest ratio is about training so that you improve but having the right amount of recovery to allow progression to occur. Too much rest and you may become bored. Too little rest and you may get tired too quickly. Training for skill improvement should be kept short and interesting with emphasis on quality rather than quantity. When working out your work to rest ratio you should consider how many days a week you will train for. You will also consider how long you will train for in each session. An example of this is you may train for 50 minutes including a warm up and cool down. Your skill practice will last about 20 minutes and you must make sure that you are resting enough during the practice to prevent fatigue.

Principles of Effective Practice

Intensity

Work/rest ratio

Achievable steps

Setting objectives

Awareness of skilled performance

Consideration of strengths and weaknesses

Effect of boredom and fatigue

This is used to ensure that progression occurs within training and allows you to develop your skill at an appropriate level that will not over or under work you.

Over training can lead to injury or fatigue. Under training can lead to boredom or no progression.

Feedback

Feedback is a way in which we can assess our performance and see how we have performed. It is best to be given feedback immediately while it is still fresh in your mind, so that you can alter your performance of the skill and make it better.

For feedback to be effective it should only involve one or two pieces of specific information, so that the performer does not get confused and can focus on one particular point. Feedback should be precise, accurate and positive.

There are two types of feedback, internal and external.

Internal feedback is what you feel during or after you have performed or practised the skill. Your feelings provide you with information about your performance and can be very valuable in helping you to analyse it.

External feedback is generally given from teachers, peers, coach or skilled performer. It is where you receive information about your performance as it is perceived by others. External information can be one of the following:

Verbal – Given by someone after watching your performance. They will give you points to improve on and what you have done well.

Written – Given by one of the above, normally in the form of an observation sheet. It is given to you after your performance and is something that you can keep and refer back to.

Visual – This will tend to be video analysis and is a way of watching your own performance and looking at what you did well in and what you need to improve on.

Results – scores and results are ways to identify how well you are doing. If you get a high score then it is likely you have few errors.

Changes in your Performance

After training you should notice a number of changes in your performance. You may build your confidence as you develop certain skills. You may also progress into a different stage of learning. There will also be more specific changes to your performance.

Homework 2

What changes to your overall performance did you see after training?

What affect did this have on your overall performance?

What are your next steps?

Mental Factors which affect our performance

As we mentioned last year, mental factors can have both a positive and negative impact on your performance. The mental factors that you may consider when performing are; Anxiety, concentration, control of aggression and decision making/problem solving.

You will perform your sequence while getting filmed by the teacher. Once you have performed you will get the chance to write down your thoughts and feelings of your performance with a focus on mental factors and how they affected your performance. You will also give a **detailed** reason why you feel they had that affect on your overall performance.

Task 2

After performing my sequence in front of the class and watching back the video analysis I felt the following:

Positive Mental Factor: _____

Why: _____

Negative Mental Factor: _____

Why: _____

Methods of Mental Training

After your sequence you completed task two where you were asked to explain what a positive mental factor and what a negative mental factor was and how they affected your performance. Appropriate methods of training can be put in place to help improve your mental state of mind and prepare you fully for the game.

Visualisation

This is when you are thinking about your performance and creating a mental image or an intention of what you want to happen or feel during your performance.

As a gymnast, you can use this technique to 'intend' an outcome of your performance. The idea is that you imagine the exact scene with your whole performance and how you will carry out every move perfectly. The idea is that you 'step into' that feeling so that you are fully prepared for the real performance and deliver it in the exact way you hope for at the time.

Goal Setting

Goal setting involves establishing specific, measurable, tangible and realistic and must target objectives. The idea behind goal setting is ensuring that you have a clear objective that you want to achieve which is realistic to your ability and working towards that goal.

Goal setting can be short term or long term.

Short Term

These are goals that are set over a short period of time. They may be goals you set in a day, week or possibly a month. Short term goals are necessary to help you achieve long term goals.

An example of this may be working on your posture while performing a headstand. This could be keeping your legs tight together, legs straight and toes pointing to the ceiling.

Long Term

These goals are set over a longer period of time. This may be a year, five or even ten years. It may take a number of short term goals to help you reach your long term goal. An example of a long term goal may be to move from a headstand to a handstand with smooth transition between the two.

Homework 3

After establishing in **task 4** what mental factor had a negative factor in your performance, think of a method or mental training which could improve this factor and how your plan to achieve this.

Gymnastics Revision

Task 3:

Which factor has had a **positive** impact on your performance?

Physical

Mental

Explain why this factor has had a positive impact on your performance.

Which factor has had a **negative** impact on your performance?

Physical

Mental

Explain why this factor has had a negative impact on your performance.

Homework Tasks

Homework 1

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Homework 2

Homework 2 on page 12

Homework 3

Homework 3 on page 15

