



2022 NSCA *NATIONAL* CONFERENCE

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#NSCACon22

› *KNOWLEDGE*
› *ADVANCEMENT*
› *COMMUNITY*

CONFLICT OF INTEREST STATEMENT

I have no actual or potential conflict of interest
in relation to this presentation.

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Student-Athletes at Vanderbilt University

Student-Athletes at Virginia Tech

Student-Athletes at Morgan State University

Family, Friends & Loved One

IS THIS HOW YOU COACH?

WHAT'S WRONG WITH THIS PICTURE?

THINGS THAT OCCURED

Poor teaching **environment**

Lack of **explanation** of activity

Unclear/rushed **demos**

Cognitive overload (**over/speed coaching**)

No **practice trials** during instruction

THE OUTCOMES

Lack of **focus** during the instruction

Lack of **interest** for the activity

Lack of **understanding** of the activity

State of **confusion**

Poor self-efficacy

WHAT CAN WE DO TO FIX IT?

Proper movement **assessment/analysis**

Establish **rapport** to promote **buy-in**

Implement effective **INSTRUCTIONAL STRATEGIES** to promote
psychomotor skill acquisition and performance

TERMINOLOGY

Psychomotor Skill Learning (PSL)- the **acquisition** of motor skills from the learner

Psychomotor Skill Instruction (PSI)- the series of **events or protocol** used to teach motor skills

Instructional Guidelines- any set of **framework or steps** that are adhered to during the instructional process

Athletic Movement (aka movement patterns)- the routines, procedures, and **skills** needed for the performance

Athletic Performance- the act of “**carrying out of specific physical routines or procedures** by one who is training or skilled in physical activity” (U.S Library of Medicine, 2008).

(1)

KEY COMPONENTS FOR PSI FOR ATHLETIC PERFORMANCE

1. **Learner Entry Status**- age, grade, education level skill expertise level
2. **Demonstration**- expert v. novice, in-person v. technological demo, static v. animated
3. **Practice/Rehearsal**- blocked, serial, random, mental
4. **Feedback**- intrinsic, extrinsic/augmented
5. **Learning Context**- training environmental, social conditions, mitigate distractions
6. **Performance**- actions of the learner
7. **Assessment Methods**- athletes' ability, instructional methods, the quality and validity of the assessment method
8. **Transfer of Skills**- body adaptations, skill associations, motivational elements

(2)

GAGNE'S THEORY OF INSTRUCTION

This theory has strong underpinnings in educational psychology

COGNITIVE INFORMATION-PROCESSING (CIP) MODEL

How learners **RECEIVE, PROCESS, STORE** and **OUTPUT** information

(3)

GAGNE'S THEORY OF INSTRUCTION (Continued)

Consists of 3 main components:

- 1. SENSORY MEMORY-** Sort through incoming stimuli/information (sight, sound & feel)
 - 5-7 elements in 3 seconds
- 2. WORKING MEMORY-** Information is assigned meaning and creates relationships & associations between new and old information
 - 9 elements in 15 seconds
- 3. LONG-TERM MEMORY-** Permanent storage of information due to data encoding and retrieval processes

(5)

Key Components
for Athletic
Performance



Computer
Information
Processing Model



Gagne's Nine
Events of
Instruction

GAGNE'S NINE EVENTS OF INSTRUCTION (G9E)

- 1. Gain Attention**
- 2. Inform Learner of the Objective**
- 3. Stimulate Recall of Prerequisite Learning**
- 4. Present the Stimulus Material**
- 5. Provide Learning Guidance**
- 6. Elicit the Performance**
- 7. Provide Feedback about Performance Correctness**
- 8. Assess the Performance**
- 9. Enhance Retention and Transfer**

(4)

GAGNE'S NINE EVENTS OF INSTRUCTION (G9E)

G9E	GPSIAP
1. Gain Attention	FOCUS IN! (ATTENTION) • Express how the skill can enhance sport skills • Expose players to training environment/equipment
2. Inform Learner of Objective	WHAT WILL THEY DO? (THE SKILL) • Describe the end goal • Who? What? How?
3. Stimulate Recall	WHAT DO THEY KNOW? (PAST EXPERIENCE) • Discuss relatable experiences • Recall previous knowledge associated with new skill

GAGNE'S NINE EVENTS OF INSTRUCTION (G9E)

G9E	GPSIAP
4. Present Stimulus	HOW DO THEY DO IT? (DEMOS) • Show the skill using visual, verbal, written means • Discuss movement qualities, terminology, and sequence
5. Provide Guidance	HELP THEM DO IT! (CUEING) • Give them cues to help them do it • Use examples, non-examples, metaphors and prompts
6. Elicit the Performance	LET'S WORK AT IT! (PRACTICE) • Provide structured practice schedule (blocked & serial) • Encourage mental practice and visualization

GAGNE'S NINE EVENTS OF INSTRUCTION (G9E)

G9E	GPSIAP
7. Provide Feedback	HOW CAN THEY FIX IT? (FEEDBACK) • Reemphasize cues for task relevance and correct errors • Avoid 100% feedback to develop confidence in new skill
8. Assess the Performance	HOW WELL DO THEY DO IT? (ASSESSMENT) • Allow time for skill to be performed and critiqued • Use goals/cues as criteria for performance correctness
9. Enhance Retention and Transfer	DO THEY KNOW IT AND CAN THEY USE IT! (RECALL & TRANSFER) • Limit feedback to allow for autonomy and ownership • Encourage skill transfer in other activities

GPSIAP IN PRACTICE

GPSIAP	EXAMPLE
FOCUS IN! (ATTENTION) • “Basketball players need vertical power, ability to absorb force and contact and finish through contact to score.” • Set up the barbell and plates on platforms	

GPSIAP IN PRACTICE

GPSIAP	EXAMPLE
WHAT WILL THEY DO? (THE SKILL) • “We’ll implement the power clean to push press”	

GPSIAP IN PRACTICE

GPSIAP	EXAMPLE
WHAT DO THEY KNOW? (PAST EXPERIENCE)	

GPSIAP IN PRACTICE

GPSIAP	EXAMPLE
HOW DO THEY DO IT? (DEMOS) • “Lock in at bottom, nice and tight” • “Get up as tall as you can, as fast as you can and shoot” • “Reset, lots of legs, and finish” • “Lock-in, get tall, shoot, dip & punch”	

GPSIAP IN PRACTICE

GPSIAP	EXAMPLE
HELP THEM DO IT! (CUEING) • “Lock in, tall, shoot, dip and punch”	

GPSIAP IN PRACTICE

GPSIAP	EXAMPLE
LET'S WORK AT IT! (PRACTICE)	• Practice recommendations to come...

GPSIAP IN PRACTICE

GPSIAP	EXAMPLE
HOW CAN THEY FIX IT? (FEEDBACK) • “What’s first? Lock in. Then get tall” • “Lock in, tall, shoot, dip and punch”	

GPSIAP IN PRACTICE

GPSIAP	EXAMPLE
HOW WELL DO THEY DO IT? (ASSESSMENT)	• Implement “Coach Watch Sets” during training sessions • Test the movement (in parts or whole) • Test variations (hang clean, push jerk etc.)

GPSIAP IN PRACTICE

GPSIAP	EXAMPLE
DO THEY KNOW IT AND CAN THEY USE IT! (RECALL & TRANSFER) • “Big boxout, land on balance and finish”	

KEY TAKEAWAY

- We are **teachers** first
- Let your **programming** assist in your teaching and coaching
- **Progress, regress and maintain** when necessary, keeping your training goal in mind
- Keep your **WHY** in the for front of your mind

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THANK YOU!

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ANCHOR DOWN!



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Guideline for Psychomotor Skill Instruction for Athletic Performance

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