

## 27 ACADEMIC LEARNING TIME-PHYSICAL EDUCATION (ALT-PE)

(Siedentop, Tousignant and Parker, 1982)

### PURPOSE

This instrument is often used to judge teaching effectiveness in PE. Specifically, its purpose is to describe the amount of time pupils are engaged in motor activity at an appropriate level of difficulty. This is based on the assumption that pupils learn more the longer they are engaged in motor activity at an appropriate level of difficulty.

### DEFINITIONS OF CATEGORIES

Four categories of activity are identified:

**Motor appropriate (MA).** The pupil is engaged in a motor activity related to the subject matter in such a way as to produce a high degree of success.

**Motor inappropriate (MI).** The pupil is engaged in a motor activity related to the subject matter, but the task or activity is either too difficult for the pupil's capabilities or so easy that practising it could not contribute to the achievement of lesson objectives.

**Motor supporting (MS).** The pupil is engaged in a motor activity related to the subject matter with the purpose of helping others to learn or perform the activity (for example holding equipment, sending balls to others or spotting the trampoline).

**Not motor engaged (NM).** The pupil is not involved in a motor activity related to the subject matter.

### RECORDING PROCEDURES

There are four different methods of observation available to collect ALT-PE data about the categories above. These methods use:

- **Interval recording.** This involves alternating observing and recording at short intervals. One pupil or an alternating sample of pupils is used. The observer watches one pupil during the observing interval. During the recording interval, the observer decides whether **MA**, **MI**, **MS** or **NM** is the appropriate category. Data can be presented as a percentage of each category. This is the most common observation method used.
- **Group time sampling.** This involves the observer scanning the group for 15 seconds, every 2 minutes, and counting the number of pupils engaged at an appropriate level of motor activity (**MA**). Data can be presented as an average for the class.
- **Duration recording.** This involves the observer using a time line to categorise into one of the four categories (**MA**, **MI**, **MS** or **NM**), what one pupil is doing the entire period. Alternatively, the observer can measure just **MA**. A stopwatch is started when the pupil is appropriately engaged and stopped when the engagement stops. Total **MA** time for the lesson can be presented as a percentage of total lesson time.
- **Event recording.** This involves the observer counting the number of **MA** practice trials at an appropriate level of difficulty (the practice must include discrete trials). Trials are measured (and data presented) per minute or over longer units of time.

### EXAMPLE OF ALT-PE USING THE INTERVAL RECORDING METHOD

To use this method of recording the coding format is divided into intervals.

In each interval box there are two levels: a top level and a lower level.

The top level of the interval box is used to describe the context of the interval (**C**). There are ten choices of context from three categories: general content, subject matter knowledge and subject matter motor (see below). This decision is made on the basis of what the class as a whole is doing, for example, are they involved in warm-up, a lecture on strategy, or skill practice?

The lower level of the interval box is used to describe the involvement of one pupil (**LI**). Choices are from the categories described as not motor engaged and motor engaged (see below).

The letter code for the appropriate category is placed in the appropriate part of the interval box.

Typically, it is suggested that three pupils of differing skill levels are observed, alternating observation of them at every interval.

This system provides a total picture of what the class does throughout the lesson and a finely graded picture of the involvement of several pupils.

Those interval boxes marked as motor appropriate (MA) are **ALT-PE** intervals. Total **ALT-PE** is the total for the pupil during the lesson.

P _____	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
	C																										
	LI																										

  

P _____	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
	C																										
	LI																										

  

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	C																										
	LI																										

P = Pupil

C = Context of the interval

LI = Level of involvement of pupil

**Context Level (C)**

*General content*

*Subject matter knowledge*

*Subject matter motor*

**Learner involvement level (LI)**

*Not motor engaged*

*Motor engaged*

Transition (T)

Technique (TN)

Skill practice (P)

Interim (I)

Motor appropriate (MA)

Management (M)

Strategy (ST)

Scrimmage/routine (S)

Waiting (W)

Motor inappropriate (MI)

Break (B)

Rules (R)

Game (G)

Off-task (OF)

Supporting (MS)

Warm-up (WU)

Social behaviour (SB)

Fitness (F)

On-task (ON)

Background (BK)

Cognitive (C)