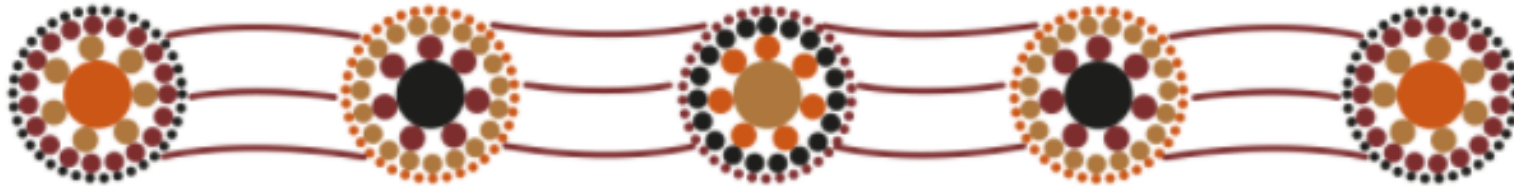# How The Spectrum of Teaching Styles can help Models Based Practice (MBP) fly further – highlighting the complexity of models

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2. Acknowledgement of Country

USQ acknowledges the traditional custodians of the lands on which USQ campuses have been built and whose cultures and customs continue to nurture this land. USQ also pays respect to Elders – past, present and future.

Further, we acknowledge the cultural diversity of all Aboriginal and Torres Strait Islander peoples and pay respect to Elders past, present and future.

Finally, we celebrate the continuous living cultures of First Australians and acknowledge the important contributions Aboriginal and Torres Strait Islander people have and continue to make in Australian society.

What's going to happen in this presentation?

- 1. Are MBP's great white elephants or great white hopes (Casey, 2014)? and,

- 2. To what extent can The Spectrum offer an opportunity to close the gap between the hope and the happening of MBP (Casey et al., 2020)?

Models Based practice (MBP)

- A prevalent argument in the Physical Education (PE) literature is that

the historically widespread, often called traditional method, to PE of 'one-size-fits-all, sport technique-based, multi-activity form' (Kirk, 2013, p. 974), needs to be replaced if the future of PE is to have educative relevance (Crum, 1993; Kirk, 2010; Locke, 1992; Metzler, 2011).

- Models Based Practice (MBP) emerged as a proposed alternative to address the recognised educative deficiencies to student learning, content matter, pedagogy and programming of the traditional PE method

What are MBP's

- Casey & Kirk (2021) suggest:

- Organising centre for content, teaching, learning and assessment to make a unit,

- Does NOT refer to the use of one model,

- MbP only applies when we are considering a multi-model approach to PE (Casey & Kirk, 2021, p. 17).

- MbP largely based on Metzler's Instructional Models for PE (2005) which included 8 models.
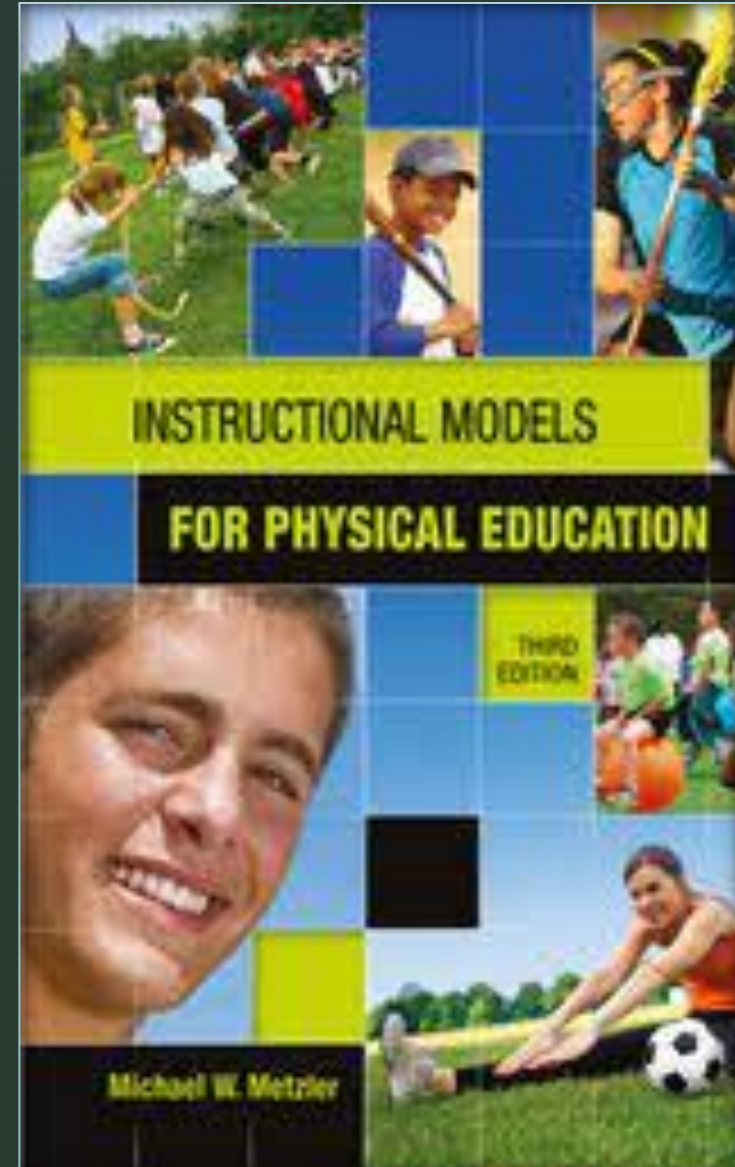
Metzler's Models

- 1. Direct Instruction,

- 2. Personalised System for Instruction,

- 3. Cooperative Learning,

- 4. Sport Education,

- 5. Peer Teaching,

- 6. Inquiry Teaching,

- 7. Tactical Games,

- 8.Teaching Personal and Social Responsibility.

Metzler's list is not complete. E.g. One example of missing models is Health promoting/health oriented PE

Stop Spinning Your Wheels!

Spinning their wheels????
Great White Elephants?

- MBP has not really taken hold in Australian PE (Pill & Stolz, 2017; Pill et al., 2017) – not needed due to common curriculum

- Dualists view of MBP being both curriculum and pedagogy, may limit their use in countries with mandated curriculum (Curtner-Smith et al., 2008).

- Confusion between instruction/pedagogical model and curriculum model (Metzler lists Sport Edn as an instructional model, others describe it as a curriculum model because (e.g.) Sidentop et al advise using a game-based model to deliver Sport Edn competency objective

Stop Spinning Your Wheels!

Spinning their wheels????
Great White Elephants?

- Casey (2014) questioned whether teachers are unable or unwilling to implement MBP as the 'creator's intended and a 'watering down' or dilution may result (Curtner-Smith, Hastie & Kinchin, 2008).

- Stolz and Pill (2014) stated this was inevitable as teachers are theory appliers and need to be interpretatively pragmatic

- Prescribed common curriculum frameworks (e.g. IB PE, AC: HPE) constrains teachers in terms of content and pedagogies they can use (Curtner-Smith et al., 2008).

- School leaders/teachers may be expected or feel pressured to focus on delivering the curriculum (Curtner-Smith et al., 2008) instead of what they 'feel' or 'believe' is needed in the school program.

White Elephants…….Confusion?

- Pedagogical model or a curriculum model ….or both?

- Landi et al. (2016) 'there is not clear agreement in the field about what a model is, or what may constitute MBP' (p. 401),

- Baldock and Pill (2017) identify seven different names for game-based or game-centred models.

Can The Spectrum Help to close the gap between the hope and the happening of MBP ?

- The Spectrum never included in the list of MBP, and never explained why.

- Provide a 'non-versus' approach,

- Allows teachers to see the 'micro-pedagogies' of MBP,

- Provides a lens to view MBP's as a cluster of styles and not a style.

Short History of the Spectrum

- Began in 1966 when Muska Mosston discovered the **Spectrum of Teaching Styles.**

- The **Spectrum of Teaching Styles** was based on the premise that teaching is a chain of decision making, i.e., who makes the decisions and when and what are the intentions or purpose of those decisions.

DECISIONS

Decisions: –
the who, the what and the where?

- **Pre-Impact** – decision which define the **intent** (lesson objectives, skills/tactics/principles to learn)

- **Impact** – **face to face** interaction between teacher/student, the Students interacting with the learning episodes

- **Post-Impact** - decisions concerning assessment—**feedback about performance** during the impact and evaluation of the overall congruence between the intent and the action of the learning experience.
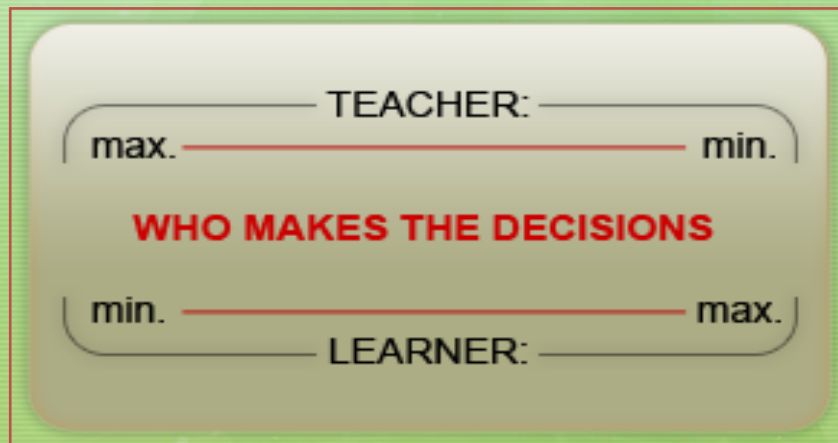
Spectrum of Teaching Style Clusters

Reproduction Cluster

- Style A – Command
- Style B – Practice
- Style C – Reciprocal
- Style D – Self Check
- Style E – Inclusion

Production Cluster

- Style F – Guided Discovery
- Style G – Convergent Discovery
- Style H – Divergent Discovery
- Style I – Learner Designed Individual Program
- Style J – Learner Initiated Program
- Style K – Self Teaching

TEACHER:
max. ———————————— min.

WHO MAKES THE DECISIONS

min. ———————————— max.
LEARNER:

Spectrum of Teaching Styles – Styles which require the reproduction of knowledge and the production of knowledge
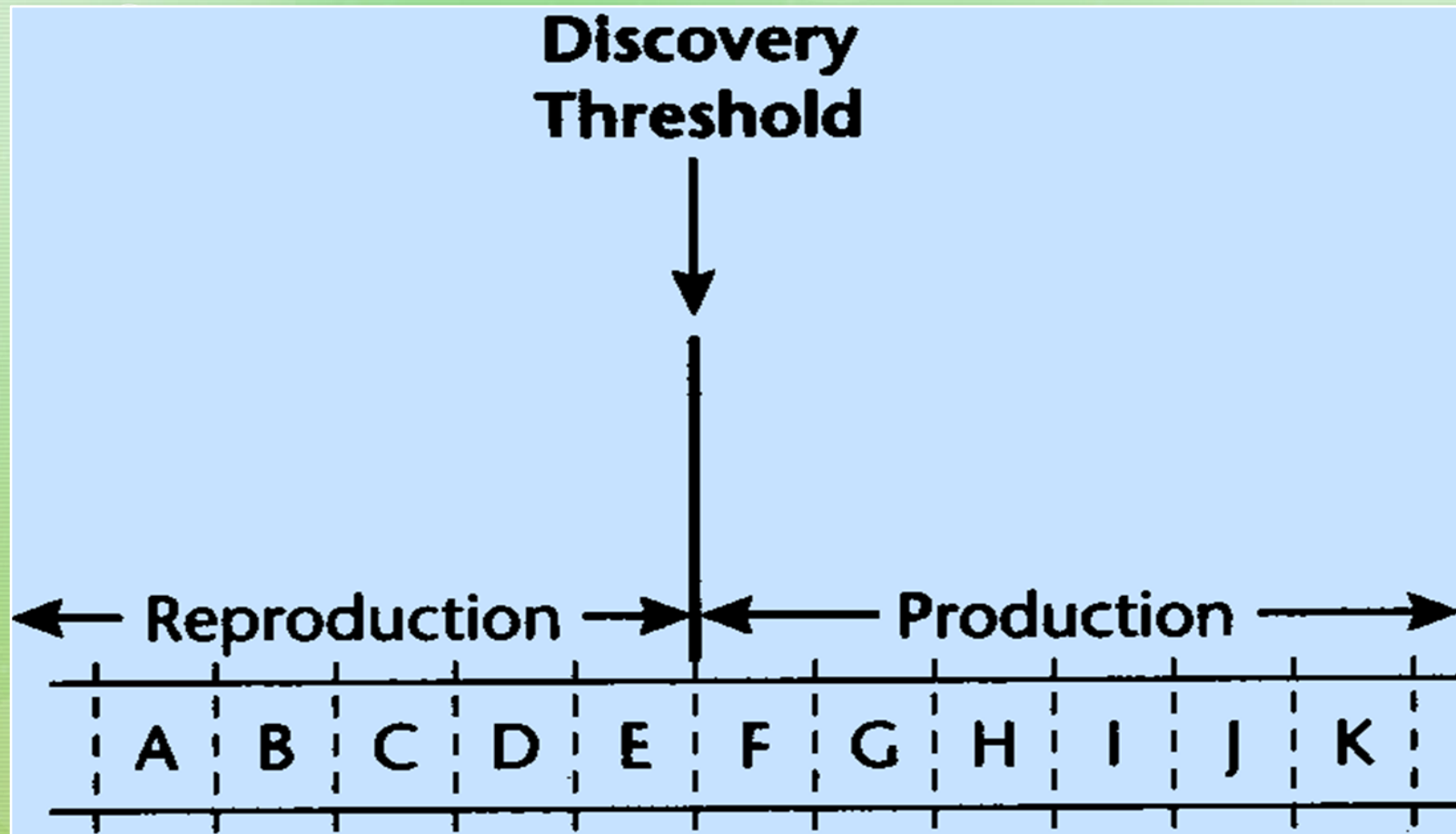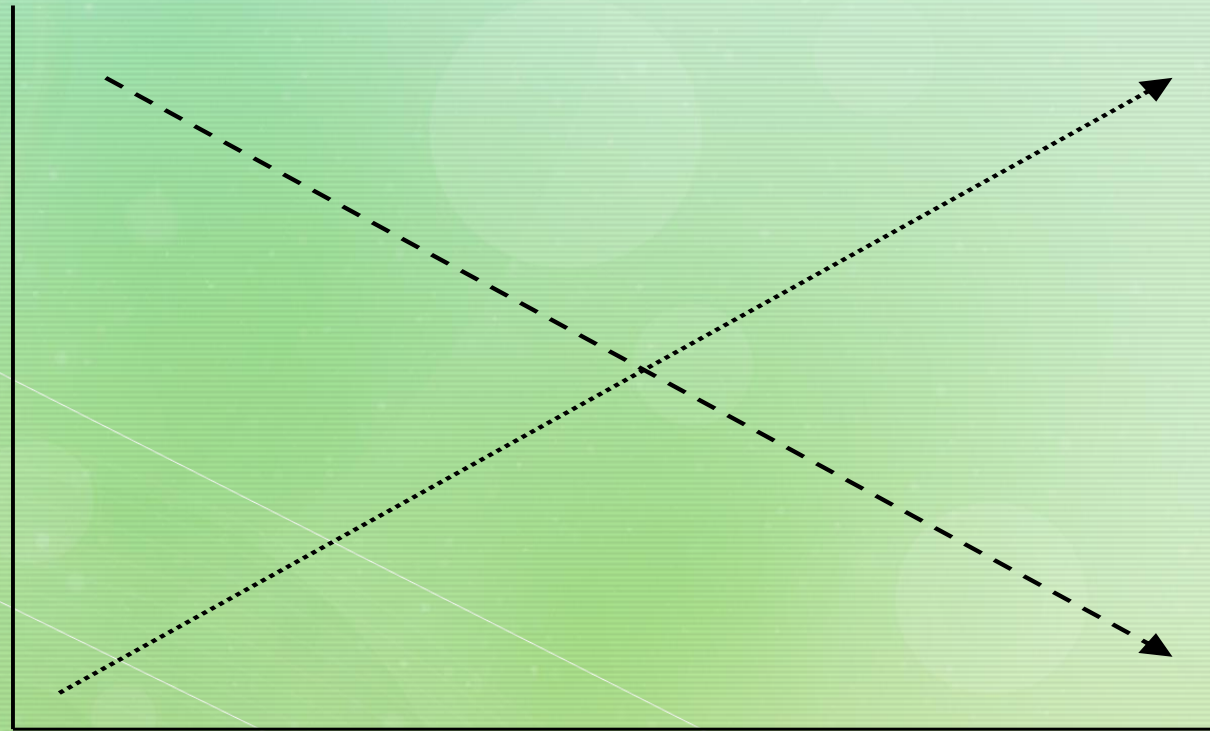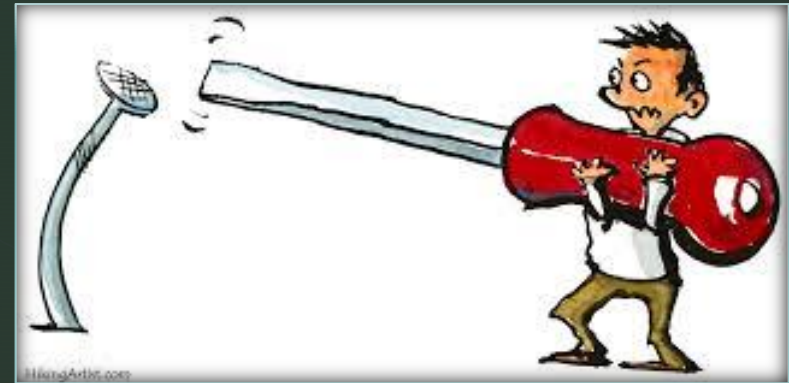
The Spectrum of Teaching Styles

Five Channels of Human Development

- **Social** (interacting with others)

- **Physical** (performing physical movements)

- **Emotional** (affective domain/joy/sadness of competition/movement)

- **Ethical** (fairness, rules)

- **Cognitive** (thinking to solve movement problems/respond to the environment)

Some things to consider

- **No teaching style** is inherently good or bad. Each style IS. Each style accomplishes the objectives intrinsic to its specific T-L decision configuration. (socialisation- Style C, Motor Skill – B, Creativity – Style G/H).

- **Individual Needs**
  No single T-L style can contribute equally to the individual needs of all learners or develop all human attributes or all content expectations.

- A '**non-versus approach**' - Arguing that one style is better than another is like arguing the screwdriver is the best tool ever. It's very bad for hammering nails!

Cooperative Learning through The Spectrum

- "Cooperative Learning is not really a model by itself. It encompasses a set of teaching strategies that share key attributes, the most important being the grouping of students into learning teams for set amounts of time or assignment, with the expectation that all students will contribute to the learning process and outcomes" (Metzler, 2011, p. 228).

- "Teaching is a chain of decision making…" (Mosston & Ashworth, 2008).

- Task Presentations – "There are no task presentations by the teacher in Cooperative learning" (Metzler, 2011, p. 242). The teacher frames the problem by explaining the task and the rules the team must follow. It is expected that students will use Peer teaching as their main mode of instructing (Metzler, 2011, p. 242).

Cooperative Learning through The Spectrum

- **Pre-Impact** – Teacher selects/frames the problem and explains how they will be assessed (socially, physically).

- **Impact** – Students attempt to solve the problem through Peer teaching.

- **Post Impact** – Assessment by the teacher – solved problem or….?

Cooperative Learning through The Spectrum

- Jigsaw – S's placed in teams and assigned to learn one part of a skill, knowledge area etc (Metzler, 2011). Teaches part learnt to other Students.

- If students accessed YouTube/resource – "How to hit a forehand" – then this would be Practice Style – B. Replacing a person/teacher with book/video is no different in terms of the decisions being made by the learner.

- S will attempt to replicate/reproduce the content displayed by the teacher, book instructions or YouTube clip.

Cooperative Learning through The Spectrum

- However…….if the Teacher presented the task as a problem and S's used questioning, trial and error/more than 1 step cognitively then this could resemble a Production Cluster Style such as Convergent Discovery as the S is producing 1 way to hit the forehand.

- When Student 1 teaches Student 2, will they use Practice Style B?

Cooperative Learning through The Spectrum

- Questioning is also suggested by Metzler (2011)

- What is the specific problem your group is having?

- Why do you think you are having this problem?

- Can you give me three possible options for solving the problem? (p. 257).

- This type of questioning represents Guided Discovery or Practice Style.

Why Guided Discovery or Practice Style?

- Guided Discovery - "the logical and sequential design of questions that lead a person to discover a predetermined response" (Mosston & Ashworth, 2008, p. 212). This means that when the teacher asks a specific sequence of questions in a structured process, the player correspondingly responds until that player has discovered the only correct answer for each of the questions asked by the teacher.

Why Guided Discovery or Practice Style?

- Practice Style – "Asking random questions, review questions, divergent questions, questions that seek exploration, creative movements, or multiple designs are not examples of this teaching–learning structure. Often teachers say, "We usually use guided discovery; we often ask questions." Merely asking questions does not imply the use of Guided Discovery. Questions are asked in all teaching–learning behaviors and the kind of questions asked corresponds to the selected teaching-learning objectives" (Mosston & Ashworth, 2008, p. 214).

- Review Q's (recalling known knowledge) is Practice Style B.

Cooperative Learning through The Spectrum

- Spectrum allows us to identify at least three styles (Practice Style, Guided Discovery Style, Convergent Discovery).

- Cluster of Styles NOT a style.

- Episodes or Episodic Teaching (Mosston and Ashworth, 2008)

- Casey et al. (2020) suggested 'to move beyond a 'for' or 'against' debate' (p. 2) in which model or variation of a model is best, aligns with the non-verses perspective of The Spectrum. Versus approach - 5 kinds of failure:

- 1. Failure to implement model in textbook form BUT met S's needs

- 2. Implemented model BUT failed to met S's needs

- 3. Fails to shift thinking

- 4 & 5th Failure by reverting from PETE to 'How things are done'/PE-as-sport-technique (Green, 2000).

- Pill and Stolz (2017) to suggest teachers are theory appliers not theory generators and therefore teachers should be encouraged to be interpretatively pragmatic towards making a model work in their context.

- This 'all or nothing' perspective (or 'versus approach') and Casey et al. (2020) suggested the need to move away from a 'for or against' discussion.

- This 'versus approach' is the view that the 'doing' of a model has become fixed and there is little acceptance of manoeuvring for teachers or students from the textbook example

- Casey et al. (2020) 'hope' is that teachers could "take some of the good stuff associated with models and apply it in a different way and, at the same time, take some of the critical points raised towards models into consideration" (Casey et al., 2020, p. 2).

How The Spectrum Can Help?

- MBP – a cluster….

- Series of teaching episodes, a model is not 'watered down' rather it is being implemented to meet a range of task objectives.

- Thus, the model is not constrained by inherent features creating non-negotiable tenets (e.g., do not mix models, do the model for a whole unit of work, keep fidelity to the model) that reduce the opportunity of teacher's creating learning experiences to meet a wide variety of objectives making it difficult to implement. This suggestion is congruent with Casey and Kirk's (2021) viewpoint that pedagogical models are specifications for practice and program development and not programs in themselves.

How the Spectrum Can Help

▪ MBP - a cluster/toolkit of teaching styles, distinctive perhaps by a dominant choice of a teaching style, but not exclusively by being one 'style'. One Style cannot do everything!

▪ We argued The Spectrum provides knowledge and skills with regards to the micro-pedagogy (Kemmis, 2019): instructional strategies or teaching styles, to enable explanation of the utility of teaching episodes that collectively create PE 'lessons' in any situation.

▪ The Spectrum helps teachers understand the complexity of MBP and offers the tools and the toolbox that may allow the distance between the 'hope' and the 'happening' to narrow.

How The Spectrum Can Help?

- "I want Students to discover the answer to X, then I need to use a Discovery Episode" (Convergent Discovery???) .

- Grouping does not inherently achieve this (discovery) and is not a teaching style.

- Not…. "Cooperative Learning is not really a model by itself. It encompasses a set of teaching strategies that share key attributes, the most important being the grouping of students…" (Metzler, 2011, p. 228).

- Spectrum allows us to see - Practice Style, Guided Discovery, Convergent Discovery.

- Further research - Can The Spectrum play a role in assisting teachers implementing MBP as we have suggested?

Are MBP's great white elephants or great white hopes?

- 1.   MBP's are potentially great white elephants if you operate from a common curriculum, like IB PE or AC: HPE which are informed by the science of learning explanations of teaching for effective learning. Spectrum of teaching styles is a better tool for understanding QPE in these contexts.

Are MBP's great white elephants or great white hopes?

- 2.   MBP's are potentially a great white hopes if you work in contexts where teachers ignore, don't understand, lack the development of pedagogical content knowledge to be interpretively pragmatic with respect to the common curriculum and teaching for effective learning, and so need a template of practice, which is what MbP provides, to work from. What the Spectrum provides here, is a common language that enables the models to be understood as episodic rather than labelled as A style. E.g. TGfU IS guided discovery.

How The Spectrum Can Help?

- The Spectrum provides for an understanding of the micro-pedagogies within MBP models, based on the premise that teaching is a chain of decision-making. Consequently, providing the 'how to', and the 'why', which Casey et al. (2020) suggested is important in connecting the idea of a model to its 'happening' in the situated context of the P.E. teacher and their students.

- The Spectrum achieves this illumination of the 'happening' via congruence between the intent of the teaching episode and the action or pedagogy of the teacher (Mosston & Ashworth, 2008).

- "Teaching behaviour is a chain of decision making,,," (Mosston and Ashworth, 2008, p. 4)

"The gap between what we say we want to do and what we are doing in practice has been and ▼ still is the main problem in teaching and coaching."

Mosston & Ashworth, 2008

Recommended Reading:

- Brendan SueSee & Shane Pill (2018) **Game-Based Teaching and Coaching as a Toolkit of Teaching Styles**, Strategies, 31:5, 21-28, DOI: 10.1080/08924562.2018.1490233

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THE SPECTRUM OF TEACHING STYLES IN PHYSICAL EDUCATION

Edited by Brendan SueSee, Mitch Hewitt and Shane Pill
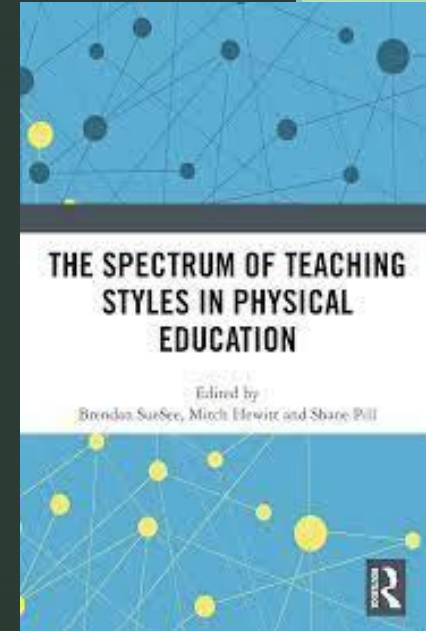
Further Reading

- **Free download**
https://spectrumofteachingstyles.org/index.php
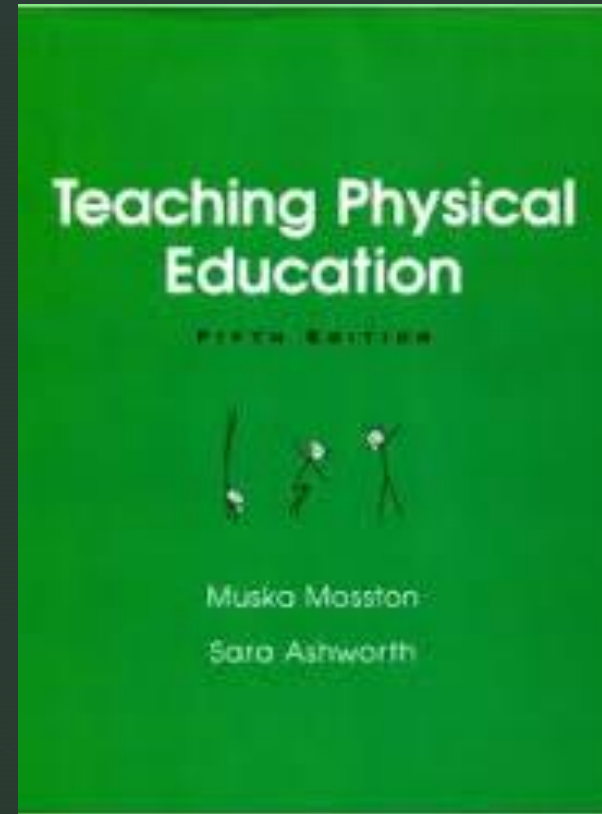
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- Locke, L. (1992). Changing secondary school physical education. Quest, 44(3), 361-372.

- Mosston, M., & Ashworth, S. (2008). Teaching physical education (1st online ed.). Spectrum Institute for Teaching and Learning. http://www.spectrumofteachingstyles.org/e-bookdownload.php

- Pill, S., & Stolz, S. (2017). Exploring Australian secondary physical education teachers' understanding of physical education in the context of new curriculum familiarisation. Asia-Pacific Journal of Health, Sport and Physical Education, 8(1), 67-79.

- Pill, S., Swabey, K., & Penney, D. (2017). Investigating physical education teacher use of models based practice in Australian secondary PE. Revue phénEPS / PHEnex Journal, 9(1), 1-19.

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