

Comments on C3: DISCIPLINARY KNOWLEDGE FROM A PEDAGOGICAL POINT OF VIEW (*Diane Grayson*)

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Diane Grayson, in her article, addresses the interesting problem of making explicit to teachers the various aspects of Shulman's theoretical construct of Pedagogical Content Knowledge (PCK) that come into play when teaching a specific subject.

The author claims that a possible way to address and make usable, in teachers' training programs, PCK, which is not a codified knowledge field, is to identify specific aspects that could be made accessible to teachers and transferable in teachers' training programs. The importance of addressing explicitly PCK in teacher training programs is recognized by the author as a crucial aspect not sufficiently focused in physics education literature.

To this end she describes in detail an example of a teaching sequence about electric circuits, where the different elements of PCK can be identified and thus addressed. Examples of the PCK elements quoted refer to well known results in physics education as: "Have students make predictions before encountering new concepts or ideas", or "Relate experimental results to every day life where appropriate", here proposed in the light of a "PCK element" to be taught.

In the last part the use of analogies is focused in more detail, with reference to specific issues of a "train analogy" and an "electric circuit".

The author's contribution is an interesting example that could be extended and maybe generalized to other subjects, and could be useful to those physics educators willing to explicitly address PCK in training programs