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## Abstract Information

- **Session:**
- Paper Type:** Poster
- Title:** **Constructing Learning Aids for Teaching Algebra-based Physics**
- Meeting:** 2006 AAPT Summer Meeting: Syracuse, NY
- Location:** Schine Panasci Lounge
- Date:** Monday, July 24
- Time:** 1:15PM
- Author:** Valentin Voroshilov, Boston University  
617-353-2602, [valbu@bu.edu](mailto:valbu@bu.edu)
- Co-Author(s):** None
- Abstract:** Physics teachers sometimes demonstrate just technical approach to problem-solving, i.e., writhing down the formulae necessary to the problem and then solving the obtained system of equations. As the consequence of this approach, teachers have difficulties sometimes with helping students to understand reasons for using the formulae, which have been used. When working with teachers, we used to construct the following learning aids: - The dictionary connecting the everyday lexicon and Physics terminology. - The classification table of typical physical models matching to the situation described in the problem. - The table of the correspondents between the models and the physical quantities needed for the quantitative description of the models. - The table of the correspondence between the models and the formulae needed for the quantitative description of the models. - The schemata of logical connections between categories involved in the analysis of the physical situation described in the problem.
- Footnotes:** None

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