

MISCONCEPTIONS ABOUT FRICTIONAL FORCE BETWEEN SOLID SURFACES

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A great deal of models has been developed about frictional force throughout the history of tribology. The Amontons' Model was mainly considered in Turkish national high school's physics curricula in Turkey, until a new physics curriculum was developed in 2008. There are some misconceptions in physics education literature regarding to this model and the others. These misconceptions may be a handicap for teaching and learning frictional force concept. In this study, using the previously determined misconceptions about frictional force in literature, a thematic list was constituted. Determined misconceptions were analyzed in three stages which are elimination of data, coding and developing categories. At the end of the study, 39 misconceptions are gathered at 5 themes. These themes are direction, existence conditions, type and magnitude, effects, and depended variables of frictional force. The resulting thematic list is thought to be guiding the work they will do in the future for teachers and researchers.