

Abstract Submitted
for the MAR13 Meeting of
The American Physical Society

Personifying self in physics problem situations involving forces as a student help strategy A.E. TABOR-MORRIS¹, Georgian Court Univeristy — How can physics teachers best guide students regarding physics problem situations involving forces? A suggestion is made here to personify oneself as the object in question, that is, to pretend to be the object undergoing forces and then qualify and quantify those forces according to their vectors for the system at hand. This personification is not meant to empower the object to act, just to sense the forces it is experiencing. This strategy may be especially useful to beginning physics learners attacking problems that involve both multiple forces AND multiple objects, since each object acted upon needs to be considered separately, using the idea that one cannot be two places at once. An example of this type of problem expounded on here is Atwood's machine: two weights hung over a pulley with a single rope. Another example given is electromagnetic forces on one charge caused by other charges in the vicinity. Discussion is made on implementation of classroom strategies.

¹Department of Physics

Anne Tabor-Morris
Georgian Court Univeristy

Date submitted: 19 Dec 2012

Electronic form version 1.4