Pieces of Knowledge: Multimodal Emergence and Trajectory in Socio-Scientific Educational Debates
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ARGUMENTATIVE RESOURCES IN SOCIO-SCIENTIFIC EDUCATIONAL DEBATES

Pieğes of Knowledge: Multimodal Emergence and Trajectory in Socio-Scientific Educational Debates.

PEDAGOGICAL SETTING: the YouTalk Scientific Café
Participants: 12-14 year-old students
Specially trained student moderators; 15-17 year-old students
Schools: 2 in Mexico, 1 in USA, 1 in France, 2 in Brazil

Moderators’ training (1 day)
To lead the YouTalk Scientific Café about Drinking Water Management

YouTalk - Introduction (10 min)
Game rules:
Main Question (MQ)
First Individual Anonymous Vote
Introduction to the 3 thematic phases

YouTalk - Thematic Phases (3 x 20 min)

KQ (x3)
reading and group discussion
answer and explanation

OQ
reading and group debate
vote and class debate
individual vote and results displayed

YouTalk - Conclusion (15 min)

Synthesis of class debates (3 OQ): MQ
reading and group debate
vote and class debate
individual vote and results displayed

First results from the US corpus:
Different spatio-temporal localizations associated with different scenarios of material environment exploitation

Mostly consists of:
-reading the slide or referring gesturally to the screen
-using something to point
-handling the clicker to display determination to select an option or emergency to get to a conclusion (positioning oral and interactional functions)

Exploitation of the material environment mostly occurs at the group level
Initial group discussion for quiz elucidation (KQ)
Supporting meaning-making process
(mostly referential functions)
Appeal to authority and interactional functions

Different knowledge units associated with different gestural scenarios

Virtual water
Price / Cost

-Imprecise gestures
-Referral function
-Little redundancy with speech
-Repetitions

Price / Cost

Less and smaller gestures
-Diversity of functions
-More redundant with speech
-Reinvestment with other words or gestures

Explotation of the material environment is not very sensitive to the knowledge content.