Figure 5. Study of the Black Box, using the buzzer as an instrument

0-60 min: Students work in groups, handle materials, discuss, keep notes			**60-90 min: Discussion in the plenary, conducted by the instructor**		
Points connected on terminals 1 & 2	**Observations**	**Desired/ideal inferences from students**	**Questions to unveil students' inferences from observations**	**Key points resulting from plenary discussion on students' inferences**	**NOSK aspects brought out from key points**
A-B	sounds	• Apart from the connections detected on the previous step, points E-H, E-G, I-G and G-H are also connected. • Buzzer's sound intensity is not changing objectively, so no result can be obtained whether some points (i.e. G-H) are connected directly or through others • If modification in bulb's illumination has been related to points' distance, it is very probable to deduce that H is not directly connected to G, but through E and I, because, due to little distance of G-H, the bulb would illuminate	• What are the new data introduced by the new instrument? • Are G-H directly connected or through other points? • Can you combine the indications from the bulb and the buzzer and answer whether G-H are directly connected or through other points?	• "Evolution in technology" results in new evidence • Buzzer's sound intensity is subjective, so different researchers could make different inferences • It is possible that someone finds the right answer	• A4 • A3 • Creative thought, (A2), continue from figure 4
B-C	sounds				
A-C	sounds				
E-I	sounds				
E-H	sounds				
E-G	sounds				
I-H	sounds				
I-G	sounds				
G-H	sounds				