



CYPRUS
MINISTRY OF EDUCATION
AND CULTURE



PESTALOZZI WORKSHOP

“Critical Thinking as a basis for democratic participation”

11-13 October 2017, Nicosia, Cyprus

PROMOTING CRITICAL THINKING THROUGH ARGUMENTATION ON SOCIO-SCIENTIFIC ISSUES

Argumentation Quality Rubric

Pestalozzi Workshop: “Critical Thinking as a basis for democratic participation”,
11-13 October 2017, Nicosia, Cyprus,
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Argumentation Quality Rubric (Sadler & Fowler, 2006)

Score	Description	Excerpt
0	No justification	<i>In response to the reproductive cloning scenario:</i> "Yes, I think so [reproductive cloning should be developed]."
1	Justification with no grounds	<i>In response to the gene therapy for Huntington's disease scenario:</i> "If they can stop someone from suffering, then sure."
2	Justification with simple grounds	<i>In response to the reproductive cloning scenario:</i> "I don't think it's right because if you're not able to have a child, . . . it's not God's will. If God wants you to have a child, you should have a child, and you will have a child. But if it's not for you to have a child, I mean, I think you shouldn't tamper with it."
3	Justification with elaborated grounds	<i>In response to the gene therapy for intelligence scenario:</i> "They will develop a dichotomy even more so than we see now with the rich and poor. Now we will have the smart vs. the stupid or those who can afford this procedure and those who cannot. And that will create all kinds of sociological problems. I think that is meddling too much."
4	Justification with elaborated grounds and a counterposition	<i>In response to the gene therapy for Huntington's Disease scenario:</i> "I think that gene therapy, it should be actually used very sparingly because what it does is narrows the diversity—like everyone gets the good copy now so that is not necessarily good because then we do not have a backup for anything. But in cases like this, where the only cure would be replacing the actual gene, then it could be beneficial . . . If there are no other treatments for it, that would be the only way that I would support using gene therapy for something like that. But I think all other means should be exhausted before we start messing with someone's genes."

Sadler, T. D., & Fowler, S. (2006). A threshold model of content knowledge transfer for socioscientific argumentation. *Science Education*, 90, 986-1004.