## Appendix 2. Manual for the Cracovian Debate

The Cracovian debate format is intended to increase knowledge, so it is a slightly more structured way of discussing, focused on cognitive gain. In this game, participants do not play against each other, but they play towards a common goal of cognitive gain. This can be achieved in various ways: when any of the participants/listeners change their initial opinion entirely, but also when one learns a good argument or when one rejects the arguments previously considered to be convincing. This means that cognitive gain is not only a change of mind but also making one's view more flexible than it was initially. To support this goal, the debaters focus exclusively on one specific argument in each round and which is tested in the debate to make sure whether they are sound and cognitively valuable. The cognitive gain is measured in the following way—at the beginning, each speaker and listener complete a questionnaire with one question ("What do you think about the motion and why?") and, when debating and questioning are finished, they fill the second part ("Did you learn something significant—what exactly?"). Based on the answers, we divide the number of positive answers by the total number of filled questionnaires, and the received percentage shows the cognitive gain in the room.

Depending on the motion, participants are divided into two teams: Proposition and Opposition. Each team prepares three (the most convincing) arguments for/against the motion. After filling out the questionnaire, Proposition presents (i) the first argument, which the Opposition paraphrases (ii) to make sure it was understood correctly; then Proposition clarifies (iii) the argument (if needed) or develops it more clearly, and only after that Opposition criticise (iv) the argument; after that Proposition responds (v) to the critique or improves the argument. The dynamic of the debates is shown in the following figure:

## Plan of the debate

- 1. A short introduction to the debate and the motion.
- 2. Completing the first part of the questionnaire (3 mins).
- 3. Discussing 3 arguments for and 3 arguments against the motion.
- 4. Answering the questions from the listeners.
- 5. Completing the second survey (3 mins).
- 6. Announcement of the cognitive gain obtained.

**PROPOSITION** OPPOSITION 01 enting the argument P2 02 Paraphrasing the argument Paraphrasing the argument P3 О3 Clarifying the argument Clarifying the argument Criticising the argument Criticising the argument P5 05 Improving the argument Improving the argument **Arguments of Proposition Arguments of Opposition** 

This constitutes the first round, the second

round starts with the first argument of Opposition, which proceeds analogically, just as the following rounds (yet it is important to refer only to the discussed argument, not the previous ones). Later on, the audience can ask questions. Once this is done, the participants (speakers and listeners) fill out the second part of the questionnaire, and then the chairman announces the result.

## Roles in the debate

Each team has five roles to perform—these could be assigned rigidly to the speakers (which may be beneficial when debating in schools), but does not have to be as one speaker may perform more than one role. Each team needs at least one speaker, but not more than five, which makes the debate format suitable for 2 to 10 speakers. The audience has no limits.

- Role 1 ("Presenter") presents the argument (in each round);
- Role 2 ("Paraphraser") paraphrases the argument with his or her own words (and asks for clarification, if needed);
- Role 3 ("Clarifier") clarifies the argument or modfies/withdraws the argument;
- Role 4 ("Critic") criticises the argument after clarification or accepts the argument in the clarified/modified form;
- Role 5 ("Improver") replies to the critique or improves the original argument taking into account criticism or accepts the interlocutor's criticism and withdraws the argument.

## Time

Depending on the possibilities, needs, and expertise of the speakers, the time may be adjusted. For university and high school students it was enough to assign ca. 20 minutes for each team (unused time goes to the next speaker/next round). The time for answering a question from the audience is 30 seconds. The number of questions could be limited in advance or adjusted to the needs of the debate.