

Towards a Civics Advancement Measurement Tool
Draft

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Background

The subject which comes closest to citizenship education, or Civics, taught in Armenian schools is ‘Social Science’ (հասարակագիտություն). In fact, the translation is not entirely correct. Հասարակագիտություն actually corresponds to the Russian word Обществоведение (knowledge about society). This was the title of this school subject during Soviet times. Social science, on the contrary, is in Armenian սոցիալական գիտություն (սէր) – social sciences. The current version of this subject does not contain any references to Marx, Lenin or Communism, and, as the analysis of the Consortium [demonstrates](#), the new Criteria that will be adopted for its teaching correspond to the needs of Civic education almost fully, if not precisely. What is lacking is a methodology on how to develop its teaching curriculum (even the Criteria are still in draft form); how to train teachers according to the new criteria; and how to mainstream the Civics approach throughout other subjects of the curriculum. Schools have freedom to build their own curricula within certain constraints. However, if a fast and decisive approach is not undertaken, they are likely to stay with the old ways, only superficially adapting to the new criteria. The difficulty is also the fact that the new reform has adopted the concept of competences as its main change of direction. This is a modernized approach to the school reform. However, there is no consensus – either in Armenia, or globally - on how to measure competences, and particularly the civic competence. There is not even an agreement on how to define competence. Moreover, Noam Chomsky, a major influencer of modern linguistics, distinguishes competence as separate from performance (e.g. the linguistic competence compared to the linguistic performance). Meanwhile the aim of the reform is to educate youth the young to become capable of acting as well-informed citizens as well as professionals, and their competence should not deviate noticeably from performance.

There are, in general, various definitions of competence-based education in different education systems across multiple levels (K12, VET, HE), hence also no consensus on how to assess or whether assessment is even necessary. The US experience, as the [systematic review of literature](#) performed by Evans, Landl and Thompson (2020) indicates, suggests having: a) a competence/civic related assessment in place; and b) to have transparent standards and criteria. It uses definitions of competence-based education (CBE) interlinked with mastery-based education (students own their learning and shift grades irrespective of seat time), performance-based education, proficiency-based education, and outcome-oriented education (this is because in the US the context assessment is key). In the [Competency-Based Education Models: An Emerging Taxonomy](#) (Thackaberry, 2017), it is noted that the generally accepted characteristics of CBE (in the US) are: (a) self-pacing; (b) modularization; (c) effective assessments; (d) intentional and explicit learning objectives shared with the student; (e) anytime/anywhere access to learning objects and resources (this is specifically enabled by the development of supporting technology); (f) personalized, adaptive, or differentiated instruction; and finally (g) learner supports through instructional advising or coaching. CBE definitions vary in the Netherlands (Biemans et al., 2006), in France (Clément, 2020), and in Sweden (Nordin and Sundberg, 2020).

While developing the Civics Competence Rapid Launch checklist (CCRL), NICLA project will research this issue and offer the results to the educational system.

Ultimately, following the approach from “Evaluating the assessment quality in competence-based education: A qualitative comparison of two frameworks” (Baartman et al., 2007), we adopt here the most common way of presenting the building blocks of competence – knowledge, skills,

and attitudes. Additionally, with reference to the Armenia education reform criteria, we add to these the concept of values (see particularly discussed in Part Two, **Knowledge, Skills, Attitudes, and Values**). However, the question remains: how are these four concepts related to each other and to the concept of competence? The situation is again complicated by the fact that the Russian/Soviet tradition of educational psychology identified three concepts which included knowledge and skills – знание, умение и навык (զիսուելիք, կարողություն և հմտություն), where knowledge meant information acquisition, storage and understanding, умение – the capacity to act according to that information and навык – the skill, i.e. the capacity to use knowledge fluently with no identifiable effort required for its retrieval and application. The concept of умение is even absent from the English vocabulary (apart from ‘knack’ which is stylistically different¹). It means acquired capability. Now, sacrificing that concept, many teachers experience a void in their methodology: how to move seamlessly from knowledge to a skill, which is perceived as the fluency of use and application of knowledge.

Other issues that will have to be addressed by NICLA are the fact students start learning ‘Social Science’ – Civics, only from the age of 13 or 14 (the 7th grade). Therefore appropriate subjects and topics from the curriculum of the previous years should be found where the introduction to Civics is contained. Also the fact that in many rural schools the higher level classes – 10-12 – are absent, means a significant group of students is deprived of a major part of learning Civics. The way to address this is via non-formal education but also working with colleges and the VET system.

Part One. The Civics Competence Rapid Launch Checklist (CCRL)

Since the school reform includes a number of various actions required; and since there is a plethora of youth activities all over Armenia; NICLA considers it of paramount importance to provide youth, educators, and education policy-makers with a simplified tool to be able to rapidly assess the level and positioning of Civics in their undertakings. The Tool will be used for a swift launch of NICLA, provide a relatively easy explanation to educators and youth on how to quickly incorporate Civics in their activities; and after full development can even become a guiding step for creating a sophisticated measurement system for Civics competence nationwide, to be used by the state and/or independent actors. The Appraisal and Testing Center SNCO may adopt it in its measuring of the competences of all school graduates. Currently only ‘horizontal knowledge’ is measured, such as knowledge of language or history, whereas this tool will provide an opportunity to also measure ‘vertical competences,’ i.e. competences provided vertically via any particular subject that have to result from the entirety of school education. The design for the CCRL sketch has been based on analysis of all the materials available for the Armenian School Reform, international best practice, as well as the many years of experience with advancing Civics in formal and informal education of the Consortium’s experts and specialists. This approach results from the experience of educators and researchers engaged in NICLA, the methods they follow, and [the literature they have studied](#). The PYD approach and measurement tool (YPAD) have been particularly instrumental while building this draft, and EPF’s [Capacity Enhancement Tool](#) for CSOs has provided some insights too. CCRL pursues an aim of bringing together - as much as possible - the tasks of formal and informal education, and

¹ The literal translation of умение would be mastery, but in Russian tradition умение comes first, skill is a higher level achievement. Proficiency is another term that comes close to умение.

making Civics their focus. It can be interpreted as the contribution of the best practice found in informal education to formal education, which has difficulties in moving from subject-based teaching to competence-based teaching.

The sketch of that tool, a kind of a ‘cookie-cutter,’ which will be worked on more after NICLA launch, is the following (see diagram 1):

Civic Competence Rapid Launch (CCRL)

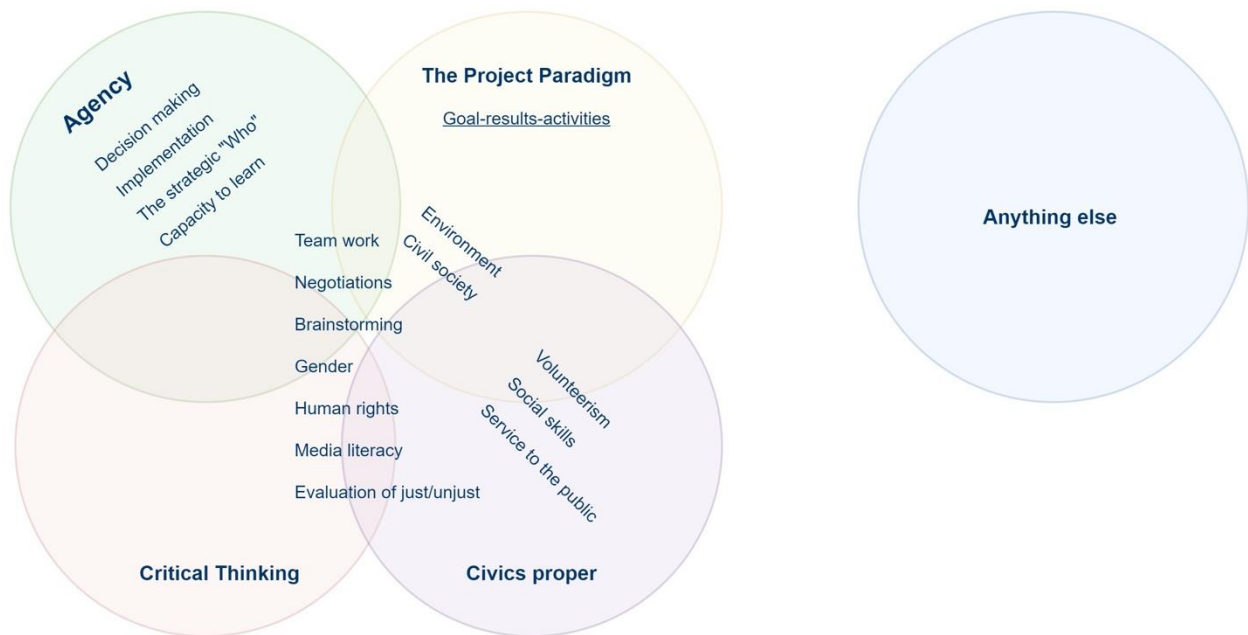


Diagram 1: Civic Competence Rapid Launch (CCRL)

The Armenian School Reform Criteria have identified eight large-scale, deep and compound competences that a school graduate should possess. One of them is the Civics competence, and all the others are related to it to a varying degree. NICLA considers Civics a large-scale deep and compound competence on its own, and identifies three more compound competence areas. These do not relate to the data, materials and information that a student should possess; but rather to the methods via which he or she - as well as educators - operate with primary data, materials and information. The four fundamental - mutually reinforcing - competence areas that capitalize on the available knowledge and skills in an elicitive rather than prescriptive way, if applied in combination, strengthen the Civics competence. These four competences are:

1. Agency – decision making and implementation, leadership, management, the ‘Strategic Who’ in a large sense; this is related to a variety of skills: planning, organizing, facilitating, negotiating, team-work, social skills, etc. This competence is one of the key elements of PYD.
2. The Project Paradigm – project-based learning; a project-based approach to life. This includes the ‘project grammar’; building a set of goals, objectives, expected results and activities; reinforcing this ‘grammar’ with agency, resources, risks, flexibility, learning while doing, etc. This means also utilizing, while doing the above, the ‘fractal’ approach: when a project-process needs to develop a project; and when a project’s implementation

is a project in itself based on the same ‘grammar.’ This competence has an overarching position in the set of Competences of the Armenian School Reform.

3. Critical Thinking – this competence works using knowledge and skills in a variety of areas, such as the entire set of human rights issues, gender issues, environmental issues, etc. – since the capacity of subjectively measuring the level of unjustness of power and unfairness is the root of critical thinking. It is also the root of media competence, media literacy, familiarity with fake news and media manipulation, attempts of malign influences, and conspiracy theories. This competence also develops the agency’s capacity to learn (competence of learning to learn according to the Armenian Criteria Competence Set) and life-long building of one’s worldview via information utilization; asking questions; addressing environmental concerns, etc. This competence, as well as others, also addresses the need for self-discipline (putting forward one’s desires only if appropriate; plans to help others if needed; desiring to do what helps others now; it is therefore linked to competences 1 and 4). At its depth, Critical Thinking helps with acquiring a realistic worldview and appreciating science, distinguishing a scientific approach to life from all other approaches (such as opinions, traditional values, religious views, etc.), thus also being at the core of evidence-based research capacities. This competence features prominently in the Armenian School Reform.
4. The Civics Proper – Understanding what is a Civics approach and using it (as different from activities ‘for profit’, for the ‘nearest and dearest’, and for state and political careers based on ‘the rules of the game’/ populism). This includes socializing competences (no manipulation, basic skills of being civil, conflict resolution and avoidance, facilitation skills again, etc. – linked to Agency), as well as ‘public’ competences: citizenship; acting for the benefit of community and society at large. At the extreme this means valuing humankind, and valuing oneself (and one’s community and society) as a part of humankind or more widely – of the lifeworld. These competences exist in a variety of competences both in the Armenian School Reform as well as in the CoE manual and many other documents.

CCRL, created following the PYD approach, does not pursue an aim of squeezing all the competences needed for a modern citizen into four areas, but it is obvious that many additional competences improve if a combination of these four is also advanced. For instance, creativity and innovation boost if the project-building competence succeeds. Creativity is also advanced via the competences 1, 3 and 4, since decision-making requires relying on the capacity to brainstorm; Critical Thinking requires the development of imagination; and, for an example, action for the benefit of the public requires a ‘bird’s eye’ view of the society – a capacity to see the general descriptors and trends and prioritize and select among them.

The person who has these competences understands that he/she has these competences and works on bettering and supplementing them Using the fact of his/her having acquired these competences in life consciously, i.e. he / she acquires reflective thinking competences and the competence of learning on how to learn.

A checklist based on these four competences will be finalized and offered to the Consortium, as well as all the stakeholders. The Checklist is designed so that it is both an evaluation tool as well as a guide for action. It can be used in the following ways:

- a) Use it to apply to a planned project (a class discipline, one particular class, an extracurricular project – such as an environmental project, a school governance project,

etc.). Ask questions such as: which competences from these four will be advanced via the project's implementation? To what extent? Why do you think so (provide an argument, or your subjective opinion)?

- b) If you have a project idea, use this Checklist to build the project having CCRL at the core of the project.
- c) If you are implementing a project, stop and ponder if these four competences are being applied or used. If not, why? If yes, which one to what extent? How can you strengthen them by making changes in the project implementation?
- d) If a project is complete, evaluate it based on this Checklist, identify lessons learned for the future, and suggest improvements for other similar activities.
- e) If you are working on a methodical material (e.g. how to teach a class or how to teach the project-based approach to students), use this competence Checklist the same way as outlined in sections a) and b).
- f) If you are evaluating a methodical material, use it the same way as in sections c) and d).

Plus One Circle

This is a Civics approach Rapid Launch Checklist and its main aim is to provide the student, educator, researcher or education policy maker with a fast and easy way to: a) make his/her work relevant for Civics and/or b) check to what extent is a particular activity corresponding to the Civics. By no means is this Checklist supposed to be all-encompassing of all Civics components, or indeed all the needs for learning, education, knowledge, skills, attitudes, values and competences. Therefore, we add to this list of four competences the fifth, 'empty' area, naming it 'everything else'. If during any of the sections a)-f) you encounter issues or problems that do not fit or seem not to be connected to any of the four competences, please fill in this circle and consult with the CCRL team. It is not beyond the realms of possibility that there may be a crucially important competence that is not evolving from any of the mentioned skills; or that there may be skills that do not develop any of the mentioned four compound competences but another one (although the likelihood of that is low, if the Checklist is applied correctly). Let us take one example of a possible – and interesting – problem. Empathy is addressed both while building the Agency, as well as advancing Critical Thinking. However, one of the crucial issues that Armenia faces is lack of conflict resolution skills, when one is a side in a conflict. In conflict resolution, along with empathy, another skill is needed, that of 'putting oneself in the shoes of the other.' This is not merely empathy: empathy means keeping one's identity while empathizing with the other. In the case of 'putting oneself in the shoes of the other,' one should forget one's identity and try to see the things from the perspective of the other; not just understand them, but see them with no impediment from one's own identity. Therefore, learning 'putting oneself in the shoes of the other' may not be advanced by any of the four compound competences of CCRL: special attention needs to be paid to it.

Another nuance may be important to pay attention to while addressing participation and leadership. The two are interlinked, however, additional discipline is required to participate in a team fully and constructively while leaving the final responsibility to others (and at the same time constructively monitoring their action), which is a very important skill in team building.

A similar controversy exists between the educators who are in favor of the need to concentrate (the so called '[cognitive switching penalty](#)' – the price one pays for 'zapping' through topics that one has to learn (Kaufman, 2010)) versus specialists that consider *interleaving* as a major aide in learning (Brown et al., 2014). Interleaving is the means of leaving a certain topic not fully

absorbed, switching to another topic and then coming back to it after a period, which, as the authors claim, places the learned material in the long-term explicit part of memory. This controversy arises from confusing different areas of information to be absorbed. The switching penalty is particularly topical in the modern world of digital distraction. However, utilizing interleaving means already having concentrated on one topic and switching to a single other, rather than zapping through many topics. Josh Kaufmann, who coined the concept of switching penalty, himself suggests *batching* as one way of resolving the problem of zapping. Batching, in other words, is the first action in systematizing. It means roughly gathering information in groups based on first identified similarities and differences. Batching helps learning, but interleaving after batching, it appears, helps more. Why this is the case is further discussed below (see Part Two, The Big Picture).

Such examples demonstrate that it makes sense to have additional space for addressing nuances in or outside the CCRL competences.

As this approach makes clear, CCRL can be both applied to Civics as a subject (discipline, etc.), as well as to any area of activity (subject, discipline) near or far from Civics proper, such as a Mathematics (Maths) or a Sports project, a personal career plan, an NGO project or a youth volunteer activity. In certain cases, some of these competences will advance more than others. For instance, Maths requires several background competences, however, the relevance of competences 1-3 is beyond doubt. Even competence 4 is important; in that without participating in a global Maths network it is difficult to register particular successes in Maths today. In Sports too, the feeling of pride from serving the public (e.g. one's country) and team-work are as crucially important as the capacity to evaluate whether or not the agent will be able to, for example, lift the proposed weight, as well as to plan the trainings and lifestyle accordingly.

CCRL is used throughout this Proposal; both for writing it and building the Consortium, as well as a 'red thread' which runs throughout the five-year-long plan and will be guiding both NICLA implementation as well as the stakeholders' and beneficiaries' actions. It is planned to offer its developed version to all the stakeholders throughout NICLA (as well as to modify and develop it further as NICLA advances), in order to help the rapid start of NICLA itself. Additionally it will provide a fast introductory orientation and understanding to the stakeholders on how to start approaching the institutionalization of Civics: such as by using CCRL, commenting on it, perhaps even starting off it, etc. Thus, CCRL becomes a tool, along with YPAD, etc., that will help implementation, research, evaluation, and other activities of NICLA. It is supplementing some of the main methodological tools, such as the Council of Europe Reference Framework of Competences for Democratic Culture and other materials placed at the heart of NICLA. The CCRL is the embryo of a more advanced and developed, consensually negotiated framework checklist, which NICLA plans to build, and proposes to be institutionalized to measure and guide the development of Civics in Armenia as a result of the school reform and NICLA, by the government as well as non-governmental actors and internationals.

The table version of CCRL

Please evaluate the competence-building saturation of an activity using the grades 1 to 10, where 1 is the lowest; please think on how to boost the competence-building saturation of the activity, if the scores are low.

NB. Scores are conditional, and the evaluation does not necessarily have to be numerical. It can be verbal and/or combine numbers and comments.

Competence	Use/check						
	Apply to a planned project	Build the project based on its idea	Assess the project / its part in the midst of implementation	Evaluate the project	Use for developing a project about doing a project (e.g. a methodical material / method)	Evaluate a project about a project (e.g. a teaching method)	Any other use
Leadership / Agency							
Critical Thinking							
The Project Paradigm							
Civics Proper							
Anything Else							
Subtotals							

CCRL can be applied when answering the following questions, the first set (set a) being orthogonal to the second (set b):

- 1a. Whether or not Critical Thinking has been used/applied/implemented in building/evaluating /planning this project/approach/method/tool;
- 1b. Whether or not it is being advanced/enhanced in/via this project/approach/method/tool;
- 2a. Whether or not the Leadership competence is sufficiently addressed in building/evaluating /planning/implementing this project/approach/method/tool;
- 2b. Whether or not it is advanced/enhanced in/via this project/approach/method/tool;
- 3a. Whether or not the Civics competences are sufficiently used/addressed in building/ evaluating/planning/implementing this project/approach/method/tool;
- 3b. Whether or not they are advanced/enhanced in/via this project/approach/method/tool;
- 4a. Whether or not the Project Paradigm has guided the building/evaluating/planning/implementing this project/approach/method/tool;
- 4b. Whether or not the Project (designing, planning and implementation) Competence is being advanced/enhanced in/via this project /approach /method/tool.

logic, and is used to cut and paste (plagiarism); as a result, connections between the four major competences are interrupted as well. The student may even be well-versed in systematizing and quite creative. However, gaps in their understanding will affect all the CCRL competences: cut and paste makes one passive rather than builds the qualities of an Agency; bad logic leads them to developing unsound projects, which aim at a wishful thinking rather than at a rational target. In order to fit the results of a bad project to an unattainable objective, students invent false evidence and use false arguments. This all may become a fertile ground for them becoming victims of a conspiracy theory or even worse, starting to work in a troll factory, because their ethical defenses and the leadership Agency (feeling that they make a difference in the society) reduce; they are disempowered. Troll factories are some of the always-available recruiters in the job-scarce market.

The bright side

Adopting this approach allows users to easily ‘fish out’ the gaps in individual’s competences such as not understanding the difference between science and non-science; the difference between cut and paste versus quotation or one’s own ideas; or the difference between being good to one’s family and kin versus doing good for the community/society outside the family circles.

Part Two. Value Added: The core ‘thick variables’ of CCRL

There is one core ‘thick variable’ available per each complex competence area of CCRL; this helps the planner/educator/assessor to approach the task of planning/implementing/assessing an activity with relative ease.

One crucial element of the competence of being an ‘Agency’ – or a **Strategic Who** - is the capacity to cover the gap between decision making and implementation.

Decision making requires many skills, among which are the capacity to work with the team, keep the focus on a target, plan, calculate resources (see the Project Paradigm competence), be persuasive, have arguments, know how to negotiate, convince, compromise, share, etc. However, the most important accomplishment of an Agency competence is the decision implementation. This requires additional skills such as working towards and delivering deadlines; countering the unexpected; flexibly changing as the circumstances change without moving the focus away from the objective; encountering and dealing with the unknown and unexpected; etc.

The worth of a decision is connected to the capacity to predict whether or not it is implementable and what is the expected chance of success.

Critical Thinking, as has been mentioned, among other skills and above everything else requires feeling and a capacity to express the fairness versus unfairness, justness versus unjustness, of a situation or a text. It also requires a capacity to argue whether, in the opinion of the Strategic Who, manipulation should be suspected as being contained in the current communication; or does it follow the rules of constructive and cooperative communication.

The Project Paradigm: does the Strategic Who understand and use it? Checking this competence means examining whether or not the planned undertaking has been/can be construed according to the project ‘grammar:’ aims, objectives, results, activities (risks, division of labor, resources). Unless so planned or unless capable of being broken down into these entities, an undertaking cannot be considered rational and therefore the activity is deficient in terms of

Civics competence. At the same time, the understanding that *everything is a project* allows the educator to find ways of addressing project-based learning even within the confines of a typical 45-minute class. While this is not the best and should not be the main way of explaining to students what a project is, sensitizing them towards the fact that *everything is a project* will help them look at their own learning processes through that lens and strengthen this competence. This is achieved via using the retrieval/reflection value (see below): “Right now, being here and now, we are within a project”, says the teacher. “What are its aims? Expected results? What activities have we done and what else should we do to achieve them?”

The Civics Proper: to what extent is the activity addressing public good; in other words, working on it not for the sake of one’s kin; not for profit and not for individual political or civil service career? This understanding and conceptualization of Civics Proper come from USAID’s and EPF’s definition of civil society: civil society highlights those actors who do public good not for profit, not for their kin and not from an immediate political or state service career considerations, but for the benefit of the larger community and society. Obviously, these outcomes are not prohibited, and the Strategic Who may have them in mind. For instance, successfully achieving the LG repairing a road will benefits one’s kin as well; because of a few successful public projects, one may be suggested to join a political team, etc. However, the primary focus of an activity should be clearly distinguishable from such aims and target the public good as taking precedence over them. One may be certain that they will benefit from taking an election bribe in a short term and will not suffer in the longer term of the time between two elections. However, the Civics competence requires sacrificing their short-term benefit, understanding the detrimental impact of this behavior on the ethical values of the society. In this case, a single act has much larger consequences than those for the individual only: it corrupts the society and its governance system. The Critical Thinking competence joins in allowing one to recognize that they are doing an unjustifiable transaction, exchanging a large benefit of providing somebody with a capacity of unfairly exercising power for a significant period for an *infinitesimally* smaller benefit. One hundred or even five hundred dollars are not equal to a five-year long sit in the parliament.

Value Added and Anything Else: Knowledge, Skills, Attitudes, and Values

The Armenian School Reform competence definition contains four ‘thick variables’: knowledge, skills, attitudes (dispositions) and values. It is commendable that the definition starts from knowledge rather than values, since understanding what is knowledge requires understanding and accepting the existence of the objective reality, which then affects the individual’s value system. At the same time, it is unclear how these ‘thick’ variables’ relate to each other, and whether or not, if each has a separate focus (e.g. classes are constructed so that some of them target knowledge; some target skills; etc.), the sum total will bring about the required competence. Usually competences contain the above four ‘thick variables’ and many more: such as capabilities, etc. At the same time, there are many different ways of grouping the building blocks of competences. In another document, the ones mentioned are knowledge, understanding, judgment and skill. In fact, there is no consensus - nor a convincing approach - on these building blocks among the education specialists and researchers. This can be one of the discussion topics in NICLA. However, let us see how the variables included in the Armenian criteria set resonate with the CRRL.

The CCRL competence areas and the ‘thick variables’ contained in them require information-type knowledge already available; they do not rely on teaching people information but rather elicit what people already know; if a knowledge area (understood as information) needs to be supplemented, the internet or teachers’ advice on where to look for information is available. The information-type knowledge is also supplemented during a project implementation at an accelerated pace; and this process helps the Strategic Who understand the difference between functional versus structural types of information acquisition. For a project to be completed, one has to get information on whatever is needed for that aim functionally, without breaking it down into a structure of the accepted categorization given by school and teachers ‘from above’. This immediately demonstrates to the Strategic Who the limitations of a categorical structural approach. For instance, encouraging an LG and one’s teammates to repair and clean a street may require finding an argument about the fact that the poet whose name the street bears has written a poem about the environment. However, this is not an information-type knowledge that is contained and has been delivered in a literature class, because this poet is not included in the literature program. At the same time, if the structural approach of schooling has been successful, the Strategic Who has acquired a capacity of systemic thinking already in place and is capable of adapting any new functionally-useful information they receive in their worldview and using it as needed. Boosting the systemic thinking skill but keeping it flexible helps build the scientific worldview. This is where formal and informal, traditional and competence-based educational systems meet constructively.

Critical Thinking, which starts from a *feeling* of injustice, as well as the Civics competence require prior knowledge and understanding of human rights; the role of public communication; and of a general picture of citizenship and government rights and responsibilities. Decision-making and implementation require a set of social and communicative competences; the Project Paradigm requires possessing the basics of rational thinking; etc. If a research project is under discussion, it is the combination of Agency, CT and the Project Paradigm, that allows the research planner or implementer to distinguish the issues of internal consistency and validity. A healthy skepticism of not taking anything at face value if there is a reason to believe that the input may be wrong, mistaken, manipulative or unjust – especially if coming from a powerful actor – helps build the basic capacity of asking questions (or rather not losing that skill after early childhood) and a crucially important capacity of making ethical judgments.

At the same time, the CCRL competence areas, being very much oriented to action, reform any passive knowledge into its practical form, i.e. require for it to be used; and they themselves become skills if the user has trained in using them. From being *inside* them, the user becomes a conscious *applier* of them, both –to their own and others’ actions. The other element contained in the competence of Agency is the capacity of building a Strategic Who from an individual to a team. This means putting into practice several social skills. It also requires working on team agreement, division of labor, mutual support, empathy, and implementing other actions needed by EPF’s approach dubbed many years ago as the [‘Principle of Sliding General’](#) (p. 9), practicing very specific collective leadership skills. Just like in the example above of the structural versus functional knowledge, this competence requires combining the principle of division of labor and specialization with avoiding compartmentalization. Also, it entails every team member learning a variety of skills and a capacity to substitute each other as the need arises.

As for attitudes and values; the Project Paradigm requires a positive disposition. In other words, a project, which is being planned or is being implemented requires a belief that it is achievable and the context – the world around us – will be predisposed to this project’s success. However,

this does not prevent the Strategic Who from being very critically minded and analyze the undertaking or its parts – particularly from the perspective of the CCRL competences. The Strategic Who should be able to distinguish the team projects from individual projects and understand that even seemingly individual projects contain needs in social skills: a homework has to be assigned and checked; a poem written by a student in seclusion has to be read, understood, appreciated, critiqued by others, etc., to become a poem. The general knowledge of human rights, citizen and government rights and responsibilities, juxtaposes with the concreteness of the CCRL-type approaches, projects etc. When one comes face-to-face with real and concrete issues in the community or family, such as the contradiction between traditional gender roles and modern realities, this results in one's value system being built and modified based on CCRL and particularly CT rather than on uncritical and abstract values. Civics Proper, combined with the other three competences, brings us closer to the issue of which values to address and how to address values. If, however, other competences, such as Agency or Project Paradigm, can be used both for positive or negative aims (from the perspective of the society), their interlinkage with Critical Thinking (which requires a sense of justice versus injustice), and with Civics Proper (which requires being competent in volunteerism and therefore possessing a certain heuristic concept of selflessness) suggest a sound way for starting the discussion around values as part of the compound competences.

The Big Picture, The Future and Power: The CCRL Magnet

Another crucially important competence is to not become lost in an overwhelming sea of information. The Civics area is too large and often people do not know which competence to prioritize over which. In order to make sense of - and orientate in - the cosmos of rubrics necessary for Civics, CCRL is also helpful. It prioritizes certain competences over others without devaluing those others. Apply CCRL to any possible situation, and the situation may be systematized, as if around the magnetic lines of the four competences.

The Future

There is one important way that the CCRL and other competences of people can be advanced. That is presenting them with the big picture, for instance, at the beginning of an educational journey, presenting them the picture of where will they be by the end of it. Then re-presenting this picture to the students, along the way several times, to give them an orientation on where do they are on this journey. Knowing the future is a power, one of the most important powers, and this is the knowledge that the Armenian students, especially children, often do not have in educational situations. When they are 14 and learning about the economy, they are usually not told that in two years from now they will be subsequently learning how to orientate in the political economic systems of capitalism versus socialism. Alternatively, when they learn that repaying debt is a crucial ethical value, they do not usually know that in a year's time they will be learning about credit systems and even opening a model bank account and learning internet banking. Therefore, presenting them with the future perspective is a very important tool for integrating acquired knowledge in the system, which is being built in a human mind. This is also related to the 'fractal' approach. If you preach transparency as a major value, be transparent presenting the learning journey in front of them. Do not disempower students saying that it is too early for them to understand what will be taught in three years' time, therefore you won't tell them. The Project Paradigm helps with this, because it is about imagining the future. CT also stretches the imagination muscle, requiring thinking about who would need to manipulate them –

and why - by presenting an unfair practice or misinformation. This helps also boost creative thinking.

The Power Issue

Being lost in the sea of information is related to the agenda of acquiring a variety of competences without having prioritized them. One may study debating skills without having acquired a serious and grounded position on the topic of the debate, therefore thinking that they are learning rhetorical skills and persuasion, when in fact they are learning sophistry. Only those issues a person has a serious and grounded take on will be debated properly by them. Thus, CCRL helps avoiding the peril of thin abstractions, which is one of the reasons why values studied theoretically at school do not trickle down to the larger societal behavior, since the environment that individuals find themselves in does not condone behaving according to these abstractly learned values. It can be said that the CCRL approach modifies any structurally learned value in the functional competence. Only action can overcome thin abstractions. Only acting creates a situation where thin abstractions are not muddling the big picture. The Civics education can be successful only if the learner learns how to apply their competences to solving authentic problems, accessible to them; and that is the experience that allows them afterwards to move to addressing larger and more distant problems. The empowerment of an Agency and making them into a Strategic Who means giving them competence to act locally having the big picture in mind². Nothing is more disempowering than spending time on developing abstract opinions about, for example big politics, without having a chance and capacity of resolving an issue in one's small community. CCRL helps with addressing this issue too.

The seriousness with which school subjects present to the learner relate also to the power issue. The power of teachers over the students is a well-known phenomenon. It has to be balanced via empowering students, on one hand, and making teachers conscious of their power, on the other. This balancing should be achieved via engaging students more in the school governance (School Councils), but also via modifying the style of presenting the information in a top-down way, with a seriousness that prevents any doubt and does not allow the students to express opinions, particularly disagreements, even if mistaken. In this respect, it is noteworthy that some of the praised electronic aides may have a disempowering rather than an empowering effect. Take a PPT presentation which is on a screen and is unmodifiable, and which students must watch from bottom up. It is in fact disempowering rather than empowering, presenting a draft that the teacher developed last night as a fait accompli, an unmodifiable unit of learning offered as an unquestionable and unavoidable necessity. Alternatively, using the white boards is empowering, because any student may approach the signs drafted on a whiteboard and immediately modify them, add to the picture or subtract from it. Similarly, encouraging debates, discussions, role plays and games, and even using provocations and creating intellectual scandals helps learning more than the transmission of unmodifiable information with a style of unquestionable power. It helps dismantling stereotypes, appreciating pluralism; and making the learning process more labile with all the follow-up benefits of becoming a more adaptable and fast learner, a learner who knows how to learn.

² This is the basis for the [SLD](#) approach.

The Big Picture

CCRL stems from the latest research results on how people learn (Brown et al., 2014), and the approach offered here capitalizes on the best and latest scientific advice on how to build educational situations and environment. For many decades now, the best way to learn according to experts has been the immersion of learners in a practical activity. Why is it so? Because in theoretical learning many elements of the context are left out. When confronted with practice, the student has difficulty in using their learning in a situation of mixed information. Whereas, being immersed in practice while learning, the student builds their capacity to orientate amongst too much information and to prioritize. However, there is an additional benefit offered by practical learning: it presents the student with the big picture of the situation. Abstract learning deprives the student of big context but also restricts their capacity for varied practice – when they move from learning one topic before having fully interiorized it to another one. Again, it proves that varied practice (interleaving) is better than various types of focused practice, such as cramming or massed practice. Massed practice is the case where one, say, has to learn a set of 50 pictures by Van Gogh. The opposite is comparative learning: interleaving the Van Gogh pictures with those of Picasso – in which the learning of both painters’ work becomes more effective and durable and is stored in explicit memory. It even becomes possible to distinguish a previously unknown Picasso from a Van Gogh. The comparative approach is one of the most basic capacities of the human mind, which allows for additional information to be internalized, understood, and stored and utilized almost effortlessly. The Armenian formal educational system severely underutilizes this approach. For instance, the debates around how to teach the history of Armenia did not mention at all the need for a comparative approach: where teaching the subject is via comparison with the histories of the neighboring nations. The neighboring nations - from the perspective of the formal course of history of Armenia as schools currently teach today - get shown [merely as enemies or in the best case as impediments](#). Whereas comparing the advance in culture and fight for identity of, say, Armenians and Georgians would help resolve many methodological issues that are currently unresolved. The comparative approach models the big picture better than having two separate subjects: one on Armenia’s history and one on the history of the world, for the following reasons:

1. It is modeling the big picture;
2. It is easier to grasp than the connections between the global big picture and the Armenian history;
3. It is more worthwhile practically;
4. It has to include the Civics components willy-nilly, because learning about the neighboring culture is not equal to learning about one’s kin only – and makes one to think in a non-selfish manner;
5. It is a methodological bridge, a missing link between the Armenian culture and the global culture.

Just as knowing the future empowers the learner, so being immersed in practice – with the entirety of its context – presents them with the big picture, which allows building and utilizing the connections between learned and not yet learned elements that otherwise would be dormant.

Retrieval and Reflection

As recent studies demonstrate, one of the best ways of making concepts from information and then building competences based on them for complex knowledge areas is retrieval rather than repetition. The retrieval approach helps students assess their level of competence and improve it. This has to happen in a non-threatening way, for instance, via low-stakes tests as well as retrieval diaries. Students as well as pre-service teachers can both use these tests and diaries. Learning diaries are one of the best ways for reflection and retrieval, and NICLA will suggest using them to all the beneficiaries. Retrieval diaries may also link to the learning topics, as shown in Part 3 (see example 9).

In order to make the task easier, the CCRL approach recommends finding a core in the concept of reflection. Just as Critical Thinking is primarily about the power imbalance, in the same way there is a core ‘thick variable’ in reflection, which does not cover the entirety of the complex concept and activity, but helps utilizing it with a relatively simple guidance. This core ‘thick variable’ is as follows: to start a reflection process, please consider the similarities and differences in your current context (wherever you are) with what you have learned theoretically or as a targeted activity. This helps the diary users to know exactly what to focus on in their diaries and instead of narrating the day’s occurrences with no direction, make their exercise meaningful for CCRL. For instance, today you studied visiting a museum. How does your experience – what you learned – compare with where you are at right now? For an example, with your house? Today the teacher talked about gender imbalances. Does the power misbalance in gender relations resemble - or is it different from - the power of the teacher over the classroom? You have a cat. Today you learned about birds. Are there any commonalities between what you have learned about cats versus what you studied about birds? For instance, one has to remember too many types of birds, and they are often visually very similar to each other, but different biologically. What about cats? Etc. Connect what you study with what is immediately in your surroundings, and you will be advancing on the scale of reflection. This relates to the power of a comparative approach, as well as to the fact that one of the best ways of storing knowledge in the long-term explicit memory is linking new data to what you do not need an effort to know/remember. Of course, this approach is not a panacea: not only one may still forget what they have learned after this exercise, but they may also have a difficulty with linking, e.g., a differential equation to the kitchen where they are sitting writing the diary. However, even in this case the exercise is worthwhile: while the way of how to solve the equation may or may not be stored in the long-term memory, the memory of it will connect to your reflection aide, in this case, the situation in the kitchen. This will help remembering where exactly to look for to refresh the memory of the solution. This approach is somehow similar to the grandmothers’ advice of knotting a handkerchief when you are looking for a misplaced item in the apartment, such as the keys or a passport. At the same time, writing down the solution to the differential equation in the diary itself may or may not be helpful: you will know where to look for it instead of the textbook, which may be helpful, but there is no research evidence that you will remember the way to the solution better.

The retrieval/reflection diary is good for any learning. However, we recommend it here primarily as concerns the Civics and particularly CCRL. For Civics, its best use will be if you, after remembering the learned subject and connecting it with your surroundings, also add your thoughts on how this connection relates to the competences of Agency; Critical Thinking; Civics Proper and the Project Paradigm. This exercise is obviously a more complex one than connecting one’s impressions about today’s learning to one’s environment. However, you can recommend it

to sophisticated learners, particularly pre-service and service teachers, university students and professors, senior youth outside the school or students at higher grades. In general, the principles of knowing the future and expanding the context via reflection in order to acquire a bird's eye view, as we mentioned, help learning. Add to this the fact one of the best ways of judging the competence of problem solving is to ask the student to describe how they got to the solution. Similarly, presenting the CCRL approach early and suggesting students consciously pay attention to it increases their capacity to adopt this approach and acquire CrT skills, start seeing situations from a project "angle," strengthen their agency and be aware of their Civics activities. An argument is possible that presenting students with partially understood complexities is not helpful, but our experience shows that introducing the concepts early helps in acquiring them, because it focuses the attention on the important components of the process. Teachers and learners can both apply the 'magnet' to educational as well as life situations. Students can pay special attention to and retrieve the CCRL-relevant situations while writing reflections in their diaries.

Thus, using the reflective approach allows teachers to address CCRL fast. Just like discussing, the Project Paradigm students can see that *everything is a project*, the same way they can also learn about power imbalances via reflecting upon their situation here and now. This learning strengthens their CrT competence. The teacher may ask the students after explaining the issue of power imbalances: "Do you think it is fair for me now to guide you during this class? Do you feel that there is a power balance in the current situation or there is an imbalance? If the latter, what shall we do to restore the power balance?"

Part 3. Towards the Practice of the Reform: The Civics and CCRL Modules

The CCRL competence building will be used while developing the teaching modules for a variety of Civics topics and then mainstreaming the same competence-based approach for 'non-Civics' topics.

The CCRL competences are 'vertical' competences to 'pierce' all Civics topics (and as an additional goal – non-Civics topics).

The modules will incorporate the 'vertical' CCRL competences into the 'horizontal' topics. EPF has used this model of 'horizontal' versus 'vertical' literacy in its work with AGBU at [Bridge4CSOs](#) program, funded by the EU. In the case of CSOs the usual practice has been to train them in management, project design and implementation, financial management, etc., independently of their specialization. The Bridge4CSOs program made a decision to train them on their needs in 'horizontal' literacy, i.e. on the topics of their specialization: gender; youth; culture; social entrepreneurship; etc. In the CCRL approach, we suggest the opposite process: the Armenian school students are primarily training in 'horizontal' knowledge or literacy, topic by topic. The idea presented by NICLA is combining development of modules for these topics based on the new criteria for education, while at the same time to move to a 'vertical' approach of making special efforts to teach the CCRL competences which are needed by anybody in any situation. This approach is also determined by the fact that while moving to a competence-based teaching methods that the Armenian school system is planning reflects a wide-spread global approach in education; at the same time there are not enough studies on how to impart competences and how to measure them, both in Armenia and internationally. NICLA consortium plans to fill that gap to a certain extent.

Until now, the assumption has been that after teaching the topics based on the ‘horizontal’ school program the acquired Civics and CCRL competences need measurement. This approach works on an understanding that there are variety of ways of helping people acquire project implementation, critical thinking, and other competences. Having defined the core of these competences, NICLA has made a step forward in building the school reform agenda from another perspective. The assumption that after teaching ‘horizontal’ topics the competences require measurement turns upside down, and the CCRL approach is based on the practice of developing modules so that they explicitly address the CCRL competences.

CCRL competences		Agency	Critical thinking	The project paradigm	Civics Proper	Anything Else
Number	Subject					
NICLA priority topics						
1.	Human Rights (with subtopics)					
2.	Anti-Corruption					
3.	Gender					
4.	Environment					
5.	Good Governance					
6.	Civil Society					
7.	Conflict Resolution					
8.	Media Literacy					
9.	...					
Topics that will be also addressed						
10.	The Armenian Government System					
11.	Economy					
12.	International Law					
13.	Elections					
14.	Local Government					
15.	...					
The prior level competences that may be deficient						
16.	Plagiarism					
17.	Virtual communication					

	skills (writing emails, etc.)					
18.	Other social skills					
19.	Reading and understanding large texts					
20.	Writing independent texts					
21.	...					
Other school subjects						
22.	Civics Competence in Maths					
23.	Civics competence in Physics					
24.	Civics competence in Literature Studies					
25.	Civics competence in history studies					
26.	Etc.					

The Methodology of interconnectedness

NICLA plans to achieve cases of best practice by interconnecting various teaching/learning situations. The following examples present cases where NICLA will undertake a module development and an activity, including piloting and evaluating the achievement, and present the results for further capitalization.

1. Linking ‘vertical and ‘horizontal’ Civics competences

For example:

Horizontal: Gender	Horizontal: Media Literacy	Vertical: Critical Thinking
At a gender class, Axel Bakunts’ story ‘The Alpine Violet’ is discussed. It contains an episode where the husband beats his wife. Question: “What is the cruelest part of the story?”	According to a publication in the media, 45% of unemployed people in Armenia are under 35 y.o., and women constitute more than 50% of this group. The journalist, however, concludes that therefore	Question on Bakunts: “This story is usually characterized as “very beautiful and poetic.” Why, in your opinion, would a story containing such an episode of injustice and violence be perceived as beautiful and

	Armenian women are happy to be housewives.	poetic by the majority of readers?” Question on the publication: “What is the message that the journalist transmits? How can we confirm or refute it? What are the logical inconsistencies in this message?”
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2. Connecting subjects / topics that students learn with a focus on Civics

For example:

Subject: Literature	Subject: Social Science	Subject: Geography
Topic: Yeghishe Charents	Topic: Human Rights	Topic: Eurasia
Text: ‘The Dante Legend’	Question: How are human rights violations reflected in Charents’ poem?	Text: Siberia. Question: How are human rights violations highlighted by using Siberia as an exile destination?

3. Connecting topics within Civics (horizontal)

For example:

a)

Topic: Good governance	Topic: the Armenian government system
Question: Do you think the Armenian government system is transparent enough? How could it become even more transparent?	Question: In your opinion, which are the deficiencies in the Armenian government system that, if addressed, would make it correspond better to the principles of good governance?

For example:

b)

Topic: Gender	Topic: Environment	Reading material: Lusine Kharatyan’s short story ‘The trap of Lars’
Questions: What are the gender-specific aspects of the story? Do you think that the	What are the connections between the environmental issues and the gender issues? Do you think the	Final discussion: In your opinion, how can you change the situations presented in the story so that the gender and

gender roles are fairly distributed?	environmental problems have affected the gender issues as presented in the story?	environmental issues no longer negatively influence each other? What other topics would have to be addressed? (e.g. conflict resolution, international relations, social behavioral culture, poverty, etc.)
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4. Connecting subjects/topics with extracurricular activities

For example:

Curriculum: Social science	Extracurricular: Practical exercise
Environment	Cleaning the city park

5. Connecting formal and informal educational activities

For example:

Formal	Informal
Topic: Local Government	The local Youth Bank has put the issue of making the local library into a youth center on the agenda of the LG
Connection: Youth Bank activists visit the school, present their idea	Connection: the school students join the petition, suggest additional ways of advocacy, present the issue to the School Council, participate at the meeting of the LG Council and speak up.

6. Connecting teacher modules with student study material

For example:

Topic: Civil Society	Study material
Teacher module: How to explain what is civil society as different from for-profit, political career and/or helping one's kin	Student study material: Isabella Sargsyan's lecture on the civil society history in Armenia
Implementation style: A presentation and a debate: Is participating in charity a civil society activity?	Homework: Please interview a member of the Mashtots Park movement about their memories of what they did to achieve success

7. Connecting teacher modules with ‘teaching the teachers’ modules

For example:

Topic: the tolerance value	
Teaching the teachers module: a distinction between being nice, being tolerant, being indifferent, being balanced.	Pre-service teachers (Armenian literature): An essay on the topic ‘What is the difference between magnanimous behavior in the Armenian Epic ‘Sasna Tzrer’ versus tolerance/intolerance expressed in Nar-Dos’ short stories’?
Teacher study material: The book ‘Tolerance in Armenian literature’	Pre-service teachers prepare a module on how to teach students in literature class tolerance vs. intolerance as expressed in the literature of the 19 th century.

8. Connecting the evaluation of learned material with competence-based Civics learning methods (particularly CCRL)

For example:

Subject: History	Method: Tour in the city	Test: An essay (handwritten, around 3 pages, in the classroom)
Topic: 20 th century industrialization	Visiting the Vanadzor city industrial sites with lectures and discussions.	Please write an essay on the reasons for - and the positive and negative aspects of - chemical industrial giants becoming non-functional after independence. What would you do with these abandoned structures? Primary checking: a) analytical skills and Critical Thinking competence; b) erudition: use of additional material/information not presented during the class; c) agency and project paradigm competence (the secondary focus). Skills checking: capacity to write an analytical essay (all aspects); capacity to learn; capacity to reflect upon the learned material.

9. Connecting learning diaries with the topic being studied

For example:

Learning diaries	Subject: Optics
<p>The student is keeping a learning diary where they reflect on what they have learned during every week of studies in a free manner. They are advised to try to connect their immediate environment to what they have learned, and if they see relevance, mention how their reflections are connected to CCRL.</p>	<p>The teacher asks the student to reflect in their diary on their own experiences with optics – glasses, binoculars, etc. The students’ grandfather was an optometrist: the student is asked to interview him on his profession and write down notes. It turns out that before becoming an optometrist, the grandfather was certain that people’s myopia is always similar for both eyes; finding out that each eye sees differently was an important personal discovery. Data and evidence contradicted the subjective belief.</p>

10. Linking prior level competence (or filling its gap) with a higher level competence

For example:

Prior level competence: What is science	Higher level competence: Designing a research project
<p>At a class on designing a research project, it turns out that students do not easily distinguish science from non-science (i.e. opinion, traditional belief, religious view or a worldview, etc.).</p>	<p>The teachers explains the validity of a research project (the exact same project can be repeated by others and the results will be confirmed or refuted) but, realizing that students have difficulty distinguishing valid results from internal consistency of a research design, starts a discussion on how scientific approach differs from all other approaches that may still be internally consistent.</p>

11. The ‘fractal’ approach: Modifying the school governance system according to the Civics (CCRL) and PYD principles (addressing Agency and Environment)

For example:

1.	Presenting NICLA plans to the School Council
2.	Helping the School Council modify its rules of operation to fit NICLA approach
3.	Identifying issues that need a policy change, presenting to the policy-makers
4.	Advocating for change
5.	Implementing change
6.	Engaging /empowering students and parents in the process

7.	Using the process as a case study to discuss at an appropriate Civics class
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12. The opposite direction: Enriching the Civics knowledge of youth activists (filling in the gaps)

1.	Presenting NICLA approach to youth activists
2.	Via low-stake quizzes and other means, identifying knowledge gaps of youth activists as concerns Civics
3.	Incorporating knowledge-transmitting sessions into the projects of/with youth activists
4.	Focus on transferring the knowledge of the A-B-C of human rights, gender issues, environment, good governance, anti-corruption, the Armenian state, international law, etc. ³
5.	Building projects with youth at the intersection of CCRL/Civics ‘horizontal’ and ‘vertical’ competences.
6.	Checking, by the end of the project, the level of acquired knowledge, understanding and competence on the topics in # 4
7.	Debates between school student and youth activist commands on the topics in # 4.

³ EPF has done this for many years, see the series of [Jam Sessions](#) – public lectures as part of trainings