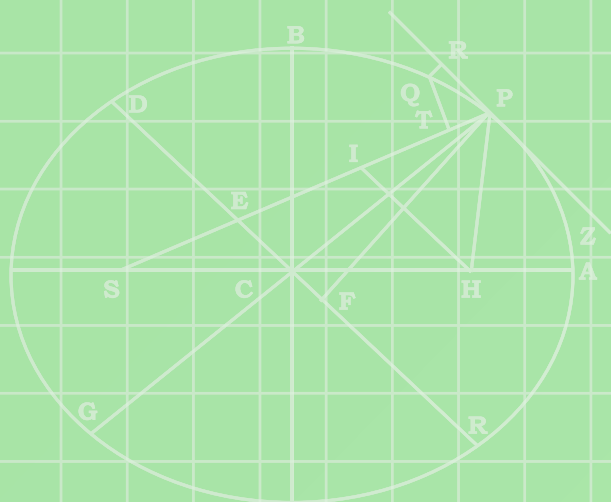




Erasmus+

**Training for experts
implementing the
ScienceLit Methodology
(and the implementation of Scientific
Dialogic Gatherings and Scientific Cafés)**



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The views expressed in this publication correspond only to those of the author
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information contained therein.”

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Part 1: Presentation of the ScienceLit project and the manual

The ScienceLit project is the Erasmus+ project, developed for the current European challenge, namely to promote and disseminate scientific knowledge in every culture and social class. It is therefore considered as a contribution that seeks to bring science closer to adults, especially those at risk of exclusion. It also aims to facilitate access to scientific knowledge to adults and help them understand, interpret and analyze science in an autonomous way through various tools. You can read more about ScienceLit project and its goals in the Methodology of Scientific Dialogic Gatherings.

The project produced three manuals: Methodology of Scientific Dialogic Gatherings, Interactive Guide to Scientific Dialogic Gathering and Training for Experts in the Implementation of the ScienceLit Methodology (and the implementation of Scientific Dialogic Gatherings and Scientific Cafés).

The third Handbook about the Training for experts in implementing the ScienceLit methodology, you're reading right now, is a material intended for basic training of experts to implement the ScienceLit methodology. The contents of this manual were contributed by all project partners, some by external collaborators, mentors and experts from the field of study circles in Slovenia, who presented the Scientific Dialogic Groups in the light of study circles in Slovenia.

Part 2: Definition of training

Projekt: ScienceLit – Scientific literacy for all!

Name of educational activity: Program for training of experts for implementation of ScienceLit methodology (and realization of Scientific Dialogic Gatherings and Scientific Cafés).



Training at Razvojno izobraževalni center Novo mesto (photo: Ana Marija Blažič, RIC Novo mesto).

Training for experts in the implementation of the ScienceLit methodology (and the implementation of Scientific Dialogic Gatherings and Scientific Cafés) is designed to provide theoretical starting points with experts and under the guidance of already experienced implementer of Scientific Dialogic Gatherings and connoisseurs of the Interactive Guide. The latter supports the trainees and assist them in the tasks assigned to them.

Training means planned and systematic acquisition of new knowledge with various forms of education, which are based on the Methodology of Scientific Dialogic Gatherings. The future trained experts will thus be able to use the ScienceLit methodology and carry out Scientific Dialogic Gatherings and Scientific Cafés in their organizations in order to transfer scientific knowledge to adults.

2.1. The purpose and objectives of the training

The Objectives

There are two objectives of the training, namely

- to train experts and volunteers to implement the ScienceLit's methodology in their organizations and to implement Scientific Dialogic Gatherings and Scientific Cafés;
- presentation of the ScienceLit methodology and the Interactive Guide to experts and volunteers of different adult education organizations.

The Purpose

The project aims to reach at least 15 people in each of the partner countries (Slovenia, Spain, Greece, and Germany), which means that at least 60 adult and volunteer educators will be trained.

2.2 The Structure of training

The training lasts 8 hours.

The recommended size of a group is up to 15 participants.

Conditions for completing the program

After all the successfully completed activities and tasks foreseen by the program, participants will receive a certificate of successfully completed the training. A 100% presence is required to obtain a certificate of successful completion of the training.



Training course certificate

2.3 Conditions for inclusion in the program

Participants are expected to have a general knowledge or experience in adult education, as well as a good knowledge of the local environment from which they come and in which they already participate or will continue to participate in performing the tasks of implementing the ScienceLit methodology of Scientific Dialogic Gatherings and Scientific Cafés.

2.4 Who is the training for?

The training is intended for adult education providers, mentors of study circles, teachers and volunteers, and other professionals working directly with adults from different backgrounds, and especially those working with vulnerable groups of adults.



Training at Razvojno izobraževalni center Novo mesto
 (photo: Ana Marija Blažič, RIC Novo mesto)

2.5. Content of the trainin

The program is designed in such a way that the content is interesting for all the above mentioned professional groups and that they are equipped with the necessary new skills and tools for the successful implementation of Scientific Dialogic Gatherings and Scientific Cafés. The training consists of seven interlinked topics. These are: Introduction to the training program, Introduction to the Scientific Dialogic Groups, Principles of the Dialogic Gathering, Scientific Dialogic Gatherings in Practice, Scientific Cafés and the Impact of Scientific Dialogic Gatherings on »my« organization and Implementation of the Scientific Dialogic Gatherings in my own environment. The basic professional literature is the Methodology of the Scientific Dialogic Gatherings and the Interactive Guide to Scientific Dialogic Gatherings, where we find the key contents of the topics described below.



Training at Razvojno izobraževalni center Novo mesto
(photo: Ivana Parovel, participant in SDG, RIC Novo mesto).

Training topics¹

1. INTRODUCTION TO THE TRAINING PROGRAM:

- presentation of the project ScienceLit - Scientific literacy for all!;
- a review of the materials;
- presentation of the training program and the objectives;
- the expectations of the participants;
- the importance and implementation of Scientific Dialogic Gatherings (hereinafter SDGs) and Scientific Cafés (facilitating access to scientific knowledge for adults, knowledge of »scientific« concepts);
- presentation of a (motivational) video of a participant that inspires people to join SDGs.

2. INTRODUCTION TO SCIENTIFIC DIALOGIC GROUPS:

- definition of theory and terms (Dialogic Gathering, what in this is »scientific«);
- scientific literacy of adults in Europe;
- an opportunity for SDG to enrich study circles;
- the potential impact of dialogues

3. PRINCIPLES OF DIALOGIC LEARNING:

- theoretical background of dialogues;
- definition of 7 principles of Dialogic Learning;
- method in different practice (e.g. literature, music).

4. SCIENTIFIC DIALOGIC GATHERINGS IN PRACTICE:

- the ScienceLit methodology and the Interactive Guide;
- the target group of ScienceLit;
- the principles and rules of SDGs;
- the proceeding of SDGs (before and during the implementation);
- the role of the moderator;
- the principles of communication in SDGs;
- the National Coordinating Committee;
- the presentation of some videos and photos of the participants of previous SDGs;
- the definition and experience of the participants;
- the moderators' experiences;
- challenges in implementing SDGs

5. . SCIENTIFIC CAFÉS:

- methodology of ScienceLit Scientific Cafés;
- presentation of videos and photos of the participants of the Scientific Cafés at RIC (videos and photos).

6. THE IMPACT OF SCIENTIFIC DIALOGIC GATHERINGS TO »MY« ORGANIZATION AND THE IMPLEMENTATION OF SCIENTIFIC DIALOGIC GATHERINGS IN MY OWN ENVIRONMENT:

- empowerment with SDGs;
- positive effects on the community;
- the effect of SDGs on adult education;
- SDGs strategies that can be used in other activities and programs at national and local level.

7. QUESTIONS

2.6 Scientific Cafés

At this point, we need to briefly introduce what the Scientific Cafés are. A Scientific Café is (can be) one of the new ways in which learning is more relaxed and therefore could be more effective. It is based on »Dialogic Learning« in educational processes, where participants have the opportunity to exchange and compare their views with experts on certain scientific topics.

The Scientific Café is marked by a larger group of people, with at least 30 participants involved (20 participants must have already attended an SDG and 10 new ones who are interested in this form of learning). The target groups represented in the Scientific Cafés are the same as those found in the SDGs, namely unemployed participants, especially those older than 55 and younger people (18-34 years), or all those who are interested in this form of learning. These may also be local residents, adult education providers, mentors of

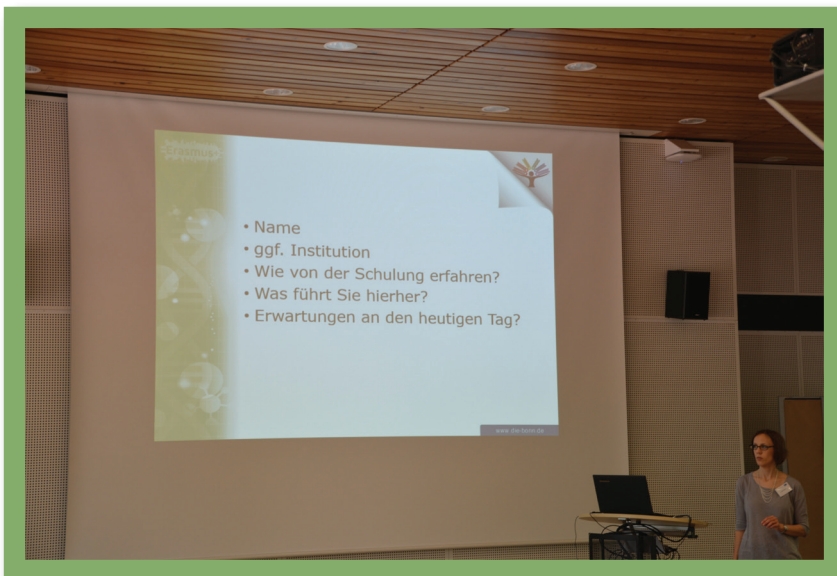


Scientific Café - participants write their thoughts on a given scientific theme (photo: Ana Marija Blažič, RIC Novo mesto).

study circles, teachers and volunteers, and other professionals working directly with adults from different backgrounds.

We are talking about an open discussion in the (larger) group where learning is combined with the creation of a social relation - the participants are mutually supportive and help each other. Above all, they discuss and participate in the form of a dialogue about a scientific subject or question.

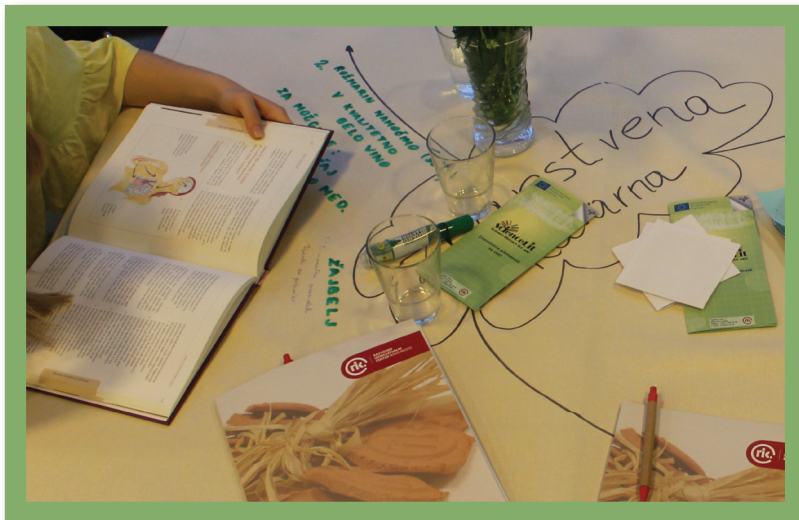
Scientific Cafés, like SDG, are based on the seven principles of Dialogic Learning. These principles are as follows: egalitarian dialogue, cultural intelligence, transformation, instrumental dimension, creation of meaning, solidarity and equality of differences



Training (photo: Inga Specht, DIE, Germany).

Structure of Scientific Cafés

The Scientific Café is moderated by a moderator. The task of the moderator is to initially prepare the framework plan and the proposal of the Scientific Café. The theme of the meeting is selected in conjunction with previous participants of Scientific Dialogic Gatherings. Then he/she seeks a potential expert from the sought-after scientific field. The moderator takes care of designing the content and work that takes place in Scientific Cafés. At the beginning of the Café, he/she explains the purpose of the meeting to the participants and presents the method of work, the scientific topic and the speaker/lecturer. During the discussion, the moderator stimulates the course of debate,



Scientific Café - participants write their thoughts on a given scientific theme (photo: Belinda Lovrenčič, RIC Novo mesto).

creates relaxed relationships among participants, and initiates new conversations where participants contribute fresh ideas and views on the subject. The moderator mainly deals with the initial work. Once the group starts to work together, the responsibility for learning is transferred to the participants (see also: <http://www.theworldcafe.com>).

Participants of Scientific Cafés are divided into several smaller groups that form the table. Participants form a table of four to six seats for one common table. Each table is covered with (colored) paper, we also use a small vase with flowers and provide colored pencils or markers, with which the participants underline unknown words or sentences they wish to discuss in the material. There is also a presentation or scientific material on the table (World Café, <http://drustvo-moderatorjev.si/o-moderiranje/primeri-iz-prakse/svetovna-kavarna/>).

A specialist from a particular field can also be invited to the Scientific Café. He/She initially has a lecture on a certain scientific topic. Then, together with the moderator, he/she joins the discussion. During the Café debate, three questions are raised about the topic. We can say that they are crucial for the success and the creation of a dialogue between the participants.

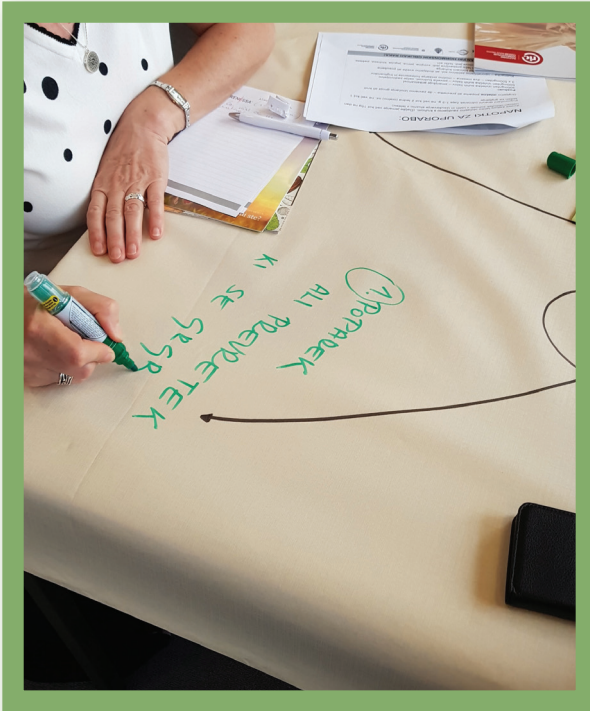
In a twenty-minute discussion on a particular issue, each individual participant records his/her comments and opinions, either on the material previously received or on the tablecloth in front of him/her. At the end of each question, the group sums up its thoughts and presents the conclusions to other participants

in the Café. The moderator and the expert in the scientific field are also responding to the discussion (Methodology of Scientific Cafés, RIC Novo mesto, 2018).

In the discussions between experts and participants, the aspect of reciprocity is strongly emphasized on one hand, on the other hand, the »openness« of the speaker/lecturer and participants and the »equivalence« (democratic) of educational communication



Scientific Café - participants write their thoughts on a given scientific theme (photo: Ana Marija Blažič, RIC Novo mesto).



Znanstvena kavarna – udeleženci zapisujejo svoje misli o podani znanstveni tematiki (photo: Belinda Lovrenčič, RIC Novo mesto).

is emphasized. Such a method develops and encourages the co-creation of knowledge and creates skills for tolerant and empathic cooperation.

The usefulness and advantage of the achieved results of the Scientific Dialogic Gatherings and the Scientific Cafés are on one hand reflected in innovation and creativity and offer a solution for sustainable education. On the other hand, they are strongly connected

with the local community. They represent an unquenchable interest and discovery of new areas and promote the personal development of individuals. In addition, they fill gaps in areas where participants feel a lack of knowledge. By revealing certain topics that they learn at gatherings, participants understand better the mechanisms and dynamics of knowledge transfer and can test their newly gained knowledge at home. From the feedback of the participants, we can conclude that in view of

their stance, the long-term orientation towards the Scientific Dialogic Gatherings and Scientific Cafés and their involvement in the local community, they would be recognized as one of the possibilities for personal development and strengthening of the local community. From this point of view, they (can) inspire and be the basis for further research, which accelerates the flow of certain knowledge in each individual.



Scientific Café - participants write their thoughts on a given scientific theme (photo: Belinda Lovrenčić, RIC Novo mesto).

3. del: Scientific Dialogic Gatherings in the light of study circles in Slovenia

The biblical narrative of the first book of Moses (1 Mz 11), better known as the story of the Tower of Babel, says that mutual understanding is only the beginning, but when we do not understand each other's language, »building« also ceases. Editing words and their understanding is therefore one of the fundamental challenges of life or advancement. Dictionaries and encyclopaedias deal with definitions of individual words, for example in Slovenia there's the portal Fran (<https://fran.si>), which combines different dictionaries and linguistic resources. With the notion of a Scientific Dialogic Gathering (hereinafter SDG), we first ask ourselves about the meaning of the terms used: what is scientific in SDGs, what is dialogic, and what is common. Only after we have clear up these notions we can clarify the meaning between them.

In science, we try to determine the state and functioning of complex and changing real systems, which we do not know or understand. Therefore, we simplify them and observe them according to exactly prescribed procedures. Scientific methods, quantitative and qualitative, yield different results even for the same question. Therefore, they must be reproducible and presented in writing according to a pre-ordered scheme (introduction, methods, results, discussion and conclusions) if we want credible and useful conclusions and further explanations of possible differences. Both of these methods and results must be precisely and accurately documented in the final chapter on the sources, that is, on the ingredients on the basis of which

the conclusions were drawn.

The public availability of the claims thus obtained is important and it is not only provided by the SDG, but the systems for evaluating the quality of scientific knowledge and their approach to the public are developed. In this sense, Slovenia is not only rich but also very benevolent, as it provides free access not only through general and professional libraries, but also in other ways, for example, through education. Accessibility enhances internationally comparable cataloging and digital databases and platforms such as, for example, COBISS and SICRIS. The latter enables the search for scientific (as well as non-scientific) sources by author, subject, publication, year, and other indicators. Thus, the resources are available of even from home. For example, we can monitor the valuables of the National and University Library (www.dlib.si), university products ([https://www.uni-lj.si/knjiznice/digitalna_knjiznica_\(dikul\)/](https://www.uni-lj.si/knjiznice/digitalna_knjiznica_(dikul)/)), national heritage (www.kamra.si) and much more from the comfort of an armchair. If we want to and know how to. Accessibility is therefore (still) high, for which we can thank the thoughts and steps of our ancestors.

ScienceLit's SDGs remind us that there is a gap between accessibility and use. Like the free learning option in the Study Circles (hereinafter, SC), it does not mean that Slovenians will be flocking to join. Likewise, SDGs do not mean that all sources that are available to us will be used by everyone. SDGs also show us that we might be making better decisions if we would know more and would be better informed, and they also show us that the same scientific findings - after we get to know them

– are not interpreted by everyone in the same way. So, even from a single fact, established in a scientific way, we will each decide differently. Therefore, it is still right for SDGs to bring science closer to those who do not know the scientific methods and are distant from them. Perhaps they did not have the opportunity, or they have contributed to the distance by their own prejudices, simplified decision-making or giving priority to something other than just science. In fact, most of us are like that, so we are all potential participants in SDGs.

Dialogue is a way to critically evaluate and upgrade our everyday or scientific cognition. It means an exchange of views (<https://fran.si>), perhaps even an action. If SDGs promote the use of scientific resources in the dialogue (we hope that more than the project's list of suggested resources) and also in many other elements, approaches the SC model, we can not find the element of action in them. How come? What to do with the new look and knowledge gained in and with SDGs? Part of the answer might be given by SC.

In 2018, we celebrate the 25th anniversary of the work of Study Circles, group form of dialogical learning, introduced in the Scandinavian model, but with its own Slovene specialty: conclusive action. It is often a motive for the start of the SC, but in any case the action is part of the model and practice, which can be found more at their official website <https://sk.acs.si>. So far, we have learned something about the quality of the dialogue in the study circles, for example, that every dialogue is not necessarily good. It may be criticism. We learned that for high quality dialogue it is necessary to overcome such an excessive

activity and indecision, and from the educational point of view, teaching can be transcended into noble learning from one another or in dialogue with the natural environment. Quality dialogue takes place only in complementary supplementing, which requires more listening than speaking. It is healthy to overcome paternalism (e.g. parents or institutions) or bad contact with the real world, to overcome self-commitments to self-survival. In order to achieve quality dialogue, lifelong education of dialogue culture is needed, hunger for creativity and immaterial, courage, self-confidence, learning by observation and response. In this, most of Study Circles are good, in particular, those which have developed a culture of dialogue, which is not possible with a single SC.

SDGs are groups and SCs are groups. In the process of dialogue, the group can form a community (e.g. a family, a hamlet, also a work collective, the state). A proper, true community is characterized by two-way relations, the development of reciprocity and fair solidarity (not solidarity at the expense of the exploitation of another). Such a culture contains a process of negotiation, in which norms and rules of the community are formed, which they guide it through its temporal and physical boundaries. SDGs or SCs are not community yet, but they are a group that can lead to or join the community/communities. At least for a SC it is considered that for its operation it is essential to have a common goal, which the group creates at initial meetings. For the community, a common goal is an essential characteristic and element of continual updating and adaptation to the circumstances. Internal cohesion can only be developed in dialogue processes, and this is why dialogue

is so important. These elements of SDGs do not elaborate in detail, but also in SCs we are only learning about them and learning about them by searching for quality elements that distinguish good and long-lasting study circles from unique and possibly high-profile educational actions. In the broadest sense, both SDGs and SCs are made for decision-making, which is democratic and shaped both from bottom to top and from top to bottom in the process of negotiation (not in the process of imitation of foreign examples) and mutual complementarity. It is not merely the example of the biblical Moses, but also of the true Socrates, who taught by dialogue.

The future of SDGs as well as SCs is therefore in the continuation of their individual development and the search for possible interconnections. Approximation of basic concepts, e.g. the moderator is leading a responsible dialogical group and the student circle is led by a mentor. The convergence of training models would also be justified. Both would require some time and dialogue between partners and stakeholders. This is necessary in order to obtain further project funds, development incentives and intellectual cooperation, and to ensure the sustainability of SDGs and SCs. It is much more so that cooperation is justified by the need to adapt to change. The latter are obvious and relatively fast in society (e.g. aging, political and economic opening of Slovenia to the EU and the world) and in nature (e.g. climate change). Adapting to changes requires ingenious and sometimes also quick decisions, so scientists, politicians, voting of the mass, or just one of the activities (e.g. education) are already enough for them. Adapting to changes requires constant pulsation and mutual sharpenings on multiple levels.

The high culture of dialogue and mutual complementarity in the use of (scientific) knowledge and the established structures for their use would enable us, even through education in SDGs and SCs, to transfer the inherited heritage as much as possible into the future.

Nevenka Bogataj, Phd

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